

**Farm safety promotion in the context of health promotion:
Lessons learnt in rural Western Australia**

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Abstract

In the light of prevailing significant farm injury rates coupled with low adoption of farm safety practices, the literature has highlighted the need to do more to directly investigate measures that increase the proportion of farmers who take advantage of training programs such as Managing Farm Safety (MFS). The safety promotion initiative described here draws on the experience of initiatives in the health field in promoting prevention in rural Western Australia. A total of 306 farmers/growers, from eight peak organisations and two service clubs, participated in the two stages of the study. The first stage assessed the feasibility of conducting brief educational programs to groups of farmers and the second stage assessed the nature and extent of injuries in the past year, and the training needs in safety practices. The findings confirmed the need for safety promotion programs as it highlighted low levels of awareness and motivation for the uptake of MFS courses, and that three-quarters of farmers were still at the pre-contemplation stage, with no intention to initiate change or attend the course. It also identified the barriers that impacted on farmers' uptake of safety initiatives and therefore missed opportunities to progress with the adoption of safe practices in rural Western Australia.

Background and Objectives

Research has shown that agriculture was among the highest risk group for occupational injury and illness with the industry having the third highest rate of fatalities after transport and mining (Elrich, Driscoll, Harrison, Frommer & Leigh, 1993). Rural industry accounted for 19% of all Australian occupational deaths with 100 deaths annually (Fragar, 1996). Since agriculture involved people living and working in the same location, the risk of those not working being involved in a farm accident increased (Franklin, 2000). Among children, drowning (48%), farm equipment (16%) and motor vehicle accidents (13%) were the leading causes of farm deaths (Clarke & Coleman, 1995). Non-fatal injury was also significant with an average of 30 injuries per 100 farms per annum resulting in an average loss of 10 working days (Fragar, 1996). Rates for non-fatal farm injury varied according to the definition of injury and range from 16-60 per 100 farms per year. A high male to female ratio has been noted (Day, 1996). Animals, farm

machinery and tools, motor vehicles and motorbikes were leading causes of non-fatal farm injury (Fragar & Coleman, 1996). Traditional providers of information on work-related fatalities underestimated the true number of farm-related deaths up to a factor of five (Franklin, 2000). Ferguson (1997) reported that it was misleading to extrapolate information about rural injury incidence based on workers' compensation data to the broader industry.

In Western Australia, Franklin and Fragar (2002) referred to several databases to define the nature and scale of the health and safety problems in the West Australian farming community: Western Australian Coroner, WorkCover WA, the WA Health Department, the Commonwealth Health Department and the Australian Bureau of Statistics. There were on average nine to ten deaths per annum of people who were working at the time of the fatal incident or bystanders to work at the time of the fatal incident. Between 1 July 1991 and 30 June 1999, there were 3,420 people admitted to hospital who had an injury on a farm or on average 427 hospitalisations per annum. Children represented 12% of all farm-related injuries and males represented 80% of all injuries. The most common agent of injury was farm machinery. Half of all hospital admissions were for one, or less than one day.

Despite these significant statistics, there is low adoption of farm safety practices and farm safety remains a low or low-to-medium priority for most farmers (Elkind, 1993). Constraints to the adoption of farm safety practices included a low perception of personal risk, reluctance to change traditional work practices and a tolerant attitude towards risk (Day, Cassell, Li & McGrath, 1999). Canadian farmers who have incurred a farm-related injury were reportedly more likely to score higher on a measure of personal risk-taking and to have a fatalistic attitude to farm accidents (Harrell, 1995).

Farmers distinguished between farm hazards on the basis of a number of attributes including likelihood, controllability, financial consequences and the potential to impact on other people on the farm (Sandall & Reeve, 2000). These perceptions have important implications for promoting occupational health and safety and affect motivation to take preventative action. Such issues in the safety promotion field share similarities with the health promotion field. A growing literature on men's attitudes and behaviours pointed at the lack of motivation of men to take preventative action as contributing to their health problems (Huggins et al., 1996; Aoun et al., 2002; Fletcher, 1995; Gabhainn et al., 1999).

A workplace health promotion program in diabetes, delivered in the framework of the Health Belief Model (HBM), has been successful in engaging men in the preventive concept of seeking care and getting them to visit their GP to check the extent of their risk before they develop the disease (Aoun & Johnson, 2000). The HBM is a model of change in health behaviour, change being achieved through five components (Nutbeam & Harris, 1998): perceived susceptibility, perceived severity, perceived benefits of taking action, perceived barriers to taking action, and cues to action.

Another model of behavioral change, that could explain how ready farmers are to adopt change, is the transtheoretical model (TM) (Nutbeam & Harris, 1998), where farmers move through different stages: precontemplation (no intention to change), contemplation (considering a change), preparation (committing to change), action (making changes) and maintenance (sustaining changes). Considering the similarity in men's behaviour towards prevention in the two fields of health and safety, it is proposed that the components of the HBM and TM be applied to a safety promotion initiative.

While constraints to and perceptions in adopting safety practices have been investigated, Sandall and Reeve (2000) concluded, "there is a need for studies that more directly investigate factors that impact on farmers' uptake of safety initiatives". One such recent safety initiative has been the Farmsafe Managing Farm Safety Course, which comprised five components: generic farm hazard checklist, commodity specific hazard checklists, a register of farm chemicals, a register of training of farm workers and register of farm injury, occupational health and safety guidance notes. Day et al. (1999) compared differences in safety practices between farmers who have attended Managing Farm Safety and a comparison group who did not attend. Farmers who had completed the program were four times more likely than the farmers of the comparison group to use goggles, eight times more likely to use hearing protection and four times more likely to participate in other farm safety training courses. However the authors caution that it was likely that both intervention and comparison groups were not representative samples and therefore the extent to which these results could be generalized beyond the study group may be compromised. In concluding, Day et al. (1999) stated, "a major challenge for the future is identifying the measures that increase the proportion of farmers who take advantage of programs such as Managing Farm Safety".

The reluctance of West Australian farmers to take advantage of the Farmsafe Managing Farm Safety Course has been a concern to Farmsafe WA. More locally, in the South West of Western Australia, Farmsafe WA records showed a low uptake of the course with an average of 41 participants per year in

the last three years. It is in this context that a safety promotion initiative was proposed with its objectives to:

- Raise the awareness of the agricultural community of farm safety issues, through conducting a brief community educational program, delivered by Farmsafe WA
- Assess the risk profiles and specific hazards
- Recommend effective training and support strategies that increase the proportion of farmers who take advantage of education programs such as Managing Farm Safety.

The project was conducted in two stages: a feasibility study and a postal survey.

The Feasibility Study

Methodology

This study aimed to test the feasibility of conducting educational sessions in the workplace or the meeting place of service clubs and farmers' organizations in the South West of Western Australia and to refine the data collection tool. This study also aimed at delivering the educational session to 300 farmers/growers in the area of study.

A promotional letter introducing the project was posted to a number of organizations representing the agricultural community seeking a suitable time, date and venue to conduct a 30-minutes educational session by a trainer from Farmsafe WA. In addition to informing participants about what resources were available to them, the Farmsafe WA presentation consisted of information on vision, mission and objectives of the organisation, the latest injury and fatality statistics in the industry, encouragement to make change and how it can be achieved and the contents of the Managing Farm Safety (MFS) course.

The overhead projected presentation was followed by participants completing a brief questionnaire on the nature and extent of injury on their farms in the past year and an assessment of their training needs in safety practices. Information was sought on the number of injuries in the last 12 months on farm/property, characteristics of injured person and medical treatment, the place on the farm/property

where injury occurred, the circumstances and experiences surrounding these injuries, the hazard, bodily location, nature and intent of injury and days off productivity. The Farm Injury Optimal Dataset (Fragar, Franklin & Coleman 2000) was used as a guide to construct the questionnaire and classify farm injury in order to accurately describe the injury experience of persons working on and/or owning and managing farms.

The second part of the questionnaire related to training needs assessment. Information was sought on farmers' main sources of information on safety, courses ever attended, evaluation of the presentation session in terms of usefulness and relevance of content and of change in awareness regarding MFS course. Factors, that facilitated or discouraged attendance, were explored as well as the extent of motivation to enrol in a MFS course in the next 12 months. Participants were given the opportunity to leave their contact details, on a tear off slip, in order to be contacted by Farmsafe WA when a course is run in their area.

Application of the components of the Health Belief Model

It was anticipated that the presentation would highlight the awareness about how susceptible farmers are in their work and living environment to accidents and how serious the consequences are when safety measures are lacking. These two components were further reinforced when farmers completed the questionnaire thus recalling the extent and nature of injuries on their farm and how these could have been prevented in retrospect. The presentation highlighted the third component of the Health Belief Model (HBM) in terms of perceived benefits of taking preventative action, in this case attending a farm safety course. The questionnaire further explored the fourth component of HBM in terms of perceived barriers to taking action e.g. barriers to attending the MFS course. Finally the proposed safety promotion provided a cue to action in terms of a low-risk first step to initiate action, by farmers leaving their contact details to get more information on the course, thus capitalising on the momentum generated by the awareness-raising in the earlier components.

Results and Discussion of the Feasibility Study

While numbers of participating farmers (40) were too small to generalise beyond this study at this stage, the findings of this feasibility study reinforced the need for such safety promotion programs particularly

to groups of farmers who have been hard to reach with farm safety messages. The focus of this study was “not to preach to the converted”, who would be more open to receiving such programs.

These farmers had a significant injury profile: Forty percent reported an injury on their farm in the last year, 40% of those injured were treated by a doctor and 30% had a short stay in emergency department and 80% of injured farmers stopped work for an average of 3 days. For 40% of farmers, sources of information on farm safety were from the general forms of media (newspaper, TV and radio) followed by the more specialised publications. Only one farmer mentioned Farmsafe WA and two farmers mentioned Worksafe, thus leaving nearly half of the farmers not aware of any source of information on farm safety.

The presentation was appreciated by participating farmers as it has created much awareness of the susceptibility and severity of the situation and the perceived benefits of taking action. When asked about the extent of their awareness of Farmsafe WA courses before and after this session, the improvement in their awareness was significant. The proportion who became “very aware” increased from 4% to 81% as a result of attending the session, having started with over half of farmers “completely unaware” of the Farmsafe WA course. Not surprisingly, when asked about what prevented them from attending a farm safety course, the most frequently reported reason was that they “did not know that the course existed”. However about a third of participants responded that they were not interested because they were retiring soon, some would send their son to these courses, and for some nothing would encourage them to attend.

Only 11% of participants reported being greatly motivated to enroll in a Farmsafe WA course, confirming the health promotion theory that knowledge does not necessarily influence behaviour. The most important thing they learned reiterated the content covered in the educational component of the session, particularly the significant injury statistics. The most important piece of information for some farmers was the existence of Farmsafe WA as an organisation and that they ran courses. The majority of farmers were quite vague on how they would act on the knowledge gained in the session, indicating that most of these farmers were still at the first basic stage of behaviour change, “precontemplation”. Individuals in this stage were not even considering changing behaviour or were consciously intending not to change.

The feasibility study has highlighted the following impediments to pursuing the current methodology: Low response rates were a product of low attendance rates on the nights of presentations, farmers not

keen to complete the questionnaires preferring an interview style on the night which was more time consuming, lack of willingness to incorporate the sessions in normal business hours of larger regular farmers' meetings, the confusion between the two organisations, Farmsafe WA and Worksafe WA, contributing to a number of groups declining to host the presentations, as Worksafe WA was perceived to be a disciplinary organisation. In addition to these obstacles, Farmsafe WA had only one trainer located in the area of study and he was off sick in the study period. It was therefore difficult to accommodate the availability of the Perth-based trainers with the dates set by farmers groups.

Considering the impediments, it appeared that the local climate was not ready for the proposed methodology or that the study was ahead of its time in terms of prerequisites needed first to prepare the grounds for a safety promotion initiative. What could have been an ideal opportunity for Farmsafe WA to reach out to farmers/growers in person, to listen to their issues and actively promote safety awareness and education in the rural sector, has turned into a lost opportunity! The feasibility study has confirmed that a change in methodology was warranted (described in the next section), particularly in order to canvass the opinion of more farmers and to engage peak organisations in the recommendations resulting from this study.

Postal Survey

Methodology

An important feature of the Farmsafe movement was the involvement of farmers and their organisations (Day et al., 1999). Therefore the revised methodology aimed at involving the peak organisations in the agricultural community. These were approached by phone or in person to circulate the questionnaire to their database of members in the South West Zones, either as an insert in their regular newsletters or as posted mail. Organisations were given the opportunity to study the content of the survey and suggest changes if they wished. After a failed attempt for the questionnaire to reach members of one organisation as an insert and resulting in loss of time, posting was considered a more reliable option and was adopted for all organisations. As databases were confidential, questionnaires with reply-paid envelopes were packaged in pre-paid stamped envelopes and posted to organisations, who added name and address labels to envelopes and dispatched them to their members.

The sections in the questionnaire on evaluating the presentation were replaced by a basic assessment of awareness regarding the existence of Farmsafe WA and its course and the difference with Worksafe WA. The revised questionnaire provided an opportunity for opinions/concerns of respondents to be noted.

Results

The findings reported in this section pertain to response rates, respondents' characteristics, their injury profile, their preferred sources of information on safety issues, the proportions who attended courses on farm safety, their awareness of the existence of Farmsafe WA and the MFS course, the factors that discouraged and encouraged their course attendance, topics in agricultural safety that respondents would like to know more about, and their motivation to attend a course in farm safety.

Response rates

Eight organisations participated in the study (Table 1). Data collection spanned for two months July-August 2002. Questionnaires were posted to a total of 1208 members, with 279 members responding, resulting in a 23% response rate. Most organisations found it difficult to select out South West members from their total membership, as their regular mail-outs covered the whole State and therefore the numbers provided for their South West Zones members were maximum estimates. Also it was difficult to quantify how many members had retired, died or changed address as feedback was only received from 10 ex-members. Hence with more accurate base numbers, response rates could be better. Response rates ranged from 8 to 64%, with the lowest response rates being those of the Potato Growers and Flowers West and the highest from the Milk Industry Liaison Committee. However the sample consisted predominantly of WAFF members (41.2%) followed by Fruit Growers (20.8%) and the Wine Industry (16.5%) (Table 1).

Table 1: Distribution of respondents in the sample

Organisation name	Number	Percent
WA Farmers Federation (WAFF)	115	41.2
WA Fruit Growers Association	58	20.8
Margaret River Wine Industry Assoc.	46	16.5
Milk Industry Liaison Committee (MILC)	21	7.5
Potato Growers Association of WA	14	5.0
Pastoralists & Graziers Association of WA	12	4.3
Margaret River Regional Producers Assoc.	9	3.2
Flowers West	4	1.4
TOTAL	279	100

Respondents' characteristics

Respondents' age ranged from 18 to 81 years, with a mean age of 51.07 years (SD=11.77). Three-quarters of them were male and 90% were born in Australia. The type of farming/growing covered a wide variety of commodities, compatible with the distribution of organisations in the sample (Table 2).

Table 2: Type of Farming/ growing

Type of farming/ growing	Number	Percent
Dairy Farming	55	19.7
Viticulture	48	17.2
Beef + Cattle +other	37	13.3
Fruit Growing	32	11.5
Sheep + other	30	10.8
Horticulture	23	8.2
Mixed (not specified)	19	6.8
Potato / flowers	9	3.2
Grazing / other	9	3.2
Grain + Wool	8	2.9
Not stated	9	3.2
TOTAL	279	100

Injury Profile

While 18% of respondents reported at least one major injury on their farm in the last 12 months, there were 5 respondents reporting 2 injuries, 3 reporting 3 injuries, 2 reporting 5 injuries and 1 respondent

reporting 6 injuries on their farm. Thus a total of 73 injuries were reported on the 279 farms in the past year, with an incidence injury rate of 26%, ranging from 8% (Graziers) to 41% (Wine Industry).

- The age of those injured ranged from 4.5 years to 72 years, with a mean age of 40.5 years (SD=15.2).
- Ninety percent of those injured were male and were injured on the job.
- Fifty-nine percent of those injured were employees/contractors, 29% were owner/resident, 8% were family members and 4% were visitors.
- While in most organizations, 70-90% of injuries occurred with employees, in WAFF more owners/residents (50%) were injured compared with employees/contractors (41%) in general.
- Sixty-three percent of those injured were treated by a doctor, eight percent by other referral such as a physiotherapist, twelve percent were admitted to hospital or short stay in emergency and fourteen percent needed MINOR first aid/ no treatment.
- The majority of injuries occurred in the farmyard/shed, paddock/vineyard or stockyard. Cutting was the most frequent hazard, followed by motorcycle, fall and animal-related.
- While 94% of injuries were accidental, 4% were deemed of unknown intent and 2% were intentionally self-inflicted.
- Nearly 60% of injuries stopped the injured person from working, with a median of seven days away from full productivity.

Sources of information

Sources of information that dealt with safety issues used by farmer/grower, were by decreasing order of frequency: Press/TV/radio; Publications including manuals and special publications; Common sense/experience; Labels on Chemicals; Farmsafe/ Worksafe/ Ag Dept; and Own organisation newsletter.

Course attendance

Over half of the respondents had never attended any courses or seminars in farm safety; about a quarter had attended a ChemCert course and thirteen percent attended a Farmsafe WA course. There was no significant difference in the uptake of courses between those who reported injuries on their farm in the past year versus those who did not. For instance, 14.3% of those with injuries and 12.6% of those without injuries have ever attended a Farmsafe course.

Awareness

For those who did not take a Farmsafe course, that is 87% of respondents, about 10% of them were not aware of the existence of Farmsafe WA as an organization, over a third were not aware that Farmsafe WA is different to Worksafe WA and over a half were not aware that the Farmsafe WA course existed. The industries having the highest proportions of respondents not aware of the difference between the two organisations were the Fruit Growers, the Potato Growers and the Regional Producers. Nearly half of the respondents in most industries were not aware that the Farmsafe course existed, with those least aware being from Regional Producers, Potato Growers, Graziers and Fruit Growers.

Factors discouraging or encouraging attendance

The most frequent factors that discouraged attendance to the Farmsafe course were “not knowing that the course existed” and believing that it was not needed plus the factors related to time and cost. The most frequent factors that would encourage attendance to the Farmsafe course were related to time, cost and proximity of venue. Specific comments are listed in Appendix 1.

Motivation to attend Farmsafe course

While 10% reported that they were greatly motivated to enroll in the Farmsafe course, 39% were not motivated at all. There was a tendency for those who reported injuries (13.3%) to be more greatly motivated than those who did not (7.8%), however the difference was not statistically significant. Respondents, who were not motivated at all to enroll in a Farmsafe course, were from Flowers West (67%) followed by WAFF (51%) and the Fruit Growers (47%). There was no significant difference in the level of motivation by gender, although female respondents exhibited a tendency to greater motivation.

However, while about half of the respondents reported being greatly or partly motivated, only 29% left their name and phone number for a Farmsafe WA trainer to contact them when a course is run in their area. Furthermore the willingness to leave their name to be contacted for further information was not different between the two groups, those with injuries (32%) and those without (27%), or whether the respondent was male (29%) or female (31%). The Fruit Growers and WAFF topped the list of those not willing to be contacted, at 79% and 77% respectively.

Discussion and conclusions

As anticipated, the response rate for the postal survey was just over 20%, thus achieving a total target group of 306 farmers/growers contributing to the injury profile and training needs assessment in the South West of WA. The possibility of duplication between the two study groups (feasibility and postal survey) was very remote, considering the negative attitude of participants in the feasibility study towards completing questionnaires, let alone postal questionnaires. The extent of injury fit within the range reported in the literature (16-60 per 100 farms per year), with the postal survey rate very close to the average reported by Fragar (1996) and the feasibility study rate higher (Table 3). It could be that participants in the postal survey under-reported the extent of injuries, or those who did not participate had higher injury rates. Therefore, it would be reasonable to assume that the injury incidence rate in the South West of rural WA would be between 26 and 40 /100 farms/year. The average loss of working days was comparable between this study and that by Fragar (1996).

Table 3: Comparison of this study with other Australian studies

Studies	Number of injuries per 100 farms per year	Average loss of working days
Feasibility study (2001)	40	3
Postal Survey (2002)	26	7
Fragar (1996)	30	10
Ferguson (1997)	20	-

The following issues raised by the majority of farmers gave an indication of factors impacting on farmers' and growers' uptake of safety initiatives in WA. The specific comments provided by farmers were compiled under the different issues in Appendix 2.

FarmsafeWA/Worksafe WA

The suspected confusion of farmers/growers between Farmsafe WA and Worksafe WA was confirmed by the finding that 37% of farmers/growers were not aware of the difference between the two organisations and only 17% were very aware, explaining some of the resistance faced in hosting the presentation by farmer groups. Also the findings explained why there was such a low uptake of Managing Farm Safety Courses in the South West (13% of respondents), with only 7% of potential course recipients very aware that the course existed and over a half completely unaware. While there was a conflicting opinion about the usefulness of the course, a thorough evaluation of the course is needed to assess the experience of course participants in terms of how the course related and influenced their practice.

Considering the low levels of awareness, the extent of motivation to enrol in a course was not promising. Gender, age or presence/absence of reported injury did not significantly affect motivation. Most organisations exhibited similar low levels of awareness and motivation. There was a general feeling that farmers were swamped with courses seen as often being useless, which was contributing to this lack of motivation.

Common Sense

The comments provided by the respondents gave a good insight on their opinion and attitude towards safety issues. The overwhelming response has been the need for 'common sense' to prevail, which was more helpful than any course. In fact, when respondents were asked to name information sources they used to inform them on safety issues, the third most frequent answer given was "common sense and life experience". This was very reflective of a culture where independence, self-reliance and autonomy were highly valued. This culture also explained the farmers' resentment of regulations imposed on them by government or other departments. Restrictions in time and financial resources made it difficult for farmers/horticulturists to keep up with all regulations and their changes. It was suggested that a more

streamlined process was needed to get all information and changes direct to farmers in an easy to digest method.

Employees

It seemed when employees were involved, owner-managers perceived the likelihood of injuries to be greater. In this survey, twice as many reported injured were employees/contractors (59%) compared with owners (29%). While the information on the proportions of farms with employees was not easily accessible, it seemed that such surveys were more likely to be completed by owners regarding their employees rather than themselves. Day et al. (1999) reported that farmers who were more amenable to adoption of farm safety measures were those with employed labour (rising workers' insurance premiums) and they were likely to view risk management as an integral part of good farm management. It was interesting that owners reported that four percent of injuries on their farms were of unknown intent, ie injuries caused by off-farm activities and yet claiming workers' compensation for them. This seemed to reinforce what was reported in the literature that workers' compensation data was misleading when used to extrapolate injury incidence.

Child Care

Child care seemed to be an important barrier for female farmers to access courses. Lack of access to childcare and cost of childcare, has been highlighted in a number of studies (Day et al., 1999; Kilpatrick, Johns, Murray-Prior & Hart 1999). However there is a recent initiative "Farm-based child care" that provides child care to isolated farming families on their properties on a regular basis for special circumstances, such as cattle mustering, harvesting or field days (Commonwealth of Australia, 2002). "Access to child care is particularly important to help ensure the safety of children while both parents are working during peak periods. Child care workers provide full or part-time care for periods ranging from several hours a day to several weeks at a time". It would be interesting to know how many accessed this service from WA, considering the lack of knowledge about it, which was exhibited in this survey by those who needed it.

Drawing on the success of the workplace health promotion on diabetes (Aoun & Johnson 2000), two strategies among others could inform safety promotion: the first one being that the health initiative was topic-specific.

1) Immediacy of Health promotion/Safety Promotion

It was advised that programs targeted towards men needed to be topic-specific as general health checks would be less likely to attract compliance. It is possible that Managing Farm Safety course was too general and was not seen focused on any particular topic of interest mentioned by farmers in this study. Thus the likely benefit of a general coverage was not seen concrete enough to translate knowledge into action. The course did not seem to appeal to men's learning style, which was skill-based and more topic-focused. A report on research and development of on-farm sustainable practices has recommended that practices with outcomes that were 'soon' and 'certain' were the most powerful drivers for rapid adoption, rather than practices with less immediate and diffused consequences (Department of Agriculture, Fisheries and Forestry Australia, 2002). It was clear that the four highest ranked topics of interest as reported by respondents in this study would deliver 'soon and certain' outcomes: Chemical handling/ spraying/ storage/ long effects; Machine safety/ operations /management/ hazards; Legal requirements/ liability/ risk management/ insurance/ regulations/ bureaucracy; and Tractor safety/ operations.

2) Alliances

The second strategy for success of the health initiative (Aoun & Johnson 2000) was the commitment of organisational management of the mining and manufacturing industries to bring the health promotion to the workplace and support their workers. Obviously these industries had an ability to address health and safety issues by the use of organisational policies, standardised equipment and compliance with standard practices, which the farming/agricultural industry did not have. Farmsafe WA and the peak farming organisations need to form effective alliances to achieve an acceptable standard of adoption of safe practices.

In their most recent strategic plan (2001), Farmsafe WA reported having formed alliances with a number of peak organisations, two of them have taken part in this study, the WA Farmers Federation and the Pastoralists and Graziers Association. While it was expected that such an alliance would be reflected in

better awareness and motivation levels, respondents from these two allied organisations did not fair better than those in non-allied organisations, such as the Fruit Growers and the Wine Industry. For instance, The WA Farmers Federation members (79%) and the Fruit Growers (77%) equally topped the list of those who were not motivated enough to leave their contact details for information on the course; larger proportions of the Pastoralists and Graziers Association (50%) were not aware of the existence of the Farmsafe course compared to the Wine Industry (42%). It seemed that this alliance was only operating at the bureaucratic level and not infiltrating down to those at the forefront of safety issues.

Discussions have taken place in 2002 to form a WA Farmsafe Alliance which would “increase the capacity and opportunity to enhance the investment in farm safety and improve the coordination of research and communication activities”. While Farmsafe WA would be the principal organisation, charged with the responsibility of establishing, administering and maintaining the Alliance, the key partners mentioned were the WA Health Department, Worksafe WA and the WA Department of Agriculture (Frost, 2002). It is vital that the opportunity is not lost here and that the peak organisations, such as the ones who participated in this study, become key partners in order to provide representative farmer input from the grass roots level, and for this Alliance to succeed.

Application of model of behavioural change

More publicity on the role, functions and course of Farmsafe WA needs to be undertaken through the media and the special agricultural publications, which were the reported preferred sources of information, in order to reach the majority of farmers who are still unaware. Effective collaboration needs to happen between Farmsafe WA and the peak organisations to channel safety messages and identify training needs to help improve participation. Such publicity and collaboration prepare the groundwork for safety promotion programs like the current one and greatly influences their success. Farmers’ behaviour modification can only be influenced in stages. What this publicity/collaboration will be able to achieve is to move these farmers from the “precontemplation” stage to the “contemplation” stage of behaviour change (Figure 1). At least this could change some of the fatalistic attitudes listed in Appendix 2. In turn, safety promotion programs will be able to move these farmers to one more stage, the “determination or preparation” stage, where a person makes a serious commitment to change. In this context, this would mean an increase in the uptake of farm safety courses as farmers would have been adequately prepared to reach this stage of behaviour change. Under the current climate, while that first stage is still missing, it

Acknowledgements

The authors would like to acknowledge the financial support of The Rural Industries Research and Development Corporation (RIRDC) and the cooperation of the following organisations: Farmsafe WA, The Milk Industry Liaison Committee, The WA Farmers Federation, The WA Fruit Growers Association, The Margaret River Wine Industry Association, The Margaret River Regional Producers Association, The Potato Growers Association of WA, the Pastoralists and Graziers Association of WA, Flowers West and the Lions Clubs of Brunswick and Donnybrook. Special thanks to the participating farmers/growers who enriched the project with their feedback.

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Appendix 1

Comments on factors discouraging attendance

- *The course has too much theory, not enough practical.*
- *I am being trained out of existence.*
- *Hasn't been convenient when I have 2 small children and they have never been put in child care*
- *We learned to look after our own farm safety, as these ideas were not thought of most of my farming life.*
- *I'm not sure whether I agree with courses, as farm safety is really just common sense.*
- *Because of low returns and high costs, we are under staffed, therefore time for extra courses is hard to find.*
- *Much information can be obtained without having to attend a course*
- *We are very keen to implement safety awareness but have found it difficult to source basic information.*
- *Most courses finish up being expensive to implement or making increased work with more documentation.*

Comments on factors encouraging attendance

- *Being paid to attend plus paid travel and accommodation.*
- *If cost of paying someone to do my work while I was at a course was reimbursed.*
- *Course that deals with matters appropriate to my business.*
- *How to run safety meetings and motivate staff.*
- *We are a small family business with limited time and budgets, we participate in courses we feel are relevant to our business.*
- *Must be in a slack period Feb-March/ in the off season/ when not busy (winter)/ evening classes.*
- *Dairy farmers cannot attend during milking times.*
- *More practical demonstrations*

Appendix 2: Comments of farmers/growers about the following issues

Farmsafe WA/Worksafe WA

most people here think Worksafe WA are a disciplinary organisation; lack of compassion in some reported incidents involving family member;

I found that when I was after information from Worksafe, they were not helpful

I already requested information some six months ago - Farmsafe WA appears to be run by journalists

Opinion on training courses

every man and his dog is trying to run training courses about everything and most are a waste of my time and resources.

courses give you a 400-page manual that takes a week to read and tells you bugger all; I am trained out of existence

it seems to me that we are asked to attend courses for many things with no benefit because we have already been provided with the information through other courses

we participate in courses we feel are relevant to our business, courses with more practical demonstrations

Common sense

After 45 years in farming and not having had any serious accidents, most safety is common sense and don't hurry or rush a job

We have raised 4 daughters, now all married to farmers without one accident, hopefully all 9 grandchildren are also being taught about the great attribute - common sense

What happened to common sense and taking responsibility for your own actions

I would participate only if forced to, as no accidents have occurred in past 50 years

Common sense if preferable to Worksafe and Farmsafe

Government regulations

this is just another project for government to 'stick their nose into'

less farmer 'parasites' hence less stress

we are threatened by the influx of many new laws, which take away the worker's sense of responsibility for himself and for traditional common sense approaches; why are the agendas run by lawyers and insurance companies and not by common sense?

By the time we complete all courses, do GST and other paperwork besides farm work, our best 'farmsafe' is to have some rest and sleep

Employees

my awareness of safety issues is not having any employees; careful screening of employees is needed

Worksafe/ Farmsafe should prepare a generic brochure for backpackers, outlining expected work practices and what assistance is available

A subsidy program for farm employees to also attend these courses so they are aware of their responsibilities also

How many non-worker compensation accidents have been claimed on worker's compo or have tried to be claimed? I believe there are many, some coming from sporting activities, others from off-farm activities

Child Care

school holidays are a hazard. Much of the work stops while I look after our child.

Day care not suitable, do some parents leave children unsupervised?

Fatalistic attitudes

I guess if an accident is meant to happen, it will happen! When it is your time to go, you can't do much about it!

I'm pretty well aware of all dangerous and potentially dangerous situations I might get into, but sometimes someone may be careless or tired and no amount of training can overcome that. Minor scratches, burns, bruises etc. are all part of occupational hazards. Major accidents are likely to happen to even well trained and prepared people".