

A QUALITY ASSURANCE PROGRAMME FOR VELVET

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The past two seasons have seen product returns for velvet climb to a level where the so called "by-product" of the N.Z. Deer Industry is now of equal importance to the main-stay venison. Many venison processors, under the Game Industry Board's extensive Quality Assurance Programme, have reached quality standards recognized internationally as the pinnacle of food processing technology – something our traditional meat processors can only aspire to.

It is now becoming increasingly apparent that our efforts to date have been somewhat one-sided. N.Z. Venison has been market-led to develop an image of identifiable and quality assured products while our velvet tends to melt invisibly amongst an ever increasing tide of competitors' products.

I believe it would be a mistake to continue on our current path assuming that our present market and its quality demands will remain constant for the foreseeable future. As additional product enters the world velvet market from both within N.Z. and from our overseas competitors, especially the now dismantled Soviet States, it will become increasingly important for N.Z. to identify its product under a barrier of proven quality and reliability.

History has clearly demonstrated to N.Z. velvet producers the havoc that can be caused in our vital Korean market when doubts about N.Z. velvet quality are ineffectively rebuked. The only effective way to prevent these situations occurring is to be proactive in instigating quality (e.g. pig-blood substitution scandal) assurance systems that self-police our product guaranteeing certain minimum standards, thus allowing product differentiation and market development.

As research continues to probe the hidden properties of velvet, and Western nations tend towards more "natural" medical products it is possible that the pharmaceutical industry will begin to use velvet as the raw material from which to extract refined therapeutic agents. There are many within the industry who see these days as not so far away! But associated with this exciting and potentially lucrative market would go a demand for stringently enforced quality standards.

The time therefore seems appropriate for this industry to start considering its own Q.A. system which, although not dictated by the present buyers, starts to create a 'quality' identity for our product and allows us to be a 'Quantum' leap ahead of our competitors should markets with more stringent demands evolve.

The GIB along with the velvet processors and MAF has already started down the QA road, but I believe that the final product can only be as good as the raw material which processors are supplied to work with. It is in this area that farmers and their veterinarians have an excellent opportunity to work together designing systems, facilities and techniques which will maximise the farmers' future returns within a changing market.

So often today it seems that discussions between deer farmers and veterinarians revolve around the issue of drug supply, something which in efficient well-run velvet units has less effect than a 3-5% product price shift. On the other hand

market variations of up to 50% seem to be accepted stoically as just part of the business. I don't believe the final consumer ever sees this sort of price variation and to me it would seem more productive for farmers and veterinarians to work together towards a goal of market stabilisation and development. One thing to me is certain, no single party will succeed alone.

Any QA system introduced must succeed because there are financial gains to those who comply. Attempts to legislate or force compliance are doomed to failure. The only successful system is one which rewards those making the extra effort. Looking logically, if somewhat cynically, at the situation and following the usual trend for N.Z. commodities, what will in fact happen is that real market returns will trend downwards but the drop will be ever so much faster for those who choose to do nothing. This trend usually becomes exaggerated in years when it is a buyers' market.

Already major players in the velvet marketing system (velvet pools) are providing for Quality Assurance information to be returned to farmers along with grading and price. This will quickly allow access to farmers with a proven quality record should changing markets demand this. Other pool operators are looking to sell quality controlled lines hopefully at better prices as a means of attracting increased business from producers of higher quality product.

Support for a farm-orientated QA system is strong from the velvet processors and buyers because a small percentage of each purchase is lost through partially decayed, damaged and contaminated product, which is undetected in a frozen state, deteriorating during the cooking and drying process to the extent that it must be discarded. Surely avoiding this problem alone could support a small margin for QA product.

QA Systems

Development of any QA system involves

P	-	PROBLEM
I	-	IDENTIFICATION
C	-	CONTROL

By establishing a detailed flow chart of all the important steps in a velvet production operation, it is possible to pinpoint those areas where problems are most likely to occur. Systems and facilities must then be developed which prevent problems occurring, then add in automatic self-auditing checks which confirm the entire system's success.

To look at an on-farm QA system for velvet I have broken the operation down into three distinct levels:

- Level 1** The Animal Factors affecting the stag itself from genetics and nutrition to individual and herd health status, anaesthetic, drug residue and welfare considerations
- Level 2** The Facilities Ensuring adequate 'bricks and mortar' exist to complete the job satisfactorily

Level 2**The Facilities**

The aim To Reduce

- a) Soil and bacterial contamination of product
- b) Minimise risk of physical damage
- c) Aesthetic surroundings
 - present end consumer with conditions which match his mental image of a healthy product

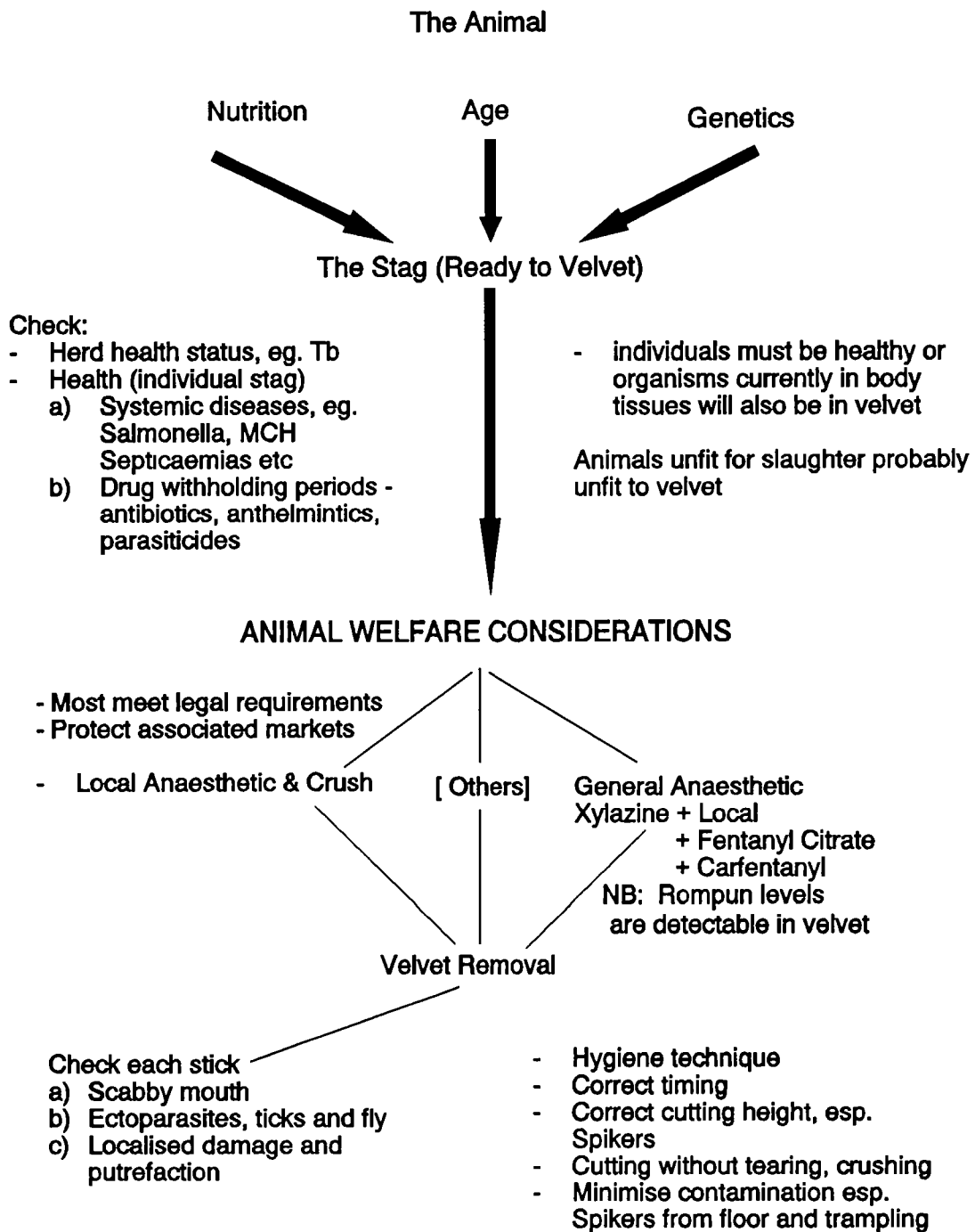
Problems

- 1) Holding yards - often muddy or dusty
- 2) Working areas - Porous or contaminated surfaces
 - Widespread faecal and urine contamination
 - Concrete surfaces must be clean
 - Dust must be minimal
- 3) Aesthetics - Heavily blood contaminated walls and surrounds - often on non-scrubbable surface This creates the wrong industry "Image"

Dairy farmers can only harvest their product in an inspected, approved and maintained facility Is that not a reasonable future expectation of Deer farmers?

Level 3 The Product. Controlled handling from removal until in the hands of the wholesaler (pools) or processor.

Level 1



Level 3**The Product****POST VELVETING HANDLING**

- ↓ must ensure
- minimum time to freezing
- correct storage angle to prevent bulbing or bleeding
- ↓ prevent fly strike
- place only on clean surfaces
- ↓ - consider sealing stump

BAGGING

- ↓ - remove any slight contamination by dry brushing NO WATER
- ↓ - use only clean bags
- handle to prevent bleeding in bag
- ↓ - use airtight seals

FREEZING

- ↓ - Freezing capacity must be adequate to cool rapidly to bacteriostatic levels
- ↓ - Freezer must be adequate to cope with largest days velvetting
- Storage time should be minimised
- ↓ - Prevent marking as freezing

GRADING FOR SALE

- ↓ - Is this carried out without thawing?
- Are surfaces hygienic?

↓

TRANSPORT TO SALE

- Again prevent thawing
- Keep in hygienic containers

First Steps

- * Need a working party of representatives from Producers, GIB, Veterinarians, processors and velvet buyers to decide on problem areas, acceptable standards and possible solutions
- * The intensity of the programme should be determined by present markets and possible developments in the short to medium term
- * The ultimate aim should be to develop identifiable, proven quality N Z velvet products which are recognised within the market and are above any attempts to manipulate price by attacks on product integrity

Possible Systems

The approach taken will depend on the extent of the Quality Assurance programme decided on

- 1) **Basic.** Visual examination of product only combined with producer education programme. A clearly stated list of velvet faults which will make product unsuitable for sale.
- 2) **Middle Ground** - Certification of producer facilities and farm health background, perhaps combined with the "Paddock to Plate" Venison QA system and the more extensive Tb QA programme currently being developed. This inspection system would include handling and freezing facilities, anaesthetic techniques and would be supported by spot checks using bacteriological methods to determine hygiene standards. Farmers would attain an accredited status number and this would enable them to sell through separate QA lines hopefully rewarding them for their efforts. Breaches of any part of the system would mean loss of accreditation status.
- 3) **Intensive.** This approach would extend right back to the health status of the individual animal supplying the velvet. It would indicate the type of anaesthetic used so that chemical residues such as Xylazine would be known and the facility approval system would be more comprehensive. It would need to be supported by a more extensive laboratory-orientated check system. Individual sticks of velvet would need to be inspected prior to freezing because freezing disguises a multitude of sins. Integral to the success of this type of programme would be the development of a tamper-proof identification system which would seal bags of inspected velvet. Alternatively individual sticks would have a tamper proof QA seal and code attached. Whatever system is used it would enable back tracing of velvet to the farm and even the animal of origin.

Such a detailed system may only be appropriate should a high priced player with stringent quality demands such as western pharmaceutical companies enter the market.

The Future

The current velvet selling system unfortunately places the majority of farmers producing quality product at the mercy of those few who consistently deliver low grade, damaged and contaminated product. Should buyers decide to make an example of inferior quality product the price repercussions will be felt across the full range of producers. For this reason alone I feel the industry can no longer delay introducing a quality assurance programme.

As veterinarians we are ideally placed to play a pivotal role in the introduction of a velvet QA programme. The more intensive the programme the more central the veterinarian's role would become.

Veterinarians have the skills to certify animal health and have a substantial background training in public health and food hygiene to certify a product which, at the end of the day is a food. Veterinary skills are recognised internationally as an independent assessor of food quality and these skills are becoming increasingly called on as the Deer Industry further develops its QA systems for venison and tuberculosis control. I therefore urge field practitioners and farmers to think further about the entire process of velvet production from breeding to product sale. Start a detailed client education programme assisting your client to achieve maximum returns for his product. It is time to change from being a technician, carrying out anaesthetics and a simple surgical procedure to a systems consultant maximising profit at all levels of production.

From the velvet producers point of view, unless some degree of product differentiation and quality assurance is developed velvet will suffer increasing competition and price erosion along the lines of other pastoral based commodities until only a skeleton of the present industry survives

Let's work together for the survival of a fascinating and currently profitable industry