The need for monitoring farm animal welfare during mass killing for disease eradication purposes

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Abstract

The term ‘depopulation’ is used in this case to describe mass euthanasia or killing of groups of animals on a farm for emergency disease eradication purposes. There are a number of guidelines for monitoring animal welfare during such operations, eg the OIE Terrestrial Health Code and the EU regulation on protection of animals at the time of killing, which can be useful when designing a specific monitoring system for depopulation. In this paper, the responsibilities of the competent authorities are identified, and a systematic approach to monitoring on-farm killing is proposed, including three major critical points: i) animal handling prior to killing; ii) the stun/kill quality, ie the effectiveness of the method used to render the animals unconscious and dead; and iii) confirmation of death prior to carcass disposal. The importance of good biosecurity routines, efficient disease detection systems, relevant training of staff and thorough contingency planning to prevent animal welfare problems from arising is strongly emphasised. It is the responsibility of national competent authorities to provide the appointed official veterinarians in charge of monitoring animal welfare during depopulation with proper tools, including anything from appropriate knowledge and practical checklists to the authority to demand immediate corrective action when necessary, and to develop systems for feedback and incorporation of experiences from previous outbreaks into the national contingency plans.

Keywords: animal welfare, biosecurity, contingency planning, depopulation, disease control, euthanasia

Introduction

The most efficient ways of preventing animal welfare problems during disease eradication operations are to ensure high levels of biosecurity, well-designed surveillance programmes and rapid alert systems for detecting possible outbreaks of different contagious diseases. This way, the need for mass killing will be minimised, and thereby the risk of poor animal welfare during such operations. Nevertheless, disease outbreaks are likely to occur at irregular intervals and may affect several farms in an area or sometimes entire regions or countries. In such cases, killing a large number of animals may be one of the options for controlling the outbreak. It is essential that this is done in a way that does not unduly compromise the welfare of the animals involved, while at the same time the operation must often be carried out rapidly and without unnecessary risks for the workforce involved.

The concept of depopulation

In this paper, the word ‘depopulation’ will be used to describe mass killing of animals on a farm for disease control and eradication purposes. In practice, depopulation measures will be applied when diseases are contagious, often referred to as ‘exotic’ diseases, ie not normally present in the country or region. Such diseases may pose a serious threat to animal health and to the economy of the farming community and can indirectly threaten food security in vulnerable areas. In some cases the diseases may threaten human health, if they are zoonotic, ie transferrable between animals and humans.

It should be stressed that depopulation is not necessarily a part of all disease control operations. Sometimes there are other options, such as improved biosecurity in adjacent areas, extensive vaccination programmes or treatment of sick animals, or simply surrendering to the presence of the disease. However, sometimes depopulation, which can also be referred to as ‘stamping-out’, is perceived as the lesser evil, to protect other animals from disease and suffering and to safeguard large monetary values.

Mass euthanasia will often primarily affect infected herds/flocks of farm animals, but may also be used for contact herds where it is considered too risky to wait for the outcome of disease investigation (sampling and analysing) or for other herds located in close vicinity of infected herds (aka pre-emptive slaughter), or for healthy herds which have to be euthanised for animal welfare reasons, for example when routine transport and slaughter cannot be carried out due to transport restriction (aka welfare culls). The issue of overcrowding is particularly relevant for fast-