

## **Inquiry into the Cause of Fatality and Injury on Victorian Farms.**

### **Introduction.**

Material in this submission has been arrived at through discussion with members, many of whom are active farmers, through reports of Farmsafe activities and reading of literature as listed in bibliography and newspapers. We do not have the resources to collect empirical data so it tends to be anecdotal. Farm fatalities account for a disproportionate number of deaths compared with other industries. One third of all workplace deaths occur on farms yet farmers and farm workers make up just 5% of the State's male workforce. (Source Workcover website.) So far this year in Victoria there have been 7 deaths on farms; four have been due to tractor or bulldozer accidents. (Shepparton News 17-11-03.) Workcover claims for injuries probably do not show the full extent of injuries because most family farms have self-employed and unpaid family members.

### **1. Main Causes.**

- a) The Farm tractor and its implements are a major cause of farm fatalities and injuries. The introduction of roll-over protection bars has seen a decrease in these numbers but accidents still occur.
- b) ATV's All Terrain Vehicles despite their name are in fact not all terrain and are inherently unstable because of their high centre of gravity. They are easily tipped over and require a high level of skill and dexterity to drive them. Frequently they are treated as fun vehicles driven at speed and by children without helmets and safety considerations. In fact they were originally developed as fun machines but have now become work machines with equipment attachments. For Australia there were 24 fatalities from ATV's in the period from 1st July 2000 until 30<sup>th</sup> Dec 2002, an average of 10 per year. There were also about 590 hospital admissions of ATV related injuries. (2. MUARC)
- c) Animals are unpredictable and need to be carefully handled. A Jersey Bull is considered as dangerous as large machinery. Sheep have also been known to break bones when they have charged people.
- d) Farm Chemicals, Pesticides, herbicides and fertilisers. The actual direct poisoning rates through ingestion are low (accounting for 1% of hospital admissions NRCOHSR Working paper OHS Implications of the regulation of Agricultural Pesticides p51) but there is evidence of health problems associated with long term use and exposure to chemicals.
- e) Child fatalities are mainly due to drowning and crushed by machinery. Also incidents of being thrown from trailers and utilities.
- f) Suicide. Members are alarmed at the recent increase in rate of adult male farmer suicides particularly in areas hardest hit by drought and last season's bushfires. Anecdotal evidence indicates there are more suicides in grain and fruit growing areas. Could this be linked to the use of chemicals that cause depression? Many single vehicle accidents on and near farms could be suicides. More research needs to be carried out.

## **2.Matter and type of injuries.**

- a) Tractors cause serious crush injuries and broken bones.
- b) ATV's cause crush injuries also hand and foot injuries when vehicle rolls over and occupant thrown off. Often the crush injuries to the chest will lead to a heart attack resulting in the death being classed as heart attack not ATV injury.
- c) Falls from a height account for many injuries. This would include from silos, sheds, large machinery and windmills. (Still in use though often replaced by electric and solar pumps.) Falls and crush injuries account for around 80% of injuries. (Farmsafe)
- d) Organic phosphates have been linked to serious illness and suicides especially shearers. These toxins cross into the brain and cause damage to neurones, which can lead to depression and illnesses like Parkinson's disease and Multiple Fatigue. (Work done by Prof P.Behan Glasgow Univ. Also work done by Newcastle Uni , Flinders Uni and Charles Sturt Uni)
- e) Cancers and chronic illnesses from long term exposure to chemicals. It is very difficult to put any figures on this because of the problems of sourcing accurate data and the long lead time from exposure to symptoms of disease.
- f) Repetitive strain injuries and wear of joints. The shearing industry is linked with bad backs. Farming involves a lot of heavy lifting and physical effort, all of which leads to wear and tear on the body. Long hours sitting on vibrating tractors and trucks has been linked to arthritis.
- g) Minor injuries often overlooked but which impact on farmer's ability to work include cuts, sprains and debris in eyes.
- h) Two thirds of farm deaths are young people or older than 55 years of age. Safety awareness needs to be focussed on these age groups.

## **3.Current programs**

- a) Chemical Users courses. These are very good for providing farmers with knowledge for safe handling of dangerous chemicals. They have raised awareness of chemical issues. They are mandatory before farmers can purchase certain more dangerous chemicals. However they are expensive in terms of farmers' ability to pay for them. Farmers are reluctant to take time off from farm jobs to attend classes. Sometimes farmers start with the basic course but do not complete for all chemicals. Many farmers who are not using the specified category chemicals, are not completing farm chemical user's certificates and thus are not aware of the advice on wearing protective clothing. There is the assumption that if a chemical is not on a specific list that it is safe. This was the case with glysohate, however it was found that solvents in this spray can affect health. The chemical company acknowledged this when they reformulated glysohate, advertised as being so because it affected frogs, failing to alert users that people have similar membranes to frogs in their mouth, eyes, nose etc.
- b) Honda Australia Rider Training run driver education courses for motorbikes and ATV's. This course was set up after an approach from Ag Health unit in Moree NSW. Lack of Government funding has hindered progress. Unfortunately farmers do not attend these courses. This is possibly because of the cost, over \$100 per day. Those who do attend have included police, Melbourne Water, Parks Victoria and DNRE and Powercor. These are all workers where the boss has paid for the training. Honda has produced posters depicting safe driving practices.

- c) Farmsafe initiatives. Increasing awareness of farm safety. Risk analysis of hazards on farms. Forums and Conferences bringing together a variety of interests and organizations looking at farm safety.
- d) The Country Women's Association has long promoted awareness of farm safety issues. Several years ago CWA of Vic. Inc. conducted a series of Farm Safety days across the state. At Bunyip in Gippsland this event was held at the local primary school. Children were bused in from neighbouring school. The children were rotated through a series of demonstrations and talks by local firms selling chainsaws, mowers and spray equipment; all giving the safety measure. It was such a successful day that fathers still complain about their children nagging them to use earmuffs and other safety equipment.  
These events raised awareness of farm safety issues though in many cases it was felt that they were preaching to the converted.
- e) Shearers. Ballarat University research on measures to prevent back problems. The AWU and Worksafe Victoria have developed a Code of Practice for the shearing industry work. This addresses the cause of injury through better design of workplaces and systems of work. It provides a valuable model.
- f) Scholarships to encourage study of health and safety issues on farm. Eg. last year AWU offered 3 scholarships to CWA members to study occupational health and Safety Management. At Ballarat University.
- g) Field Days are important for dissemination of information to farmers. They provide the opportunity for practical demonstrations and for questions to be answered.

#### **4 Impediments to sustaining improvements in farm safety.**

- a) Poverty of farmers and poor commodity prices. While farmers are under financial stress (exacerbated by drought) safety will have a lower priority. Poverty means making do with older equipment, cutting back on maintenance, doing the job yourself rather than hiring extra help.  
Some poorer farmers were unable to take advantage of the ROP subsidy because could not afford to take up the offer.  
Farmers often work alone because the wife is away earning off farm income. This means that if an accident occurs it might mean delay in discovery and calling assistance.  
Frequently farmers have outside jobs to provide extra income. This means that farm jobs are squeezed in before and after work with the consequent hazards of fatigue and rushing, with slower reflexes and lack of attention to safety details.
- b) Chemicals.  
There is a complex regulatory framework for agvet chemicals. At the moment there are over 60 Commonwealth and State Acts, Regulations, Standards and Codes of Practice relating to the supply, handling, use, storage and disposal of pesticides. There is a lot of overlap and inconsistencies with different enforcement cultures. With so much fragmentation and complexity it is no wonder that farmers are confused about what they need to do to comply with safe use requirements for farm chemicals. ( Healey & Gunningham p.10 -12.)  
There is a reliance on changing farmer attitudes and practices with chemicals, but a lack of regulatory incentives for them to comply.  
Warnings on label often written in fine print and complex language. They need to be in plain English and easily interpreted by the farmer.

Cavalier attitude to chemical safety, ‘if a little bit is good more will be better’, lack of attention to details and lack of use of protective equipment.

c) Farmer attitudes.

There are several things involved here. The historical context is important. Farms have traditionally been passed down through generations, with perhaps a slow acceptance of new ideas and ways of doing things. Farmers have worked independently on their isolated farms jealously guarding their independence from outside interference. The fact that the farm is a home as well as a workplace, blurs the usual employer/employee relationship of other workplaces and it makes it hard to apply the Occupational Health and Safety model.

Farmers may have a lack of perception of hazards. “Have always done things this way and don’t see a need to change.” eg the practice of farmers feeding out on the back of a vehicle which steers itself in low gear.

Accidents happen to other people. I am invincible.

d) Workcover is under resourced. Farmers have to comply with Occupational Health & Safety Act 1985 Legislation but the diverse and isolated nature of farms makes it very difficult to inspect farms for breaches of the Act. Further farmers resent the idea of inspectors coming on to their property and telling them what to do.

e) Difficulty of attracting and keeping doctors and medical services in rural areas is impacting on farm communities. Often they have to travel long distances or wait several days before getting an appointment so will not bother to seek medical treatment until they become really ill.

**5. Financial and social cost.**

Every injury and death results in Workcover or Social Security costs. The cause of an accidental has to be investigated by the Coroner. The family needs financial support. When a farm is sold following a death or injury a neighbour often buys it out. The family moves out and the community is the poorer. Families do not “get over” grief, they just adapt to new life circumstance.

Communities suffer emotional trauma when a member is killed or badly injured. Sometimes neighbours will rally around and assist in putting in or taking off a crop. This sort of assistance is usually only sustainable for a short term. There is an enormous cost in supporting injured workers with Workcover payments. Some people with back injuries receive payments for years. As it is many claims are not made because of the self-employed and family structure of most farms.

**6 Strategies to reduce injuries and deaths.**

a) Education.

This is a very broad approach starting with general safety.

The four A’s of any safety program are Attitude, Awareness, Anticipation and Avoidance.

- In schools. Children can be powerful voices in urging parents to don protective gear and do the right thing.
- Agricultural colleges.
- There is a need for more farm safety courses at prices that farmers can afford. There needs to be accreditation given for courses done and incentives to undertake them.

- Forums and Conferences e.g. the Farmsafe Conference held at Colac in Aug 2003. These are especially valuable when they involve speakers from all different fields, Local Government, Worksafe, farmers, manufacturers, Unions and Occupational Health and Safety people. They provide a co-operative approach to problem solving.
- Farm Apprenticeships need to be reintroduced. This need to take 3 years as farming is now a very technical business requiring many skills including management.
- Field days provide valuable way to get messages to farmers. Practical demonstrations are possible e.g. for safe handling of equipment like ATV's, chain saws, and other equipment.
- Organizations like CWA can do a lot to raise awareness of farm safety issue. This can be done at Conferences, special events, through information provided in newsletters and magazines. Also by having representatives on bodies like Farmsafe there is a channel for information sharing.
- Funding for these educational programs could be by Grants from Governments or Foundations. Farmers are reluctant to take courses if they have to pay too much for them and also have to forego a day's work to attend. Local Government can play a role here in sponsoring farm safety days and Forums.

b) Legislation/ Regulation.

Mandatory Legislation needs to be clearly set out in plain English with clear guidelines for compliance. Is there a need for tests of competence to use farm machinery? Tractors require a license if driven on a public road. Should there be a license test to be passed before people can drive ATV's?

Legislation is an effective way to ensure safe design features of machinery. It sets the Standard. It is easier to legislate to ban dangerous equipment than to change the operator's attitude to its safe use.

Standards should be reviewed periodically to bring them up to date with the latest safety technology, eg safer designs for mounting tractors and trucks to relieve fatigue of drivers climbing in and out all day.

Helmets should be considered part of the equipment, which goes with ATV's and Motorcycles.

Roll Over Protection Systems, which include a harness seat belt, should be mandatory for ATV's.

There needs to be a review of legislation relating to agvet chemicals so that there is an integrated system of operating principles and a lower number of regulatory bodies. This would make communication of the regulations simpler for all stakeholders and make for easier checks of compliance.

It is noted here that in discussions with farming families it was made very clear that farmers are fed up with bureaucracy and form filling. They feel that they are being over regulated. They need permits to lop dangerous branches, to rip rabbit burrows, to bait foxes, to plough paddocks with native pasture and certificates to use farm chemicals. They have to send in quarterly BAS returns and countless statistical forms to complete.

- c) Adequate farm income and appropriate commodity prices.  
This is difficult because it involves international trade deals and consumers paying more for farm products. Farmers often sell their products for little more than production costs. Making ends meet will always have a higher priority than safety in the short term. Farmers need to be able to negotiate directly with large supermarket chains to ensure they get a fair and realistic price for their goods. The drought and lack of financial support has caused much stress in farming communities. It seems that the most competent farmers are the biggest victims.
- d) Child safety on farms.  
The farm needs to be seen as a work place and so clear rules need to be established by families about where children can play and activities they can be involved in.
- i) Most important is the provision of a safe house yard for children to play in. This yard needs a childproof fence with a self-closing, self-latching gate the same as is used for home swimming pools. This would prevent toddlers from wandering off and drowning in farm dams or being run over by large machinery. This safe play yard needs to be of a reasonable size and placed so that it can be readily visible from the house. It needs to include safe and interesting play activities but not include structures that can be moved and stacked together so that the child can climb over the fence. It should exclude water, farm vehicles, sheds chemicals and working dogs. ( State Coroner's Office and Department of Human Services Report1 Unintentional Drowning: Toddlers in dams in Victoria 1989-2001. P5) `Drowning is the leading cause of toddler deaths on farms. Very few toddlers drown in moving water, (the sea or rivers) because there is a perception that these are dangerous and closer supervision is taken. There needs to be an awareness that still water can be just as dangerous.
  - ii) Children under 16 years of age should not drive or ride on tractors or ATV's
  - iii) Helmets should be worn when children are riding horses or bikes.
  - iv) Children should always be buckled up with seat belts. This means no riding in the back of utilities and trailers.
  - v) Children under 14 years of age that are helping with farm jobs or working with stock need close supervision.
  - vi) If the mother is needed to help on the farm then adequate childcare arrangements need to be made another family member, neighbour or babysitter. While "safe rooms" in dairies are better than nothing they are not ideal. The mother will not be able to give her full concentration to the task in hand.
- e) Protective behaviours. Farmers need to be encouraged to develop risk assessments. To meet their OH&S responsibilities. They need to be aware of potential hazards and develop practical plans and strategies to deal with the hazard. This is the same as they are encouraged to develop fire plans should a bushfire occur. There may be a need for an accreditation scheme for farms. Some firms (Nestle) already carry out accreditation for their supply farms.  
Perhaps when farmers have assessed the potential hazards on their farm they could be set out on a poster and put on the toilet door as a reminder. There is also a place for reminder stickers on equipment and in workshops. Things like Think Safety, Wear your helmet, Bend your knees when lifting. It may sound trite but it could also prevent an injury or worse.

There is a need for attention to detail and full concentration on the task in hand. This prevents things from going wrong in the first place.

Responsible attitudes need to be fostered. Safety is everybody's responsibility, not just the employer. People need to learn to take responsibility for their own actions.

Ageing farmers need to be made aware of the effects of reduced mobility and slower reflexes for it is the older farmers that account for most of the deaths and injuries.

- f) Chemical exposure register.
- g) There needs to be a nationally comprehensive collection of data, (by product, crop, pest region and method of) to indicate pesticide use in Australia. There needs to be a system for reporting and recording adverse incidents involving pesticides. Without this information it is not possible to determine the nature and extent of chronic poisoning caused by pesticide exposure (see. Footnote 13 Working paper OHS Implications of Agvet Chemical Regulations. P51) Blood tests to determine chemical exposure should be covered under NHS. At the moment they are regarded as screening tests so are done at own expense. Blood tests should be routinely carried out for those users who are most at risk. There are many chemicals that in the past were thought to be safe but have now been found to be carcinogenic.
- h) Protective equipment.  
Farmers need to be encouraged to always use protective equipment like helmets, seat belts, ear and eye protection, face shields when welding and full protective clothing when using chemicals. Helmets do not protect heads when they are sitting on a shelf collecting dust.
- i). There needs to be more funding provided for research into new technology for agricultural and pest control to replace the use of dangerous chemicals.

### **Summary.**

The main causes of farm deaths and injuries are farm tractors and the implements attached to them, All Terrain Vehicles and farm animals. Agvet chemicals do not cause many direct deaths but much more research is need on the effects of long term use and exposure. Injuries range from sprains and strains to broken bones, crush injuries and chronic diseases. There are many good programs working toward creating safer working conditions on farms. The Farm Chemical Users Certificates and safety training certificate courses provide knowledge and skills for farmers. Farmsafe has many good initiatives. Codes of Practice have been developed for the shearing industry. Forums, Field Days and Conferences and organizations like the VFF and CWA all raise awareness of farm safety issue.

Impediments to sustaining improvements in farm safety are as follows.

- Poverty of farmers and poor commodity prices.
- Lack of an integrated and comprehensive regulatory framework for agvet chemical.
- Farmer attitudes, don't see the hazards and lack motivation for change.
- Loss of medical services in rural areas.

There are enormous costs involved in supporting injured workers on Workcover. Far better to prevent accidents in the first place.

Suggested strategies to reduce injuries and deaths are;

- Education from school children through to agricultural colleges and short farm safety courses. There is a need for Forums, Field Days and Conferences involving

all stakeholders and fostering a cooperative approach to problem solving. Three year farm apprenticeships are recommended.

- Legislation/Regulation is vital for setting standards for safe machinery design and procedures. Effective enforcement is necessary. Simply making more rules is not the best solution for improving safety. Farmers are fed up with bureaucracy and regulations.
- Adequate farm income and appropriate commodity prices are needed so that farmers can give safety a greater priority. At the moment they work long hours and make do with inferior equipment because they can not afford to hire help and replace old gear.
- Children could be made safer on farms with some simple measures. A safe house yard with self-latching self-closing gates and unclimbable fences would reduce many drowning in farm dams and being run over by vehicles. Children under 16 should not drive or ride on tractors or ATV's and children under 14 should always be supervised when helping with farm work. Helmets and seatbelts need to be used. Adequate child care arrangements need to be made if the mother is doing farm tasks.
- Protective behaviours need to be developed by farmers. These include developing risk assessments and safety plans. Safety is everybody's responsibility.
- There needs to be a national register of agvet chemical use and also a system for reporting and recording adverse chemical incidents.
- Protective equipment use needs to be encouraged.
- Funding is needed for research into smarter ways of doing things, for developing safer working systems and reducing the need for the use of harmful chemicals.

#### Bibliography.

1. National Research Centre for OHS regulation Working paper 8 OHS Implications of Agvet Chemical Regulation Aug 2003 Pat Healy and Neil Gunningham.
2. State Coroner Victoria & Department of Human Services Report1 Unintentional Drowning: Toddlers in Dams in Victoria. 1989-2001.
3. Monash University, Accident Research Centre All Terrain Vehicle Injuries and Deaths. March 2003