

Natural Environment (Scotland) Bill

Submission by the Scottish Tenant Farmers Association (STFA), 12th June 2025

Impact of rising deer numbers for tenant farms on large scale landholdings: considerations for the Natural Environment Bill

Included is an Appendix: 'The impact of deer and reared game birds on farm tenant' which formed part of the STFA submission to the NZET Committee in May 2024.

1. Background

STFA is the only organisation in Scotland dedicated to serving the interests of farm tenants. The tenanted sector makes up 20% of Scotland's agricultural land and tends to be located in some of the more marginal farming areas with concentrated land ownership patterns and a higher risk of rising deer populations.

Over the last decade tenant farmers have been reporting increasing problems related to rising deer populations on their holdings resulting mainly in loss of crops, damage of fences and stone dykes, and disease transmission to farm livestock.

Tenants most affected are on large scale landholdings with landlords who lack the incentives, knowledge and resources to control deer populations. Some of the worst deer problems are in areas of concentrated land ownership, for example Islay, Mull, Easter Ross, Cairngorms, Speyside, Donside and Perthshire.

This submission includes an Appendix 'The impact of deer and reared game birds on farm tenants' which formed part of the STFA submission to the NZET Committee in May 2024 relating to the Land Reform Bill. It covers the scale and types of damage done by deer; some actual case studies; and opinion papers by practicing veterinary surgeons on farm livestock disease transmission by deer.

The Deer Act (Scotland) 1996 gives tenant farmers a limited right to take deer on improved land, ie cropping land and improved grassland. This right is of limited use to manage deer numbers: For example, deer damage to growing crops occurs during the growing season which coincides with the closed season for female deer in Scotland. During the open season for female deer they are more likely to be found on unimproved land where tenants have no right to take deer.

The Deer Working Group recommended that the statutory rights of occupiers (which includes farm tenants) should be amended to apply to the occupiers of any land type, not just improved land. This provision would assist tenants in controlling deer numbers but has not been carried forward into the Natural Environment Bill.

2. Deer Management Groups (DMGs) and large scale holdings

Since the establishment of the Association of Deer Management Groups in the early 1990s it is estimated that the deer population in Scotland has doubled. DMGs tend to be focused on areas with concentrated land ownership, and their membership is often made up of large scale landowners and their representatives. It is clear, especially so to tenants in some of the DMG areas, that large scale landowners lack the incentives, knowledge and resources to tackle rising deer populations. Furthermore, there remain cultural divisions between landlords and tenants which act as a barrier to effective deer management in the tenanted areas.

Incentive

Large scale landowners are often lacking any incentive to reduce deer numbers: they may not be actively farming so do not suffer farming losses; those with farm tenants are unlikely to be compensating the tenant for deer damage to farm output; and those with sporting interests may wish to maintain deer numbers at current levels. Ensuring that large scale landowners are liable for the damage done by excessive deer numbers to farm incomes, habitats and biodiversity would give them an incentive to reduce deer numbers.

Capacity

Large scale landholdings, even if they wished to reduce deer numbers, often do not have sufficient staff to manage deer. For example, a typical Highland estate of 20,000 hectares may employ 4 gamekeepers, who in addition to their other duties as gamekeepers will be the only people engaged in deer management which is likely to be insufficient capacity to reduce deer populations.

Knowledge

There is a lack of collaboration between DMGs and farm tenants, resulting in the DMGs being unaware of the impact of excessive deer populations on the livelihoods of farm tenants. In some cases where landlords have instructed stalkers to cull deer on tenanted farms further damage has been done through lack of agricultural knowledge, for example shooting amongst lambing ewes and inappropriate use of vehicles. In these cases better communication with the tenants and better farming knowledge are required.

Any responsible person with knowledge of deer management knows that 'prevention is better than the cure', meaning that deer populations must be proactively managed all year round to prevent the build up of numbers which go on to cause costly damage to tenant farmers. Unfortunately, too many landlords show little interest in doing this and the rights of tenants to take deer do not extend to allowing year round culling across the whole holding.

Cultural barriers within the tenanted sector

There is still an expectation amongst landlords that tenants will not shoot deer, that it is a right that landlords would like reserved to themselves. This attitude is assisted by landlord's agents often requesting that tenants do not exercise their limited rights to shoot deer, and it is rare to hear of landlords encouraging tenants to take deer by giving them permission to shoot deer on unimproved land which is the natural habitat of deer. This Bill provides an opportunity to address these deep seated attitudes, by giving greater powers to tenants to cull deer and requiring greater collaboration between DMGs and farm tenants.

High risk of deer damage from mismanagement

Large scale landowners, eg those of over 3,000 hectares, have the ability to mismanage deer populations on a large scale, which can have a wide-ranging negative impact for rural businesses in that area.

3. Comparison with deer management in areas under smaller scale owner-occupation

Around 80% of Scotland's farmland is now owner-occupied, characterised by family farms typically of 100 to 300 hectares in size.

Incentive

These owner-occupier farms are incentivised to control deer - if they do not control deer numbers their farm incomes will be reduced by deer damage to crops, grassland, and live-stock health, plus the damage some deer species do to fences and stone dykes.

Capacity

In these owner-occupied areas there are a sufficient number of people with firearms to control deer, often the farmers themselves. 20,000 hectares in an owner-occupied area may consist of over 60 individual family farms. They are not relying on gamekeepers or sporting tenants to manage deer and vermin, nor being deterred by landlords from doing so, so have acquired the resources and knowledge to manage deer populations.

Knowledge

Farmers and their vets understand the impact of deer on farm businesses, and know how best to manage deer within the farming cycle. Within farming communities there is also the knowledge and skills required to process deer carcasses into the food chain, through farm shops and links to retail and wholesale outlets.

Low risk of deer damage from mismanagement

Due to the diverse ownership pattern in owner-occupied areas, failure to control deer numbers by a single farmer has minimal impact on neighbours. For example, the mismanagement of deer on a single family farm of 200 hectares will not have the same impact on neighbours as the mismanagement of deer on a 20,000 hectare large scale holding.

4. Further evidence of increasing deer numbers and related problems collected in the last 12 months since attached Appendix submitted to NZET Committee in May 2024:

Hill sheep farms and red deer

We are hearing from tenants in the Highlands and Islands who are being forced to reduce hill sheep flocks as a consequence of increased forage competition on hill ground from rising deer numbers. This is in addition to hill flock welfare problems due to increased liver fluke associated with higher deer numbers. Here the damage by deer is happening on the

hill ground where the tenant has no right to control deer nor receive compensation. Though the hill ground is unimproved, it remains essential grazing for hill farms but the tenant is unable to claim compensation for the loss of that grazing to high deer numbers, nor has the right to control the deer.

Examples where SNH have intervened in recent years

Some tenants have contacted SNH requesting assistance to make culling recommendations. Often landlords do not act on the recommendations or do the bare minimum, and SNH seem reluctant to use their statutory powers. Where landlords have acted on SNH recommendations it has proved only a temporary fix, and a year or two later deer numbers and deer damage are back up to where they were.

Lowland estates with increased numbers of roe and fallow deer

Lowland farms are suffering from increased deer numbers, in particular roe. This summer more tenants were reporting extensive roe damage to cereal crops after the crop has headed in the last 8 weeks prior to harvest. Roe are eating the ears (heads) of cereal crops, though more damage is done by the concentrated trampling of crops after ear emergence.

Similarly, there are more reports of roe damage to potato crops in the month prior to harvest. Roe will scratch away the soil on ridges to expose the potatoes, eating some and leaving the remainder to go green though exposure to daylight, resulting in poor crop samples. Given the high value of a potato crop, this damage is a significant financial loss to the tenant farmer.

5. Conclusion

The current system is broken: deer numbers and deer damage are on the increase across the tenanted areas of Scotland; landlords lack the financial motivation to cull because they are not suffering losses nor paying tenants compensation for crop losses; and tenants have the motivation to cull due to the losses they are suffering but are limited in their ability to cull, the legal right for tenants to take deer being limited to improved land and only when deer damage is likely.

The current Natural Environment Bill could improve the situation if it was amended to include recommendation 12 from the Deer Working Group's Report that the statutory rights of occupiers (which includes tenants and crofters) to prevent damage by deer should apply to the occupiers of any type of land (not just improved land which is the current position). This would send a clear signal that tenant farms should be permitted to play their part in reducing deer numbers where necessary, and help bring about a much need cultural change so that landlords might encourage rather than deter tenants to cull deer.

One further statutory change which might encourage cultural change would be a requirement of Deer Working Groups to include tenant farmers within their membership, and to consult and work with tenant farming interests.

Appendix 1

The impact of deer and reared game birds on farm tenants.

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Introduction

STFA is not opposed to shooting as currently practiced in Scotland. Indeed, it is not unusual for farm tenants to also hold, through a separate lease, the sporting rights across their holdings. This allows those tenants to assist in deer control across the whole holding and access to recreational shooting. STFA also recognise the valuable contributions made by good game keepers across Scotland including deer and vermin control which is much appreciated by tenants farming in those areas.

Where STFA would like to see change is to limit the impact of deer and sporting interests on farm tenants and ensure fair compensation for damages from deer and game, in particular on and around the estates which encourage high deer numbers or release high numbers of reared game birds.

This appendix aims to explain the nature of the problems facing tenants and provides current examples of deer and game damage issues.

1.The scale of the problems

The statistics are clear: Forestry and Land Scotland estimated that deer numbers in Scotland have double over the last 30 years; and according to RSPB figures, 57 million game birds are released in the UK each year, 10 times higher than in 1961. As a further demonstration of scale, RSPB estimate that at the point of release in the autumn, the total biomass of released game birds represents more than twice the spring biomass of all native UK breeding birds combined. On some intensive shoots the number of reared game birds released is in the tens of thousands.

Some east coast arable farmers who have experience of farming with and without reared game estimate that the presence of intensively managed reared game reduces their annual incomes by £50 per acre across their whole cropping area (at 2015 prices). An average sized arable farm in the east coast may be around 400 acres (160 ha), which equates to an annual loss to game damage of £20,000.

The types of damage experience by tenants:

a) **Damage to crops and grazing** - included in this appendix are actual case studies and examples of damage to crops and grazing land.

b) Damage to trees

Tenants may, with landlord consent, plant trees on their holdings. Future policy may require tenants to plant more trees. Damage to trees by deer is well understood in the forestry sector.

c) Damage to fixed equipment

Common examples of fixed equipment damage by red deer is to stone dykes and fences which they knock down. Intensive reared pheasant shoots, where shooting days can involve over 30 shoot vehicles will damage farm roads. Shooters and beaters also damage dykes and fences through regular crossings, and some game keepers have allegedly cut through tenant's fences to allow free movement of reared game and people.

d) Damage to livestock

Damage to livestock concerns the transmission of disease from deer and reared game to farm livestock. The risk of disease transmission from reared game birds to commercial farm poultry (all are avian species) is well understood by the farming industry. Less well documented are the risks of disease transmission to cattle and sheep from deer and reared game birds. Included in this appendix are vet opinions from across Scotland which cover the disease risks to cattle and sheep.

e) Damage to habitats and biodiversity

Given that future CAP replacement policy is likely to include opportunities for peatland restoration and biodiversity gain, STFA have argued that deer and game damage claims should include the damage done by deer to peatland (in the case of tenants undertaking peatland restoration), and also impacts on biodiversity caused by both high deer numbers and high reared game bird numbers (in the case of tenants undertaking biodiversity gain measures). The risks to biodiversity from deer arise mainly from overgrazing and competition for food. In the case of reared game birds the biodiversity risks are from competition for food and disease transmission to native avian species.

NatureScot have studied the impact of deer on peatland:

<https://www.nature.scot/doc/peatland-action-case-study-whats-connection-between-peat-and-deer-management>

RSPB have studied the biodiversity impacts from reared game:

[https://community.rspb.org.uk/ourwork/b/nature-s-advocates/posts/rspb-calls-for-the-release-of-non-native-gamebirds-to-be-licensed#:~:text=The%20rear%20and%20release%20of%20non%2Dnative%20gamebirds%20is%20widespread,legged%20Partridges%20\(Madden%202021\).](https://community.rspb.org.uk/ourwork/b/nature-s-advocates/posts/rspb-calls-for-the-release-of-non-native-gamebirds-to-be-licensed#:~:text=The%20rear%20and%20release%20of%20non%2Dnative%20gamebirds%20is%20widespread,legged%20Partridges%20(Madden%202021).)

The above types of damage appear to be covered in the Land Reform Bill.

What is not clear is whether the following common damages are covered:

a) Damage from vermin associated with reared game and the cost of associated vermin control.

Reared game attract a range of vermin including foxes, rats and crows. They are attracted by the feed put out for game birds, and the game birds themselves, including any dead or injured not picked up by shoot staff. The increase vermin burden is damaging for the tenant farmer, who will also have increased vermin control costs.

b) Livestock damage from disruption

Many tenants report of damage to livestock health following intensive shooting, a common example being in-lamb ewes aborting after they have been disturbed by shooters, beaters and dogs entering the field.

2. Difficulties in making a claim

Given the potential scale of deer and game damage, landlords resist damage claims from tenants. It is easy for landlords to resist because where agreement cannot be reached the only option available to the tenant is referral to the Land Court. A tenant is highly unlikely to make a referral to the Land Court due to the financial risks involved and the difficulty of proving game damage in a court. This means that few tenants have success in making a claim for damage.

Historically, prior to legislation requiring referral to the Land Court, claims for game damage were common and were determined by practical farm arbiters who would visit the holding, use their expertise, and make an award.

STFA recommend that instead of the Land Court process, there should be a statutory process under the umbrella of the Tenant Farming Commissioner which allows for the appointment of an expert to determine the level of game damage.

3. Possible solutions to ensure a fair result for farm tenants

- a) ensure all damages are eligible for compensation;
- b) ensure tenants can claim damages despite the limited right to control deer under the Deer (Scotland) Act 1996;
- c) improve the claim process, as explained above;
- d) ensuring the Rules of Good Estate Management covers appropriate deer and game management in addition to the vermin control requirement which is currently covered by the Rules;
- e) there should be an workable remedy available for tenants where landlords are in breach of the Rules of Good of Good Estate Management, and;
- f) future Land Management Plans for large-scale holdings should include deer and game management

Case study 1: [REDACTED] Farm

This case study demonstrates:

- (1) the extent of a red deer problem that has been affecting a tenanted Perthshire hill farm, with recorded red deer populations of 40-60 deer per km². NatureScot recommends an upper limit of 10 red Der per km²;
- (2) the types of damage to a hill farm business resulting from high deer numbers, including damage to livestock health.
- (3) a refusal by [REDACTED] to take any action to control the deer nor pay the tenant any compensation for deer damage, nor act on recommendations from NatureScot, and:
- (4) the ability of the tenant, once the landlord had given [REDACTED] sporting rights over the holding, to take successful action to reduce deer numbers in under a year and develop [REDACTED] for venison from culled deer.

NB, though the tenant [REDACTED] case study refers to the Deer Commission, their functions are now the responsibility of NatureScot.

Part 1 – Information submitted as part of an STFA survey in summer 2023

Part 2 – Update provided by [REDACTED] in May 2024

[REDACTED]



Personal details:

Name:

Address:

Tel no:

Email:

Farm Details:

(Size and type of farm; enterprises including any diversification)

Medium sized sheep hill farm, with a

Lease Details:

(Type of tenancy – 1991 secure, Limited Partnership, LDT, SLDT etc) – length of occupation by family and by current tenant

1991 secure tenancy.

Nature of damage:

Deer or game? Range of crops damaged? Damage to fixed equipment (eg fences damaged by deer or farms roads worn by shoot vehicles)? Time of year? Any disease problems introduced by deer or reared game? Scale and value of damage?

We have extensive deer damage for the past 5-6 years. The damage to our grazing has resulted in our hill sheep fertility plummeting from 98% to 56%. It has had an effect on our field rotation as when we attempt to rest a field the deer just come in and eat all the grass. Our neighbour lost two hay fields to deer grazing last year but couldn't say anything due to the nature of his tenancy.

We have additional damage to infrastructure. Stone dykes that have been field boundaries for decades with no problem now need weekly reinforcement and repair. The red deer are so large they can easily knock a hole in the dyke and completely flatten a fence. This is very frustrating as stock security is next to impossible. Last year when I went to sell my lambs they weren't all present the next day for transport as the deer had flattened a fence during the night and the lambs had escaped into a greening area.

We have had instances of disease transfer. Our vet is very frustrated that we can't get on top of the fluke in our sheep. Even when we dose the sheep for fluke when they come off the hill they are reinfected by the deer in the fields. We also suspect a transfer of foot rot.

Measures taken to mitigate damage:

Have efforts been made by gamekeepers to move reared game away from affected crops? Have deer culls taken place? Have the Deer Commission been involved?

The Deer Commission conducted a deer count which recorded 650 red deer on the farm, making it the farm with the highest deer density in Scotland. They attempted to speak to the Estate on our behalf regarding measures.

The Estate made it clear to me they would not be reimbursing me in any way. They denied any claim of damage and disputed the deer count. They claimed the infrastructure was old, climate change was causing the fertility drop in the deep and grazing, and refused to speak to my vet who did confirm disease transfer.

They did come up to the farm to show me there would be no deer, only to find two extremely large herds relaxing in plain sight. They got an estimate from a professional shooter to conduct a cull but refused to continue as they said it was too much money.

Outcome of any claims made:

What evidence was used? Did the landlord inspect the damage? How was the damage valued. Was your valuation challenged and how? Did you employ an agent?

At this point the Deer Commission tried to speak to the Estate to press a solution. The Estate claimed they had only just been made aware of the issue and so would need more time. I sent both parties my record of emails where I had been sending them detailed reports of deer numbers and damage for the past five years. The Estate then asked the Deer Commission what they could really do if the Estate just did nothing - like how could they really force them to act.

The only solution the Estate would agree to was just signing over the shooting rights to me. They told me it was this or nothing. So I have been forced to become responsible for the shooting and look to make my own arrangements. The current deer numbers sit at 800 red deer and I have no assistance to control them and no reimbursement for years of damage.

What do you do when you tell your Estate there's a problem and they just insist there isn't? They literally say to my face, we can do what we want.

Who do you think is best placed to assess and value damage and why:

Land agents often have little experience of identifying and valuing deer and game damage. Who do you think would be well placed to assess damage? (For example, an agronomist could identify and value damage to crops, a vet might be able to identify and value damage from transmission of disease).

I have no idea how to go about valuing the damage. The primary damage is that to the livestock, it will take generations to help build them up again. I have been amazed and overwhelmed by how multi faceted the damage has been.

My main problem was that the Estate would not listen to the reports I had done. They would not accept the deer count conducted by helicopter by the deer commission, and they would not take the word of my vet. They denied everything I put to them for years and eventually signed the deer over to me so on paper it reflected the reality - the deer are very much *my* problem.

I think it doesn't matter the value of the damage done to this farm, it's about how much the Estate are willing to pay. They came to me when the professional shooter quoted to cull the deer, shouting '£25,000 is a lot of money [REDACTED] [REDACTED]', and that was the end of it. I realised what they were willing to pay was zero and it didn't matter who I got to assess the damage and the evidence I submitted.

Other comments

I think there should be a course designed for land agents to take on how to assess game damage. I think there should be a grading scale devised that makes the process as black and white as possible from an independent adjudicator. Then I think the Estate should be fined for the damage caused, so it is not burden of evidence and compensation is not on the tenant who is likely to be leaned on.

The Estate asked the Deer Commission, 'but what can you really do if we do nothing?' I would be nice if next time an estate asked that there was something more they could do.

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To summarise up to 2023. We had been experiencing extreme deer damage as tenant farmers, with a recorded deer density of 47/km² (650 red deer). Deer damage ranged from grazing depletion so severe our sheep stock was reduced and we had to sell our cattle, stone-dykes and fences were continually flattened making stock containment impossible, and we were experiencing a high level of disease transfer – particularly with liver fluke. I documented deer overpopulation to the Estate with the damage to the farm for six years to no avail. The Estate manager laughed at me and denied problems, and I got the impression it was perhaps a tactic to drive us out of our secure tenancy. Deer damage can be weaponised against tenant farmers as it dramatically affects income.

In March 2023, after the Estate had been pressured to find a solution by Naturescot, I was 'offered' to take on the deer sporting rights and be responsible for the overpopulation myself. Although I didn't want to take the deer on, particularly with a cull estimate at £50k+ to start, I was told 'It's this or it's nothing', so in desperate need of a solution I took on the deer rights and became responsible for the very deer problem that was crushing the business.

I had no experience managing deer. I came to an arrangement with a local gamekeeper who in their spare time would shoot and keep the profits for his trouble, to immediately alleviate the pressure of an extreme overpopulation. We targeted the marauding deer and had limited success in keeping deer out of the in-by land. However, despite shooting approximately 300 in our first season we are no further forward. We are in such an area of extreme population that any shooting creates a vacuum to neighbouring populations. Although we have shot 300, our numbers a year on have not lowered. Permanent solutions seem out of reach as neighbouring and aging commercial forestry harbor deer with porous deer fencing. Neighboring areas have similar deer density, with one farm

further up from us now reportedly at 60/km². I have found that there are so many deer that local gamekeepers are routinely shooting 50 in a day, and unable to get them picked up by the game processors, they're burying 30. Overall, I have been thoroughly disillusioned as the Estate have shirked responsibility and I was unable to grasp the wider picture of how impossible effective deer culling is at these numbers. To shoot 300 deer and be no further forward is a lot to grasp. The year prior to taking on the shooting rights the Estate shooting tenants shot 15 deer, out of the 650 population. I think it is incredibly neglectful of the Estate to allow such extreme overpopulation. It has not only pummelled the farm but also the environment. Most of our farm comprising of a SSSI & SPA moorland and deep deer tracks have been carved into the peatland which is releasing CO₂ to the atmosphere.

This Spring, witnessing the impossibility of shooting enough to provide appropriate lowering of the population, and the wastage going on in the sector, I decided to do something drastic. I applied to get support for a deer larder and kitchen unit. I opened a [REDACTED] [REDACTED] where I will be able to get the deer butchered on-site and donate 75% of each deer to the local food banks. The [REDACTED] will allow me the infrastructure to process so many deer, and [REDACTED] to ensure the venison is entering the food chain. I am committed to ensuring all of these deer enter the food chain.

I am excited that I think I've found a potential solution to my problem that will enable long-term and sustainable deer management. I'm also excited that I can [REDACTED], as I am amazed at the local need, 40 minutes from me [REDACTED] the [REDACTED] [REDACTED]. The problem with the deer is so communal in our glen I'm going to open [REDACTED] to others experiencing agricultural damage so we can stop people from burying dozens of deer and wasting high-quality protein.

However, I have been very unfairly pressured by the Estate. The farm has been damaged both in terms of livestock, income, and infrastructure. Hopefully, [REDACTED] will allow me to resolve the extreme deer overpopulation, but sorting the damage that has already been done to the farm is going to take me the rest of my life.

[REDACTED]

[REDACTED]

Case study 2: Tenanted stock farm in Angus which had a sporting tenant in place

In one way this is a success story, in that the landlord took advice from the NatureScot, removed the sporting tenant in spring 2022, and started culling the deer. The result, a year later, was the removal of nearly 300 deer since and a significant reduction in deer numbers on the farm.

However, despite the clear evidence, the tenant received no compensation for any deer damage to crops or grassland.

The tenant first got in touch with STFA in 2020 to say that over the period of a year the number of deer on his silage fields had increased more than 10 times, and that on some days there were 200 red deer grazing in his silage fields.

Below is his account:

'Silage yield in 2021 was 25% down on the previous 5-year average caused by influx of deer from neighbouring estates progressing with large scale tree planting schemes in previous years, thus displacing large numbers of red deer on to the estate I am a tenant of. The shooting tenant at the time had rented a small-scale family shoot for his own enjoyment, shooting 10 to 15 stags yearly. With an influx off up to 200 head of visiting red deer on top of the resident population he was not equipped to deal with numbers. Over 3 years (2019-2022) many discussions were held with the shooting tenant and landlord's agent over damage and crop loses with no compensation. Shooting tenant was offered help from local deer management group to control numbers by use of ladders as route to market and additional stalkers. He declined and denied there were any more deer. After this I spoke to Bob Macintosh for advice, got in touch with NatureScot, then discussed with land agent for landlord. At the same time the estate's forestry dept were growing concerned about deer damage to established woodland. Thus driving estate in March 2022 to terminate shooting lease with immediate effect and bring in a deer control contractor. From April to July 22 he removed 63 stags between myself and 2 surrounding tenancies. He has continued to reduce numbers to date and has removed over 250 head of red deer (silage yield for 2022 was only 12% short off 2015--2020 average having used less fert due to price and drought conditions). We are also finding fields next to woods suffered with over grazing as they never got a rest to regrow, as soon as it greened up deer were back resulting in more reseeding than is viable in any 1 year and affecting the stock carrying capacity off the farm and also restricting any fodder cropping.'

For several years the tenant struggled to provide sufficient forage for livestock due to the grazing of high number of deer: Grazing fields rested to allow for regrowth were immediately grazed by deer; silage yields were significantly reduced, and any attempts at growing forage crops (fodder rape & turnips) failed due to the deer damage.

Grass for ewes at lambing time



Lambing field next to farm steading



Forage rape in October before deer damage



Forage rape in October after deer damage



Case study 3: Deer damage to crops in Morayshire

The photos below show a crop of stubble turnips in Morayshire on a tenanted holding within a large sporting estate. The first photo shows a healthy crop of stubble turnips, and the last photo show the same field and crop stripped bare by red deer. The farmer did not graze with any livestock, the deer took the whole crop.

This tenant has had deer problems for a few years, and to start with tried to make deer damage claims himself, but failed due to not getting all the details correct in the notice of a claim. More recently he employed an agent to make the claim, which these photos were part of, but the amount eventually paid by the landlord was a fraction of what the agent thought to be a fair amount, and if the agent had charged for his fees the compensation received would not have covered them.

This example demonstrates three main problems, firstly the scale of the damage (complete crop loss); secondly the challenges the tenant would have trying to control the deer given that he cannot shoot over the hill ground and woodland in the background of the photo, which are the natural habitats for the deer, he can only shoot on the cropping field; and thirdly the difficulty in securing fair compensation where the burden of proof is on the tenant. A fairer way to deal with deer and game damage claims would be expert determination by an arbiter, appointed by the Tenant Farming Commissioner, instead of the current default to the Land Court.





Case study 4: Reared pheasant damage to crops in Morayshire

A sporting estate in Morayshire, a tenant's crop of stubble turnips badly damaged by reared pheasants. The photos below give an idea of the numbers of pheasants in a crop, and the damage done to a brassica crop by reared pheasants. Photos taken in autumn after release of birds.

The tenant employed an agent to make a claim having been unsuccessful doing it himself on previous occasions. The final offer from the landlord was a fraction of the claim and would not have covered the agent's fees for making the claim if he had charged for the full hours involved.

Expert determination by an arbiter, if necessary to be appointed by the TFC, would be a fairer for of dispute resolution.









Case study 5: Pheasant damage to spring peas in the south of Scotland

Centre of field is a healthy crop at the flowering stage. Areas next to woodsides are bare or stunted due to pheasant damage.



Case study 6: Roe deer damage to maize under plastic in the south of Scotland

A recently sown maize crop under plastic in the south of Scotland.

Roe deer have been walking up and down rows on top of the plastic, creating a puncture with each footprint which are visible in the photos.

The footpring punctures cause early degrading of the plastic leaving seedlings exposed to frost and loss of regulation of condensation and moisture under the plastic.

This damage has the potential to ruin a crop of maize and could be avoided by selective culling of deer. However, the tenant's lease (secure 1991 Act) forbids the use of firearms, and the landlord was not willing to cull.





Case study 7: Deer damage to cereal crop in Perthshire





Case study 8: Deer damage to cereal crop in the south of Scotland



Opinions from veterinary surgeons on the impact of deer and reared game on the health of farm livestock

While the risks of disease transmission from reared game birds to commercial poultry are well understood by the farming industry and monitored by Animal and Plant Health Agency, the disease risks to other non-avian farm livestock from reared game and deer are less well recognised.

The following vet opinion papers from various regions across Scotland detail the disease risks to sheep and cattle from deer and reared game. The author of the paper on *Cryptosporidium* has chosen to remain anonymous.

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Relationship Between Disease In Sheep and Shared Grazing With Deer.

Tickborne Diseases.

Tickborne Fever.

Is an infection with the organism *Anaplasma phagocytophilum*. This organism affects white blood cells leading to immunosuppression. This means the animal is more prone to other infections, in particular *Staphylococcal* spp – the causative agent of Tick pyaemia. It is also linked to abortions.

Tick Pyaemia

Is a superinfection with *Staphylococcal* spp associated with infection with *Anaplasma phagocytophilum*. It can cause significant losses especially in young animals.

Louping Ill

Is a disease causing a fatal encephalitis caused by a Flavivirus. It affects young lambs. It can also cause significant losses in red grouse.

All these diseases are transmitted, in the main, by the tick *Ixodes ricinus*. Commonly found in the UK and will attach and transmit disease to most mammals. It is common practice to treat sheep against ticks by plunge dipping or topical application of an acaricide. It is not possible to treat any deer population. Thus, however diligently sheep are treated there will always be a population of ticks present in the deer population. These ticks will then infect sheep and potentially spread disease in the sheep population. It has ever been thus but as the deer population increases in the UK there will be a far greater impact on sheep farms.

Hill sheep, in general, are hefted to a particular area and thus tick populations within these hefted areas are either infected with disease or not. If disease is present in the heft the effects will generally be mitigated through acquired immunity and/or possible genetic resistance.

As the population of deer increase there is, inevitably, an expansion of their range. This will take them from one heft to another. In doing so they will take a population of ticks with them. These ticks may carry pathogens not previously seen on the heft and disease will be

seen in the previously naïve population. This disease outbreak may well be devastating to the population as they will have no acquired immunity.

Deer are known to carry both TB and Johnes disease. TB can be passed to sheep but transmission is not considered significant. Johnes is a disease picked up when young and causes incurable damage to the gut leading, eventually, to a protein losing enteropathy and culling due to weight loss or low production. The significance of such transmission is to the best of my knowledge not known.

In summary and in my opinion the biggest disease threat that deer pose to sheep is in the transmission of tickborne diseases. To reduce the risk the population of deer must be controlled. This will reduce movement of deer and help to improve the health of the deer through selective culling.

[REDACTED]

[REDACTED]

14/03/2023

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22nd November 2023

Dear [REDACTED]

Having had some time to think about your concerns regarding the large numbers of deer or game being in close contact with farmed stock, I believe the following are areas of concern.

1. Tuberculosis – Scotland is currently officially TB free. Deer are not going to transfer the disease over long distances. They are responsible for local spread or making Tuberculosis more difficult to control. Although as mentioned already, Scotland is officially Tuberculosis free, between April 2022 to March 2023, 766 cattle were slaughtered for this disease. Most of these cases were in Ayrshire, where infected cattle resulted in several breakdowns. The concern would be if Tuberculosis is brought in to an area by cattle movement, and it was allowed to become endemic in the local wildlife population, which is more likely if there is a lot of contact between the cattle and wildlife. The subsequent control in cattle would be more problematic.

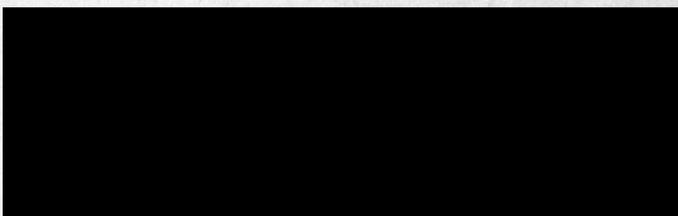
2. Johnes – Johnes is a chronic wasting disease of cattle, sheep and deer that many farmers are trying to control. Dairy farmers are being encouraged to control this condition by the milk processors. Beef farmers are controlling the disease for production, welfare and financial reasons. Financially there is an economic benefit to controlling Johnes as it reduces the cull rate and increases the in-calf rate. There is also a benefit from the increased value and demand for cattle from Johnes controlled herds.

3. Liver fluke or flukicide resistant fluke could be transferred by deer from neighbouring farms.

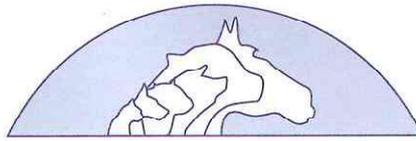
4. Salmonella. Large numbers of game birds would increase the risk of salmonella species affecting livestock.

5. Competition for grazing. From a welfare and production perspective, if large numbers of deer are grazing areas for cattle or sheep, there will be a potential reduction in growth or gain in condition and pregnancy rate due to poorer nutrition. With less available food there would be an increased risk of twin lamb disease in sheep.

Yours sincerely,



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[REDACTED]

29.4.23

To whom it may concern,

[REDACTED] has been experiencing problems in his sheep flock associated with Liver fluke (*Fasciola Hepatica*). This is a common and well understood parasite that can cause death and subclinical losses in sheep and other livestock.

The epidemiology can be complex as the life cycle of the parasite requires an intermediate host, the mud snail (*Lymnea Truncatula*), which in turn requires the correct kind of environmental conditions. Control of the snail and environment are not practical in most circumstances so strategic treatment of the sheep is normally advised and practised. This can be undermined where there are other hosts that can act as reservoirs of the fluke infestation. Populations of wild deer can, and frequently do, harbour fluke infestations contributing to the challenge faced by sheep leading inevitably to losses.

Deer can also act as hosts to ticks (*Ixodes Ricinus*), facilitating their spread and the spread of numerous tick-borne diseases that also affect sheep adversely.

Yours Faithfully

[REDACTED]

Directors

[REDACTED]

[REDACTED]





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9th February 2024

To Whom It May Concern,

‘Redwater Fever’ is an infectious disease of cattle caused by a single cell parasite called *Babesia divergens*, which is transmitted by the tick, *Ixodes ricinus*.

Babesia is injected into the bloodstream of cattle by the infected tick, which then invades the red blood cells of the cow and begins dividing, eventually rupturing the cells.

Around two weeks following infection clinical signs of the disease will start to appear. These include fever, diarrhoea (followed by constipation), red urine (due to the presence of haemoglobin, produced by the ruptured red blood cells), a rapid heart rate, abortion and death.

Some cases will be mild and may recover without treatment, however other cases are severe and will require both specific treatment to kill the *Babesia* parasite, as well as non-specific supportive & nursing therapies. Fatalities are not uncommon, even despite treatment.

Babesiosis is rare except in known tick areas. Calves which are born and reared on land infested with ticks which carry *Babesia* will develop immunity to it, however ‘naïve’ animals which are brought onto such land will be highly susceptible to both infection and associated disease. The same would be true if infected ticks are ‘brought’ to naïve animals via other species such as deer.

The mainstay of controlling Redwater Fever in cattle is limiting any tick infestation. Robust control measures must be put in place to avoid significant impacts on cattle health, welfare and productivity in Redwater Fever areas.

Yours Sincerely,



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Cryptosporidiosis and The Effect on the Scottish Farming Industry

Contribution by reared pheasants to spread of Cryptosporidiosis

Cryptosporidium parvum, more commonly referred to as Crypto within the Veterinary and Farming world, is a commonly seen cause of diarrhoea in young calves in Scotland and the UK.

Cryptosporidiosis is a protozoan infection (one-celled organism) that commonly presents as a yellow-green diarrhoea in calves aged less than 3 weeks old. Crypto has large degrees of both morbidity and mortality associated with it as the calves tend to lose condition rapidly within a few days of contracting the infection. The diarrhoea is caused by damage to the lining of the intestines themselves. This damage that occurs can often be dramatic and long lasting and can have life-long effects of calves even after “treated successfully” as documented in the photos attached to this document. The gut damage seen also makes the calves more liable to other infections and often causes calves to lose interest feeding from their mother thereby a significant and often fatal dehydration can result.

As a general veterinary practitioner, the effects I see on the Farming industry are more complex than may initially meet the eye. The initial and most obvious to most is the effect that Crypto has on the calf itself. Seeing a calf severely affected by crypto is not a pleasant task but unfortunately one I undertake often. The infection can hit the calves hard and therefore the treatment and care of the affected calves can be long and time consuming. The treatment options available, as well as the lengthy time and labour associated with them, have a very costly affect on the farming industry. Although some more treatment options have become available over my time in practice no treatment is ever 100% on all individuals affected. One should also be careful not to forget the hidden costs such as the surviving calves’ inability to thrive as well as their associated group and the significant reduction on their growth rates due to the damage caused to the intestines when infected. The last and in many ways the most important cost to the farming industry which is often not talked about, and in some cases unfortunately not noticed, is the effect Crypto can have on the mental wellbeing of the stockpersons involved. Mental health is not a well discussed topic in either the Veterinary nor the Farming industry. A Crypto outbreak within a group of calves can have a massive affect on all individuals concerned. The initial finding is stressful and the treatment options time consuming however often initially this is taken within the stride of stockmen as many are experienced in a variety of disease conditions and their associated treatments required. The toll this takes on their mental health significantly worsens with the duration of treatment and the more calves that become affected during the outbreak and the unfortunate fatalities that occur along the way. As an observer of these situations, during albeit a stressful time of the year for everybody involved, you can literally see the light leave the individuals eyes as the days go by and their head gradually hang lower with every trip I make to the farm or they make to the veterinary surgery to pick up more medications and treatments. This is a soul destroying process to watch and I can safely say it puts everybody within our Practice on high alert due to the concern we all have for the person in front of us

At this point thoughts must turn to how to prevent the calves contracting Crypto in the first place. Calves contract Cryptosporidiosis via the faecal-oral route with the disease often transferring between calves housed/stocked closely together. Therefore there has always been a great push by the veterinary industry to ensure good hygiene and biosecurity measures are in place. However this alone is often proved not to be enough. Following some research performed by the Moredun Research Institute [REDACTED] it was discovered that 65% of the pheasants tested on the farm were positive for crypto with some even carrying the same genotype found in the calves themselves. Their research results regarding the pheasants tested was reported to the farmer concerned as follows: *“likely they are spreading it mechanically, perhaps on their feet or through their faeces by swallowing it and it coming out the other end! Either way they are likely to spread it between and around farms”* Therefore more out of the box thinking may be required in our prevention strategies for Cryptosporidiosis. A vaccine is currently being manufactured although not currently available to the UK market at the time of writing. The introduction of this vaccine will provide a great tool in combatting Crypto in Scotland however it should still be used as part of a multi-modal approach, as opposed to a sole agent, in the prevention of Crypto along with hygiene and any other measures deemed appropriate.

Hopefully this document gives any reader a better understanding of the overall effects of Crypto on not only the animal themselves but also the economic impact of the condition in the farming industry and the under discussed but not to be forgotten affects on the mental health of all involved.