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FEEDING DEER IN DROUGHT

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Deer farming can be one of the most rewarding of agricultural pursuits when looked at from both a financial and a personal point of view. Successfully farming deer on a commercial basis is basically a matter of how efficient we are at providing sufficient quantities of quality feed at an economic price. The cost of producing any given kilogram of venison or velvet, subtracted from the market price for the product, provides a figure easily compared with what we need to be viable. This simple equation, allows any deer farmer to factor in price fluctuations, animal, pasture and feed varieties and species, as well as farming methods and personal aspirations. One very important factor that every farmer needs to enter into this equation is that of seasonal weather variations such as cold, rain, heat and drought.

The point at which the weather factor becomes very complex is when it enters into the realms of the unknown. The drought conditions across large areas of Australia are now far worse than any other in recorded European history of this land. No longer is there a set of precedences to follow as we see 'permanent' creeks bake hard in the sun, 'un-killable' tree species wither and die and the most 'infallible' of ideas and opinions become impossible. It becomes a time definitely unsuited to the faint of heart or those without a genuine commitment to their stock, their country or their ideals. The secret to survival under these conditions can therefore be summed up with one old saying: "Attitude, attitude, check your attitude".

Keywords: commercial basis, economic, personal aspirations, drought, attitude.

INTRODUCTION

To fully understand the reasons a family such as the McChies would devote their lives to deer related activities, we need to briefly look to their background. Both Debbie and I come from families of Celtic heritage, tracing back to such clans as the Cameron and McKay, which most probably doomed them to an involvement with deer whether they liked it or not. They started trapping wild red deer during later 1979 and were involved extensively in ground and helicopter capture. During the late 80s they started to increase deer numbers above that of the cattle also being run on their property 'Langley', and by 1993 were running a 'deer only' property. By 1996, a total of 4,000 head of deer were being run on a total of 900 hectares, which included over 2,500 rusa and chital. Their property has been drought affected since 1990 and drought declared since 1991.

PRESENT CONDITIONS

The drought conditions prevailing in the Munambar/Elginvale area at the moment are the worst in any known recorded history for the area and are considered to be some of the worst in the State. While most areas of Queensland received some rain during the period since Christmas 1996, this area has received little more than 125mm even if all small falls were totaled. Although this area is no stranger at all to drought, this extended dry period, coming on top of the previous 6 year drought, has seen feed and water reserved drop to all time low levels. The annual rainfall for this area was once classed as 36-40 inches (900-1,000mm) and the rainfall deficit is now over 200 inches ((5,000mm). The current long range weather forecast is for a continuation of the drought with less than a 30% chance of normal rainfall occurring, from now until at least next Autumn.

Presently, most of the local cattle properties are running at 20-30% capacity with many being totally de-stocked. With cattle prices extremely low and all stock in need of costly supplement feeding, there appears to be little hope on the horizon. Some farms are now totally abandoned. Long term families have left the district and farm incomes are at an all time low.

How then is one property, under these conditions, able to maintain a far higher stocking rate, increase production annually? Establish infrastructure and provide an income for three families? The answer is of course simple – 'deer'.

HERD STRUCTURE

The deer herd on 'Langley' has been reduced to its present total of 3,300 by an organized culling process in line with the weather conditions. This total is made up of approximately 1,650 red deer and 1,650 Asiatic (javan and mollucan rusa and chital).

The red deer herd is comprised of 720 males (including spikers) and 930 females, with the vast majority being of totally imported bloodlines with the emphasis being on Warnham strains. The rusa herd on the other hand, is made up of 400 males in total, with the emphasis placed on the javan strain of rusa. Approximately 250 chital deer are also farmed, but due to the drought, are presently kept in a semi-wild state in a large timbered paddock.

PROPERTY LAYOUT AND PRODUCTION

'Langley' has always been regarded as a prime example of Queensland 'Bullock' country due to its large area of creek flats and cultivation, good 'permanent' water, rolling timbered ridges and most importantly its ability to grow grass. Described in the late 1890s as a "sea of rolling blue grass and blue gums", this property has kept the reputation as having a high stocking rate and the ability to recover quickly. At one stage, 'Langley' was a dairy farm, which milked over 400 head daily. With ongoing care, the pastures were increasing in value with the long term introduction of many different legume and pasture grass species, rotational grazing and cropping techniques as well as weed and timber control measures.

Initially the deer farm started as a 1 hectare block, precisely in the middle of 'Langley'. As the numbers grew, six more paddocks were fenced to total 25 hectares, but it wasn't until 1989 that the major developments were started. Presently there are 25 different deer paddocks connected to a centre lane way system to the newly constructed yards built around the original dairy. There are 11 different cultivation paddocks, totaling over 200 hectares of which 20 hectares have the ability to be irrigated from a central dam with the capacity of over 100 megalitres when full.

Under reasonable climate conditions, where both native and improved pasture can be utilized as well as the irrigation potential, 'Langley' would be able to run at least 4,000 head of red deer, without the need for supplement feeding. Since 1990, over 100 tonne of venison has been produced of 'Langley' and over 2.2 tonne of velvet. The 1997 velvet harvest set to exceed 900 kilograms. Live animal sales have exceeded 1,200 head during the same period.

PRESSURES AND EFFECTS

Very few people would knowingly choose to farm any livestock through an extended drought cycle. The reason some do is due to two factors. Firstly, they have made a solid commitment to their property and their business and secondly, they have no way of accurately predicting how long the drought cycle will last. Weather forecasters are now notorious amongst country people as having as little idea of the weather as anyone else.

The pressures associated with any drought are many and varied. For example, animals that are normally social develop severe intolerance towards weaker or new members of their group which results in a higher level of 'shy feeders'. As feeders, bins and troughs become relied on heavily, it creates a huge problem as to how to equally feed individual animals. The effect of this is seen both in the animals that slowly perish at the side of the mob, as well as in those which suffer from engorgement related problems. As herd sizes increase due to lack of water or feed in individual paddocks, normally minor problems, such as animal hoof care or blight, can take on a scale of epic proportion. Routine chores such as water trough inspection must be seen as an imperative daily necessity, as a broken float or valve on a hot day could endanger hundreds of animals or waste precious water reserves.

Animals searching for a few blades of green grass will attempt fences that, up until then, were deer proof, dry creek beds provide excellent escape possibilities, piles of logs or rocks become death traps, water holes become bogs and anything toxic suddenly becomes edible. This adds up to far more regular and intense property surveillance, as animals placed under stress, for even short periods or time under these conditions, can quickly die or be too weak to recover.

Feed-out vehicles, tractors and machinery receive far more work than normal which has the effect of placing more pressure on maintenance and repair routines. Simple break downs of feeding equipment or supplement supply can very quickly cause considerable pressure on reliant animals.

Possibly the single most dangerous pressure is that which is placed on farm personnel. Unless a person has been through an extended drought period, they have little idea of its effect on those involved. Simple jobs around a farm can quickly become major problems and catalyst for huge anger and frustration. It is at this time that it becomes extremely important for all involved to remain focused on the 'big picture' and check their attitudes. Quality, if not quantity of time, must be spent as a family to maintain direction.

STRATEGIES

When we made the decision to become exclusively a deer property, deer prices and markets were at an all time low. The drought was only in its infancy, but still of a serious nature. Faith in deer as a viable farm animal, as well as the risky future of the beef industry, made the decision easier. Once made, there was no turning back and this factor has been one of the basic strengths in our fight against the drought.

As there were large dry feed reserves on 'Langley' at the start of the drought, it was apparent that it was far cheaper to fence more country than to feed supplements. Alternative styles of fencing were trialed and proved so successful that by 1995 the total block had been fenced. Over 22 kilometres of electric fence is now utilized on 'Langley', with most of it being normal four barb cattle fences up-graded with high tensile 2.5mm plain wire. By using this style of fence, in conjunction with large paddocks and molasses based supplements, the dry standing feed was utilized very efficiently. Both the rusa and red deer proved to be effective converters of this rough feed and although growth rates were not as big as they would have been under good feed conditions, when this method was compared with more 'traditional' methods of feeding, it proved quite favourable. Combined with strategic grain finishing, this allowed for expansion of the deer herd at a time when most other farms were lowering stock numbers. This allowed for a continual supply of finished animals to service a low priced, but steadily growing, domestic venison market. This in turn created a cash flow for the property which, in itself, provided time for other animals to breed, mature or finish.

This positive, pro-active strategy has allowed for other venison and live animal markets to be accessed, as well as giving their red deer velvet herd time to mature to a sustainable level. Although the extremely high costs of feeding this number of animals, combined with the extra unnecessary drought expenses, have more than negated any positive returns from all the combined markets, the property is still situated in a position to quickly return to maximum production – providing the drought breaks soon.

HANDLING

When animals are run in herds that often number over 1,000 head, it creates its own handling difficulties. Design of laneways, gates, yards and handling equipment needs to be in line with the animal's behavior or massive problems will occur. Mustering large mobs out of a paddock which can be up to 250 hectares calls for a high degree of stockmanship, especially when most of the mustering is done by one person. The secret to handling deer on this scale lies undoubtedly with our Border collie dogs which now number over a dozen, and take two bullocks a week to feed! When trained to a high level, good strong eyed dogs with speed, stamina and a bit of aggression have the ability to sedate, hold and control any deer herd. Mustering is done mainly from four wheel motorbikes, (the faster the better) and once conditioned to the experience, the animals will move out of most paddocks at an even controlled rate.

Handling large numbers of deer per day through conventional crush and yard systems proved to be a tiring and often frustrating procedure for one man. By working with John Cochrane of 'Farm Pro', we were able to come up with a handling system that allowed for a large number of deer to be handled quickly and with the minimum of stress. Although the deer yards on 'Langley' are now close to twenty years old and quite basic, this handling system proved to be a vital link in achieving economy of scale on the property. A new far more efficient yard system is presently under construction.

THREATS

As the pressure of the drought strengthens, so too do the real and potential threats to the deer themselves, and the people involved. As water holes dry and turn green and disappear, animals can either scour, lose condition or die. High levels of magnesium in bore water has proven to be a problem, but is difficult to address without good rains. Standing feed can quickly reach a stage where it takes more energy for the animal to process it than it can possibly supply. Supplement, either too quickly fed or gorged will kill and some feeds can carry toxins, weeds or moulds which calls for constant vigilance. Low levels of vitamin E, D, A and selenium cause eye and skin problems or White Muscle disease. Young animals, as they break out their secondary molar teeth, especially first fawners, can face a huge problem when confronted by dry or hard feeds.

Cattle ticks and buffalo fly hover in the background and dingoes beat a relentless path outside the electric fence waiting for any mistake, while the wedge-tail eagle, forced in from the western areas see the small Asiatic fawns as more than fair game.

Possibly the biggest threat to any farmer under these conditions, unless they maintain their personal attitude and direction, comes not from nature but from their fellow deer farmers. Those deer farmers, either with more money than sense, educated beyond their own intelligence or simply vindictive, can cause problems for anyone, especially those in drought. All states have their deer farmers that fit into these categories and they pose a serious threat due to the fact that they are not practical farmers and often cause significant, if not irreparable, damage to markets that others are relying heavily upon.

To help combat this menace, it has been necessary for us to take a positive role alongside similar minded people in the industry at management level.

PRESENT POSITION\

At present, the feeding of deer continues on 'Langley' as they approach the end of what has turned out to be quite a mild winter. Whole corn and whole cotton seed is fed out as a standard ration. As an example, mature red females are fed 1 kilogram of corn per day and ad-lib access to cottonseed which also works out to just over 1 kilogram per animal per day. The extra needed to maintain them in over 90% condition is sourced from the slowly disappearing dry feed reserves.

While the benefits and problems of feeding corn are widely known to deer farmers, most are not familiar with cotton. High in protein, energy and oil as well as roughage, what was once a waste product is now mainstream stock feed. Once used to it, animals self limit intake and show good growth rates. At \$185 per tonne, it still represents good feed value when fed in conjunction with a grain.

Silage and dry hay is also fed as required to achieve a balance, as well as DCP and Bentonite. The choice of supplement is determined firstly by its cost per unit of crude protein, but a comparison is drawn of each feed's ME, DM, by-pass action, ease of handling, animal utilization and acceptance, as well as supply continuity. Shortfalls in trace elements, vitamins or minerals can be replaced easily as long as their absence is seen.

Although much is still to be learnt about deer and their successful management under commercial conditions, the majority of information needed is easily sourced within farming circles, as long as the particular farmer has the desire to do so.

CLARK'S CONCLUSIONS

The most important factors to successfully combat the effects of drought are:

1. Maintain a strong personal attitude and direction.
2. Have faith in our chosen property and stock or change them.
3. Share and discuss decisions and problems with family and staff.
4. Maintain a cash flow.
5. Keep an honest appraisal of conditions and alter course to suit.
6. Hath faith in your 'gut feelings'.
7. Feed your animals well without being wasteful.
8. Source all possible information and learn it.
9. Treat a drought as a challenge.
10. Never, ever, ever give up.