A handbook for workplaces
Quad bikes on farms

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Quad bikes help farmers tend to crops and livestock quickly and efficiently, but they also cause many farm deaths and injuries.

Each year around 18 people die in quad bike incidents in Australia and many more are injured. The emotional and financial cost is immense.

This handbook sets out legal requirements and ways to ensure the safe use of quad bikes on farms. It is for farmers, their families, employees and contractors. While the focus is quad bike use on farms, it will help everyone who rides a quad bike as well as their managers.

This handbook has been updated to reflect the changes in relation to the control of rollover and recognised helmets for quad bike use on private land. It should be read in conjunction with the operator manual for your specific quad bike.

What information does this handbook contain?

It explains the obligations that people with the management or control of farms, employers and employees have under the Victorian Occupational Health and Safety Act 2004 (OHS Act) and Occupational Health and Safety Regulations 2017 (OHS Regulations). It also has information about choosing the right vehicle for the job, risk factors and the safe operation and maintenance of quad bikes.

This handbook includes a number of checklists to assist farmers and farm managers to identify and control risks associated with the use of quad bikes. These checklists may be altered to suit a particular property. They are also available online: to find them go to worksafe.vic.gov.au.

Don’t just read the handbook—act on it

Quad bike operators need to understand how to identify the hazards associated with using quad bikes so they can make informed choices to reduce risks and ensure safe use.

While it is essential to plan for safety, it is equally important to operate the quad bike according to the planned safe system of work. A safe system of work for operating a quad bike:

- Choose the right vehicle for the job – it might not be a quad bike.
- Fit rollover protection if there is a risk of the quad bike overturning.
- Do not allow untrained or inexperienced operators to use quad bikes, particularly in unfamiliar or high risk terrain or for unfamiliar tasks.
- Quad bike operators should always wear an approved helmet.
- Do not let anyone under 16 years old ride an adult-sized quad bike.
- Do not allow passengers on single-user vehicles.
- Make sure the quad bike is maintained in accordance with manufacturer’s instructions.
- Do not exceed the cargo rack carrying limits or vehicle load carrying limits specified in the operator manual.
1. What is a quad bike?

A quad bike is a four-wheeled motorised vehicle which rides on low-pressure tyres, with a seat that is straddled by the rider, steered using handlebars and controlled using a small thumb-operated throttle.

This handbook only provides information for the safe use of single-operator quad bikes as described in the definition above.

Case study

Help needed

A farmer was riding a quad bike on his property when it rolled over on an embankment. The man walked approximately 40 metres and then collapsed and died. His body was not located until the following day.
2. Legal requirements

2.1 Health and safety

The OHS Act applies to all Victorian workplaces, including farms.

As a farmer, you may be:

• an employer
• self-employed
• a person who manages or is in control of the farm.

Whichever you are, you have legal responsibilities under the OHS Act to ensure that:

• the farm is a safe working environment without risks to the health of your employees
• no one is exposed to risks to their health and safety from farm activities (including family members, other workers, visitors and contractors)
• the means of entering and leaving the farm are safe and without risk to health.

To ensure people are safe and are not exposed to risks to their health and safety, all risks should be eliminated, so far as is reasonably practicable. If a risk cannot be eliminated then it must be reduced so far as is reasonably practicable.

If you are an employer, you must also:

• provide sufficient information, instruction, training and supervision to ensure your employees can undertake their work safely
• consult with your employees and any health and safety representatives (HSRs) on matters that might affect their health and safety
• report serious incidents to WorkSafe Victoria.

The reporting duty also applies if you are self-employed.

The OHS Regulations have more detailed requirements associated with the use of powered mobile plant such as quad bikes.

The OHS Regulations require employers to control risk by using the highest level of risk control that is reasonably practicable. This is often referred to as the hierarchy of control. It requires that if a risk cannot be eliminated then the following types of risk control measures must be considered and put in place to ensure that the risk is reduced, so far as is reasonably practicable.

The hierarchy of control

Level 1: Eliminate the risk (for example change the way the job is done)

Level 2: Substitution, isolation, engineering controls or a combination of these measures (for example substituting a quad bike for a more suitable vehicle to do the task or using engineering controls such as installing an operator protective device to reduce the risk of injury or death in the event of rollover)

Level 3: If the risk still exists, administrative controls (eg training, farm safety systems)

Level 4: Personal protective equipment (PPE - for example, use of approved helmets)

The OHS Regulations also require employers and self-employed people to control the risk of powered mobile plant (which includes quad bikes):

• overturning
• objects falling on the operator
• the operator being ejected
• colliding with pedestrians or other powered mobile plant.

They must ensure that, so far as is reasonably practicable, an appropriate combination of operator protective devices are provided, maintained and used to reduce the risks to the operator.

For quad bikes, these devices include rollover protection and helmets to reduce the risk of injury or
2. Legal requirements

death should the vehicle overturn, the operator be ejected or objects fall on the vehicle.

If your employees use quad bikes, you must:

- identify any hazards associated with the quad bikes and their use, and ensure that any risks are eliminated or reduced
- provide and maintain quad bikes that are safe to operate
- provide and maintain safe work practices relating to quad bike operation and maintenance so far as is reasonably practicable
- provide employees with information, instruction, training or supervision, as is necessary so that they can work safely with quad bikes.

Employees must:

- take reasonable care for their own and others’ health and safety
- cooperate with their employer in any actions taken to comply with the OHS Act and Regulations.

2.2 Registration and licensing

VicRoads administers the registration and licensing of quad bikes (Type 1 special work vehicles).

- On-road requirements – quad bikes used on-road, even for short periods, must be registered and on-road operators must hold a current valid car licence (learner’s permits are not sufficient).
- Off-road requirements – quad bikes used strictly on private property do not need to be registered and their operators do not have to hold a valid driver’s licence.

The quad bike can only be used on roads in accordance with the ‘Conditions of Registration’ as approved by VicRoads. The ‘Conditions of Registration’ must be carried at all times.

Operators can drive quad bikes on roads if:

- the vehicle does not travel on the paved (sealed and unsealed) surface of the highway except:
  - where it is unavoidable,
  - for the purpose of crossing a railway line, bridge, ford or causeway, or
  - for the purpose of crossing the highway by the shortest convenient route.

The following conditions also apply to quad bikes (Type 1 special work vehicles):

- no passengers apart from the driver must be carried on the vehicle
- the driver must wear an approved motorcycle helmet
- towing is not permitted.

For more information about quad bike registration contact VicRoads at vicroads.vic.gov.au.
3. Risk factors

It’s important to make informed choices about the safest and most appropriate vehicles for particular tasks on your farm. Knowledge of the risks associated with quad bikes and an understanding of how to eliminate or reduce these risks can help keep operators safe.

3.1 Quad bike use

- Quad bike related injuries and fatalities are associated with a wide range of work activities in all sectors of agriculture and horticulture, including:
  - controlling weeds
  - mustering/herding/drafting stock
  - inspecting property/water/stock
  - moving materials
  - travelling
  - hunting
  - towing loads.
- Quad bikes are not always the most suitable vehicle to use. Alternative vehicles should be considered where appropriate.
- Vehicle rollover is common and the cause of over half of all quad bike related fatalities. The risk of rollover must be controlled so far as is reasonably practicable. Where this risk is present, the fitment of rollover protection may be considered as one means of controlling the risk of operator injury or death in the event of a rollover.
- The body parts most frequently injured when a quad bike rolls over are the head and chest. Most injuries are caused when operators are crushed between the quad bike and the ground or other surface. Other injuries occur when they are ejected onto hard surfaces. The likelihood of serious injury or death is increased by not wearing a helmet and not having rollover controls in place.
- Lack of training, inexperience or using a quad bike incorrectly, particularly where there is unfamiliar or sloping terrain or unstable surfaces, increases the risk of a quad bike-related incident resulting in serious injury or death.
- Incorrect loading of a quad bike decreases stability and increases the risk of rollover.
- Riders of all ages are at risk of serious injury or death. Data shows a prevalence of younger riders (under 16) and older users (over 60) dying as a result of a quad bike incident.
- Most of those who have died were quad bike operators, but passengers and bystanders are also at risk.
- A significant number of on-farm deaths are associated with recreational activities. These incidents often involve children, including farm visitors, riding adult-sized quad bikes.

3.2 Rollover

Over half of quad bike fatalities are caused by quad bikes rolling over. A rollover can occur suddenly and in seemingly harmless riding conditions – it can, and does, happen to even the most experienced operators. Quad bikes can roll over in any direction – to the front, side or rear. Rollover can occur suddenly, even at low speeds, putting the operator at risk of injury or death from being thrown from the vehicle, trapped or crushed beneath it. The risk of rollover is increased if the quad bike:

- is traversing slopes
- is travelling on slippery or shifting surfaces and in changing weather conditions
- is in areas with hidden obstacles, such as paddocks
- is travelling at high speed
- is towing an implement
- is carrying a high, heavy or unstable load (like chemicals for spraying)
3. Risk factors

• has incorrectly fitted attachments or loads
• is being used to muster stock
• has tyres that are under, over or unevenly inflated.

3.3 Fitting rollover protection on quad bikes

On 1 March 2016, WorkSafe announced a revised approach to quad bike risk control. WorkSafe now accepts the fitment of an operator protective device (OPD) to a quad bike as one way of controlling the risk to operators in the event of a rollover.

An OPD is also known as a rollover protective device (RPD) or a crush protection device (CPD). It is a suitably designed and tested attachment fitted to a quad bike. It is designed to help protect riders from being crushed or trapped if a quad bike rolls over.

If there is a likelihood that your quad bike could overturn then the risk of this happening should be reduced, so far as is reasonably practicable. For employers and self-employed persons this is a legal duty under the OHS Regulations. Your options are to eliminate the task, use an alternate vehicle or fit an OPD to your quad bike. There are very few circumstances where there would be no risk of rollover.

An OPD should always be fitted and used in accordance with the OPD manufacturer’s instructions.

If you do not have the skills to fit the device yourself, seek the assistance of a suitably qualified person, such as a motor mechanic or engineer, to ensure that it is correctly fitted in accordance with the OPD manufacturer’s instructions.

3.4 Common quad bike hazards

The risk assessment tool on the next page can assist quad bike users to assess the risk of rollover when undertaking a variety of tasks on different terrain.

The table on page 10 highlights common hazards and risks associated with quad bikes which could impact operator safety. If any of the hazards exist, steps will need to be taken to control the risk.
## 3. Risk factors

Use this table to cross reference common quad bike tasks against typical farm terrain. If you identify you’re at risk or rollover, it’s your duty to reduce that risk – consider eliminating the task, using an alternative vehicle or fitting an OPD.

<table>
<thead>
<tr>
<th>TASK</th>
<th>ROAD OR TRACK</th>
<th>FARM TRACK, PATH OR DRIVEWAY</th>
<th>SLIPPERY OR SHIFTING SURFACE, CHANGING CONDITIONS DUE TO WEATHER</th>
<th>SLOPED GROUND</th>
<th>Paddock or area with obstacles</th>
<th>Loading ramp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal transport</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
<tr>
<td>Moving materials or equipment</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
<tr>
<td>Travelling at speed</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
<tr>
<td>Mustering stock</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
<tr>
<td>Towing trailer</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
<tr>
<td>Spraying</td>
<td>Good surface, no bumps, pot holes, wheel ruts, centre raise, or imperfections</td>
<td>May include wheel ruts, pot holes, centre section raised or other imperfections</td>
<td>Sandy or muddy terrain (with or without track)</td>
<td>Hill, rise, gully, creek embankment</td>
<td>Potential for obstacles such as rocks, timber, rabbit warren, stock, clumped grass, foliage, low hanging branches</td>
<td>Driven via a rated and sufficiently long ramp onto transport such as a ute or trailer</td>
</tr>
</tbody>
</table>

**LOW RISK**

If you are at risk of rollover, the easiest way to reduce that risk is to fit an OPD. For more information visit [worksafe.vic.gov.au/farmsafety](http://worksafe.vic.gov.au/farmsafety) or call 1800 136 089.
## 3. Risk factors

| Equipment and attachments | • Loading  
|                          |   – overloading  
|                          |   – liquid loads  
|                          |   – unstable, unbalanced or unsecured loads  
|                          |   – over-sized trailers  
|                          |   – exceeding tow capacity  
|                          | • Poor maintenance of both mechanical and safety items  
|                          | • Incorrect tyre type and tread for conditions  
|                          | • Incorrect tyre pressure  
|                          | • Inadequate guarding to protect hands and feet  
| Operator characteristics | • Age  
|                          | • Physical fitness  
|                          | • Competency for the type of activity (eg mustering or spraying while operating a quad bike)  
|                          | • Familiarity with the terrain  
| Operator behaviours      | • Use of quad bike when it is not the most suitable or safest vehicle for the job  
|                          | • Failure to observe manufacturer’s safety warnings or recommendations for use of vehicle  
|                          | • No rollover protection on the quadbike where there is a known risk of rollover  
|                          | • Failure to wear adequate PPE such as helmets, sturdy footwear or eye and hearing protection  
|                          | • Excessive speed  
|                          | • Single seat quad bikes used to carry passengers  
| Environment              | • Bright sunlight that can affect the vision of the operator  
|                          | • Fences that are hard to see  
|                          | • Obstacles – overhead, ground level or hidden in long grass (eg stumps and animal burrows)  
|                          | • Terrain variations  
|                          |   – mud  
|                          |   – sand  
|                          |   – uneven, broken ground  
|                          |   – frost, snow and floods  
|                          |   – sloping and steep terrain  
|                          |   – paddocks  
|                          | • Unpredictable surface changes  
|                          | • Concrete or bitumen surfaces  
|                          | • Chemical exposure  
|                          | • Other vehicles  

4. Vehicle selection

The safest vehicle is the one best suited to the job.
Quad bikes are practical for many tasks, but they have limitations. Small on-road vehicles, two-wheel motorbikes and small utility vehicles may be a better choice for many jobs on farms.

4.1 Is a quad bike the best option?
When buying a vehicle, do some research to decide which vehicle is best for the employer, employees and the farm. There are three easy steps to help select the right farm vehicle.

1. Identify your needs and relevant operator safety and capability issues.

2. Compare vehicle options to your needs (eg tasks, environment and operator capability).

3. Question and seek information from dealers and others with relevant knowledge.

4.1.1 Identify your needs and relevant operator safety and capability issues
Before visiting dealer showrooms, make a list of what the vehicle needs to do. Questions to ask include:

- Tasks – What tasks will you use the vehicle for?
- Conditions – What conditions will it be used in (eg rocky or hilly country, mud, sand)? Will the environment change (eg seasonal weather patterns)?
- Safety – Which type of vehicle is safest for each task? Will you need to make safety improvements (eg add an operator protective device)?
- Passengers – Does it need to carry passengers?
- Operator – Who will be operating the vehicle? What experience do they have? Do they have the physical capacity to ride and control the vehicle? What training will they need? What size and age are they? Who has the skills and expertise to train the operators?
- Protective equipment – What protective gear do you need?
- Potential road use – Will the vehicle be used on the road?
- Loads – What will be carried and how much will it weigh?
- Attachments – What vehicle attachments are available and suitable? Will they be easy to attach or will they need modification?
- Towing – Will the vehicle be used to tow trailers or other attachments? What is the maximum weight and height the vehicle will be required to tow?

4.1.2 Compare vehicle options to your needs
Quad bikes have a light footprint and are an economical single person vehicle for off-road use. But a quad bike may not be the most suitable choice when farm work requires more power.

An example of a side-by-side utility vehicle with fitted seat belts and rollover protection.

Larger and more powerful quad bikes are available, but they may not be as safe as smaller ones for tasks like droving. On larger bikes you need to consider the aggressiveness of the throttle action when starting off and changing gears on the move, especially for inexperienced operators.
Where you need a larger, more powerful vehicle a small utility vehicle (SUV) or tractor may be a safer option.

The table on the next page may assist in selecting the safest vehicle for jobs on the farm. Use this table along with the Quad Bike Risk Assessment Tool on page 9.
# 4. Vehicle selection

## Farm vehicle selection

<table>
<thead>
<tr>
<th>Task</th>
<th>Risks</th>
<th>Alternatives</th>
</tr>
</thead>
</table>
| **Checking parts of the farm**  
Quad bikes are invaluable for inspecting and accessing remote parts of the farm, when used without attachments and on level surfaces. | Rollover  
Collision  
Unpredictable surface changes | Farm ute, four-wheel drive (4WD)  
Two-wheel agricultural motorbike  
Horse  
SUV (sometimes called a multi-purpose vehicle)  
Side-by-side vehicle (SSV) |
| **Transporting**  
Quad bikes are often used for transporting the operator and small loads around the farm. | Rollover  
Collision | Farm ute, 4WD  
SUV  
SSV  
Small tractors (that also function well in wet conditions)  
Two-wheel agricultural motorbike |
| **Moving produce on the farm**  
When used within their load and towing capacities, quad bikes are useful for carting boxes of fruit, vegetables, hay and small animals. | Rollover  
Collision  
Loss of traction on downhill slopes  
Overload | SUV  
SSV  
Farm ute, 4WD  
Tractor with trailer |
| **Spraying weeds**  
Quad bikes may have fitted or towable spray tanks. | Unstable load may change centre of gravity and make vehicle less stable  
Loss of traction on downhill slopes  
Rollover  
Collision  
Overload  
Chemical exposure | SUV  
SSV  
Farm ute, 4WD  
Small tractor  
Knapsack spray |
| **Mustering**  
Quad bikes have proved very useful for mustering and moving sheep and cattle. | Rollover  
Collision  
Hidden obstacles | Two-wheel agricultural motorbike  
Farm ute, 4WD  
Horse  
Helicopter |

Adapted from Australian Centre for Agricultural Health and Safety, *Safety of quads and side-by-side vehicles on Australian farms – a practical management guide*, 2016
4. Vehicle selection

4.2 Quad bike selection criteria

If you decide that a quad bike is the best vehicle for the task, consider these options:

- sizes range from small and lightweight, to large and heavy – consider who will operate the quad bike - their size, level of fitness and competency
- high or low engine capacity size (cc)
- two-wheel drive or four-wheel drive
- front or rear brakes - some may have linked hand or foot brakes
- electric start, kick-start or pull-start
- liquid-cooled or air-cooled engines
- automatic or hand-operated clutches
- ability to drive in reverse or reverse gear provided
- solid drive axles, differentials
- chain drives, shaft drives
- thumb lever throttles, twisting handgrip throttles
- the controls and their location, which will differ between quad bikes.

4.2.1 Loads and attachments

It is also important to consider the load specifications of particular quad bikes and what attachments are available. The manufacturer’s specified load limit includes the operator, the load being carried and any attachment used. These should be factored into the total weight of any load and will impact upon the safe choice you make about a particular quad bike.

Ask suppliers about the suitability of their range of quad bikes and attachments for the tasks you want to do on your farm. In the final analysis, safety must be the paramount consideration.
As stated in section 2, farm operators are responsible for ensuring, so far as is reasonably practicable, that the area they control or manage is safe and without risks to health. Farm safety systems help you meet your legal OHS requirements and are specific to your farm environment. Some key safety systems include:

- farm quad bike operating rules
- emergency communication systems
- training and supervision.

5.1 Farm quad bike operating rules
Quad bike operating rules are the basic rules for operating quad bikes on the property. When developing these rules, be guided by the manufacturer’s specifications and the safety warnings on the vehicle. At a minimum, farm quad bike operating rules should cover:

- information about the make and model of all quad bikes on your farm
- who is authorised to operate each quad bike
- what training and instruction is required
- that no passengers are to be carried on single person quad bikes
- what protective gear should be worn, how to care for it and how to store it
- what each quad bike can be used for and what it can’t be used for
- where quad bikes can be ridden. Are parts of the farm quad bike no-go zones? Are there designated tracks?
- what conditions each quad bike can and can’t be used in
- what are the speed limits for tracks, paddocks and around buildings
- how to safely load and unload each quad bike and how much it can carry
- how the quad bike will be loaded for transport
- how the quad bike will be stored
- what and how attachments are to be used with the quad bike
- what start up checks to undertake before riding the quad bike
- who and how to report damage or operating faults
- when and how the quad bike is to be maintained or defects rectified, with attention to tyre pressures and equipment used to check tyres
- what communication systems are to be used by quad bike operators on your farm.

5.2 Communication systems
In many instances of fatalities involving quad bikes, no one noticed that the operator was missing for at least 24 hours, sometimes considerably longer.

Communication systems may enable an injured quad bike operator to call for and receive prompt assistance.

As farm employees often work alone, it is important someone else knows their planned movements. If they are late returning, a phone or two-way radio call will keep concerned parties informed. If there is no answer, the other person can arrange a search party.

Developing a communication system is a good safety strategy. Once established, it will soon become automatic.
5. Farm safety systems

5.2.1 Example of a communication system

If you will be working alone and operating a quad bike:

• Arrange for someone on the farm or close by to check on your planned return and monitor a phone or two-way radio while you are out working.

• Leave a note for the person advising them:
  – what you will be doing
  – where you will be
  – when you expect to return.

• Discuss emergency plans with the person:
  – if you are late, how long should it be until the alarm is raised?
  – will they come looking or call emergency services first?

• Wear a high-visibility vest and put a high flag on the quad bike to improve your visibility.

• Carry an adequately powered and charged two-way radio or mobile phone.

5.2.2 Raising the alarm and getting help

• In an emergency call 000 from fixed or mobile phones.

• Call 112 from GSM mobile phones only – when dialling ‘112’ on GSM mobile phones, access is provided regardless of the presence or validity of a SIM card within the phone or whether the keypad is locked. A signal is still necessary. The call automatically directs to 000.

• Two-way radio, either UHF or CB - UHF channel 5 is established by law for use by anyone, but only in an emergency situation.

A range of electronic security and emergency response devices is commercially available.

Personal Locator Beacons (PLBs) are increasingly being used by workers in remote areas and for working alone. A PLB is a portable device designed to be worn on your body, so it is within easy reach in an emergency. When activated, your PLB will send an alert to emergency agencies. If it has GPS capability it will also send your location to rescuers.

Case study

Could communication or an emergency device have helped?

A middle-aged farmer’s wife was concerned when her husband didn’t arrive home for lunch as arranged. He had taken his quad bike to check the property.

Later that day he was found pinned under the rear section of his quad bike, part way down a steep section of an isolated paddock. He was deceased.

5.3 Training and supervision

No operator should use a quad bike for farm work without first receiving training and being assessed for rider competency.

Prior to determining training needs, you must identify hazards for where and how the quad bike is to be used.

Training is essential to help reduce the risk of serious injury and death associated with quad bike use. The provision of information, instruction, training and supervision ensures that farm safety systems are communicated to employees and followed.

The manufacturer, supplier, external training provider or you (if you have the necessary skills and expertise) can provide training. Some suppliers provide training options at the time of purchase.
5. Farm safety systems

An employer, manager or supervisor should assess an employee's quad bike operator skills before they operate a quad bike, regardless of whether they say they are already experienced or have received training. A quad bike rider training course is the best option for making sure operators learn any skill or knowledge they are unable to demonstrate.

The ‘Sample quad bike operator skills assessment’ checklist later in this section can be used to assess operator skills and be adapted for use on any farm.

The Unit of Competency (UOC) AHCMOM212 – Operate quad bikes, is a nationally recognised qualification that provides farmers, their families and workers the opportunity to develop and demonstrate their skills in maintaining and operating quad bikes in rural workplaces.

A local quad bike dealer or any registered training organisation (RTO) can provide information on local training providers.

5.3.1 New employees

Farm managers should ensure new employees are competent and physically capable before commencing work and using plant and equipment. They should inform new employees about the farm operating rules for quad bikes, including no-go zones, and familiarise the worker with the location of the quad bike operator manual and its safety instructions. New employees should be introduced to farm terrain and the tasks to be undertaken using a quad bike, along with information about identified hazards.

Upgrading and training for existing employees

Farm managers must ensure experienced operators and long-term employees receive information and training when there is a change in vehicle or attachments, or new hazards are identified.

5.3.2 Supervision

Supervision ensures employees operate quad bikes safely. Supervision may need to be more frequent at first to support new and young workers or other workers who are not familiar with quad bikes.

After providing training, it is advisable to carry out (and document) a practical skills assessment of each person who is to operate quad bikes on your farm. The purpose of this is to help you gauge the skills of employees before they operate a quad bike. The skills assessment involves the operator demonstrating their knowledge about the quad bike, its operation, the farm rules and showing their riding skills within the particular farm environment.

To prevent unauthorised use of vehicles, keys should be removed and stored separately from vehicles when not in use.

5.3.3 Maintaining records of instruction, training and supervision

Keep records of all instruction and training undertaken, noting the names of the trainer and the operator, the date, location of training and the skills assessment including results. Also, when problems are reported, record the problem as well as any actions undertaken to remedy it.
## Sample - Quad bike operator skills assessment

Add to or alter this form to suit your quad bike and farm rules.
- Retain completed forms to provide a record of completed assessments.
- The operator manual should be accessible to all quad bike operators.
- Additional copies of checklists are available at worksafe.vic.gov.au

### Quad bike skills assessment for (operator name):

<table>
<thead>
<tr>
<th>Test undertaken at (location):</th>
<th>Demonstrated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Pre-start-up

<table>
<thead>
<tr>
<th>Operator should:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be physically capable of actively riding a quad bike. If not physically capable, they cannot safely control a quad bike.</td>
</tr>
<tr>
<td>Be dressed in suitable work clothing and footwear for operation.</td>
</tr>
<tr>
<td>Describe the purpose and correct use of machine controls.</td>
</tr>
<tr>
<td>State why passengers are not to be carried on quad bike.</td>
</tr>
<tr>
<td>Know how to do a pre-operational check.</td>
</tr>
<tr>
<td>Check operation and adjustment of brakes.</td>
</tr>
<tr>
<td>Know the correct tyre pressure for the quad bike.</td>
</tr>
</tbody>
</table>

### Operation

<table>
<thead>
<tr>
<th>Operator should:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wear a helmet that complies with AS 1698-2006 or UNECE22.05 – Helmets that meet the New Zealand standard NZ8600:2002 can be worn only if the quadbike is operated off-road and less than 30km/hr.</td>
</tr>
<tr>
<td>Wear appropriate personal protective equipment (PPE) and be able to identify different PPE appropriate for different farm tasks.</td>
</tr>
<tr>
<td>Follow the manufacturer’s starting procedure.</td>
</tr>
<tr>
<td>Knows where the kill switch is and how to operate it.</td>
</tr>
<tr>
<td>Ride in forward direction around a defined course – figure-8 around soft obstacles, actively shifting weight as outlined in the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Brake at corner of defined course.</td>
</tr>
<tr>
<td>Demonstrate how to reverse, if appropriate.</td>
</tr>
<tr>
<td>Ride the quad bike, demonstrating control over more difficult terrain such as slope, gully, and channel bank.</td>
</tr>
<tr>
<td>Know how to calculate safe loads and use attachments and where to find this information for each quad bike on the farm.</td>
</tr>
<tr>
<td>Know about farm safety rules, including speed limits and quad bike no-go zones.</td>
</tr>
<tr>
<td>Know which jobs the quad bike is to be used for (and what it should not be used for) and appropriate alternative vehicles.</td>
</tr>
<tr>
<td>Know how to safely load, transport, unload and store a quad bike.</td>
</tr>
</tbody>
</table>

### Other

<table>
<thead>
<tr>
<th>Name of operator:</th>
<th>Date of assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person conducting assessment:</th>
<th>For quad bike No.:</th>
</tr>
</thead>
</table>
6. Using a quad bike

For many farmers it is second nature to use a quad bike, but many injuries and fatalities happen on farms when quad bikes are used inappropriately or due to operator complacency. Using a quad bike can become a habit but quad bikes are not suited to all operators, conditions or tasks (refer to section 4 for information on vehicle selection to ensure you are using the right vehicle to do the work).

The following sections include useful information for operating quad bikes safely.

6.1 Operators

The operator needs to be able to safely drive the quad bike. Some aspects to consider when matching a quad bike to an operator include:

• Size of operator: Large or heavy framed people require a larger vehicle, smaller people require a smaller vehicle – match the quad bike to the size of the person.

• Strength/fitness of operator: Quad bikes require a level of physical fitness and mental agility to operate effectively. Before each ride, be sure the operator is feeling well, is in good physical and mental condition and has no drugs or alcohol in their system.

• Operator competence: Some quad bikes are more difficult to operate than others based on their size, power and other performance characteristics. Ensure the operator has the skill and experience to operate the quad bike safely. Consider using the operator assessment tool in section 5 to assess competency of the operator in the circumstances particular to your farm. If an operator is not competent then appropriate quad bike training should be provided. A recognised quad bike training course is a recommended option.

• Operator age: Use of adult-sized quad bikes by children under 16 is not permitted. Data shows a prevalence of riders under 16 dying as a result of quad bike incidents.

6.2 Conditions and tasks

The conditions on the farm and the tasks to be performed are also key considerations when thinking about using a quad bike. When riding in sand or mud, specific riding skills are required, particularly in maintaining vehicle momentum and stability. Other factors that can affect quad bike operation are seasonal conditions like frost, snow or flooding. Attachments, liquid loads and multi-tasking are risks that can be managed. Some techniques for managing these risks are outlined below.
6. Using a quad bike

6.3 Challenging terrain

Take precautions while riding on challenging terrain as this can increase the risk of the quad bike overturning (refer to the Quad Bike Risk Assessment Tool on page 9).

<table>
<thead>
<tr>
<th>Recommended precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ride on familiar tracks and be aware of what obstacles are in your path (such as drains, potholes or rough surfaces).</td>
</tr>
<tr>
<td>Assess the terrain before you choose to ride over it. If you are not confident about riding over a particular patch of terrain, go another way or turn around and use a more appropriate vehicle to complete your task.</td>
</tr>
<tr>
<td>Watch the ground ahead for potential hazards such as tree stumps, rabbit burrows, rocks or branches, especially in long grass.</td>
</tr>
<tr>
<td>Terrain can change in wet weather and require different skills and greater vigilance to operate a quad bike.</td>
</tr>
<tr>
<td>Quad bikes may become unstable where the terrain is rocky, rough or steep because the centre of gravity can shift quickly and dramatically in these conditions.</td>
</tr>
<tr>
<td>Be aware that liquid loads can cause sudden shifts to a quad bikes’ centre of gravity when riding over uneven terrain.</td>
</tr>
<tr>
<td>Remember that steep slopes put you at risk of rollover. The steeper the slope the higher the risk of rollover.</td>
</tr>
<tr>
<td>Keep your speed down on slopes and in long grass.</td>
</tr>
<tr>
<td>Select low ratio gear when going up or coming down a slope. This also allows for engine braking to control speed when coming down hills.</td>
</tr>
<tr>
<td>It is safer to ride up or down slopes rather than across them.</td>
</tr>
<tr>
<td>When operating on slopes, operators must be trained in active riding techniques so that they know when to change their riding position to safely cross slopes and make turns. The long seat on quad bikes is to enable active riding, not for carrying passengers.</td>
</tr>
</tbody>
</table>
6. Using a quad bike

6.4 Attachments, loads and towing

Carrying loads on the front or rear racks of quad bikes is convenient, but can be risky because the extra weight may change the performance of the quad bike by affecting braking, altering the centre of gravity and making the vehicle difficult to control. This increases the risk of the quad bike overturning.

Manufacturers specify maximum load and towing limits in the operator manual and on the quad bike itself. These limits should not be exceeded. Manufacturer’s load and towing limitations include:

• weight of the load
• location of the load
• attachment weight
• operator weight.

If an after-market attachment is used, the combined total weight should not exceed the manufacturer’s weight or towing specifications.

Some farms may use more than one type of quad bike and the weight specifications may be different for each of them. Where necessary, check the quad bike operator manual or contact your supplier.

6.4.1 Liquid loads and tanks

Liquid loads, either carried on the quad bike or towed, are unstable because the contents can shift when cornering or traversing slopes. This decreases quad bike stability and increases the likelihood of rollover. Tanks fitted with baffles are a better option as they reduce the instability caused by the liquids sloshing around. However, they do not eliminate the risks associated with transporting liquid loads.

When carrying liquid loads, include the weight of the contents of the tank in your load calculations. One litre of water weighs 1kg.

At a minimum, tanks for liquids should:

• have internal baffles that restrict the movement of liquid as the tank is moved
• have smooth external surfaces with no sharp edges and be as low as possible to keep the centre of gravity low
• allow the operator to move freely when operating the quad bike without obscuring their vision or interfering with operator controls
• not touch the operator or restrict their ability to separate from the machine in the event of a rollover
• be properly sealed to avoid splashing of chemicals onto the machine, the operator or surroundings
• must not exceed the manufacturer’s load limits for each quad bike.

Never operate an overloaded quad bike.

Choose your riding path carefully

A young man was killed when his quad bike hit a low lying rocky outcrop and he was thrown from the vehicle. He had only owned the quad bike for two weeks and was carrying a passenger.

Never overload trailers
6. Using a quad bike

Tips for loads and towing with your quad bike

Decide if there is a better vehicle than your quad bike for towing (refer to section 4 - Vehicle selection).

Always follow the manufacturer’s load limitations and recommendations. The brakes on a quad bike are designed to operate effectively within the load limits specified, over relatively smooth and level terrain. The impact on the stability of the quad bike should be considered before use in more uneven terrains.

Keep the load low and evenly distributed. High loads raise the centre of gravity, which affects the stability of the quad bike and increases the risk of rollover.

Reduce speed and allow longer braking distances when carrying a load. Use low gear. The more weight carried, the slower you should go.

Avoid hills and rough terrain. The weight of cargo carried should be reduced in rough terrain or as the slope increases. If operating on steep slopes, little or no load should be carried. Speed of operation should also be reduced.

Secure loads to racks with straps provided.

Connect to the towing point of the vehicle only.

Operate only with stable and safe loads.

Do not exceed the speed recommended in the operator manual or in your farm rules (which should not exceed those recommended in the operator manual). Speed limiters should be considered.

Use tanks with baffles to reduce the movement of the liquid.

Case study

Be cautious when spraying

A farmer was spraying using a quad bike fitted with a spray tank. The terrain was very steep and uneven. When he did not return by nightfall, a search was undertaken and he was found with the quad bike on its side, across his head and chest. He could not be revived.

6.5 Multi-tasking

Quad bikes are designed to be operated with both hands on the handlebars and both feet on the foot decks to maintain balance and ensure the operator is in full control of the vehicle. Failure to operate in this way will reduce the operators’ ability to control the quad bike and may result in loss of balance, injury or death.

Where a quad bike operator undertakes a task while operating a quad bike, their skill level needs to be higher than that required for simple riding. Multi-tasking increases risk because the operator’s attention may be more on the task than operating the vehicle.

Mustering provides a good example of this. Quad bike operators may focus more on the livestock than the ground they are riding over and may not be aware of unexpected surface changes or obstacles.

To increase your safety when mustering or performing other multi-tasking activities, maintain slow speed and seek a path over the terrain that is familiar or provides the best visibility of any potential obstruction or hazard.

Aggressive riding to herd stock greatly increases the risk of rollover.
6. Using a quad bike

6.6 Wear the right personal protective equipment (PPE) for the task

Quad bike operators should wear appropriate PPE when operating a quad bike.

Case study

_Mustered without a helmet_

A 38-year-old man was killed when mustering cattle on a quad bike. While pursuing an animal in the area adjacent to the road he came off the quad bike and landed awkwardly approximately two metres from the quad bike. He was not wearing a helmet.
# 6. Using a quad bike

<table>
<thead>
<tr>
<th>PPE</th>
<th>Information</th>
</tr>
</thead>
</table>
| Helmet      | • Head injuries are commonly sustained in quad bike incidents, therefore a helmet is the most important piece of PPE for quad bike operators and should be worn at all times the vehicle is being ridden.  
• Select a helmet that complies with Australian Standard 1698:2006 Protective helmets for vehicle users or UNECE22.05 – Protective helmets and their visors for drivers and passengers of motor cycles and mopeds. These helmets meet the requirements for on-road and off-road use.  
• If the quad bike is only being used off-road and at speeds below 30km/hr a helmet which complies with New Zealand standard NZ8600:2002 may be used.  
• Ensure the helmet fits the operator snugly, is securely fastened and provides good, all-round visibility.  
• A poorly fitting or loose helmet can become dislodged in an incident and then offers no protection at all.  
• Operators should not share helmets but instead use personal helmets for size and hygiene reasons. |
| Eye protection | • Eye protection is recommended to prevent bugs, dust or sand hitting your face, distracting you or causing eye injuries. Sunglasses are unlikely to provide adequate physical protection. Suitable types of eye protection include:  
  – helmets fitted with visors (check visibility of tinted visors in low light conditions), or  
  – a pair of riding goggles. If goggles are worn, ensure they are good safety goggles, are well-ventilated and able to be securely fastened. |
| Gloves      | • Gloves are recommended to provide protection from abrasions and help to keep your hands from getting sore, tired or cold. Note that rigger’s gloves may become slippery when wet and are not advisable for use with quad bikes. |
| Footwear    | • Sturdy footwear is recommended (preferably boots that come up past your ankle with strong uppers for gear changes).  
• Heels will prevent your feet from slipping off the foot decks. |
| Clothing    | • Arms and legs should be covered to reduce abrasions to the body, even in hot weather.  
• Trousers should be close-fitting and in good condition. |
| Hearing protection | • If the vehicle operation is rated above 85 decibels, hearing protection such as earplugs should be used. |
| Sun protection | • UV protection is recommended as helmets may not protect your face or the back of your neck from UV rays. UV protection includes sun block (be guided by the Cancer Council recommendations). |
6. Using a quad bike

<table>
<thead>
<tr>
<th>PPE</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPE for chemical</td>
<td>• Employers must ensure employees follow the chemical manufacturer’s directions when working with chemicals. Refer to the relevant chemical safety data sheet (SDS) and product label for the correct type of PPE required.</td>
</tr>
<tr>
<td>application</td>
<td>• If the recommended PPE interferes with the operator’s helmet or the operation of the quad bike, then a risk assessment should be undertaken to determine the safest way to do the job. This may include using an alternative vehicle.</td>
</tr>
<tr>
<td></td>
<td>• Equip the quad bike with a first aid kit and ensure items recommended in the SDS are included.</td>
</tr>
<tr>
<td></td>
<td>Note: The quad bike should be stationary and the operator dismounted before commencing hand spraying activities.</td>
</tr>
<tr>
<td>High-visibility vest</td>
<td>• High-visibility vests are recommended for use, particularly when quad bikes are driven on roads or operator is working alone.</td>
</tr>
</tbody>
</table>

Case study

Obey all quad bike warning decals

Three people on a single person quad bike were not wearing helmets when the vehicle crashed into a fence post and overturned. The two adults were thrown clear but the quad bike overturned onto the child passenger.

The quad bike had two safety decals displaying warnings about wearing helmets and never carrying passengers.
7. Transporting and storing your quad bike

7.1 Loading and unloading quad bikes for transport

The following steps should be taken to safely load your quad bike.

1. Read the operator manual to identify the maximum safe slope for loading. A higher tray on the transport vehicle will need a longer ramp.
2. Select a suitable site to load and unload the quad bike. Use a loading bank or platform whenever possible.
3. Box-type trailers may be lower than other options and therefore safer to use.
4. Remove loads and empty spray tanks before loading.
5. If using ramps, secure them to the vehicle to prevent them from pulling away, and centre the quad bike over the ramps. Select 4WD if available.
6. Check ramp carrying capacity. The weight should be marked on each ramp. For example, if the safe working load (SWL) for each ramp is 175kg, that's a total load capacity of 350kg.
7. Once loaded, position the quad bike in the centre of the trailer.
8. Put the park brake on.
9. Secure the quad bike front and back using straps and harnesses in good condition.
10. Use crossover ties if you are travelling a long distance or over uneven terrain.
11. Secure other objects to ensure the quad bike is not damaged by shifting loads.

For unloading, follow the steps above, but in reverse.

7.2 Storing a quad bike

When storing a quad bike:

1. Report any maintenance issues so they can be attended to before it is next used. Consider disabling the quad bike until repairs are completed.
2. Clean the vehicle (eg wash off mud, manure, chemical residue).
3. Ensure any associated quad bike attachments (such as spray tanks) are secure.
4. Refer to the operator manual if the quad bike is to be stored for a long period.
5. Remove keys to prevent unauthorised use.
6. Store undercover where possible.
8. Quad bike maintenance

A properly maintained quad bike is a safer vehicle and is likely to last longer. Regular, careful pre-operation checks and routine maintenance will keep your quad bike in reliable working condition. If you are uncertain about carrying out a maintenance task correctly, check the quad bike operator manual or take it to a suitably qualified repairer.

8.1 Pre-operation checks

**Case study**

*Don’t forget the pre-operation check*

A farmer was checking the fuel level of his quad bike while it was in motion. He lost control of the vehicle and it rolled over. He was found deceased one hour later with the bike on his chest.

Ensure your quad bike is in proper working order before use to minimise the risk of personal injury and damage to the vehicle. It is particularly important to do a pre-operational check if you are not the person who last used the quad bike or if you have not used it for some time. This also helps avoid the possibility of getting stranded because of breakdown or lack of fuel.

The operator manual lists specific items to be checked before a quad bike is started up (such as tyre pressure and correct engine temperature for checking the oil) and is the starting point for safe operation of a quad bike. Always follow the procedures and specifications provided in the manual.

The following sample pre-operation checklist can be adapted for use on your farm.

This checklist is also available at [worksafe.vic.gov.au](http://worksafe.vic.gov.au).

**Case study**

*Maintenance – your life may depend on it*

A 56-year-old farmer and a small child were killed when a quad bike reversed and crushed them between the vehicle and a trailer. An inspection of the quad bike by a qualified technician showed that it was in a chronic state of disrepair. Only 10% of the brake shoe material remained. The vehicle was judged incapable of stopping within the required distance, even at 8kph.

The quad bike had a safety ‘lockout’ that prevents the engine being started in gear unless the footbrake is engaged, but the reverse lock release cable was so rusted it had seized.
8. Quad bike maintenance

Sample pre-operation checklist

Add to or adapt this checklist to suit your quad bike and place copies in a sturdy folder where vehicle keys and operator personal protective equipment (PPE) are stored.

• Retain completed forms to provide a record of completed checklists.
• The operator manual should be accessible to all quad bike operators.
• Additional copies of checklists are available at worksafe.vic.gov.au

<table>
<thead>
<tr>
<th>Pre-operation checklist:</th>
<th>For quad bike No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Check the fuel, oil and coolant before use, with the engine off.</td>
<td></td>
</tr>
</tbody>
</table>

Visually inspect

□ Check for damaged or loose parts.
□ Check for fuel or oil leaks.

Wheels and tyres

□ Check tyres for damage.
□ Ensure tyre pressure is correct and even in each tyre.
□ Check wheel nuts.

Throttle

□ Check the throttle operates smoothly and freely across its range. Accumulated mud and dirt can restrict cable movement and prevent the throttle from closing.

Steering

□ Check the steering moves freely as you turn the handlebars, but without undue looseness.

Air filter

□ Check it is not choked with dirt. Clean and replace regularly.

Lights and switches

□ Check lights and switches work.

Drive chain and chassis

□ Inspect chain for proper adjustment, wear and lubrication.
□ Check drive shaft for oil leakage.
□ Look and feel for loose parts with the engine off. Rough terrain will loosen chassis parts.

Brakes

□ Check brakes operate properly before reaching full speed.

Other checks required: for example, check carry racks and attachments are firmly secured.

Maintenance actions required:
For safe operation, any defects identified in a check of the quad bike must be fixed before it is put into operation. This may mean you need a suitably qualified repairer.

Done:

Checked by: Date:
8.2 Routine maintenance

Take the time to carry out a regular and thorough check on your quad bike. This will help identify any problems before they get worse.

Routine maintenance involves:

- cleaning
- inspecting
- lubricating
- adjusting
- replacing parts.

A toolkit is provided at the time of purchase and is usually stored under the seat or in a compartment on the quad bike itself.

Maintenance tips

At a minimum, maintain your quad bike according to the maintenance schedule in the operator manual. Quad bike manufacturers recommend how and when routine maintenance should be conducted. The frequency of routine maintenance of your quad bike should take account of the environment in which the quad bike operates as well as the odometer reading.

Ensure that a suitably qualified person (such as a mechanic) carries out any maintenance tasks and a suitably qualified repairer carries out repairs.

After any significant incident or accident, have a suitably qualified service person check the vehicle, list all defects and undertake any repairs required to ensure that the vehicle is safe prior to operation.

Wash the quad bike routinely to remove mud, manure, debris or chemical residue build up that can cause corrosion and affect operation or prevent controls from functioning.

Any modifications must be within the manufacturer’s specifications. Changing the type of tyres or puncture-proofing tyres may adversely affect the quad bikes performance. Refer to your operator manual and speak to your supplier for more details.
### 8. Quad bike maintenance

#### 8.3 Sample routine maintenance checklist

The sample routine maintenance checklist below can be adapted for use on your farm.

- Retain completed forms to provide a record of completed inspection and training.
- The operator manual provides information about minimum maintenance.
- The frequency of routine maintenance of your quad bike should take account of the environment in which the quad bike operates.

**Sample routine maintenance checklist**

<table>
<thead>
<tr>
<th>Quad bike No.:</th>
<th>Odometer/hours reading:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brakes</td>
<td>Wheels</td>
</tr>
<tr>
<td>□ Check adjustment, pads, cables and fluid levels</td>
<td>□ Axle bearings and wheel nuts are tight</td>
</tr>
<tr>
<td>□ Auxiliary brake</td>
<td>□ Rims not dented or buckled</td>
</tr>
<tr>
<td>□ Foot and hand levers adjusted – as per the operator manual</td>
<td>□ Tyres are roadworthy, with adequate tread depth</td>
</tr>
<tr>
<td>□ Check disc and cables for wear and damage</td>
<td>□ Tyre ply ratings, type and pressure* as per the operator manual</td>
</tr>
<tr>
<td>Chassis and suspension</td>
<td>Steering</td>
</tr>
<tr>
<td>□ Shock absorbers – for leaks and wear</td>
<td>□ Smooth movement from lock to lock</td>
</tr>
<tr>
<td>□ Suspension operation</td>
<td>□ Linkages – for wear</td>
</tr>
<tr>
<td>□ Safety guards – for looseness</td>
<td>□ Reversing cables – for wear and damage</td>
</tr>
<tr>
<td>□ Handlebars, foot decks and major fasteners – use tension wrench</td>
<td>Throttle operation</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Test while moving handlebars fully to the left and fully to the right</td>
<td>Gear selectors</td>
</tr>
<tr>
<td></td>
<td>□ Gear levers – for damage and excessive slack</td>
</tr>
<tr>
<td></td>
<td>□ Check gear change/kick start splines on gear shaft</td>
</tr>
<tr>
<td>Fluid levels</td>
<td>Cooling systems</td>
</tr>
<tr>
<td>□ Fluid levels as recommended in the operator manual</td>
<td>□ Fluid levels (if liquid cooled)</td>
</tr>
<tr>
<td>□ Transmission fluid</td>
<td>□ Thermostatic fan</td>
</tr>
<tr>
<td>□ Engine oil</td>
<td>□ Leaks and damage</td>
</tr>
<tr>
<td>□ Battery fluid</td>
<td></td>
</tr>
<tr>
<td>□ Brake fluid</td>
<td></td>
</tr>
<tr>
<td>□ Fuel tank filled</td>
<td></td>
</tr>
</tbody>
</table>
# 8. Quad bike maintenance

<table>
<thead>
<tr>
<th>4WD system</th>
<th>Air filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Constant velocity joints</td>
<td>□ Check, clean and regularly replace</td>
</tr>
<tr>
<td>□ Drive line and shafts</td>
<td></td>
</tr>
<tr>
<td>□ Check for split boots on drive shafts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signals</th>
<th>Exhaust</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Lights</td>
<td>□ Holes and corrosion</td>
</tr>
<tr>
<td>□ Horn</td>
<td>□ Excessive noise</td>
</tr>
<tr>
<td>□ Indicators</td>
<td>□ Looseness</td>
</tr>
<tr>
<td></td>
<td>□ Spark arrestor fitted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For quad bikes with chain drive</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Chain adjustment as per the operator manual</td>
<td>□ Battery terminals – for corrosion and tightness</td>
</tr>
<tr>
<td>□ Sprockets not worn</td>
<td>□ Electrolyte levels</td>
</tr>
<tr>
<td></td>
<td>□ Damaged casing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lever controls</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Check smoothness of operation</td>
<td>□ Check for attachment and condition of:</td>
</tr>
<tr>
<td>□ Check for broken, sharp or bent levers</td>
<td>○ Load carriers</td>
</tr>
<tr>
<td></td>
<td>○ Foot decks</td>
</tr>
<tr>
<td></td>
<td>○ Seat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional routine maintenance checks required for your quad bike:</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>On the back of this sheet list:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintenance actions required</td>
<td></td>
</tr>
<tr>
<td>2. Items that require attention from an authorised repair person</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maintenance check performed by:</th>
<th>Date:</th>
<th>Next service at:</th>
</tr>
</thead>
</table>

This checklist is a simple summary of the safety features discussed in this handbook. If you tick the ‘Yes’ column for the items listed, you are well on the way to controlling the risks associated with quad bikes on your farm. If you tick ‘No’ you need to address those issues.
9. Quad bike operation checklist

Sample quad bike operation checklist

<table>
<thead>
<tr>
<th>Vehicle choice</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is the quad bike the safest vehicle for the job?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is the quad bike matched to the operator?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• If there is a risk of the quad bike overturning has the risk been controlled?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are any special permits and conditions relating to quad bike use complied with (eg registration for on-road use)?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The operator</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ensure riders are physically able to operate quad bike?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are quad bike operators trained and competent for the task and terrain they will be working in?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are records of training kept?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are only authorised operators permitted to use quad bikes on your farm? List their names:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 9. Quad bike operation checklist

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Farm</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are safe work practices for quad bike operation established and communicated (ie farm operating rules)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Do workers know the farm operating rules and are training records kept?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are farm jobs for which the quad bike can be used (and not used) clearly specified?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are speed limits set for the farm?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Do operators know about no-go zones for quad bikes on the farm?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are quad bikes kept in safe condition?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are start-up checks done every time before use?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is there a routine maintenance schedule?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are faults reported and fixed as they occur?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal protective equipment (PPE)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Does each operator have access to a helmet that meets the appropriate Australian or New Zealand Standards?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Does each operator wear their helmet and fasten their chinstrap every time they ride?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Does each operator wear eye protection, sturdy boots, gloves, long sleeves and trousers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is other PPE required for specified jobs (eg spraying) available and worn?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 9. Quad bike operation checklist

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Attachments, loads and towing  
  • Do fitted attachments comply with weight and towing specifications set by the manufacturer?  
  • Are manufacturer’s recommendations followed when using an attachment?  
  • Do workers know what attachments to use and when?  
  • Are tanks for carrying or towing liquid loads (eg spray tanks) fitted with baffles? | | |
| Transporting quad bikes  
  • Do workers know how to safely load, unload, tie down and transport the quad bike? | | |
| Communication  
  • Does your farm have an established communication plan for working alone? Is it followed? | | |
| Additional safety  
  • Passengers are not permitted on single person quad bikes.  
  • Children under the age of 16 are not allowed to operate adult quad bikes.  
  • Are safety warnings on quad bikes obeyed?  
  • Is an appropriate first aid kit carried and maintained?  
  • Is unauthorised use of the quad bike controlled by the removal and secure storage of keys? | | |

### Sample checklists

The sample checklists for quad bikes that appear in this handbook are available at [worksafe.vic.gov.au](http://worksafe.vic.gov.au), for adaptation to particular properties and quad bike models. Farmers can add to or alter each form to suit their property and copy the customised form as needed. Completed forms can be used to provide a record of completed inspection and training.
Acknowledgements

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Victorian Farm Safety Centre, University of Ballarat
Victorian Farmers Federation
Federation University of Australia
Farmsafe Australia Inc.
National Coroners Information Services
VicRoads
Australian Workers Union
Tractor and Machinery Association
Federal Chamber of Automotive Industries
Farm & Industrial Machinery Dealers' Association