



Resource

**PRIMARY INDUSTRIES
Biosecurity and Food Safety**

Locked Bag 21, Orange NSW 2800
Tel: 02 6391 3100 Fax: :02 6361 9976

GUIDE

SAMPLING EQUIPMENT FOR INVESTIGATION OF PROHIBITED MATTER PESTS AND DISEASES OF ANIMALS

CM9 ref:	DOC20/85726	Version	1.1
AUTHORISED BY:	Team Leader PPRR	AUTHORISED DATE	17/08/2020
ISSUED BY:	Biosecurity and Food Safety	EFFECTIVE DATE	20/08/2020
Category:	Operations and Industry	Review date:	28/07/2023

1. BACKGROUND

This document supports the NSW Department of Primary Industries procedure: "Prohibited matter pests and diseases of animals – investigation and alert phase" (available at: <https://www.dpi.nsw.gov.au/about-us/policies-procedures>).

The scope of this guide is limited to sampling equipment required for investigation of prohibited matter pests and diseases of animals. Out of scope are other notifiable diseases, post-mortem equipment, packaging material, personal protective equipment and decontamination equipment.

2. SAMPLING EQUIPMENT LIST

The following number of supplies will facilitate:

- Sampling of six to ten (6-10) epidemiological units for diagnostic purposes of prohibited matter pests and diseases of animals i.e. herds/flocks in which the animals are showing clinical signs; **or**
- Sampling of one (bacterial) or three (viral) epidemiological units for surveillance purposes for prohibited matter pests and diseases of animals i.e. herds/flocks in which animals are not showing clinical signs.

Equipment type	Number
PBGS	200
Plain swabs	200
Amies swabs	100
Plain (red top) 10 mL blood tubes	200*
EDTA (purple top) 10mL blood tubes	200*
Plain (red top) 2 mL blood tubes (poultry)	200
Range of sizes of needles and syringes / vacutainer needles [^]	200 each
Specimen jar (sterile) -small	500
Specimen jar (histo) - large	50
Specimen jar (brain bucket)	5
ICT kits	2 (low); 4 (high)
10% neutral buffered formalin ⁺	

Table 1: number of sampling equipment for diagnostic and surveillance

*Be aware that vacutainers lose vacuum over time

[^]Be prepared to sample poultry, pigs, small and large ruminants

⁺Follow health and safety rules when transporting and handling buffered formalin

Based on the sampling equipment list in Table 1, each Local Land Services (LLS) region develops and implements a plan to achieve the above outcome of adequate sampling supplies to cover the first 24 hours of investigations subsequent to the suspicion arising.

Factors to take into consideration include:

- Number, size and type of enterprises (i.e. number of epidemiological units per species) in the region;
- Storage capacity in offices across the region;
- Expiry date on supplies;
- Who will be undertaking the sampling;
- Time it will take to get more supplies from the SVDL or other suppliers;
- Any pre-existing local arrangements

The sampling plan and equipment supplies should be reviewed every twelve months by the District Veterinarian, along with the PPE and decontamination equipment review.

A summary of the sample numbers, types and the relevant equipment required for diagnostic testing of suspect for AIV, FMDV and ASFV, excluding tissue sampling (except blood) is presented in Table 2. More detailed information on sampling can be found in the hazard-specific documents (available at: <https://intranet.regional.nsw.gov.au/business-units/primary-industries/dpi-biosecurity-food-safety/animal-biosecurity-and-welfare/animal-biosecurity/emergency-management-of-animal-pests-and-diseases/nsw-plans-and-resources>).

Hazard	Number of animals to be tested (per epidemiological unit*) in events where animals are displaying clinical signs	Sample types	Equipment required per epidemiological unit* (maximum amounts) in events where animals are displaying clinical signs
Avian influenza virus	Up to 15 birds (may be recently dead or alive)	Swabs – cloacal and tracheal or environmental Plain blood	PBGS and swabs x30 Plain (red top) 2 mL blood tube and needles/syringes x15
Foot-and-mouth disease virus	5 animals with fresh lesions or; 12 animals with older lesions	Swabs – oral or nasal and/or vesicle Plain blood	PBGS and swabs x24 Plain (red top) 10 mL blood tube and needles x12
African swine fever virus	Up to 10 live pigs	Swabs – oral or oropharynx (only if safe to do so); or nasal and rectal Plain blood EDTA blood	PBGS and swabs x20 Plain (red top) 10mL blood tube and needles x10 EDTA (purple top) 10 mL blood tube and needles x10

Table 2: summary of sample numbers, types and required equipment for key prohibited matter pests and diseases of animals for diagnostic sampling per epidemiological unit, excluding post-mortem.

*An epidemiological unit is defined as a group of animals within a premises' that share approximately the same likelihood of exposure to a pathogen. This may be because they share a common environment e.g. pen/shed, or because of common management practices. For the purposes of AIV sampling, each shed is considered an epidemiological unit.

In events where there are no clinical signs evident in the herd/flock, up to 64 animals per epidemiological unit may need to be sampled. The samples types collected are as per Table 2.

In an event, for advice on collection of samples and transport media DVs can contact their Team Leader, the NSW DPI SVDL (phone 1800 675 623 BH) or contact the Emergency Animal Disease Hotline (phone 1800 675 888, 24/7). It is best to do this prior to attending the property where possible.

Revision history

Version	Date issued	Notes	By
(e.g. 1.0)	dd/mm/yyyy	List changes since the last version.	Position title