

The flock was placed under movement restrictions and adult ewes were required to undergo single intradermal comparative cervical tuberculin (SICCT) testing, with two clear short interval tests required, as in cattle, before restrictions were lifted. The impossibility of undertaking this procedure in 1400 ewes with lambs at foot was represented, and the APHA approved SICCT limited to 450 in-contact ewes with the addition of on-farm postmortem examination of any adult fallen stock by private vet at the farmer's expense.

A subsequent skin test found a single reactor with visible lesions at postmortem, and we await a culture result from a suspect mesenteric lymph node seen in a ewe subject to an on-farm postmortem examination.

With tugging approaching and concerns regarding the effects of the stress of testing on people and animals, the farmer has decided to slaughter all in-contact ewes, one-third of the flock. The flock is extremely well managed, with welfare and performance measures all better than Agriculture and Horticulture Development Board target figures, but there has now been a complete loss of trust in the value of veterinary engagement.

The potential consequences of participation in surveillance schemes must be made clear to farmers and vets in order to maintain positive engagement of vets in small ruminant farming. However, the APHA seems to have learnt nothing from this, and last week wrote to vets inviting identical participation in an illthrift in goats project, with no mention of TB.

Farmers and vets need to know the risks of participation, especially in a mixed holding, and we believe the APHA is negligent in failing to warn of the possibility of TB detection resulting in significant consequences. We wish to alert practitioners to this scenario and to ask the APHA to consider the risks to farm businesses and the vet/farmer relationship in its decision making.

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AMANDA CARSON AND FIN TWOMEY RESPOND

THE 'Thin Ewe Project' was a surveillance initiative funded by the APHA scanning surveillance programme to provide much-needed information for the sheep industry on the causes of illthrift in adult sheep in England and Wales. A complete gross postmortem examination and a range of diagnostic testing was offered free of charge to farmers wishing to submit sheep for investigation.

Throughout the project, veterinary investigation officers at the APHA's veterinary investigation centres and our partner postmortem examination providers welcomed contact to discuss the protocol and any concerns vets or farmers may have had. It also included a questionnaire to capture farmers' concerns relating to illthrift. The project protocol did not set out to specifically identify notifiable diseases; however, there is a legal obligation to report any findings suggestive of notifiable disease to the APHA without delay.

The primary purpose of the APHA scanning surveillance programme is to provide timely detection of potential new and re-emerging animal disease threats, as described in a recent focus article in *Vet Record*.¹ As mentioned in that article, these threats include notifiable diseases as well as other threats that have implications for animal and public health and international trade.

A robust animal health surveillance system underpins not only the UK's credibility with trading partners, but also supports the rural economy, underpins food security, protects public health and is one of the pillars needed to maintain the UK's recognised status as a world leader in animal health and welfare.

“
A robust animal health surveillance system underpins the UK's credibility with trading partners

For livestock owners and vets it contributes directly to their awareness of disease in their herds and flocks, which supports evidence-based animal health planning. As part of our commitment to making information available to those who can take mitigating action, the APHA regularly communicates findings from the scanning surveillance programme with the veterinary profession, for example through the *Vet Record* monthly surveillance reports, monthly veterinary investigation centre newsletters, information notes on Vet Gateway and through presentations at local and national meetings. In addition, the APHA provides regular articles for farming journals, featuring findings resulting from scanning surveillance activities; for example, the February/March 2018 edition of *Sheep Farmer* described our approach to 'Monitoring for notifiable and other important sheep diseases'.

We would like to remind all vets of the legal obligation to report suspicion of notifiable disease, and to acknowledge the important role they play in carrying out diagnostic investigations that support all aspects of animal disease control.

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Reference

- 1 Update on the APHA's scanning surveillance network. *Vet Rec* 2021;188:346-7

CORONAVIRUS

Susceptibility of white-tailed deer to SARS-CoV-2

THE progressively expanding list of animal species that are susceptible, either naturally or experimentally, to SARS-CoV-2 is a matter of concern. It currently includes cats, dogs, racoon dogs, lions, tigers, snow leopards, pumas, ferrets, hamsters, otters, gorillas and mink, among others.^{1,2}

Letters are not peer-reviewed, unless stated

Within this rapidly evolving scenario, a number of white-tailed deer (*Odocoileus virginianus*) from north-eastern USA have recently been reported to harbour anti-SARS-CoV-2 antibodies in their blood serum.³

As highlighted in a recent letter of mine,² this strongly suggests a previous exposure of the deer to the virus, which was most likely acquired from SARS-CoV-2-infected people. Furthermore, once the deer became infected, they were likely to then be able to transmit the virus to their conspecifics living in close proximity.

This assumption is supported by the socioecological behaviour of white-tailed deer as they often live in large groups, thus providing an explanation for an increased probability of SARS-CoV-2 infection acquirement and intraspecies transmission.

The high susceptibility of white-tailed deer to SARS-CoV-2 – they share a high degree of homology in their viral ACE-2 receptor with the human one – had already been established by a previous experimental study, in which aerosol and faecal viral shedding had also been documented.⁴

The social ecology of white-tailed deer could influence the evolutionary dynamics of SARS-CoV-2 in these

animal species and populations, as reported elsewhere.^{5,6} Indeed, thinking back to the events of over a year ago in intensely reared mink from The Netherlands and Denmark, this must be considered a matter of utmost concern. Once these mink acquired SARS-CoV-2 from infected people, the virus was then able to evolve into a peculiar ‘variant of concern’ (‘cluster 5’), with infected mink also being proven to retransmit the mutated virus to people.^{2,6} A similar crossover scenario cannot be ruled out in other species.

As such, a One Health-based, holistic and multidisciplinary approach is needed to adequately counteract the current SARS-CoV-2 pandemic and to also prevent similar catastrophes in the years to come.

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References

- 1 Di Guardo G. Animal models and pathogenetic insights to Covid-19. *J Comp Pathol* 2020;179:e1
- 2 Di Guardo G. White-tailed deer, another SARS-CoV-2-susceptible species. *BMJ* 2021; www.bmj.com/content/374/bmj.n1734/rr-3 (accessed 6 October 2021)



A number of white-tailed deer have recently been reported to harbour SARS-CoV-2 antibodies

HOW TO SUBMIT A LETTER OR NOTICE

If you would like to send us a letter or notice, please send it by email to: vet.letters@bvajournals.com. Letters should not usually exceed 400 words.

- 3 Mallapaty S. The coronavirus is rife in common US deer. *Nature* 2021; doi: 10.1038/d41586-021-02110-8 (accessed 6 October 2021)
- 4 Palmer MV, Martins M, Falkenberg S, et al. Susceptibility of white-tailed deer (*Odocoileus virginianus*) to SARS-CoV-2. *J Virol* 2021;95:e00083-2
- 5 Audino T, Grattarola C, Centelleghé C, et al. SARS-CoV-2, a threat to marine mammals? a study from Italian seawaters. *Animals* 2021;11:1663
- 6 Di Guardo G. Future trajectories of SARS-CoV-2 in animals. *Vet Rec* 2021;188:475

DEATH NOTICES

Armour On 31 October 2021, Sir James Armour, BVMS, PhD, Dr (Utrecht), DVM&S, FRSE, FMedSci, HonFBIol, Dr (Glasgow), Dr HonFRCVS, CBE, of Prestwick, Ayrshire. Sir Armour qualified from Glasgow in 1952.

Gage On 11 October 2021, Heather Gage (née Ryan), BVetMed, MRCVS, of Hosford, Norwich. Mrs Gage qualified from London in 2004.

Sparrow On 14 August 2021, Stephen Sparrow, BVetMed, PhD, of Sherborne, Dorset. Dr Sparrow qualified from London in 1967.