



Coordinated activities by three Recognised Biosecurity Groups are reducing feral pig populations in the northern agricultural zone in WA

Community-based groups in Western Australia, which have been formally recognised as a Recognised Biosecurity Group (RBG) under the *Biosecurity and Agriculture Management Act 2007*, support land managers to control declared pest animals and weeds on their properties. Fourteen RBGs are currently in place. Each RBG operates under the direction of a board, comprised of representative landholders, with their regions extending across a number of local government areas. The management priorities for each group are set by its Board and described in Annual Operating Plans for each RBG.

An agreed declared pest rate is paid annually by each landholder, which is matched by the WA Government.

In the northern agricultural zone of WA, three RBGs, the Northern Biosecurity Group (NBG), Central Wheatbelt Biosecurity Association (CWBA) and Midlands Biosecurity Group (MBG) are working together to coordinate their vertebrate pest management activities. Integrated and coordinated baiting, aerial shooting, trapping and ground shooting activities are used to control feral pigs.

Central Wheatbelt Biosecurity Association and Midlands Biosecurity Group

Midland Biosecurity Group (MBG), in collaboration with Central Wheatbelt Biosecurity Association in WA as part of their collaborative Morawa Mingenew Feral Pig Project, have dispatched a total of 758 feral pigs through coordinated aerial shooting and baiting programs over the past six months.

A feral pig aerial monitoring surveillance and culling activity was conducted from 3 - 5 July 2021 in the Morawa and Mingenew areas, with over 20 landholders participating. This is the fourth aerial monitoring, surveillance and culling activity to be implemented in the last three years.

A total of 466 feral pigs were culled with 23.7 hrs flown over three days, however the number of feral pigs being spotted and eradicated from this area was concerning. Many sows culled during the aerial shooting program were also in pig. If this activity had not gone ahead and no further control was conducted,

it was considered that feral pig numbers in this particular region could have been in excess of 5000.

In other parts of the Midlands region, activities by the MBG have culled a further 564 pigs.

A licensed pest management technician contracted by MBG has been working with both biosecurity groups to support landholders in coordinated control efforts. Baiting activities have been in place since February 2021. A total of 292 pigs have been dispatched by baiting across the shires of Mingenew and Morawa to date.

This emphasises the importance and need for coordinated and collaborative efforts to keep on top of feral pig populations.



Aerial footage of pigs in a lupin crop. Photo supplied by Central Wheatbelt Biosecurity Association

Northern Biosecurity Group

In the NBG region, feral pigs are considered a priority pest by most broadacre cropping farmers. However, many land managers do not have a good handle on the impacts caused by feral pigs to their businesses. Based on data from some producers, it has been estimated that feral pigs damage at least 20 hectares per property, equating to at least \$1500 per hectare in terms of input costs and yield losses. The NBG is looking to investigate the use of aerial imagery and yield mapping to estimate economic costs to grain growers which can then be modelled across the region. The results and data collected would improve landholder engagement and commitment in actively

participating in feral pig control strategies to improve profitability within the region.

Free-feeding of feral pigs prior to baiting and trapping is an important and essential step to ensure that all feral pigs in the area are brought into the feeding station. Details on free feeding can be found on the [PestSmart website](#). Briefly, when baiting with 1080, it is necessary to free feed for a minimum of three nights – often, more time may be needed to ensure that all pigs in the area are accessing the free feed. Incorrect free-feeding, or laying poisoned bait too early, can reduce the effectiveness of control programs due to large numbers of pigs not consuming bait as well as disengagement of land managers.

The NBG are funding 200 days of contracted trapping services by a licenced pest management technician during 2021/2022. This is being done to support land managers who may lack the time to conduct on-ground management activities or not do it properly resulting in them becoming frustrated and impatient with outcomes being achieved. A trap with a remotely operated door has been purchased by the RBG and is being used by the group. Workshops are regularly held to support land holders with applying best practice management, including free-feeding, and using [FeralScan](#).

Over the past four years, the NBG have conducted annual aerial feral pig culls in the region, with a total of 4,222 feral pigs dispatched over this period (Table 1). These programs have been well supported by the community - substantial growth in the number of properties providing access to their land has occurred since 2019.

Table 1: Summary of aerial culling activities conducted by the NBG.

| Year | Number of properties | Hectares | Hours flown | # feral pigs culled |
|--------------|----------------------|----------|-------------|---------------------|
| 2018 | 7 | 24,500 | 11 | 512 |
| 2019 | 23 | 52,500 | 34 | 1145 |
| 2020 | 73 | ~200,000 | 50 | 1261 |
| 2021 | 71 | ~130,000 | 38 | 1304 |
| Total | | | | 4222 |

As part of a 180 day service contract for a licenced pest control service between July 2020 to June 2021, extensive trapping was undertaken with a total of 1650

pigs removed from hotspot areas (which included properties participating in aerial culling and community baiting program activities).

Whilst these numbers may sound high, they don't by themselves indicate success in reducing feral pig numbers. Despite increased efforts in on-ground control efforts by land managers, many feral pigs are being reported by landholders, including in areas where high numbers were shot as part of the NBG's March 2021 aerial culling program.

The importance of monitoring

It's clear that monitoring is very valuable and is needed to measure and evaluate outcomes from control activities, even though most people just want pigs to be gone.

There is a lot of power in having, and using, the right data to inform management programs.

- GPS collars are being used by the NBG to better understand pig movement at different times of the year and to inform aerial control programs.
- These three RBGs are collaborating and co-investing in the [new feral pig and wild dog camera surveillance project](#) (also highlighted in the July NFPAP newsletter). Automated image analysis of camera footage and facial recognition will assist with understanding whether the recovery in pig populations is due to newly established populations or an increase in population size as a result of favourable seasonal conditions.
- Automated software to detect pest animals, including feral pigs, from thermal imagery is being developed as part of a Centre for Invasive Species Solutions funded project, in collaboration with DPIRD WA, DAF QLD and DPI NSW. These groups have collaborated in this project to increase their understanding of feral pig abundance and densities.

Each of these RBGs look forward to having such technology available to use before, during and after coordinated control programs to reduce feral pig populations and the economic costs experienced by land managers due to their activity.

To further discuss any topics in this article, please email [Marieke Jansen, Executive Officer NBG](#), [Linda Vernon, Executive Officer, CWBA](#) or [Chris O'Callaghan, Executive Officer, MBG](#).

More information on Recognised Biosecurity Groups in WA can be found [here](#).