VETERINARY IRELAND

POLICY DOCUMENT ON SURVEILLANCE OF FARM ANIMALS

As a Tool to Monitor Environmental Contamination Caused by Industrial Activities 2014

RATIFIED BY
VETERINARY IRELAND NATIONAL COUNCIL
4TH SEPTEMBER 2014

Veterinary Ireland Policy Document on Surveillance of Farm Animals as a Tool to Monitor Environmental Contamination Caused by Industrial Activities

Many industrial activities in the world today pose a potential health risk to local and distant human and animal populations. Such activities include municipal and hazardous waste incinerators, landfill sites, mining, fracking, certain pharmaceutical and heavy machinery manufacturing. This risk may be monitored by biochemical, microbiological and toxicological assessment of water, air, soil and vegetation.

However, environmental contamination may be intermittent or may only present a risk as a result of a build-up in the body e.g. dioxins. In some instances, there may be a latency period between exposure to the contamination and the development of the toxic effect. Monitoring of contamination in such situations should include surveillance of farm animals in the area surrounding the site including visual assessment of the animals, accurate and independent records in relation to production, fertility and disease, milk and blood sampling and tissue collection and analysis following slaughter.

Such animal surveillance systems may be used to establish baseline data on animal health and productivity and can provide scientific data to allow the authorities to develop an objective analysis of the public health risks associated with specific industrial activities. The long term storage of serum, milk and tissues will also allow for retrospective analysis of samples and make for a more comprehensive epidemiological investigation of potential health hazards. Multidisciplinary animal health surveillance systems can allow for rapid access to reliable information in the event of industrial accidents or allegations of environmental and/or food chain contamination.

An example of the benefits of this concept was demonstrated in 2001 when 11 years of stored milk samples (1991-2001) from County Cork were sent to Germany for dioxin analysis (dioxin is concentrated in milk). The results recorded a 60% decline in the level of dioxin over the eleven-year period. (FSAI News Vol. 4, Issue 4, July 2002)

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