

Farm Safety Guidelines

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Farm Safety Guidelines

1. Preamble

- 1.1 The Australian agriculture and horticulture industries are viewed as having one of the highest rates of workplace accidents, in terms of its occupational health and safety performance. The University of Western Sydney offers tertiary education and training in agriculture and horticulture and is obligated by the *Occupational Health, Safety Act 2000 and OHS Regulations 2001* to ensure that high standards of safety are maintained. In particular the University is obliged to ensure that:
 - 1.1.1 Wheeled tractors are fitted with a protective cab or frame called “roll over protection structure” (ROPS)
 - 1.1.2 Power driven machinery and equipment is securely guarded.
 - 1.1.3 All pesticides and toxic substances used by employees and students are stored, handled, used and disposed of in a manner that does not create a risk to the health of others or degrades the environment
 - 1.1.4 All buildings, including silos have safe access and egress, especially where steps and ladders, are required.
 - 1.1.5 Appropriate and serviceable personal protective equipment is provided to undertake work on farms in a safe manner.
 - 1.1.6 Materials manual handling procedures are developed and followed so that the risk of injuries is reduced when handling livestock, machinery and products.

2. Aims

- 2.1 Legislation requires employers/managers to implement a risk management approach to health and safety hazards in all workplaces including farms.
- 2.2 The underlying principles of risk management relates to:
 - (i) Identifying Hazards
 - (ii) Assessing Risks and
 - (iii) Controlling Risks

- 2.3 These principles also underpin best practice in Agricultural Occupational Health and Safety management across the university by:
- (i) Defining practicable, feasible and sustainable safety solutions
 - (ii) Evaluating emerging technology
 - (iii) Perceived economic impact of injury/illness
 - (iv) Consult with farm staff and advisers
 - (v) Availability of relevant OH&S training and management resources
 - (vi) Establish and maintain procedures for identifying OH&S hazards, assessing risks and maintaining the most appropriate control measures.
 - (vii) Establishing and maintaining an OH&S Induction and training program
 - (viii) Establishing and maintaining procedures for dealing with OH&S emergencies on the farm.

3. Responsibilities

- 3.1 Current government legislation, Australian Standards, Codes of Practice and UWS Policies and Procedures set out responsibilities in respect of aspects of farm safety. The most general are:
- (i) *NSW Occupational Health & Safety Act 2000* this identifies responsibilities of the employer, managers and supervisors of the employer, for the health, safety and welfare of staff and the health and safety of non-employees (students, members of families of staff, etc.). The University is required to ensure the health and safety of staff and students and to provide instruction, training, supervision, information and safe systems for work.
 - (ii) UWS commits to the conformity with legislation about occupational health, safety and welfare to those established good practices, and this document provides general guidance to staff throughout the University concerning their individual and managerial responsibilities.

4. Procedures

- 4.1 Wherever possible, the hazard should be removed or overcome by engineering methods or operational strategies. Personal protective equipment should only be used as a second option.
- 4.2 **Occupational Health Accident/Injury Reports:** Managers must also remember that OH&S legislation requires employers to record all accidents, injuries, incidents, hazards and workplace diseases and to report injuries to the OHS&R Unit.
- 4.3 It is an offence to allow passengers (including children) of any age on a tractor, unless each passenger is sitting in a proper seat that has been shaped or fitted with a backrest so that the person will not slip out of the seat. Passengers also need adequate and convenient footrests and handholds.
- 4.4 Accidents/injuries when handling animals may be directly or indirectly caused by:
- (i) Poor design of yards, races or crushes leading to animals baulking and handlers becoming frustrated and stressed.
 - (ii) Insufficient strength or choice of materials in the structure and in fittings, leading to breakage.
 - (iii) Inappropriate gate latches and wrongly swung gates.
 - (iv) Slippery surfaces or boggy conditions.
 - (v) Poor lighting.
 - (vi) Lack of escape routes for the handler.
 - (vii) Lack of shade and water for stock and handlers.
 - (viii) Obstructions and rubbish.

4.4.1 NOTE: See First Aid Procedures for further details.

5. Farm Safety

- 5.1 The following is a practical guide dealing with major aspects of farm safety.
- (i) Farm work will involve undertaking a range of different tasks under a variety conditions in the course of a typical working day,

and between seasons, and is often undertaken in physical isolation, requiring a higher level of OH&S protection.

- (iii) Farm workplaces and work processes are often less amenable to control e.g. climate, working with animals etc. Therefore OH&S induction and training should be undertaken before new staff and students commence farm work.

5.2 **Workshop Safety:**

- (i) Wearing of earplugs or earmuffs, safety glasses/goggles must always be worn by anyone using power tools e.g. grinding or cutting etc.
- (ii) Work or tool rests and guards must be fitted to equipment where appropriate.
- (iii) Hand held tools should be maintained in good condition and regularly tagged and tested, and any tools that require repair must be reported to the staff member in charge.
- (iv) Hand tools should be held correctly, used only for the purpose for which they were manufactured and in accordance with the manufacturers instructions.
- (v) Operators should always wear close fitting clothing including buttoned-up sleeve cuff, safety goggles or glasses, and earmuffs if the machinery is noisy.
- (vi) Workbenches should be kept clean and tidy and not used for storage.
- (vii) Floors should be clear of obstructions. Any oil, petrol or grease spills should be immediately cleaned up as a slippery surface could result in serious injury, and all incidents must be recorded.
- (vii) Work areas should be well illuminated and ventilated and have a safe means of access and egress in the event of an emergency. See the UWS Emergency Management Plan and procedures for further details.
- (viii) Small quantities of fuel, oils, solvents, cleaning fluids, acids etc. should be stored in approved containers in a cool, well ventilated area, preferably out of, but adjacent to, the workshop. Larger quantities should be in a separate store away from other buildings.

5.3 **Farm Machinery/Plant Safety:**

- (i) Operator training, including familiarisation with the manufacturer's operating instructions must be available for all new staff and students.

- (ii) Ensure that the correct type of motor is selected for the conditions under which it will operate. Only fully enclosed motors should be used in dusty locations, and in areas where hoses are used for washing out.
 - (iii) Regular maintenance to minimise breakdowns and unscheduled field maintenance.
 - (iv) Correct adjustment of machine controls while the machinery is stationary.
 - (v) Lubrication and adjustment only while the machinery is stationary.
 - (vi) Guarding of all hazardous situations while the machinery is moving. If the machine can catch, cut, crush or strike it should be guarded.
 - (vii) Clearing blockages only when the machinery or equipment is stationary.
 - (viii) Use the recommended personal protective equipment.
- 5.4 **Electric Fences:** If electric fences are not properly constructed they can be lethal. Before buying check with the retailer that the fence energizer conform to AS3129, and if any doubts exists consult the supply authority. Make sure that the fence is adequately sign posted.
- 5.5 **Motor Vehicle Safety:** It is prohibited for staff, students, visitors or children to travel on the back of a utility vehicle or open tray style truck or tractor at anytime.
- 5.6 **Tractor Safety, front-end loaders, forklifts:**
- (i) Ensure proper training and supervision for tractor drivers.
 - (ii) Ensure that only licenced persons operate front-end loaders and forklifts, and that licences be available on request.
 - (ii) Wear close-fitted clothing.
 - (iii) Ensure rollover protection (ROPS) structures are fitted.
 - (iv) Always sit on the seat when riding in the cabin or within the ROPS envelope of safety.
 - (v) Never allow passengers to travel on the draw bar between the tractor and the towed machine.
 - (vi) Drive at speeds slow enough to retain control in case of the unexpected.
 - (vii) Reduce speed before turning or applying brakes.
 - (viii) Ensure that all power-take-offs are correctly guarded.

- (ix) Do not leave the engine running when the plant equipment is in a confined space – carbon monoxide is lethal.
- (x) Stop the engine before degreasing and refueling.
- (xi) Do not work on or under a plant equipment while the engine is running.
- (vii) Check that the power take-off is guarded.
- (xiii) Always back up tractor on steep slopes – if the rear wheels slip or spin, abandon the attempt.
- (xiv) Drive carefully when near edges, ditches, embankments or depressions in the ground. Never drive close to the edge of a trench, ditch, dam or riverbanks.
- (xv) Ensure the tractor's front wheels are kept on the ground by fitting towed attachments strictly in accordance with the manufacturer's instructions. Use drawbars fitted to tractor mounting points.
- (xvi) When pulling any bogged vehicle, it is better to use reverse gear and pull from a low hitch point at the front of the tractor, if one is fitted. Pulling from the front will stop the tractor rearing over backwards. When pulling in reverse, use the lowest gear ratio.
- (xvii) If you get bogged and cannot back out, seek assistance.
- (xviii) Be careful of overhead power lines.
- (xix) Constant exposure to loud noises can produce permanent hearing loss. Wear earplugs and earmuffs. Regular maintenance of the muffler helps keep noise down.
- (xx) A tractor must be stationary when being mounded or dismounted.
- (xxi) Do not use the right side because you may accidentally release the brake; the right side is crowded with controls – brake pedal, foot throttle, hydraulic controls – and you may catch your clothing in them. Always mound and dismount facing the rear wheels.
- (xxii) Keep all guards in place.
- (xxiii) Avoid improvised chocking when removing wheels – use a wide-base jack with adequate lifting ability
- (xxiv) Correct pressure can be obtained from the tyre fitment placard in the cabin or the side of the tyre.

5.7 Spraying

- (i) If you are spraying pesticides or herbicides, you must wear the equipment necessary to protect your eyes, skin and respiratory tract – even if the cabin is enclosed and air-conditioned. Do not regard the tractor cabin as an alternative form of personal protective equipment.

- (ii) Applying chemicals to crops, orchards, pests and noxious weeds can be dangerous. Chemicals must be applied at the rates recommended by the manufacturer. If the tractor cabin is equipped with air conditioning, you must regularly maintain the filters and check door seals for wear. The air conditioner should be set on "recycled air mode" and no windows, doors, hatches or vents should be left open.
- (iii) When safe to do so, regularly change the air conditioning mode to "fresh air", because constant use of recycled air will, over time, reduce the amount of oxygen in the cabin.

5.8 Hitching Implements Correctly

- (i) Fit all the attachments according to the manufacturer's instructions.
- (ii) Always use the draw bar, or the mounting points provided by the manufacturer, for attaching equipment. Do not use improvised methods.
- (iii) Do not alter, modify or raise the height of the draw bar outside those adjustments made possibly by the manufacturer.
- (iv) When the power implement's is attached to the tractor, be sure that all guards are in place before operating.
- (v) Do not attempt to adjust, or work on implements while they are in motion.
- (vi) Do not use or attach implements unless the power shaft, or power take-off shaft is guarded.
- (vii) Rotary slashers are particularly hazardous. They often have exposed blades, and may throw stones and hard objects. They are more dangerous if poorly maintained or not thoroughly checked before use, both to the operator and others working nearby.

6. Personal Protective Clothing & Equipment

- (i) Steel toecap boots are to be worn where necessary.
- (ii) Combination overalls or strong trousers and a long sleeved shirt
- (iii) Hat applicable to the job and weather conditions, perhaps on brim in the winter and wide brim and neck shield in the summer
- (iv) Leather gloves for handling sharp objects such as fencing wire.

- (v) For tractor work wear ear muffs as well if the tractor does not have good cabin insulation or if the transmission noise is excessive.
- (vi) While operating a motorcycle, ATV, and ride-on-lawn mowers the wearing of a well fitted helmet, earmuffs/ear plugs and glasses/goggles must be work at the time.
- (vii) For horse riding wear appropriate boots, long trousers and a long sleeved shirt plus an approved riding helmet.

7. Reducing exposure to noise

- 7.1 Wherever practicable, noisy machines should be replaced with less noisy machines.
- 7.2 Anyone who operates a tractor regularly without hearing protection will incur at least some hearing loss. All tractor drivers should protect their ears, either by wearing protective equipment or by fitting a noise-insulated cab to the tractor.
- 7.3 If noise cannot be reduced at its source, there are ways of reducing human exposure by:
 - (i) Keeping noisy machinery away from people, for example, placing generators away from sheds and workshops.
 - (ii) Placing acoustic screens between machinery and people.
 - (iii) Enclosing machinery with sound reducing materials.
 - (iv) Lining walls and ceilings with sound absorbent materials.
 - (v) Keeping people not involved in the noisy task away from noisy areas.
 - (vi) Rotating employees and/or students to limit the length of time any person is exposed to noise.

8. Storage

- 8.1 **Chemicals:** All hazardous substances and dangerous goods should be stored in their original containers, with their full labels and Material Safety Data Sheets. Particular products should be stored together, e.g. all herbicides together, all insecticides together, all pesticides together, etc.
 - (i) The chemical storage shed should be suitably ventilated, kept securely locked and appropriately signed so its hazardous contents can be quickly identified.

- (ii) A Material Safety Data Sheets Register is required for easy access in the case of contact or spillage and appropriate first aid, and making sure that MSDS's are not more than five year old.
- 8.2 **Hay and Fodder:** Storing of hay and fodder is at risk from internal combustion and from external ignition sources. If hay is stored before it is properly cured then it can ignite spontaneously from internal combustion. Care must be taken to ensure that all hay has less than about 18 per cent moisture before it is stored, hay sheds should be erected well apart from other farm buildings and fuel storage preferably downwind of them in case of fire.
- 8.3 **Shearing Sheds:** In a shed with shearing stands or a grinder powered by a belt driven overhead shaft, there are hazards associated with the:
- (i) Belt
 - (ii) Crankshaft of the combustion engine used to drive the plant
 - (iii) Pulleys on the engine or electric motor.
 - (iv) Pin drive shears be replaced with worm drive pins.
 - (iv) Grinder used to sharpen combs and cutters.
- 8.3.1 All these hazards must be guarded in an appropriate manner to prevent accidental injury to users or passers by.
- 8.4 **Dairy Sheds:** Dairy sheds present hazards such as:
- (i) Wet and often slippery floors.
 - (ii) Effluent disposal system.
 - (iii) Large heavy livestock that may be difficult to restrain or control.
 - (iv) Elevated and recessed work areas.
 - (v) Splashing urine and faeces.
 - (vi) The particularly hazardous combination of wet floors and 240V powered equipment.
- 8.5 **Animal enclosure yards/pens:** Hazards can include:
- (i) Slippery ground or concrete in the forcing and drafting areas.
 - (ii) Nails or bolts projecting through posts, rails and gates.
 - (iii) Gate catches and gate hinges which project into the line of movement of animals and handlers.

9. Manual Handling

- 9.1 Codes of Practice for Manual Handling provide minimum standards of health and safety, in addition to the legislation. Codes of Practice sometimes refer to obligations imposed by an act of parliament or regulations. Failure to observe these obligations is an offence against the act or regulation, but they do provide explanation and advice about the prevention of hazards and may be taken into account in a prosecution.
- 9.2 Legislation governing manual handling generally creates an obligation on employers to ensure that plant and containers, work practices, and the working environment are all-safe, and without risk to health and safety – as far as is reasonably practicable.
- 9.3 Some general principles for reducing risks associated with manual handling are:
- (i) Minimize the lifting and lowering forces exerted.
 - (ii) Avoid the need for bending, twisting and reaching movements, and
 - (iii) Reducing pushing, pulling, carrying and holding.
- 9.4. Use lifting aids if possible.
- (i) Allow sufficient space for lifting in the right position and with correct posture and body movements.
 - (ii) Avoid obstructions when moving objects.
 - (iii) Wherever possible, the start and finish height of the load should be a suitable level above the floor, that is, between mid-thigh and shoulder height, preferably at about waist height.
 - (iv) The center of gravity of the load should be as close to your body as possible. A load is more difficult to lift or carry if it is not close to the body.
 - (v) The back should not be twisted or bend sideways.
 - (vi) Lifting with one hand should be avoided.
 - (vii) If lifting has to be performed frequently or for prolonged periods, then the acceptable weight of the load rapidly diminishes.
 - (viii) Always consider your own body when handling stock and equipment and avoid putting yourself in a potentially dangerous situation, e.g. when blocking sheep in a race, use the outside of the

leg rather than the inside, to reduce the likelihood of damage to the knee and pelvic area.

9.4.1 **NOTE:** See Manual Handling Procedures document for further general information

10. Animal Handling

10.1 Lacerations, bruising as well as strained backs often occur when handling farm animals. Many of these accidents could be prevented if the animal handlers more fully understood animal behaviour, worked in a less stressful situations and had better designed or built handling facilities reducing the need for manual handling of animals by providing crushes, cradles etc.

10.2 The way animal handlers approach their job, their level of confidence, their understanding of animal's behaviour, and their attitude towards the stock, can all affect how animals will react to the handler. Similarly the design and type of handling facilities used by the handler e.g. a cattle crush or sheep-handling cradle will reduce the risk of injury to handler.

10.3 Good animal handlers are calm, move quietly and are in control of themselves as well as the animals. Animal handlers soon learn to stand or move behind the shoulder of animals to move them forward and stand in front of animals to move them backwards. They need to be aware of the innate behaviour of animals and to predict their behaviour in high-risk situations, and a risk assessment is advised.

10.4 The innate behaviour of animals often creates high-risk situations when handling:

- (i) Animals in close proximity, as in yards, stables or when confined on a truck.
- (ii) Entire males, especially bulls, rams, and stallions.
- (iii) Animals during mating and parturition.
- (iv) Animals in isolation.
- (v) Animals using inadequate facilities and equipment or in overcrowded yards.
- (vi) Animals when with inexperienced or uncoordinated animal handlers.

10.5 Specific examples of high-risk situations are:

- (i) Standing between a cow and her calf.
- (ii) Standing immediately behind a cow being milked for the first time.
- (iii) Children hand-feeding farm animals.

10.6 Cattle Handling: Improvement in animal production and safety will come about when animals are made maneuverable by early training and quiet handling. Good facilities and fencing will assist in this training. A basic rule for handling cattle is to work them steadily and quietly.

10.7 Horse Handling: Because of a horse's restricted vision, always approach at an angle, never directly from the front or the rear. Speak to the horse as you approach so as not to startle it.

- (i) The first contact with the horse should be on the shoulder or neck, rubbing rather than patting.
- (ii) A handler's actions around a horse will influence a horse's reactions.
- (iii) Riding equipment should be checked thoroughly and regularly to ensure that all buckles and stitching are sound, especially the:
 - (a) Lead collar
 - (b) Bridle including the bit
 - (c) Girth strap and buckles
 - (d) Stirrup leathers and stirrups
 - (e) Saddle cloth

10.8 Personal riding gear must include:

- (i) Long sleeved jacket and shirt and
- (ii) Long trousers for protection from the sun and falls, and
- (iii) Quality kid gloves to prevent burns and reduce bruising to the hand if much rope work or extensive riding is planned

10.9 Wear protective headgear at all times. Appropriate footwear is sturdy and has soles that will slide from the stirrups but with enough heel to keep your foot from slipping through the stirrup. Don't wear sandals or thongs at any time.

11. Further Information:

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