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# Preventing Crime on Australian Farms: Issues, Current Initiatives and Future Directions

# **Marissa McCall and Peter Homel**

Crime can be devastating to farmers, the community and the farming industry as a whole. This paper highlights that repeat victimisation is high amongst farmers. In reviewing the available literature the authors found that little is known about attitudes towards crime prevention, and strategies employed by farmers to prevent crime at a national level in Australia. Where strategies have been implemented there has not been any systematic review as to their effectiveness. This highlights the pressing need for crime prevention programs to be evaluated.

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A popular urban view of rural life is that it represents an escape from much of what makes life in the cities seem so unpleasant and difficult. This includes crime. Unfortunately, as is so often the case with popular beliefs, the reality is somewhat different. Until recently, there has been little empirical evidence to document the extent of farm crime in Australia. In 2001, the Australian Institute of Criminology, funded by the Attorney General's Department, National Crime Prevention branch undertook the first of three National Farm Crime Surveys (NFCS) in Australia (Carcach 2002). The first NFCS revealed that 27 per cent of the 1508 broadacre and dairy farms surveyed had been the victims of some form of property crime during the twelvemonth survey period. The second NFCS found that 13 per cent of broadacre and dairy farms in Australia experienced some type of property crime in the previous year (McCall, 2003). The 2000-01 survey, however, measured three crime types not counted in the 2001-02 survey, namely the prevalence of dumping of rubbish on farm land, trespassing on farm land and unauthorised hunting or fishing on farm land. Excluding these three crime types reduces the prevalence rate of the 2000-01 survey to 15 per cent. The decrease in the prevalence rate between surveys is not statistically significant (F (1, 2771) = 0.8, p = 0.37). The most common type of crime in the 2001-02 survey was livestock theft, experienced by six per cent of all Australian farms. The cost to the industry was estimated to be \$72 million in 2001-02.

In other research undertaken by Barclay et al. (2001) on farms across New South Wales it was found that more than two thirds (69 per cent) had experienced some form of property crime over the 1999-2001 period. Importantly, 51 per cent of farmers reported being a victim of two or more events of property crime, indicating a high rate of repeat victimisation. In the second NFCS, the repeat victimisation rate was found to be generally much lower, with 28 per cent of all respondents who experienced property offences reporting two incidents or more. Comparisons between the two surveys research must be made with caution due to the different types of farms, crimes and geographic scope in each sample. The NFCS only included farms that were classified as broadacre or dairy whereas Barclay et al.'s sample

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represented a variety of farm types. Furthermore, the crimes measured in each survey were different. Each survey measured livestock theft, other theft on the farm and vandalism and arson. However, the most recent NFCS did not include dumping of rubbish, trespassing, fraud or drug production, whereas these crimes were included in Barclav et al's research. Furthermore the NFCS was a national sample while Barclay et al's sample was drawn from New South Wales. Comparisons with other repeat victimisation rates show that the rate of repeat victimisation on broadacre and dairy farms was higher than those recorded for break and enter and motor vehicle theft in the most recent Crime and Safety Survey (ABS 2003) and for burglary and vandalism by the Australian Institute of Criminology's Small Business Crime Survey (Taylor & Mayhew 2002). However, with at least one in five farmers reporting some level of repeat victimisation, the need for a targeted crime prevention strategy is apparent.

The unique socio-demographic make up of farms can enhance opportunities for theft. Some of the factors that have been identified include:

- Remoteness and distance between properties;
- Ease of access as a result of a generally improved transport infrastructure;
- Increased population instability;
- Increasing value of livestock and other farm materials due to the drought; and
- Relaxed attitudes towards security.

Crime against farms can have a significant impact on farmers, the rural community and the farming industry as a whole. Seasonal changes such as drought can affect the type of crime perpetrated (i.e. feed/water during drought and livestock theft after the drought) and shortage of livestock and produce due to seasonal changes can have an inflationary effect on prices, thus increasing the risk of theft (Jarred 2002 & Stephenson 2003). This year \$600 000 worth of rare livestock was stolen in a single incident in Victoria (Paxinos 2003). In addition, the latest media reports

of farm crime suggest that perpetrators of crime are becoming more organised. Thieves have gone to the effort and trouble of concealing their crime by dismantling and rehanging gates, having dogs debarked, and operating by moonlight in order to avoid artificial lighting or during fog to avoid being seen (Paxinos, 2003). What, then, is being done – or not done – to help prevent crime occurring on farms?

# Attitudes towards crime prevention

One of the key issues in developing and implementing effective crime prevention action is the attitude that the key players take towards the prevention process. If effective prevention measures are viewed as viable and achievable, it is much more likely that serious efforts will be made with regard to development and implementation. If not, then energies and other resources are likely to be wasted on half-hearted and poorly implemented measures.

None of this should be seen as surprising since, in practice, it is no more than a rational risk assessment process. As such it is not unlike the type of risk assessment that a potential offender may make when deciding whether or not to commit a particular crime in the first place. As part of their study on the farm crime in New South Wales, Barclay et al. (2001) examined the attitudes of farmers towards security and safety on farms. The majority of farmers (60 per cent) believed that crime occurs when property owners or managers do not take sufficient responsibility for safety and security on their farm. Furthermore, a high proportion (45 per cent) also believed that farmers should be

**Box 1:** Systems for the Identification and Tracking of Livestock.

The National Livestock Identification Scheme (NLIS) is an initiative developed by Meat and Livestock Australia (MLA) in order to systematically identify and track livestock. The scheme involves permanently identifying cattle from birth to the abattoirs in order for food safety, product integrity, and market access purposes, as well as to reduce theft (MLA 2002b). Identification in the NLIS involves using a machine-readable Radio Frequency Identification (RFID) Device (in the form of an ear tag or rumen bolus¹/ear tag combination) (MLA 2002a). Along with a Property Identification Code (PIC), a complete history of the animal's residence and interaction with other animals is recorded in the NLIS database. As of October 2003, there were over 7 million devices registered in the NLIS database (MLA 2000b). Currently Victoria is the only state in which adherence to the enforcement of NLIS is mandatory (Victorian Livestock Theft Working Party, 2001). The Scheme will be introduced nationally from July 2004 (MLA 2002a).

The National Flock Identification Scheme (NFIS) has been in operation since July 2002 and seeks to identify sheep and lambs permanently using a visible ear tag. There are two different types of tags, the first, sheep breeder tags, are applied to lambs and sheep before they depart their property of birth. The second are sheep property tags that are applied to lambs or sheep that are no longer on their property of birth. The scheme is currently voluntary and works in a similar fashion to the NLIS with the PIC on all ear tags. The use of these tags in conjunction with the sheep National Vendor Declaration Scheme (provides treatment and residue history of sheep and lambs) enables the NFIS to trace back stolen sheep to the place of birth or last residence. The scheme has made a successful start - by the end of 2002 over 250,000 ear tags had been sold (Cuming 2002). Recently there has been a drive to have all sheep in Australia tagged under the NFIS scheme by July 2005 (MLA 2002c). *Transported stock statements (TSS)* 

In order to assist Police in tracing stolen stock, the Transported Stock Statement (TSS) system was introduced in New South Wales (Alchin, 2003). A TSS form must be used whenever transporting cattle, sheep, goats or horses. The TSS form contains two parts. The owner of the stock completes the first part and the driver of the vehicle completes the second part. Authorised officers (such as police) that believe that a vehicle is being used to transport stock may stop and search the vehicle under section 140F of the *Rural Lands Protection Act 1998*. Failure to produce a TSS in accordance with the Act can result in prosecution and fine of up to \$5500 (Alchin, 2003).

required by law to have formal identification on farm machinery and equipment.

Most importantly for crime prevention, the majority of farmers (53 per cent) believed that they had the ability to prevent crime occurring on their farm. Furthermore, the study also identified a number of methods farmers believed could be used for effective prevention. For example, one of the key methods highlighted for the reduction and prevention of stock theft was the introduction of a National Livestock Identification Scheme (NLIS). Two-thirds of respondents believed that the NLIS would be highly beneficial in reducing livestock theft. A description of livestock identification schemes is discussed in Box 1.

# Current crime prevention methods used by farmers

Research on farm crime in New South Wales found that 64 per cent of farmers locked the farm residence when gone for the day, yet farmers were less likely to secure other areas of the farm as vigilantly (Barclay et al, 2001). Other security methods that were commonly used by farmers were maintaining fences; storing fuel tanks out of sight and making sure that someone kept watch of the property while the owners were away. Nevertheless, a high proportion of farmers reported never identifying tools, equipment

or machinery (65 per cent) or farm produce (46 per cent). Other crime prevention strategies that were rarely employed by farmers included alarm systems<sup>2</sup>, no trespassing signs and security lighting. Analysis of the relationship between security measures employed on farms and victimisation found all but one (having a watch dog) had no significant effect in reducing farm crime. This may, however, be due to farmers failing to implement security measures in the first place, rather than the actual security measures themselves being ineffective.

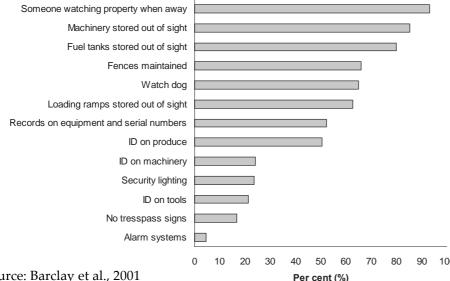
Only one percent of farmers in the New South Wales study indicated that they did not use any form of livestock identification method, with the majority using ear tags, earmarks and branding to identify their stock. Two per cent used electronic identification. However, analysis of the relationship between the prevalence of livestock identification and stock loss from the National Farm Crime survey (McCall, 2003) found that, in practice, 11 per cent of stolen livestock stolen were not identified in any form.

# Issues affecting crime prevention strategies on farms

Non-Reporting to Police

Perhaps the most important issue constraining the implementation of

Figure 1: Security measures employed by farms in New South Wales (N=393)



Source: Barclay et al., 2001

effective crime prevention measures on farms is the low reporting rate of farm crime to the police. The recent NFCS found that only 50 per cent of farm crime was officially reported, a similar rate to the 2000-01 NFCS (49 per cent). The most common reason for not reporting to police was the belief that the police could do nothing about it (37 per cent). A further 17 per cent believed that the crime event was not serious enough to justify reporting. The problem of non-reporting is compounded by the fact that when incidents are reported to police, it is often after a lengthy delay. This is one of many reasons that make the investigation of livestock theft very difficult for police (Barclay et al 2001). Another reason for non-reporting, was a lack of proof of ownership by the farmer. As mentioned above, farm equipment and even livestock may not be adequately marked or identified thereby making investigation and recovery even more difficult (McCall, 2003 Barclay et al 2001). Similarly, the absence of proof of ownership contributes to the thief's ability to on-sell materials or livestock stolen

The ability for victims to claim insurance is also likely to influence on the decision of whether or not to report the crime (Stephenson 2003). For example, the 2001-02 NFCS found that farm vehicles are the most commonly insured item (64 per cent). Furthermore, victims of farm vehicle theft were the most likely to make a report to the police (82 per cent). Yet this figure is still below the average reporting rate for motor vehicle theft of 95 per cent in the general community (ABS 2003).

from farms.

Insurance against livestock theft is generally not available (Barclay et al, 2001); therefore, farmers may see little value in reporting livestock theft. Farmers may feel that if there is little chance of recovering livestock or convicting the perpetrator, there is little reason for reporting the theft to the police. An additional impediment to reporting to police is the belief by farmers that the crime is not serious enough. This reason was stated most commonly for theft of small tools or spare parts followed by theft of

material and theft of fuel. These items were also less likely to be insured, and had less impact on the victim financially than any other crime (McCall, 2003).

The limited knowledge of farming and agriculture by police has also been stated as a problem in combating farm crime (Barclay et al, 2001). For example, if the police cannot tell the difference between certain breeds of cattle, the chance of cattle being recovered is reduced considerably. The training of specialised rural police officers in a number of jurisdictions however, is aimed at increasing police knowledge about agriculture and farming. In general, if a large proportion of farm crime is not reported to the police, the full extent of the problem is never realised. In consequence, the police may not see farm crime as a priority in their area and resources may be directed elsewhere.

### Stock Management

In 26 per cent of cases of all livestock theft recorded in the 2001-02 NFCS (McCall, 2003), the farmer was not sure whether the livestock was actually stolen or simply missing. This brings into question the stock management techniques that farmers employ. Most of the farmers did have some type of identification on their livestock (Barclay et al, 2001 & McCall, 2003). However, the frequency with which stock are checked and making allowances for the rate at which stock are lost to natural causes, can make it difficult to determine whether or not stock were actually stolen.

On average stock were checked once a week in the New South Wales sample. Additionally, the majority of farms attributed a loss of less than two per cent of their stock to natural causes. Lengthy intervals between checks of stock and the possibility of loss due to natural causes, may make determining whether a theft has occurred very difficult (Barclay et al 2001).

#### Police Presence

Rural police services often have to cover vast areas with limited personnel (Jobes 2002). As at 31

March 1999, 456 million hectares (59 per cent) of Australian land area was used for agricultural operations (ABS 2001). Furthermore, farmers have noted the scant presence of police at saleyards, clearing sales or in checking transport (Barclay et al. 2001). The majority of farmers surveyed had never or rarely seen police at saleyards (63 per cent), clearing sales (68 per cent) or during transport checks (59 per cent). In order for livestock identification and transport schemes to be effectively enforced, police presence is essential as very often stolen stock are disposed of in these ways (Barclay et al 2001).

# Evaluation of crime prevention initiatives

Neighbourhood Watch/Rural Watch/ Crime Stoppers

The Rural Watch scheme, similar to that of Neighbourhood Watch, encourages people in rural communities to report crime and suspicious activity to the police. The program is run in many locations throughout Australia as well as in the United Kingdom. The aims of the program are to reduce preventable crime, encourage reporting to police, improve relationships with police, increase knowledge sharing in the community and improve the level of farm security in rural communities. Evidence from the Scottish Farm Crime Survey (Laird, Granville & Montgomery 1999) found that approximately two thirds of farmers surveyed believed that Rural Watch was effective in reducing farm crime.

While there has been no formal evaluation of rural watch in Australia, general observations from New South Wales have shown that police generally thought that it was successful (Barclay et al 2001). However, without the full support and participation of members of the rural community, it is unlikely for the scheme to be a success. It is also difficult for farming communities to participate in the scheme due to the large distances between properties. These difficulties are compounded

by the general findings that neighbourhood watch style schemes can have a high variability in their effectiveness from location to location (Laycock and Tilley 1995) and, as such, are often of very limited effectiveness. States such as Victoria and Western Australia have rural Crime Stoppers programs (a telephone hotline which allows the public to report criminal or suspicious activity anonymously). Crime Stoppers are community organisations run with the assistance and support of police services, Australian Governments, the private sector and the community. The aim of these programs is to increase the reporting of rural crime. The anonymous nature of reporting was suggested as a key determinant of the program's success, as many farmers are still reluctant to report crime for fear of retribution or being seen as a dobber. Rural crime stoppers programs encourage reporting of farm crime via television and radio advertisements, and posters and brochures. Rural crime stoppers in Victoria began in April 2002, and has shown some success with the number of calls from rural areas increasing by 10 per cent over the past year (Victoria Police 2003). The effectiveness of the Western Australian rural crime stoppers program is unknown, as it has only just been implemented. In general however, the effectiveness of the rural crime stoppers programs as a crime prevention tool is not yet established.

# Police Stock Squads

Police Stock squads are specialised officers with training in the investigation and prevention of stock theft. Stock squads operate in Queensland and Western Australia (Queensland Police 2002 & Western Australian Police 2002); rural crime investigators operate in New South Wales (NSW Farmers Association 2003) and rural investigators in Victoria (Premier of Victoria 2002). Research from NSW found that 82 per cent of farmers thought it was necessary to have a designated Police Stock Squad in place to control livestock theft (Barclay et al 2001).

The Queensland stock squad has 10 units operating in 5 police regions. The squad has been in operation since 1958 when it had 3 officers and since 1998 the squad has grown to a total of 32 officers. The squad personnel are highly trained in agricultural crime and are equipped with four-wheel drive motor vehicles, motorcycles, radios, mobile phones, cameras and lap top computers (Jarred, 2002). Access to the registrar of brands is also available via their lap top computers. As figure 2 shows, the rates of stock theft reported to the police have dropped significantly in the past 16 years. A total of 32 rural crime investigators have been in place in NSW since March 2001, and may explain the slight decrease in reported thefts in 2001-02.

NSW Farm Crime Prevention Fact Sheets

As a result of the research by Barclay and colleagues (2001), 11 farm crime prevention fact sheets were

produced by The Institute for Rural Futures and the NSW Crime Prevention Division. These were aimed at disseminating information to educate New South Wales farmers about preventing crime from occurring on their farms. Some of the topics in the series include:

- · Farm security
- Identification of farm machinery
- · Reporting crimes to the police
- · Livestock theft
- · Seed and grain theft
- How to establish a neighbourhood watch or rural watch group

As yet, the effectiveness of these farm crime prevention fact sheets has not been demonstrated. Further research is needed to evaluate whether farmers in NSW are aware of the resources, whether they are used and how effective they have been in reducing victimisation on farms.

#### Overseas Programs

In 2001 a Rural Crime Prevention program was established in eight counties in California (Hill 2002).

The crime prevention strategies fell into four categories:

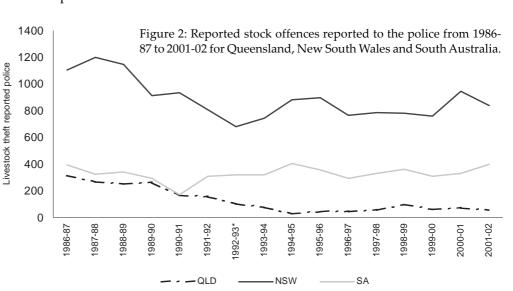
Community outreach - involved educating community members about rural crime and prevention methods. This was done through public presentations, printed publications and a web site. Enhanced law enforcement – 'High risk' areas in each participating county were identified and covert operations, surveillance and stakeouts were carried out. With the use of specialised rural crime prevention units, some thieves were caught in the act. *Specialised prosecution* – A vertical prosecution strategy (where the same attorney is assigned to handle each case of farm crime through all stages of the prosecution process) was used by participating counties. It is thought that by using this approach, the attorney's assigned to cases gained more knowledge of farm crime, and hence developed their skills and capacities thus increasing the likelihood of prosecution.

enforcement outcomes (arrests, prosecutions and convictions) compared to the rest of the state of California (Hill, 2002).

#### **Conclusions**

This paper has shown that farm crime is of serious concern in Australia. Whilst a number of initiatives are in place to prevent crime on farms, the lack of thorough evaluation makes it difficult to assess their effectiveness. In light of this, the 2002-03 National Farm Crime Survey will take a broader view of what crime prevention strategies are currently being used by farmers; whether these strategies are effective in reducing/preventing crime, and the current level of awareness of crime prevention programs/resources available to farmers.

However, on the basis of the patterns of crime revealed by recent research on rural crime in Australia



*Note*: NSW and SA were used a comparison as stock theft is listed as a separate offence in the annual reports of these police services.

\*Livestock theft is recorded as part of 'stealing', which includes stealing from the person and larceny. Source: Statistics from various annual reports and statistical reviews of the Queensland and South Australian Police. New South Wales Statistics come from the Bureau of Crime Statistics and Research.

Loss recovery efforts— The participating counties marked property for identification purposes in order to recover stolen items and reduce victimisation. Evaluation of the Rural Crime Program found that only 1 out of 8 counties had increased rates of reporting farm crime. However, all counties that participated in the program reported better law

it is apparent that the area most likely to have the greatest impact on reducing rural crime patterns will be a focus on repeat victimisation. Both major Australian rural crime studies (McCall 2003 and Barclay et al 2001) have identified a high rate of repeat victimisation of between 28 per cent and 51 per cent, respectively. The high levels of

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repeat victimisation suggest that the crime prevention strategies currently employed are not effective. The patterns of offending also suggest a significant level of planning and organisation by a small group of repeat offenders who are probably responsible for a significant amount of the higher value losses in terms of livestock and farm equipment.

However, the physical context in which much rural crime occurs suggests that many of the existing tools for targeting repeat offenders and victims will need to be carefully considered in terms of appropriateness and likely effectiveness. Many of the principles used in reducing the incidence of repeat victimisation are likely to be highly relevant and worth considering for the following reasons:

1. Targeting repeat victimisation is an efficient means of allocating scarce resources to crime problems (Laycock and Farrell 2003). Due to the limited number of police in rural areas, this may be the most efficient strategy in reducing farm crime, given the restricted resources currently in place. 2. A focus on preventing repeat victimisation is even less likely to result in displacement than unfocused crime prevention efforts (Bouloukos and Farrell 1997). Hence, preventing repeat victimisation on farms makes it less likely that other farms will be victimised.

Coupling these principles with a well-considered collaborative prevention strategy involving police, farmers, local businesses and councils, and other key members of the community will produce a framework for action that will have the effect of overcoming the natural pessimism about the value of attempting to prevent and reduce key aspects of rural crime that were noted at the beginning of this paper.

#### **Notes**

was small and other farms were close by (Barclay et al. 2001). However, systems such as back to base alarms or tracking devices could be of more value, if the items being protected were of sufficient value to warrant the expense.

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<sup>&</sup>lt;sup>1</sup> An electronic device used for identification that is implanted in the stomach of cattle.

<sup>&</sup>lt;sup>2</sup> Note, it is argued that alarm systems would have little effect unless the farm