

British Deer Farms and Parks Association **Handbook** 2016-2017

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CHAIRMAN'S COLUMN

THIS WILL BE MY FINAL EFFORT AT CREATING SOME COMMENTS FOR BDFPA. FORGIVE ME THEN IF IT IS A BIT SELF-INDULGENT.

The BDFA was founded in Perth on 30th November 1978 at the instigation of Sir Kenneth Blaxter aided by Colin Young. I was elected vice chairman with the late Peter Gladstone as chairman for a two-year term.

One of the first issues we faced was at the end of Peter's term. I had visited New Zealand in 1979 and came back hugely impressed. One of the things I saw was the velvetting of their stags. I talked about that in front of a large audience at a conference organised by the British Deer Society and concluded that the procedure would never be acceptable to the British public. The Farm Animal Welfare Council was founded and the first issue it discussed was velvetting. Peter and I gave evidence and I had to say that I didn't believe it was something we should be doing in the UK. I didn't then and haven't now much belief in the efficacy of velvet antler as a drug and I expected the market would not last. How wrong I was in that we can see now in New Zealand's continuing velvet sales. Nevertheless it remains my firm belief that if we had not encouraged FAWC to ban the cutting of velvet we would have no deer farming industry now. I don't believe that the public would ever accept the cutting of velvet in the UK and we would have all been condemned.

I therefore became chairman for the first time in 1980 and have been chair for several times since but this is very definitely my last time. I'm very happy to be leaving BDFPA with some much younger folk and am privileged to be able to move on at a time when deer farming is thriving. The BDFA was founded to help the emerging industry of deer farming and although I value the park connections my principal concern is that the BDFPA should continue to consider deer farming as its priority.

For me the concept of creating a new livestock industry around the first new domestic grazing species in perhaps 5,000 years is hugely challenging and exciting. I love deer parks and believe that I was instrumental in making them a part of the BDFA with a conference in the Orangery at Woburn about fifteen years ago. I have even written a history of deer parks yet for me the greatest achievement will be if we can truly make venison farming a commercial player and an established pastoral industry within the agricultural landscape.

The BDFA set off on a roll. Following the success of publicly funded research at the experimental deer farms at Glensaugh, and later Rahoy, in Scotland, deer farming grew rapidly with busy auctions of hinds and most especially calves in autumn sales particularly in Perth. However the flow of new farmers into deer soon came to exceed the numbers of hinds available. This created a bubble with hind prices rapidly inflating.

At the same time strenuous efforts were being made to organise the market for farmed venison through a co-operative, the British Deer Producers Society (BDPS). New Zealand deer farming was forging ahead with well developed, centralised venison marketing. But the BDPS always found progress difficult. The problem seems to be that British farmers are too close to the market so that



attractive offers from farm shops, local caterers etc always eroded volumes that BDPS could gather. By contrast Kiwi farmers are forced to market their products through the exporters. They are accustomed to centralised marketing and levies. As a result they have put massive sums into venison promotion including their 'Cervena' especially in the USA, as well as big efforts extending the traditional seasons in existing markets in Europe. We have all benefited.

The BDFA and later BDFPA have been important factors in promoting venison in the UK. The creation of British Prime Venison and many cookery demonstrations, journalism and books about venison – including those by Nichola Fletcher – have contributed to widespread publicity. We even managed a joint promotion with the New Zealand deer industry. And, let's face it, farmed venison is a wonderful product.

The deer farming boom of the 1980's came to a fairly abrupt end. Those who had entered in expectations that high prices for breeding stock would be maintained, rapidly exited the industry. What happened? Probably the trigger factor was bovine tuberculosis. Infected deer imported from Europe were released to a number of farms and there was no legislation in place to help those farmers resolve the problem. Movement restrictions were imposed but there was no testing regime and no compulsory slaughter. On a farm that I had in partnership in Sussex we struggled. After meeting a succession of Ministers of Agriculture and even Mrs Thatcher we achieved nothing. Our stockwoman contracted Tb from the deer. When Edwina Currie created a furore by stating that most British eggs had salmonella we reluctantly



gave our story to the newspapers. Within three weeks the necessary regulations were put in place but there was no denying that the publicity damaged the confidence of an over-heated deer farming industry.

Another factor in the collapse was the absence of many formal venison marketing pathways. Whilst Waitrose had loyally purchased farmed venison continuously since the early days at Glensaugh, quantities were small. Direct sales to farm shops and catering outlets as well as the growing role of on-line marketing made it difficult for deer farmers to co-operate.

So where are we now? We have another period of growth in deer farming today. Why is this one any different to the last one? We have still to completely resolve the issue of tuberculosis but thanks to Hornby Castle which can probably lay claim to be the first UK farm to test itself clear of the disease, albeit through use of a New Zealand laboratory, there is light at the end of the tunnel. The technology now exists to resolve this problem. Also we now seem to have a positive dialogue with DEFRA and, albeit at derisory levels compared to cattle and camelids, we do have some compensation and legislation - I have written more about this later in this Handbook.

But perhaps most encouragingly of all we do have a strong venison market with several well organised outlets including Waitrose's producer group, First Venison. Demand for venison is growing steadily and there are very clear finite limits to the amounts of wild and park venison that we can produce. If we are to meet the demand then the only possibility is farmed venison and we are ideally placed to supplement the farmed venison being imported from New Zealand. I've absolutely no regrets, I have had a great time and nothing could be more satisfying than to see the growth of new deer farms. Thank you all very much.



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Starting a Deer Farm?

ROY GILES-MORRIS TALKS ABOUT HIS EXPERIENCES....

Having farmed Red Deer for the last thirty one years on my small holding in North Devon as a side line to a full time occupation, I have recently sold the majority of the herd in favour of retirement. I was delighted with the level of interest there was when I placed an advert for the deer which was circulated via the BDFPA. However some of the interest came from "would be new entrants into our industry", which led me to think that more start up information might be helpful.

Think about the acreage that you have available to be fenced for the deer and also the amount that you are prepared to fence initially, if these are different. Whatever these figures are, it is advisable to ensure that you have enough land available at the onset to form at least three paddocks, ensuring that the land can be rested. This will not only help with the grass recovery but also parasite control. I would suggest that the smallest size of paddock considered should be three to four acres, so from this you can see that I would suggest that it is hardly practical to start with less than twelve acres. At some stage during the year the deer will require to be collected and handled for weighing, ear tagging, and worming, so consideration has to be given to where a handling facility would be located in relation to your paddock layout. This need not be an elaborate structure, but it does need to be thought about before any deer are purchased. Another factor is possible winter housing. Deer are naturally hardy animals, but if your land is not very free draining it will get poached during the winter resulting in poor spring grass growth. Whilst deer can be left out during winter, the hinds and calves will do much better if they are housed from mid-December to early April. This will result in the food input for the hinds being able to be slightly reduced and the calves will result in a better live weight gain for the ration fed to them. Even if you have dry paddocks, these will be needed if you are keeping yearling stags though the winter. It is not generally recommended to house stags as they need more space to run around and spar with each other, confinement will result in bullying.

A good understanding of livestock farming is required and this might determine the size and type of deer farming that one embarks upon. This might sound fairly obvious, but I have heard of several instances where someone has moved to a country property and thought that deer farming would be a good enterprise to utilize the land. There is no reason why one should not start this way, but if this is the plan there are easy "entry level" ways of starting, and then expand as time goes on. I would strongly recommend any novice deer farmer starting the same way as I did many years ago, this was buying calves of mixed sex in late November and housing them for the rest of that winter. This will enable you to learn the best ways to handle them and they will settle in to your system and will become quite calm. It will also give you a chance to worm them prior to turnout meaning that there would possibly be no reason to worm them again until the following winter. This batch of calves will produce a selection of females from which you can form a breeding unit and also some yearling stags to be sold for venison. You may even find that you have bought a nice stag calf within the initial batch of calves to use for breeding. This would save you paying for a bespoke breeding stag until you have gained confidence and may feel that you wish to strengthen your blood line. One of the questions that I am often asked by visitors and farmers alike, is what do you feed deer besides grass. Basically they feed on all the same feeds as cattle and sheep, these would be silage, hay, root crops (which in many cases will be available as a by-product from our own food industry) and purchased feed pellets from your local feed mill. Calves housed in winter will need the most attention and my guide would be about two lbs/head /day of an 18-20% protein pelleted cake plus ad lib hay. Hinds and yearling stags will do very well on a good quality silage or haylage with the stags having a small level of 16% protein pelletized supplement to ensure that they don't lose weight during the winter. I made the mistake of over feeding my hinds in winter in the early days resulting in the hinds being quite fat at calving, this can be a common mistake and could result in calving problems. As a general guide, I have found that you need at least 20 hinds to eat a round bale of silage in 4 to 5 days. Secondary fermentation will set in if the bale is not eaten in that period of time and the deer will waste the rest, this is why I suggested ad lib hay for the calves as their appetite will be less. I feed the hinds haylage from about December to mid-April in the yards and I find that for budgetary purposes a hind will consume one bale each winter.



One of the factors to bear in mind is that for most of us, having reared stags for venison, these animals will have to be de-antlered prior to being loaded onto a lorry to transport them to one of the slaughtering facilities. To enable this to be done a specially designed crush will need to be incorporated into your handling system and this operation would normally require a couple of extra people with stock experience to assist you. Apart from the risk of injury and bruising during transportation, de-antlering is a legal requirement. Another factor to bear in mind is that once you get to your first autumn and the yearling hinds are approaching their first rut, the rest of the venison stags will need a separate paddock. It is advisable that these two groups are separated with at least a paddock between them. If the stags are next to the hinds they will spend more time running along the fence line, losing weight, rather than eating grass. This is where we have to reflect back to the point in the second paragraph about available acreage and paddock numbers.

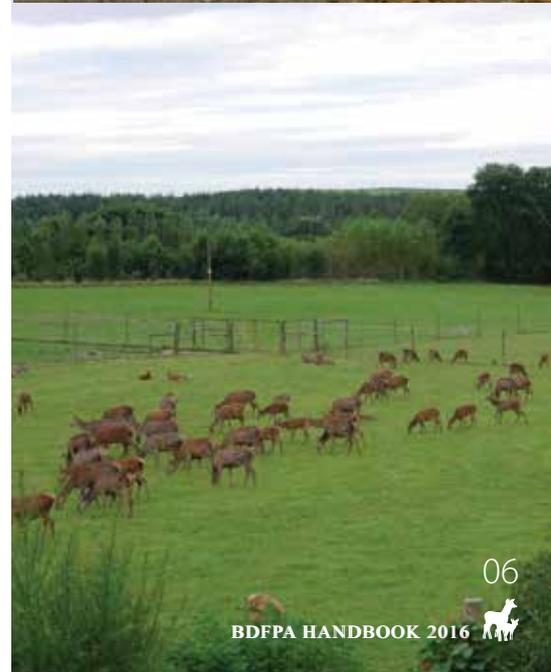
Having touched on the major aspects of deer farming you will see that it is a form of farming which should be looked at as a long term project. Having been in the industry for many years deer have given me a huge amount of pleasure and I have been rewarded by a slow but steadily increasing income rather than the peaks and troughs of any other type of livestock farming. Fencing is the greatest capital outlay, but if one needed some words of encouragement, if the corner posts and the wire are installed and tensioned correctly on day one, they should still be there thirty years later, with only the occasional line post to replace each year prior to the annual rut. When one considers that nearly fifty percent of the venison consumed in this country is imported, there is no reason to think that your investment cannot be justified.

I consider there are really three formats for farming deer and these are:

1. Create a herd from hind calves or by buying a young batch of hinds and a breeding stag to produce calves for sale to other deer farmers at approximately five months old. You will need one stag to cover every thirty hinds and you will be able to carry two to three hinds per acre without too many problems. This is the simplest system, allowing someone starting to fill their acreage with breeding animals and requires the simplest basic handling system. It is also worth bearing in mind that you really need a minimum of thirty hinds to ensure that there are enough calves available for sale each year for any buyer to transport them economically. This will also increase the number of prospective buyers.

2. Run a breeding herd and take all the calves through to slaughter weight. This will require considerably more acreage as some of each years calves might be on your farm until they are twenty seven months old. You will require separate paddocks for the yearling stags and any yearling hinds that are not destined as breeding sales or herd replacements. You will also require separate paddocks for your breeding herd. As mentioned previously, a more elaborate handling system including a deer crush will be needed, and adequate shed space to in-winter calves for the whole winter.

3. The third option would be for someone who might have purchased a ready fenced unit and is uncertain as to how long they might be involved in the industry. To this end you could buy in a batch of calves each year and take them all through to slaughter weight. This system will still need a good handling system, sufficient paddocks and housing for the purchased calves, but will lead to a quicker cash flow. However, in my view, this approach will lead to the least personal satisfaction and would not be most people's choice. Finally, when buying stock, don't buy any deer without first seeing them on the farm of origin. Observe how quiet they are when strangers are with them in the field, if they will not come up reasonably close when offered some feed





you can be fairly certain that they are not used to being handled. What handling system does the farm have, and has it been well thought out to encourage the deer to flow through it easily. If the hinds are not quiet this will usually result in some pretty wild calves. There will always be one or two animals that want to go the other way but if the majority are quiet it will calm the rest down. Try to check on any herd health status and if possible the health status of the neighbouring farms. There will possibly be nothing gained from trying to check on any vets' bills as deer generally do not seem to incur them, other than annual worming, which would usually be done by the stockman. Check that all the deer have ear tags and when asked, the seller can show you from his records exactly how old each animal is. The realistic breeding life of a hind is between fourteen and seventeen years so if you are buying hinds you need to be confident that you know what age you are buying.

With regard to buying a breeding stag, it is more difficult to advise as lots of farmers have differing views. However when starting up, don't automatically presume that the bigger the better. Look at what sort of temperament he displays in the presence of a stranger? Once again ask to see any records of the calf weights that any mature stag is producing, and if available, what was the weight of that particular stag as a calf compared to the rest of that year's production. Does the stag have a good conformation? Bear in mind that if you are looking at a stag in August it will be carrying a lot of fat, so try to buy a stag in April or May as its body condition will give you a better idea of its potential progeny. Sometimes an average stag will have a much better conformation than a larger rangier stag. Stags are much easier to transport at this time of year and it allows time for the new stag to integrate with the herd and you before the next autumn rut. The slaughtering facilities are starting to pay much more attention now to the condition of the finished carcass and also the "meat to bone ratio" and as time goes on this will make a difference to your kilogram payment. This also raises the question of cross breeding and introducing other European strains. In my view this is not for the beginner, and is a topic to grow into later.

I most sincerely hope that anything that I have written here does not deter any new comer to the industry, as I am only trying to avoid some of the pitfalls that most of us fell into in the early days. I cannot say enough times how much pleasure deer have given me for so many years, making many friends with more adventurous farmers, and always having something different to talk about when invited out to dinner. Being able to live on the meat of kings as often as one likes is just another bonus. For that reason alone, although I have sold the best of my herd last year we still have a few older girls left to look out on and keep us in meat! Another thing to bear in mind is that once you are set up deer take very little time each day and so fit in very well with anybody who has another full time occupation. This was the main reason why I went into deer farming.

Roy Giles-Morris
Email: cranford.deers@btinternet.com



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Chronic Wasting Disease of Deer -

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is the battle to keep Europe free already lost?

THE FOLLOWING ARTICLE IS FREELY ADAPTED WITH SINCERE THANKS FROM MATERIAL WRITTEN BY MEMBERS OF THE VETERINARY DEER SOCIETY.

.....

KEY POINTS:

CWD is a TSE that causes an invariably fatal disease in many species of deer and has, until recently, been restricted to N. America.

The long incubation period, usually over a year, combined with the infectious CWD prion protein being extremely environmentally persistent and its diagnosis in two wild, free-ranging species of deer in Norway means CWD is probably well established in the environment already and spread to other European countries is likely.

CWD has been shown NOT to be infectious to humans or livestock despite extensive investigations but it is clinically indistinguishable from experimental infection of deer with BSE.

No case of natural infection in a deer with BSE has been recorded.

Establishment of CWD as an endemic disease in the UK would result in significantly negative effects on deer farming and stalking industries as well as wildlife populations.

Deer parks and farms are considered as high risk places for the diagnosis of CWD and deer keepers should familiarise themselves with clinical signs of the disease so as to report any suspected cases.

Chronic wasting disease (CWD) is a prion disease affecting many, and probably potentially all, species of deer which was, until recently, confined to North America. Prion diseases are so called because the normal prion proteins become changed into abnormal forms causing a spongy appearance in the brain when viewed under the microscope. These diseases are infectious and are therefore known as Transmissible Spongiform Encephalopathies or TSE's. The most infamous TSE in Britain is BSE or 'Mad Cow Disease' but there are others such as scrapie in sheep which has been recognised for nearly three hundred years, since 1732.



Like scrapie, CWD does not affect either humans or livestock.

CWD was originally described in 1967 in a wildlife research facility in northern Colorado, USA, but it took ten years before it was recognised as a TSE. From this localised occurrence CWD has spread relentlessly via captive and free-ranging populations of several species of deer across the USA and into Canada. It has now been recognised as affecting white-tailed deer, mule deer, black-tailed deer, elk (wapiti), red deer, moose and reindeer. It seems likely that all members of the family Cervidae are susceptible. Attempts to contain and eradicate it have failed despite large amounts of financial and other resources.

CWD is unique among prion diseases being the only one maintained in wild, free-ranging populations, often at low densities (2-3 deer per square mile). The infectious CWD prion protein is shed in the saliva, urine, faeces and antler velvet of infected animals in both the clinical and pre-clinical stages of the disease. This is in addition to the contribution decomposing infected carcasses make to environmental contamination. Infective CWD prions adhere firmly to soil surface particles, have been found in plant material (including livestock forage) and ground water and have been shown to remain viable after passing through the digestive tract of scavengers of deer carcasses such as coyotes and crows, all of which further aid spread of the disease.

CWD is therefore unlike most TSE's which are transmitted by consumption of infected animals: CWD is contracted by consumption of infected material such as grass or soil and this contamination can remain infective for many months or years.

CWD is invariably fatal. The disease may be picked up many months and perhaps several years before causing clinical disease. Initially affected deer have difficulty moving, they show gradual weight loss, abnormal reactions with other deer or people, they may show head tremors, stereotypic behaviour, they drink and urinate more frequently, and they salivate. Aspiration pneumonia is a common proximate cause of death, presumably due to laryngeal/pharyngeal paralysis. There is also a loss of fear of humans and anthropogenic activity which can result in increased incidences of road traffic accidents and human fatalities.

In 2016 four cases of CWD were confirmed in Norway in reindeer and moose in two geographically widely separated regions. The occurrence in two widely separate regions is particularly disturbing. We have no knowledge of how the disease reached Norway. It is possible that introduction from N. America in contaminated material occurred as a single episode and the infection has spread, or there may have been two independent introductions. Alternatively, abnormal prions may have spontaneously generated in a Norwegian deer with subsequent dissemination. Establishing the most probable route of infection would facilitate the implementation of appropriate control strategies to limit further incursion of CWD into Europe. Disease surveillance of free-living populations is inevitably inefficient thus CWD could have gone undetected for years if not decades in Norway.

If the N. American experience is anything to go by the diagnosis of CWD in Norway could have far reaching implications throughout Europe and Asia. As CWD is a relatively new disease, and because there were initially concerns in N. America that it might prove infectious to humans or livestock, there was considerable damage to deer farming and hunting industries in affected regions of Canada and the USA during the early years after the disease had begun to spread.

In the UK the national deer herd comprises up to two million wild deer with up to 300,000 animals culled every year and it is generally accepted that in recent years the national herd has increased in size. Small numbers of deer carcasses are submitted for disease surveillance purposes to APHA each year, including material where tuberculosis infection is suspected. It would be hoped that stalkers, park keepers and deer farmers would alert the relevant authorities were they to suspect CWD in British deer. If CWD were to reach the UK it would pose a risk to the national wild herd and to the farmed deer industry which comprises over 31,000 mainly red deer. There are approximately 260 enclosed deer parks, mainly of red and fallow deer but also other species, comprising up to 47,000 animals. While farmed and park deer may be a small proportion of the wild deer population they have relatively close contact with people and a high economic and aesthetic value. The APHA risk assessment document on CWD states "that farmed and park deer may have a higher probability of exposure to CWD transferred to the environment than wild deer given the restricted habitat range and higher frequency of contact with tourists and returning GB residents". It is thought that it may be prudent to prioritise surveillance of park and farm deer to increase the sensitivity of detecting CWD incursion into the UK.

NZ Deer Herd Growing Again

Since peaking at 1.8 million deer on farms in the early 2000's the combination of a lack of confidence in future returns and the steam roller effect of the nation's conversion to milk production saw the New Zealand farmed deer herd bottom out at about 900,000 animals in 2015. By the latest estimates there are around 1,700 farms with deer in New Zealand. The number of breeding hinds dropped to a low of 430,000 as at June 2015.

A turn-around is being observed due to sustained improved prices of deer products, the decline in enthusiasm for dairy expansion, and increased confidence that farming deer offers New Zealand farmers, on the right sort of land, a stable and profitable option.

The hind slaughter for the year to date is running 25% below last year. New farmers are joining the industry, new deer fencing is being put up and industry events are being well attended both by farmers who have remained committed to deer during the sectors down times, and are now enjoying the good, plus new faces keen to join.

The New Zealand farmed deer industry grew because of European demand for good quality venison during the game season. New Zealand venison had historically been used as a substitute for European shot game. But the prices received for shot game have not been economically viable for New Zealand deer farmers, therefore product differentiation and market diversification have been needed.

Firstly, the NZ industry has been determined to increase German chefs' awareness of the quality of New Zealand farm raised venison. Promotion activities included a national chefs' competition and visits to New Zealand; sponsoring chefs' awards in Germany; working with wholesalers to educate chefs about New Zealand venison and ongoing press work to increase positive news about New Zealand venison in the German food media. Surveys conducted over the course of the promotion period recorded a 23% increase in chef satisfaction with New Zealand venison. As a result prices for New Zealand venison on the European wholesale market have been steadily increasing for the past 4 years despite increased volumes of lower priced European game on the market.

DIVERSIFICATION STRATEGY PAYING OFF

While Germany will remain New Zealand's largest and most important market the seasonal nature of consumption has encouraged exporters to find new less seasonal markets for farm raised venison. After many years of steady investment sales to North America have grown very strongly over the past two years to reach almost 2,500 tonnes in the 2014/15 year. Demand for "natural meats" continues to increase in North America, placing venison on more restaurant menus and increasing numbers of supermarket shelves. Exporters also increased sales to alternative markets like China.

Demand for New Zealand venison in the UK continues to increase. NZ export statistics show UK customers purchased just over 1,000 tonnes of venison from New Zealand in the last production year. This was down on the previous year. The majority of this will be leg cuts, destined for further processing and sale in retail or into the restaurant trade. Small amounts of middle cuts are imported into the UK

NZ VENISON EXPORTS TO THE UK			
Year	2013	2014	2015
tonnes	879	1,353	1,082

Source: Statistics NZ



Innes Moffat

INCREASED PRODUCTIVITY.

An issue for the New Zealand sector has been a lack of best practise farming management across all deer farms in New Zealand. Deer are often treated as the third species on many extensive properties, and given their reputation for easy care, have not often been afforded priority treatment on some farms.

Some substantial changes are taking place among New Zealand deer farmers. Those who have been applying best practise to deer farming have known that deer will outperform other livestock options, on the right class of land, and that integration of deer with other livestock provide advantages for pasture and parasite management.

The industry's investment in genetics has also provided substantial improvements in the genetic potential of deer to grow faster to meet market demand.

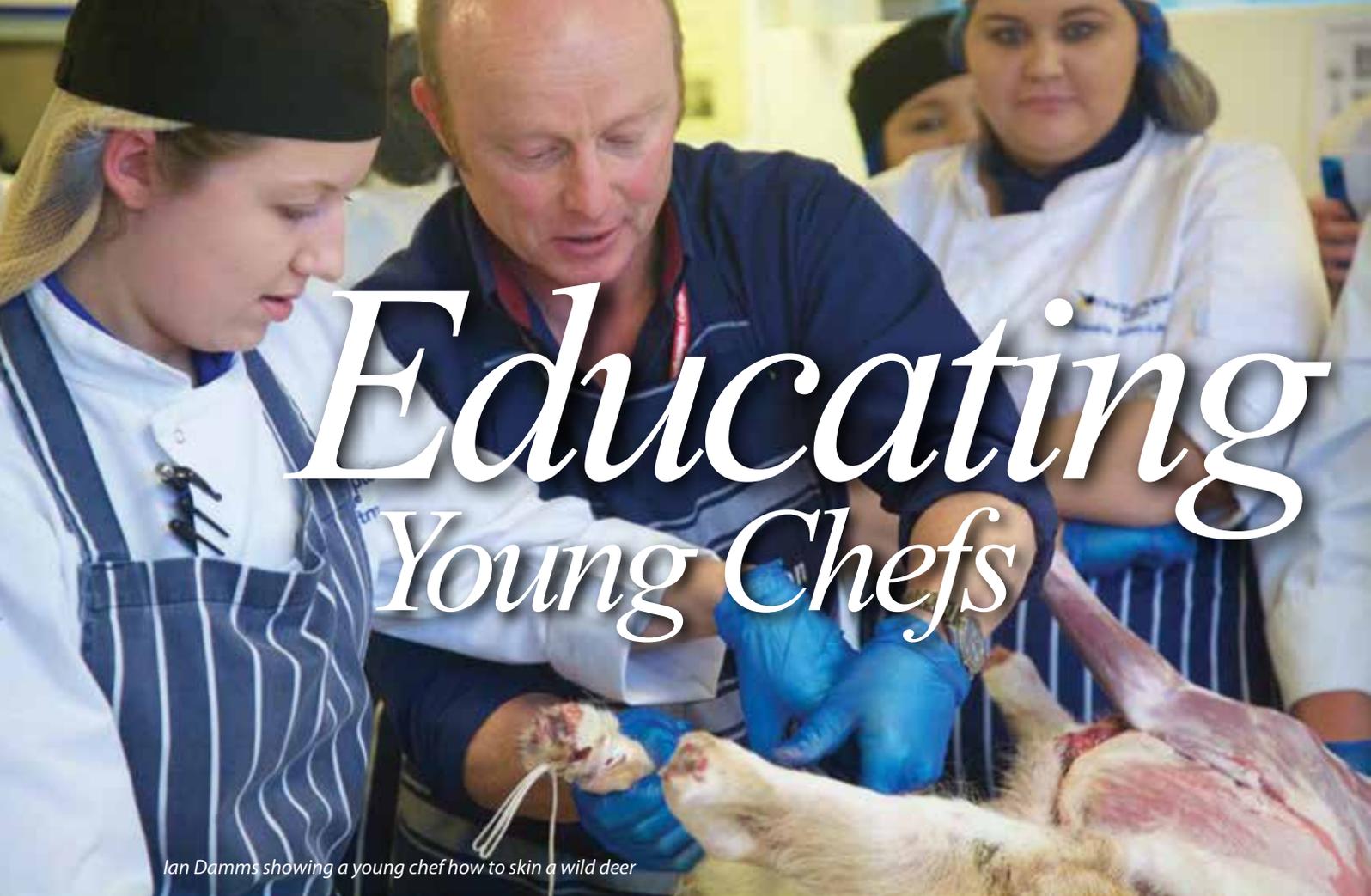
The industry has launched a programme to assist farmers identify and apply good practice to increase profit from farming deer. Examples of this include the programme known as Advance Parties. An Advance Party is a group of 5 to 10 farmers who work with a facilitator to work out solutions to improve their deer farming operation. The advice comes from other farmers in the group, not an external 'expert'. The members of Advance Parties are motivated to make changes because they see first hand the benefits their fellow group members have enjoyed. The NZ deer industry now has around 20 of these groups in operation across the country, and they come together to share how their groups are operating and what they are learning.

The industry programme is also producing more tools for farmer to measure and monitor the performance of the deer, these can be applied by farmers to their every-day operations to allow them to better manage their deer to achieve their objectives. Establishing agreed measures of performance has been a big step for the industry, so that farmers can measure their performance in a meaningful way year on year, or against their peers if this is helpful.

Research continues into issues such as effective parasite management and new forages through DeerResearch, the industry's partnership with the New Zealand government.



Innes Moffat (Left) with Cam Nicholson, a deer farmer from Ranfurly, NZ



Ian Damms showing a young chef how to skin a wild deer

.....

Educating the young is without doubt the most important thing that the deer industry can do to ensure future market growth and profitability. Over the past 16 years, working with Deer Industry New Zealand (DINZ), Ian Damms has been helping to train young chefs to ensure that they understand the background to the venison industry and how to get the best from the product. He writes about his experience.

Over the period, more than 1,000 young chefs and catering professionals have been trained in catering establishments around the country. Working in conjunction with BDFPA and the Deer Initiative, DINZ helped to expand the knowledge of the UK catering trade to the benefits of the farmed product.

The initiative started way back in 1999 when DINZ, or the Game Industry Board as it was then, retained Ian to look after UK public relations. It soon became apparent that there was a lack of knowledge of venison in the catering industry and the classic ways of cooking it were those used for wild venison. Traditionally, these were developed to cope with the variability of the wild product. Thus hearty stews and casseroles were the order of the day and there was little knowledge of the lighter and more creative recipe solutions offered by the farmed product.

The demonstrations in the early 2000s tended to focus on professional chefs and were hosted by DINZ' executive chef, Graham Brown. Graham took the chef attendees through the history of the New Zealand deer industry and then demonstrated a technique of seam butchery used for the haunch known as the Denver leg cutting technique. This technique enables the chef to use the less expensive leg cuts in creative recipe ideas and highlights the versatility of the farmed product. These demonstrations were a great success but it proved to be difficult to get professional chefs to attend because of the nature of the profession and the lack of time off it affords.

Later in the decade, the demonstrations evolved to venison and wine tasting in conjunction with New Zealand Wine Growers and Meat New Zealand. These were a great innovation and drew hordes of chefs and cookery writers from around the country. New Zealand's favourite celebrity chef, Peter Gordon handled the catering, creating mouth-watering canapes to be tasted in conjunction with wines supplied by New Zealand wine growers. One memorable event was even hosted in the press pavilion at Lord's cricket ground and was enjoyed by all.

We found it was the young chefs, in particular, who needed the hands-on venison knowledge. Though they were going to college they were not being taught a great deal about venison and certainly not about the farmed product. In addition, with cuts in education funding, they had little opportunity to receive hands on experience with the product. What they were taught concentrated on traditional cookery methods. Talking to catering college lecturers, it was obvious that to get maximum engagement with the students, and to ensure the demonstrations became part of the curriculum, it would be necessary to cover the whole of the venison market. It was also determined that wild venison also needed to be covered so that the benefits of the farmed and New Zealand product could be correctly explained.

The latest courses were developed to fit in with the British national chefs curriculum. The design ensured that young chefs who participated in the courses were given a full briefing on the wild industry together with the park and farmed sectors, then were given a chance to sample, or in some cases, cook the New Zealand product themselves. Students got involved with the skinning and jointing of a wild deer carcass which enables them to understand the importance of provenance, shot placement, the game laws, making sure the carcass has the correct tags and the risks of carcass contamination in the wild product. Then the development of the farmed industry in the UK and New Zealand was covered. Finally, they got a demonstration from a celebrity chef who demonstrates the flexibility of the New Zealand farmed product, or in some cases they got their hands on some New Zealand venison to have a go at cooking it themselves. Feedback from the students and staff was excellent and it was very rewarding to see the enthusiasm for venison generated in the young chefs.

For obvious reasons, the chefs used for the demonstrations have had New Zealand links. These included two British chefs who, as newly graduated students, won the UK-NZ Link Foundation scholarship to travel to New Zealand and have work experience in some of the top restaurants and hotels. This award was part sponsored by DINZ and we would like to think it helped Sophie Wright and Selin Kiazim on their successful careers. Other top chefs have included Hamish Brown from Roka restaurant in the London, Miles Kirby from Caravan restaurant in London and Shannon Campbell who has a catering business in Berlin. All of these chefs created venison dishes with a modern twist. Creating venison recipes for year round use by the modern consumer.

Without the New Zealand sponsorship of these demonstrations, the only exposure young chefs would have gained would have been from the Game to Eat campaign, which showcases the wild product and thus skews their understanding of the industry.

Pulling the courses together took a lot of coordination and we are really grateful for the assistance from many of the bodies involved. Of course DINZ involvement was crucial, as it funded the initiative, but without the help from the UK venison industry including BDFPA and The Deer Initiative – particularly John Stowers from the South West Deer Initiative who has done many of the wild carcass demonstrations in the South West and also supplied (via Dyrham Park) some of the wild deer carcasses when I couldn't shoot one.

Through working with DINZ, the UK industry has helped educate a generation of young chefs and increase consumption of venison that can only benefit both sides of the globe. Neither the UK nor New Zealand farmers can supply enough farmed product to supply the growing demand for venison in the UK. Unfortunately with the change in circumstances in the New Zealand deer industry, DINZ has cut the funding for these demonstrations and new funding sources are being sought to maintain this important educational asset.

As with many in the BDFPA, Ian's passion for deer started at a young age. He has been lucky enough to work with farmed and wild deer throughout his career, he says, both practically and in his work with DINZ. Ian is a keen deer stalker and member of the British Deer Society. Though his normal day job concentrates on the production of digital media materials for the agri-rural industries, deer remain one of his greatest interests.

New Beginnings

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My passion and interests in deer started from a stalking perspective, and from a young age I have been fascinated by the elegance and deep history associated with deer. My grandparents frequently attended the Rare Breeds Show and it is where they first encountered the passionate venison advocates, 'Fletchers of Auchtermuchty'. This encounter was reinforced following a Radio 4 program featuring the Fletchers, who were promoting the health benefits related to eating venison, and the fact that man had evolved and adapted over time to consume this lean product was a point that had stuck in my grandfather's mind. Many years later and after receiving a Christmas present, the book, authored by Dr John Fletcher, 'A Vet's Life With Scotland's Deer', I was intrigued to understand further the trade of deer farming.

Firstly, in order to gain some hands on experience I contacted Dan De Baerdemaecker, Head Deer Keeper at Woburn Abbey in the winter of 2013. Following this, I gained several weeks' experience over a two year period at Reediehill Deer Farm in Auchtermuchty, Fife. I gained further experience with the reputable Julian Stoyel at Houghton Hall, Norfolk. It was quite surprising just how easy it was to gain the work experience and how willing UK deer farmers are to share their knowledge and experiences, and it is a credit to the industry and a quality I feel must continue if the UK deer farming industry, which is in its relative infancy, is to witness substantial growth.

New Zealand is renowned for being a world leader in deer farming and I took the opportunity to visit the country for several months in 2014 to experience large scale commercial deer farming. I spent the majority of my time at Peel Forest Estate in the South Island, an operation on a significant scale solely focused on deer with enterprises consisting of velvetting, venison, trophy and breeding sales. Deer numbers consisted of some 8,000 head on 6,500 acres; a 3,000 acre hill block and 3,500 acres on the flats. I was blown away by the sheer scale with one man responsible for 1,000 deer. Again, the willingness of all the employees and particularly Head Deer Keeper, Steve Blanchard, who was a fountain of knowledge and an inspiration, to part with their knowledge was a humbling experience.

I was now truly hooked on deer farming and it has been one of my ambitions to establish my own deer farm for the past three years. Initially I approached several large estates with the intention of establishing a share farming/joint venture type arrangement whereby the landowner would invest the capital and I would invest the labour and expertise. For numerous reasons this didn't come to fruition. I then made the decision to start my own, smaller enterprise. Two significant hurdles stood in the way, firstly, securing land with a long enough tenancy to warrant the investment into fencing and the rejuvenation of pastures; secondly, sourcing finance. There is no doubt that the business feasibility of farming deer is positive, therefore, my issues related to landlord and tenant matters and not business.

Recently I have managed to secure a 10 year Farm Business Tenancy on a little under 40 acres in my home county of Northamptonshire. I have given away a percentage of the business to the land owner in return for investment, as I believe it is better to own a smaller percentage of something than 100% of not a lot. In addition, this meant that I and the land owner had a mutual interest in the enterprise and the risk of the tenancy being terminated or a sharp increase in rents were mitigated.

Securing finance has been the most difficult process of the start-up. Fortunately, through the 'Enterprise Finance Guarantee' scheme promoted by the 'Help Britain Prosper' plan I was able to raise the funds required. The scheme is in place to provide funding for viable businesses that would otherwise be turned down due to a lack of security. Essentially the government stand as guarantor for a fee of 2% per annum on the reducing capital balance. Therefore, including interest it is possible for viable businesses with no security to borrow at benevolent rates of 5% above base should individuals meet certain criteria.



I have secured 60 yearling hinds and 12 mixed aged hinds from Hornby Castle, Houghton Hall and Woburn, and two stags from Houghton Hall. The intentions of the business are two fold, firstly and primarily to supply Waitrose through the First Venison Group and secondly to produce and market terminal sire stags. I have imported a number of pure elk semen straws from New Zealand and over the coming years I will attempt to establish a small herd of wapiti, the close relation to the red deer species – but that’s hopefully a story for another day.

I am a firm believer that a business shouldn’t be reliant on subsidy and grant funding as a mechanism of sustainability. However, there is no doubt that these payments are a welcome revenue stream for farmers. I have therefore applied for Countryside Stewardship Mid Tier where I have proposed to establish a ‘Legume and herb rich sward’ across the entire farm. The option requires five species of grass, 5 species of herb and/or wild flowers and 3 species of legume to be established. This has the potential to be a productive pasture for deer and with annual payments over 5 years of £125 per acre I thought it a no brainer. In addition, funding for farm tracks and concreting is also available.

My day to day work is as a rural surveyor and business consultant for Berrys. As a business we are witnessing many clients wishing to diversify income streams and increase resilience to risk as a consequence of increased volatility in agricultural commodities. I feel that deer farming is a suitable choice for diversification due to the lower labour input required in comparison to other more traditional forms of livestock, and the ability for existing farms to utilise machinery and leverage assets to raise capital. It is something that I promote strongly within the industry.

I take control of my new holding on November 1st and there are many elements to organise before then. All the pasture will receive aeration, harrowing, applications of chicken manure, phosphate and magnesium. Hopefully, if ground conditions allow this can be carried out in November, failing that it will be a job for the spring along with overseeding. The process has taught me that it is not as simple as sticking a fence here and a handling system there. The planning stage has to be right and all elements of the farm layout must be considered with efficiency being the number one objective. As I will not have any young stock until May/June and only the first calvers, 2 stags and 12 mature animals to run through this winter it will be interesting to see how the ground copes, dependant on what winter throws at us. This should give me a good indication for future stocking densities.

I am indebted to the members of the BDFPA mentioned above and also Simon Pike of Hornby Castle for their continued support and encouragement. It is my intention to take on a bigger block of land in the future and establish a herd numbering 300 plus breeding hinds, but one step at a time. For now it is certainly exciting times ahead.



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The Seasons in Deer Management

Farmed deer are the most seasonal of all grazing livestock. Cows and sheep and goats originated from the middle and near East. Their seasonality has probably never been as pronounced as it is in deer and domestication has reduced it still further. Deer on the other hand originate predominantly from species which evolved in temperate regions. This is how they can afford to have antlers which are cast and regrown each year. They are only needed during the rut and for competition for scarce food resources during the winter. They can grow their antlers in the summer – in the case of red and fallow deer – when they have no clear use. Using changes of day length to time all their complex seasonal changes including antler growth means that housed deer can have their seasonal cycles changed by manipulating artificial light but this is rarely advantageous.

For the deer farmer therefore seasonal management is absolutely crucial. For the purposes of this little article everything that I describe will relate to red deer although in many particulars it can also extend to fallow. Remember that there is as much difference between one species of deer and another as there is between, for example, cows and sheep. Thus though it is relatively simple to change the breeding seasons of sheep and although cattle have largely lost their seasonality, deer breeding seasons are less easy to change. In any case they generally fit in very well with our seasons of grass growth. Good management using early weaning and removing stags during the rut will permit red deer calving seasons to be brought back into early May which fits very well for those in the south of England or where plants start into early growth. For those of us in Scotland where grass growth is still not reliable until late May that early calving may not be so beneficial.

The management cycle begins at the rut. Good managers will have removed stags' antlers as soon as the velvet is cleaned in August. The young stags can then be despatched to the abattoir ideally, where the herd is large enough to justify it, in drafts, as the yearlings reach desired target liveweights, around 100 kg for the stags and 85 kg for the hinds. At the same time care should be given to setting aside good pasture for rutting groups. Deer farmers seem to argue more about whether to wean before or after the rut than any other management issue. There is evidence that weaning before the rut will bring hinds into heat earlier. By stopping lactation it effectively provides a rising level of nutrition and may also synchronise oestrus to provide a tighter calving.

Whether with or without calves, rutting groups can be composed of up to fifty hinds with a single stag or larger groups with two or more stags. Obviously where hinds are being divided into rutting groups it will be easier to wean pre-rut, or else calves will need identifying with their dams to ensure that hinds are not separated from their calves. Weaning is the single largest handling of the year. Note must be made of hinds that have no udders and it is normal to discard any which have no udders in two successive years. Calves will need tagging - unless this has been done earlier in the summer which allows calves to be identified with their dams. Calves should be wormed and if there is any indication of copper deficiency they need to be given copper boluses. It is clear from New Zealand experience that worming by drenching or injecting rather than using pour-on wormers is less likely to lead to anthelmintic resistance. Calves are often moved to the farthest corner of the farm away from their mothers. They will then bleat and call to each other for about a week or ten days. Perhaps surprisingly research has shown that the animals are less disturbed if they are kept within sight and scent of each other. It needs a good fence but apparently hinds separated from their calves by a single fence settle down much more quickly. Since weaning is probably the most stressful part of the annual round for hinds and calves this should be given consideration. Some farmers put one or two mature dry hinds in with the calves to help them

settle and move through gateways more easily. Feeding concentrates to hinds for a week or two pre-calving will also encourage calves to take concentrate more quickly.

Once weaned it is very important to feed calves very well. The period between weaning and the onset of winter inappetence is a vital period when calves can make significant growth. Some farmers may immediately house the calves and rapidly build them up to feeding ad lib. This is expensive but it is often forgotten that red deer will make good use of whole barley mixed with a protein and mineral supplement. This is a fortunate result of their body size and even if a few whole grains are seen in the dung the wastage is considered insignificant. Bruising or crushing barley is reckoned by many nutritionists to be more likely to cause ruminal acidosis. The stomach juices can get to work more quickly on the kernel of the crushed grain causing a sudden fall in pH (increase in acidity). Even if the calves show no signs of ill effects sub-clinical acidosis is recognised as a significant problem in cattle and is likely to be the same in deer. Whether to house the calves for a period after weaning or to turn them out on to grass is a decision that will vary with the farm and the season. As our autumns are getting warmer and perhaps even drier the temptation must be turn the calves out. However it is as well to remember that the feeding value of autumn grass is much less than in the early summer and feeding a concentrate supplement at grass must be good practice. Thought should be given to the composition of rutting groups. Young stags may not perform well with fully mature hinds. Nor will adult stags necessarily produce the best results from groups of yearlings. The advice for groups of yearling hinds is to run them with some yearling stags as this has been found to achieve higher conception rates. Depending on the weather and the grass it may be necessary to introduce some forage before the





end of the rut and almost certainly some concentrate feeding will be required.

When deciding when to remove stags after the rut remember that the gestation length of red deer is around 231 days – it is easy to remember 234 days – so take notice of when you want your latest calf to be born. Nobody wants late calves, and hinds run with vasectomised stags will continue to oestrous cycle into February meaning that calves may be born as late as September or October. Such calves will never grow well even if they survive and it is likely that their mothers will either fail to conceive or have another late calf the next year. It is vital therefore to remove stags on commercial deer farms and this is probably best done in early November.

Those rutted stags will need careful feeding and good management to get them to put condition on before the onset of winter. Remember that red deer are not well insulated and survive in the hills of Scotland only by virtue of their ability to move quickly into shelter.

The BDFPA has this year published the excellent research results of the trials carried out some years ago by ADAS on red deer at their experimental research station in Herefordshire. Anyone wanting to make a success of deer farming should read that booklet. It even reports the results of changing daylength through artificial lighting in house deer. It is no place to duplicate that here and winter feeding – including especially provision of top quality silage – is the element of management which will most surely dictate whether a deer farm succeeds or fails. In general careful consideration must be given to feeding forage crops which are likely to be more economical than bought in cereal based rations and can be introduced as part of the cycle in improving or reseeding grassland.

Whether feeding indoors or out always allow plenty of trough space since deer are much more prone to bullying. Always analyse the forage that you feed and calculate the ration to take account of that. If the silage is over 10.5 MJ ME/kg then it should be feasible to over winter adult hinds on that alone. However remember that young hinds will be making growth through the winter and will need to be fed accordingly. For this reason it is sense to winter the yearling hinds separate from the adults.

There are various possibilities for avoiding the deer poaching the ground during the winter which is a significant problem in farmed deer. Shelter is important and on some farms deer are kept on hard standing with access to a shed as they choose. Restricting adult hinds to a building is common but by the end of the winter bullying can be a significant problem. The spring moult seems to start at the shortest day and hair loss in housed deer can be serious. Whilst it probably looks a lot worse than it is and hinds will rapidly recover on spring pasture, it is not a happy condition.

Depending on the farm – height above sea level and geographical location as well as quality of vegetation – it will nowadays usually be possible to turn deer out by the end of April. Pasture should be kept at 12 cm and topping will be required to prevent flowering. Generally deer will take a week or two to start grazing after turn out and it will be necessary to continue feeding at pasture for a period. Stocking densities need careful planning as it is not easy to move hinds with young calves until they are running with their dams perhaps as late as July. A suggested level is 6 hinds/ha. If there is no accessible cover then hinds will benefit from the introduction of branches or other cover and this is especially important for first calvers.

Calving on a deer farm is refreshingly undemanding of human labour compared to lambing and calving cattle. Where calving problems occur they are almost always associated with over fat hinds and this can be a significant problem where for some reason hinds are late calving and have already put on condition. Early calving is important to avoid over fat hinds as well as allowing calves to make good growth before the autumn.

An attempt to summarise the yearly management cycle in a short article is inevitably selective. However, one last word on worming. Red deer will develop very good immunity to lung worm which is the principal parasite problem. On a well run deer farm with rotation of pastures adult stock should never require routine treatment with anthelmintics. However young stock up to eighteen months old will require careful management to prevent damage to growth rates. This necessitates worming at weaning, at housing and at turn out and also during the second summer.

BDFPA

www.bdfpa.org

New Website goes

LIVE!

WE HAVE BEEN WORKING ON A NEW LOOK WEBSITE FOR THE ASSOCIATION AND IT IS FINALLY READY TO GO LIVE!

The new site aims to be a marketing benefit to members, allowing you to trade on our **Marketplace** for free* all year round.

*free adverts up to 50 words, above that attract a small charge



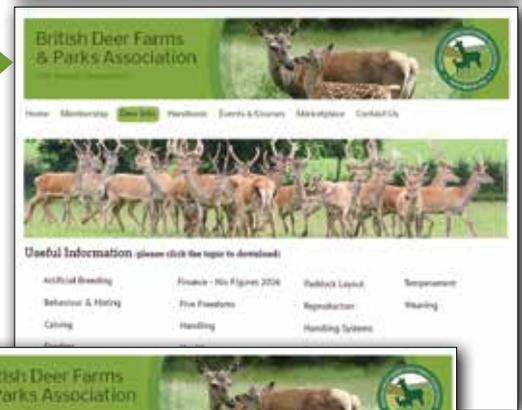
You could also become a **website sponsor** for just £50 per year. Your logo is added to the bottom of every page which links through to your own website. See above.

It is also will provide a good place for new entrants to the industry along with established deer farmers and parks to access up to date **Deer Information** in pdf and video format



Our **Events and Courses** for the year will be advertised here with the facility to book your place online

If you aren't yet a member, the new site will enable you to apply to **Join Us** at the click of a button



WE HAVE MORE DEVELOPMENT IDEAS WHICH WILL PROGRESS OVER THE NEXT YEAR, BUT TO HELP US WE WOULD APPRECIATE YOUR FEEDBACK ON HOW TO MAKE THE SITE BETTER AND MORE USABLE FOR YOU, SO PLEASE CONTACT US WITH YOUR IDEAS – info@bdfpa.org

Regulations controlling Deer Movements

THE MOVEMENT OF DEER IS CONTROLLED BY TWO SPECIFIC BODIES:

1. DEFRA through its executive agency APHA (Animal and Plant Health Agency) require compliance with the conditions of something called a General Licence as well as Animal Reporting and Movement Service (ARAMS) regulations.

This is to provide records of deer movements should there be another outbreak of Foot and Mouth Disease or similar. This now includes the worrying possibility of the emergence of Chronic Wasting Disease (CWD). All these DEFRA regulations are therefore under the Animal Health Act 1981 and within England, The Disease Control (England) Order 2003 aimed at reducing the risks of spreading animal disease. Scotland and Wales have their own regulations. In addition DEFRA has a responsibility to ensure the welfare of deer and some of the regulations are designed to prevent any compromise of deer welfare during transport.

i) The General Licence requirements are explained on the following web site:

<https://www.gov.uk/government/publications/deer-movement-general-licence-for-the-movement-of-deer>
They require the following:

- a) Pre-transport inspection to check for signs of any notifiable disease.
- b) Compliance with the legal requirements for cleansing and disinfection of the vehicle
- c) Unique identification of each deer – see below
- d) Reporting of the movement through ARAMS (see below)

The General Licence excludes all requirements for animals being moved to or from zoos; nor does it require CPH numbers for places like town halls, garden centres, town centres etc where deer may be exhibited. Also deer are excluded from the standstill rule that prohibits movement of livestock off farms to which livestock have recently been delivered. The General Licence also explains (in Annex 1) the rules governing multiple pick ups and drop offs including the restrictions on movement of deer from one vehicle to another. In Annex 2 the General Licence also explains what conditions regulate scheduled stops – because deer can be carried in the same vehicle as conventional livestock and these are subject to scheduled stops.

There is no exemption in the General Licence for deer kept in parks which for the purpose of movement reporting are effectively regarded as farmed deer.

ii) ARAMS regulations cover all deer movements whether from park to park, park to farm, farm to park or farm to farm. They also cover movements into and out of free living populations which means that in its more extreme moods ARAMS may request you to seek a herd number for a free living population. However movements to or from zoos are exempted, and, as above CPH numbers are

not required for some locations.

In order to complete ARAMS forms parks or farms should have a herd number provided by APHA and each animal should be tagged: All deer farms must have this and can get such a number from APHA by consulting the following link:

<https://www.gov.uk/guidance/deer-keepers-tagging-deer-and-reporting-their-movements>.

It follows that any deer park which is moving live deer should also seek a herd number. Historically such numbers were often issued by the BDFPA and many long established deer farms still have a herd number indicating first which country they are in, E, S or W followed by a number and then a further letter indicating which species they hold: R for red, F for fallow etc. Thus my herd number is S51R indicating that my farm is a red deer farm in Scotland. The BDFPA no longer issues numbers but those with existing BDFPA herd numbers can keep them and they continue to satisfy ARAMS requirements.

The ARAMS2 (01/14) Form requires the postal address and CPH numbers of the place of departure as well as the destination, the details of deer including their unique identification, how many are of each sex and age class as well as details of the transporter: address, vehicle registration number, assurance scheme number where applicable, estimated duration of journey, when and where vehicle cleaned as well as times of departure and arrival, signatures of transporter, keeper at origin and destination. All of this must be despatched to ARAMS in Milton Keynes and to the Local Authority of the destination.

Since Arams was launched in April 2014 it has recorded a total of 1,441 movement reports for deer covering 8,996 animals. I cannot break that down into park-to-park and non-Park moves. I note your view that reporting movements of deer from park to park may increase the numbers of movement reports.

In Scotland there is no such requirement for reporting but a record of the movement (CPH numbers and addresses of origin and destination and the date) must be kept for six months on the premises of departure.

2. Natural England. For many years Natural England and its various predecessors such as the Nature Conservancy have licenced the movements of deer for conservation purposes. Where wild deer are being caught or where it is proposed to release deer from parks or farms into the wild then a licence will be required from Natural England. Efforts to clarify this by having a speaker from Natural England address this year's BDFPA conference have failed but it is hoped that it may be possible next year. The clear object is to prevent species – such as muntjac which cannot legally be moved at all – being transported to colonise new regions.

John Fletcher



What is the **EAZA Deer TAG** *and how can we work together?*

EAZA

The European Association of Zoos and Aquaria (EAZA) is the membership organization of the leading zoos and aquaria in Europe. EAZA was formed in 1992 and currently has about 377 member institutions from 43 countries in Europe and the Middle-East. The EAZA's mission is to promote conservation through contribution of its members to public education, breeding of threatened species, and scientific research, while maintaining high professional standards and maximizing the welfare of the animals.

TAG

To accomplish its mission, the EAZA has established a structure of Taxon Advisory Groups (TAG), each focusing on a specific animal taxon that is kept by its members, such as such as penguins, bears, hornbills, cats or deer. TAG members are professional zoo and aquarium people who work in EAZA member institutions and have specialist knowledge and a keen interest in the group of species covered by the specific TAG. People who work at universities, non-EAZA institutions or for international conservation organizations may act as TAG advisors on issues such as nutrition, health, taxonomy or conservation.

THE DEER TAG

The Deer TAG's remit covers true deer (Cervidae), but not just. It also covers other ungulate families that have "deer" in their English common name – the mouse-deer (chevrotains; Tragulidae) and musk deer (Moschidae) - a total of about 70 different species (depends on who you ask) and numerous subspecies. Therefore, the smallest species under the remit of the Deer TAG would be the kanchil (*Tragulus kanchil*), which weighs as little as 1.5 kg, and the largest is the moose (*Alces alces*), which may weigh over 600 kg. Of the approximately 70 species under its remit, 29 species are kept by EAZA member zoos (3 tragulid, 1 moschid, 25 cervid species), about 65 total taxa (including subspecies) and well over 7,000 animals. Just over 200 EAZA zoos keep deer, with an average of more than 3 taxa and 30 animals per zoo.

DEER TAG ACTIVITIES

The Deer TAG has been actively involved in many aspects of deer conservation, in- and ex-situ and its activities include producing a Regional Collection Plan, running population management programmes, advancing husbandry standards, promoting education, contribution to in-situ conservation, collaborating with non-EAZA organizations, and conducting independent and collaborative scientific research.

RCP - REGIONAL COLLECTION PLAN

To meet their aims, zoos rely on the animal populations that they keep and, therefore, it is important that they maintain healthy and self-sustaining populations of animals. On the other hand, resources and space are always at a premium. Hence, EAZA member institutions make very careful choices about which species to keep and which ones not to keep. TAGs produce RCP documents to help institutions make these decisions.

POPULATION MANAGEMENT

The main aims of managing a population is to maximize the welfare of the individuals and create genetically healthy and viable captive populations as a back-up for threatened wild ones. The EAZA runs several types of population

management programmes, which differ in intensity and control: EEP – European Endangered species Programme (intensive management); ESB - European Studbook (less intensive management); and Monitoring – by person or TAG (no management, just monitoring the population).

THE DEER TAG RUNS 14 POPULATION MANAGEMENT PROGRAMMES:

EEPs – Mesopotamian fallow deer, *Dama mesopotamica* (EN); Indochinese sika deer, *Cervus nippon pseudaxis* (EW); Burmese brow-antlered deer, *Rucervus eldii thamin* (EN); southern pudu *Pudu puda* (VU); kanchil, *Tragulus javanicus/kanchil* (DD).

ESBs – white-lipped deer, *Cervus albirostris* (VU); hog deer, *Axis porcinus* (EN); European forest reindeer, *Rangifer tarandus fennicus* (threatened); Philippine chevrotain, *Tragulus nigricans* (EN); Michie’s tufted deer, *Elaphodus cephalophus michianus* (NT); Visayan spotted deer, *Rusa alfredi* (EN); Bactrian deer, *Cervus elaphus bactrianus* (NT).

Monitoring – Siberian wapiti, *Cervus canadensis sibiricus* ; Bawean deer, *Axis kuhlii* (CR); Formosan sika deer, *Cervus nippon taiouanus* (threatened, possibly EW).

HUSBANDRY STANDARDS

Deer TAG members produce husbandry manuals and best practice guidelines for the species that they are responsible for. These can be downloaded by all EAZA members and, sometimes, by the general public as well. So far, three husbandry documents have been produced (kanchil, *Tragulus javanicus*; southern pudu, *Pudu puda*; and European forest reindeer, *Rangifer tarandus fennicus*), and two more are in preparation (Burmese brow-antlered deer, *Rucervus eldii thamin*; and tufted deer, *Elaphodus cephalophus*).

EDUCATION

The TAG runs its independent Facebook page. You can look for EAZA Deer TAG and get info about TAG activities, deer in-situ conservation, and more.

RESEARCH

The TAG has been initiating research and TAG members have been involved in independent or collaborative research on a variety of subject. Husbandry, taxonomy, veterinary, behaviour, morphology and conservation are covered. Examples for recent studies include sika deer, hog deer and chevrotain taxonomy, antler morphology and biomechanics, chevrotain husbandry, Eld’s deer activity patterns in the wild and more.

IN-SITU CONSERVATION

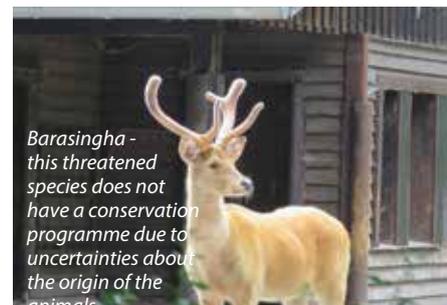
The TAG and its members are involved in conservation projects in range countries – providing animals, expertise, work, and funding. These conservation projects are scattered all over the globe, from Finland, through Israel and India to China, Cambodia and the Philippines.



Big and small - the remit of the EAZA Deer TAG covers a huge variety of species - from the tiny chevrotains to the gigantic elk



Reeve's muntjac and the Chinese water deer - although both species have established feral populations in the UK, both are threatened in the countries of origin and are in need of ex-situ help to ensure their future.



Barasingha - this threatened species does not have a conservation programme due to uncertainties about the origin of the animals. Although the TAG plans to start a conservation programme nevertheless, animals (or herds) of known origin would be a great contribution to the programme.



THE EAZA DEER TAG AND NON-EAZA INSTITUTION (PRIVATE SECTOR)

The EAZA Deer TAG seeks to collaborate with other organizations and individuals in order to achieve its aims. For example, the TAG has been collaborating with the IUCN/SSC Deer Specialist Group and several conservation organizations in its conservation work and, as written earlier, has been collaborating with researchers in its scientific work. Population management is an area that the TAG also sees importance for collaboration with non-EAZA deer holders. With zoos having limited space for keeping deer, the accumulation of surplus animals, usually males that are surplus because of the polygynous breeding systems of many species, but also animals that have become genetically redundant or just have no demand within the EAZA community, the TAG could benefit greatly from the land space that is found in the non-EAZA sector. However, the collaboration could be beneficial for both sectors in more than one way. On one hand, the TAG can benefit mainly from the land space, but also from the husbandry knowledge and expertise, money, and public exposure that may be found in the non-EAZA sector, while, on the other hand, the TAG can provide animals from threatened or rarely kept species that could not be obtained otherwise by the non-EAZA sector, husbandry expertise on some species, and an opportunity for non-EAZA holders to take part in conservation programmes.

There are three types of potential collaboration that may improve our population management programmes:

Transfer of animals to holders who are not seeking to become partners in conservation programmes - These would be usually animals that are not needed for the breeding programmes and they, and their offspring, would not return to any EAZA member zoo. Holders who are willing to keep bachelor herds and/ or less exotic species, and holders who can find solutions for their own surplus animals would be a great fit for this type of collaboration.

Transfer of animals to holders who wish to take part in conservation programmes – Once a holder is a partner in one of EAZA’s breeding programmes, it will be regarded as any other zoo. According to the decision of the programme manager, the holder will receive, breed and send animals. This might be an opportunity to receive more exotic taxa and breed species that otherwise it will not be possible to breed.

Transfer of animals to holders who can keep large herds – To maintain genetic diversity in the captive populations, large numbers of animals are needed. However, because space in zoos is limited it is often not possible to reach sufficient population sizes. Holders who have the space and are willing to keep large herds of one or more species, can feel this need and keep a population from which individuals would be transferred to zoos and others would be sent from zoos according to the needs of the breeding programme.

HOW WE CAN DO IT?

Whilst communication and collaboration on personal or institutional levels have been going on for many years, until recently there was no formal collaboration between the TAG and non-EAZA organizations and this is something that we would like to change. Contacts between the TAG and representatives of several organizations, such as FEDFA (Federation of European Deer Farmers Associations) or the BDFPA have now been on-going for several years and members of these organizations have attended TAG meetings. However, to move forward and get the collaborative work on more practical lines, a broader communication network will be needed. The TAG is accessible through its Facebook page (EAZA Deer TAG), where you can send messages, or through emailing its Chair, Noam Werner, directly at wernerny@jerusalemzoo.org.il. We would be happy to hear about your interests (e.g. common or exotic species, small or large numbers) and forward these to the relevant persons within the TAG. Obviously, the TAG cannot guarantee to fulfil all requests, but once we know the level and type of interest, it will be easier to plan in advance accordingly. Alternatively, you may contact representatives of your country or regional association (in the UK - Dan DeBaerdemaecker; DDeBaerdemaecker@bedfordstates.com, or the general BDFPA email; info@bdfpa.org) with requests that they will then forward to the TAG. If possible, the TAG would be happy to receive a contact list of all interested members of the BDFPA (and of other organizations), to allow us quicker communication when animals become available. Any other ideas for collaboration or communication channels would also be welcomed. Just contact us directly or through your organization’s representatives and we promise to consider any suggestion, since we, in the EAZA Deer TAG, would very much like to collaborate with you in order to advance deer conservation.

Recipe...

PAN-COOKED VENISON IN A CREAM SAUCE

SERVES 2

300G (10 OZ) VENISON STEAK

1 LARGE ONION, DICED

**2 CLOVES GARLIC, CHOPPED
FINE**

BUTTER/OIL TO COOK WITH

**HANDFUL OF MANGETOUT OR
GREEN BEANS, SLICED INTO
LONG THIN STRIPS**

**100ML (3.5 FL OZ) DOUBLE
CREAM**

JUICE OF A LIME

**1-2 TEASPOONS (OR TO TASTE)
THAI GREEN CURRY PASTE**

**CORIANDER LEAVES OR OTHER
FRESH HERBS TO TASTE**

This is more of a method than a set-in-stone recipe, though the quantities given here work nicely. You can use different ingredients, e.g. you could add mushrooms instead of the mangetouts/green beans. Or wholegrain mustard instead of the curry paste. Or you could replace the venison with pheasant – it works really well. I prefer to use green curry paste as it is the most fragrant. And of course if you want to blast your head off and drown the flavour of the meat you can add a lot more.

METHOD

.....
Slice the steak into strips ½-1 cm (1/4 inch) thick.

Heat butter/oil till really hot and very quickly brown the meat on both sides then immediately remove from the pan. You don't want to cook it at this stage; only brown it, so it has to be done quickly. In fact, if you want, you can skip the browning altogether, though browning the meat gives better flavour and colour.

If necessary, rinse out the pan and add some more butter/oil, or use the same oil if it's not burnt. Turn the heat quite low and slowly soften the onion until translucent and slightly golden.

Stir in the garlic and sliced mangetout/beans, and cook gently for a further 5 minutes or so.

Stir in the curry paste, then the lime juice, then the cream. Finally add the meat and, over a very low heat (don't let the sauce so much as bubble), cook it very gently. The meat should remain soft and supple and a little pink – it's really just being warmed through which is all the cooking it needs. At the last minute, stir in most of the coriander, leaving a little to sprinkle on top. Serve with rice, bulgar or other grains.

Tree Guards

A GUIDE TO DIFFERENT DESIGNS OF TREE GUARDS FOR THE SPECIFIC PURPOSE OF PROTECTING TREES IN DEER PARKS AND FARMS

The picture of the historical British deer park is an impressive one, large areas of open parkland dotted with majestic mature hardwoods; the image is truly special. Unfortunately this environment does not happen overnight and as we all know deer and trees do not always mix well, at least for the trees. This is even more evident in a park situation with limited access to woodland. To maintain the trees in a deer park or farm, tree protection is very important.

There are a number of different ways of protecting trees, for the protection of single plantings tree guards can be very useful. Tree guards come in many shapes and sizes and, depending on what your requirements are, will largely dictate your design choice.

Below I will show a selection of different tree guards, their cost, efficiency and some of the pros and cons regarding their use. The types of guards I will be focusing on are aimed directly for use with deer, so avoiding the use of wire and trying to create something to prevent male deer damaging trees with antlers and damage from deer feeding on trees.



Wooden Tree Guards

Cost- Average

Life Span - 5 years +

Pros - Cheap, easy to find materials, blend into the park setting, can be repaired easily

Cons - Easily destroyed by deer if not built correctly, short lifespan, time consuming and difficult to build.



Metal Tree Guards

Cost- High

Life Span - 10 years +

Pros - Long lifespan, very effective at preventing damage, can be moved from tree to tree, fast to erect, simple to construct

Cons - Expensive, need to be pre-ordered, can look out of place, very species dependent (gaps in bars will need to be different sizes depending on species present).



Wrap around tree guards

Cost- Low

Life Span - 5 years +

Pros - Cheap, easy to erect, quick to erect, not easily visible, can be moved from one tree to another easily

Cons - easily broken by deer, if not removed can damage trees as they grow, wire used in guards can become tangled in deer antlers, can look untidy if not repaired, cannot be used to protect small saplings.

When planning for the protection of trees in parkland there are a few key things to consider:

DEER SPECIES PRESENT

Depending on what type of deer are present will change the demands of the tree guards, for example for Fallow and Sika slightly lighter framed wooden guards may be suitable. If they are being used for the protection of young trees the height to prevent browsing from Fallow should be 1.5 metres but for reds or larger species at least 1.7 metres. I would also suggest that with Red deer or any other larger species wooden tree guards can very easily be destroyed by stags during the rut and the design of the tree guard will have to take in to consideration the chance of it getting entangled in an animals antlers.

WHICH TREE ARE YOU TRYING TO PROTECT

Most young trees will need some form of protection but each park will find that there is preference from the deer for any one species or age of tree and using your own experience can make sure that you effectively protect these higher risk trees. If you are hoping to increase the tree cover throughout the park by planting single trees thought must be taken to prevent deer from easily browsing the tops of young trees too heavily or from reaching through the tree guard to reach the tree to feed. The deer species that are present will dictate your decision here but when designing the guards I think it is advisable to go for the smallest possible spacing on any rails, this will eliminate the chance of deer reaching the tree and makes it harder for males to get antlers in-between the rails to break them. If you are looking to protect established trees which are past the point of sustaining serious harm through browsing and the main risk is from antler rubbing then the design is maybe less important the strength and durability of the guard becomes more of a focus.

Because of the work and cost involved to try and start protecting trees in a park where there has not been any tree protection it can be a good idea to start with reactive management alongside a long term plan. To protect the trees in a reactive way can require a lot of effort at key times of the year especially when males come into hard antler and during the rut. It is possible and effective to use metal tree guards (or wooden if designed for this purpose) and quickly get trees protected with the option to move the tree guard in the future.

OTHER OPTIONS

It will not always be possible to go out and put up 20 or more tree guards in one year, there is always the difficult decisions to make, do you focus to protect 10 trees with expensive metal guards or time consuming quality wooden ones or do you try and get some light protection on 50 trees? This will all depend on circumstances and budget to determine what is the most effective approach for you. One option that could also be considered to prevent tree damage would be to supply brush for antler rubbing, this is an idea that although it may not stop damage if the correct brush is put out in the park in areas that you know the stags use it can help divert them from the trees. It is always possible to use plastic guards or whatever is available, I have seen old oil drums used to protect young trees with great success in parks with only smaller deer. Planning your tree planting and if possible the distribution of deer throughout the park with tree protection in mind can also have a huge influence on the levels of damage.

I know that trying to protect our trees is a challenge we all face and I hope this guide has given you a few ideas, the different tree guard designs and costs vary hugely and I think the most important thing is to try and work with a long term plan where efficiency and cost can be the key aims. We must aim to protect our trees without endangering the deer, ruining the image of our parks or negatively affecting the trees within the guards and although you will never stop all damage hopefully the level of damage is much more acceptable.

In summary there can be a lot of options for protecting your trees from deer damage and a bit of planning and thought you can save money and make sure that your deer and trees are safe and secure for the future. And if you are lucky the deer will leave the trees and enjoy beating up your tree guards instead!



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If you would like a consultation please contact:

Clive Jermy ONZM
Email: clive@deerandgame.com
Phone: 0064 21924317

And/or call on the team anytime.

Dan DeBaerdemaecker
Woburn Abbey
Phone: 077 34977088

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Contact the BDFPA
Tel: 08456 344758 Email: info@bdfpa.org
Web: www.bdfpa.org or www.deeruk.org

*pending election at the 2016 AGM

BDFPA Members



As members of the BDFPA, we now mainly communicate with you via email so your contact details are key.

Please ensure that you keep the office updated with any changes to your email address.

To make any changes, just email **info@bdfpa.org** or **claire@bdfpa.org**



Lordington Park
AGRONOMY

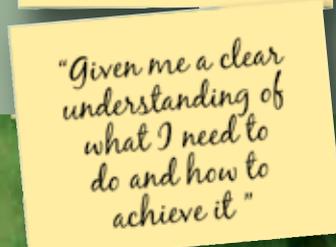
Save time, Save money
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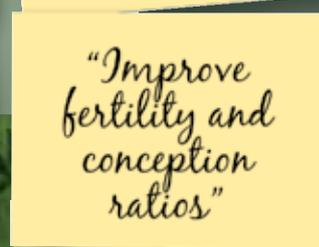
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Book. reviews....

THE VENISON BIBLE & THE SCOTTISH OATS BIBLE BY NICHOLA FLETCHER

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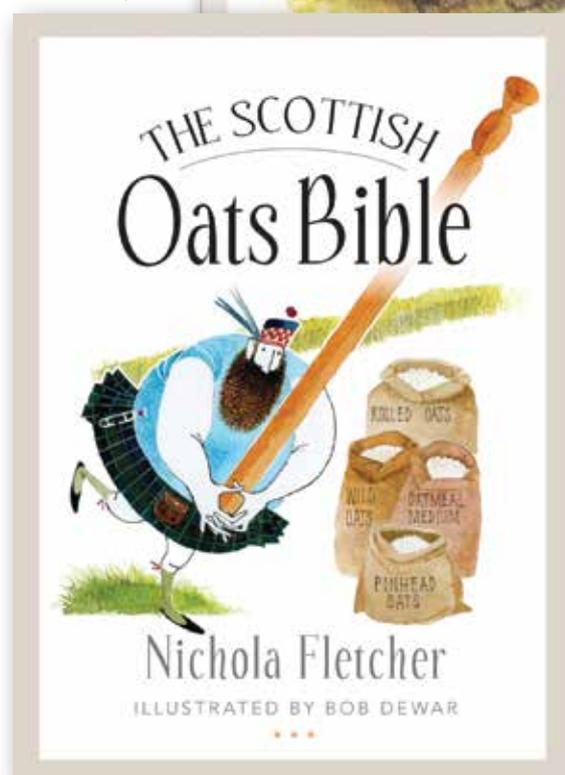
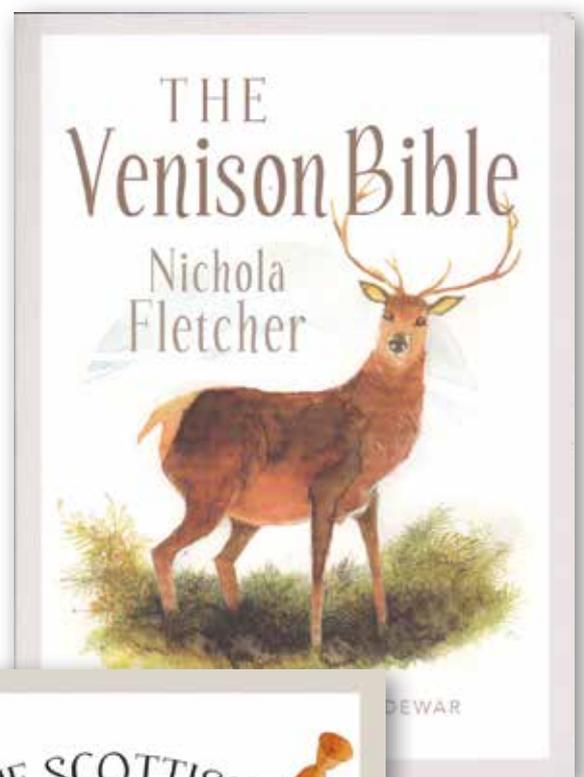
THERE YOU ARE. CHRISTMAS DONE! TWO FOR LESS THAN A TENNER. THE PERFECT STOCKING FILLERS, OR A GREAT ALTERNATIVE TO A BOX OF CHOCS. BUY HEAPS!

The Venison Bible is a great way to promote your product. Use it to boost repeat sales, or as a giveaway, or as prizes, or incentives to order more. For wholesale prices contact Nichola Fletcher nichola.fletcher@btconnect.com or the publishers, Birlinn: VikkiR@birlinn.co.uk

"The Venison Bible contains useful cookery tips and 43 recipes, ranging from warm venison salad with pickled blackberries to loin of venison with claret sauce. It has an RRP of £4.99 and is dinky enough to fit in the smallest of Christmas stockings. It has been written by the award-winning writer Nichola Fletcher ... it is actually her third cookery book on venison. Put another way, there is little she doesn't know about the meat."

THE SCOTTISH OATS BIBLE, JUST PUBLISHED.

"In her wonderful little book, Nichola Fletcher reveals there is so much more to oats than porridge and cranachan. Her indulgent spiced oatmeal cake is a far cry from puritan, made-with-water porridge. A charming book showing off oats in their true versatility. Who knew?" "Keeping it modern, there's recipes for smoothies, while there's advice on how to use oats to give yourself a relaxing facial and beauty-boosting bath."



Progress in Managing Tuberculosis in British Deer

OF ALL THE PROBLEMS FACING BRITISH DEER FARM AND PARK MANAGERS TB REMAINS ONE OF THE MOST SERIOUS

A TB infected herd is killed - a catastrophe for the farmer and very expensive for DEFRA

The most recent regulation applying to deer was The Tuberculosis (Deer and Camelid) (England) Order 2014 which as the name suggests applies only to England. Scotland is internationally accepted as tuberculosis free. Briefly the Order requires anyone suspecting Tb to report their suspicions and isolate the animal. The examining vet or other 'appropriate' officer may then use any 'relevant' test to confirm the suspicions and may require it to be slaughtered. In that case its market value must be agreed with the owner through a valuer or by discussion and agreement. Compensation will then be paid at 50% of its value. The Order also prohibits the treatment or vaccination of deer thought to have Tb and it requires all deer that are being moved to be uniquely identified in the approved manner and for the movement to be recorded. The Order is only temporary and will be revised and replaced in seven years i.e. 2021 at the latest.

So far then there doesn't seem to be very much change from the previous 1989 Tuberculosis (Deer) Order.

In preparation for revision DEFRA has instituted a variety of consultations and the current one demands a response by November 8th 2016. It can

be read at <https://consult.defra.gov.uk/bovine-tb/proposed-tb-controls-for-pigs-and-other-species>.

There is firstly the significant issue of levels of compensation which has irritated and alienated deer farmers for twenty years – what is the rationale for compensating cattle at 100% of their market value and deer at 50% let alone the very high levels being paid to keepers of camelids? This is hardly going to encourage deer farmers to start testing their deer! Now to add insult to injury DEFRA wants to impose fixed levels of compensation at even less than 50% of the market values.

Secondly we have to consider what constitutes a 'relevant' testing regime. There is now abundant evidence that the skin test as presently used is – by itself – ineffective and irrelevant. Basically the skin test in deer consists of careful preparation of the side of the neck of the deer, measurement of the skin thickness, injection of avian tuberculin in one site and bovine tuberculin below it. 72 hours later the skin thickness is re-measured. The skin test has incidentally never been validated in cattle, where it has been used for almost one hundred years, let alone deer.

Now we have a whole new science of testing which uses blood samples. Most of these blood or serological tests are however dependant on initial priming with tuberculin. Tuberculin – which is a protein extracted

from the bacteria causing Tb – is injected into the deer and the blood sample collected 20 days later. This initial injection greatly increases the sensitivity of the subsequent serological test.

In New Zealand Tb in farmed deer herds has been reduced from several hundred infected herds to only one or two through the development of an ELISA blood test carried out 20 days after a skin test. In 2013 New Zealand had 2053 skin reactors to bovine tuberculin in three infected herds but by applying their ELISA they needed to slaughter only 105 to clear the three herds involved.

It doesn't require very much thought to see how much money DEFRA could save in compensation if they allowed us to adopt the same policy.

This ELISA was developed over many years by Professor Frank Griffin and he has been extremely generous in discussing its use in Britain where it is hoped to establish the test at the Moredun laboratory in Edinburgh.

The infected deer herd at Hornby Castle adopted the same regime as pioneered in New Zealand using a standard skin test followed at twenty days with collection of blood samples that were sent out to New Zealand and subjected to their ELISA. The initial skin test is important not only in priming the blood test but also because as the initial test in an infected herd it is effective in identifying reactors.

The suggested protocol developed at Hornby and based on New Zealand experience and which we believe could be rolled out to other infected herds is as follows:

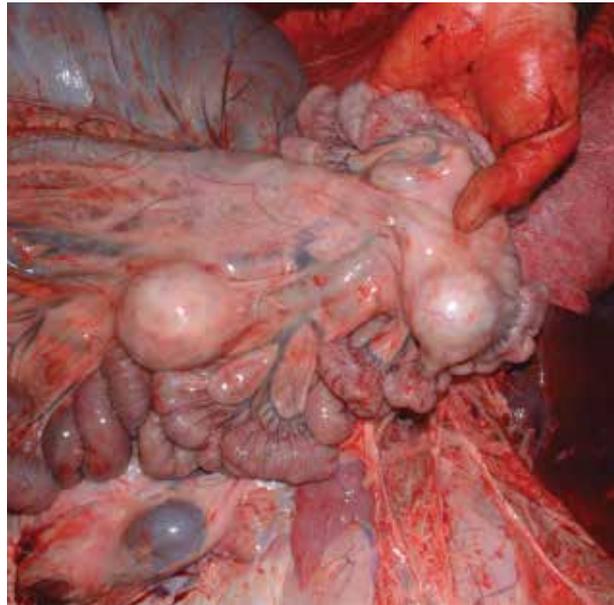
1. Use a standard skin test to identify reactors with blood samples taken 20 days later for serology.
2. All positives to the blood test and all reactors to the skin test under standard interpretation are slaughtered and lymph nodes cultured.
3. This procedure repeated at 90 days – or certainly less than the minimum 120 days required between skin tests at the moment.
4. Provided calves, once weaned, are kept quite separate from the rest of the herd then only breeding hinds and stags need to be tested.

It became very clear at an early stage that the severe interpretation of the skin test as currently required by DEFRA identifies many false positives and is therefore expensive in compensation paid for deer unnecessarily slaughtered.

This protocol may need some adaptation and refinement and APHA scientists are actively drafting a scheme of trials by which it is hoped to establish whether other serological tests might be equally or more effective than the New Zealand one.

BDFPA is hoping to encourage a number of deer keepers who may be under movement restrictions or who may for whatever reason wish to test their deer to contribute results of testing to permit APHA to evolve a regime that will allow infected herds to test clear. This is our first priority.

Alongside this would be as the next stage the creation of voluntary testing procedures that the deer farming industry could use to create a network of attested herds from which those setting up new deer herds could draw on to purchase their foundation stock.



tuberculous abscesses in deer that appeared healthy



Grassland Management: *renovating worn out pasture*

Experience tells us that grassland productivity eventually reduces to the level that it needs to be restored and returned to its full potential. Let's look at the most efficient and cost-effective way to do this.

COST OF THE SEED

With grass seed costing in the region of £5 per kilogram (depending on the species mixture and quantity required) and a seed rate of 25-35Kg per hectare needed, then a cost of £125 to £175 requires careful thought and consideration to deliver success. Forward planning and timely implementation are crucial.

The mixture of species and varieties needs to be designed to thrive in their given environment, as well as meeting the objectives of the stock owner.

TIMING

Early spring or autumn are the optimum times for establishment. This allows time for the grass to become robust enough to withstand the rigours of our summer droughts and winter frosts. Warm, actively functioning soils are essential. Soil temperatures of at least 6C are required as a minimum for success.

SOIL COMPOSITION

Fundamentally, the ideal soil needs to contain 25 per cent water, 25 per cent air, 45 per cent mineral content (sand / silt / clay) and five per cent organic matter. Creating and sustaining these proportions despite the weather is the challenge we have to face to maintain and increase productivity.

The majority of land that is utilised for grassland has an inherently low soil productivity level. This combined with undulating topography means that there are few options for growing arable crops in these environments, therefore grass and stock are the best financially viable option.

When grass has grown in any environment for a period of five years or more it has generated a self-sustaining environment that it can thrive in.

Grass roots produce an exudate that feeds the soil microbes, which in return liberate soil based nutrition for the roots to absorb and the plant to utilise. This is cyclical, and as long as the roots grow then the plant will be able to flourish and thrive.

Without air pockets in the soil, roots will struggle to grow. Therefore, they are wasting energy forcing roots through the soil when they could be producing green leaf area to feed our stock.

The natural cycle of plant growth and decay over the season generates organic matter which starts to decay in the soil. Over time this is then broken down by the worms to create invaluable humus for the plants to utilise as a food source. After five or more years this cycle has generated a significant energy source in the soil for the plants to utilise. In principle the more organic matter that can be created in the soil, the more productive the sward will be. As a direct consequence fertiliser applications can be significantly reduced.

It is prudent to assess the soil nutrient level prior to drilling, as both Phosphate and Magnesium are essential for successful root development and therefore plant growth.

COST-EFFECTIVE GRASSLAND ESTABLISHMENT

Looking back to the 1950s and 60s, tired grassland would be ploughed up, the soil renovated and re-sown into a fine, firm, tilth. But, to maximise the financial return for the farm and utilise all the organic matter the grass had generated, a crop of potatoes or cereals would have been sown. Cocksfoot *Dactylis glomerata* was widely grown as it has the same feed value as Ryegrass but is perennial – therefore productivity leaves do not reduce over time. If we consider the lack of cultivation options that they had, the size of the plough that was used and that the soil organic matter was likely to have been in excess of eight to 10 per cent, then this strategy could be implemented with a high degree of success for both arable crops and grassland.

If we also then consider the cost of diesel and time in those halcyon days to create this environment, then this strategy was obviously a viable option.

Of course, today we could still burn recreational diesel and beat the soil into submission to create a billiard table for our grass to be drilled into. Unfortunately, this strategy only serves to burn off (volatilise) the limited organic matter contained in the soil, destroy all the hard work the worms have employed to create a prolific environment and destroy the ecosystem that the microbes lived in to help the grass flourish. It will probably look good though.

If we consider that all the time the grass has been growing, it has been generating the necessary environmental interactions in the soil to create the perfect growing medium in which grass can thrive. Ploughing just destroys all of that, and serves to delay establishment and productivity, as well as costing far too much both in time and money.

For maximising grass productivity, we need to be generating a dense sward. This means that when we are stood in the field and look down, all that we see is grass. Not soil and some grass!

The old, tired grass may be unproductive but the most efficient way of generating a productive sward is to use a slot-drill to 'stitch' the new seed into the perfect growing environment created by the old grass. Establishment success is virtually guaranteed, and the new grass soon outcompetes the old grass providing the required productive environment for minimal time and expense.

This method of establishment negates the damage that slugs can do, and also stops the wind from blowing tiny soil particles across the field that then act as sand-paper and shred the delicate young plants.



An Introduction to Deer Fencing

One of the facets of my business is fencing; and over the years I have seen some good fencing, with some still standing tight twenty plus years on but unfortunately a lot of the time the fencing I see is poor, whether it is stock fencing for sheep and cattle, or deer fencing.

I wanted to write an article combining my experiences and knowledge as a fencing contractor and also my work with park and farm deer. The purpose of putting pen to paper is hopefully to benefit the deer farming community, particularly those who have a limited understanding of fencing and what to look for in a good fence and a good contractor. Some of you are extremely competent, experienced and proficient at installing deer fencing and have access to the right machinery and tools, however there are a large proportion of deer park and farm managers who call upon contractors when there is any fencing to be done. Hopefully this article will help you understand the do's and don'ts and best practice so that when you need some new fencing installed, you are in an informed position to talk to and choose the right contractor to get the best end product, or better still, hopefully inspire you to install some yourselves.

Apart from the livestock, fencing can be one of the most important and most expensive capital investments on a deer farm, especially on a brand new unfenced farm. You may have multiple thousand metres around the perimeter and potentially the same again by the time you have built internal paddocks and double fenced raceways. Without wishing to state the obvious the fencing is fundamental to running any deer park or farm, unless you are fortunate enough to have an original Estate park wall containing your herd, which is why it is so important to get it right. It is a big investment and must be built well, using good materials, to provide a long service life with little maintenance, to keep the other big investment, your prize herd of deer, safely within the bounds of the fence and everything else, out.

Due to the nature of the fence, the size, materials and construction it can be very expensive particularly if you are using contractors and as a result there are temptations to cut corners and reduce the specification in order to reduce costs. Also I have found that out of all the fence types a professional contractor may install, deer fencing is one that is frequently built poorly, using inferior or undersize materials and worse construction techniques. It

may be sufficient if keeping a few deer out of a small forestry plantation but will not stand the test of time, stay upright and tight in a farm environment for the full desired life of the fence. See photo below of a deer fence, supposedly to exclude deer, approximately 2 years old.



There are a great many variations and styles of deer fencing, and contractors in different parts of the UK will all do things differently, whether due to the materials available, ground conditions, topography or access. This is not to say that it is wrong, I am from the South of England where we generally have it pretty easy by comparison to some of the contractors in Scotland who may be battling a variety of factors such as extremely thin soil overlying bedrock, steep terrain, inclement weather or peat bogs to name a few. This is not a complete and exhaustive guide to deer fencing, but covers the key points, we are working on a more thorough booklet which will cover the content in this article and more, in greater detail.

Let's look at the principles of a netting fence, some terminology and how it works.

BASIC CONSTRUCTION PRINCIPLES

The principle of a modern one piece netting type of fence, be it for sheep or deer is the same. At the end of a section of netting there will be a strainer, which are larger diameter posts and driven much deeper in the ground than the others. This strainer



is supported by some form of strainer assembly; this may be a strut: a single post at an angle supporting the strainer against the direction of pull or in deer farms the more common box strainer assembly. The box strainer is made up of two heavier strainer posts with a horizontal strut between the two and a diagonal brace wire. The wire runs from the bottom of the end strainer to the top of the inline strainer and prevents the force of the netting pulling the rectangle shape of the box strainer into a parallelogram. There are a few variations in strainers but all are based on one of these two types of assembly. The photos below show two types of box strainer: a half height box strainer and proper full height box strainer.



The tension placed on the netting is held by these two strainer assemblies at each end. In between the strainers are the intermediate posts and their purpose is to provide stiffness to the netting from sideways forces. If the fence is installed correctly an impact in one spot on a fence e.g. a deer or tree branch should allow the entire section of netting to stretch and give a little as the load is taken by each strainer assembly at either end, whether they are 100m or 400m apart.

Along the fence run it is common to have turnposts within the fence, these are heavier posts similar to the strainers which allow for minor changes in direction. Up to thirty degrees change in direction is generally accepted that a heavier post driven in to the same depth as a strainer but unsupported, i.e. no strut, is acceptable. Above thirty degrees and the turnpost needs to be strutted or a corner box strainer assembly built. See the photo below of a corner box.



As mentioned earlier the most common strainer assembly in deer fencing is the box strainer. It is considerably stronger than a strut which is important as it needs to cope with the extra height of the fence (compared to normal stock fencing) that gives

everything that much more leverage. There are a variety of ways of building box strainers, however the principle is the same, two large strainers on the line of the netting with a pole between the two and some form of diagonal brace or stay wire. The distance between the two strainers needs to be about twice the height of the netting for maximum strength and holding power. In most cases this means using 3.6m lengths of round timber as sourcing anything longer is difficult. I prefer to mortice my poles in at each end which means that if the brace wire were ever to snap the box cannot fail entirely. The timber pole wants to be morticed in near the top of the netting, I put mine between the first and second line wire at the top of the netting. The photos below show's some box strainer detail.

If you are going to use struts instead of box strainers to terminate on, there are one or two key principles to make sure the strainer and strut assembly stays where it is supposed to. Firstly, the angle and length of the strut is critical. In order for the strut to be as effective as possible



and stop sideways movement of the strainer, the strut would ideally be as close to horizontal to be acting at ninety degrees to the strainer. However, it must have one end supported in the ground, so the lower down the strainer, (within reason), the closer to horizontal it will be. Leaving the strut as long as possible keeps the angle of the strut as shallow as possible, approximately twenty to twenty five degrees will also help. As a rough rule of thumb the strut should be morticed into the strainer about one third of the way up. If the strut is too high up and short in length, it will do very little to counteract the force of the fence and can actually be detrimental acting as a fulcrum

pivoting the strainer up and out of the ground.

The strainer end of the strut must be morticed neatly in to a little rectangular socket to gain the most strength and resistance to twisting. In most cases you see struts that are simply nailed on to the face of a deer strainer, or a tiny notch, which given time, always seem to fall apart. The photo below shows a bit of stock fence and a poorly made strut in the wrong position, doing little to support the strainer.



The ground end of the strut must be buried in the ground and supported by a thrust plate of some description, either a concrete block, big stone or a piece of timber known as a stob. The stob is either driven in vertically to support the strut or is laid horizontally in a shallow trench at the end of the strut and resists the sideways pressure of the strainer and strut. One further improvement to the traditional strut is to put a retaining wire 'loop' around the strainer and the vertical stob a few inches above ground level which creates that triangulation and resistance to movement in the same way as a box strainer.

MATERIAL SELECTION POSTS

When it comes to fencing there really are only two options in terms of the posts – timber or galvanised steel. The current options for timber chemical treatment is limited to the green tanalised type treatment or the traditional creosote treatment.

As I am sure you are all aware, the quality of timber treatment and longevity in the ground is at an all-time low. Fence Posts have been lasting as little as 4-7 years despite a supposed warranted 15 year service life. In 2004 the Copper Chrome Arsenate treatment, known as CCA, was banned removing the Arsenic out of the cocktail. Although both the Copper and Chrome are natural fungicides, insecticides and bactericidal it was the Arsenic which gave it the chemical punch it needed to preserve the post for the full warranted lifespan, and more, given by the retailer. This is why some of the fences on deer farms fenced in the 90's are still standing. It was said that the Arsenic treatment would kill any bacteria that was already in the timber from before the treatment process or after when it was in the ground. Whereas the newer modified green 'Celcure,' 'ACQ' or 'Tanalith E' type treatments seem to offer little and variable protection regardless

of post size. I have had 8" square gate posts rot in 3-4 years, which does not fill you with confidence about the chemicals, the process and any warranty from the retailer.

There are several standards denoting the expected lifespan and quality of treatments. The majority of 'green' type treatments will be User Class 4 (UC4) or similar, designed for in ground contact as opposed to UC2 and 3 which are for internal construction type timber or timber which may experience occasional wetting.

The next option is the Department of Transport (DoT) or Sector 4 grade which is supposed to be treated more thoroughly to last 30 years, but uses the same chemicals. Whether the extra cost of this over the UC4 is justified I do not yet know, I have not had any in the ground long enough to really make a judgement. When you cut into them the treatment does seem more thorough and has penetrated deeper than the UC4 products, some of which look like they have had a spray tan only! But maybe the fundamental problem is with the chemicals inability to resist fungal and bacterial attack, not the treatment process and penetration.

The third option is the creosote treatment, which has been around for many years, is proven and has stood the test of time. There are electrical and telegraph poles around which have been in the ground for 100 years and are still standing, however nowadays the service life before removal for most utility poles is shorter. There are two options for the creosote treatment, either buy reclaimed electrical or telegraph poles. (The difference between the two is the diameter and length; telegraph poles are generally shorter and have a smaller top and bottom diameter.) Or buy new creosote timber posts from the same companies that produce the poles for the utilities companies which are treated in the same way and come in a range of sizes. The life span is a guaranteed 30 years which I personally believe and think that in nearly all circumstances big strainers would easily last well in excess of this.

There are pros and cons to each, the reclaimed poles are generally a good idea, easily available, not too expensive but require cleaning up of iron work and you don't know how long its sat in the ground already and how long a lifespan it has remaining. Whereas the creosote products are close to twice the price of the UC4 and little bit more than DOT materials, however in the lifespan of a single creosote post you may have to replace the UC4 equivalents 2-4 times. At this point the economics and extra initial cost of the creosote treated timber can make more sense particularly if you are in it for the long haul and you take account of labour to replace the posts 2-4 times in 30 years.

What is evidently clear with any of the timber

treatments is the tree species the posts are made from has a big bearing on the lifespan of the post in the ground. Species such as Norway Spruce, known as the 'whitewoods' are naturally extremely poorly rot resistant as they have a very open, porous grain with is very light in colour and density making it prone to rapid decay. Whereas the 'redwoods,' such as Pine, Larch and Western Red Cedar seem to have an element of natural rot resistance, have a tighter, denser grain and are considerably stronger. The majority of manufacturers claim to only be using the Redwood species but there are still some companies out there that are treating Spruce to UC4 standard and selling it as such, so make sure you ask what you're getting.

The other options as mentioned earlier are galvanised steel posts. There are two main products out there, these are 'Clipex' and 'StapleloK' both are relatively new and claiming long life spans of 30 years or so. I have no doubt that they would last this long even if the galvanising was wearing and parts were rusting. The major downside is the initial expense of the posts and strainer assemblies, they are not cheap, but the lifespan of the fence could justify the initial capital expense.

One of the main drawbacks is the aesthetics of the product. Even after the galvanising has tarnished a little and the shine has gone off, it still looks very industrial or like an Australian back yard and does not suit all rural deer park and farm type environments. The other major drawback, having installed approximately 2000m of the first batch to come into the country, is the holding power of the strainer assemblies. The strainer posts do not go into the ground anywhere near as deep as a conventional timber strainer and are less than half the diameter of a regular deer strainer. Consequently, we had problems securing them and preventing movement especially on open corners despite thorough strutting and being on very hard chalk and flint. However, they have made alterations to the design since, apparently improving this. See photo below.



The other problem with the metal systems is they are fairly rigid and inflexible in their construction and fence layout. With wood for example, any angle, corner, rise or dip can be accommodated, as you have the flexibility to mortice a strut in wherever you like

to provide support or another post to allow a change of direction. Certainly with the Clipex metal fencing systems, changes of direction are difficult as you are limited by the four predrilled holes that the struts slot into and these only allow a little bit of movement either side of each hole but if you have a change of direction that is 135degrees or similar it is difficult to get them where you want.



I think in the right situation the metal fencing could have its place but is really suited to nice straight sided rectangular paddocks of a deer farm, not steeply changing ground or weaving through trees as might be found in a deer park setting.

INSTALLING POSTS IN THE GROUND

In terms of installing the posts, it is strongest and most efficient to have some sort of mechanical post driver, whether tractor mounted or a tracked self-propelled one. Driving posts into undisturbed ground has been proven to be the strongest method. Some research done in New Zealand showed that to lift posts out of the ground the following forces were needed.

- Hand Dug and Rammed with a tamper**
90kg of force
- Pilot hole with bar and then hand driven**
900kg of force
- Machine driven**
1,260kg of force

Apart from being the strongest method it is also the least physical, hand digging deer strainers and hand driving deer sized intermediates on any serious length run would be extremely heavy going even for the fittest person and take an absolute age.

Post sizes for deer fencing are down to personal choice and what you can find from retailers, particularly with deer strainers, which are not always standard sizes and

rarely kept in stock. I tend to favour a 3.3m or 3.6m x 175-200mm strainer but in good holding ground an absolute minimum of a 3.0m strainer can sometimes work, which will give you approximately 90cm in the ground for a box strainer. If you allow 5cm or a toes gap under the net, plus 190cm of netting, a 10cm gap above your netting for your strand of plain line wire plus a 5cm gap above the plain line wire to avoid the top of the posts splitting from the staples, there is 2.1m out of the ground leaving approximately 90cm in the ground. In an ideal world you would want at least 1.2m in the ground, to do this you would need a 3.3m strainer but as suggested these are harder to find, if you can find them 3.6m are equally good and depending on ground conditions it is quite easy to drive a 3.6m strainer to full depth. If you want to save a little, you could buy the biggest termination or end strainer e.g. 3.6m long, where the wire is tied off and use a slightly shorter one for the inline or support strainer of the box e.g. 3.0m. For the box strainer strut or pole I tend to use a 3.6m x 100mm or 125mm machine round pole for morticing in.

As for intermediates, I always use 2.7m or if unavailable then 3.0m x 100-125mm stakes which gives you approximately 60cm plus in the ground, which seems to remain solid. As for post spacing, with good quality high tensile net on a normal section of perimeter fence I normally space the posts at 6m intervals but up to 10metres apart is possible. Clearly in higher pressure areas on a deer farm this interval would be reduced to 3 or 4metres apart or space boarding and solid plywood installed in the key areas.

It is very important that the tops of posts are not trimmed down to the correct height, this usually means the post has not been driven down sufficiently and may not be strong enough. If you do remove the top of the post, you are cutting into untreated end grain which is very porous on softwoods and will more than likely rot prematurely from the cut end down. If you do trim some tops make sure you protect them well with one of the end seal products or good old fashioned coal tar creosote.

GATES

The options with gates in a deer farm environment are limited. Either treated softwood or tubular galvanised steel with weldmesh or chainlink are the most common, but I have had softwood and Oak gates made to full deer fence height for clients in the past, at over double the expense of a galvanised one. There are pro's and con's for both but ultimately the steel versions will long outlast any wooden gate. Due to the abnormal size and weight of timber deer gates they do have a habit of warping and sagging over time and as a result my preference would be galvanised steel every time.

There are one or two key observations I have made after visiting various deer farms and parks over the

years to do with hanging gates. Most people hang the gates on the end of the box strainer, which I can rightly understand as it is one less strainer to buy. This is all very well but either the gate or fence is normally adversely effected over time. The tension of the netting usually causes the strainer to move a little over time and so the gate then changes its height or angle in the closed position meaning the hole or catch does not line up. Its fine if you are using Kiwi style hook and chains to secure the gate but even so the frame of the gate then doesn't sit against the slamming post or other box strainer squarely, often leaving gaps which animals can squeeze through or under. Equally some of the big metal gates, whether 12, 14 or 16' wide are very heavy and over time can affect the fence, pulling it over slightly the other way. Particularly where the strainer it is hung on, is not really in deep enough to be safely used as a gate post. This is more annoying as the end of the gate has to be lifted and dragged to close it, which is far from ideal in a race type situation where you need easy, freely swinging gates to slam behind a mob of deer.

Although it is extra cost, I think it is important to hang the gate on its own independent hanging post and ideally slamming post as well, in the gap between the two box strainers making up the fence. I think it is okay to use the box strainer end as the slamming post as long as you don't treat it as such, as over time the impact will disturb the strainer and fence.

The box strainer and gate post can either be driven in side by side or driven in with a small gap between the two which can then be railed out to provide a stock proof barrier. Gate posts can either be timber or steel, the latter is usually concreted in but the timber option can be square sawn or round and either can be driven or concreted in.



The photo above shows a short rail section either side of a gate hung independently from the box strainers either side.

NETTING

The modern deer fencing found on farms is usually a one piece net i.e. a woven wire net made from a series of horizontal line wires connected with vertical stay wires crossing at 90 degrees with one of three

possible knots joining them together. Netting comes in a range of specifications, a typical deer net may be 13 strands of line wire with 15cm gaps or mesh spacing between the vertical stay wires. Usually deer netting is around 190-194cm tall with smaller gaps at the bottom of the net to prevent animals getting in or out. For Red deer 13 strand is suitable to contain calves however for smaller species a 17 strand netting may be essential to contain the younger animals. Keeping a narrow margin of long unmown grass around the perimeter can help with this.

The net specification whether for deer, sheep or anything else is written in a particular way which denotes its height, number of horizontal line wires and the gap between the vertical stay wires. For example, HT13/190/15 would denote High Tensile, 13 horizontal strands, 190cm high and 15 cm mesh spacing. Or a T17/190/8 where 'T' equals the knot type, 17 strands, 190cm high and an 8cm mesh spacing.

There are three main types of knot or joint to be found on deer netting, regardless of manufacturer and each company calls the same knots different things. The three knots to be found are the hinge joint, Torus or 'X' knot and the Titan or Titegrip. My personal preference is for the Torus/X knot or the Titan/Titegrip which have a one piece vertical stay wire making the net much stiffer and resists the concertina effect that the hinge jointed netting suffers from over time despite careful stapling. The hinge jointed knot also takes the longest to strip the ends ready for tying off and out of the 3 knots it is the worst one for the knot moving and gradually deforming to the point where eventually it becomes so holey it is not stock proof. Particularly with antlered deer, where it can get destroyed very quickly if they are fighting through it. As a result, it should be avoided for deer if possible, the price is attractive initially but the long term problems will be worth spending that extra little bit per roll. The photos below show the 3 knots, Hinge below left, Torus/X knot middle and Titan or titegrip below (bottom image).



In terms of the steel quality and galvanising for netting, all one can do is to make sure the wire you buy, is from a reputable manufacturer and complies with:

BSEN 10218 – Steel wire and wire products part 2- General Wire Dimensions and Tolerances

BSEN 10223 – Steel Wire and wire products for fencing and netting part 5- Steel Wire Woven Hinge Jointed and Knotted Mesh Fencing.

BSEN 10244 – Steel wire and wire products, Non-ferrous Metallic Coatings on Steel Wire Part 2 – Zinc or Zinc Alloy Coatings.

Particularly the BSEN 10244, which covers the galvanising which is crucial to the fences service life.

MILD STEEL 'V' HIGH TENSILE

There really is no contest between the two types of steel and there are very few circumstances where you would want to use mild steel netting or line wire in a fence. If you are not aware of the difference, most metal netting or wire products will be classed as Mild Steel or High Tensile (HT) and the properties of each are fundamental and is all to do with the tensile strength, i.e. maximum load that the wire can be stretched before breaking.

Mild steel wire stretches in two very different ways, one stage following the other. The first stage is where the wire remains elastic i.e. the wire can stretch and return to its original length if the load is removed. However, if pulled further beyond the elastic stage, known as the yield point, the wire stretches but does not spring back when the load is removed and remains slack. This is called the plastic stage, and will continue to stretch until snapping.

With HT it will continue to stretch elastically and retain its tension despite possible deer impacts as it remains elastic for much longer before the breaking point is reached. If a deer crashes into a mild steel fence the impact will take it beyond the yield point and the wire will lose all elasticity and permanently remain slacker. The same can happen even with seasonal changes in temperature due to the wire expanding and contracting as temperature falls and rises, taking the wire beyond the yield point.

There is a small difference in cost, but HT is worth it, mild steel can look awful and slack within a year and requires regular maintenance and will not be robust enough for the demands of a deer farmer. A one piece High tensile netting from a specialist manufacturer, not your local agricultural dealer, is the way forward and will outlast the timber posts it is attached to. HT is also nicer to work with and performs predictably, when bending, tying or doing the breaks after completing any knot.

TYING OFF THE WIRE



It is very important that the netting is attached to the end strainer either by tying the wire off or using one of newer products on the market. To tie off you need to create some stripped ends on the netting achieved by removing two or three of the vertical stay wires, and then passing each end around the strainer and tying using a special knot shown above.

The alternative if not tying off is to use a product from Gripple, known as a T clip. This has the same mechanism as a regular Gripple inside, but two opposing hooks on one end which hook over the line wire of the netting you are attaching. See photo below right.

For speed and simplicity the T clips are fantastic, particularly if you are using 17 strand netting where tying off can become quite tedious and



awkward at the bottom. They do cost a bit to buy, but the trade off, if you find tying wire difficult maybe worth the labour time saving.

The other downside is they have been known to 'pop' off the wire. I have had a few where the hooks ping off whilst we've been on a job and I would imagine with possible deer impacts to the fence in a deer farm setting they may not be the best solution. I generally use them for stock fencing but I would be a little wary about using them for deer. At least you know when the wire is tied off properly it is not going anywhere.



The one thing we do not want to see anywhere in the fence are staples smashed in as far as possible to hold the netting, known as hard stapling. This is a big no no, it is messy, damages the galvanising on the wire and potentially the wire as well, causing rust and will not hold the tension on the netting long term, as the photo above shows, which was taken approximately 3 years after installation.

JOINING THE WIRE

Somewhere in our length of fencing we need to strain the netting up and join it together to hold the tension. The best way of putting netting up, is to tie off each end on the strainer assembly, to avoid any hard stapling, leaving a little amount of slack in the netting. Somewhere in the middle or near to it, the netting will need cutting, this cut is where the tension will be applied using several possible means. Although it seems counterintuitive to unroll a nice new piece of netting, tie it off and then cut it in half, it is the best way of applying the tension equally as the netting is being strained to the middle, pulling equally each way. The tension is applied in a variety of ways, either with Gripples on each line of netting and using the Gripple tool to tension the netting, or straining clamps which clamp the netting either side of the cut and draw the two halves together with special chain strainer tools. Once the two halves are at the correct tension any excess net can be cut out and the ends lined up and joined with one of the methods below. There are a variety of options to join the wire, some ways create permanent joins and others are easily adjustable at any time. The three most common ways of joining deer netting are, knotting, crimps or Gripples, the first two of which are permanent and cannot be adjusted or reused.

The photo below shows some fencing, where the contractors had gone to the trouble of building some half decent box strainers and bought some very good netting but then just clipped short lengths of net together with hog rings. Definitely not the answer, and would last 5 minutes with deer.



Knotting is fairly self-explanatory, there are certain knots which can be tied even in 2.5mm HT wire, however they can be difficult to do neatly and take a little practice. The other downside is that the knot itself forms a weak spot in the wire, due to the sharp bends, even

the best knot is only as strong as 60-70% of the wire strength and as a result knots have been superseded by the following methods.

The next permanent solution, and in my opinion the best for all joints, is the crimp sleeve. These come in a range of sizes for different wire thicknesses and are essentially a little piece of extruded aluminium in the profile of a figure of '8'. The two ends of the wire are inserted in the opposite end and a special crimp tool is used to crush them up very neatly, permanently joining the wire together. The standard size used most regularly is the 1.6mm - 2.5mm sleeves designed for 2.5mm HT, the strength of which after the crimp is completed is said to be stronger than the wire itself. The photos below show a crimp tool and new crimps

and also a crimp completed on a box strainer brace wire.

The last commonly found method for joining and fastening deer fencing is the Gripple. This is a device with the same internal locking rollers as the T clip, which grab the wire and the more tension applied the more it grips. It uses a special tool, which looks a bit like a funny pair of garden loppers to apply the tension. Like the crimps, the two ends of the net are fed in opposite ends of the Gripple and then the tension is applied using the tail ends poking out. Gripples are extremely useful and have their place as they are incredibly quick to use, however I do not like to use them too much for deer fencing. I have had Gripples fail after freezing and sometimes I have had the inner workings collapse at a later date after tension has been applied. This is especially so with the possible extra pressure from animals or a fallen branch, which could be catastrophic on an external perimeter netting join. The photo below shows a Gripple tool and a Gripple on a length of wire.



STAPLES AND STAPLING

Stapling wire and netting would seem fairly obvious, you just hammer the staple in, right? However, there are little things to be aware of

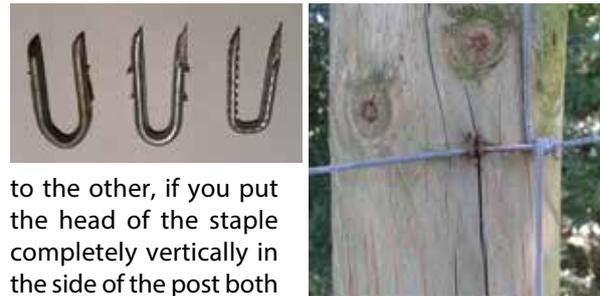


when stapling the netting up correctly to give you the strongest fence, lasting the longest with the least maintenance.

My personal choice of staples for all stapling of netting, if doing it by hand, is a 40mm x 4.0mm twin barbed staple. If you have not seen barbed staples before, they have little sharp projections on the outside edge which help to grip in the posts once they have been driven in. These barbs help resist pulling out, especially where the netting may be under pressure or where repeated wetting and drying causes large cracks to appear in the post. In some cases, if stapled incorrectly with regular staples they can fall out of these cracks altogether. Some manufacturers produce barbed staples with one barb on each leg of the staple and some produce staples with two on each leg. Currently the staples used in pneumatic staple guns by contractors have single barbs. The

photo below left shows the various common type of staples, the 30mm staple far left (a little too small for deer fencing) the 40mm twin barbed and a single barbed pneumatically or gas driven staple from a staple gun. The photo below right shows two tiny 20mm household staples driven side by side, which I would use to reupholster a chair, not on a deer fence containing a lot of park deer, but never the less the whole fence was stapled with them.

The key to stapling is make sure the two legs of the staple cross the wire and enter two separate bits of wood grain. Generally, the wood grain of a fence post runs pretty much dead straight from one end



to the other, if you put the head of the staple completely vertically in the side of the post both points will have been driven in the same strip of wood grain. This could cause the staples to drop out as drying cracks appear in the post. Sometimes where there is a line of staples, one above the other on netting, the pressure of the staples themselves can cause a crack to occur. If, however you tilt the two legs of the staple, diagonally across the wire you are pinning, each point of the staple will be in a different part of the grain reducing the likelihood of staples falling out or coming loose after many years of wetting and drying cycles. Even with modern pneumatic and cordless gas powered staple guns, the different interchangeable noses allow sufficient movement to drive the staple on the diagonal across the netting wire to ensure each leg enters a different part of the grain. The photos below demonstrate this. The photo on the left has been stapled incorrectly and consequently over time a crack has opened up and the staple could fall out, the photo on the right is stapled diagonally across the wire correctly and despite the fence being 20 years old and looking like the net and staple has taken a beating it is still holding.

Equally if you drive the staple as tightly on the diagonal as possible it will start to pinch the wire and prevent



the movement of the individual line wires in the netting, which going back to our deer impact scenario

prevents the netting stretching over the whole length of fence and means the section immediately around the impact is absorbing it all, which is when things start to get broken.

The staple needs to be driven far enough in to maximise the holding power of the staple whilst allowing unrestricted movement of the wire. Equally if the staple is only partially driven in and there is too large a gap, it will allow the netting to rattle backwards and forwards within the staple in any moderate wind, wearing the galvanising off prematurely and causing it to rust through. All pneumatic and cordless staple guns allow you to adjust the nose to adjust the depth of drive of the staple.

When stapling 13 and 17 strand deer netting my personal preference is to staple the bottom two and top two line wires, which is where a lot of potential pressure will be and then every other line wire in between. On 13 strand netting, this means 8 staples per post and for 17 strand, 10 staples per post. You can get away with less in certain situations but I would only do this for a lower specification fence if I was keeping deer out from a plantation or similar.

USING EXISTING FENCES

There will be some of you who may be very interested in the prospect of diversifying into deer farming on your existing pasture land which may already be occupied with more regular stock. In which case the fences you have will only be about a metre or so high and more than likely contain barb wire, which ought to be removed. Some of you may be wondering if it is possible to use existing fences and convert them to taller deer fence height. This answer to this is yes, potentially it is possible, either through a mixture of extending the netting with another roll of netting above or if the fence is quite tall already, for example equine fencing, a series of line wires on taller posts may be sufficient. It is however difficult to build it so that it is as strong as a proper one piece deer net built as such from the beginning. There are a great many variations in net height and mesh spacing available, so if you have a standard 80cm stock net, it could be topped up with a 110cm stock net or similar, to get to 1.9m or thereabouts. New taller posts can either be driven in the middle of the gap between the low stock netting intermediates posts or wood added on to the existing posts, using 6" nails or Timberlok's to secure them. The only thing which will need to be changed are the strainers, which simply bolting extra wood onto a strainer will rarely be strong enough to hold the tension from the netting or line wires.

This approach can work, however as mentioned earlier it will never be as strong or durable as a proper deer fence, but may be sufficient to get you up and running, without the initial capital expense of a proper one piece deer fence.

SUMMARY

To try and summarise my thoughts on deer fencing, I thought about what I would do if it was my own deer farm and if I was going to build my own deer fencing. If I did, I think that I would be spending the money on good quality box strainers with all 3 timber parts properly pressure treated with creosote and know that I would be getting 30-60 years from them.

I think if I wanted to keep the cost down on timber elsewhere I would save some money on the intermediates and install UC4 treated timber and I think I might be tempted to try treating/dipping the bottom 80cm of the post in proper coal tar creosote which I think can only help. Although some posts might rot off prematurely they are easy to replace as they can simply be driven down the backside of the netting. If a box strainer rots, you are in trouble and the whole lot will almost certainly need to come down, hence my reason for buying the best you can afford for the box strainers particularly on your external perimeter fence, where there is the risk of animals escaping or the awkwardness of re-fencing a key perimeter fence line. I would use either the Torus or Titan knot and get the netting from a good reputable supplier ideally someone who specialises in deer fencing, of which there are a couple of good companies out there. At the present moment, this seems to me to be the best mix of materials and compromise on cost and service life. I am sure before too long, we will have gone full circle and be back to something we have used in the past.

The following is a little quick guide for essential information.

Strainer size

3.0m (10'), 3.3m (11') or 3.6m (12') x 175-200mm (7-8")

Poles for box strainers

3.6m (12') x 100mm (4") or 125mm (5") machine round poles

Intermediates

2.7m (9') or 3.0m 10' x 100-125mm (4-5")

Netting

General 13 strand - T13/190/15

General 17 strand - T17/190/15

Plain line wire

2.5mm HT for all box strainers and showing route of fence when driving intermediates

Staples

4.0mm x 40mm twin barbed

Intermediate Post Spacing

3-4 metres apart for high pressure areas, 6-10m for regular fences

The final tip for all deer farmers is to keep a small stash of Heras fence panels and heavy duty cable ties somewhere on the farm, as they are very important for instances where a short section of fence may get damaged, as they provide a quick, easy and solid solution for temporary fencing.

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News from



FEDFA

by Dan DeBaerdemaecker

A new council was elected at the AGM with Tomas Landete-Castillejos becoming the new FEDFA President. Tomas took over from Morten Nystad from Norway who has been the president for the last two years, I am sure you would all join me in thanking Morten for his hard work over the last two years and wish Tomas all the best in his new role.

Tomas has some good ideas to try and update FEDFA and take the association forward although the meeting was not without some heated discussion. The biggest talking point was the cooperation between FEDFA and IDUBA: Tomas is president of both. After the discussions the assembly agreed that both associations will work separately as it was felt they represent and promote different sectors within the industry with IDUBA's open promotion of trophies and antlers compared to FEDFA's role representing deer farming for venison across Europe and at Brussels.

Other countries watch how the UK interprets EU regulations on deer culling in farms and parks. We seem to have some of the clearest interpretations!



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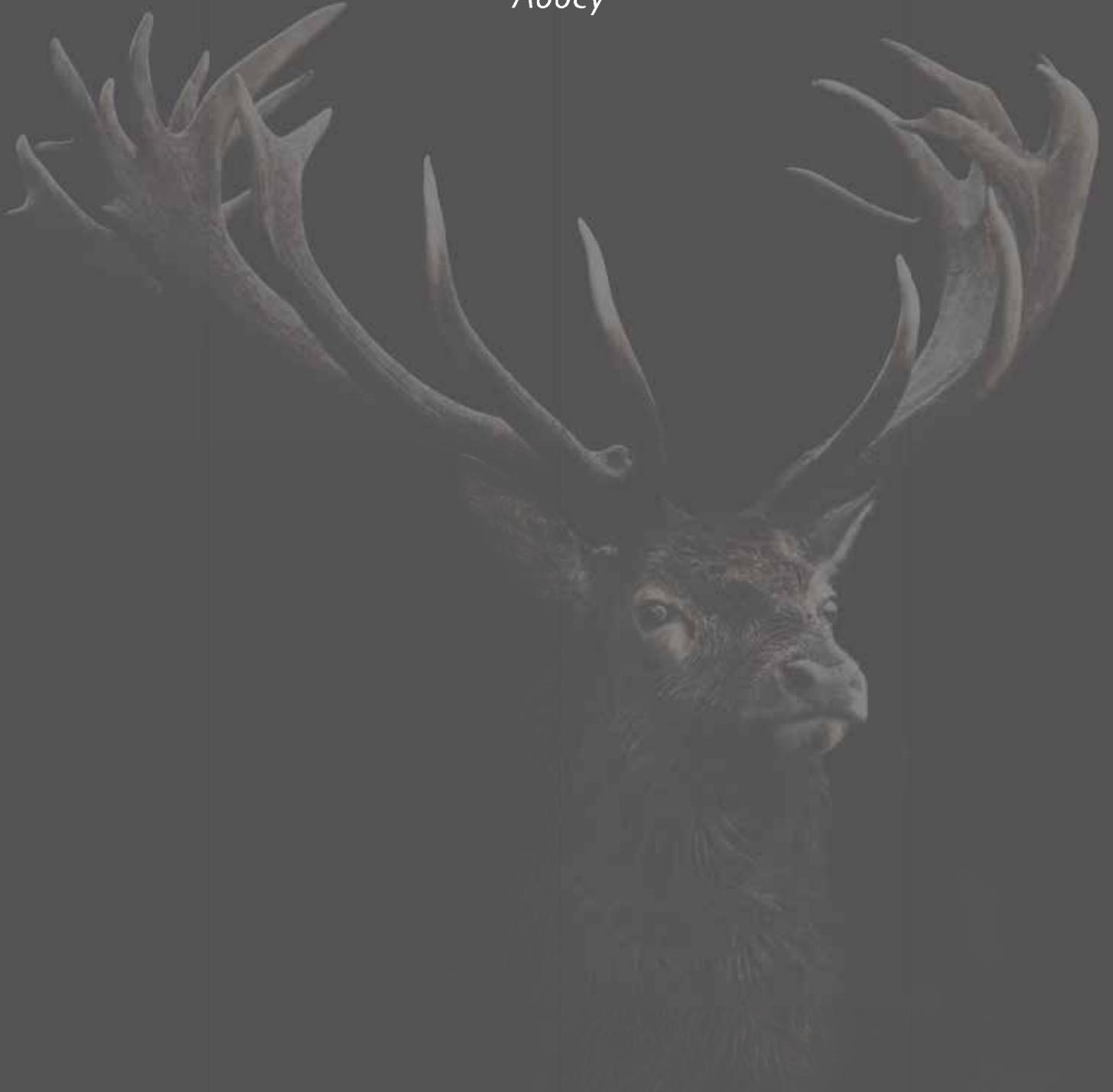


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New Farm Sire Montague (Son of Bartholemu) aged 4 with 35 points



New Farm Sire Jennings aged 3 with antlers 45" wide

HISTORIC ANTLER RECORDS

"The Great Warnham Head" (1892): 47 points
Longest antler (1914): 47" (120.7cm)
Heaviest antler (New Zealand, 1994): 15.8kg
Widest antler (1998): 62" (158.8cm) outside span
Longest antler (New Zealand, 2000): 50" (127cm)
Bartholemu (2011): 47 points
Poseidon (2011): 50 points

BEST FARM BODY WEIGHTS

Sire Stag	292kg
2 Year Old Stag	187kg
Yearling Stag (12 months)	133kg
Adult Hind	168.5kg
Yearling Hind (16 months)	127.5kg

NEW WORLD RECORD

The current SCI world record score of 785 $\frac{3}{8}$ is held by Norton II bred from Norton semen and the grand-daughter of Hercules' embryo both supplied from Bailing Hill Farm.

2016/2017 SALES

All enquires for prices and availability are welcome before the annual Park Catch-up on Friday 8th September 2017.

Please contact:

Jonathan Lucas Tel: 44-(0)1403-265024

Bailing Hill Farm Office, Warnham, Horsham, Sussex RH12 3RS

Mark Jennings (Herd Manager) Tel: 44-(0)7866-167994

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