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Letter: Global challenges for sustainable food production.

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Small ruminants are important globally in industrialised agriculture and subsistence farming systems. Small ruminant production is inherently inefficient, typically resulting in dependence upon subsidy support to protect economic returns, or failure to alleviate poverty in resource-deprived lower and middle income countries. Improving the efficiency of small ruminant production integrated with whole agricultural systems is vital to tackling global challenges of food and environmental security arising from population growth and climate change.

An editorial in the *Veterinary Record* on 18th March 2017 described the immediate efficiency savings to be made through improvements in basic animal husbandry and health management (McNeilly 2017). The editorial was accompanied by an image of transhumance sheep farming in southern India, in which sheep were being folded overnight on arable land, providing a sustainable source of manure. The image showed the impact of rapid urbanisation, whereby new buildings threaten a historically efficient method of food production by blocking daily access to water, while the affluence of their occupants creates an increased demand for sheep meat. The image depicted an individual recumbent and pyrexial ewe and another sick animal being caught for symptomatic treatment with generic flunixin, oxytetracycline and fluoroquinolone drugs. In all probability the animal health problem was caused by peste des petits ruminants (PPR).

In October 2016, an announcement was made by the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) of an ambitious global plan to eradicate PPR by 2030 (Veterinary Record, News and Reports 2016). However, the aforementioned scenario raises questions about how to instigate a rational disease control programme without access to veterinary diagnostic or vaccine distribution infrastructures. Consideration of PPR in the context of transhumance sheep farming raises concerns over responsible medicines use, biosecurity and the spread of other unrecognised production limiting diseases. Furthermore, the close contact between shepherds and their animals highlights the potential to improve human health standards through the control of zoonotic diseases.

The theme of the 9th International Sheep Veterinary Congress will be opportunities for improvement in small ruminant production efficiency to sustainably meet the needs of the

world's growing human population for food (Fig. 1). The complex agricultural, animal health, environmental, economic, political, cultural and behavioural dimensions surrounding food security challenges will be explored through plenary, keynote and proffered talks and posters, alongside a clinical strand focussed on health challenges facing the UK sheep sector. There will be a series of structured interactive workshops aimed at sharing opinions and expertise to identify solutions to specific challenges such as those outlined in the transhumance sheep case study, including a plenary workshop aimed at informing global control and eradication of PPR. The congress will conclude with a summary discussion, bringing together all of the aforementioned strands to format clear recommendations and guidelines to allow small ruminant health and production to meet the needs of the world's growing human population.

References

McNEILLY, T.N. (2017) Global food security via efficient livestock production: targeting poor animal husbandry. *Veterinary Record* **180**, 276-277. doi: 10.1136/vr.j1236

VETERINARY RECORD, NEWS AND REPORTS (2016) Eradication of PPR: 'initial battle plan launched'. *Veterinary Record* **179**, 447. doi: 10.1136/vr.i5841

Figure

9th International Sheep Veterinary Congress



FIG 1: The 9th International Sheep Veterinary Congress (<http://www.sheepvetsoc.org.uk/isvc2017>) will be held in Harrogate, UK between 22nd and 26th May 2017 to address the global need for coherent improvement in sustainable small ruminant production through the application of precise strategies to make more efficient use of natural resources.