INSTITUTE FOR Rural Futures

# Biosecurity on Farms

The aim of this survey was to gather an understanding of the nature and extent of biosecurity precautions on Australian farms; the extent of knowledge and understanding about emergency animal disease amongst producers; their perceptions of risk; and the relationship between such perceptions and their precautionary behaviours. In May 2004, the survey was mailed to a random sample of 3000 livestock producers across Queensland, New South Wales and Victoria. The response rate (after allowing for return to senders) was 55% providing data from 1232 surveys for analysis (254 for Qld, 554 for NSW and 419 for Vic).

## Profile of the Sample

The sample included 1021 (85%) males and 180 females (15%). Their ages ranged between 21 and 86 years (average 54 yrs). Producers had been farming as an adult for an average of 35 years. Most (41%) had lived in their district between 20 and 50 years, while 38% had been there most of their lives or 50 years or more. Only 36 farmers (3%) were relative newcomers to the district (less than three years). Seven were absentee landlords. The majority of farm businesses were family partnerships (62%), 21% were private or family companies, while 14% were sole operations. Just under half of the sample (49%) were livestock only operations, the majority being in beef (33%) or wool production (35%). Others were mixed farming operations involving grain or fodder crops or horticulture.

## Sources of Information on Emergency Animal Disease

Most producers (73%) reported that the newspaper was the most common source of information on emergency animal diseases followed by radio (68%) and television (54%) (see Fig. 1).

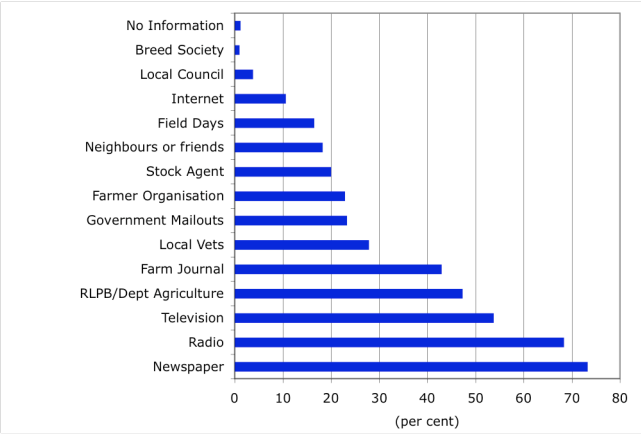


*Figure 1: Sources of information on emergency animal diseases.*

When asked where they would go first for information if they heard there was a FMD or BSE outbreak in Australia, most producers (65%) would call local Departments of Primary Industry or Rural Lands Protection Boards. Others (42.6%) would call local vets. (See Fig. 2). In such circumstances, well-known and trusted people within a local community will be relied upon for advice in preference to the media.

Only 112 Producers (9.2%) were aware of the existence of any biosecurity initiatives in their district. Twenty-seven producers (2.22%) noted Ovine Johnes Disease (OJD) exclusion zones and 10 (0.8%) cited Footrot strategies. Another 37 (2.8%) had held discussions on community plans with local vets, RLPB rangers or Department of Agriculture/Primary Industry officers. Thirty-two (2.6%) cited the AUSVETPLAN and other National strategies and awareness campaigns. Only three people were aware of a Local Emergency Disaster Plan. These findings suggest that local communities that have established plans need to publicise the existence of such strategies within their community.

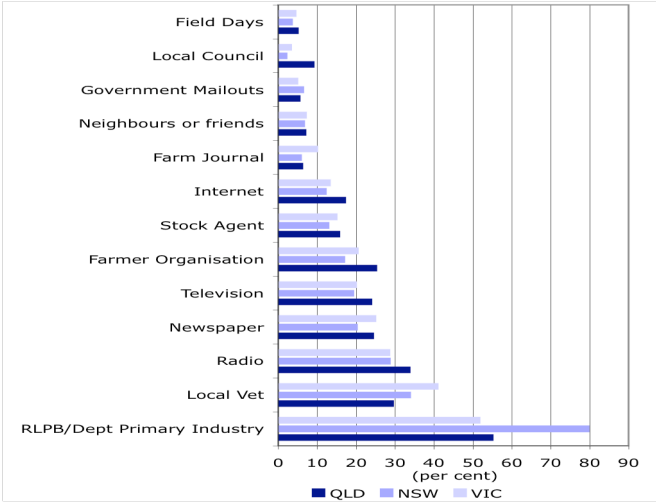


*Figure 2: Primary source of information in the event of disease outbreak, by State.*

When asked where they would go first to report any unusual symptoms in their stock, the majority (70%) reported that they would go to their local vet. Others (27.34%) would call a government veterinary officer and 16% would contact a stock inspector. A few (0.4%) would report to their local stock agent. Less than 4% reported they would use the Emergency Disease Watch Hotline. Figure 3 displays participants' responses by State.

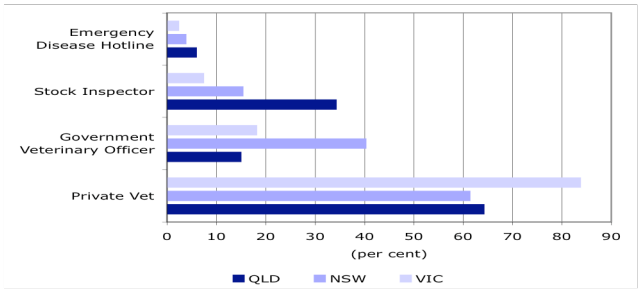


*Figure 3: Where producers report usual symptoms in stock, by State.*

## Biosecurity on Farms

Just over half (58%) reported that they had implemented biosecurity strategies on their properties. The most common strategies were the isolation of all new stock coming onto a property to check for disease (40%), not introducing new stock preferring to breed their own replacement stock (20%) and securing boundary and internal fences (14%). When compared by State, Queensland producers were the least likely to have strategies in place (see Fig. 4). The large herds on large outback properties do inhibit the ability of producers to implement biosecurity strategies. Many of these producers believed their geographic isolation would protect their property from a disease outbreak. However, they were concerned that their properties and livestock would be vulnerable to diseases such as Foot and Mouth being spread through feral pigs and goats.


*Figure 4: Biosecurity on farms, by State.*

When compared across industry types, pork producers were more likely to be diligent about biosecurity. This is likely to be a reflection of the proactivity of the Pork Industry in ensuring their producers are

informed about biosecurity. Dairy producers were less likely to practice safety and security measures. This is a surprising finding as the Dairy Industry has also been proactive in encouraging biosecurity amongst their producers.

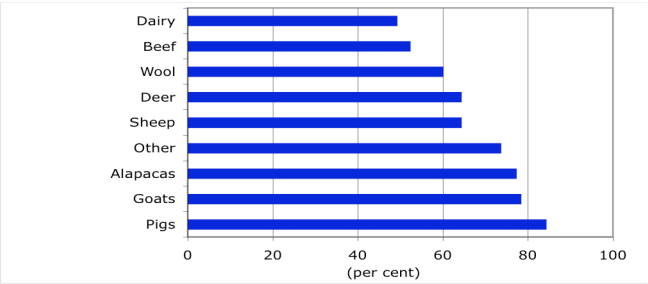


*Figure 5: Biosecurity, by livestock type.*

The main things that prevented producers from putting biosecurity strategies into place on their properties were lack of money, time and information and the drought (Fig.6). Others (4.9%) believed there was no need for biosecurity plans on their land due to their good farm management. Thirteen producers (1.5%) reported it was impossible to implement strategies because of the nature of their properties, i.e. the property was too large, there was a public road or river passing through their land, it was impossible to isolate new stock on the property, or because there was a lack of cooperation from people entering their property.

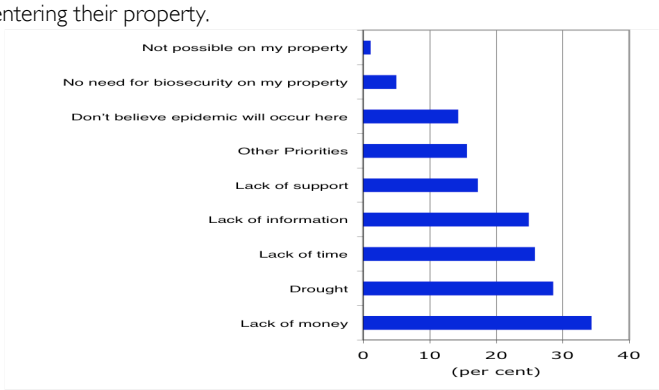


*Figure 6: Factors preventing biosecurity practices.*

## Risk Perception

Producers believed the greatest risks to their property for an emergency disease outbreak were neighbours not reporting unusual illness or deaths in their stock, the presence of feral pigs or goats in an area, neighbours who import animals or semen or neighbours who have a high turnover of stock (Fig. 7).

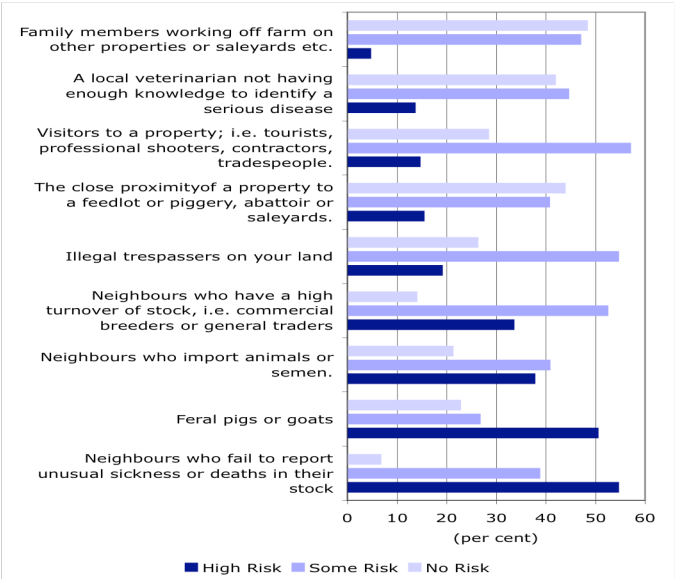


*Figure 7: Perceptions of greatest risks of disease.*

Respondents were also asked to rate seven attitude statements concerning the potential risk of an emergency animal disease outbreak in Australia. Cluster analysis found four groups of risk perception based upon the reality of the risk of an impending disease outbreak and the sense of control over that outcome. The group that was most concerned about an impending outbreak but felt that they could do something about it were significantly more likely than the other three groups to have discussed biosecurity strategies with others in their district; to be aware of local community biosecurity plans and to have implemented biosecurity strategies on their farms.

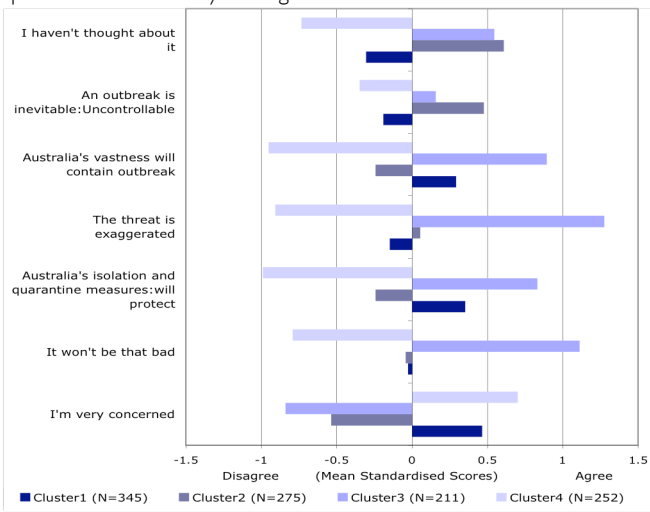


*Figure 8: Groups of risk perception.*

## Farmer Opinions

Farmers believed the responsibility for emergency animal disease prevention in Australia lay primarily with the Federal and State Governments while local communities were least responsible. Just under half (41%) thought producers were primarily responsible and 46% thought they were partially responsible.

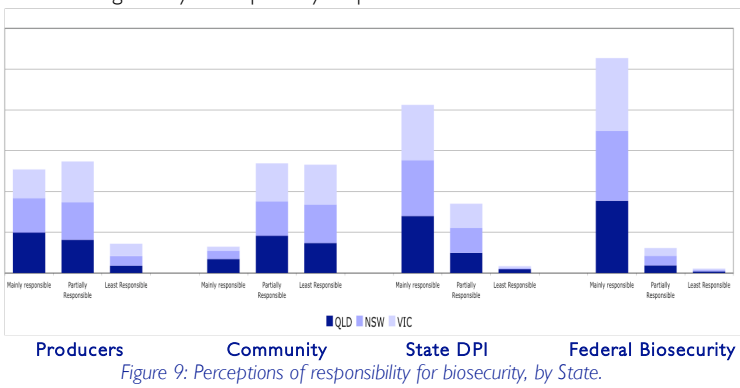


*Figure 9: Perceptions of responsibility for biosecurity, by State.*

Most respondents (69%) agreed that producers' participation in the National Livestock Identification Scheme (NLIS) was important for trace back in the event of an emergency disease outbreak -although there were differences between the three States in producers' opinions. This is probably due to the fact that NLIS is already established in Victoria and the larger herd sizes in Queensland where producers clearly object to the financial costs of the scheme and the relevance of the concept for their large and isolated properties.

Most producers (67%) agreed that some farmers may doubt that they will receive adequate compensation for stock that are slaughtered, and may not bother to report unusual symptoms in their animals. Victorian producers were far more concerned about this issue than those from Queensland.

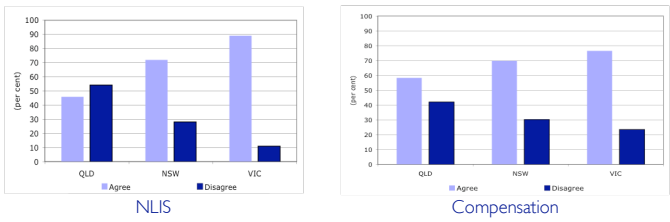


*Figure 10: Attitudes towards NLIS, and Compensation, by State.*

Over half (56%) disagreed that vaccination of stock against Foot and Mouth disease was necessary to protect the industry. Several requested more information on vaccination. There were no significant differences between the States on this issue.

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