

World Ostrich Association

Newsletters



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December 2004 to July 2006**

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Issue No. 21 – December 2004

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3. What is our Competition?
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5. News from South Africa

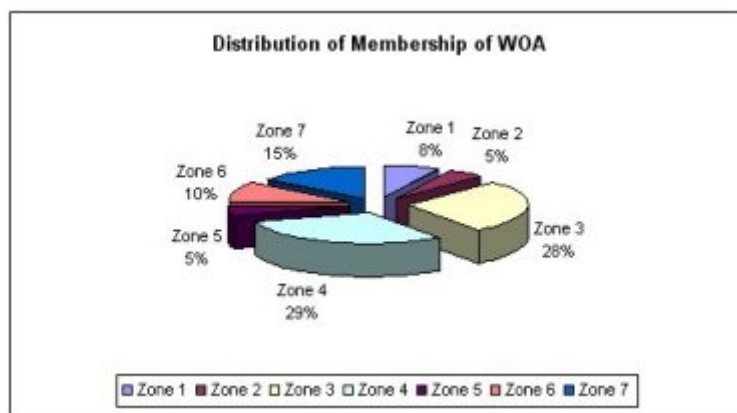
1. Annual General Meeting

The second annual general meeting of the World Ostrich Association was held on 30th November. A full report can be found at <http://www.world-ostrich.org/member/pastmeet.htm> The ongoing discussion through the list provide all those not able to attend further opportunity to participate in discussions. These discussions will finish on 14th December. A summary of those discussions will be posted to the web site as an appendix to the main minutes of the meeting.

2. Membership

The association has completed its second anniversary and the bulk of renewals. The directors are delighted to report a very high level of renewals and a good number of new members who joined during the year; including many larger operations therefore our membership represent a high proportion of the global production.

The following graphic is a breakdown of the membership and demonstrates that our membership represents all parts of the world.

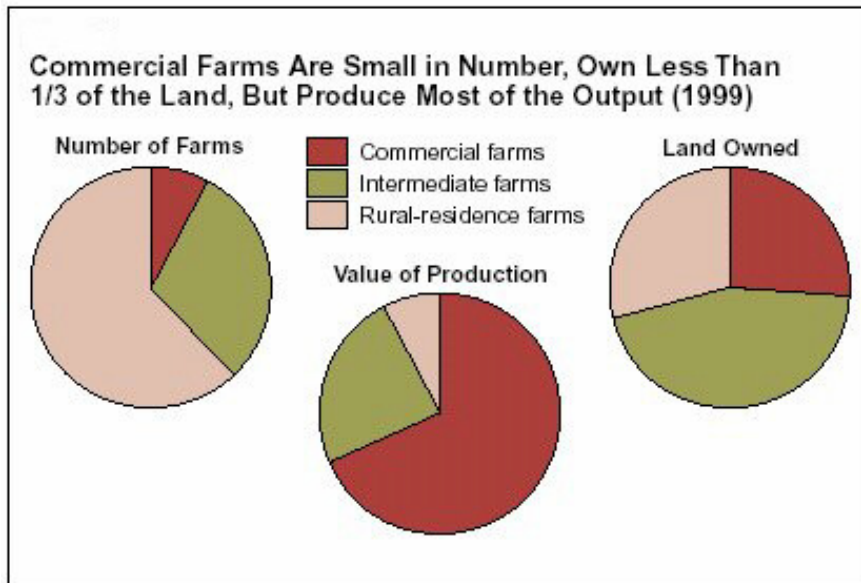


A Map and definition of the zones can be found at <http://www.world-ostrich.org/regions.htm>

The zones were set up by the founding directors with geographical boundaries being the determining factor. They are open to suggestions from members if there is a belief that the zones could be improved upon to take into consideration such things as cultural or marketing reasons.

3. What is our competition?

Many of you will have read the reports published in the USDA Farm Policy 2001. Figure one shows that Commercial farms in the United States make up 8% of all farms, produce 68% of the total output of all agricultural production on only 29% of the land.



In last months Newsletter I referenced the tremendous pressure from supermarkets and their influence in changing the global supply of our food production. Annabel Evans, Editor of Pig Progress reported that in France an analysis of the structure revealed that 43,500 farms (73% of the total) have less than 100 pigs, while 65% of the pig population are managed on units (8% of the total) with more than 1,000 places. The editorial carries a discussion on economies of scale and the final words of the speaker:

"I am not saying you need need to be at 25,000 sows, but I do believe that producers will need to market and coordinate their production systems much like a 25,000 sow pod to enhance their revenue. They must work together to maximise their revenue of pork pounds."

Why are these statistics important to Ostrich production?

Ostrich production has developed with many starting with just a small number of breeders and no support infrastructure in place. The South African Ostrich industry held their first ostrich industry conference in 2001. I attended both the first and second conference, held in October 2002. A report that I wrote at the time will form a supplement to his newsletter so the following can be read in context. In summarising the opening speakers I listed a number of comments made by the speakers, this is just one of those comments:

Quote: *"Suggested that competition will be from outside SA...so stop competing with each other".* End Quote

To ensure our industry moves forward, please think of this statement in the context of understanding the size of our industry and recognising that our competition is not with each other.

Our competition is with the mainstream production specie.

4. CL Report from Australia

The following overview of the industry in Australia has been submitted by Bert Rayner, Country Liaison for Australia:

Quote: *Due to low returns on meat and leather over the last three years many have left the industry. Many poor quality Breeders have been culled and the remaining farmers have excellent stock and achieve good results. The 'disease' problems in South Africa have had a direct positive impact on pricing from Australia and this should remain until the ban on south African export is lifted. It will take longer for higher skin prices to filter through.*

Through selection and the use of Tanzanian Red, Zimbabwe Blue, African Black and Australian Grey genetics, Australia has managed to produce birds with high growth rates, high production and high survivability. Many birds reach 90-100 kg at 9 months and the quickest growers achieve 90 kg at 7 months. Meat colour appears to be substantially 'lighter red' at a younger age and favourable comments on meat quality have been received with many repeat orders on fresh meat.

Exact numbers are difficult to ascertain (as is the case all over the world) but the industry is stabilising and will definitely expand again.

The huge saving on feed and management costs by processing birds at 9-10 months instead of 12-14 months are fairly obvious. It also appears the skin grades are good at 9-10 months and we also have found that the introduction of the Red and Blue genetics have the quill large enough and acceptable in the market place. end quote

5. News from South Africa

The Board of Directors of the South African Ostrich Business Chamber held their Annual General Meeting on 9 November, during which Mr Gerrie Oberholzer was elected as chairman. He will be taking over the position of chairman from Stefan Maree, who had been in the chair for two consecutive terms.

Gerrie is Managing Director of Swartland Ostriches, Managing Director of Roelcor Meat, Chairman of NOPSA (National Ostrich Processors of South Africa) as well as Chairman of the Red Meat Abattoir Association. He has been the Vice-chairman of the SAOBC for the past year.

The new Vice-chairman is an ostrich farmer from Oudtshoorn, Viljee Keller. Farewell was bid to Stefan Maree during the meeting. A certificate of merit was presented to him for his unselfish devotion to the ostrich industry over a long period.

Stefan was also Chairman of the South African Ostrich Producers' Organisation (SAOPO) and Saag Jonker, replaces him as chairman.

Full report and photographs can be viewed at
<http://www.saobc.co.za/modules.php?name=News&file=article&sid=39>

Supplement:

See Item 3, Newsletter 21

Report of 2nd South African Industry Conference - Oudtshoorn, October 2002

Fiona Benson

Day 1

The meeting the first morning was packed, with quite a few having gone by the afternoon. After the formalities of opening speeches, the first speaker was Professor of Strategic International Management and the second Director of Economics and Trade from Agri SA. They both said some excellent comments that are basic common business sense, that for some reason seem to have been eliminated from the minds of many involved in Ostrich at this time. Comments included the following statements:

- The customers are now becoming empowered, as they are more demanding through better education. *Personal comment: This is a very true statement, however we must be aware that consumers can also be misguided over things like the Green/organic type of issues. Example: there is the belief that if an animal is grazing in a field it is very much healthier than when kept in a barn. In some cases this may be true...but as with all things it is not that simple, it depends on many things and all too often grazing animals are in fact a lot worse off than their barned or feedlot fed counterparts.*
- Encouraged the thought process of greater collaboration and competitive innovation to remain at the leading edge of competitiveness.
- Warned that past success often results in future failure for failing to remain competitive.
- Reminders that the 1990's saw South Africa (SA) move away from protections, but the **'old mindsets linger on'!!!!**
- Suggested that competition will be from outside SA...so stop competing with each other.
- Discussions on the Value Chain and the importance of remembering that every stage of the value chain links to the next, with particular emphasis on the importance of what happens on farm.
- Must have a vision of where they expect to be in 10 years time
- Greater Trust of each other.
- Several examples were given of the way things have been done in the Wine Industry, such as: collaboration with Chile; Australia through marketing Australian Wines with individual brands underneath that umbrella...had transformed the Australian wine industry were some of the examples given.
- Reminders that the SA Ostrich industry has lost it's total dominant position.
- Encouragement to work together as the competition is from outside and should avoid severe competition from within...era of non-cooperation is over.
- Look at quality issues

Obviously that is just a summary of some of the key points...but many points we have been making over the years were made. There was an interesting talk from a girl running an organisation on crafts made in rural areas by the PDI's...and their success in linking up with Terence Conran in the UK with access to world class designers. The Ostrich Egg crafts were the main focus on this talk.

The afternoon session started off with Willum Burger on some of the technical issues relating to exporting...making the point that in the past bureaucrats had driven the rules and regulations mainly to justify their jobs...but things are very different now as a result of greater consumer awareness and demands. So now rules and regulations are very much 'consumer' driven and he predicted these rules will get stricter each year.

The rest of the afternoon was panel discussions on the topics of the morning.

Day 2

Day 2 was opened by...Jakes Fenny...who had the audience listening...he was excellent. The subject: **Motivating the Ostrich**. I will not go into detail of all that he said ...but one key factor he pointed out was how a Bachelors degree used to have a shelf life to last your working career and quantified how fast things are changing by how the 'shelf life' of a **degree** has shortened to the point now it is out of date the moment you leave University. You have to be keeping up with change.

He talked about the difference in Management vs Leadership.

His closing statement:

If you are going to ignore your environment etc. chaps...your business will go bankrupt.

The very next topic was Schalk Cloete summarising the **Ostrich Research Program**. As it was introduced there was a sly reference made to Jakes' reference on keeping "up to date with developments". Some of the detail of these I have discussed in articles I have previously written. Further studies that we have not heard referenced yet were:

- a. Development of feeding systems for male and female ostriches as the Male's have lower nutrient requirements to Females!!!!
Personal comment: It is far too early for any such study since production in all birds is still well below optimum proving that neither the male or the female rations in South Africa are yet correct.
- b. Investigation of management factors and influence on performance such as feather clipping.
Personal Comment: This is best achieved through large data collection, with a proper management program with many farms participating. That is the way to develop sufficient data to be able to pick up trends accurately on the influence of different management factors. There are many variables that influence these things.
- c. Identification of microbes in the digestive system
- d. Establishing genetic parameters and defining breeding parameters and objectives.

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Personal comment: Until the nutritional deficiencies are eliminated it is impossible to identify the true inherited genetic traits. If this study is carried out while nutritional deficiencies are still present, then misleading results will be achieved.

- e. Referenced using mobile Nylon bag technique to evaluate content of raw materials.
Personal comment: It is now well documented for 2 decades that ingredient nutrient utilisation factors are influenced by the other nutrients in the rations and this method of evaluation can result in misleading conclusions.
- f. Define Amino Acid requirements by cutting out part of the digestive system.
Personal Comment: It is necessary to have everything else in the rations correct and then trial and error used to access the correct amino acid requirements. Measuring any body parts for assessing nutrients can lead to erroneous conclusions...especially if the birds (animal) is not on an optimum diet as there will be deficiencies present.
- g. Trace element requirements will be investigated and stated that currently there is very little knowledge on this.
Personal Comment: This task is carried out by Feed Companies, as they alone know what is in their particular formulations and what may need correcting when they see symptoms of deficiencies on farm.

One of the farmers asked the question 'when will the lower protein, low energy more balanced cheap rations be followed up by the feed companies?' The answer was that they are using the model used in Poultry with great success...that model will be made available to the feed manufacturing industry 12 months from now.

Personal comment: This is where South Africa has it totally wrong compared to the progressive agricultural countries. This development comes from the 'progressive' commercial feed companies in partnership with their farmers...NOT the scientists working outside the commercial environment. It is not possible to achieve 'balanced low nutrient content rations, and this is proven in the results that these studies have been documenting.'

There was a short talk introducing one of the new investment initiatives for development of Previously Disadvantaged Individual (PDI) projects and then onto the talk on **Generic Promotion** made by Jan de Coning.

The opening statements on this were:

- a. The need to think on a totally different level to solve today's problems.
- b. To carefully assess long term consequences of short term solutions.
- c. Organisations and Industries need to have sustainable growth to survive.

This latter statement was quantified by highlighting the old system of 'control' that does not and will not work.

A BIG warning:

If you play politics in a business is courting DISASTER.

There were lots of good comments in this talk...and included:

[LOOK AT CONSISTENCY OF SUPPLY BOTH QUALITY AND QUANTITY](#)

Then the message came that if the industry cannot do Generic marketing with all the other factors he referenced being in place:

First condition is that everyone must believe WITH A PASSION in what they are doing and trying to achieve.

A few other comments:

Fighting each other seems to be more fun than developing a market.

There are too many rats and mice in the industry, which effectively will erode generic marketing initiatives.

Again: Need to guarantee consistent and sustainable QUALITY from the industry.

In discussion following this talk Frik Kriek made some excellent and most relevant comments...some examples:

No Raw Material, No Industry

Frik Kriek also referenced the problems of LOW Volume in the SKIN Market and indicated that as a result we have NOT SCRATCHED THE OPPORTUNITIES.

A few of the comments from Pieter Strijdom:

- * How do you take the politics out of the Industry!!!!
- * Disappointed to hear that generic marketing is dead.
- * Seems no hope for the future to launch generic marketing

Jan's answer to Pieter's question on Politics:

Ask yourself 'what is the contribution I make to the politics in the industry'

Further statements from Jan in the discussions:

If you want to be leaders you get players to comply to YOUR standards ... you must give the extra umph to your products.

Create an environment for generic marketing to work well.

Create greater unity amongst yourselves

Get the image of the industry right...then generic marketing can be easier.

How to do it?

1. Look very seriously at your industry...why are only 18 out of 36 players members of your association...and the others ride off the back of your association.
2. Start making peace amongst each other
3. Direction of each company may be different...but must make friends with each other
4. Identify the team leaders
5. AGREE ON COMMON RULES

My Conclusions

Francois Hanekom, manager of the SAOBC, put the speakers together in a very clever fashion and all the key speakers on motivation of one way or another from outside the industry were sending exactly the SAME message that we have been sending for so very long.

Issue No. 22 – January 2005

1. Happy New Year
2. AGM - Any Other Business Supplement Minutes
3. New Year - New Initiatives
4. Meat Quality
5. Discussion
6. New Case of BSE

1. Happy New Year

May I take this opportunity to wish all our members a Happy and Prosperous 2005.

2. AGM - Any Other Business Supplement Minutes

The supplement to the minutes of the AGM to cover the discussions on the topics raised under Any Other Business is now available on the web site at

<http://www.world-ostrich.org/member/aob2004.htm>.

The topics raised a good level of discussion and contributions from a number of our members. Please be encouraged to continue discussing issues that relate to the development of our Association and Industry.

3. New Year – New Initiatives

On the subject of development of our Association, last month we discussed the fact that the competition for our industry lies not within each other, but rather the other specie supplying the meat and leather markets. One member of the South African industry hired a professional Market Research company to assess the meat marketing opportunities in Europe. The clear message that came back was their opinion that the industry had made a very big mistake when it opened up from 1994. Meat was treated as a commodity and sold via traders. The very low volume of current production operating in a market place of increasing globalisation, has made it most difficult for any single operation to make the transition from breeder market to commercial production.

A professional Market Research company hired by SUSTA (Southern United States Trade Association - <http://www.susta.org>) to do market research on the ratite industry produced a report in 1997. A quote from the summary of that report:

quote:

6.2 Recommendations to the Ratite Industry:

6.2.1 Overall

- Be more ORGANIZED generally in the USA before it expects too much effect promoting exports.

- Bring down costs for both Ostrich leather and Ratite Meat through undertaking research:

- * into feeding and rearing regimes***
- * into improved breeding methods***
- * ways to improve meat yields and egg fertility***

- Combine together to establish and set QUALITY STANDARDS

- *Conduct more research into the effectiveness of Emu Oil*

- *Participate and exhibit in relevant trade shows* end quote

This document was discussing all Ratites, but the principles apply to each specie as each have their own unique qualities and I am sure all are agreed must not be marketed together. However, while our industries are developing there are similarities that need to be understood in the market place to ensure each specie can take their individual place in the market place.

So, what is the solution?

In their ongoing determination to support the industry and understanding of the industry, your directors and Blue Mountain have been discussing solutions. They believe that a commercial company be formed that is affiliated to the WOA to undertake the Marketing of the industry products on a global scale. At the same time this company will also fund the Research and Development the industry needs to enable the Ostrich Industry to compete with the other protein producing agri-processing industries.

The suggested name for this company is 'World Ostrich Marketing, Research and Development Company' (WOMRAD)

This global company would invite participants from all around the world to invest in the infrastructure required to market their products on an international scale. This company would have the benefits of economies of scale and the resources to identify and develop new markets. All the suppliers from wherever in the world they are operating would receive the same price for their produce. In addition all suppliers would benefit directly from the results of the research and development, training and many other areas of support.

Blue Mountain and your directors will continue to work on this idea in an effort to guide the industry in the right direction and are discussing it in detail to see if such a commercial enterprise could be dovetailed into the WOA whilst retaining the principals of this organisation.

In the interim, the directors invite everyone to give some thought to this idea and consider whether they think their own business could benefit from belonging to such an enterprise. The basis of the proposal is outlined in The Blue Mountain "Review of 2004", which can be downloaded at <http://www.blue-mountain.net/bulletin/bull96.htm>

4. Meat Quality

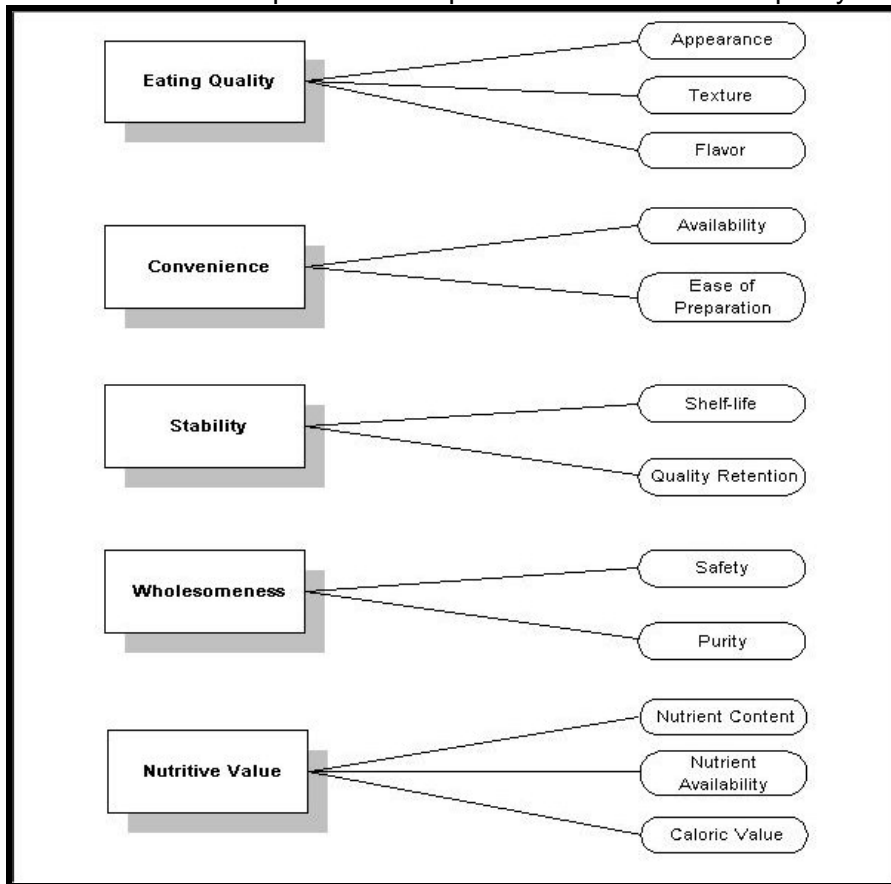
The following is the opening statement of a document entitled "Factors Affecting Poultry Meat Quality" produced by Julie K. Northcutt a scientist from The University of Georgia:

Quote: **Before poultry meat quality is addressed, the term quality should be clearly defined as it relates to poultry. This is a difficult task, because quality is "in the eye of the beholder." For example, someone trying to sell a product might view its quality in terms of how well it sells and how much people are willing to pay for it. However, this definition is incomplete, because it does not consider the product's character. Since people only buy what they like, the consumer's perspective of quality is more appropriate. When consumers buy a poultry product, cook and serve it to their families, they expect it to look, taste, and feel good in their mouth. If these characteristics do not meet the**

consumer's expectation, the product is considered to be of lower quality.

Whether or not a poultry product meets the consumer's expectations depends upon the conditions surrounding various stages in the bird's development from the fertilized egg through production and processing to consumption.
end Quote

Figure 1 defines different aspects of food products that determine quality.



The author goes on to discuss only Appearance, Texture and Flavour in this particular paper. She interprets Appearance as Colour and Texture as Tenderness. Figure 2 is a diagrammatic interpretation of Flavour perceptions.

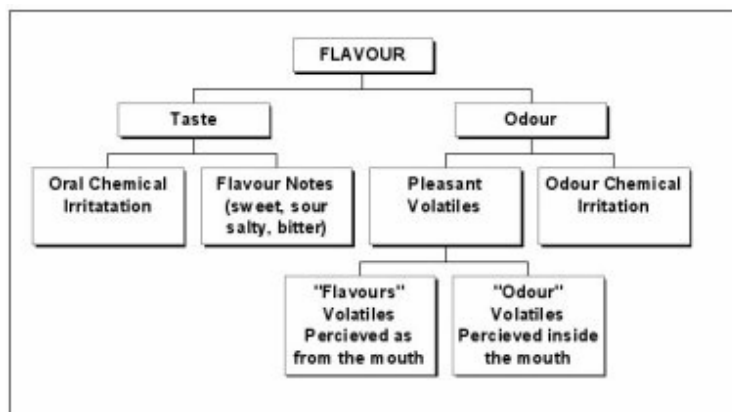


Figure 2. Flavour Perceptions (Adapted from Lawless 1991)

All readers I am sure will agree that the aspects discussed are identical for any meat product, it is only the characteristics unique to each specie that will differ. The WOA Meat committee has already produced a document "Factors Influencing Meat Quality". One of the many research projects that will be undertaken as part of the research and development projects will be more clearly defining the areas in these diagrams as they apply to ostrich.

For example, under appearance colour is known to be most important. With Ostrich we currently suffer from meat that is very dark, from meat that can be white (white muscle disease) and from muscles that are often multi-coloured. All of these things are very controllable with the right production methods, yet over the years I have heard producers, processors and marketers state that these things are normal. I have listened to a perceived expert at an Ostrich conference tell the audience that it is normal for the meat to darken very quickly on oxidation. These negative aspects are controllable in all specie as they are symptoms of a poor diet, correct the diet and the symptoms disappear..

Common sense suggests that a piece of meat that is a good even colour, not too dark and brightens on oxidation is going to be far more attractive to the customer than meat that is either dark in colour, blackens on oxidation and/or may have unevenness of colour within the muscle. As this paper states, production methods are an important part of the quality control/marketing program of all our products.

Attention to the detail of all these aspects are one step required to enhance the REVENUE and therefore profitability.

5. Discussion

When writing the newsletters, it is my aim to raise awareness on issues that impact on our ability to develop markets and optimise the prices received for the products. The discussions that developed from the AGM discussions were excellent. My suggestion is that we develop discussions on the membership list on issues that are raised in the newsletters, to understand their implications in greater depth.

6. New Case of BSE

Focus is once more placed on BSE. A new case of BSE has been found in a 10 year old Dairy Cow in Canada. We still come across some feed companies that include animal protein in their rations for Ostrich. Any producer selling into the EU may not include animal feed containing animal protein. Whether or not the use of Animal Protein Products (APPs) are allowed by law, it is extremely important for the industry that all our Ostrich, no matter which country they are reared or marketed, are not fed rations containing animal protein. This is the only way to guarantee that our Ostrich are "Clean and Healthy", a most important element of any Ostrich Marketing program.

Animal Protein Products (APPs) are feed ingredients made from any animal source. Meat and Bone Meal, Blood Meal, Feather Meal, Carcass Meal are all APPs .

Issue No. 23 – February 2005

1. Purpose of Newsletter
2. Best Practice vs Good Practice
3. Quality Mark Support
4. Market Statistics
5. Market Information
6. Industry Solutions
7. Contributions

1. Purpose of Newsletter

The purpose of our newsletter is to keep our members informed of industry issues and developments. The greatest challenge that our industry faces at this time is lack of production. Frik Kriek summed it up well at the 2nd SA Industry conference in 2002.

NO RAW MATERIAL NO INDUSTRY

A major concern of many members is market development and understanding the markets. All of us are confident of the demand for our products, but many are failing to capitalise on those opportunities. Over the time I have been writing these newsletters I try to find market information that is relevant to our industry's marketing program. A market research company employed by a major South African slaughter plant reported back that the biggest mistake the South African industry had made was to market through dealers and traders in Europe. The meat was being treated as a commodity rather than as a niche product, which it should be while volumes are so very low. Many newcomers to Ostrich production are not aware that the ostrich meat market is only about 10 years old, prior to that the South African industry was strictly controlled with single channel marketing focusing on feathers and leather. Continuously we receive communication from those new to the industry stating they need to export their meat as the meat is new to their country.

The message is that Ostrich meat is new everywhere.

Dealers and traders have little or no concern on sustainability of supply, meat is simply a commodity. They buy at the lowest price they can, sell at the best price they can and make sure they have their margin. Ostrich meat represents a very small proportion of their overall turnover and do not traditionally 'market' the meat. There is also a need for a sustainable supply chain to support any marketing initiative.

The principle of WOMRAD is recognising that our competition is not each other. Our competition is the other specie. Other specie are under pressure from many angles. They have become increasingly efficient in their production methods in order to survive, and it is getting harder to cut margins through increasing efficiency further. Ostrich, when farmed correctly, are proven to be extremely efficient, offering producers tremendous scope for very significant improvements in efficiencies.

2. Best Practice vs Good Practice

The definition of Best Practice is leading edge thinking, practically applied which brings competitive advantage.

The definition of Good Practice is established wisdom, widely applied and often embodied in law, codes of practice or assurance schemes. Good Practice is valuable and important but is too commonplace to bring competitive advantage.

WOMRAD would be introducing Best Practices to Ostrich production.

3. Quality Mark Support

The UK Pig industry is introducing a Quality Standard Mark. The industry is investing £1million (US\$1,87m) to launch the initiative.

Consumers are becoming increasingly concerned about the manner in which animals producing their meat are raised and how they are fed. Legislation banning the use of stalls and tethers in pig farming came into force in 1999 in the UK. A British consumer survey showed that 92 percent agreed that imported meat should be produced to U.K. minimum standards. Currently more than 50 percent of all pork, bacon, and ham on supermarket shelves is imported -- a figure which rose by four percent in 2003. The price of this imported pork is cheaper as there are cost implications to raise the pork to the new British standards.

The promotional campaign includes national press and magazine advertising, direct mail, and a public relations campaign. A website is due to be launched, which will allow consumers to find out which supermarkets stock pork, bacon, and ham meeting U.K. standards.

UK Pig farmers are being put at a very real disadvantage as more and more supermarket shelves are being filled up with cheaper imports that would be illegal to produce in the UK. The industry makes it clear that it is not an anti-import campaign. Imported products can carry the Quality Standard Mark if they meet UK standards in production methods. The industry is simply trying to make consumers aware of this issue. The Quality Standard Mark gives them clear, simple information they need to make an informed choice.

An organisation in the United States have introduced a quality standard label - Certified humane raised and handled. The certification recognises the increased consumer concerns and provides a certification for producers wishing to operate best practices to gain competitive advantage. Their mission is to improve the welfare of farm animals by providing viable, credible, duly monitored standards for humane food production and ensuring consumers that products meet these standards. Key areas they are looking at are raising animals with sufficient space, quality feed, with no added antibiotics or hormones. Funding is through a headage payment, which obviously adds to the rearing costs, but is recuperated from the added value.

These type of quality marks are only of any value if all producers in the scheme operate them with pride and do not try to cheat the system. They are also only of value if the buyers are aware of the benefits, hence the need for strong promotion. Pork production in Great Britain for 2004 amounted to 158,974 metric tonnes. Therefore the US\$1.87m is equivalent to a little more than 1cent per kilo of meat when measured against the annual production. This demonstrates the benefits of economies of scale and pooling resources for promotion.

WOMRAD would carry its own branding and therefore quality marks associated with that brand.

4. Market Statistics

The following was published in a Canadian magazine called Farm Market in December 2004:

Quote: *Statistics from 1998 show that Canadians on average spend just 12.4 per cent of their income on food. Only the United States (10.9 per cent) and the United Kingdom (11.5 per cent) spend a lower percentage.*

Marketing boards have provided some protection for producers, but even these have experienced a decline in the share of the food dollar.

- The retail price of milk, for example, jumped by 110 per cent between 1981 and 2003, while the price paid to the dairyman climbed by 44 per cent.

- The price of chicken, as paid to the producer, increased by 10 cents a kilogram over the same 22-year period, while the retail price of chicken climbed by an astounding \$1.85 per kilogram.

With retail increases like that, it's no wonder that the authors of Compare the Share were able to conclude that processors and grocery stores experienced massive profits during the 1990s -- especially when the cost of their "raw materials" were kept low.

It's not like farmers had that choice. Compare the Share finds that, on average, the prices received by farmers climbed by 16 per cent between 1992 and 2003, but the cost of their inputs jumped by as much as 74 per cent.

*Whoever said that farmers are price-takers and not price-setters wasn't far off the mark.*End quote

The full article can be viewed at:

<http://www.farmmarketnewspaper.com/story.php?id=130426>

A quote from another article published on the same website in December:

Quote: *Farmers may need to get involved with the processing industry to obtain a larger share of the retail food dollar, says the president of the Ontario Federation of Agriculture.*_end quote

Michael Sunderland, a member from Canada, has reported that their group of farmers are involved with such an initiative. The article goes onto state:

Quote: *"Unless we get money from the marketplace, we're not going to be sustainable," he said. Bonnett said the issue of a closer relationship between farmers, processors and retailers was discussed at the Premier's Roundtable, held Dec. 9.*

"Farm income was discussed, and the processors realized that they have to start talking to farmers."

Bonnett said it was pointed out to processors that primary agriculture must be economically sustainable, or the processors' source of raw material will dwindle and disappear.

But Bonnett said farmers shouldn't wait for the processors or retailers to make the first move. He said the OFA (Ontario Federation of Agriculture) is setting up a meeting with both sectors, and he suggested that it would be in the best interest of the Federation to hire an economic development officer to pursue such interests on the membership's behalf.

"We need to take charge of our destiny, and not leave it to someone else," said Bonnett. End quote

The full article can be viewed at:

<http://www.farmmarketnewspaper.com/index.php?id=601>

WOMRAD would become the direct marketing arm for the producers.

5. Market Information

In Newsletter #17 (<http://www.world-ostrich.org/member/news17.htm>) I discussed the increasing power of the supermarkets. Figure 1 demonstrates their dominance in the UK market. Butchers have only 1% share of the total grocery market.

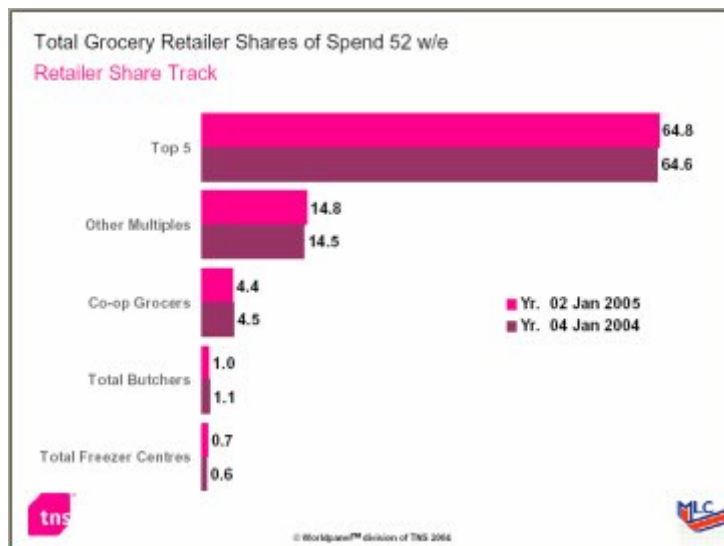


Figure 1 - United Kingdom Share of Retail Grocery Market 2003 and 2004
[source: Meat and Livestock Commission Monthly report to January 2nd 2005]

A survey on customers visiting butchers reported that the customer spends on average 7 minutes and 24 seconds at the butcher purchasing their meat. By comparison customers buying meat in supermarkets at the pre-packed shelves, spend between 24 and 37 SECONDS.

The top 3 reasons given for purchasing meat at a butcher are:

- Relationship with butcher 51%
- Better Quality than supermarkets 46%
- Ability to get cuts that they want 45%

The top 3 reasons given for purchasing at the service counters of supermarkets are:

- Request portion size to suit 42%
- See products clearly 38%
- Value for money 33%

Decisions for buying loose meat:

Butcher purchases

- Planned - Know exactly what meat before going to the butcher - 71%
- Semi Planned - Have some idea of meat they are to buy - 21%
- Unplanned - Decide what to buy once in butcher - 4%

Supermarket serve-over customers

- Loose Meat purchase planned - 59%

Item	Butcher Customer	Supermarket serve-over customer
Quality	36%	16%
Freshness	24%	19%
Amount of Fat	14%	16%
Visual Appearance	10%	7%
British Meat	8%	6%

Table 1 - Loose Meat Customer Purchase Survey

[source: Meat and Livestock Commission Profile of a Butcher's Customer 2003]

The primary reasons given by butcher customers for purchasing their meat at the butcher are:

- Trust
- The Personal Touch
- Value
- A special experience
- Good Presentation

The full report can be viewed at:

<http://www.redmeatindustryforum.org.uk/images/upload/documents/looseredmeat.pdf>

No single market report should be read in isolation - but I am sure all agree that any strong marketing organisation needs to be continually understanding the markets in which we operate as they are very sophisticated markets?

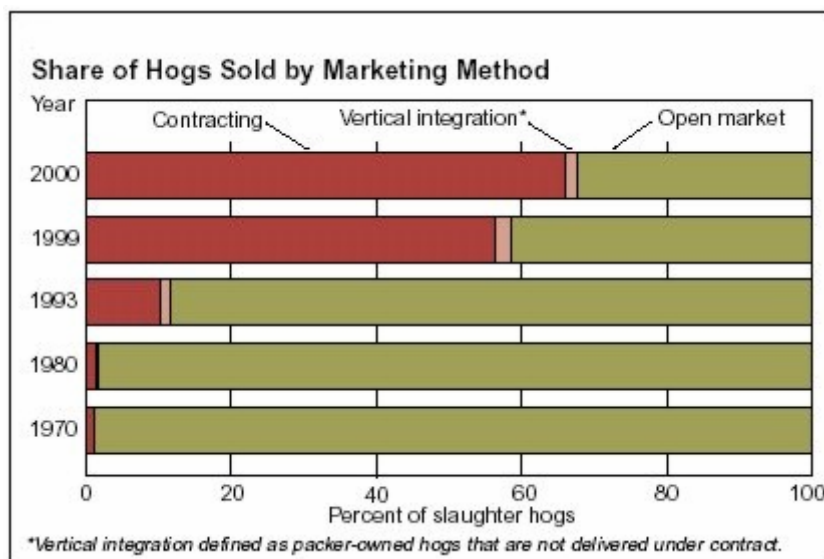


Figure 2 - Movement from open markets to rearing on contract. [source: USDA Farm Policy 2001]

It is very clear that world volume of ostrich production is so small that it can only be measured in a meaningful manner against the output of single production units of other specie.

WOMRAD as a commercial operation would monitor market trends in all areas of operations.

6. Industry Solutions

WOA membership is from all continents. All members share a common goal, doing all we can to understand our industry and how to turn our investment into real returns. Working as individuals a few may have managed to make a reasonable living, many have lost their total investment and left the industry, some are members to network and some are members as new entrants to learn more about our industry . The common interest is that for any business to succeed it needs to operate at a profit and hoping to learn how to achieve that objective.

When our current world production is measured against production of our competitors - other livestock industries - we are too small. Take the UK red meat consumption as an example. It is 1.15million tonnes per annum. Global Ostrich meat production is no more than 12 thousand tonnes at its peak and that figure has fallen over the last few years.

WOMRAD can work for the good of all through the pooling of resources.

7. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members? Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 24 – March 2005

1. The importance of Nutrition in Disease Control
2. Comparative Industry Growth Rates
3. Do we have an Industry?
4. Obtaining Meaningful Data
5. Contributions

1. The Importance of Nutrition in Disease Control

Increasingly Nutrition is being recognised as the cause and the treatment of many health problems today. Despite this many still argue that nutrition is not the primary cause of the majority of ostrich diseases and rearing problems today. We need a sustainable supply of slaughter birds to have an industry - No Raw Material, No Industry.

We all know the US to be an advanced nation, with a population sufficiently wealthy that there is no need to show symptoms of malnutrition. Yet the health of the nation has progressively deteriorated over the past few decades, just as it has here in the UK and other more affluent countries. This has come about through many eating the wrong things. Here in England we are being warned that for the first time the life expectancy of our children is lower than that of their parents.

The introduction of the 2005 USDA Dietary guide lines (for humans), published in January acknowledges that it is essential to change the way the majority are currently eating:

Quote:

The more we learn about nutrition and exercise, the more we recognize their importance in everyday life. Children need a healthy diet for normal growth and development, and Americans of all ages may reduce their risk of chronic disease by adopting a nutritious diet and engaging in regular physical activity.

However, putting this knowledge into practice is difficult. More than 90 million Americans are affected by chronic diseases and conditions that compromise their quality of life and well-being. Overweight and obesity, which are risk factors for diabetes and other chronic diseases, are more common than ever before. To correct this problem, many Americans must make significant changes in their eating habits and lifestyles.

end quote

[source: The 2005 USDA Dietary Guidelines]

The vast majority of the problems relating to ostrich diseases and production difficulties today are proven to be dietary related and the solutions are known.

WOMRAD will implement these solutions

2. Comparative Industry Growth Rates

Aquaculture, another new agri-processing industry, has shown rapid expansion in recent years, going from 7million metric tonnes in 1980 to 38million metric tonnes in 2001. Figure 1 shows the comparative growth rate of just one specie, Farmed Atlantic Salmon over the same period and Ostrich from 1993, when the first records were published. The early years of farmed salmon were on similar levels to Ostrich. In a period of 20 years it has increased production to 1.2 million metric tonnes, showing phenomenal growth year on year.

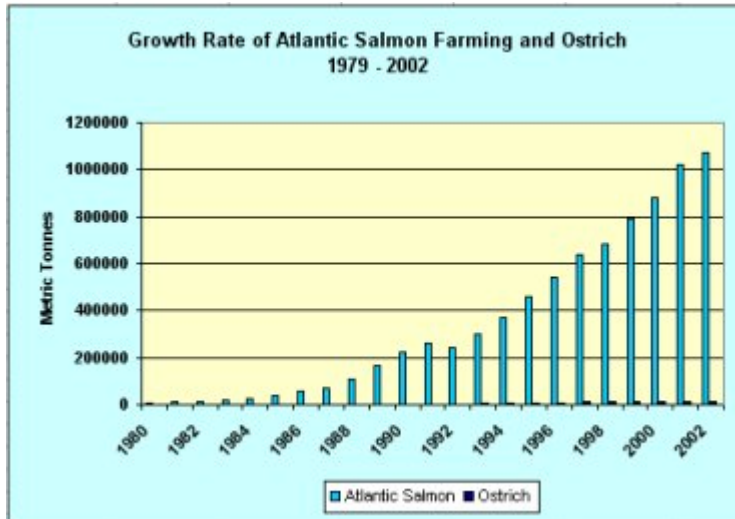


Figure 1 - Comparative Production Atlantic Salmon and Ostrich
[Source: Atlantic Salmon - FAO. Ostrich see Figure 2]

By comparison, Figure 2 shows that in the same period the Ostrich industry has continued to stagnate and decline.



Figure 2 - World Ostrich Slaughter Figures
[Source: NOPSAs, Peter van Zyl, Report on the on the Investigation into the effect of deregulation on the South African Ostrich Industry]
[All World Ostrich Figures are estimated by the various sources. * South African 2004 figures estimated]

3. Do we have an industry?

To answer this question, we first need to look at the definition of an industry:

The dictionary definition of industry is:

- a. A distinct group of productive or profit-making enterprises.
- b. Manufacturing activity as a whole.

The FAO (Food and Agricultural Organisation attached to the United Nations) has statistics on many agricultural industries. These industries include such rarities as Camel Meat, Meat of other Camelids, Pigeons, Buffalo and even Camel Milk and Horse Hair. It does not have any statistics on Ostrich meat or ratites as a group. Our numbers are too low, fragmented and with no reliable methods yet in place for collecting meaningful data.

As the figures above demonstrate, there is very little production. The last couple of decades has seen many invest heavily in Ostrich Production, it has seen the majority of those investors leave. It has seen very few, if any, making consistent and

sustainable profits.

We can see that we do not yet have an industry.

It has been a period of transition from a monopoly base, operating with outdated production systems and fear of mass production.

Worthy of note in this discussion is a comment made from the audience from South Africa and Israel during the conference in China. During Stan Stewart's presentation as WOA Chairman he discussed the levels of production required and proven achievable for a profitable industry. Instead of asking "how can we achieve this?", comments were made that after many years producing ostrich 19 slaughter birds per hen was the best possible. The economics of raising 60 slaughter birds per hen by comparison to 19 slaughter birds per hen are very significant and, in time, even greater is achievable.

WOMRAD will introduce the technology, production methods and training to enable the Ostrich to be produced on an industrial scale, to achieve the full genetic potential and build an industry with sustainable growth.

4. Obtaining Meaningful Data

The World Ostrich Association has an important role to play in communicating meaningful data.

In 1997 I developed a questionnaire. The reason I developed the questionnaire was that most all in the industry were looking for meaningful answers. The questionnaire was published on the web site of a member of the Blue Mountain Ostrich list and publicised through the Blue Mountain ostrich list and several country magazines that were published at that time. When studying this survey form (<http://www.world-ostrich.org/member/survey.htm>)[1], an important fact to remember is at that time I was not involved with Blue Mountain in any other way than just another member of the Blue Mountain Ostrich list seeking solutions.

I received only 3 completed survey forms and a number of private emails. The motivation for developing the survey was so many were asking for meaningful data. With an industry that is so small, every member must contribute in order to build a meaningful database. Do not be ashamed of poor results because you are not alone. A study of the publications from the members of the South African Ostrich scientific program report no more than 60% hatchability (conversion eggs to day old chicks). Quote from page 33 "The Report on the Investigation of the effects of Deregulation of the South African Ostrich Industry":

Quote

"Chick mortality is a serious destroyer with devastating and varied financial implications. For the last two decades, in all surveys and opinions polls, the vagaries of chick mortality have been listed as enemy number one".

End quote

Now add high chick mortalities to 60% conversion from eggs to day old chicks, it is clear to see the reasons why we do not yet have an industry.

WOMRAD will introduce the technology, production methods and training to enable the Ostrich to be produced on an industrial scale, to achieve the full genetic potential and build an industry with sustainable growth.

Issue No. 25 – April, 2005

1. Looking through the Archives
2. Conventional vs Alternative Medicine
3. Are your Goals High Enough?
4. Research Farm Update
5. Hatching Chicks
6. Contributions

1. Looking through the Archives - Carcass Weight and Payment Systems

The history of our industry remains very short when compared to our competitors. As discussed in the last newsletter we currently cannot claim to have an industry - but all members know the potential. The aim is to turn that potential into a sustainable growth industry that can compete on equal terms with the mainstream livestock production industries.

This week I had reason to look up a particular discussion I remember well during my early days of researching this industry. My research in 1997 had noticed that the American Ostrich Association web page was stating that payment systems for birds. I asked this question to the Ostrich List:

Quote: *Can anyone explain why do US abattoirs pay 3 different rates - the lowest rate on the bottom end of the range, the highest rate in the middle range and the middle rate on those carcasses heavier than what is considered the optimum range?* End Quote

At the time I received just one answer.

Quote: *Hello Fiona*

Everlean pays almost the same way. For the most part the reason for this is the amount of meat from each carcasses vs fat content. On the upper range they pay? To be determined after slaughter. Lower US\$1.04 to US\$1.07 and middle US\$1.40 to US\$1.45 (live weight) range stay the same . Bigger birds sometimes have more fat and the same amount of meat as middle to low range birds. This all depends on the feed they have been on. There is not a big market for Ostrich Oil , yet. No market for the fat.

Another reason is they assume it is an older bird, like a breeder that didn't produce and its only good for burgers as the meat is tougher. If they pay lower for bigger carcasses with less fat content , then I'd sell else where. End Quote

Whilst this was the only answer received - the answer highlights the reason for payment based on Meat Yield and not Live Weight or carcass weight. It also highlights the reason for tagging from Day 1 and verifiable farm records to ensure age of birds are accurate. Can any reader tell me of any processor who has survived with consistent supply of quality birds paying on any liveweight basis?

At that time there were producers in the United States producing birds with meat yields well in excess of 40kgs boneless meat, with the best achieving in excess of 50kgs but these birds were penalised by these processors. It needs these levels of meat yield in under 12 months - as these producers were managing - to ensure our industry is commercially viable.

Last month we were reviewing a document developed by a Country Association for their proposed quality assurance program. Included in the program was a classification system - they set the Carcass Weight criteria at:

- ❖ Premium: 57kgs plus
- ❖ Light: 45kgs to 57kgs
- ❖ Super Light: less than 45kgs

This was created in 1996 and indicative of carcass weights being achieved at that time and the recognition that light weight carcasses are expensive to process.

The interesting factor here is that the current average falls into the Super Light Category. This category is not commercially viable.

2. Conventional Medicine vs Alternative Medicine

What has this subject to do with Ostrich you may ask. Over the years there has been increasing evidence that alternative (drug free) medicine can be as effective, if not more effective as conventional medicine. It tends not to attract research dollars in the same way as working with drugs can, as the rewards for companies are somewhat reduced - despite the clear evidence of the merits of some alternative medicines.

Recently I was reading a book discussing this particular topic and the author made this statement in her introduction:

Quote: *My aim is not to convince you, but to INFORM you. Having said that: - Either your inner voice will tell you that it is true and, therefore, you will not need any proof.*

- or, your inner voice will tell you it is not true, and no amount of proof is going to convince you otherwise.

- or your inner voice will cause you to question and want to know more, and I will cite books already full of references.

end quote

All your directors can relate so very well to all this author is saying with members from our industry. Too many are currently falling into that second category. This second category are continuing to make the mistakes of the past and following old ways, when there is clear, documented evidence that those systems do not work and reasons for that are known.

3. Are you setting your Goals high enough?

Taking the discussion above a step further let me cite a few papers that prove the current production challenges facing our industry:

a. Recent Advances of Ostrich Nutrition in South Africa: Effect of Dietary Energy and Protein on Production

Authors: Tertius Brand - Elsenberg Agricultural Research Centre and Kobus Nel - Oudtshoorn Experimental Farm

The paper discusses variable rations on what the author's considered to be low,

medium and high energy and low, medium and high protein rations. The paper reports the use of low quality ingredients and does not discuss any details of vitamin and mineral supplementation.

In slaughter birds it reports surprise at the minimal changes in feed conversion between the different rations, and reference their inability to understand this.

The point missed is that the study had in fact proven beyond doubt that all rations were severely nutrient deficient as all birds produced lower slaughter weights than the Degan study carried out in 1991. The Degan study of 1991 worked with rations designed for Turkeys. It only makes sense that if birds can produce greater growth on rations designed for different specie, then something must be wrong with rations and management systems that result in slower growth rates!!

b. Are your Goals High Enough?

Author: Kim Bunter - Animal Genetics and Breeding Centre, University of New England, Armidale, Australia

Kim carried out a major International survey. The results are from data from over 200 ostrich producers in 35 countries.

Table 1 - Reproductive performance (%) achieved in farmed ostriches
 [note: 103 to 110 contributing records in full data; 25 contributing records for >20 hens category]

	From Full Data			From >20 hens		
	Average Value	Av. Best 25%	Av. Worst 25%	Average Value	Av. Best 25%	Av. Worst 25%
Infertile	20.3%	2.68%	14.5%	26.1%	11.9%	47.8%
Hatching	63.8%	85.4%	37.6%	57.1%	84.7%	31.0%
Mortality (1 Week)	7.26%	0.3%	16.3%	5.0%	0	14.8%
Mortality (1 Month)	16.9%	2.8%	41.9%	13.8%	1.8%	29.6%
Mortality (3 Months)	26.2%	4.2%	62.5%	24.6%	3.9%	50.5%

Table 1 proves the serious problem with breeder production and chick survival.

Quoting Kim's words: *Currently for each chick surviving to 3 months of age 2.1 eggs on average were incubated, supporting the commonly held view that less than one slaughter bird will result from every two eggs incubated. After allowing for differences between producers in the percent of eggs incubated, overall efficiency of chick production was very poor (approximately 49%).*end quote

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Table 2: Productivity measures of farmed ostriches

[Note: 81 to 111 records contributing to full data; 25 contributing records for >20 hens]

	From full data			From > 20 Hens	
	Average Value	Av. Best 25%	Av. Worst 25%	Av. Best 25%	Av. Worst 25%
Eggs laid/hen	34.8	61.4	14.5	53.2	17.0
% hatched of fertile	78.8%	96.3%	52.5%	96.6%	55.7%
Chicks hatched/hen	18.5	40.5	4.24	34.3	4.17
Chicks/hen (1 Week)	17.4	39.2	3.83	33.5	3.95
Chicks/hen (1 Month)	15.9	37.4	3.06	30.3	3.51
Chicks/hen (3 Month)	15.3	36.9	2.39	28.7	2.50
Eggs laid/chick (3 Months)	7.70	1.47	24.0	1.6	6.81

c. Latest Feeding Standards for Ostriches

Tertius Brand and Bennie Aucamp - Elsenberg Agricultural College and
Zanell Brand and Kobus Nel, Oudtshoorn Experimental Farm

This paper discusses a similar study to above referenced study carried out on slaughter birds. The study was based on 9 different diets with differing energy and protein levels and then followed a year later with a further study reducing nutrient levels further.

	Study No. 1			Study No. 2		
	Average	Best	Worst	Average	Best	Worst
Egg production per hen	49.3	53.9	43.7	48.1	55.2	38.1
Embryonic mortalities	36.9	30.7	42.5	19.4%	16.2%	22.2%
Chicks Produced Percent	63.1%	69.3%	57.5%	52.4%	57.2%	47.2%
Chicks Produced Number	31.1	37.4	25.1	25.2	31.5	18.0

There was no report on chick survivability. The hens in Study 2 reported significant weight loss during the season. There was no report on which hens were used for the different studies. Nutritional history is exceedingly important when evaluating results in this way.

The study concluded: quote: ***The most recent research results indicates that current nutritional specifications for ostrich diets may be lowered under certain circumstances, without a loss of performance.*** end quote

The study proved quite the reverse.....it proved that all diets resulted in breeder performance that is uneconomic for producers.

d. Conclusion:

Currently most every paper or study one reads proves beyond any doubt that our industry has to change the approach as producers cannot be commercially viable with such low levels of production per hen.

No Production - No Industry. It all starts with the Breeders.

4. WOA Sponsored Research Farm Update

It is with great pleasure that we can announce that your board of directors voted this week to accept the Al Munajem Company offer to establish a WOA sponsored research centre for Ostrich Production at their 'Arabian Ostrich Company Farm' in the Kingdom of Saudi Arabia.

Your chairman, Stan Stewart has just returned from a visit to Saudi Arabia with Rayan Haydar, manager of the Arabian Ostrich Company. They had discussions with the Veterinary department in the Ministry of Agriculture and Al Gassim University. Both have offered their full support of the project. Many protocols will need to be drawn up as there is a very broad spectrum of studies to be accomplished and your Board is determined that these studies will be carried out in a manner that can finally put our industry onto a sound commercial track.

The directors will be very happy to consider similar projects in other regions with any company wishing to participate.

5. Hatching Chicks

Last month I was also travelling. On the trip I visited one customer who was doing her own small study. She had purchased some chicks from a producer who was not in their production group - different breeder rations. She said hatching out these chicks reminded her of the "bad old days". I visited her farm in 2000 and have photos of the chicks we autopsied at that time. Hatching was a tough time, by comparison to the changes she now experiences with chicks "just wanting to hatch". If she gets the time she has promised us a report of that study.

6. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members. Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 26 – May 2005

1. **World Ostrich Marketing, Research and Development (WOMRAD)**
2. **Member Question**
3. **No Production - No Industry**
4. **Benchmarking**
5. **How do we get Meat Prices up and keep them up?**
6. **How do we establish our meat as a Niche Healthy Product?**
7. **Cranking up Production - What is the potential rate of growth?**
8. **Development of WOMRAD**
9. **Avian Influenza update and advise**
10. **Contributions**

1. **World Ostrich Marketing, Research and Development (WOMRAD)**

We introduced the idea of WOMRAD to you a few months ago. During this newsletter I will develop some of the areas were a commercial organisation such as this could make a major contribution to the development of our industry into a proper world wide agri-processing business that can compete with other mainstream livestock producing businesses.

2. **Member Question**

A member made the statement a few weeks ago that "we need to crank up production". He went onto ask the following questions:

"How do we get meat prices up and keep them up?"

"How do we establish our meat as a "niche healthy" product?"

This newsletter will focus on discussing these questions as I am sure we all agree that we do need to crank up production to become a commercially viable industry and with those questions answered, we will have an industry.

3. **No Production - No Industry**

Newsletter No. 25 asked the question:

"Are you setting your Goals high enough?"

Lack of production is currently enemy number one blocking industry development. Sustainable production volume is essential to be able to develop markets.

It was the meat that interested me when I joined the industry in 1994. It clearly was an excellent product offering good profit potential supplying Niche markets. Lack of supply and hearing concerns over rearing difficulties led me to search for solutions to the production difficulties. When presenting these solutions to producers, I was being told "we are doing OK" - that is because they were setting their standards by those they had been told were usual for the industry. They were not prepared to "set their goals high enough" to become commercially viable.

This apathy led me to develop the Production targets comparison table for the current industry and the New Ostrich Industry in 1999. These targets are laid out in Table 1 in the paper "Commercial Ostrich Production - Economics" available at the Web site http://www.world-ostrich.org/chile2003/chile_economics_ostrich_production.html

The South African industry has Skins as the Primary (driving) product, aimed at exclusive markets. Exclusive markets are also subject to the different fashion trends. The methods of production that resulted in low yielding meat birds placed a dependency on retaining the high value for skins. How many readers have heard various speakers from South Africa over the years talk about over production? I can remember several; the first for me was at the World Congress in Hengelo in 1996. Moving to volume production has been seen by many as destroying that market as it was and has held back industry development for too long.

With meat as the Primary product, rather than skins, it would provide the opportunity for sustainable growth as the meat market is more stable than the fashion markets. In the early years the meat will be a niche product due to the low volume. However, to supply niche markets the product must be to the highest quality.

WOMRAD will set High Goals

4. Benchmarking

A benchmark is: a standard by which something can be measured or judged.

Benchmarking is the process of determining who is the very best, who sets the standard, and what that standard is.

Benchmarking is a management tool used by many businesses to measure their performance against the standards or other businesses. In the case of agriculture, performance is measured against other producers.

This is one reason why maintaining good records is essential in agriculture. Monitoring methods and costs, benchmarking helps farmers have a greater understanding of their production systems and how one or two changes can make a significant difference to their bottom line.

To help UK red meat producers become more competitive with the changes in the subsidies, the Red Meat Industry Forum has set up a benchmarking scheme. A quote for the discussion on the benefits to producers:

Quote: ***One issue is very clear. The meat industry will no longer be able to afford to produce over 50% of its product outside market conformation and fat class, or 20% outside the target weight range. By using this free benchmarking system, we can help producers understand just how crucial this is to profitability.*** End quote

There is a very good reason that increased supply of the food on the market is coming from a decreasing number of suppliers, who are growing progressively larger. That reason is not confined to the fact that the major buyers require large scale producers. The reason is that they are the suppliers (producers/processors) who recognise the current market needs. They also operate to a high degree of precision with high standards of management.

That fact became very clear to me the very first time I entered an ostrich abattoir. An excellent abattoir working to get the best product they could to the market - but they had no control over the birds offered for slaughter. They had to do the best with what they were presented with. Quality production starts on the farm.

WOMRAD will incorporate benchmarking

5. How do we get meat prices up and keep them up

This question needs to be answered in two sections:

a: How do we get Meat prices up?

There are a number of ways:

Grading

Meat Grades provide the consumer with clear guide lines as to the quality of the meat they are being sold. It is necessary to educate the market on the grades. It is also necessary to educate producers on the importance of meat grades as a mechanism to improve their revenue.

Educating producers on the need to improve their product is most difficult since most think the product they produce is already top quality. One can talk quality, consistency and grade for ever, but if producers do not understand where the product they produce fits into the overall quality index then they will never take steps to improve.

It is important we all understand that it is the consumer who drives the market and sets the price.

If we, as producers, do not take steps necessary to produce true high quality and truly consistent meat, the consumer led marketplace will never pay more for ostrich meat than they are paying now. If every other time the consumer buys ostrich meat it is discoloured and with 'off tastes', we will never get the price of ostrich meat to the profitable level necessary to secure production.

The first major hurdle is to educate the producer to understand that simply because his meat is ostrich does not automatically mean he has a quality product. Just because it is ostrich does not make it worth any more than any other low quality meat product if his present production methods are such that produce low quality and inconsistent products.

This education of producers and the market is a task the WOA has set itself. To do this adequately requires the right resources that clearly are not available on a \$100 membership fee. Revenue generated through WOMRAD may be the way to fund this part of the marketing program.

Consistency - Supply

A sustainable and consistent supply is essential.

To date our industry has a poor record for consistency of supply. Figure 1 shows comparative production in South Africa by month over a 5 year period. It shows very significant variations in the same month from year to year. This situation of inconsistency in supply I discussed in the Bulletin: "Understanding the Difficulties of Economic Ostrich Processing". <http://www.blue-mountain.net/bulletin/bull82.htm>
This article contains more graphical illustrations to prove the problem of current inconsistencies in supply.

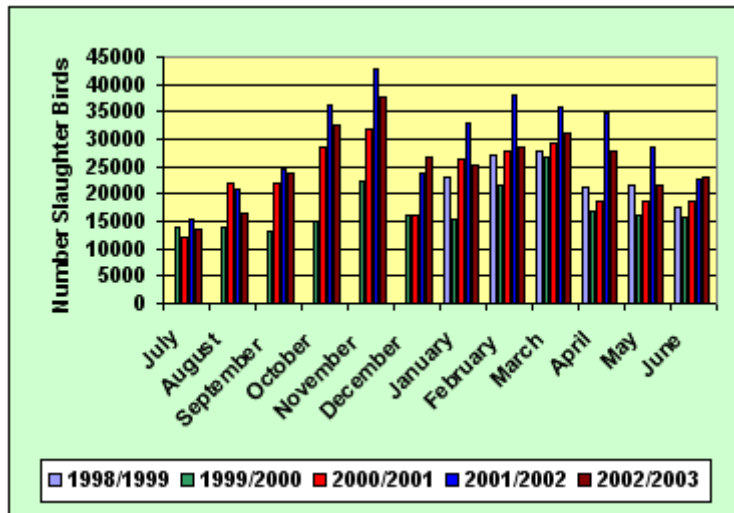


Figure 1: South African Comparative Slaughter by month

Consistency – Product

It is well known that ostrich meat often is seen either with some pale meat, is very dark, develops black spots on oxidation and other inconsistencies. One major European marketer was explaining to a conference audience how he has educational sessions for his customers to explain that this is usual for Ostrich meat. These inconsistencies are all controllable and need to be controlled in order to achieve a high value. It has been proven in other meat products that if TRUE QUALITY is built in through changes in production methods and TRUE CONSISTENCY is built in through programmed changes in animal production, the consumer will unquestionably pay a premium for that quality and consistency.

WOMRAD production methods will include the most advanced feed technology to address the consumer perceptions of meat quality as discussed in Item 4 of Newsletter No. 22. <http://www.world-ostrich.org/member/news22.htm>

Quality

Servicing Niche Markets requires a product of the highest standards. The quality control systems in place are an important part of any marketing program.

All the factors, throughout the production chain, that influence meat quality are discussed in the document "Factors Affecting Meat Quality" and can be viewed at: ["http://www.world-ostrich.org/meatqual.htm"](http://www.world-ostrich.org/meatqual.htm)

b: How do we keep meat prices up?

Answer - by producing a quality product combined with strong marketing.

Convincing producers that they can produce a better product is the first step. The next step is to ensure we have the required standards in place to guarantee the quality and consistency proven to appeal to the consumer and they in turn signal a readiness to buy it. That is when the price will finally reward the producer with a profitable production operation.

To be remembered in this discussion is the "the long run marginal cost vs the long run marginal revenue principal". As volume increases, efficiency improves, prices come down and profits increase. It is therefore inevitable that over time prices will come down, but increased efficiency will bring about increased profits.

Excellent marketing strategy can help keep the prices up, but that is not essential to survival once our industry has finally made the transition from breeder market to commercial production.

Of course it is in every member of this industry's interest to work hard to achieve the right marketing program to keep the prices up for as long as possible. Selling against each other with small volume results in selling on price and has been a major problem. We need to be continually developing markets as volume increases. Working together brings collective bargaining power for producers.

WOMRAD can achieve this

6. How do we establish our meat as a Niche Healthy Product?

Above discusses a few basics as to what is required to produce the correct product as that is of primary importance. Packaging and presentation are of course extremely important also. Meat colour falls under presentation. Many of us will have seen ostrich meat swimming in liquids, or packed in excellent packaging but almost black in colour and most unattractive.

The best product still requires a strong marketing campaign. This again is where WOMRAD can help. We have discussed previously the fact that our competition should not be each other, but rather other meat specie. Working through WOMRAD in collaboration will provide greater resources to support a strong marketing campaign.

When discussing Marketing, it must always be remembered that "on farm" production methods are a critical part of any marketing campaign. Quality Assurance marks, Branding, use of Best Practices and so on are all important marketing tools.

WOMRAD would introduce its own branding and quality assurance program

7. How fast can Production Grow?

Figure 1 demonstrates the potential growth in production when the correct technology and management systems are incorporated. The breeder numbers remain constant, but of course the right management systems include heavy culling and genetic selection. One can see the potential for growth in meat production, not only from an increased number of slaughter birds/hen but also through a progressive increase in average meat yields from 25kgs to 45kgs in the 10 year period.

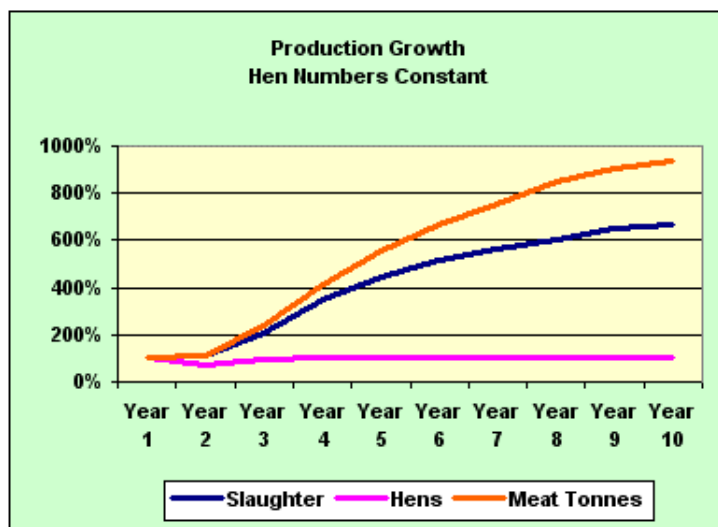


Figure 2: Potential Growth Rate of Production

Growth of the industry will be dependent on market conditions and the correct coordination of growth...but what is the production potential?

Taking a scenario:

- Retaining as future breeder birds 15% of annual chick production for the first year, 2.5% for the next 4 years and 1% thereafter
- Culling the breeder herd heavily of poor producers
- Introducing progressive improvements in performance as in Figure 2
- Starting with production at 350,000 slaughter birds and 25kilos meat per bird

In 10 years there could be in excess of 20 million slaughter birds and 1 million tonnes of meat production.

Production starts with the Breeders

8. Developing WOMRAD

The principals of WOMRAD have brought only positive responses. WOMRAD currently is in the conceptual stage and needs to become a reality. It is a concept that can help all "crank up" production to take up the opportunities available to all serious about producing ostrich commercially.

To move forward requires a strong team to lead it. This team can come from existing players, it can come from employed professionals or a combination of both. It requires people dedicated and able to work full time for the company and not only available on a part time basis.

The principles of WOMRAD are that it puts in place an infrastructure to address most of the difficulties currently blocking development of an Ostrich industry by steering it through this transition phase through cooperation on a sound commercial basis.

To be successful WOMRAD will need to coordinate:

- those with finance
- those with production
- those with experience and expertise
- those looking for increased and reliable production
- the markets

To do this successfully requires strong leadership and a management team that are all working on the same page and "working for the good of all and not the good of self alone". The first step is to develop a well structured business plan. Any members who would like to take part in a brainstorming/business planning development process are invited to contact the secretary at secretary@world-ostrich.org.

WOMRAD can awaken this sleeping Giant

9. Avian Influenza Update and advise

The ban on export of meat from South African has been moved to June 30th, and the country has still not been declared free. The WOA board of directors advice remains as before. We advise regular testing of your breeder herd to establish records of an Avian Influenza Free status. We also advise any producers who have imported chicks or breeders since 2002 to have their birds tested, especially if you imported any stock from South Africa.

Issue No. 27 – June 2005

1. **Creating Long-Term Value in the Industry**
2. **Looking through the Archives**
3. **Science and Agriculture**
4. **Examples of Misinformation**
5. **News from South Africa**
6. **Contributions**

1. Creating Long-Term Value In The Industry **Contributed by Paul Benson, Ontario, Canada**

In any well established industry, the only source of value to participants comes from the end-user of the products. Their purchase dollars pay everyone's bills, and provide the profit due to anyone who participates in providing that product in a professional, customer-focused manner.

There may be short-term opportunities for profit by some participants in the chain prior to the industry reaching a stable, consistent, and productive level, but these opportunities are most likely transitory. For example a breeder market develops, typically using investor capital, until volume production is achieved.

Similarly, there may be "fire sale" pricing as some participants exit the industry and others address production and quality issues. These types of opportunity are unlikely to enhance the value of industry products as seen by the retail customer, and may indeed put them off purchasing (too much uncertainty).

In assessing value, the customer is likely looking for quality, value, consistency and availability of product.

If everyone involved is focused on enhancing final customer value, the customer recognizes it and the size of the industry "pie" grows exponentially.

Problems occur when any one part of the chain operates without providing any additional value, or acts in a way that reduces value. Examples might be aggressive trading of poor quality product and dumping it on unsuspecting customers. Other "value leaks" occur when either availability or quality is unpredictable, or one portion of the chain takes profits disproportionate to their contribution ("starving out" other effective participants).

Examples of these problems abound in agricultural history in many countries and continue today! The challenge lies in learning from them and reducing or avoiding similar practices. The value chain is really only as strong as the weakest link. Overall strength requires partnerships based on mutual respect and understanding.

Delighting your customers and looking out for everyone in the industry is the best policy for building a loyal customer base and growing the industry into a competitive presence in the food production environment.

Concentrate on building you own strengths as professionals in agro-business, but also support your business partners in achieving a win-win result for your customers. The results will repay your efforts handsomely, as the ultimate value delivered grows exponentially, and your share will reflect that growth.

Good luck with the development of an effective, responsible, and sustainable industry!

Together we Grow - Fragmented we Flounder

2. Looking through the Archives - Who is Burying their heads in the Sand?

The primary reason given for wanting to join the World Ostrich Association is to communicate and learn as much as possible about our industry. Newsletter No. 24 (<http://www.world-ostrich.org/member/news24.htm>) asked the question "Do we have an Industry". The answer was very clearly NO, but we do have tremendous potential if all the factors that are discussed through these newsletters are understood.

Newsletter 25 (<http://www.world-ostrich.org/member/news25.htm>) started looking through the archives. The purpose is to demonstrate how many factors have been discussed and identified years ago, but for some reason the people investing in our potential industry appear to "bury their heads in the sand" and do nothing to address the factors that have to be corrected. In February 2002, James Dunn from Denmark sent a long message to the Blue Mountain Ostrich List. A few quotes:

Quote: "I have been working with Ostrich since 1990. The Ostrich industry in Denmark was like a huge tidal wave. There were rumours of something big coming, when it hit Denmark, it hit with full force and within an incredibly short time span there were over 500 Ostrich farms established. Prices soared to fantastic heights and fell again. In the wake of this receding tidal wave there are around 100 farmers still hanging on.

The same picture has repeated itself many times in many different countries.

It is almost as if the same script was used over and over again. I am very puzzled and perplexed over this. Why have we all made the same mistakes?

Why are we still making the same mistakes? Has the industry made any kind of progress since the beginning?

When I look at what topics are discussed on the list I am in serious doubt that this industry will be anything more than a hobby or cottage industry.

If this industry is to grow and prosper and become a self supporting way of life, there are many problems that must be addressed by the industry itself.

This will require that the industry works together on a world-wide basis or at the very least on a national basis. There are very big questions that must be answered and problems to be addressed and solved. This can not be done on an individual basis. Before the industry learns to work together as an industry, nothing will be done to advance the industry as a whole". End Quote

James' words are totally accurate and this is still going on, with new countries coming into Ostrich production. With all the evidence that this is happening, why are the same mistakes continually being made?

WOMRAD addresses these issues and provides solutions

3. Science and Agriculture

Agriculture has made dramatic changes over the past 50 years, crop yields and livestock yields have consistently reduced their costs of production through

increasing yields. These have been achieved by a combination of improved inputs resulting in improvements in crop and livestock health and intensive standards of farm management including plant and animal breeding programs. These developments have been aided by the scientific community, with most progressive developments starting with the progressive producers, often working in partnership with the academic community and supply company scientists.

One of the reasons the mistakes discussed above has been replicated over and over again with ostrich is due to the way the scientific community continually reference other scientists work. It is assumed that the factors written are proven and have worked when it can now be seen very clearly that this is not true. Research in Ostrich production is new, the real work only started in the late 80's. One scientist told me a few years ago that over 80% of the worlds ostriches are influenced by his work. That is a clue that an error in information, when continually replicated is resulting in poor performance and failure to develop an industry.

An example to illustrate this point:

Evaluation of Metabolizable Energy Levels in Diets for Ostrich Chicks during Functional Formation of the Digestive Tract, V.I. Turevich, (Lemek Company, Moscow) and V.I Fisinin (All Russian Research and Technology Institute of Poultry)

Quote: ***"Ostrich after 6 months of age excels broiler in effectiveness of ME extractions from concentrates."*** End quote. The values are then listed and the reference is Cilliers 1995.

This paper is published on page 291 of "The Proceedings of World Ostrich Congress, Warsaw, Poland".

This comes from a study well known to all of us and referenced in many papers relating to Ostrich production. The results of this study were gained using faecal analysis. Using faecal analysis as a method of determination was documented by a number of researchers as early as 1981 as providing misleading results. This study was carried out in 1994/95, more than 10 years later. The reason faecal analysis provides misleading results is that it does not account for variables in diets that influence nutrient utilisation of different ingredients.

The following words of John Humphrys, a British broadcaster who was also a Dairy farmer, are worthy of note in this discussion:

Quote: ***"Science is simply knowledge acquired by study. It is nothing more than that and nothing less. It is a powerful force and it is open to every single one of us with an enquiring mind to engage in it. It helps to have training. It helps even more to have research support and resources. But none of that is essential"***. End quote

The science of livestock production has many elements working together. It is a combination of:

- Nutrition
- Feed Management
- Farm Management
- Genetics

John went onto say:

Quote: ***"Knowledge may be acquired by sitting in a laboratory and looking through a microscope and learning from it. Equally it may be acquired by***

sitting on a farm gate, studying the way grass grows and learning from that. It may be the ability to read a map of the human genome and explain it. It may be the ability to read the way a pig behaves with her litter and explain why. It is not the ability to experiment with different molecules and create a powerful pesticide any more than it is the ability to experiment with different rotations of crops to create a bigger harvest.

We say that a man is a scientist if he has studied at university and is now engaged in transferring genes from one specie to another to create a superior plant. But do not say the same of a man who has studied plants as a humble gardener all his life and learned to cross breed from one variety of plant to another to achieve similar results. He is still just a gardener. The real difference is that one will certainly have letters after his name and the word 'Doctor' in front of it. The other will not.

The Blind Worshipers tell us that without 'science' as they narrowly define the word there would be no progress. Yet modern agriculture began more than ten thousand years ago. How many laboratories were there then? The answer is, of course, that there were thousands upon thousands of them. Every enclosed and cultivated patch of ground was a laboratory. Every seed sown was an experiment. If the first primitive man who spotted the effect of animal dung on the growth of his plants and managed to repeat the effect was not a scientist, then what was he? He acquired knowledge. He discovered fertiliser. He proved that a plant was able to thrive with it and would fail without it.

He may not have known why it worked but his descendants found out and learned how to create compost and apply that to their crops. They acquired knowledge. They learned that certain insects were beneficial and should be encouraged and others were not and should be deterred and they found ways of keeping them under some sort of control. In what sense were they different from a man in a white coat who sits in his laboratory and manipulates molecules to create poisons to kill insects?" End quote

He went onto discuss during the research of the book "The Great Food Gamble", that he had spoken to one of Britain's most distinguished biologists who confessed to him that he had been teaching his students something for thirty years that turned out to be wrong. It had been scientific dogma – unquestioned in a thousand learned papers – until it was overturned. Progress is made rewriting text books as we develop. Take time to read the papers on offer, and not simply the abstract or summary. Check the references; never assume that the facts contained are correct. Check that the author of papers has interpreted the findings of the referenced paper accurately; check that the referenced paper did in fact prove the facts being referenced. Check that the paper is consistent in information throughout.

Remember "science is simply knowledge acquired by study". That form of study can come in a number of different ways and has to when applied to livestock production as there are many factors that influence results.

Research and Training are an important component of WOMRAD

4. Examples of Misinformation

Over the years we have heard many statements made about ostrich that bear no relevance to the true facts. Discussing just a few of these factors again helps to explain why we do not yet have an industry.

BREED MYTHS

- ❖ The skin from reds produces better leather
- ❖ Zimbabwean Blues are better producers than Namibian Blues.
- ❖ Italian African Black - New Generation
- ❖ Blues Lay Less Eggs than Blacks
- ❖ Blacks Producer Higher Value Skins
- ❖ Reds are Aggressive
- ❖ All South African Blacks are superior birds to other breeds.
- ❖ The Red Neck Ostrich breed are poor egg producers

There have been many statements made about the different breeds, but too few meaningful records to substantiate them. There are currently tremendous variations in skins as a result of different production methods, different ages and different storage methods. Without meaningful records tracked right through to tanning, with all variables eliminated all those references to one breed or another being better are purely hypothetical and usually made to support the sale of the particular breed being sold.

Poorer egg production has been attributed to Blues and Reds. Item 3, in Newsletter #25 "Are you setting you Goals high enough" (<http://www.world-ostrich.org/member/news25.htm>) discussed the severe egg production problems and the clear evidence of malnutrition in breeders. When their dietary levels are falling severely short, the larger the bird the greater their dietary needs for body maintenance. It has been proved many times that once the dietary levels are high enough, Reds and Blues can lay as many eggs as good performing Blacks.

PRODUCTION MYTHS

- Ostrich do not put on muscle after 10months of Age, only fat
- Birds have to be slaughtered after 12 months of age or the follicles are not mature on the skins
- Birds do not produce Black Feathers before 12 months of Age
- 95kgs is the Optimum Live Weight for a Slaughter Bird

The first statement was made during a presentation at the Scientific Conference in Oudtshoorn in 1998. If Ostrich are only laying down fat after 10 months of age, then the rations and management systems are falling short. This information has been assumed to be correct and rations have formulated in the belief this is the case. We have seen Post-Finisher rations. These rations are formulated to hold the birds between the assumed finishing time and slaughter because the birds are believed to need holding back to 14 months for a quality skin.

I have proven to myself, and so have others, that you can slaughter birds at 7 months onwards, achieve birds of improved weights and acceptable skins. To maintain birds to 14 months requires double the feed, longer investment time in working capital, greater labour and more infrastructure. If for any reason a later slaughter date is used, then the birds can achieve good muscle development, dependent on genetics, during those months.

Many of us have seen birds starting to produce their black feathers from as early as 35 weeks – Note black feathers developing behind the wing on the 35 week old slaughter chick in Figure 1.



Figure 1 - 35 Week Old Slaughter Chick

The optimum slaughter weight depends on your own particular market conditions and economic condition. It makes sense to put on as much muscle as possible in the given time. The market has indicated that it prefers the larger muscled birds.

The right Liveweight is also dependent on whether the Liveweight is made up of good muscle growth (meat production) or fat. Our chairman has slaughtered birds for others with a live weight in excess of 120kgs, but meat production was no more than 24kgs. This low yield of meat is uneconomic to process.

We will cover a few more statements of misinformation that have been circulating next month.

5. News from South Africa

A press release was published on the SOABC web site this month.
<http://www.saobc.co.za/modules.php?name=News&file=article&sid=46>

The press release discusses the completion of the investigative phases of the Ostrivision-project. The press release concludes with the following statement:

Quote: ***“We have to bear in mind that Ostrivision is a long term project that requires new ways of thinking and doing”, Kruger said.*** End quote

This quote indicates that there is finally recognition by the South African industry that new ways of doing things need to be looked at. The next question to ask is "will they take the correct route"? There will have to be major changes if they are to become competitive with other livestock specie.

Worthy of note in this discussion is the fact that the WOA principles have always encouraged modern and ethical livestock production principles to ensure our members can operate in a profitable manner.

Issue No. 28 – July 2005

1. **Make Poverty History**
2. **Alfalfa/Lucerne – History**
3. **Alfalfa/Lucerne - Where can it be grown?**
4. **Alfalfa/Lucerne - Quality**
5. **Alfalfa/Lucerne - Water Consumption**
6. **Alfalfa/Lucerne - Productive Value**
7. **Contributions**

1. **Make Poverty History**

There is a G8 summit meeting to be held in Edinburgh, Scotland on 6th - 9th July. Bob Geldof is heading a Live 8 campaign 20 years after his Live Aid concerts to raise money for famine relief in Ethiopia. The Live 8 campaign, operating under the "Make Poverty History" logo in England and Canada, is designed to bring awareness to the plight of many countries in Africa. The aim is to encourage the members of the G8 to improve aid, relieve debt and create an environment for fairer trade. Under the latter they want to see removal of agricultural subsidies and unfair trade barriers.

This initiative is to be welcomed, but I would suggest that there too much focus on the fact that economic success is dependent on exports and trade with the first world countries. Many areas do produce products, such as rubber, coffee, cocoa and many minerals that the first world countries are unable to grow or produce, but they also need a strong agricultural base to feed their own people. Agriculture has made tremendous progress over the past 50 years to enable low cost food to be available for all and produced in many regions of the world, with the right production systems. A strong agricultural base creates employment through not only direct employment on land, but also all the required support services. This starts an upward spiral effect of demand for improved infrastructure and manufactured products as the net spendable income of the populations increase. This demand creates increased employment opportunities and so economic growth becomes self perpetuating.

Why is this important to Ostrich production?

Ostrich has the greatest potential for producing large volumes of red meat efficiently. Produced correctly they are the most efficient converter of feed to red meat, thus requiring fewer resources to produce that meat. Ostrich production can be part of a strong plan to "Make Poverty History" in many regions of the world.

2. **Alfalfa/Lucerne - History**

Ostrich can be reared without Alfalfa included in their diet, but at a tremendous cost to the producers in lost production and putting at risk the long term commercial success of our industry. For the avoidance of any doubt - Alfalfa and Lucerne are the same plant.

Over the years many have told me that they cannot get Alfalfa in their countries, it cannot be grown, the quality is very poor or it is very expensive. During the last month there have been several incidents of this and I had one producer quoted US\$676 per tonne. Ostrich require between 30% to more than 50% alfalfa (on a dry matter basis) in their rations - dependent on the production goals of the rations and quality of all ingredients. A cost of US\$676 was clearly uneconomic. This led me to search for more information to help producers as this is such a key factor to ensure the commercial success of our industry.

This subject is so critical to ensuring the success of our industry, I am going to focus on Alfalfa production for this newsletter.

Alfalfa is recognised as one of the earliest crops to be domesticated by man, with remains of alfalfa more than 6000 years old found in Iran. The oldest written reference for Alfalfa is from Turkey in 1300BC. During Roman times Alfalfa was linked to military might because of the important role in maintaining the fitness of the war horses. The Spanish and Portuguese first took Alfalfa to the new world during the conquest of Mexico, Peru and Chile. The eastern US colonists, including Thomas Jefferson and George Washington grew alfalfa, but it only became widely adopted in the US in the 1850's. "Chilean Clover" (alfalfa brought from Chile) was introduced during the gold rush of 1849-1850. From there it spread eastwards to the plains of the United States.

Today the United States grows 23 million acres per annum making Alfalfa the 3rd crop in value behind Maize and Soybeans. That is the productive value of this amazing forage crop. Alfalfa production in California is the 3rd most valuable crop behind Grapes and Cotton, but when combined with Dairy and Beef, as these industries are interdependent, they are the most valuable agriculture sector in California.

Since the 1920's average yield has increased by 1/2 ton/acre per decade. Today, average production is just over 7 tons Dry Matter/acre (+17 tons/hectare). Evidence is that yields per acre are still increasing, where increase in yields of other cash crops are tending to level out. This progress is attributed to a number of factors, including improved varieties, better land preparation, better water distribution systems, improved fertility, superior harvesting methods and overall improved management.

Alfalfa is seen as essential for high producing dairy cattle, who have increased yields by more than 60% since the 1970's. Alfalfa is also used extensively for sheep, beef and other livestock production. It is stated that without alfalfa many farms and ranches would fail. The same holds true in ostrich production. The lack of quality alfalfa continues to be a contributing factor to the failure of many ostrich farms. Quality Alfalfa, combined with the correct management systems, is essential to realise the full production potential of Ostrich

3. Alfalfa/Lucerne - Where can it be Grown?

Quote: *"Alfalfa is one of the world's most versatile crops. It is grown in environments ranging from burning hot deserts to cool high mountain valleys, from the frozen continental climate of Minnesota to the Mediterranean valleys of California. Alfalfa can grow on soils ranging from beach sands to heavy clays. It is grown as an intensive cash crop under irrigation or as a lower-intensity rainfed pasture crop in forage mixes."* end quote

The above information and quote is taken from a document: "Alfalfa, Wildlife and the Environment - The Importance and Benefits of Alfalfa in the 21st Century". The document is published by The University of California, Davis. The full document can be viewed and downloaded at:

<http://alfalfa.ucdavis.edu/subpages/Wildlife/BrochureFINAL.pdf> This website has a lot of very useful information regarding Alfalfa production and testing.

Another website that has some useful publications is <http://www.alfalfa.org>. This is an alliance of seed producers recently established and developing educational

literature to assist producers both within the US and overseas.

Studying all the information that is now available on Alfalfa production it is clear that there have been tremendous advances on varieties to ensure that they are suitable for different climatic and soil conditions. Varieties are also now more resistant to certain diseases or pests. Production methods and management systems continue to improve to be able to further increase yields and quality. Regions that have sufficient rainfall to make field drying difficult do require drying plants. Some regions use drying plants as they supply markets some distance away and dehydrated pellets is the most cost effective and easiest method of storage and transport.

4. Alfalfa/Lucerne - Quality

During my research one thing struck me very hard and that was the high levels of protein and other nutrients being discussed. My personal experience in South Africa and Europe was the difficulty to obtain reliable quality. We even had one European expert tell us that if any company was selling Alfalfa of 20% or above they are either not telling the truth or are adding something to the Lucerne to enhance the protein level.

The percentages are expressed in Dry Matter terms, but well above the average Alfalfa we currently see on the market in many parts of the world.

Table 1 - Nutritional characteristics of alfalfa hays of various quality categories*

Category	CP (% DM)	SoIP (% CP)	ADIP (% CP)	UIP (% CP)	NDF (% DM)	ADF (% DM)	TDN (% AF)	NEI (Mcal/lb)
X-Premium	24.0	25	7.0	27	33	26.0	56.6	.575
Premium	22.0	24	7.3	29	36	28.0	55.2	.559
Good	20.5	22	7.7	31	39	30.5	53.5	.540
Fair	18.0	21	8.0	33	43	33.5	51.5	.518

*CP is crude protein; SoIP estimates CP instantly soluble in the rumen; ADIP estimates indigestible CP; UIP estimates CP that escapes the rumen intact; NDF estimates total structural fiber; ADF estimates the portion of NDF that is not hemicellulose; TDN is total digestible nutrients; Nel is net energy for lactation. TDN is calculated as: $(82.38 - (.7515 \times \text{ADF}\%)) \times 0.9$ and Nel is calculated from TDN as: $((.0245 \times \text{TDN}\%) - 0.12) \times 0.454$.

[Source: WHAT ARE DAIRY NUTRITIONISTS LOOKING FOR IN ALFALFA HAY?
by Peter H. Robinson University of California, Davis.]

The higher the protein the less one needs of the more expensive protein ingredients in a ration, so quality alfalfa can reduce the cost of the rations. Many countries are dependent on imported Soya for a high protein ingredient. The higher the protein in alfalfa the more vitamins and minerals also, and as can be seen in the above table, the greater digestibility. Every effort needs to be made to achieve quality Alfalfa.

To ensure high levels of ostrich production it is imperative that every effort be made to produce quality Alfalfa rather than simply seek alternatives.

5. Alfalfa/Lucerne - Water Consumption

Farmers in regions that have water shortages or expensive water for irrigation, have to weigh up the commercial value of the crops they produce under irrigation. In this equation the full value of Alfalfa is often not fully appreciated. I remember well being asked by a large production unit as long ago as 1998 if we could formulate rations without using Alfalfa because of the high water requirement. My answer was no...those producers are no longer in the industry. That country has a very high

yielding dairy industry that I learned last year cannot overcome some of the problems associated with high yielding dairy herds when not fully nutritionally supported; there is no known substitute for Alfalfa to support high yielding dairy cattle.

All forage crops require water for production and in dry areas irrigation is needed, so it only makes sense to irrigate the most productive forage crop available. Alfalfa is in a class of it's own amongst forage crops.

Pages 20 to 23 of "Alfalfa, Wildlife and the Environment - The Importance and Benefits of Alfalfa in the 21st Century" referenced above cover this issue in some depth.

6. Alfalfa/Lucerne - Productive Value

The productive value of Alfalfa needs to be fully understood, not simply for it's cash value but also the value in cost effective dairy and red meat production including ostrich meat production, which is a red meat. Worthy of note in this discussion is that poultry do not do well on Alfalfa.

Alfalfa provides high yields, can be grown in most climates and has disease resistance and excellent feeding quality. Alfalfa is palatable and nutritious with excellent feeding quality. When produced correctly Alfalfa is high in protein and in addition provides a tremendous source of organic vitamins and minerals. Alfalfa is also an integral component of crop rotations because of it's ability to fix nitrogen, improve soil structure and tilth and control weeds in subsequent crops.

Alfalfa is an essential component of commercially viable ostrich production

7. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members. Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 29 – August 2005

1. Klein Karoo Group Acquisitions
2. Research and Development
3. Ostrich Meat - the Driving Product
4. Opportunities
5. Contributions

1. Klein Karoo Group Acquisitions

On January 1st, 2004 Camdeboo Meat Packers and Exotan amalgamated to form Camexo. Camdeboo Meat Packers is an EU Approved ostrich abattoir based at Graaft-Reinet in the Eastern Cape of South Africa. Exotan, based in Port Elizabeth, Eastern Cape is a tannery specialising in Exotic leathers, including Ostrich.

The management and a number of members of Camdeboo were instrumental in forcing deregulation of the Ostrich industry in South Africa.

News has come through that the Klein Karoo Group has acquired Camexo. The acquisition is currently in front of the Competition Board..

The group have also acquired Sun Cuisine, a company that manufacture cooked food products, with the aim to produce processed products from ostrich. It is hoped that this will enable export of ostrich products in place of fresh meat, while the borders remain closed.

The South African borders currently remain closed for the export of live birds, eggs and meat. The Eastern Cape producers carried out a kill policy to eradicate Avian Influenza, but the Western Cape producers have chosen not to operate a kill out policy.

2. Research and Development

The SAOBC [South African Ostrich Business Chamber] published a new article in July under the heading of Research and Development. The article is written in Afrikaans. <http://www.saobc.co.za/modules.php?name=News&file=article&sid=48> An English translation will form a supplement to this newsletter.

The article is a discussion on a study on the economic impact of slaughter age on meat yield of ostrich. One has to question why a costly academic project using public funds was set up to do the study in this manner with just a few birds when this is the type of study that all successful commercial farmers do every day, of every week, of every year as standard management practice in other specie. It is the reason for maintaining records of all feed input and yield output and the input costs vs the output revenue. It is the way to identify the good genetic animals, identify the rations with the right production potential to challenge the better genetic animals. This is the mechanism to bring forward the slaughter age and at the same time increase the yields to reduce the costs of production.

This study is flawed in many ways. The study assumes that all feed, all management systems, all environmental factors and all genetics perform the same and have no influence on results. As any one with knowledge of production livestock knows that

is not true at all. The study fails totally to understand the difference between simply "raising livestock" and operating a "production livestock unit".

The study reports an overall increase in carcass weight of 31kgs to 52kgs between the ages of 8 months and 16 months. My own birds recorded carcass weights of 39kg at 34 weeks (8 mths) and 54 kgs at 42 weeks (10mths). When the skins were put in front of members of NOPSA (National Ostrich Processors of South Africa) they assessed them as being from 12 to 14 month birds. I am not alone in achieving these results from younger birds.

The study was funded by THRIP, the Technology and Human Resources Industry Programme, a joint initiative supported by the Department of Trade and Industry and the National Research Institute. The THRIP program promotes cooperation between higher education institutes and businesses with the aim of enhancing the competitiveness of South African industry. The question has to be asked why the South African Ostrich Industry research continues to resist investigating improving performance, slaughtering younger and implementing production livestock techniques that make up the "true science of livestock production" to ensure that their producers remain competitive?

3. Ostrich Meat - the Driving Product

Following on from the previous two items, this quote and the discussions that follow may help answer the above question?

Quote:

Ostrich meat

For many years meat was a by-product of ostrich processing in South Africa. In 1993 ostrich meat accounted for only 15% of the income from a slaughter bird. Today this percentage is between 30% and 45% and ostrich meat therefore plays an integral role in the survival/sustainability of the South African ostrich industry. The current average carcass weight of a South African produced ostrich is 43 kg (live weight approximately 95 kg) at 12 – 14 months (the same weight is achievable at an earlier age, but with negative effects on the skin quality). An average carcass yields 24 kg of meat (16 kg of prime steak and fillet cuts and 8 kg of trimmings). end quote

Source: Page 29 - Report on the Investigation into the Effect of Deregulation of the South African Ostrich Industry, <http://dms.namc.co.za/published/20040416-1212.pdf>

Meat yields have not changed in South African production during the years from 1993 to the publication of this report in 2003, 10 years later.

The percentage of revenue has therefore changed because either the revenue has dropped for the other products (skins and feathers), because the price for meat has risen or a combination of both.

As a member of that committee I suggested that the wording should make reference that better produced birds today are now achieving 50kgs of meat at 12 months, as that is fact, and replicated many times in the United States in the mid 90's, before their industry collapsed. [Table 1]

MUSCLE	IOA Meat Chart Weight	AOA Meat Chart Weight
Fan #OS1046	+/- 1500 grams	1730 - 2140 grams
Oyster #OS1045	+/- 300 grams	730 - 760 grams
Round #OS1035	+/- 1000 grams	1770 - 2090 grams
Outside Strip #OS1036	+/- 300 grams	545 - 635 grams
Inside Strip #OS1050	+/- 300 grams	545 - 680 grams

Table 1 - Comparative Muscle weights

The figures in Table 1 are clear indicators that meat revenue can be doubled simply on yield alone. Double meat yield not only doubles meat revenue, it also reduces processing costs per kilo by 50%. When I left South Africa I was receiving greater than 50% revenue from meat as a direct result of the increased meat yields. Increased meat yields result in reduced processing costs, which enable the processors to pay the producers a better rate per kilo for that increased meat. Why was there a determination to ignore this clear evidence?

The discussion above relates to Ostrich Meat, but note the reference to skin quality in the quotation. An 8 month bird, with a carcass weight of 31kgs, as in the study discussed in item 2 above, will not have acceptable skins. Note the feather development in the photos in the study I reported in Bulletin No. 79 - "Influence of Ostrich Skin Quality - Age or Nutrition?" - <http://www.blue-mountain.net/bulletin/bull79.htm>.

4. Driving Product

Originally Ostrich were farmed only for feathers, then the leather. These two products are unique and exquisite products, when produced correctly, but the high value feathers and leather are fashion products. Fashion products have trends that change from year to year. The markets are limited at the top end where high prices can be achieved. The 150 year history of following this pattern has led to continual boom or bust situations.

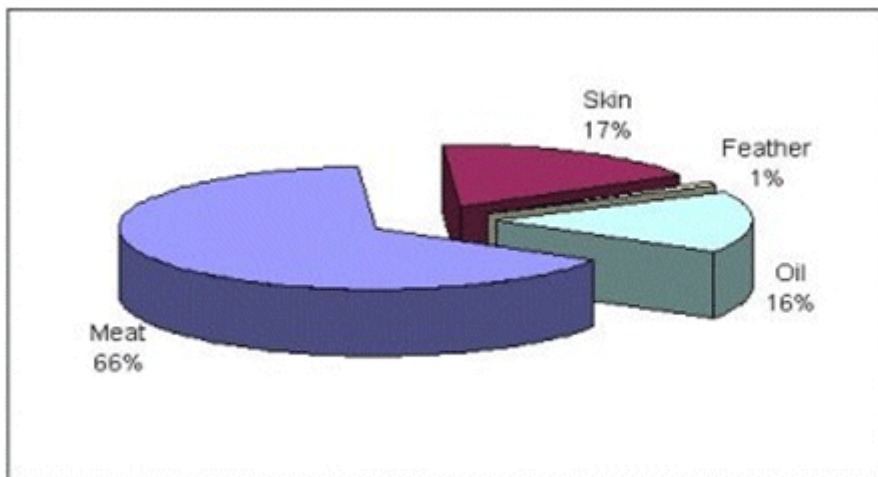


Figure 1 - Revenue per bird
 [Source: "Cutting the Costs of Production" - Blue Mountain Bulletin No. 95
<http://www.blue-mountain.net/bulletin/bull95.htm>]

Figure 1 is an indication of the percentage of revenue per product. The actual breakdown will vary dependent on local costs, size of operation and markets serviced. They will also vary on whether valuing the different products at producer price or valuing the products at market prices after processing and value adding.

In order for the industry to be sustainable and viable, it is important and most essential to maximise the revenue from the whole bird. However, the meat market is the most important product to establish as the major revenue earner of a slaughter bird as shown in Figure 1.

The meat market requires a consistent supply for a restaurant or hotel chain to be able to maintain it on their menu; a small deli shop, family butcher or supermarket to maintain shelf space; a sandwich manufacturer to retain ostrich as one of their fillings and so on. They will not use the product unless they are guaranteed supply.

Implementation of "production livestock" techniques are required for accessing the meat market successfully. The overall health of the birds automatically improves and that will bring about greater consistency and greater marketability in all the other products; commercially viable levels of production and sustainability of that supply. Why are the South African researchers continually ignoring these important factors when designing and evaluating their projects?

5. Opportunities

The purchase of companies carried out by the Klein Karoo is a move to returning to monopoly ownership and strict control of development. The research projects, as published, demonstrate that no progress has been made in production systems or improved performance as witnessed in other livestock industries. History has proven these systems to lead to negative profitability in a competitive environment.

By comparison working in collaboration, as the WOMRAD plan envisages, would bring with it many benefits to enable members to grab hold of the opportunities to grow and develop their individual businesses. The market is wide open today for development.

To achieve this development requires collaboration, consistency in supply, security of supply and consistency in quality of that supply.

It requires implementation of standards that enable our buyers to understand our product and not simply buy on price.

It requires training at all levels of the supply chain to learn how to be competitive in a commercial market place.

It requires fair remuneration for every member of the supply chain.

It requires collaboration to build the volume to be able to enter markets not possible with low volume supplies.

It has been suggested that ostrich cannot be raised the same way in different parts of the world. There will be certain management factors that will change as clearly facilities and systems required in Norway or Sweden will differ from facilities and systems in Spain or Italy and be different again in areas such as Saudi Arabia or Brazil. All countries and regions within countries differ in climate, environment, labour costs and land availability. Diet does not change in the way many believe it does. Consumption may be a little higher in a cold climate, rations may need to be a little denser in a humid climate where daily intake can be reduced - but the basic nutrient requirements remain the same if optimum health, production and commercial viability are to be achieved.

In collaboration we can "Unleash this Giant"

Issue No. 30 – September 2005

1. Value Chain vs Supply Chain
2. Dr. Thomas E. Elam
3. Ostrich Contributing to the Future Demand for Meat
4. Environmental Impact
5. Chemical and Pharmaceutical Contributions to Meat Production
6. Contributions

1. Value Chain vs Supply Chain

Agriculture used to be many small producers growing their produce or livestock and when ready they would take it to the market. Since the end of the 2nd World War there have been progressive changes in agriculture. The reasons for this are complex and regularly discussed through these newsletters. Also discussed is the need to understand the consequences and consider actions needed to be taken if any of our businesses based on ostrich are to be successful. In this context let us define The Supply Chain vs The Value Chain.

What is a Supply Chain?

A supply Chain is where each element of the process to the end consumer is defining their section of the process as the product.

What is a Value Chain?

A Value Chain is where there is collaboration between all processes in the supply chain to ensure that there is no leakage of value through poor performance of one link in that chain.

A Value Chain is an alliance of enterprises collaborating vertically to achieve a more rewarding position in the market.

Companies in a value chain are legally independent operations, but become interdependent because they have common goals and work collaboratively to achieve them. They work together over the long term discussing issues and troubleshooting problems together. It is more than just long-term contracting.

Take a look at the documents developed by the Alberta Provincial and Canadian Agricultural department web site <http://www.agfoodcouncil.com/serve/chainindex.html>. They have developed some excellent documents to help producers understand these differences.

The changes in agriculture over the past few decades have meant that Vertical Integration in agriculture is essential for economic success. Building a "Value Chain" is a method of achieving Vertical Integration through collaboration and interdependence whilst retaining independence.

A quote from the UK Red Meat Industry support web site from an article title: "A Winning Team": <http://www.redmeatindustryforum.org.uk>

Quote: *Leading representatives from Tesco and ASDA will be speaking at the Red Meat Industry Forum (RMIF) conference in London on 2nd November 2005 where the results of the three-year initiative will be revealed.*

The retailers have played a major part in the Value Chain Analysis work that the RMIF have carried out to date. Their views on lessons learnt and on how the UK red meat supply chain will need to work in the future will be extremely valuable to those striving for success in this industry. End Quote

Another reason for the value chain approach is the increasing requirement for full traceability. Vertical integration can be achieved either by single companies having total control of all aspects or through the value chain approach where each sector remains independent, just interdependent working in collaboration with a common goal. That common goal optimises the value for all in the chain.

WOMRAD is the development of a "Value Chain" for Ostrich Production

2. Dr. Thomas E. Elam

Dr. Elam is a scientist from the United States who spent 23 years working as an agricultural economist for Elanco Division of Ely Lilly. His areas of expertise are Agricultural Production, Agricultural Marketing and Prices, Strategic Planning and Forecasting. This newsletter is going to focus on two papers, the opportunities they offer in the development of our ostrich industry and why it is important to recognise that our competition are the other species.

The two papers are "Meeting Growing Meat Demand While Protecting our Environment to be a Challenge" and "Fifty years of Pharmaceutical Technology and its Impact on the Beef we provide to Consumers." Both papers can be downloaded from the web from

http://www.hudson.org/learn/index.cfm?fuseaction=staff_bio&eid=elamtom

Dr. Elam also wrote an article "World Meat Challenge - demand to increase by 50% by 2025" that was published in the Australian Farm Journal in June, 2004. This article was a summary of the two papers we will discuss. Our thanks to Bert Rayner, the Country Liaison for Australia, for faxing the article as that led me to researching Dr. Elam and his work. The following is quoted from "World Meat Challenge"

Quote: *"By 2025 total demand for animal protein will be more than 50% higher than it is today. In an era when many meat producers and their feed suppliers have struggled with periods of low prices and surpluses this kind of growth in demand is no doubt welcome "Challenge". In fact, the challenge in recent times has been more one of survival, not increasing production. But underneath the short-term difficulties facing us today there remains a global dynamic of steady growth in meat demand (and supply) the long-term effects of which should not be underestimated. The "Challenge" is how to produce all that extra meat with roughly the same feed and animal production land base that we have today. It will not be easy, but if we choose to expand cropped acreage and land used for meat production it would mean clearing forests, draining wetlands and disturbing other natural areas, bringing conservationists, environmentalists and others into even more conflict with farmers. It would also mean denying future generations the benefits of natural areas we enjoy today."* End quote

The issues raised are:

- ❖ 50% Increase in human demand for meat protein
- ❖ Feed Production to support that production
- ❖ Impact on Environment
- ❖ Keeping Prices Affordable

- ❖ Livestock Production
- ❖ Improved Feed Conversion
- ❖ Natural Systems of Production
- ❖ The impact of Efficiency Failures

Dr. Elam's arguments, as coming from a pharmaceutical viewpoint, are that pharmaceuticals provide the solutions.

There are no single fixes.

The contribution of pharmaceuticals to agriculture to reduce costs of products by fighting disease and controlling parasites has been very significant. Some of the contributions are now recognised as negatives and unacceptable long term risks to human health - such as hormones for increased production and routine use of antibiotics to overcome poor management practices. The advances made in the greater understanding of all the interrelationships of Vitamins and Minerals and the ability to produce these products to improve nutrient utilisation and treat many conditions have enabled the reduction in use of these negatives. This new technology is best known as Optimum Nutrition.

Twice Nobel Prize Winner Dr. Linus Pauling is quoted as saying "Optimum nutrition is the medicine of the future". That statement has been proven to be true with livestock also. With livestock, Optimum Nutrition covers not only basic health but also optimum production and product quality. Improved health, optimising production and producing high quality end products result in improved profitability for all in the "Value Chain".

WOMRAD utilises Optimum Nutrition

3. Ostrich Contributing to the Future Demand for Meat

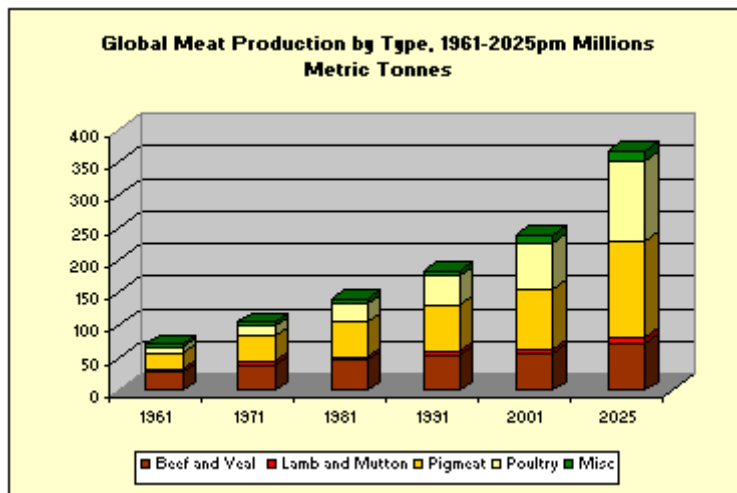


Figure 1 - Global meat Production by Type. 2025 Projected

Figure 1 shows the production growth by specie since 1961. Figure 2 demonstrates the percentage of the total of each specie and shows very clearly the contribution of Pork and Poultry in this growth and the loss of market share experienced by the red meats Beef, Veal, Lamb and Mutton over the period. Some of this loss of market share can be attributed to the advice to eat low fat meats; some of the loss of market share can be attributed to the lower feed efficiency of ruminants. Ostrich produce a

low fat, red meat and are proven, where reared correctly to be the most feed efficient of these red meat specie, with excellent feed conversion.

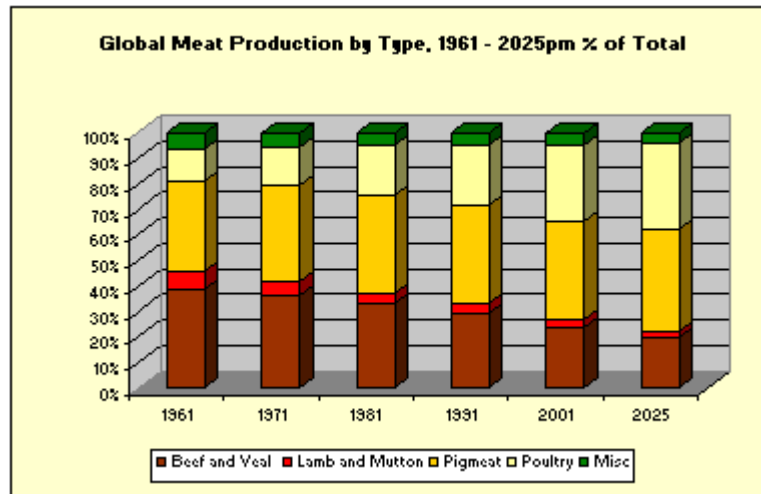


Figure 2 - Type Percentage of Global Meat Production

What do these tonnages translate into numbers of Ostrich required to compete?

The additional meat production is quantified at 130 million metric tonnes; 14% from Beef, Veal, Lamb and Mutton, 43% from Pigmeat, 40% from poultry and 3% from other specie, which will include Goat, Fish and other alternative meats including Ostrich. Note the reducing market share of the red meats. It requires 28 million Ostrich Slaughter birds producing 45 kilograms of meat to produce just 1% of that additional 130 million metric tonnes required.

Systems to optimise the production potential of Ostrich and move away from the current very low productivity, high levels of chick mortality, low meat yields and delayed slaughter are essential to be able to meet this challenge.

WOMRAD introduces proven Scientific Livestock production methods

4. Environmental Impact

Dr. Elam's discussions relate to making a case that the increased production can come only from intensive farming operations, that anything different will put too much pressure on feed supplies. Sheep, Cattle and Goats can graze areas that it is not possible to cultivate and it may be possible to improve the efficiency of these grazing areas with better management, including water management. These issues are discussed by Terry McCosker in the Australian Farm Journal.

However, it is clearly evident that the introduction of the intensive systems for rearing pigs and poultry has had a significant impact on the availability of increased volumes of meat at decreasing consumer prices as these systems are highly efficient. The increased use of Cattle Feed lots in the United States to finish cattle for the last 90 days on high grain diets has enabled the US Beef industry to produce increased meat tonnage from the same number of cattle. Dr. Elam stated:

Quote: ***"Current "organic" technology simply cannot be used to produce the feed crops we need on a global scale. Yields are 20, 30 or even 40% below what is possible with conventional fertilizers and pesticides, make it impossible to both increase feedstuff production and use these systems on a widespread basis. There is not enough animal manure to even come close to***

replacing the current sources of crop production. Switching to green manure legume crops for nitrogen would merely reduce the land available for feed production." End Quote

This statement is indicating that green legume crops have no productive value in the production of meat.

Ostrich require as much as 40% Dehydrated Lucerne in a grower ration, when the Lucerne is of the right quality, when fed controlled production rations. Lucerne is a legume and an important component in any crop rotation cycle as it fixes nitrogen in the soil, reducing the need for artificial fertilizers. Poultry and Pig production is highly dependent on grains to produce the meat, with little or no quality forage included in their diets. Therefore Ostrich production can help support the production of grain crops produced with reduced input of artificial fertilizers. The use of high quality Lucerne also reduces the requirement for high protein Soya, thus reducing costs of production whilst improving health and feed efficiency.

WOMRAD production depends on Lucerne Production to achieve profitability for the Producers

5. Chemical and Pharmaceutical Contributions to Meat Production

Dr. Elam discusses the major technological contributors that have enabled the dramatic increase in food production at affordable prices:

- I. Pharmaceuticals: Animal health products and programs
examples: Antibiotics, Implants, Parasiticides, Vaccines, Disease Control Programs
- II. Genetics
examples: Selective breeding programs, identifying most productive breeds
- III. Nutrition
examples: improved feedstuff quality, vitamins, minerals, amino acids
- IV. Crop Yields
examples: Improved management systems, artificial fertilisers, herbicides, fungicides.

All the above have contributed to the ability to produce increased tonnages of food at reducing cost. Questions are being asked now on the impact on human health and sustainability if we continue producing food with such dependency on the chemicals and many of the pharmaceuticals. Reduced efficiency of antibiotics as there are increasingly resistant strains of bacteria developing, hormone implants affecting the development of our children and parasites developing resistance to some Parasiticides are examples.

It is clear we cannot manage without some of these technological advances; however there have been significant advances in other areas that enable reduced dependency on pharmaceuticals and chemical inputs, without loss of production and increasing efficiency. Nutrition has made tremendous advances over the past 20 or so years that many health problems can now be controlled or prevented through nutrition rather than antibiotics. This statement applies to humans as well as livestock production. Antibiotics will still have a role to play in treatment but used with far more caution; vaccines will always have an important role as part of disease prevention programs.

As referenced above growing Ostrich require around 40% of their production rations

to be dehydrated Lucerne - a legume. The ability to produce large volumes of meat efficiently from Lucerne will enable greater acreages to be planted with this crop that fixes nitrogen in the soil and forms an important part of any crop rotational program to reduce the dependency on artificial fertilisers. The development of No-Till agriculture is another technological development that continues to reduce the dependency on chemical inputs whilst retaining high volume of out put. No till agriculture uses less fuel with fewer passes over the land, thus reducing input costs without loss of production. Biogas technology is enabling better use of waste to reduce dependency on artificial fertilisers. All these factors are technological developments that combine to help reduce dependency on chemical inputs, without risking loss of production or increasing costs.

Ostrich can contribute to the increased meat production utilising the most modern ethical technology

6. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members. Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 31 – October 2005

1. **Ostrich Supply Problems**
2. **South Africa lifts self imposed Export Ban**
3. **Revenue per Bird**
4. **Low Yield Agriculture vs. High Yield Agriculture**
5. **Contributions**

1. Ostrich Supply Problems

Contributed by Bert Rayner, Country Liaison for Australia

As we all know the ostrich livestock industry is a relatively new livestock production industry. Up to 1994 95%-98% of all products came from South Africa. Klein Karoo Co-op had a full monopoly up to 1994. From a maximum production of +/- 160,000 birds in 1994 production jumped to an estimated 580,000-620,000 in 1998. Many think prices dropped due to over production. Incorrect - prices actually declined due to poor or pathetic marketing strategies.

Leather

Unfortunately all newcomers simply went to established markets and sold at lower prices. No 'new markets' were developed by 'new tanneries'. If we compare production of luxury items such as 'Whisky' and 'Diamonds' the growth over the last decade has been phenomenal. Did they discount the product? No. There are many whisky producers and the highest value product such as single malt is struggling to keep up with demand. Although DeBeers still dominates sales in top quality diamonds, the competitors have not gone in and sold at half price. Why did the bigger players in the ostrich industry drop the value of our product so drastically? No one has the answer but many suspect it was an ill judged attempt to control the growth of the industry.

Meat

Unfortunately the major player, South Africa has always seen the meat as a by-product. A recent article in South Africa quoted the S.A.O.B.C. spokesperson as stating that meat is only 30% of income. Hopefully he is referring to the current situation where exports are banned. At the moment in the Australian industry meat value makes up roughly 66% of the gross value of our product sold. We anticipate this will increase with niche marketing and improved meat yields. We do expect a rise in the value of skins but my humble opinion is that meat will continue to be our primary product.

Supply

I am a farmer and a marketer. Lack of consistency of supply and consistency of quality are the two main factors that have had a negative impact on development. With correct nutrition and management I believe we can solve the problems. We have two high quality products from ostriches and we should not have to discount to sell. As many know I am ex South Africa and have realised their farming technology on ostriches does not lead the world. We need to seek advice and work together to lift production.

The future

The world needs 50% more meat by 2025. Much of this growth will occur in intensive chicken and pork production units. It is however an ideal opportunity to expand our

healthy, low fat, high iron ostrich meat industry. Certain parties are exploring new avenues for 'high quality' ostrich leather goods. These markets have massive potential that can only be realised with consistent, sustainable production.

Ostrich production has a huge growth potential where efficient farmers, processors and reliable marketeers can all benefit.

Editors note: Our thanks to Bert for taking time out to write the above article. All our members like to hear from other members and contributions very welcome. If you are not comfortable to write in English, you can submit in your own language and arrange for translation for those who cannot understand your language.

2. South Africa lifts self imposed Export Ban

On September 13th the South African Ostrich Business Chamber (SAOBC) announced that the ban on the export of ostrich meat has been lifted by the Department of Agriculture. It is important to remember that although the voluntary ban has been lifted; importing countries still have to decide on the resumption of imports from South Africa.

Your directors are recommending any producers considering importing fertile eggs, chicks or breeders from South Africa, to have the birds tested by independent laboratories before considering importing. The June report from the OIA (http://www.oie.int/eng/info/hebdo/AIS_67.HTM#Sec2) reported infection on a large number of farms and there has not been a kill out policy in the Western Cape to eradicate the disease.

3. Revenue per Bird

Bert made reference to the proportion of South African meat revenue to total revenue per bird representing no more than 30% of Income by comparison to Australian producers achieving 66%. There are a number of factors that can influence the proportion of revenue:

- Price of different products (Meat, Skins, Feathers and Fat/Oil for those with a market)
- Grade of Meat and Skins
- Yield of Meat

South African production has had a long history of producing ostrich with slow growth, low meat yields and slaughter at 14 months of age. Average carcass weights are only 42 kilos with 17kgs to 18 kgs of export muscles. It is possible to produce a bird in half that time producing similar meat yields and double meat yields with birds 42 weeks (10 months).

Produce double the meat; you double your meat revenue per bird, even when prices are low. Working together we have increased strength to improve supply and prices.

Double meat yields also reduce the costs of processing that bird. Slide 28 of my presentation in China quantifies these costs and can be seen at http://www.world-ostrich.org/present/fiona_files/v3_document.htm (This is best viewed through Internet Explorer rather than Netscape or Firefox.)

4. Low Yield Agriculture vs High Yield Agriculture

Communicating with producers in different countries and travelling as I am able to do provides the opportunity to see tremendous variations in agriculture in different countries. Travelling in Bulgaria this month was again a reminder of the importance of agriculture to the local economy. The collapse of communism resulted in much of the land being returned to the original owners. In many cases the families had grown, with the land split many ways. The average ownership is now .3 hectares per producer - tracts of land that are uneconomic. Farming in most areas has returned to peasant farming producing sufficient for own needs, harvested by hand and carried home by donkey cart. Crops will have minimal inputs, so output is low. Cattle, sheep and goats are shepherded on open land and brought home each night. With low production much of their food is imported. This situation is not unique to Bulgaria.

A sound agricultural base generates employment and raises the standard of living in rural areas.

Quote: *The Green Revolution and the increasing effects of globalisation continue to change the face of agriculture. The revolution began in 1944 when the Rockefeller Foundation and the Mexican government established the Cooperative Wheat Research and Production Program to improve the agricultural output of the country's farms. Norman Borlaug was instrumental in this program. This produced astounding results, so that Mexico went from having to import half its wheat to self-sufficiency by 1956 and, by 1964, to exporting half a million tons of wheat. This program was continued in India and Pakistan where it is credited with saving over one billion people from starvation. Norman Borlaug won the 1970 Nobel Peace Prize for his efforts.*

From there, the technologies were exported abroad, finding use in regions all over the world. The success in increasing yields was undisputable. The growth of crop yields was such that agriculture was now able to outstrip population growth — per capita production increased every year following 1950. end quote
[source: http://en.wikipedia.org/wiki/Green_revolution]

Figure 1 shows the growth in employment generated by a strong agricultural base.

The Green Revolution has been successful through the combined use of improved plant varieties, irrigation, chemical fertilisers, herbicides and pesticides, mechanical tractors and other farm implements. Livestock production has been supported by the improved quality of the crops, the contribution of the pharmaceutical industry, advances in nutrition and improved genetics. The effect of these high inputs has been to feed an ever increasing population and reduce the cost of that food significantly.

There have been some negatives identified from this rapid development. Progress is an ever evolving process with systems developed to overcome some of these negative issues associated with modern agriculture. Examples are:

- No Till Agriculture to combat soil erosion and improve soil structure
- Ethanol Production to provide fuel to slowly replace the finite supplies of fossil fuels
- Biodegraders to turn waste material safely into usable fertilisers

- Optimum Nutrition to increase production, reproduction and improve feed conversion making better use of the resources and reducing costs of production
- Optimum Nutrition to reduce the use of antibiotics, growth hormones and minimise metabolic disturbances in high production livestock

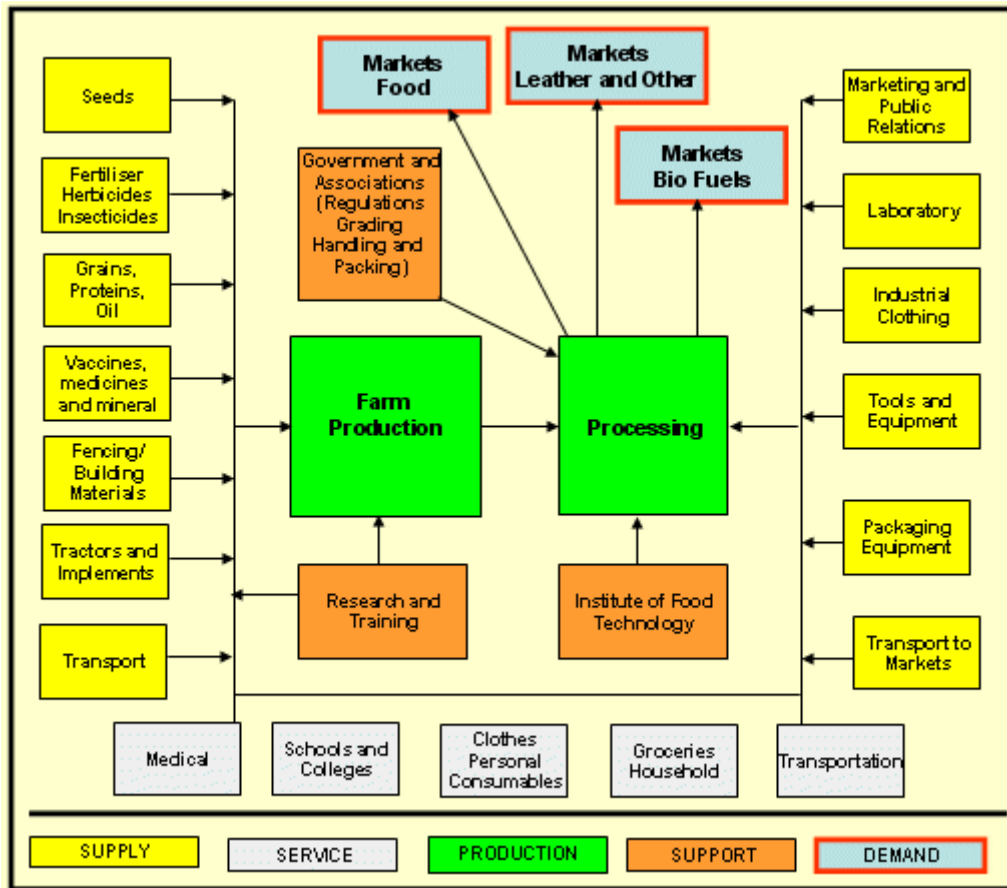


Figure 1: Agricultural Cluster Supporting Infrastructure and Employment

Apply the modern technologies to Ostrich production and as reported last month, Ostrich can make significant contributions towards providing the additional 50% meat forecast as required by 2025. Apply these technologies to Ostrich and they can be the most feed efficient red meat production animal. This cannot happen utilising Low Yield Agriculture techniques.

WOMRAD introduces this technology as it applies to Ostrich

5. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members. Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 32 – November 2005

1. The Global Business of Food
2. Measurements of Business Performance
3. South African Ostrich Meat Exports Resume
4. Klein Karoo takes over Exotan
5. 3rd Annual General Meeting
6. Communication

1. The Global Business of Food

The International Food Symposium is held every year in Canada. The overwhelming message sent from the 2005 symposium was understand **the consumer.** Emphasis is on constant reminders to understand the trends or you will get left behind. There is a short video available on line and a longer video that can be purchased containing comments from contributors from Brazil, Germany, Netherlands, UK, US and Canada.

The video also discusses

- How food retailing is going to change in the next decade
- Who are the new winners and losers in global food production?
- What are the emerging food products and areas that are making money?
- How environmental issues are impacting on the food industry

You can download the short video free and order the longer video at:
<http://www.theinnovators.net/food/>

All the above prove yet again the opportunities for Ostrich production in a commercial environment.

2. Measurements of Business Performance

Agriculture has changed dramatically over the past few decades making it more competitive. The message increasingly is that small farmers cannot survive working alone. Several of the speakers in the above video make this point.

Newsletter No. 30 discussed the difference in a Supply Chain approach for marketing agricultural products and a Value Chain approach. There is little doubt that if not operating as a fully vertically integrated operation such as Tysons in the US with their Pork and Poultry business, a Value Chain approach is becoming increasingly important for smaller producers to remain competitive. Working as a group establishes economies of scale, improved financial security and increased efficiencies.

Newsletter No. 30 referenced that the **Red Meat Industry Forum (RMIF)** in the United Kingdom will be reporting the results of a 3 year study at the conference in November. They commissioned a research team at the University of Cardiff to carry out these studies. There are several interesting factors they are highlighting. The papers referenced can be downloaded and viewed at:

<http://www.cf.ac.uk/carbs/lom/lerc/research/FPIU/publications%20pages/PublicationsbyAuthor.html> It is to be remembered that the RMIF was set up to help UK red meat producers to

become more competitive as they were increasingly becoming inefficient when measured against countries such as the US and Brazil. [note: carbs in the address above is Cardiff Business School]

The Brazilian contributor to the video referenced in Item 1 above mentioned Brazil producing and exporting grains. He went on to state that producers recognised that if they added value in Brazil they could increase the value of their exports significantly. That thought process has driven their increased production in pork, poultry and of course beef. They are now major exporters not only of Soya and maize but also of meat protein.

a. Lean Thinking

The studies reference "Lean Thinking" and how it can be applied to agriculture. What is lean thinking? The central theme of lean thinking is the elimination of waste - the waste of time, the waste of money and the waste of resources. Lean thinking was first applied to car manufacture and then progressed to many manufacturing processes. If we apply the concept to ostrich production at the current situation, we have very significant waste and areas that can be improved. It is not a case of technology not being known, it is simply a case of the technology not being applied across sufficient production units for our industry to make the transition to commercial production.

Reminders of waste in our industry at the most basic level are evident when studying Kim Bunter's production figures reported in Newsletter No. 25. Imagine how much more efficient we can be if we were to increase the slaughter birds per egg from more than 2 eggs required to produce a single bird to say 1.1 eggs.

Imagine how much more efficient we can be when producing slaughter birds with 40kgs of boneless meat in 40 weeks instead of 25kgs of boneless meat in 52 plus weeks.

Improvements in those two most basic areas will make a very significant difference to the speed of development of our industry.

b. Value Chain Mapping

Value chain mapping is the analytical process of examining which steps and tasks add value and which do not. The above referenced studies analysed from "farm to plate" systems incorporated to improve efficiency and profitability of UK producers. There are two excellent case studies:

Producer quote: *Case Studies from the Red Meat Industry Forum and the Food Chain Centre's Value Chain Analysis (VCA) file show exactly why this particular RMIF scheme is in such demand from companies within the red meat sector.*

A particularly interesting project, which involved Whitbread's chain of Beefeater restaurants, one of its major suppliers (the Chitty Food Group) and the Isle of Wight beef farmer Andrew Hodgeson, led to substantial benefits right throughout the supply chain.

In a journey that took the project team to South America to see how farmers' methods differed there, the participants developed a more efficient approach to working in the Beefeater kitchens, a more effective ordering system and a different pattern of shift working.

Other benefits included: improved logistics, reduced waste, increased efficiency through the chain.

Welcoming improvements- -Alejo Desprats, of Chitty Food Group said: "The VCA helped us look at our mutual business through a new pair of glasses. It has been a great help."

Before the top managers from the two companies and the farmer himself, as well as two experts from Cardiff Business School, put this supply chain under the microscope they agreed that there would be no secrets and no areas would be 'out of bounds'.

Mr Hodgeson said: "It's the first time I have ever sat down with my customer and my customer's customer. It's helped me understand what they want and why. I also have a much better understanding of my competitors and the standards I need to grow my business."

Meanwhile, Whitbread/Beefeater was so impressed that it intends to apply the VCA approach to other areas of its business.

Although the search for the perfect steak had involved a lot of effort and time, "it has identified significant savings for Beefeater," said category manager Nick Martell-Bundock. end quote [extract from Focus the Food Chain Centre's Summer 2004 Publication]

Processor quote: *Tesco strengthens sausage chain.*

Tesco has ambitious plans to boost the efficiency of its pork sausage supply chain, as part of a project organized by the Food Chain Centre and the Red Meat Industry Forum.

The initiative was set up to find ways for all those involved in the process of getting pork sausages from farm to supermarket shelf to reduce waste and downtime. It is being spearheaded by a team comprising a farmer, a pig marketing company, an abattoir, a sausage manufacturer and the retailer itself. The idea behind a team drawn from every stage of the pork sausage supply chain was to identify and implement improvements that companies could not achieve working alone.

"For the first time we had the opportunity to work together with all partners in the supply chain to make decisions based on a clear and analytical understanding of the whole picture," said Tony Suckling, director of the pig marketing company Porcofram.

Understanding the needs of the final consumer has been key for all suppliers. Pig farmer Jon Easey said: "This is the first time I have been directly involved in a constructive project with any chain members beyond my immediate customer. The opportunity to work directly with the retailer was particularly valuable in understanding what the customer really wants."

Some of the challenges identified by the team included:

** Despite seeing examples of industry best practice, almost 20% of production was lost through mortality rates, rejects, damaged goods and the like.*

- * *Total product transport was 500 miles or 31 hours, including 180 miles for live pigs;*
- * *Average on-shelf life product availability was less than 95%, well below Tesco's target figure;*
- * *it took seven days for stock to travel from abattoir to supermarket, or 185 hours from farm to shelf. During this time, "value adding time" - the time during which the product is being transformed rather than just waiting or being moved - was just 1.4 hours.*

The group wants to cut defects and losses by half - this includes everything from pig mortality at the farm, to rejects in processing, damage in transit and theft and unsold products in retailing. It also plans to cut by 74% the time the pigs spend travelling and by a fifth the total time from farm to shelf.

The group has proposed radical changes to the supply chain, including restructuring the pig supply network and the production line, and new packaging and procedures in store. Changes have been made on the principle that companies reap any cost savings in proportion to the investment made, with every partner benefiting from the sales uplift from a better delivery and quality performance.

Every member of the group visited each site and stage of the supply chain and was able to make suggestions on making it more efficient. The investment in time was significant: each member had to devote 10 days to the project over three months.

The team's recommendations include:

- * *Improving the system of pig production through better feed rations, reducing transport times e.g. by linking farms and abattoirs in the same area.*
- * *A more automated meat processing plant, with rapid chillers and ultrasonic devices to check the value of carcasses for different consumer products more accurately.*
- * *A leaner flow line for the sausage manufacture to reduce physical handling;*
- * *A better way for shop staff to identify different products in their cases in the back store to improve on-shelf availability.*

Tesco's Matt Simister, category director for meat, poultry and fish, said the project has got off to a "great start", adding: "We have a framework to work co-operatively with our entire supply chain and to make improvements that will benefit British farmers and processors as well as Tesco, and, most importantly, the consumer." End quote

[extract from Focus the Food Chain Centre's Summer 2004 Publication]

c. Quality Filter Mapping

Quote: *The three components of the quality measure are total loss, partial loss and rework. It uses case study data from a lamb chain to investigate losses through breeding, production, processing, and distribution to the retail shelf. The paper reports findings in terms of quality figures for total loss, partial loss, rework/ repair and administration. This evidence highlights quality issues in breeding, production, processing, and retail store.* end Quote

[Supply Chain Quality Analysis in the UK Red Meat Industry]

The resulting map identified three different types of quality defects that may occur in the supply chain.

- ❖ Product defects – are defined as defects in goods produced that are not caught by in-line or end-of-line inspections and are therefore passed on to customers.
- ❖ Service Defect – is problems given to a customer that are not directly related to the goods themselves (late or early) together with incorrect paper work or documentation.
- ❖ Internal scrap – refers to defects produced in a company that have been caught by in-line or end-of-line inspection.

The researchers identified areas that had:

- ❖ Total Loss (TL) - example given mortality of livestock
- ❖ Partial Loss (PL) - example given quality of the butchery
- ❖ Rework/Repair (R) - example given repackaging required as a result of damage

With ostrich the area of Total Loss we can all identify with is the mortality aspect, as it is continually being referenced as a major factor affecting profitability. We can add total loss of eggs that never get to the incubator or fail to hatch.

Areas of Partial loss I have repeatedly witnessed are things like:

- ❖ skin damage during farm production
- ❖ skin damage from nicking at removal
- ❖ damage to the muscles during skin removal
- ❖ bruising
- ❖ pale coloured meat requiring removal
- ❖ inefficient boning out

d. Value Stream Mapping

Value stream mapping is a paper and pencil tool that helps you to see and understand the flow of material and information as a product or service makes its way through the value stream. Value Stream Mapping gives you the tools to stand back and identify the waste in your business and to streamline processes to get rid of waste. Think of it as your personal magnifying glass and your source for solutions to eliminate that waste.

Value stream mapping:

1. Gathers and displays a broader range of information than a typical process map.
2. Tends to be at a higher level (5-10 boxes) than many process maps.
3. Tends to be used at a broader level, i.e. from receiving of raw material to delivery of finished goods.
4. Tends to be used to identify where to focus future projects, subprojects, and/or kaizen events.

A value stream map takes into account not only the activity of the product, but the management and information systems that support the basic process. This is especially helpful when working to reduce cycle time, because you gain insight into the decision making flow in addition to the process flow. It is actually a Lean tool.

The basic idea is to first map your process, then above it map the information flow that enables the process to occur.

In one project the team followed the process from farm to plate for a full 7 days. This study highlighted that from breeding to the shelf 62% of product survived the journey to the shelf, 64% did so without partial loss and 54% required no rework, they calculated a chain quality effectiveness of 23%. This provides a benchmark figure to evaluate future performance.

e. Time Mapping

It is interesting to note that under time mapping the scientists were challenged to quantify time taken by maturation during the post slaughter phase of the value adding process and concluded Time Mapping could not easily be applied at the value adding stage of red meat production. The lack of experience at the livestock rearing end of the chain was exposed in this area as I could find no reference to time mapping during the farm production portion of the production process where there are many areas to introduce cost savings as a direct result of incorporating the right management systems. Some examples are:

- shortening the age to slaughter
- incorporating efficient feeding systems that do not compromise feed conversion efficiencies
- the impact of the stockman on production (challenging to quantify under any scientific criteria, but of critical value to any production livestock operation)
- pen layout for feeding and cleaning

The profitable main stream livestock operations are extremely efficient in these areas.

Some areas of particular interest to ostrich:

- The significant positive impact on profitability of slaughtering many weeks earlier than is currently the norm (and with increased meat yields over the current industry very poor average).
- Many feeding systems used with ostrich currently require entry into the pen. Significant time savings can be achieved with fence line feeding.
- Time saved with fence line feeding introduces further benefits, such as:
 - More frequent feeding times to achieve increased feed intake resulting in faster growth and improved feed conversion
 - Improved ability to observe feed intake
 - Improved ability to clean feed troughs
 - Improved ability for management to observe staff standards of work

f. Summary

Meat production today is an industrial process. Consumers today in first world economies are looking for meat from animals that are raised in a respectful manner, but to achieve that still requires efficient systems for producers to remain competitive.

3. South African Ostrich Meat Exports Resume

The South African Ostrich industry made the announcement at Anuga earlier this month that the EU has lifted the ban on export of ostrich meat. Still operating a 14 month slaughter policy, the announcement has come at the start of their new slaughter season.

4. Klein Karoo take over Exotan

The Klein Karoo have announced they have taken over Exotan, the exotic skin tannery based in Port Elizabeth. Exotan were shareholders in Camdeboo Slaughter Plant based at Graaff-Reinett, more recently operating as Camexo.

This move will undoubtedly be a direct result of the devastation the Avian Influenza outbreak caused to the Eastern Cape Ostrich Production. The Eastern Cape producers culled on farm all infected birds immediately; the cull included a large number of breeders. The same rules were not applied to the producers in the Western Cape, the majority who supply the Klein Karoo. The Western Cape slaughtered birds in the normal manner and have placed restrictions on movement on all breeders that potentially could have been exposed to the infection, but they were not forced to cull those breeders in the same way as the Eastern Cape producers. The September update from the OIE can be viewed at http://www.oie.int/eng/info/hebdo/AIS_51.HTM#Sec3.

5. 3rd Annual General Meeting

A reminder that the 3rd Annual General meeting of the World Ostrich Association will be held at 33 Eden Grange, Little Corby, Carlisle, UK on Tuesday, 15th November, 2005 at 17:00 hrs GMT. This meeting will be held with simultaneous broadcast to the WOA Chat room so all WOA membership can participate in the meeting on-line.

Full details of the meeting (agenda, reports, accounts, voting form etc.) can be found at www.world-ostrich.org/member/agm2005.htm

To check your local time please go to www.amadeus.net/home/worldtime/en/wt_en.htm

6. Contributions

As always, I ask for contributions from Country Liaisons and other members. A sharing of your experiences, what is happening in your area - anything you believe that would be of interest to other members. Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 33 – December, 2005

Part 1

1. Introduction

2. Report on 2005 International Ostrich Industrialization Congress, the World Ostrich Development Congress XII and International Ostrich Industry Development Situation

Part 2

3. Need for International Cooperation

4. Supply

5. Price

6. Technology

7. Decrease Costs of Production and Improve Quality of Products

8. AGM

9. Avian Influenza

10. Thank You and More Contributions

1. Introduction

Mr. Yang Haomin, president of IKO Ostrich Company in China and host and organiser of the conference held in China in March 2003 has recently visited a number of countries and attended several International conferences. Mr. Yang Haomin's aim was to gain a clearer understanding of our industry and he has submitted a report to summarise his findings. This report will form the basis of this months newsletter. As we are using email format, the newsletter will be in two parts.

Part 1: The Report

Part 2: Discussion on Mr. Yang Haomin's findings

Please thank Mr. Yang Haomin for producing the report and ensuring it was translated so all members can read it.

2. Report on 2005 International Ostrich Industrialization Congress, the World Ostrich Development Congress XII and International Ostrich Industry Development Situation

July 30- June 3, 2005 general manager of Shaan Xi Land Reclamation Group, president of IKO Ostrich Limited Company and vice leader of China Ostrich Breeding and Developing Association Yang Haomin attended 2005 International Ostrich Industrialization Congress. Later following the team of China Economy Trade Committee Mr. Yang Haomin inspected ostrich industry and market in Russia, South Africa and Brazil etc. October 10 -17, 2005 Mr. Yang Haomin attended the World Ostrich Development Congress XII in Spain, and inspected ostrich industry and market in Spain and Italy.

This report is a summarization of the two congresses, inspections and situation of world ostrich industry.

1. Brief of 2005 International Industrialization Congress

International Industrialization Conference was held in Ukraine July 30 – June 3, 2005. There were 119 delegates from 13 countries and regions.

The subjects of the congress were development of ostrich products, market, ostrich breeding technologies, strategy of developing ostrich industry as well as establishment of North European new ostrich producing area etc.

Mr. Yang Haomin gave a special report named "Endeavour to Inaugurate a New International Ostrich Producing Area". He impelled on the basis of mutual benefit all the world's ostrich breeding enterprises to be united, exchanging techniques, developing market and making full use of advantages.

This congress stressed market, trade, cooperation, the union as well as mutual benefits; prospected development of world ostrich industry; analyzed regional advantages of developing ostrich industry and emphasized information communication and importance of the union. The conference with strategy significance was a distinguished one in the history of Asian and East European ostrich industry.

ii. Brief of the World Ostrich Development Congress XII

The World Ostrich Development Congress XII took place in Madrid Spain, October 14-16, 2005. There were 30 countries attended the congress. They were delegates to ostrich breeding, processing and marketing; senior technological experts dealing with ostrich breeding and processing as well as chairmen of ostrich associations from the United States, Brazil, Belgium, Canada etc.

The subjects of the congress were international market for ostriches and strategic pattern, construction of ostrich producing bases, analysis of competition power of ostrich breeding enterprises, study of ostrich breeding technology, the way to produce high quality ostrich products and study of ostrich processing technology.

President Yang Haomin, on behalf of China Ostrich Breeding and Developing Association, gave the report named "China Will Become a New World Ostrich Producing Area" and Mr. Zhang Lao had an exchange of views on the matter of technology.

This congress displayed comprehensively the last word of the world ostrich industry, summarized the experience and lessons in the process of developing ostrich industry, studied, discussed and forecasted the trend of ostrich industry. This congress was a landmark with profound historic significance and important realistic meaning.

iii. Matter of market for ostrich products

When ostrich meat was introduced into European market, few people knew it. Ostrich meat held the market gradually depending on its high quality, and has showed huge market potential.

In Russia, ostrich meat is top grade delicacy to entertain guests. Previous Russian prime minister entertained the guests with ostrich meat on his son's wedding banquet. Several inspected supermarket in Italy all had sold ostrich meat previously. Now they stop because of lack supply and high price. Another main reason is that few people understand ostrich meat so the consumption rate is low. In Italy due to the BSE, price of ostrich meat had increased to Euro 40-50/kg. Current prices of ostrich meat on international market: the factory price of ostrich meat in South Africa is 14USD/kg. The price increases to 17USD/kg air-ferried to Europe. In Britain, good ostrich fillet is Euro 25/kg. In Span, ostrich fillet is Euro 15-25/kg, and the factory price of the packed ostrich fillet is Euro 8.5-15/kg. In German, consumptive group of

ostrich meat is middle aged women. All the delegates in this congress believe ostrich industry has a great prospect.

Ostrich skin products in Italy are sold directly by factories. Few products can be found on the market. Only in one walking street, skin products, one kind is handbag, the other is female shoes, which are found in two stores. In South Africa, the price of finished skin is 17USD/square feet, top grade which is mainly marketed towards Europe. In Spain, ostrich skin shoes have 3 grades. One is ordinary shoes made from common skin in China with characteristic of comfort. They are sold at the price of Euro 100-200/pair. One is middle grade, produced in Spain with characteristics of brand, good skin and fine make. Another is top grade world famous brand with wonderful skin, splendid make as well as high attached brand value, which can also be found in emporiums in big cities of Beijing, Xian etc.

Russia has many special stores selling ostrich products. Moscow Second International airport has a middle sized special store for ostrich products. The products are mainly imported from South Africa. Prices of the shoes are Euro700-1250. And one of Gallo famous ostrich skin bags is sold at the price of over Euro 1000. It was observed that 1/3 products in the stores had been sold up in one week and supplemented by new ones. All the travel sites in Brazil and South Africa sell middle grade ostrich products. Grade 4-1 are sold at the prices of Euro100-105/sheet in European and US markets, and California is the main market for producing and consuming ostrich skins. Compared to that of meat, skins have great profit space because of attached value of brand.

From the above, it can be concluded that currently, two main markets for skin and meat have opened up, which are in urgent need of large supply of goods. For example one of France enterprises demands 30 tons of meat, but it is hard to find supply.

iv. Distribution Patterns of ostrich breeding in the world

Since the 1990s, ostrich industry has been developing steadily and appeared five patterns:

Firstly: European ostrich breeding area

Advantages:

1. Being near and low doorsill to market. The dominant problem of marketing meat in the area is disease prevention.
2. Strong ability to process. Two slaughtering plants in Spain can provide 10,000 ostriches.

Disadvantages: high cost of production

1. High labour cost at the price of Euro 100-600/person.
2. High price of feedstuff. For example, alfalfa is Euro 160/ton, corn is Euro 180/ton, and soya bean is more expensive.

Secondly: African ostrich breeding bases represented by South Africa.

Advantages:

Mature technology scale and market and Europe is the main market for the meat and the skin.

Disadvantages: high cost of production

1. Technicians are paid USD 300-400/month. Ordinary workers are paid USD 160-200/month.
2. High cost of feedstuff. Corn is USD 130-140/ton, and alfalfa is USD/ton. In recent years, due to Bird Flu and high cost of breeding, ostrich production is decreasing. In

2003 South Africa produced 280,000 commercial ostriches, 250,000 ostriches in 2004, and 230,000 ostriches is estimated in 2005.

Thirdly, South America ostrich breeding areas represented by Brazil

Advantages:

Huge potential, good policy, strong economic base and favourable natural conditions and climate.

Brazil first introduced breeders from South Africa and European countries in 1995. Currently Brazil possesses 200,000 breeders with an annual production capacity of 200,000-300,000 commercial ostriches. Most ostrich breeding farms in Brazil are middle sized, with 100-500 breeders and the largest one plans to reach 3,600 breeders. Ostrich industry is developing rapidly in South American countries.

Fourthly: Eastern European ostrich breeding areas represented by Poland and Russia

Advantages:

Large land area, abundant feedstuff, low price of land, low cost labour force, and being near to EU market.

Disadvantages:

1. Long winter which is unfavourable to exert ostrich breeding ability.
2. Large investment of infrastructure.

Fifthly: Asian ostrich breeding areas represented by China

Advantages:

Favourable climate for ostrich to live, abundant land and low cost of feedstuff and labour force.

Making a comprehensive view of the five patterns, it can be concluded:

In terms of market: EU market is NO.1, South America NO.2, Eastern Europe NO.3, then Asia.

In terms of competition: Asia, represented by China is the strongest, then Eastern Europe, then South America, then South Africa and then EU.

China has done a lot in respects of developing by-products, producing high quality ostrich products, decreasing the cost, increasing the profit of ostrich industry, and exerting the advantages of ostriches.

v. Matter of processing ostrich products

According to the Madrid Congress and from personal visits, it can be said that every country dealing with ostrich breeding has mature technology. China's breeding and processing technologies have also reached international level. The current problem exists in Chinese market is high demand and low supply. In addition, the way to decrease the cost of managing, breeding, processing and marketing combined with improvement in the quality of products need to be tackled as matter of urgency.

vi. Matter of uniting ostrich industry

Union of ostrich industry is a necessity. Ostrich industry should be impelled in different way at different levels, which includes union of every ostrich association, union of every ostrich country, union of regions and union of enterprises. Only by union can ostrich industry realize the unification of breed, management, process, and brand and achieve intensivism, industrialism, standardization and commercialization.

Part 2

3. Need for International Cooperation

Quote: *He impelled on the basis of mutual benefit all the world's ostrich breeding enterprises to be united, exchanging techniques, developing market and making full use of advantages.*

This congress stressed market, trade, cooperation, the union as well as mutual benefits; prospected development of world ostrich industry; analyzed regional advantages of developing ostrich industry and emphasized information communication and importance of the union. The conference with strategy significance was a distinguished one in the history of Asian and East European ostrich industry. End quote:

Quote: *Union of ostrich industry is necessity. Only by union can ostrich industry realize the unification of breed, management, process and brand and achieve intensification, industrialisation, standardization and commercialisation.* End quote

Your directors agree that there is a very strong need for greater cooperation and have been advocating this approach for a number of years. The World Ostrich Association is an important component development of cooperation and a strong environment for market development.

Stan Stewart, your Chairman, proposed the development of WOMRAD in January to act as a mechanism to develop marketing and cooperation - WOMRAD is the solution to the aspects that Mr. Yang Haomin has identified. It was first discussed in the January Newsletter, No. 22. <http://www.world-ostrich.org/member/news22.htm>

4. Supply

Quote: *Now they stop because of lack supply and high price.* end quote

Quote: *From the above it can be concluded that currently, two main markets for skin and meat have opened up, which are in urgent need of large supply of goods.* end quote

Quote: *The current problem exists in Chinese market is high demand and low supply.* end quote

The factor of LACK OF SUPPLY is the key issue that needs to be addressed by our industry. There is a market interested in our products, but it is very difficult to market a product that is inconsistent in supply, variable in quality and variable in price. For the most part Ostrich continue to be produced under 1950 and 1960 technology and this makes it very difficult to be competitive in today's market. We have a specie that with the ability to be as efficient as the poultry and pig industries have achieved over the past few decades.

5. Price

Prices for ostrich meat, if supply is available, are strong. We can strengthen our marketing by following the grading system we have in place. A grading system has two main functions:

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- It is a producer/processor program to enable processors to reward producers for quality
- It is a marketing program to enable the buyers and consumers to understand more about the product they are buying

Buyer and consumer education is required as this is a new meat product and it has been very variable. This type of education would form part of a marketing program. Developing strong marketing campaigns cost a great deal of money. Global Ostrich production today is fragmented and at a level that it can be measured only against single production units of other species. This is another reason for cooperation and the need for a commercial entity like WOMRAD to consolidate and unite the current production.

It will be necessary to maintain a strong price for our meat while we build up our breeder herd and raise the standards of production to become more efficient.

6. Technology

Quote: ***According to the Madrid Congress and from personal visits, it can be said that every country dealing with ostrich breeding has mature technology.***

End quote

If the most mature technology is being used:

- Why is average production considered good if 20 slaughter birds per hen are achieved for a bird that is known to produce in excess of 100 eggs in a season and herd averages of 60 plus per annum are well recorded?
- When average meat yields remain at 25 - 30 kilograms when over 50 kilos have been reported as achieved on a regular basis in birds of 12 months.
- Why chick mortality continues to be considered a major threat to the industry?

The way to bring down the costs of production is to increase the production.

7. Decrease Costs of Production and improve quality of products

Quote: ***In addition, the way to decrease the cost of managing, breeding, processing and marketing, combined with improvement in the quality of the products need to be tackled as a matter of urgency.*** End quote

All readers will know this to be the same message that your directors have been sending for many years and providing solutions.

Some members have already expressed their support for the development of such a program. Are there any more of you who would be interested in developing WOMRAD (World Ostrich Marketing Research and Development) as a mechanism to solve these issues?

8. AGM

The AGM took place on 15th November, with follow up discussions on the list for topics that fall under Any Other Business. Topics discussed were:

1. To organise WOA conference in different WOA regions.
2. Reorganisation of WOA regions (yes or no and suggestions).
3. How to become more engaged with other associations and societies.
4. Suggested ways to help WOA members to market their products
5. Research Projects update

The Minutes and AOB supplement to the minutes are now available on the web site.

9. Avian Influenza

The H5N1 high pathogenic Avian Influenza strain that is currently hitting the headlines is a cause for concern for producers of any birds, including ostrich producers. Your directors are receiving requests for information and advise.

DEFRA (Department for Environment, Food and Rural Affairs) here in England are currently holding meetings around the country to enable producers and processors to ask questions, learn what is known already and take advise on how to minimise risk of contamination on their units.

The key factors:

- a. Transmission is through faecal material.
- b. The only aerial transmission is through dust containing infected faecal material.
- c. Maximum transmission 1/2 kilometre
- d. Wild birds are the major threat to transmission on a global basis.
- e. "High standards" of biosecurity is the first line of defence
- f. Where possible feed and water birds indoors
- g. Minimise exposure to wild birds
- h. It is essential to discuss vaccination with your local veterinary services as each country has their own rules and regulations on vaccination.
- i. At this time no vaccine is EU approved for birds destined for human consumption or for birds producing eggs for human consumption.

We will publish shortly some guide lines on how the advise should be applied to Ostrich.

10. Thank You and More Contributions Please

Thank you Mr. Yang Haomin for your detailed report and as always, I ask for contributions from Country Liaisons and other members. Please can more of you take the time to contribute? Any contributions for inclusion in future news letters please send to Fiona at editor@world-ostrich.org.

Issue No. 34 – January 2006

1. **New Year Greetings**
2. **Avian Influenza**
3. **Introducing Alan Benyon**
4. **Country Liaison Report from Iran**
5. **Published Papers**
6. **Production Starts with the Breeders**
7. **Benchmarking Ostrich Production**
8. **Guidelines on Avian Influenza for Ostrich**
9. **Contributions**

1. **New Year Greetings**

May I take this opportunity to wish all members a very happy and prosperous New Year.

2. **Avian Influenza**

It is traditional at the start of a new year to review events of importance during the previous year, in our case events that may prove to have significant impact on the future development of our fledgling industry.

The year was dominated by Avian Influenza from two sources, H5N2 in South African Ostriches and the fears of H5N1 spreading globally.

A. South Africa

The effects of the outbreak of H5N2 outbreak in South African Ostriches again dominated the Ostrich market as it left 60% of current world ostrich meat production unavailable for export. That situation changed at the end of the year. The situation is a reminder to all that dependency on export markets alone can be a dangerous policy.

B. H5N1

To date no ostriches have been confirmed carrying the H5N1 virus, but the spread of the disease throughout the world is creating a greater awareness. The reason is because this strain has been transmitted to humans in direct contact with infected birds, with loss of life and of fears of the virus mutating to become transmissible human to human.

Your directors recognise the importance of providing leadership and a reference point for governments to seek advice and guidance when developing directives relating to Ostrich.

With that in mind we would like to introduce Alan Benyon.

3. **Introducing Alan Benyon**

Alan Benyon is a noted poultry vet in the UK with some experience of ostrich - including sustaining a collapsed lung some years ago from having been kicked while attempting to treat a large male!!

Alan is well respected in poultry circles and has considerable knowledge of treating and managing AI and Newcastle disease outbreaks in poultry. He is a dedicated advocate of the use of vaccination to control disease outbreaks and to do away with the mass destruction of perfectly healthy birds just on the off chance they may catch

the disease. He is especially keen to see breeding flocks and other valuable birds protected by vaccination.

Alan has agreed to act in an advisory capacity on aspects relating to Ostrich for the World Ostrich Association on a voluntary basis. Your directors thank Alan for taking on this essential responsibility to help the WOA provide the direction our members require.

4. Country Liaison Report from Iran

The following report has been received from IOFA, the country liaison for Iran.

Iran Interior Cooperative Company in Ostrich Farming

The 6 major and pioneer companies in Iran established Iran Ostrich Coordination Company which its main role is organizing production and marketing strategy for ostrich farms in Iran. IOFA as chairman of board of director is supervising all the relative activities.

According to the growing newcomer farms and interested individuals in the region, all the mentioned members by a wide unique aim decided to develop all the determine policies in ostrich industry in Iran, thus preventing any probable failure and cut out any other middle hand activities. As a result, Iran interior cooperative Company for ostrich industry has been established which will include more than 200 farmers in all different province of the country and IOFA would be the main member of directors for the company. The main objectives are:

- a. Establish a strategy for local ostrich market.
- b. Perform all customize strategy for ostrich by-products inside of country.
- c. Arrange scientific seminars and exhibition in ostrich farming.
- d. Arrange practical/theoretical training courses for ostrich farmers.
- e. Establish scientific committee in order to provide technical information to the farmers and consult with subsidiary ministries and organizations to utilize all the major policies and approve concerned regulations and for realizing all the executive instructions.
- f. Establish a jurisdiction council to settle any dispute between the farmers as well as to prevent any probable violation and disobedience.
- g. Issue ostrich scientific publications contain inside technical essays or translation of approved international articles under supervision of scientific committee in Iran cooperative Company in Ostrich Farming
- h. Design and construct ostrich farms.
- i. Control and check the quality of available ostriches for individual new farms
- j. Provide relative companies and service group to aid and train individual farmers.
- k. The International Poultry exhibition in Tehran ended while different companies from China, Turkey, etc. had been attended. IOFA also attended and as WOA CL to introduce WOA to the interested people for ostrich Industry which had been noticeable.

And now we are busy with another exhibition in the Northern Providence, Mazandaran, which I will inform you by the result.

Editor comment: Thank you for the report - as always regular reports are welcomed from our Country Liaisons.

5. Published Papers

There are an increasing number of papers published on Ostrich matters. The April issue, Newsletter No. 25 carried an item "Are Your Goals High Enough?" This item concluded:

Quote:

"Currently most every paper or study one reads proves beyond any doubt that our industry has to change the approach as producers cannot be commercially viable with such low levels of production per hen. End Quote

The 3rd International Ratite Science Symposium was held alongside the XII World Ostrich Congress in Madrid, in October. A detailed study of the papers published continues to prove the approach currently being used by the researchers is resulting in production levels that simply are not commercially viable for a sustainable commercial industry. From a personal viewpoint, I was disappointed to still see methods that are outdated in other specie being discussed for Ostrich in a number of different studies.

Ostrich have the potential to be as efficient as poultry and pig production - but it requires a totally different, more scientific and modern approach to those currently being reported in the papers presented at the symposium. They are some 40 or 50 years out of date and continue to explain why our industry has not progressed.

6. Production Starts with the Breeders

The opening paper discussed egg laying statistics.

Quote: ***The mean of 45.6 +/- 32.5 and high CV (coefficient of variation) of 72.9% for H (percentage of chicks hatched) indicates that just over 54% of eggs laid do not hatch.*** End quote. They went onto confirm that these were the findings of Kim Bunter, as we reported in Newsletter 25. The next statement:

Quote: ***A similar hatchability of 47% was obtained from approximately 23,000 eggs in the review by Cloete et al (1998).*** End Quote

Table 1 below is a combination of some other published results reported in the different papers from the Madrid conferences. The trend is the same - hatchability rates that are a key indicator of an industry that must progress out of this non-productive mode if it is to be successful. The knock on effect of these poor egg production statistics is weaker chicks that are more difficult to rear; an industry still measuring success on numbers of chicks kept alive; chicks that do not convert feed to their full genetic ability and chicks that take too long to finish.

Researcher	Fertility	Hatched Fertile	Hatched All Eggs	Eggs/ Chicks
Gansinger (1996)	61.5%	71.3%	43.8%	2.28
Jost (1993)	74.0%	47.5%	35.2%	2.84
Deeming (1995)	77.8%	51.5%	40.1%	2.49
Krawinkel (1994)	81.8%	48.8%	39.9%	2.51
Woor and Erhard (2005)	73.7%	69.0%	50.9%	1.96
Hayder Pair	77.0%	64.0%	49.3%	2.03
Hayder Trio	68.0%	60.0%	40.8%	2.45

Table 1 - Comparative Egg Production Statistics

Statistics missing from these figures of course are eggs per hen as that is also a most important production measure. Hayder reported incubating only a proportion of

egg production for management reasons. Woor and Erhard reported the number of eggs involved in the study, but not the number of hens producing those eggs or if they represented the whole production of those hens. Once in full production, total eggs laid are an important measure and not just fertility and hatching percentages.

Brand *et al* reported various studies representing genetic tracking. Their studies reported slightly improved egg conversion rates to those in the table 1, but not adequate to support a commercial industry. In the context of genetic tracking these egg to chick conversion rates prove without question that any genetic studies are flawed. These egg conversion rates prove the current malnutrition in the breeder flock. When malnutrition is present the true genetic potential is not able to be proved and misleading results may follow.

In 1995 Holle reported:

Quote: ***These ranchers report an average of 82.5% survival rate from EGGS LAID to 2 months of age. This includes fertility, hatchability, and chick survival. They also reported there were very few assisted hatches, no yolk sack infection problems, no leg problems, and very few problems with chicks going off feed. These farms also commented that Breeder pairs started mating earlier and are laying longer this year, despite the heat, than ever before. The eggs are more uniform in size with the best shell porosity they have seen. The evenly spaced, deeper pores of the shell allow easier incubation because of a more uniform weight loss. The chicks appear to be more resistant to bacterial and virus infections and are easier to raise than before.*** end quote

When reporting these findings, Holle also referenced the many nutrients that were included in the rations at significantly higher levels than are current industry norms. Breeders were not separated or moved in the off season, unless required for change of partnerships for genetic development. To date I have yet to see papers discussing production reference any of the nutrients reported in this study reported in any detail.

No Production, No industry and it all starts here with the breeders

7. Benchmarking for Ostrich

The May Newsletter, Issue No. 26, discussed Benchmarking. Benchmarking is a method of understanding the norms as achievable targets, but more importantly understanding that they are targets to be improved on. Agricultural production has survived the ongoing price/cost squeeze by continually improving production to reduce the unit costs of production.

Our fledgling industry lacks meaningful statistics and the above demonstrates the many pointers to why we have producers failing to make good profits. The place to develop the data is from the commercial industry's participants. The more information people are willing to share the more meaningful the information database we can build together to establish benchmark figures that are meaningful and productive for the industry.

Benchmarking records production statistics produced under commercial conditions to help commercial producers have something to measure their performance, analyse their performance against measurable criteria and work to improve their performance. If they are not achieving the right performance levels, start asking questions as to why.

A committee of "The Blue Mountain International Ostrich Alliance" (BMIOA) produced a set of performance criteria as a foundation for identifying and grading birds with superior genetics. As a starting point your directors over the next few weeks will review those figures and publish a set of benchmark standards based on the following measurable criteria and current known information?

Measurable criteria are:

Breeder Birds

Key measurements

- Slaughter Bird/Adult Birds per hen
- Meat production per hen [see note 1]
- Breeder Cost per Day Old Chick
- Incubation Cost per hatched Chick

Measurements to observe where weak areas or failures may be to areas that identify need for special attention.

- Eggs Laid per hen - Number
- Eggs set %
- Fertile %
- Hatched % of Eggs Set
- Hatched % of Fertile
- Eggs per Chick
- Chick Mortality to week 2
- Chick Mortality to week 13
- Chick Mortality to Slaughter or transfer to Breeder Herd

Slaughter Bird Production:

Key Measurements [see note 2]

- Feed Conversion
- Total Boneless Meat
- Days to Slaughter
- Feed Costs to Slaughter
- Carcass Grade

Measurements to observe where weak areas or failures may be to identify areas that need special attention.

- Liveweight [see note 3]
- Liveweight to Carcass %
- Carcass to Boneless Meat %
- Liveweight to Boneless Meat %
- Fat Weight
- Fat % of Liveweight
- Fat Colour
- Individual Muscle Weights [see note 4]

Breeder Bird Replacement:

- Age at Puberty
ie. hen - first fertile egg laid, male - first egg fertilised
- Progeny Performance
for all production selection criteria being developed in the herd [see note 5]

Note 1

The Slaughter Bird/Adult Birds per hen is the most meaningful figure.

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Number of Eggs is meaningless unless Eggs are viable and produce strong, viable chicks.

40 Chicks/hen producing 45 kilos of boneless meat is more valuable than 80 chicks/hen producing 25kilos of boneless meat.

The definitions of Carcass and Boneless meat for measurement purposes need to be adhered to

Note 2

Feed conversion is a critical measurement that is controlled by:

- quality of chick at hatch
- production potential of feed from day 1 to slaughter
- feed management
- farm management (includes environment)
- bird genetics
- desired slaughter weight
- combined with correct feather development to provide high quality skin

Days to Slaughter - earlier slaughter:

- reduces feed consumed
- chick quality at hatch influences days to slaughter
- faster return on working capital
- less infrastructure and space required

Carcass Grade

- increases revenue
- requires marketing to educate market on carcass grades

Note 3

Liveweight:

- use in association with the following statistics
- Liveweight to boneless meat
- Liveweight to carcass
- carcass to boneless meat

Boneless meat produces revenue

Note 4

Individual Muscle weights

- Certain muscles are greater value than other muscles
- Genetic selection can include development of body shape to enhance size of valuable muscles, such as the Fan
- Current published muscle weights prove the tremendous variations and potential

Note 5

The relevant progeny performance will be the traits the farm is selecting for. It maybe:

- Egg production - greatest number of eggs produced
- Meat Production - development of confirmation that results in larger primary muscles, especially the fan
- Leather - particular follicle style
- Fat - good oil market, genetics that produce good fat
- Feed Conversion - the genetics that convert feed the most efficiently
- Large size

All measurable criteria will be observed with individual traits weighted as being more important than other traits.

8. Guidelines on Avian Influenza for Ostrich

Guidelines on handling Avian Influenza as they apply to Ostrich are now available as a clickable link on the web site - <http://www.world-ostrich.org>. We have made them available to all and not confined them to members only as this is an important issue. We will consistently review and update information on Avian Influenza and other diseases as greater knowledge becomes available and as appropriate.

9. Contributions

As always we ask for contributions. Please contribute to the discussion to develop the benchmarking criteria for ostrich. Your directors will publish figures - but we need feed back and communication to help all members understand all the factors that control these figures. If you do not agree with any figures speak out and say why you do not agree.

Issue No. 35 – February 2006

1. **Ostrich Benchmark Performance Targets**
2. **Meat Muscle Sizes**
3. **Skins and Meat**
4. **Pricing Meat**
5. **The Role of the WOA Supporting Meat Marketing and Pricing**
6. **WOA Logo - Usage by Members.**
7. **Contributions**

1. Ostrich Benchmark Performance Targets

The January newsletter, Newsletter No. 34, set out a number of measurable criteria against which to set benchmark performance targets. We have now added the figures and they will be posted as a supplement to this newsletter. The figures will also be posted on the public page of the web site and have PDF and word versions downloadable for printing. Those versions carry the WOA logo.

Talking to some of you, I know you are certain that what many believe are unachievable targets are actually very achievable in the future. You have seen the huge impact of more modern management systems on your production. If any of you consider that we may have underestimated the improvements, then please feel free to comment.

While the industry has been struggling to establish commercial production, many factors have influenced production negatively. Once those are corrected these negative influences can be reversed and the next generation of production livestock will see steady improvement under the right management systems.

2. Meat Muscle Sizes

Included in the benchmark figures are target weights for individual muscle sizes. It was 1997 when I first became aware that birds were being produced in the United States with boneless meat yields equivalent to the South African carcass weights. The table below proves the type of yields being achieved at that time, but rarely seen today.

Muscle US Names	IOA Meat Chart Weights^[1]	AOA Meat Chart Weights^[2]	BM Recorded Weights^[3]
Fan #OS1046	+/- 1500 grams	1730 – 2140 grams	2341 grams
Oyster #OS1045	+/- 300 grams	730 – 760 grams	1114 grams
Round #OS1035	+/- 1000 grams	1770 – 2090 grams	2091 grams
Outside Strip #OS1036	+/- 300 grams	545 – 635 grams	636 grams
Inside Strip #OS1050	+/- 300 grams	545 – 680 grams	818 grams

Table 1 - Comparative Muscle Weights

During a period when mainstream species have become increasingly efficient, why has Ostrich production gone in a reverse direction?

The US industry, along with all other countries starting ostrich production at that time, have till now failed to make a successful transition from breeder market to commercial production. Many farmers went out of business and many of those

remaining were involved in exporting birds to countries starting ostrich production.

During that time nutrition for the birds deteriorated in most areas, to keep costs down because they had little or no cash flow. The result has been breeder production deteriorating; high chick mortality and birds have progressively become smaller.

It is reasonable to expect it to take 5 years from introducing intensive management systems, supported by the right nutritional technology, to reverse this trend and get back on track to where the top producers were in the mid 1990's in the United States. The 5 year target figures allow for weights to be achieved consistently at younger ages. The 10 year figures will depend on market conditions – will the market look for larger muscles or the smaller muscles at much younger ages? It maybe a mixture of both, but larger birds are very much cheaper to process and larger muscles provide greater flexibility.

3. Skin and Meat

There will be some who may consider that to bring slaughter forward to an earlier age will result in skins that are not acceptable to the market. Birds raised on rations that produce good muscle weight at younger age are proving to have skins totally acceptable to the market.

In discussions with tanneries while still living in South Africa I have been asked “what do we tell the farmers”. Their experience was that whilst they knew some younger birds were being received with acceptable skins, too many simply were not acceptable. So it was simplest to use a determination by age. My suggestion was to use feather development as the guide.

When fed rations of high nutrient density suitable for good health, excellent feed conversion and fast growth the feathers also develop faster as the overall health of a bird is so much improved. When short on nutrients, the birds will put the nutrients to body maintenance and growth before feather development.

The added bonus is that younger skins are proven to yield a higher percentage of grade one skins.

So feeding correctly for meat production has the benefit of earlier slaughter, significantly increased meat yields, better quality meat and improved skin quality.

4. Pricing Meat

The selling price of the meat is always a contentious issue with many factors influencing the selling price. The aim is to produce product that one can sell for a price greater than the cost of production, but those production costs must be reasonable and the end product acceptable to the market.

The following are just some of the factors that influence price:

The market serviced

Is your buyer sourcing from many sources and simply paying the lowest possible price with little concern for quality or sustainability of supply, is the buyer a high end outlet seeking quality product with security of supply; is the buyer supplying a Supermarket and treating the meat as a commodity; are you selling retail. The country of course makes a difference also as cultures are different and local economies vary.

Volume

Volume and economies of scale has a significant impact on price. Not just the impact on production costs, but also the markets one can service. Many markets are simply not available as the current volume of Ostrich produced is simply too low. This also applies to the marketing of the skins.

Quality

Over the period that Ostrich production has been spreading around the world, the main stream livestock specie have not only been achieving greater efficiencies, they have also recognised the importance of quality and grading to support their marketing. Item 4 in Newsletter No. 22 <http://www.world-ostrich.org/member/news22.htm>, discussed the many issues that are perceived as quality issues by the customer. To achieve the best prices we need to be controlling all these things.

Grading systems are required to differentiate the quality between animals produced in different ways. The importance of this is that it enables the buyers to know what to expect and establish price differentials.

Cuts

Some muscles are tougher than others; some are easier to steak out than others; some are smaller than others – these are all issues influencing price.

Reliability of Supply

When working with livestock that are inconsistent in egg production, converting no more than 50% of eggs laid to hatched chicks and high levels of mortality that can wipe out a large proportion of those hatched chicks, it is not possible to guarantee consistency in supply. This also increases the costs of production to uneconomic levels and therefore forces dependency on the sale of skins at unrealistically high prices.

Consider that the majority of the meat sold continues to be from a single country that over the course of the last 12 years has had 3 incidents when the meat has not been able to be exported to their main markets as a result of disease. This is a further aspect that causes inconsistencies in supply.

Competition

Competition comes from other ostrich producers and from other meat specie. While our industry remains so small, the competition between producers could be mitigated by working in greater cooperation.

The WOA cannot set prices, but, with member's participation and cooperation, it can help build an infrastructure to support members achieve better prices.

5. The Role of the WOA Supporting Meat Marketing and Pricing

The major areas the WOA provides support are:

Communication and Education

Industry associations are usually industry member driven. Our industry is new and immature so many of our members have joined to learn to look for guidance and learn.

Meat Grading

We have a grading system in place, but this can only have value to members if members actually use it.

The first steps to utilise the system are:

- To develop an education system that educates the market and ensure that all members fully understand the differences
- To develop an education system that educates our members to understand the system

Health Issues and Policies

Disease and health issues and how they are handled with the state veterinary authorities of different countries are an extremely important part of marketing. Foot and Mouth, Avian Influenza (AI), Swine Fever, Newcastle Disease and BSE are all examples of diseases that impact severely on industries when outbreaks occur in a region or country when dependent on export markets.

The WOA, with members support and participation, can develop strategies and a communication network to authorities. This is particularly important while our industry is immature, the future as a large scale industry is dependent on a strong meat market and the largest single supplier to the ostrich meat market is on record stating the need to limit production to protect the high value of skins.

6. WOA Logo - Usage by Members

Your directors have been informed that a member is using the WOA logo on their product labelling. Members are not entitled to use the WOA logo as there could be a danger that buyers assume certain standards are being achieved.

Standards must be enforced and a verification process to provide certification of that fact for the WOA to be of value in marketing. Simply being a member is not a guarantee that certain standards are being achieved by that member. Any member using the WOA logo who may not be producing to the right standard of product or service can have a negative effect on the rest of the members and that is the reason a full verification and certification program must be in place before membership of the WOA can be used for marketing purposes.

Your directors do support development of a standards certification program as part of a marketing program if there is sufficient interest from members to support such a program.

The following statements are the conditions of use for the logo:

The WOA Logo is a valuable symbol and as such its use needs to be strictly controlled.

Generally use of the Logo by members is prohibited except in conjunction with a statement to the effect they are members of the Association.

The WOA Logo must not be used in any way to promote or imply that any products or services provided by a company or individual are approved of or endorsed by the WOA.

The WOA does not accept or imply any responsibility for any goods or services that are sold or provided under its Logo.

The WOA may allow the use of the logo but only when expressly authorised in writing and the goods or services have been vetted by the WOA or its representative and confirmed to have been produced or are in accordance with WOA standards.

Use of the Logo will only be authorised – except as in 1 - above on the payment of a fee to the WOA. This will be in addition to any expenses involved in the vetting procedure.

7. Contributions

As always we ask for contributions. Please contribute to the discussion to develop the benchmarking criteria for ostrich. We welcome feed back and communication to help all members understand all the factors that control these figures. If you do not agree with any figures speak out and say why you do not agree.

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- [\[1\] Average South African Muscle weights](#)
 - [\[2\] American Ostrich Association](#)
 - [\[3\] Blue Mountain Meats Cutting Sheet Data](#)

Issue No. 36 – March 2006

1. Avian Influenza
2. Breeder Valuation
3. Pricing Ostrich Meat
4. Ostrich Meat Grading
5. Developing WOA Logo for Marketing
6. Contributions

1. Avian Influenza

H5N1 Avian Influenza continues to be making the news as new outbreaks continue to be spread in the wild bird population. Many of you may have heard reference to Ostrich being slaughtered in Nigeria. These ostrich were on a very large poultry farm, that it is believed introduced the infection through importation of day old poultry chicks on a regular basis, over a number of years, from China. The ostriches were not confirmed as infected, they were culled as part of a mass control culling procedure.

We remind all our members to be vigilant and follow strict biosecurity measures as outlined on our web site. <http://www.world-ostrich.org/avianinf.htm>. We also remind our members of the need to liaise closely with your own government veterinary department. Please communicate your local situation or concerns with us either through the list at woa@world-ostrich.org or secretary@world-ostrich.org if you would like the message to be private. Please encourage as many people involved in ostrich as possible to join the WOA to enable the WOA to be an effective means of communication and support throughout our industry. This is especially important while this Avian Influenza virus is active and this is new ground even for the established poultry industries.

A reminder of the information on vaccinations provided by our Vet – Dr. Alan Benyon:

Quote: There are three companies producing vaccines being Intervet, Merial and Fort Dodge. The most used vaccines are inactivated i.e. dead virus and are in an oil based medium so must be injected into the bird and this need two injections two weeks apart. They take three weeks to protect the bird completely but a lot of protection is available in around one week. The vaccine is relatively cheap to use but any EU Country must apply to the EU for authorisation and this is done by the Government vets

We do not know how AI works in Ostriches and we do not understand how effective the vaccine is in Ostriches but I do know it has been used in South Africa and I have contacted a vet there to find out more. In any case in all other species the vaccine will offer protection to the bird and will reduce shedding of virus so will be a good thing to do. What we do not know is to what level this protection and reduction in shedding will be.

Many companies are using vaccine all over the world and are setting up monitoring to assess the effectiveness. If a Government will use vaccine such as in Italy we ought to encourage your members to contract myself or the vaccine Company and we can take bloods to get more information. There is a massive amount of work being done in many areas of AI but there are not enough people looking at it and there are more cases all the time!

The vaccine covers H5 and this will protect against all H5 viruses irrespective of the N component. Many vaccines are bivalent and hold H5 and H7 subtypes and this works well to cover all your options. End quote

Update from Dr. Alan Benyon:

Last week saw the first outbreak of H5N1 in farmed poultry in Europe. The outbreak was in a turkey farm in France in the same area that the infected wild Swans had been found. France is culling and using the Intervet H5H7H9 vaccine.

The latest EU directive has given a special dispensation to rare and exotic birds that have exceptional genetic material to be vaccinated. Ostrich may qualify under this directive and the European industry needs to apply as quickly as possible to their individual governments to have them accepted. Individual European producers are advised to request supplies of the vaccine from their respective government veterinary departments.

Note: Members operating in European Union countries need to observe European directives and also communicate directly with their local veterinary departments as each member country will have its own regulations as well.

2. Breeder Valuation

We have been asked by a member for our thoughts on how to value Ostrich breeders. One reason this becomes important is when compulsory culling becomes essential and governments are required to pay compensation. Governments are therefore seeking guidelines on how to value breeders. It is also an extremely important subject when purchasing new breeders and establishing a commercial price.

In order to accurately value a production breeder it is essential to have production records. A report entitled "Determining Poultry Indemnity Values: Examples and Lessons Learned from Poultry Disease Outbreaks in Canada and the United States" [1], published jointly by the USDA and Agriculture and Agri-Food Canada, discusses the issues related to valuing poultry for compensation during a recent Avian Influenza outbreak in the United States and Canada (not H5N1). In this report reference is made to a cull that took place in the Fraser Valley in British Columbia and the problems of valuing these specialty birds, which included Ostrich.

Quote: ***"The breeder birds were valued similarly to the breeding chickens and turkeys, except the value of these birds are much greater than is allowed under the Health of Animals Act. The meant that the majority of breeder specialty birds were not compensated for at their full market value, but were capped at the maximum value allowed under the act."*** End quote

Another aspect to bear in mind with Ostrich is the difference in Ostrich breeder production period by comparison to poultry. Ostrich breeders can be productive for up to 10 years and many reported productive for longer. By comparison a chicken layer has a laying period of around 60 weeks.

Avian Influenza is a real threat and I am sure all our members will agree that we need to put our industry onto a proper commercial footing as quickly as we can. Maintaining good records is an essential part of developing methods of valuing livestock – both meat animals and breeder stock. Also required to value livestock accurately is a strong commercial environment where producers are making fair

profits. To date our industry has been achieving substandard production figures that have left most producers uneconomic.

The only method currently used for valuing Ostrich is the “WPWP” system (“What People are Willing to Pay”). Anyone who has owned ostrich in a country after their breeder market has collapsed will have experienced prices that were several thousand dollars or even 10s of thousands of Dollars and finally having difficulty giving their birds away.

Your directors will develop some guidelines. Their recommendation for now is to put in place systems that reverse the causes of current poor production, support the WOMRAD [2] initiative to work collaboratively to develop markets and establish good records. Then should your operation be in the unfortunate situation of compulsory cull for whatever reason, there is a fair basis for valuing your livestock.

Most importantly there is a fair method to evaluate the purchase price of breeder stock when buying and selling. This is good for both the buyer and the seller. The seller of excellent proven stock can achieve a fair price and the buyer can have a mechanism to establish a fair value that will yield a positive return on investment – provided of course the correct management systems are utilised.

3. Pricing Ostrich Meat

How to price the meat has long been an issue for discussion and a situation aggravated by low volume, fragmented production selling to the same markets and inexperience - the inexperience of new producers and processors as well as buyers.

There are a number of factors that influence price and these include such things as:

- Volume – economies of scale
- Cut (e.g. muscle degree of tenderness, size, usability)
- Degree of preparation (e.g. whole muscle demembrated, muscles portioned to individual steaks)
- Quality/Grade
- Age
- Market (eg. wholesale, retail, restaurant)

Why is grading meat important as a mechanism to support meat pricing and marketing initiatives? A web search on meat grading comes up with some useful clues as to why it is an extremely important marketing tool, especially when there is significant variability of product as is currently the case with Ostrich. Any one with the opportunity to stand on an Ostrich slaughter line has seen the very significant variations from producer to producer.

One benefit of marketing under different grades is that the customer can differentiate between one supply and another and will have a better idea of what to expect, provided all participants have systems in place that grade their meat accurately. Different grades carry different price structures. Therefore working to produce high grade product, graded to recognised and agreed standards, is one method to achieve product differentiation in the market place and benefit from higher prices.

The WOA has created a grading system [3]. A maximum age of 16 months has been applied to Prime Grade. Individual companies can set their own standards even higher and produce birds slaughtered in less than 300 days, producing a very tender meat. In time this may become an industry standard to achieve Prime Grade. For

grading to be an effective marketing and pricing tool in a developing market place, such as ostrich at this time, it requires a large percentage of producers to be operating to these standards. This is particularly important while in excess of 60% of world's production remains supplied by a single source.

4. Ostrich Meat Grading

Many of our members have not attended conferences or training courses where the Grading system has been explained. To develop a better understanding, this section will discuss the main points of the system and their relevance:

There are 5 Grades: Prime, Choice, Select, Utility and Non-Food

Prime, Choice and Select Grade:

Prime grade is the best quality meat and will carry the highest market value.

Choice grade is a young cull breeder or bird held too long before slaughter. Some muscles will be less tender and lower value than Prime

Select is a cull breeder of any age over 24 months. Provided the breeder has been fed a good diet all her/his life - the meat will still be good tasting and a good colour. It will be tougher and therefore carry a lower price than Prime or Choice

To qualify for the relevant Grade a bird must satisfy every definition. The only difference with Prime, Choice and Select is bird age all other definitions are the same:

Bird Age - Prime

Definition: Less than 16 months.

Comment: As referenced above individual companies may choose to improve on this and only allow birds up to 300 days as their top grade to give additional competitive advantage. Perhaps this can be called Prime Plus?

Bird Age - Choice

Definition: 16 to 24 months of age

Comment: This category picks up birds that were not slaughtered prior to 16 months but still young enough to have some quality tender muscles

Bird Age - Select

Definition: 25 months of age and older

Comment: This will be all cull breeders that have been well raised and meet all the other criteria laid down for this category

Fat Pan Colour:

Definition: White Fat Pan Colour only

Comment: Birds can produce fat from Pure White to very deep yellow colour. Fat colour is a key indicator to bird health. When yellow fat is present, very often other negative factors can be seen on the bird that will influence the overall taste and appearance of the meat. The picture below is the Japanese Beef Grading and has been published as part of the marketing by a number of companies producing Beef as part of their marketing program. This web site is one such company: <http://www.blackgoldfarms.com.au/grading.html> Note how they not only discuss fat marbling they also have this colour chart for Fat Colour and Meat Colour - Figure 1. Ostrich fat is often seen very much more yellow than the lowest score given in this example. In this example of the Japanese Beef Grading system the higher the grade the more desirable the meat and the fat and colour chart, the lower the score the more desirable. The more desirable attributes will achieve the highest price.

Ideally an Ostrich slaughter bird should carry a fat pan of approximately 32-35mm thick. Too little fat is also a sign of malnutrition that can lead to variable tasting and poorly textured meat.

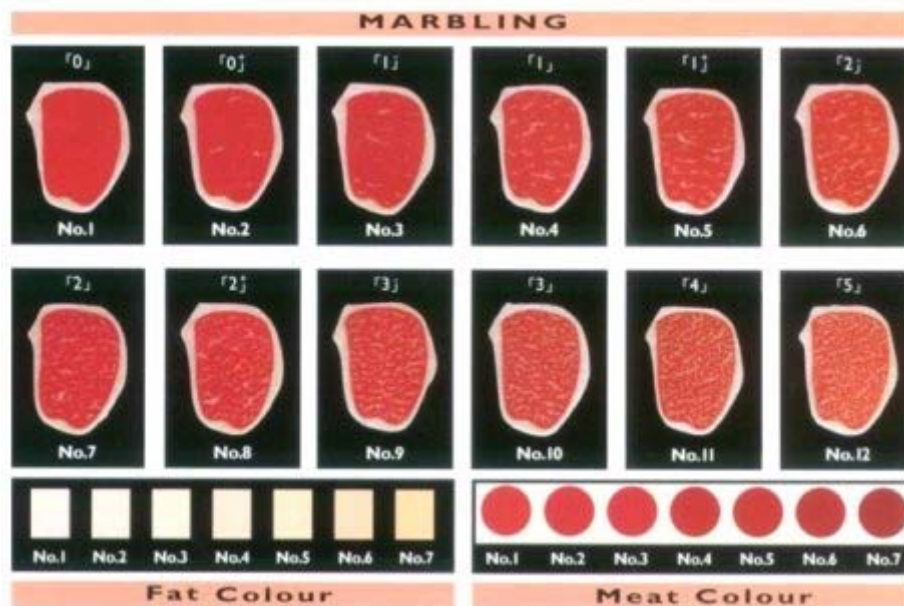


Figure 1 – Japanese Beef Grading

Muscle Colour:

Definition: Even red muscle colour throughout

Comment: Variable colour within the same muscle is a nutritional inadequacy and therefore controllable. The most common known variable colouration in single muscles is White Muscle Disease. If you ever see muscles of differing colour or some very pale or white muscle - corrective action needs to be taken. Apart from the affect on bird health and therefore economic performance, consumers are influenced by the colour and appearance of meat.[4] Muscle with the appearance of the Ostrich muscles in Figure 2 are not attractive to the consumer and commonly seen in our industry at this time. During one presentation an ostrich meat processor informed me that meat looking like this photograph was all he ever saw, he believed it to be normal. Meat from birds producing one or more muscles such as figure 2 will not qualify for Prime, Choice or Select Grade.



Figure 2 – Multi-Coloured Muscles

Heart Condition:

Definition: Heart of normal size, colour and texture, with no damage

Comment: A small heart, a heart surrounded by yellow fat, a heart that is a poor texture are all key indicators to malnutrition and it is commonly seen in ostrich today.

Liver Condition:

Definition: Mid-brown colour with no abscess/ulcerations

Comment: Many, if not all, slaughter plants that have slaughtered ostrich will be able to report extremely variable liver conditions - more variable than is commonly seen in mainstream livestock specie. When any abnormality of the liver is seen, the bird must be downgraded. The liver is a blood filtering organ and when the liver is not functioning to the optimum, there will be odd tastes in the meat.

Disease Condition:

Definition: No disease symptoms or evidence

Comment: This bird will be downgraded to Non-Food

Other Condition:

Definition: No Oedema or "jell" substance on heart, thigh or sternum

Comment: These conditions are also symptoms of mal-nutrition. When mal-nutrition is present the meat will usually be more variable in colour, taste and texture.

Utility Grade:

A Utility grade bird will be any bird that does not meet the standards set out for Prime, Choice or Select grade, but is fit to eat. The meat will be inconsistent in taste, colour and texture and this grade is to be discouraged for retail sales while our industry is working to establish a place in the market and achieve good prices. Utility grade meat should only be used for further processing into value added products. The following are the definitions for Utility Grade. A bird will be Utility grade if it has any one of the conditions referenced:

Bird Age:

Definition: Any age of bird

Comment: When a bird has any of the conditions defined below, the meat is likely to be variable in flavour and less attractive to market due to darker meat colour.

Fat Pan Colour:

Definition: Yellow Fat Pan colour

Comment: As referenced above, fat of a more yellow colour is a key indicator to the overall health of a bird. Yellow fat also has a poor aroma that is indicative of the impurities in the fat. Although Ostrich meat is sold free of fat, the presence of yellow fat on the carcass is an indicator of variable tasting meat of variable degree of tenderness.

Muscle Colour:

Definition: Multi-colouring of muscles (pink to dark red)

White colour areas in some muscle

Comment: Multi-colouring is not attractive to the consumer and the meat will be variable in taste.

Heart Condition:

Definition: Small, damaged or spongy texture hearts

Comment: A poor heart will be caused either by mal-nutrition or disease.

Liver Condition:

Definition:

Yellow, Green or Black Colour

Liver abscesses or ulcerations

Comment: All above definitions are key indicators to liver damage of some degree. Livers unable to function adequately are unable to filter the blood adequate and may result in toxins and/or heavy metals remaining in the muscle and/or fat. Depending

on the severity of the damage, these conditions can result in off tasting meat and meat with a poor aroma.

Disease Condition:

Definition: No disease symptoms or evidence

Comment: Disease can result in infection in the birds that may cross contaminate good meat and/or infection may be passed onto the consumer if the meat is not handled correctly.

Other Condition:

Definition: Oedema or "jell" substance on heart, thigh or sternum

Comment: These conditions are also symptoms of mal-nutrition. When mal-nutrition is present the meat will usually be more variable in colour, taste and texture.

Non-Food Grade:

Non-Food is a polite way to say condemned carcasses that are not fit for human consumption. A condemned bird will display one or more of the following conditions.

Bird Age:

Definition: Any Age of Bird

Muscle Colour:

Definition:

Muscles with abscesses or channels in meat

Muscles with light or dark spots

Liver Condition:

Definition: Spotty or infected livers

Disease Condition:

Definition: Any disease symptoms or evidence

The greater the number of members who utilise the grading system as part of their marketing program the greater the opportunities for all to benefit. Clearly a membership fee of \$100/annum cannot provide the funding required developing this, but through communication the membership can come up with a plan.

5. Developing WOA Logo for Marketing

Taking the above discussion a step further, last month we reported that a member is using the WOA logo on their product packaging, but without seeking permission. The member clearly sees that as a benefit to their marketing. Working together to establish systems and protocols that ensures the right standards are followed, we can all make the WOA logo a meaningful quality mark - but to establish that value does require an investment in the infrastructure required to ensure all standards are strictly adhered to.

Are there other members who would like to pursue this approach to support them in their marketing approach? If so, can we invite you to take the discussion to the member's list?

6. Contributions

As always we ask for contributions. Communication is particularly important at this time while H5N1 Avian Influenza is spreading and Ostrich producers are asking for information. The WOA offers channels of communication for all participants to enable our fledgling industry to share experiences and develop strategies.

[1] - http://agecon.lib.umn.edu/cgi-bin/pdf_view.pl?paperid=16682&ftype=.pdf

[2] - Newsletter No. 22: <http://www.world-ostrich.org/member/news22.htm>

[3] - World Ostrich Association Ostrich Meat Grading can be downloaded from: <http://www.world-ostrich.org/woacarcass.pdf>

[4] - See Item 4 Newsletter No. 22: <http://www.world-ostrich.org/member/news22.htm>

**Any comments or suggestions, please post either to the members list woa@world-ostrich.org or
Craig at secretary@world-ostrich.org**

Ask not only what the WOA can do for you but also what you can do for the WOA.

Issue No. 37 – April 2006

- 1. Avian Influenza Update**
- 2. A Guide to Valuing Ostrich**
- 3. Understanding Productive Value, or Relative Feed Value of Alfalfa**
- 4. Producer Education**
- 5. WOA Documents**
- 6. Contributions**

1. Avian Influenza Update

H5N1 continues to dominate the headlines, with the increase in infection in the wild bird population. We have updated our guidelines to reflect the developments in the acceptance of vaccination in some areas and increasing understanding of their use.

Governments have generally been slow to react to this threat and only now gearing up to accept vaccination as a method of control. The result of this is there is a limited supply of vaccine and it will take time for the drug companies to gear up production.

It is important to remember that this is a new disease, governments, scientists and industry are continuing to learn, so achieving absolute answers on many things is not always possible. For example, while transmission can be by wind, current evidence indicates that AI does not move a great distance by wind, hence the 3km control zone.

There are very few ostrich throughout the world, when compared to poultry, so any members directly affected are encouraged to share their experiences. This association provides the best mechanism for communication and distribution of information in our industry.

Our thanks to Alan Benyon for keeping us informed.

2. A Guide to Valuing Ostrich

Last month we announced that your directors would develop a guide to Valuing Ostrich. This has now been completed and will be available on the web site and also emailed as part of this newsletter in .PDF format.

Compiling the document makes us all aware of how immature our industry is today. We have hugely variable production per breeder, few records to accurately reflect the performance of genetic lines and low profitability for too many. With slaughter birds we have slaughter age varying from under 200 days to in excess of 375 days, with no meaningful price differentiation practiced through meat grading and strong marketing.

The key to valuing production livestock is establishing their productive value. The document gives advice on how to establish the “productive value” of the livestock. The starting point for establishing a productive value is good record keeping. Records that prove the productive performance of the breeders as well as sale price of progeny and gross margins achieved.

Commercial livestock are raised as a source of food or other products (e.g. Wool, leather, oils) that are usually considered by-products that also contribute to revenue. Whatever the reason for production, it is essential to make a profit. The figures

demonstrate clearly why early slaughter, combined with good meat yields are essential to commercial success of ostrich production.

3. Understanding the Productive Value, or Relative Feed Value (RFV) of Alfalfa

The Blue Mountain Ostrich Feed Company has been a strong advocate for using high quality Alfalfa (Lucerne) as the forage ingredient in commercial and/or home mixed Ostrich feed formulas. They have always promoted the understanding that the productivity and commercial viability of any ostrich business is dependent on quality alfalfa, but how to calculate the productive value of alfalfa is not well understood by the Ostrich industry.

Blue Mountain has recently published a document called "The Alfalfa Guide" that explains how to identify quality alfalfa and why it is so important to use as the forage ingredient in any Ostrich feed formulation. You can view "The Alfalfa Guide" in its entirety at the Blue Mountain website at <http://www.bm.net/blank>. Some background discussion and key points from this guide clearly demonstrate why quality alfalfa is such an important Ostrich ingredient.

We regularly hear that it can't be grown in a region, or producers want to grow crops with a perceived higher value. Alfalfa is the 3rd most valuable crop produced in the United States, behind Maize and the Soybean, the other two essential components in productive ostrich diets. We also hear that alfalfa cannot be grown locally, that the climate is wrong or soil type is wrong. A quote from a poster produced by University of California, Davis¹

Quote: *Alfalfa is one of the most versatile crops in the world. It is grown in environments ranging from burning hot deserts to cool high mountain valleys, from frozen continental prairies to humid pastures and dry Mediterranean valleys. With proper fertility and drainage, it can be grown on soils ranging from beach sands to heavy clays. It is grown as an intensive cash crop under irrigation, or as a lower intensity pasture crop in forage mixtures.* End quote

The guide is a compilation of articles and scientific papers produced by a number of different authors that cover the reasons why quality alfalfa contributes to high levels of productive performance in Ostrich and other commercial livestock. It also covers information on how to correctly sample batches of hay, procedures for testing and how to understand lab reports. There is also a paper on how to calculate the Productive value or Relative Feed Value (RFV).

Figure 1, taken from a paper in this guide, illustrates the influencing factors that control animal performance and clearly indicates their interdependency one to another and the important role of the forage crop in commercial livestock production.

The productive value of Ostrich and all commercial livestock is controlled by a combination of factors, the greater the production, the greater the value of that livestock. For example the genetic influence cannot be demonstrated to its optimum performance when the forage quality is failing to provide adequate nutritive value and the overall ration is unable to achieve its productive value. Even the best forage requires to be supported by the correct rations and management systems – all aspects are interdependent on each other to achieve total success.

¹ Alfalfa – The Queen of Forages: http://alfalfa.ucdavis.edu/files/pdf/Alf_Wild_Env_CAFAposter.pdf

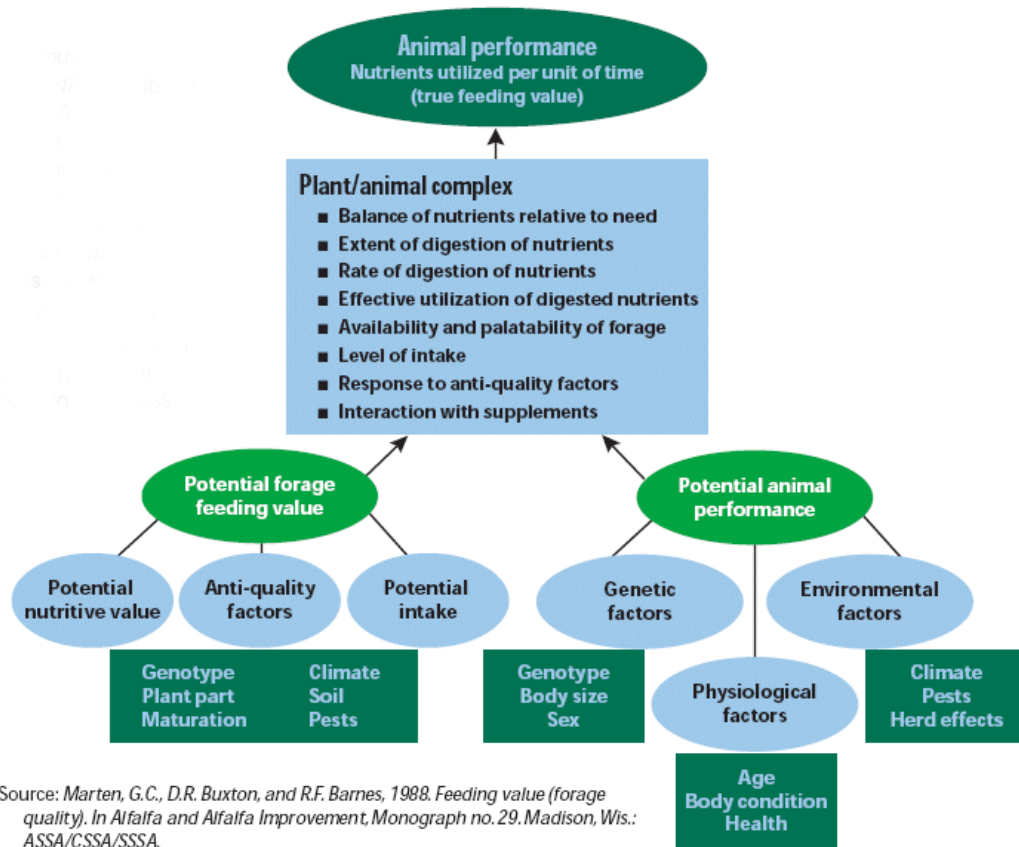


Figure 1 - Factors Influencing Livestock Performance

Clearly establishing the feeding value of the forage crop is a key factor. The forage portion of a ration is significantly more than simply “roughage” as we see it referenced all too often.

Alfalfa (also referred to as Lucerne) is well documented as the most productive forage for commercial livestock production and the reason it is the third most valuable crop in the United States. Quality Alfalfa provides not only valuable digestible fibre, but also quality protein, energy and many macro and micro nutrients. Quality Alfalfa is a nutrient dense highly digestible forage and extremely valuable feed ingredient in rations required to support high levels of livestock production.

Personally I stopped actively producing ostrich until I was in a position to control my own Alfalfa production and not dependent on purchasing Alfalfa in a market where supply and demand was the only criteria that set the prices and was not related to quality at all. I could see the difference in bird performance from one batch of Alfalfa to the other. When the Alfalfa is below a certain quality it does not feed well and it is not possible to reformulate to make up for those lost nutrients without putting other aspects of the ration out of balance.

When I was living in Spain, I walked a number of fields in the alfalfa producing region and talked to the dehydrating plants that export to a number of countries. They admitted to having difficulty achieving high standards. Working with producers from most countries working with ostrich, the limiting factor all too frequently comes down to the ability to obtain Alfalfa of the right quality.

Producing the right quality requires the right variety for the region, the right level of inputs, with environmental and management factors being carried out correctly. It requires a market environment where there is price differentiation based on quality. In order to achieve such price differentiation, the market place must have a way to establish a method to calculate the productive value.

One of the reasons it is difficult to achieve the right quality, unless growing your own, outside the United States is a general lack of understanding of the true Productive Value, or Relative Feed Value (RFV) to be able to set price differentials that encourage the production of quality Alfalfa. One of the papers in the Blue Mountain guide to Alfalfa discusses how to interpret samples and how to calculate Relative Feed Value (RFV) and Relative Forage Quality (RFQ).

Table 3. Forage Quality Values as Alfalfa Advances in Maturity.

Stage of maturity	Crude protein	Acid detergent fiber	Neutral detergent fiber	Digestible dry matter	Relative feed value	Market value ¹ average
	----- % of dry weight -----				index	\$/T
Vegetative	>22	<25	<34	>69	>189	144
Bud	22-20	25-31	34-41	69-65	189-147	126
Early Bloom	19-18	32-36	42-46	64-61	146-123	96
Late Bloom	17-16	37-40	47-50	60-58	122-107	78
Seed pod	<16	>41	>50	<58	<107	72

¹Market value based $Y = .88X - 22.3$ where, $Y = \$/T$ and $X = \text{RFV index}$.

SOURCE: Dr. Neal Martin, Director, Dairy Forage Research Center, Madison, WI, personal communications.

Figure 2 - Forage Quality Values as Alfalfa Matures

The table in Figure 2 is from a paper entitled: "Alfalfa Quality: What is it? What can we do about it? and Will it pay?" by Garry D. Lacefield². The full paper is included in The Blue Mountain Alfalfa Guide. Note how as the Relative Feed Value (RFV) reduces the market value also changes. Figure 3 illustrates the different stages of maturity referenced in Figure 2 and demonstrates how the stem portion increases as a total proportion of the plant as the plant matures.

² Garry D. Lacefield, Extension Forage Specialist, University of Kentucky Research & Education Center, Princeton, KY 42445; Email: glacefie@uky.edu. In: Proceedings, National Alfalfa Symposium, 13-15 December, 2004, San Diego, CA, UC Cooperative Extension, University of California, Davis 95616. (See <http://alfalfa.ucdavis.edu> for this and other proceedings).

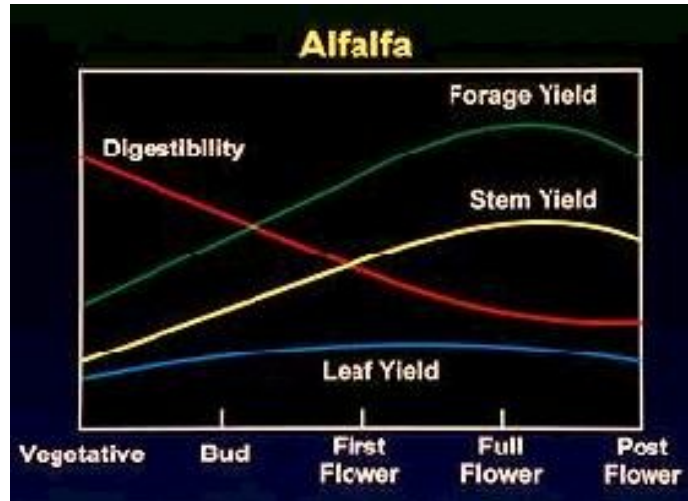


Figure 3 - Alfalfa Digestibility and Maturity

Alfalfa is a premier forage legume that is a key component of commercial livestock high production rations, and is especially valuable as a major component in Ostrich Rations, with inclusion levels ranging from +/- 30% to in excess of 50% depending on the ration and depending on the quality of that Alfalfa. The higher the quality the greater the inclusion levels that can be used thus reducing the levels of higher cost protein ingredients.

4. Producer Education

The Better Returns Program (BRP) is an initiative funded by DEFRA, in the UK and delivered by EBLEX. EBLEX is the English Beef and Lamb Executive, an organisation set up to establish communication between producers, industry and the consumers and funded by a levy raised on all lamb at slaughter.

The motivation for this initiative is to assist producers to understand how to increase revenue per lamb. They report that currently only 60% of all lambs sold meet mainstream buyer specifications - so for most flocks the losses from not meeting market requirements can amount to thousands of £s.

Lamb is marketed under strict grading and fat classification, with the difference between an R2 and a 4H carcass is £6.00 on a 20kg carcass. The letters indicate confirmation grade and the number the fat class. Their full grading system can be viewed at: <http://www.mlcclassification.co.uk/downloads/Planned%20Carcase%20Production.pdf>

The BRP has the support of abattoirs, markets and organisations across the country and involves a series of practical, hands-on workshops, farm walks, market events and abattoir days to help producers sharpen their skills in 3 key areas: better breeding, better carcass selection and better price information. They expect that by improving sheep handling, encouraging the uptake of better bred rams and a better use of pricing information, the BRP can make a real difference to producers' returns.

This initiative is to support producers in an industry that is already very strong and producing some excellent looking and tasting lamb. They have decades of records and genetic lines well documented. They are able to evaluate that by using a high index ram it is estimated a producer can add as much as £2 to the average lamb sold.

What can our industry learn from this initiative? The economics of ostrich production are such that to be commercially viable, the slaughter age must be progressively

lowered with significantly increased yields over the current industry average. The benchmark targets - <http://world-ostrich.org/targets.htm> are very achievable with the correct production methods.

5. WOA Documents

Posted with this news letter are 2 new documents:

- a. Understanding and Controlling Avian Influenza in Ostrich, update: File name: woabirdflu.pdf
- b. A Guide to Valuing Ostrich: file name woavalueost.pdf

A reminder of our other documents:

- c. World Ostrich Carcass Grading: File name: woacarcass.pdf
- d. Factors Influencing Meat Quality: File name: woameatqual.pdf
- e. Meat Yield Classifications: File name: woameatyield.pdf
- f. Ostrich Benchmark Performance Targets: File name: targets.pdf

All documents are freely available to members. There will be a charge of £12.50 for the document on Valuing Ostrich for non-members. The remaining documents are available in the public domain as they are documents that support our industry and therefore enhance the marketing environment for WOA members.

6. Contributions

As always we ask for contributions. As we have said before, communication is particularly important at this time while H5N1 Avian Influenza is spreading and Ostrich producers are asking for information. The WOA offers the best channels of communication within our industry at this time for all participants to enable our fledgling industry to share experiences and develop strategies.

Issue No. 38 – May 2006

1. **Introduction**
2. **Six Ways to increase your Income**
3. **Information on the Internet**
4. **Ancient Ostrich Eggs found in Israel**
5. **Contributions**

1. Introduction

This month's newsletter has two major topics to discuss and each is longer than normal. For that reason as we deliver the newsletter by email to prevent the emails becoming too long, we are splitting the newsletter into two sections.

2. Six ways to increase your income include

Many of you will have read Alan Stable's last news letter and the 6 ways he gave to increase income. It all sounds excellent advise, but how can we apply this advice to our ostrich businesses? I believe this makes an excellent topic for discussion.

2.1 Increase your transaction size

In any transaction there are always certain administrative activities that have to be carried out regardless of the size of the order. A certain volume is required to ensure sufficient margin to cover these and other fixed costs. The greater the volume clearly reduces these costs per unit of sale. Currently this is a critical issue with ostrich production as our volumes are so very low. At every stage of the production chain there are few economies of scale yet being achieved.

One example is skins. Skin buyers will pay better prices if handling container loads. When only selling a few hundred skins, there are significant additional transport and handling costs when it is necessary to consolidate loads in a central collection point.

Whatever the product, the paper work and administration is the same if a shipment is a container at 15 tonnes or a pallet at 1 tonne. So increasing your transaction size will not only increase revenue, it helps the margins as well.

2.2 Increase your margin

The margin in this instance is of course the difference in the selling price (total revenue received) and cost of production. Increased margins can be achieved by increasing revenue and reducing costs through improving production efficiency. With ostrich we have opportunities to benefit significantly from both.

Increase Revenue

Revenue can be increased in two ways – by increasing the price of the products and by increasing the yield.

Increasing the price is the area of good marketing to differentiate your product over your competitor. Our industry is currently in a position of lack of supply, so our ability to increase the selling price in some markets should be excellent for a number of years. Increased prices can only be expected if production systems ensure absolute consistency of supply and consistency of product.

Product grading is the next tool to achieving increased prices. Grading for skins has been used to differentiate price for many years, with significant variation between

Grade 1 and Grade 4. The difference per skin at US\$16.50/sq ft Grade 1 and Grade 4 is around US\$100.

Similar price differentiation can be achieved for meat. However, the meat is a new product and our grading system requires education, both for our customers and producers. Marketing the meat on grade to provide product differentiation is one method to increase the selling price of the meat.

Reduce Costs of Production

There are a number of ways to reduce the current costs of production very significantly. Increasing yield and reducing the age to slaughter are two key factors. With ostrich we have very significant savings achievable in this region.

Cost of Chick: The greater the number of slaughter birds produced per hen the lower the breeder cost of chicks. The knock on effect of increasing the number of chicks per hen that survive to slaughter are reduced incubation costs, stronger chicks that convert feed more efficiently and have increased survival. Stronger chicks also require less heat in the early weeks.

Cost per Kilo Meat: With ostrich significant savings can be achieved by increasing yield and reducing the time to slaughter over current averages. Key savings when reducing time to slaughter are reduced feed consumption, less infrastructure required, less labour and not only less working capital but also the cost of that working capital is reduced. The cost of working capital is reduced as it is recovered more quickly.

Cost of Processing: The size of a bird does not affect the cost to slaughter a bird. Therefore, as the graphic below clearly demonstrates, significant savings on processing costs per kilo can be achieved with increased meat yields.

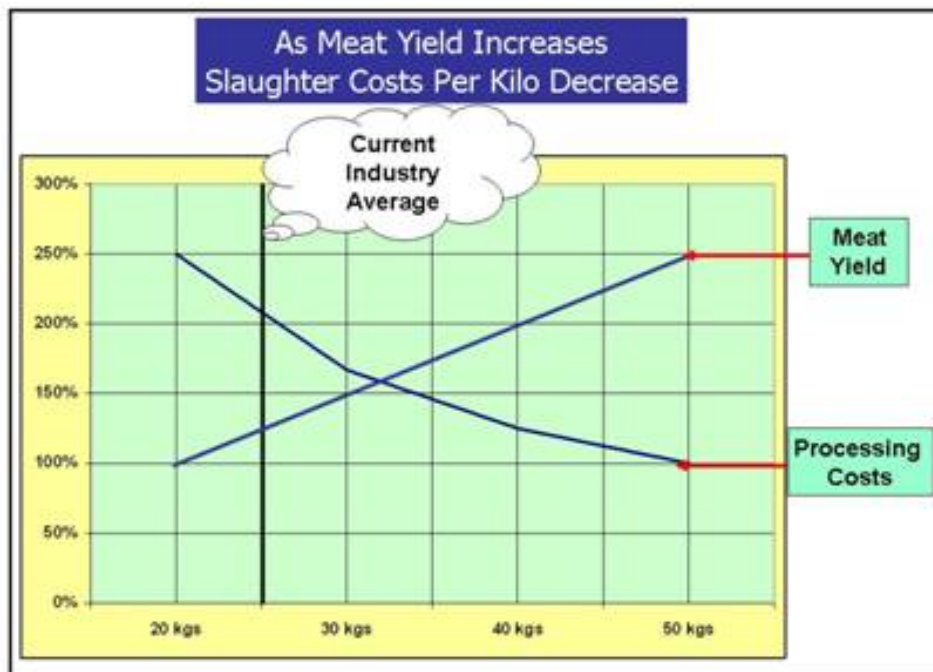


Figure 4 - Influence of Meat Yield on Costs of Processing

Skins: Worthy of note when discussing processing costs; it costs exactly the same to tan a Grade 1 skin as it does to tan a Grade 5 skin. So clearly far greater margins are achievable the better the grade as the costs of production are identical.

Early slaughter also reduces the costs of producing quality skins. A study carried out by the scientists at the experimental farm in Oudtshoorn clearly demonstrated the increased number of grade 1 skins when slaughter was at a younger age.

For too long there has been the belief that skins from young birds have immature follicles. A number of us have proven very clearly that when production systems are correct, younger birds can also produce skins of acceptable quality.

2.3 Increase the frequency of transactions

Many products in food production are determined by season. One way to increase frequency of transactions is to extend the season. A knock on affect of introducing production methods that reduce the costs of production as suggested above, will be an extended breeder season and elimination of the “end of season” chick syndrome. Chicks hatched towards the end of the season have often been considered weaker than those hatched at the beginning of the season.

2.4 Increase consistency of purchasing

The following are processes in the production chain. Some may be involved in only one process, others several or all of the processes.

Producing Feed	Producing Fertile Eggs
Producing Day Old Chicks	Producing Slaughter Birds
Producing Breeder Birds (Genetics)	Slaughtering Ostrich
Processing Meat	Tanning Ostrich Skins
Sorting and Cleaning Feathers	Manufacturing Processed Meat Products
Manufacturing Leather Products	Manufacturing Pharmaceutical Products
Manufacturing Cosmetics	Dying Feathers
Manufacturing Feather Dusters	Decorating Eggs
Wholesaler	Retailer

The customer of every single process is dependent on being supplied with a consistent product; the customer maybe just another department of the same farm or company or it maybe a totally independent commercial concern.

Consistency in purchasing is essential and if any one of those processes fails to deliver a consistent product, it will impact on the profits of those further up the chain. If delivery is unreliable in supply, the customer will fail.

In this discussion the most important customer is the user of the product – our final customer. That leads into the final two items on Alan’s list.

The final two items were “Increase longevity (keep your customers longer)” and “Improve conversion of new prospects to customers”.

My suggestion is that to reverse these two items may be more appropriate for our fledgling Ostrich Industry?

2.5 Improve conversion of new prospects to customers

Globalisation of agriculture has resulted in the livestock production industry becoming a highly competitive market that has become leaner and increasingly efficient over the past few decades.

The Ostrich industry is a new livestock production industry, so what do we have to do to gain customers in such a competitive market?

A major complaint with buyers of ostrich meat is inconsistency of supply. There are many markets we cannot enter as we lack volume. The first step is to have sufficient volume on a consistent basis. Producers who can achieve consistent supply will have overcome the current production challenges of low numbers of eggs laid, low conversion of egg to chick and high chick mortality. If scheduled to deliver birds to slaughter, ensure they are delivered on the day.

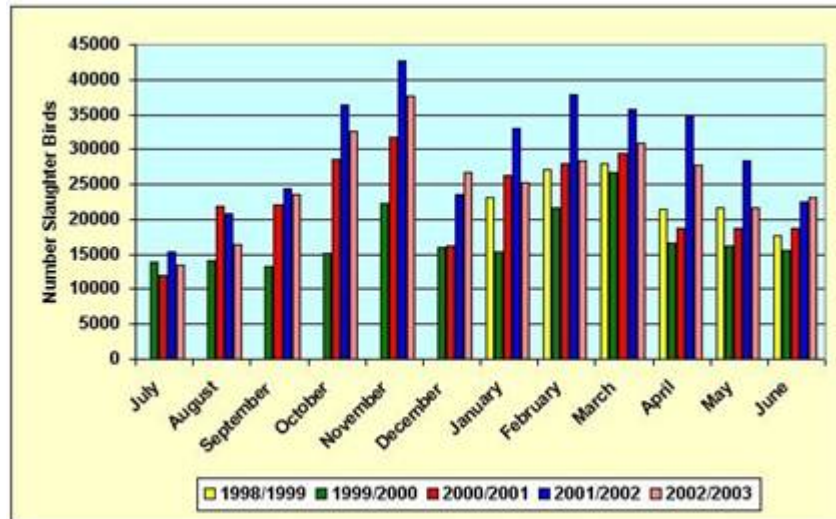


Figure 5 - Comparative South African Slaughter Figures

The graph in Figure 2 shows the tremendous variability in slaughter numbers, not only from month to month, but the significant variability in the same month each year. This makes supplying markets extremely challenging as actual product available is clearly unknown and extremely inconsistent.

2.6 Increase longevity (keep your customers longer)

The ability to guarantee supply efficiently, at a market related price and saleable product is a most important issue to not only win over new customers but to keep them also.

The processors – slaughter plants, meat processors, tanneries, leather good manufactures and feather companies can only win over new customers and keep their customers provided they have a reliable and consistent supply of raw material.

3. Information on the Internet

Have you used the Internet to find information on Ostrich?

I believe we can all answer yes to that question. I recently did a Google search on Ostrich and Ostriches to see how much old information that was produced during the initial breeder market is still published. There was very little known about Ostrich production during that time and the information published is now seriously out of date and misleading.

My focus was on Academic Institutions and Government information web pages. The information I found still there can be described as irresponsible from institutions that are considered respectable and readers trust as accurate and verifiable data.

Some brief examples of information I have found to illustrate how damaging the information published by these sources has been to our industry:

a. **The North Dakota State University Extension Service** has a published document on Ostrich that I found on two separate web addresses. This document was produced in 1993. Reference is made to the cost of eggs as \$1,250 each, breeders between \$50,000 and \$75,000. When discussing the fact that it is currently a breeder market the following comment was made:

Quote: *People currently in the industry believe the ostrich industry will reach maturity in four to seven years, and, at that point, 12 to 14-month-old 100 pound birds should be selling for \$800 to \$1,000.* End quote

A 45kg bird in 12 months – clearly an error!!! The high price was based on assuming a high skin prices. Skin prices have dropped from over US\$40/sq foot for a Grade 1 finished skin to around US\$16 square foot today.

The production information in this document, if followed, would explain why many producers failed to achieve success and why 13 years later we still do not have a mature industry. Some of that misinformation is still quoted to us today as people believe it to be accurate.

This document can be viewed at <http://www.ext.nodak.edu/extpubs/alt-ag/ostrich.htm>.

b. **The Scottish Agricultural College** has a modern web site, but their document on ostrich farming has not been updated and is full of misleading production and economic information. One example to discuss:

Quote: *Ostriches are a grazing bird with a staple diet of grass, or preferably Lucerne supplemented with grass-type nuts and poultry-type feeds without additives.....*

This means a breeding trio can be expected to raise 30 - 50 birds per year. End quote

Our Chairman, Stan Stewart, followed the advice that grass was the staple diet when he started as that is exactly the advice being given in the early 1990s in Britain. He specifically set out to purchase a grassland farm.

Ostriches are browsers, not grazers and even well managed grass is unproductive forage for ostrich by comparison to Alfalfa. Any producer following the advice above, all of which is unscientific, conflicting and breaking some basic rules of good animal husbandry, would not achieve 30 to 50 slaughter birds per year per hen.

This document can be viewed at:

<http://www.sac.ac.uk/consultancy/farmdiversification/database/novellivestock/ostrichfarming>

c. **Agriculture and Agri Food Canada** produced a very detailed document under the heading of Profile of Canadian Ostrich, Emu and Rhea industries. The tables in the document suggest that it was published around 1999 as the Canadian industry was on the downturn. Many of the facts are now out of date and the links provided either no longer working or still quoting the high values of the early 90's. One paragraph in the conclusion is very accurate and applies to many countries:

Quote: *When the industry started and entrants were making a lot of money, there was a good deal of cooperation among producers. Associations flourished and with them seminars, conferences, joint exhibitions and Newsletters. Now that 'times are tough' and there is even more need to work together, many producers have withdrawn from the associations, have become protective of their own markets and interested only in furthering their own operations. A strong industry is not one in which producers are working in isolation or against each other, but one where they work together, pool information, pool resources and together succeed.* end quote

The whole document can be viewed at: http://www.agr.gc.ca/poultry/prindrat_e.htm

Searching Ostrich and Ostriches and exploring just the first 10 to come up on each search resulted in more than 18 links to academic and government papers that are out of date, many more than 10 years old. These papers that can be considered to be providing information that today is having a negative influence on our industry development for the reasons discussed.

Over the years producers, nutritionists, potential industry entrants and other support specialists (e.g. vets, scientists) from every country that has tried to produce ostrich have communicated with us, thus indicating how many use the internet for information. This is one reason we have had continued publication of such a high level of misleading information.

So what can we do positively to change the situation? As a starting point we would suggest any one coming across data that is clearly out of date writes a polite note to the web master.

4. Ancient Ostrich Eggs found in Israel

An interesting piece of ostrich related news, though not too relevant to commercial production today, is the discovery of four ostrich eggs that are estimated to be thousands of years old. They were discovered by a farmer in the Sharon region of Israel.



Figure 6 - One of the eggs 'Laid thousands of years ago'
(Photo: Yaniv Levi, Israel Nature and Parks Authority)

The eggs have been sent to the Israeli Sea Turtle Rescue Centre in Michmoret for examination. Lab tests are also being conducted as it is considered that the eggs are many thousands of years old.

The full article can be viewed at: <http://www.ynetnews.com/articles/0.7340.L-3240850.00.html>

5. Contributions

As always we ask for contributions. As we have said before, communication is particularly important at this time while H5N1 Avian Influenza is spreading and Ostrich producers are asking for information. The WOA offers the best channels of communication within our industry at this time for all participants to enable our fledgling industry to share experiences and develop strategies.

**Any comments or suggestions, please post either to the members list
woa@world-ostrich.org or Craig at secretary@world-ostrich.org**

**Ask not only what the WOA can do for you but also what you can do for the
WOA.**

Issue No. 39 – June, 2006

1. Avian Influenza Update
 2. The Future of Animal Agriculture in North America
 3. Economics of Production, Processing and Marketing
 4. Animal Protein Consumption
 5. Impact of Government Policies on consumer demand
 6. Annual General Meeting/Director Nominations
 7. Contributions
-

1. Avian Influenza Update

Egypt

Egypt has been badly hit with a reported 80% of their poultry either infected by the H5N1 virus or culled in the process of eradicating the disease. Egypt is also one of the few countries to experience a number of human cases.

Prof. Hesham Khalifa has reported investigations were carried out on 4 ostrich farms, 2 in the immediate vicinity of intensive poultry farms in an area declared by government to be infected by H5N1. All birds in this area, except ostrich, were culled – more than 100,000.

Samples were taken from ostriches, including birds Prof. Khalifa reported as in extremely poor condition with the loss of 3 breeders and 5 yearling ostriches within 7 days. The important finding reported by Prof. Khalifa is that no bird sampled tested positive to any H5 Avian Flu strain.

Editor comment: Any members who have similar experiences, can you please share them to enable us to keep members informed.

Saudi Arabia

Rayan Hayder has sent us the following report:

To date AI has not been detected in Saudi Arabia and the Saudi Ministry of Agriculture is keeping close control of all poultry and ostrich projects to ensure that any potential threat of an outbreak will be quickly detected. Vets from the Ministry are constantly monitoring the bio-security procedures in the farms and regularly collecting samples to test for all AI strains. The results from these tests so far have all been negative.

Editor comment: Please remember that we are dependent on our members reporting news to be able to pass onto our membership as we cannot be in all places.

2. The Future of Animal Agriculture in North America

This is the title of a long report that has been produced by The Farm Foundation. The report discusses agriculture in Mexico, The United States and Canada. The report has been put together by a very large team made up of industry, government and academic leaders. The document can be viewed at:

<http://www.farmfoundation.org/projects/04-32Reportrelease.htm>

This report details the challenges facing the existing livestock industries in North America. Farm Foundation initiated this project to compile a comprehensive look at the opportunities and challenges facing animal agriculture in North America today. They also emphasise that it will be how industry, government and academia use the information that will help shape the future of this industry in North America. So if this

document is aimed at the North American animal agriculture, why is it of interest to Ostrich producers around the globe?

To be successful in Ostrich production, the issues discussed in this document need to be understood as we are operating in a global market today. The document provides an excellent insight into the industry we are working in – livestock production. Many of the points covered have been covered by our newsletters over the years and this document confirms their importance.

3. Economics of Production, Processing and Marketing

There are a number of factors discussed under this heading that are important for our fledgling ostrich to understand and the discussions raised are not confined to North American Agriculture:

Major Structural Change

Quote: ***Every facet of the animal food chain – from genetics to retail and food service outlets – is adjusting to the rapid pace of change.*** End quote

This sums up the messages our newsletters have been highlighting and important as the development of the Ostrich industry has taken place during this rapid transitional process.

Quote: ***Production once dominated by independent, family-based, small-scale firms is now led by large firms that are tightly aligned across the production and distribution chain. Contracts and other types of marketing arrangements are increasingly important across nearly every market level— from input supply and seed stock to finished food product markets.*** End quote

The development of the larger production and distribution chains has been driven by the need to produce food at lower prices to service volume customers that are extremely demanding in their requirements. The volume customers are the large supermarket chains and food service chains whose market share has grown dramatically over the last 10 – 20 years. These same chains are now increasing their presence in developing countries.

Smaller and independent family-based farms and firms have been increasingly battling to achieve economies of scale to remain competitive. In many countries the development of ostrich production has been dominated by the sale of small numbers of birds to start up operations without any infrastructure to support these small operations.

Quote: ***The traditional production and marketing firms and linkages still exist, but are gravitating to niches for differentiated products that may command a premium from some consumers. As the industry has become more industrialized, specialized and managerially intense, location options have expanded beyond traditional production regions.*** End Quote

Some examples of niche markets in livestock production are:

- Organic
- Angus Beef
- Free Range
- Kobe Beef
- Parma Ham

Ostrich, while our production volume is low, can only supply small niche markets. The success of operating in niche markets is to ensure that the product is of the highest quality in order to achieve that premium price Niche markets are willing to pay. That additional price is required when unable to operate to economies of scale that are possible for the mainstream specie and larger operators.

4. Animal Protein Consumption

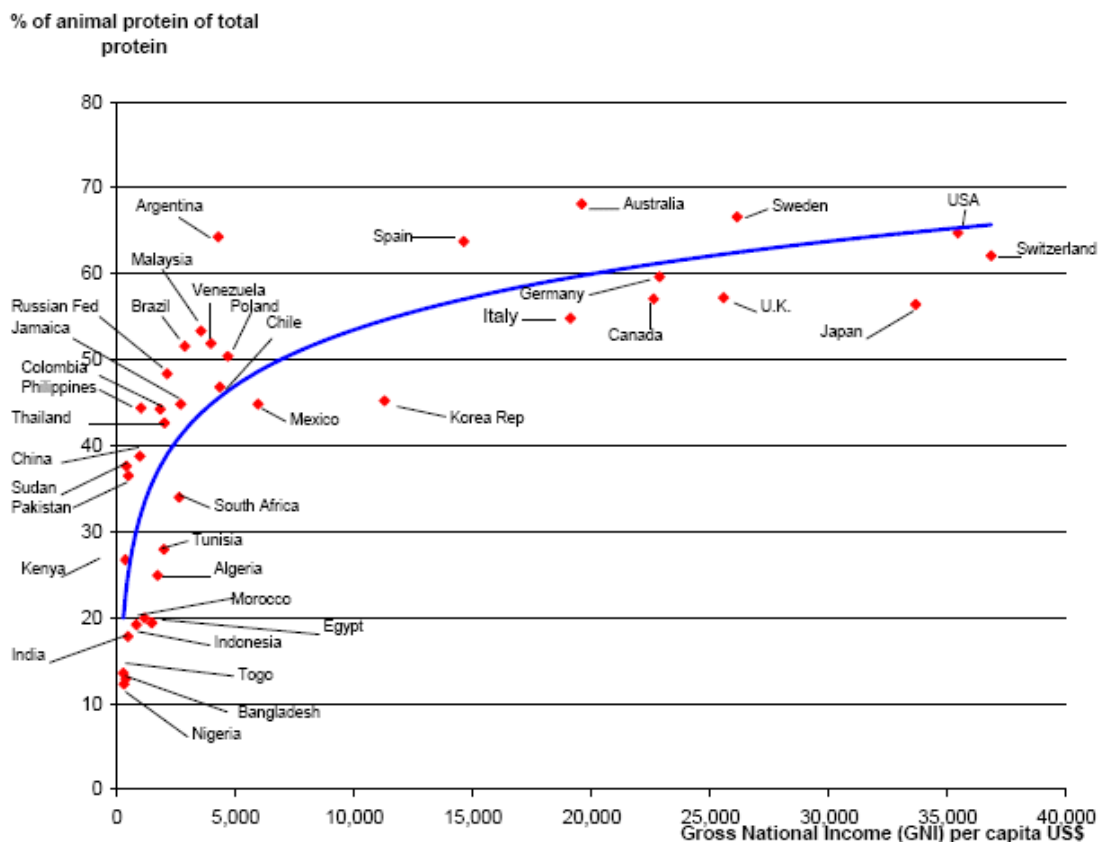
The report references the increasing demand for animal protein that we have discussed in earlier news letters.

Quote: *The demand for meat and other animal based foods is largely related to income and consumer tastes and preferences. Two fundamental trends affect demand for animal based products:*

- *income growth*
- *demographic changes*

In developed countries, consumer tastes and preferences change, but total demand grows relatively slowly – see chart below. While the demand has shifted for specific products, total demand has grown at about the rate of population growth.

The changing demand for specific meat products results from concerns about diet and health, functional characteristics of products such as convenience, food safety, and perceived values associated with the place or techniques of production.



Source: Based on data through 2002 from FAO and World Bank.

More dynamic growth in demand for animal based protein results from the fact that incomes are rising in many developing economies with large populations. The rapid increase in per-capita income, particularly in China, has generated a significant increase in per-capita meat consumption. Similar income and consumption trends are occurring in India, Indonesia, Chile and other developing countries of Asia and Latin America. End quote

5. Impact of Government Policies on consumer demand

The report references the importance of government policies on consumer demand, such as:

- How do government policies related to diet and health impact food demand?
- What is the appropriate division of responsibility between the public and private sectors on issues of traceability and certification?

5.1 Government Nutrition Advice

Heart disease, diabetes and obesity are becoming major issues in first world countries. This is leading to advice on diet; recently there has been an increasing shift on the advice given and this does have an impact on the demand for particular foods. The various industries then have to respond to those changes in consumer demand.

The British Domesticated Ostrich Association (BDOA) can report a direct experience on this. The BDOA recently published an article in a magazine read by the British government ministers and senior advisors. On the day of publication we were approached to write a further 2 page article for a wide circulation review publication. They have ordered the article to be placed alongside a report from DEFRA (The Department for Environment, Food and Rural Affairs) that will be discussing healthy eating and agricultural related environmental issues.

The reason for the approach is that our government recognise Ostrich as fitting into their current nutritional advice to eat unprocessed food and low fat meat and would like to encourage increased consumption of ostrich. In addition they recognise the environmental benefits as a result of the feed efficiency of Ostrich and alfalfa, which is a major component of their diet.

5.2 Malnutrition in Asia and The Pacific

The WOA has a number of members from this region. All are driven by belief in the potential of ostrich to be an efficient producer of meat protein. At the other end of the scale the FAO (Food and Agriculture Organisation of the United Nations) has recently called for redoubling efforts and investments to overcome malnutrition in Asia and the Pacific. The full report article can be viewed at:

<http://www.thepoultrysite.com/LatestNews/Default.asp?AREA=LatestNews&Display=9433>

The article references quotes from the FAO referencing 35% of the world's undernourished population residing in South Asia, with the prevalence of underweight, stunting and wasting the highest in the world today.

The article states that the developing countries in the region now have the world's highest growth rates for the production and consumption of food derived from livestock. They quote the growth in food and agriculture production helping to raise the incomes of farmers and the wages of unskilled labourers. The graphic outlining an agriculture cluster Figure 1 in Newsletter 31 (<http://www.world-ostrich.org/member/news31.htm>), illustrates how a strong agriculture economy can benefit many people.

Quote: *“Only nine years separate us from 2015, the date by which the world's leaders pledged to halve hunger and extreme poverty. Despite this commitment, the state of hunger and malnutrition in the world remains as distressing as in 1996, when the World Food Summit was held. At this half-way stage, it now seems that unless we redouble our efforts in the next years, our objective will not be attained until 2150”, concluded Dr Diouf.* End quote

Source: Food and Agriculture Organization of the United Nations (FAO) - 20th May 2006.

Ostrich production does have a contributing role to play in helping to provide meat protein efficiently.

Can we meet the challenge to gear up production to produce sufficient volume to provide a meaningful contribution in both these situations?

6. Annual General Meeting

This year's annual general meeting will be held on 19th September. All notices regarding place and time will be sent out closer to the time. For now we ask you to make a note of this date in your diaries.

Daryl Holle, Craig Culley and Rayan Hayder are the directors due to retire this year and all offer themselves for re-election. If you would like to serve as a director or nominate someone to serve, please inform Craig. We are currently one director short following the resignation of Dessi Daskalova last year.

7. Contributions

As always we ask for contributions. The WOA offers channels of communication for all participants to enable our fledgling industry to share experiences and develop strategies.

**Any comments or suggestions, please post either to the members list
woa@world-ostrich.org or Craig at secretary@world-ostrich.org
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Issue No. 40 – July 2006

1. Future Demand of Ostrich Meat
 2. Trends
 3. Barriers
 4. Opportunities
 5. AGM
 6. Contributions
-

1. Future Demand of Ostrich Meat

Newsletter No. 30 discussed the rapid growth of meat consumption since 1961 and projected growth to 2025. The discussion highlighted the high proportion of the growth coming from pig and poultry, illustrating the tremendous efficiencies that these industries have achieved over the past few decades.

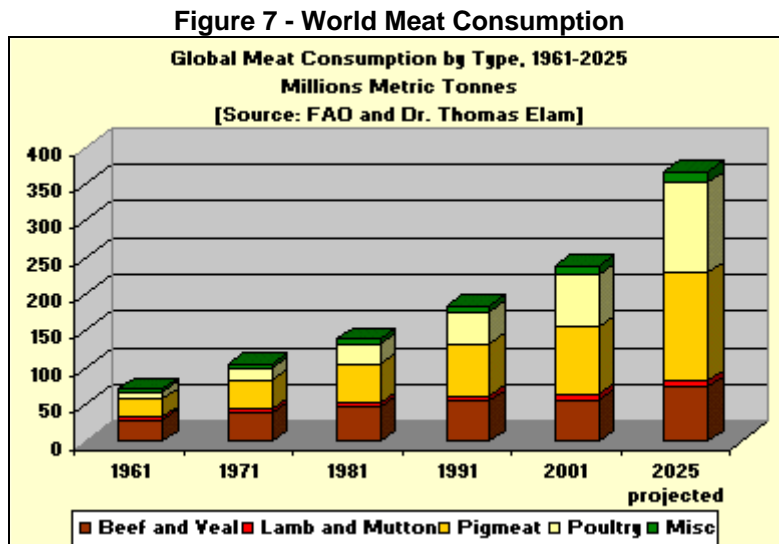


Figure 7 is a reminder of that discussion illustrating the growth since 1961 and the projected growth to 2025.

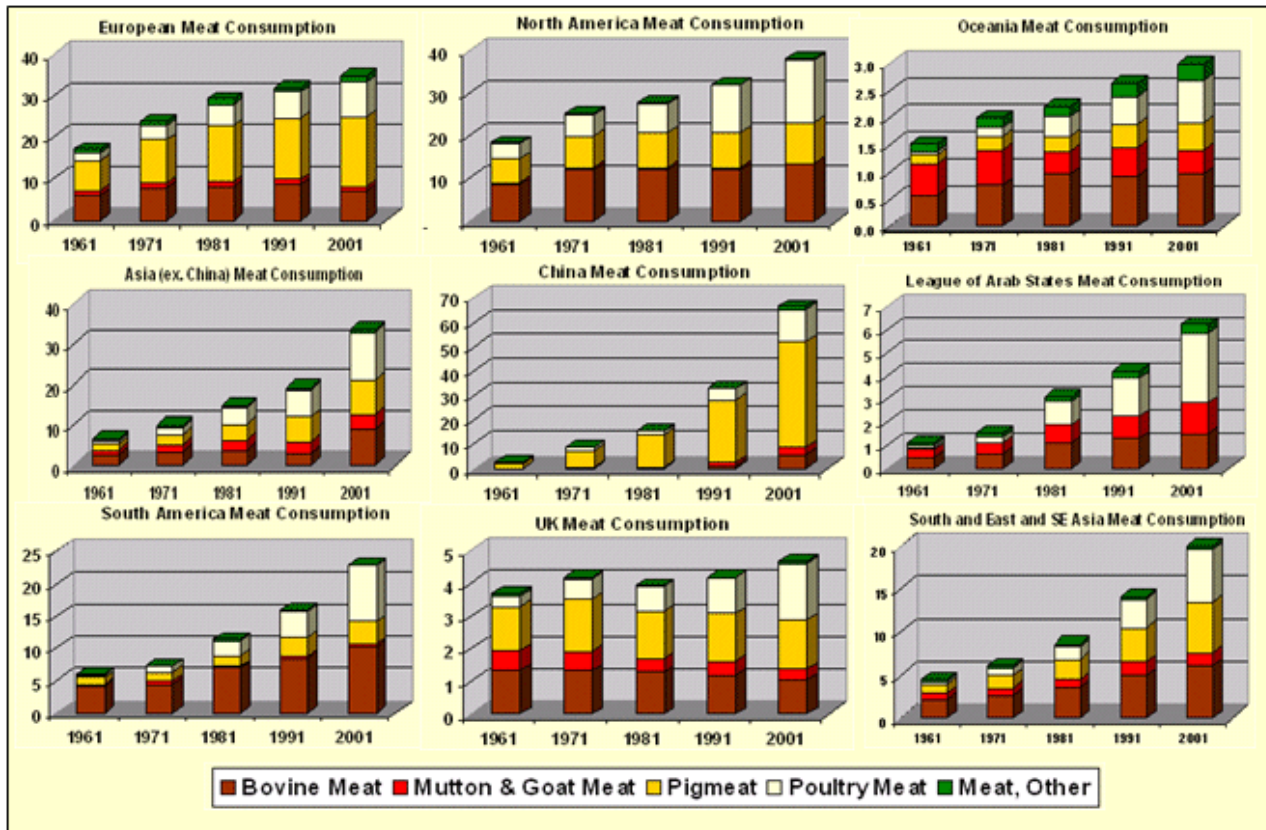
This month we are going to discuss the markets in the different regions and the implication on the potential for our fledgling ostrich industry to help gain a better understanding of the markets in which we are operating.

2. Trends

Figure 8 provides the comparisons in different regions of the world. The distribution of the growth is not available but the majority of the projected increased production will come from the developing countries rather than simply population growth.

Set alongside each other for comparative purposes, these statistics show clearly the trends in the different regions; trends in total consumption and the variations in type of meat consumed in the regions.

Figure 8 - Meat Consumption Comparisons by Region and Type'



There are several important elements to observe when viewing these graphs:

- Rate of Growth over the period
- Total Tonnage (left axis of graph), as these do vary from graph to graph
- Variation of type of meat consumed in the different regions
- Other meats, shown in green, is the sector into which Ostrich meat currently falls

a. Rate of Growth

The difference in rate of growth in the industrialised regions by comparison to the developing regions is very marked. Note how the UK consumption has changed very little over the period and actually went down in the decade between 1971 and 1981 that was before BSE was identified.

The UK and Europe show a drop in beef consumption when BSE was at its height. BSE generated interest in alternative meats, a demand that simply could not be satisfied, as the alternatives were not produced in sufficient volume.

In contrast, Asia has shown a huge increase in consumption over the period. It can be considered that some of this increased consumption is due to improved recording systems, but there is also clear evidence of significant growth due to the improving economies in the region. The consumption of meat in China is a significant proportion of the growth in meat consumption in Asia and is therefore shown independently.

b. Tonnage

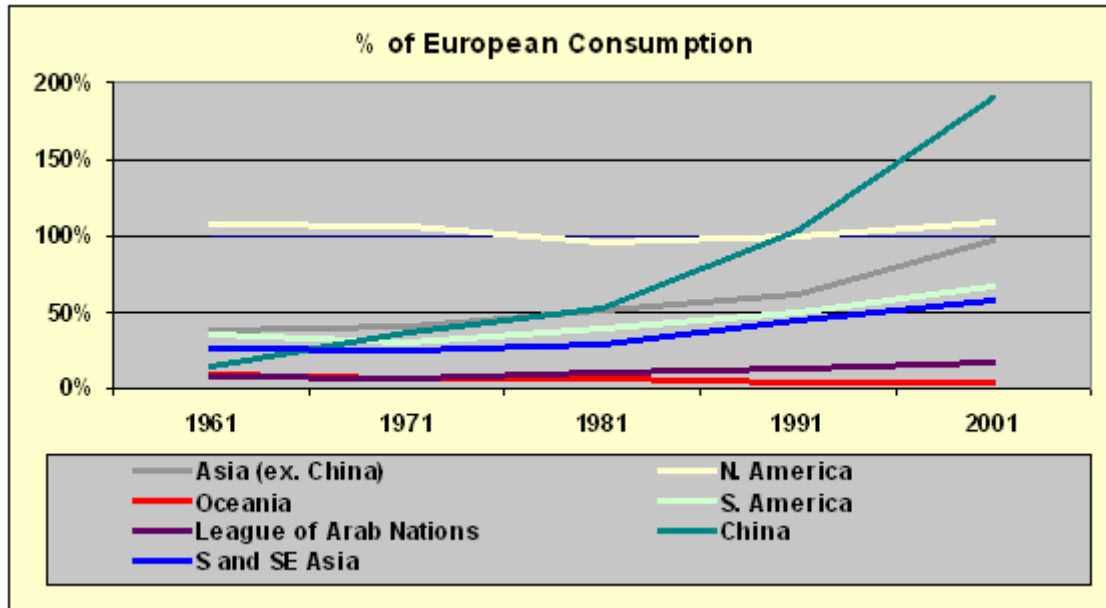
Tonnages in Europe and North America are amazingly similar for the period, see Figure 9

Oceania's tonnage at only 10% of European tonnage is proportionate to the differences in population in the two regions.

“South Asia” and “East and South East Asia” combined was 4million tonnes, 26% of European consumption in 1961, increasing to 28m tonnes, 58% of European consumption by 2001.

In contrast, Asia as a group recorded consumption of 9million tonnes, 52% of European consumption in 1961. By 2001 this tonnage had increased to 97million tonnes, 281% of European consumption. Examined more closely, it can be seen that when China is separated from the rest of Asia, the remainder of Asian tonnage in 2001 is very similar to that of Europe and North America, with China dominant in the region at 66million metric tonnes, 190% of European consumption.

Figure 9 - Regional Meat Consumption as a % of European Meat Consumption



Europe and the US combined by 2001 have fallen from 50% of world meat consumption in 1961 to only 30% in 2001, but their total tonnage consumed has more than doubled in the same period.

These figures clearly demonstrate consumption increasing faster in the developing regions, with China showing the fastest growth.

c. Type of Meat Consumed

Understanding the trends related to type of meat consumed is a key factor to understanding why the growth in meat consumption has been so high, population growth and wealth apart. It is also the key to appreciating the opportunities for Ostrich production in the different regions (markets). Ostrich benefits the different markets in different ways.

When examining Figure 8 note the growth of pork and poultry consumption by comparison to Beef and “Mutton and Goat”. The combined total of the pig and poultry sectors has taken increasing market share in every region but with significant variations in the proportion of pig and poultry from region to region.

The pig and poultry industries have become extremely efficient. These efficiencies have significantly reduced the costs per kilo of meat making these meats now available to people from lower income groups. Ostrich provide an additional meat that can be produced to similar levels of efficiency and therefore costs.

Taking region by region, pig meat has been dominant over poultry in Europe, China and until recently in the UK. The remaining regions show poultry as the dominant type taking the larger market share.

Goat and Sheep meat are included in the same category. The UK, New Zealand and Australia are major producers of lamb as well as major consumers of lamb meat, as indicated in these graphics.

The majority of the goat meat will be consumed in Asia and also in the Arab nations, a region that consumes a significant proportion of lamb, as the Moslem population are unable to consume Pig meat. Ostrich offers variety by making available a meat that can be raised to the same efficiencies as pig and poultry meat.

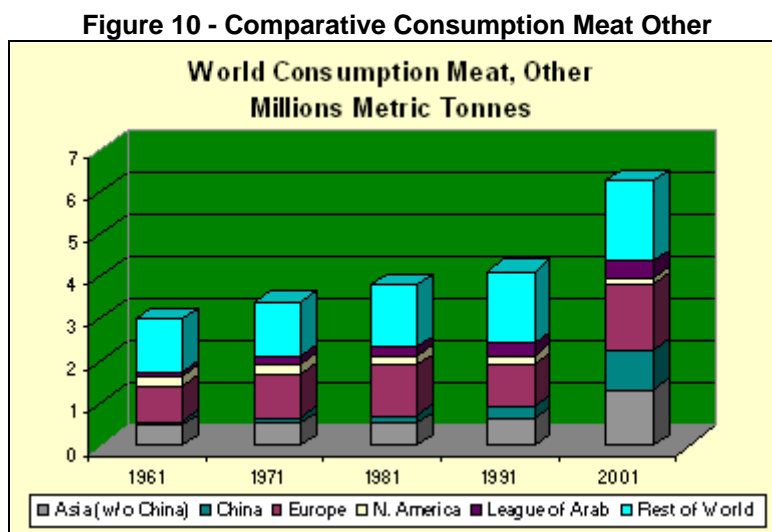
It will take a decade or two from the introduction of productive systems to achieving the volumes and efficiencies of production required to support the meat consumption in the high volume markets. During the development phase, it can be seen in Figure 10 that Europe currently consumes around 30% of all other meat. Europe has a higher net wealth customer seeking alternative meats. It can be expected that the European consumer will pay a premium for ostrich meat while volumes are low, but only if the meat is available on a consistent basis.

d. Other Meats

Probably better known in the market place as “alternative meats”, Ostrich falls into this sector as defined by the FAO.

The important factor in this discussion is the fact that Ostrich, raised correctly, can be produced with similar and, in time, maybe even greater efficiency than pig or poultry.

Figure 10 illustrates the current distribution of consumption of other meats (Alternative Meats). It can be seen that Europe currently consumes around 30% of this category.



Alternative meats include Venison, Crocodile, Zebra, Wild Boar, Kangaroo, Camel, Horse, Rabbit as well as Ostrich and Emu. All different specie of deer and antelope fall under Venison and includes springbok from South Africa, Elk and Moose from North America and the many different types of deer. Horse and Rabbit meat has been common in some European countries, but are not accepted by all European markets. The venison sourced from wild sources will always be limited in supply. Deer and Antelope are ruminant and not as feed efficient as many monogastric specie.

Ostrich on the other hand is proven under the correct management systems to be extremely feed efficient and a very viable “alternative meat” to supply the volume market. This is particularly beneficial for those unable to eat Pig meat to provide more variety of meat.

3. Barriers

There are mixed feelings today amongst many we talk to regarding the future of our fledgling industry. Most are aware of the opportunities discussed above and the reason for becoming involved in Ostrich production.

The main barrier to success and servicing these market opportunities remains the lack of production caused by the poor production performances on farm, resulting in high costs of production. These concerns are real as poor egg production, low fertility, low hatchability, high chick mortality, late slaughter and low slaughter weight continue to be the norm.

To overcome these barriers requires greater understanding as to the causes.

The primary reason for these poor production results is due to the poor information that has been prevalent on methods of production; most of this information breaks the rules for successful commercial livestock production. Some examples:

a. Ostrich can be produced using low value feed ingredients

Adult Ostrich can **survive** eating very little; adult ostrich food consumption is only 1.4% of their body weight per day. In contrast, an adult chicken consumes 8.5% of her body weight in food per day. The implication of this is that to be **productive** every ounce of ostrich feed must be nutrient dense in order to provide the commercial ostrich with sufficient nutrients to be able to produce commercial levels of production.

b. Poultry type rations

Many rations we see for ostrich are poultry style rations. Ostrich are not poultry.

c. Misleading Published Informationⁱⁱ

Newsletter No. 34 discussed recently published papers and the continued references to outdated farming methods including flushing and teasing, mid-season breeding rest, use of poor quality forages and 350+ day slaughter ages.

Newsletter No. 38 discussed information on the internet, most of which was first published over 10 years ago and based on no science or proven experience. We still hear people quoting certain practices because they have read them somewhere and assume them necessary practices to follow.

3. Opportunities

Ostrich is a new meat in every market. Ostrich meat only entered Europe a little over a decade ago with buyers still looking for reliable and sustainable supplies. The above discussion clearly indicates that Ostrich meat has a place in many markets. In the long term, Ostrich can supply red meat with the efficiency of Pig and Poultry. While volumes remain low, Ostrich meat can service the high-end niche markets in all regions.

In January 2005, we highlighted that our competition is not each other, rather our competition is the other specie. It can be seen that there is room for all, and where pig meat is not an option, ostrich provides the consumers with increased variety of meat. We also discussed the development of WOMRAD, a commercial company that would be developed to coordinate ostrich production methods, marketing, research and development. We can report is that a company to undertake these functions is being developed and has been approved for a specific funding initiative. Any member wishing to know more about this, please communicate with your Chairman, Stan Stewart.

4. Annual General Meeting and Future Directors

A reminder that the AGM will be held on 19th September and we are seeking nominations for directors. Daryl Holle, Craig Culley and Rayan Hayder are the directors due to retire this year and all offer themselves for re-election. If you would like to serve as a director or nominate someone to serve, please inform Craig.

5. Contributions

As always, we ask for contributions. The WOA offers channels of communication for all participants to enable our fledgling industry to share experiences and develop strategies.

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ⁱ Data Source FAO.

Countries within region as defined by FAO:

Europe	N. America	Oceania	Asia	League Arab States	South America	East and SE Asia	South Asia
Austria Belgium Belgium-Luxembourg Denmark Finland France Germany Greece Ireland Italy Netherlands Portugal Spain Sweden United Kingdom	Canada United States	Australia Fiji Islands French Polynesia Kiribati New Caledonia New Zealand Samoa Solomon Islands Vanuatu	Armenia Azerbaijan, Republic of Bangladesh Brunei Darussalam Cambodia China Cyprus Georgia India Indonesia Iran, Islamic Rep of Israel Japan Jordan Kazakhstan Korea, Dem People's Rep Korea, Republic of Kuwait Kyrgyzstan Laos Lebanon Malaysia Maldives Mongolia Myanmar Nepal Pakistan Palestine, Occupied Tr. Philippines Saudi Arabia Sri Lanka Syrian Arab Republic Tajikistan Thailand Timor-Leste Turkey	Algeria Comoros Djibouti Egypt Jordan Kuwait Lebanon Libyan Arab Jamahiriya Mauritania Morocco Palestine, Occupied Tr. Saudi Arabia Sudan Syrian Arab Republic Tunisia United Arab Emirates Yemen	Argentina Bolivia Brazil Chile Colombia Ecuador Guyana Paraguay Peru Suriname Uruguay Venezuela, Bolivar Rep of	Brunei Darussalam Cambodia Indonesia Korea, Dem People's Rep Korea, Republic of Laos Malaysia Mongolia Myanmar Philippines Thailand Timor-Leste Viet Nam	Bangladesh India Maldives Nepal Pakistan Sri Lanka

ⁱⁱ Old newsletters can be accessed from: <http://www.world-ostrich.org/member/news.htm> You will need your user name and password.