FIRST ALL-ISLAND BVD MAPS RELEASED

Data from Northern Ireland and the Republic of Ireland have been collated for the first time to examine the spatial patterns of Bovine Viral Diarrhoea (BVD) across the whole island. The resulting maps illustrate the localised patterns of disease and should highlight the disease risks to all stakeholders in the NI BVD Eradication Programme.

The BVD maps have been produced by the Centre for Veterinary Epidemiology and Risk Analysis (CVERA), University College Dublin, and are the result of a collaboration between Animal Health Ireland (AHI), Animal Health and Welfare NI (AHWNI) and DAERA.

Identification of the location of infections over time is an important facet of any disease eradication programme. These maps allow comparison of the progress being made in eradicating BVD in each jurisdiction. The industry-driven NI Programme, run by AHWNI, became compulsory in March 2016, and is making good progress. To date there has been a 15% decrease in animal prevalence and a 22% reduction in herd prevalence. The steep decline in disease incidence seen in the AHI-run programme in the RoI, which became mandatory in 2013, illustrates how progress can be made in tackling this critical disease.

The maps use anonymised data and fixed sized hexagonal units to represent disease densities. These allow localised patterns to be seen and will assist in monitoring the programme over time. The profile of Persistently Infected (PI) calf births in NI during 2018 (Map 1) is similar to what was observed three years ago in the RoI.

Map 2 displays where PIs are that are still alive. While higher densities of living PIs may be observed in certain areas, in some cases these will be due to a small number of farms having had several PIs disclosed on testing.

Map 3 illustrates the location of retained PIs, that is, those PIs that are still alive on farm more than 35 days after the positive result was issued to the herd owner.

AHWNI chief executive Dr Sam Strain welcomed the production of the BVD maps, stating, “These maps clearly illustrate the problem of PI retention. BVD is a costly disease and it makes financial sense for herd owners to remove PIs promptly. Farmers who keep PIs greatly increase the risk of further disease in their herd and their neighbours’ herds. PIs must be disposed of as soon as possible. As an industry, we want to work together to eliminate the BVD virus from the NI cattle population as quickly as possible.”

It is proposed that these maps will be updated on a regular basis, displaying areas where the greatest disease risk is occurring. This will allow AHWNI to measure progress and highlight where future efforts need to be focussed.
Map 1: Map showing distribution of PI births during 2018.

Note: Each hexagon represents an area of approximately 10km². Cells with thick blue borders have low numbers of cattle (e.g. mountainous areas, lakes, rivers, towns, cities
Map 2: Map showing distribution of PIs still alive
Map 3: Map showing distribution of retained Persistently Infected (PI) cattle.