

# Handle handy ATVs WITH RESPECT

Whether farming 10 or 10,000 hectares, there are few handier, all-purpose farm vehicles than an (all-terrain vehicle) ATV.

ATVs are far more than just a recreational four-wheel motorbike. They are capable of carrying small loads such as a hay bale, herding animals, towing trailers, operating small spray units or simply providing transport around your property. ATVs are also popular for recreational riding, the purpose for which they were originally designed, but must be operated with significant care to avoid serious injury or death.

## Decrease rollover risk

As opposed to a motorbike, where the rider and bike often go in different directions, ATV accidents often involve the vehicle rolling onto the rider. These accidents are unfortunately all too common, with ATVs the cause of more deaths across Australia than tractors, up to last year.

An ATV can weigh up to 300 kilograms and if the bike rolls over serious head or chest injury is a likely outcome. For this reason it is essential riders wear helmets at all times.

## safety checklist

- ✓ Always wear an Australian standards-approved helmet when operating an ATV.
- ✗ Never carry a passenger unless operating an ATV designed for two people.
- ✓ Read the owner's manual from cover to cover.
- ✗ Take heed of safety warning labels on the ATV: Don't operate if under the influence of drugs and alcohol, or if under the age of 16.
- ✓ Lean into corners and lean forward when travelling up slopes.
- ✓ Brake evenly and firmly, and slow down when driving in unknown terrain.
- ✗ Don't ride on the roads; paved surfaces affect bike handling, especially when going from dirt to tar or vice versa.

“ ATVs are popular but must be operated with significant care to avoid serious injury or death ”

In addition, it is unlikely you could lift an ATV off yourself in the event of such an accident.

The main causes of ATV rollover are cornering too fast without adequate weight shifting, travelling on steep slopes, overloading the carry racks and hitting obstacles, such as rocks.

## Shifting weight for safe cornering

A motorbike rider can lean the entire bike into a turn when cornering, counteracting forces that keep the bike upright. This is not possible in an ATV as all four wheels must stay on the ground for stability.

An ATV rider has to rely on shifting his or her weight to counteract cornering forces, leaning into the turn to help prevent the vehicle from tipping over. The sharper the turn and the faster the speed, the higher the risk of tipping the ATV.

Anyone riding an ATV must be able to quickly shift their weight across the seat and forward into a turn when cornering. A firm grip on the handle bars and the foot pegs will help riders shift quickly, as will gripping the fuel tank firmly with your knees.

When cornering, transfer your weight forward and into the direction you want to turn, your backside must actually move across the seat (not just your upper body) to get maximum stability while turning.

## Steep slopes

While most four-wheeler accidents occur in a slope of 5° or less, steep slopes present a danger in any vehicle and an ATV is no exception. Riding up a



*Lean forward when driving up a slope to prevent the ATV tipping backwards. If the slope feels too steep, avoid it and find another safer route.*



*Take extra care when driving across a slope; shift your body so that weight is applied on the uphill side of the ATV as shown.*



*Check the load rating sticker and never exceed rated mass.*

Photos: Kondinin Group

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steep incline increases the risk of the ATV flipping backwards and onto the rider.

Shift your weight forward to counteract the tendency of the bike to tip backwards when travelling up a hill. For extra safety, stand on the foot pegs and lean forward over the front of the bike, increasing the amount of weight placed over the front wheels.

Take extreme care when carrying a load on a slope, as this will raise the ATV's centre of gravity and make it more likely to tip over. For a load carried on a rear rack, reverse up a slope for maximum safety and always comply with manufacturer's load limits.

When travelling down a slope, sit back in the seat and lean backwards to place weight more over the rear axle.

Four-wheel drive ATVs increase safety when driving on slopes – always use 4WD if available when travelling on steep slopes. Remember that rain or dew will make grass slippery and may lead to a loss of control. Keep the speed low, and apply both front and rear brakes carefully and evenly. Let the engine do the braking, shift to a low gear to increase the braking effect, but avoid accidentally shifting into neutral.

### Carry loads carefully

Before carrying any load on an ATV, locate the load rating transfers on racks, safety plates or in the bike manual, which specifies the maximum mass that can be carried on the front and rear racks. Do not exceed this load rating under any circumstances as the stability of the ATV will be greatly affected.

Pay particular attention to spray tanks as it is easy to overload a front or rear carry rack by over-filling a tank. If buying a spray unit, check that it will not exceed load ratings when full.

Most spray tanks are too large for ATV maximum weights. Remember 1 litre of water is equivalent to 1 kilogram. Add the empty weight of the tank and subtract it from the weight the rack can safely carry. For example a rack with a weight limit of 60kg minus the 10kg empty tank leaves capacity to carry 50L of water and chemical.

Given many tanks have a capacity of 100L, you may need to counterbalance the ATV with a front tank that drains at the same rate as the rear tank to enable capacity.

When travelling with a load, reduce your speed when manoeuvring. Liquid moves about affecting stability when there are no baffles.

### Emergency braking

Emergency braking can present a danger in itself if not handled correctly, move to the rear of the seat for stability and use front and rear brakes evenly and firmly for maximum braking effect.

Standing on the rear brake pedal of an ATV in four-wheel drive will lock the transmission and front wheels, and can tip the bike over forwards.

If the ATV has just been driven through water, the brakes will be wet – reducing effectiveness. This is particularly true with ATVs fitted with drum brakes.

### Maintain ATVs for longer life

Maintain your ATV in accordance with the manufacturer's handbook service schedule.

Start by checking all tyres for correct inflation pressure. Use a low-pressure tyre gauge to check tyres. Many ATV tyres require only around 30 kilopascals or 4-5 pounds per square inch. Over- or under-inflated tyres severely affect the bike's handling characteristics.

Check brake pedals and levers are adjusted correctly and do not 'bottom-out' when applied under pressure.

Inspect the engine oil level with the ATV on level ground through the dipstick or sight glass on the side of the motor, and top up if necessary. Check the manual for instructions on checking the oil, different makes have different procedures.

If a thermo fan is fitted, let the ATV idle and check that the fan is working. Many ATVs overheat due to fan faults. If the ATV is liquid-cooled, check the coolant level when the engine is cold. Never open the coolant cap when the bike is hot.

If working in dusty conditions, the air filter may need more regular inspection and cleaning or replacement. Check the manufacturer's handbook for recommendations.

Lastly, perform a visual check around the ATV, checking for oil leaks from the engine and transmission, loose nuts and bolts (especially wheel nuts), tyre damage such as cracked side walls, and drive shafts for split rubber boots or entanglement.

If the fuel tap has been placed in the reserve position, top up the tank and return the tap back to the 'run' position before heading off.

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Use a special low-pressure tyre gauge to measure ATV tyre pressure. Incorrectly inflated tyres will drastically alter the ATV's handling characteristics.



Periodically check engine oil level (above) and radiator coolant level if the ATV is liquid cooled. Only check coolant level on a cold engine.

## FOR MORE INFORMATION

For the safe use of ATVs go to:  
[www.farmsafe.org.au/document.php?id=68](http://www.farmsafe.org.au/document.php?id=68)

## Notes

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