New Zealand Society of Animal Production online archive

This paper is from the New Zealand Society for Animal Production online archive. NZSAP holds a regular annual conference in June or July each year for the presentation of technical and applied topics in animal production. NZSAP plays an important role as a forum fostering research in all areas of animal production including production systems, nutrition, meat science, animal welfare, wool science, animal breeding and genetics.

An invitation is extended to all those involved in the field of animal production to apply for membership of the New Zealand Society of Animal Production at our website www.nzsap.org.nz

The New Zealand Society of Animal Production in publishing the conference proceedings is engaged in disseminating information, not rendering professional advice or services. The views expressed herein do not necessarily represent the views of the New Zealand Society of Animal Production and the New Zealand Society of Animal Production expressly disclaims any form of liability with respect to anything done or omitted to be done in reliance upon the contents of these proceedings.

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

You are free to:

- **Share**— copy and redistribute the material in any medium or format

Under the following terms:

- **Attribution** — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- **NonCommercial** — You may not use the material for commercial purposes.
- **NoDerivatives** — If you remix, transform, or build upon the material, you may not distribute the modified material.

http://creativecommons.org.nz/licences/licences-explained/
Reflections and visions in the deer industry

M.J. LOZA

Deer Industry New Zealand, PO Box 10-702, Wellington.

ABSTRACT

The deer industry has changed markedly in the last 10 years in terms of productive capacity, market size, the nature of industry participants and their representative structures. It has survived and generally thrived despite significant business and global upheavals over this period. However, a number of fundamental issues remain unresolved and represent the industry’s greatest challenges. As the pace of change in technology, consumer needs and global markets picks up, the ability of the deer industry to continue to adapt to change and to respond decisively to local and global issues that arise will be increasingly important for its continued growth and success. Even within a two year horizon there are a number of critical decisions that will need to be taken that will determine the industry’s performance longer term.

Keywords: deer farming; industry structure; economics; marketing.

REFLECTIONS

Herd growth

At the time of writing, deer numbers from the 2002 Census of Agricultural Production are not available. Without the benefit of the census results, current industry estimates suggest that there are between 2 million and 2.5 million deer farmed in New Zealand as at June 2003, comprising roughly two thirds hinds.

Figure 1 shows the growth in total deer numbers each year since 1993 based on figures supplied by MAF in April 2002.

Production

Figure 2 illustrates the growth in venison and velvet production in the last 10 years (all figures for September year ends unless otherwise specified). Venison production has grown from approximately 22,680 tonnes in 1993 to 24,877 in 2002 - less than a 10% increase. While velvet production in 2002 was 522 tonnes, 13% above production 10 years ago, this level of production is 12% less than the peak of almost 600 tonnes in 1996.

Exports

Figure 3 illustrates the growth in total industry export earnings over the last 10 years. Venison exports have grown in value from $128 million in 1993 to $202 million in 2002 (up 58%). Velvet export earnings have climbed back to $36 million after the severe impact of the Asian economic crisis in mid-1997, but remain 25% below 1993.

FIGURE 1: Estimated deer numbers 1993 - 2003

FIGURE 2: Venison and velvet production - 1993 - 2002

FIGURE 3: Deer industry export earnings - 1993 - 2002
Total industry export earnings amounted to $257 million in 2002, up 37% on 1993 ($187 million).

Volatility
Volatility has often been referred to as the deer industry’s biggest challenge. While the industry’s strategic direction calls for managed supply and stable pricing, the figures illustrating the percentage change in venison production from one year to the next (Figure 4) and the weekly average published schedule (Figure 5) indicate how far the industry is from achieving this goal.

Processors/exporters and their in-market partners suggest that changes in production within 10% from one year to the next are manageable within the context of pricing and market relationships. Figure 4 shows that the industry has generally operated outside this 10% limit. Figure 5 illustrates the volatility of the venison schedule over the past 10 years (shown as the heavy line). Over this period, the average schedule price has been $6.13 (shown by the labelled horizontal line).

Changing industry
A notable feature of the deer industry’s establishment was the deliberate move to position itself as a unique industry independent of, and away from, the ‘traditional meat industry’. This saw investment in separate deer slaughter premises (“DSPs”) to slaughter and process deer, the bulk of processing and exporting undertaken by relatively small, boutique companies specialising, or dealing exclusively in venison.

The law providing that deer could only be slaughtered in DSPs was dropped with the implementation of the Animal Products Act 1999. However, even before this happened, larger companies and producer co-operatives involved with beef and sheep-meats had entered and become major forces in the venison industry.

In addition, as is the way with day-to-day commerce, there have been examples of companies entering the venison industry (e.g., Alliance), exiting the deer industry (e.g., Affco), companies liquidated (e.g., Fortex, Venison New Zealand) and companies expanding through acquisition (e.g., PPCS’ purchase of Mair Venison). The industry has also seen the involvement of corporate farmers such as New Zealand Deer Farms and Landcorp increasing farmed deer numbers significantly.

Global economic factors
The reunification of East and West Germany was a major global event that impacted the venison industry’s largest market. Although it took place outside the 10-year period under consideration, reunification is said to be still having an impact on the German economy, which is struggling with high unemployment, almost zero growth and falling consumer confidence and spending. Germany accounts for roughly 50% of all of New Zealand’s venison exports by volume and its economic wellbeing has a direct impact on the state of the venison industry.

Aside from a wildly fluctuating currency, terrorism and various military actions, perhaps the most notable recent global economic event in the last 10 years for the deer industry was the Asian Economic crisis in 1997. The shockwaves following the crisis saw velvet prices almost halve with a flow-on effect to venison prices in 1998 (Figure 5) as a large number of velveting stags were slaughtered, impacting venison supply (Figure 4).

BSE, FMD, CWD
Unlike the damage done to the venison market by Chernobyl, the crisis in consumer confidence arising out of the BSE and FMD crises in Europe in 2000/01 saw record prices paid for New Zealand venison. However, these prices were largely fuelled by importers speculating that animal health concerns would continue to mean strong demand for ‘alternative’ proteins including venison.

In fact, consumer concerns eased more quickly than anticipated, coinciding with large volumes of cheap, imported beef being dumped on the German market (around October 2001).

As a result, demand for highly priced venison dropped markedly and the resulting price fall saw significant losses and a crisis of confidence among importers and distributors caught with highly priced stocks. The flow-
on effects from this correction have driven the record low farm-gate prices seen for venison today. At the time of writing the schedule is $4.12 (60 kg AP Stag), almost 60% below its peak in October 2001.

While news of CWD in Canada caused a brief consumer backlash against all suppliers of velvet in Korea, this was extremely short-lived. Even news of CWD in imported Canadian elk in Korea did not generate the level of consumer concern that many expected. Instead, the resulting ban on imports of Canadian velvet into Korea has been cited as an important reason for the relatively strong prices for New Zealand velvet over the last two seasons, despite reports that banned Canadian product continues to be marketed into Korea unofficially.

Reform, restructuring and structures

The last five years have been characterised by a significant amount of reform and restructuring of industry structures and of the broader deer industry.

In 1998, the National government led a programme of producer board deregulation aimed at removing the legislative base upon which organisations such as the Game Industry Board rely for levying powers. At this time, the deer industry was in major internal turmoil with a significant part of the industry refusing to participate in the Game Industry Board’s industry-good programmes and calling into question the ‘industry-good’ nature of the same.

While the 1999 election saw a change of government and the end of National’s producer board deregulation programme, the deer industry took the opportunity to progress reform discussions aimed at remedying its internal conflict.

Arguably the most important achievement of the resulting Three Partners : One Vision Strategy was the clear delineation between industry-good and commercial activity - with the activities of the Game Industry Board clearly limited to an industry-good role.

This process was largely concerned with redefining ‘industry-good’ based on the industry of the day which, as described above, was considerably different to the industry which existed when the Game Industry Board was established 15 years earlier. Restructuring saw the Game Industry Board drop some activities as programmes were moved to stand-alone entities (for example, Cervena) or made user-pays (for example DeerQA), reduce staff numbers, cut overheads and significantly reduce venison levy rates (from 19 cents/kg to 10 cents/kg) and income.

While implementing legislation has not yet been drafted, a major outcome of this process was the endorsement of the ‘industry-wide’ nature of the Game Industry Board representing all sectors charged with promoting the overall interests of the industry at large. When implemented, new regulations will see partnership reflected in a true 50:50 board with equal producer and processor/representation and a 50:50 split levy for venison. The industry continues to wait for changes to the Game Industry Board Regulations to make this a reality.

In 2001, industry consultation started, which saw the implementation in 2002 of a streamlined industry structure called Deer Industry New Zealand based on the Game Industry Board Regulations but providing administrative support for the New Zealand Deer Farmers’ Association (NZDFA) as well as full-time professional representation of producer interests. With the NZDFA setting their commodity levy at nil, restructuring, effectively saved the industry and producers directly approximately $700,000 while delivering more effective servicing to the industry.

The deer industry has also implemented a number of structures to serve specific purposes in the past 10 years. There are two important examples of this in the area of research. Velvet Antler Research New Zealand Ltd. (“VARNZ”) and DEEResearch Ltd were established in 1994 and 2001 respectively as 50:50 joint ventures between the deer industry and AgResearch to co-ordinate research efforts and maximise opportunities to leverage public science funding. Examples also exist in the area of marketing (Cervena Trust) and Quality Assurance (the National Velveting Standards Body, “NVSB”).

VISIONS

Growth

Without the benefit of the results of the Agricultural Production Census at the time of writing, and given these results are expected very shortly, this paper will not address forecast production out to 2013. However, it is generally accepted that with a growing herd, there is the potential for growth in supply to outpace growth in market demand.

The industry (collectively and companies individually) must invest in new market development and demand creation appropriately to cater for increased production. At the same time, producers and processors/exporters need to work closely together to manage supply in line with market requirements.

To achieve its vision of a sustainable profitable industry, we must work collectively to grow the market ahead of supply and manage supply to meet market needs. This is a delicate balance, but an objective assessment of the venison market today would suggest that while global factors outside the industry’s influence will have a significant influence on the industry’s business and returns, there is plenty of scope for the industry to do better on both sides of this equation - creating demand and managing supply.

Venison

While the game season is expected to remain an important market for venison into the foreseeable future, the industry’s growth and profitability aspirations can not be supported in this narrow and narrowing niche. The industry’s vision for venison is clear - to move venison away from reliance on the traditional game trade and the traditional game season, into a range of new consumer and geographic markets year-round.

This is the primary focus of the activities of Deer Industry New Zealand in line with the strategy agreed with all industry participants in 1999/00. While the industry is working to change centuries of culinary tradition, the aligned efforts of Deer Industry New
Zealand, processors/exporters and their in-market partners are starting to take hold.

While additional investment in promotion and market development is a worthwhile objective, the leverage achieved through Deer Industry New Zealand’s current joint promotional programme should be kept in mind - processors/exporters and their in-market partners contribute $2.30 alongside each levy dollar in joint promotions. This is in addition to company-specific promotional activities.

For most of the last 10 years, the industry’s growth in production has been consumed in a narrow distribution channel, in a small number of geographical markets and in only a few months of the year. The opportunities for profitable growth in new markets, year-round are obvious. Furthermore, venison is extremely well placed to benefit from a number of increasingly important consumer trends towards lighter, healthy high-quality and quality assured foods. This is especially the case in the new, year-round sectors being targeted for market growth.

**Velvet**

There are remarkable parallels between the challenges, vision and strategy in the venison industry and the challenges, vision and strategy in the velvet industry. As is the case of venison, where 90% of New Zealand’s exports by volume are destined to Europe, velvet is largely dependent on one main market - the Republic of Korea, which takes upwards of 85% of all New Zealand velvet.

In Korea, velvet is distributed as a traditional product through traditional and obscure channels where the New Zealand origin of product is often lost and New Zealand product can be mixed with product form other sources. This is similar to the treatment of New Zealand venison among parts of the traditional European game trade.

The vision for velvet is in two parts. First, it sees New Zealand velvet marketed in new product forms into our existing markets in Asia. Fulfilment of this vision requires the removal of a range of trade barriers. Industry-good programmes aimed at bringing down these trade barriers are progressing well.

Secondly, the vision in the velvet industry sees velvet products marketed and consumed as safe and effective natural health products in new, non-traditional western markets. This part of the vision requires robust science to enable the safety and efficacy of velvet products to be proved to sceptical and sophisticated western consumers who do not understand velvet as a health product. The VARNZ research programme was established to conduct the research needed to meet these market needs. As the VARNZ research programme matures and evolves into cutting-edge areas of scientific discovery, the vision of identifying active and possibly novel ingredients in velvet that is responsible for a specific health benefit comes closer to reality.

**Industry business structures and relationships**

The wheels of commerce will continue to turn and no-one can reliably predict what shape the commercial structures in the industry will look like in 10 years time. Ideally, structures will evolve which assist the industry to achieve its objective of managed supply and stable pricing. The development of closer relationships between exporters and their in-market partners and perhaps some degree of vertical integration would assist the achievement of these objectives. Consolidation in the processing sector may also assist in the achievement of these goals.

The role of Deer Industry New Zealand in relation to business structures is a difficult one. Direct involvement may be seen to cross the industry-good line into areas of commerce. However, Deer Industry New Zealand will continue to play an indirect role co-ordinating, facilitating and assisting companies with new structures that serve the industry-good wherever appropriate.

**Animal health and biosecurity**

In 10 years time the National Pest Management Strategy for Tb will be at an end and, if successful, will see New Zealand officially free of Tb. In terms of infection rates in the deer industry, official freedom in 2013 means infection in only 8 deer herds (0.02%). As at January 2003, with 71 infected herds (down from 100 in January 2001) the industry is making excellent progress and better progress than forecast, but there is still a long way to go.

Diseases including Foot and Mouth Disease and Chronic Wasting Disease would stop the deer industry in its tracks for some time, after which a long, painful period of recovery would ensue. Keeping New Zealand free of these diseases, and credibly demonstrating that freedom, is critical to ongoing access to international markets and industry survival, let alone growth.

A robust biosecurity system is fundamental to any vision of a successful deer industry in 10 years time. This, in turn, requires that some difficult, fundamental questions need to be addressed and acted upon in the very near future - who is responsible for ensuring a robust biosecurity system for New Zealand, how will industries and officials/agencies work together in planning, surveillance and incursion responses and who will pay for New Zealand’s biosecurity defences.

The recent Draft Biosecurity Strategy for New Zealand, issued for public comment late in 2002, is at least an initial step towards developing and implementing such a system.

**Biotechnology**

Biotechnology presents significant opportunities for agricultural industries, but also a number of known and unknown risks.

A known risk is that of possible market and consumer opposition, if New Zealand embraces some forms of biotechnology in its food chain. Balancing this is the risk that New Zealand may lose competitiveness, or even be shut out of some market opportunities, if it doesn’t at least keep pace with its competitors’ advances in biotechnology.

The deer industry must continue to be market-led in making the decision about what level of biotechnology is acceptable in its production systems. However, it must also step up its investment in promising areas of
biotechnology to be ready to capture the opportunities presented as consumer attitudes evolve and as we begin to know more about this area.

Managing intensification
An issue such as biotechnology highlights the tension between profitability and market demand/consumer needs. However, assuming that market demand relies on consumer needs, the deer industry must address issues of intensification of production urgently and decisively.

International regulators, buyers and final consumers are all increasingly concerned about food production systems. With this underlying concern, combined with communications technology, international media and global lobby groups, it is naïve to expect that any food production system will remain out of the public eye over the next ten years.

Taking a reactive approach, the industry could wait for the market to consider the industry’s production systems and then either accept the market’s response, or invest heavily in marketing to re-educate the market, or look for new, less-demanding (and likely less-rewarding) markets.

Alternatively, taking a proactive stance, the industry could adapt its production systems to ensure that they are fully acceptable to the market. Taking this approach would mean the deer industry has a significant task ahead to consider and objectively evaluate, and perhaps modify, some of its existing practices to ensure that they comply with market needs and consumers’ expectations. The practice of indoor-wintering is a specific area of concern where the industry is exposed to the risk that the market’s perception of our product, which the industry encourages, may not always match reality.

Welfare and Environment
Animal welfare and environmental issues will present increasing challenges for the deer industry in the next 10 years. At a trade level, there is an increasing likelihood that these issues may be used as the next generation of trade barriers. At a consumer level, it is clear that these issues are impacting buying behaviour anyway.

A successful deer industry in 2013 will be benefiting from work undertaken over the last 10 years and extended in the coming 10 years. DeerQA provides an underlying industry-good capability for the deer industry to provide credible assurances to our international customers on these and other issues. The NVS’s work in providing welfare assurances relating to velvet removal must continue, but with increased investment in education and ensuring compliance. Recent work to develop an environmental best practice manual for deer farming must be integrated into the industry’s broader QA programmes.

Where simply having a QA programme may have been sufficient until recently, growing scrutiny will be placed on the integrity of these QA programmes. Issues of compliance and independent auditing will become increasing issues as the quality of our QA programmes is put to the test.

To be successful in 2013, the industry must not lose sight of its consumers’ needs. We must have ‘early-warning’ systems in place to identify those needs, and then systems to meet and exceed those needs consistently. Where consumers demand assurances about issues such as welfare or environmental practices, the systems we have in place to make those assurances must be credible and beyond question.

People and research
In order to meet some of the requirements described above, the industry must be able to attract and retain suitably qualified and skilled people and equip them with the knowledge and tools to perform to their potential.

Research is critical to providing the foundation necessary for the industry to achieve its vision on a range of fronts - supporting productivity improvements, new market development for velvet to assist diversification, velvet research to argue against unfair trade barriers, research into venison’s nutritional benefits to support its healthy positioning, to name a few.

Related to the need for research, retaining and enhancing research capability for the benefit of New Zealand agriculture is critical. Given reductions in government science funding, retaining and building capability will require increasing research investment from the industry collectively, where this makes sense as an industry-good and, otherwise, on a commercial basis by individual participants.

Deer Industry New Zealand currently invests approximately $1 million a year into research through VARNZ and DEEResearch. This represents a significant proportion of total levy income (almost 25%) but represents less than half of one percent of total industry export earnings. While research is also funded commercially, the industry needs to consider whether its total current level of investment is adequate to assist the achievement of its vision.

It is suggested that to ensure a thriving industry in 2013 the deer industry needs to step up its investment in people, research and the need to implement the technology transfer systems necessary to leverage those investments.

Deer Industry New Zealand changing with the industry
Deer Industry New Zealand and the Game Industry Board before it have always been industry-good organisations. However, the question of what constitutes ‘industry good’ varies over time as the nature of the industry changes.

The question of whether an industry organisation should be retained will be tested with all stakeholders every five years voluntarily by Deer Industry New Zealand. If the industry sees value in and wants to retain an organisation to promote its interests then it is critical that the definition of industry-good is regularly updated to reflect the needs and attitudes of what is expected to continue to be a changing industry.

SUMMARY
In the past ten years, the deer industry has been through a rapid process of growth and change. The industry has adapted and evolved to address many of the issues it has
faced. In other cases, underlying and fundamental issues remain unresolved and this is one of the reasons contributing to the industry’s continued volatility.

Clear industry strategies are in place, and agreed with all sectors, for the venison and velvet industries to address the need, in each industry, for diversification out of traditional markets, and for new market development.

In addition to the need for demand creation, managed supply and price stability, the industry has a number of other significant challenges on the horizon. These challenges include:

- ensuring New Zealand’s disease-free status is maintained and can be credibly assured,
- taking well-reasoned and decisive steps, which are acceptable to the market, to manage risks and opportunities associated with biotechnology and new, intensive production systems,
- being able to meet consumer needs in relation to issues such as welfare and the environment and having systems that enable the industry to provide credible assurances about such issues,
- ensuring underlying capabilities including research and skilled labour are in place and adequately resourced to enable the industry to meet these challenges.

At this stage, it seems important that the industry maintains an industry-good organisation to assist in addressing these challenges. In turn, it is critical that such an organisation continues to assess its definition of ‘industry-good’ to take account of, and adjust to, the ever-changing nature of the industry.