



**Best practice guide to airstrips**



# Introduction

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**This booklet provides best practice guidelines for maintenance of, access to, and use of your airstrip and fertiliser storage facilities.**

The guidelines will help you maximise safety and minimise risk to your aerial applicators and transport operators. It will also

ensure you get your nutrients on efficiently and at the right time. A less than ideal airstrip or poor product condition could create a significant safety risk and may result in delays and an increase in the cost of application.

# Cresco facts



- Up to 2T capacity
- 250T a day (10 truck and trailers)
- Swath - 24m with spreader attached
- Cruise 135kts (250km/ph)
- Serviced every 150hrs or 1500 landings
- 750hp turbine engine
- 200ltrs jet fuel an hour
- Cost - \$2 million

**Bases**  
Te Kuiti  
Taumaranui  
Stratford  
Taihape  
Whanganui  
Masterton  
Nelson/Marlborough  
Rangiora  
Oamaru

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# Airstrip access tracks

Airstrip access tracks should be constructed and maintained so they are fit for purpose. A substandard airstrip track is often the main reason for delays in product reaching your airstrip.

The track needs to handle a 50 tonne fertiliser truck and trailer as well as Aerowork's loader truck carrying 5000L of combustible fuel, which is a significant hazard on a poorly maintained track.

Tracks should be well signposted and marked at roadside and on-track. Ensure there is a safe turn-off area from road to track and remove stock. Check for erosion and fill in holes.

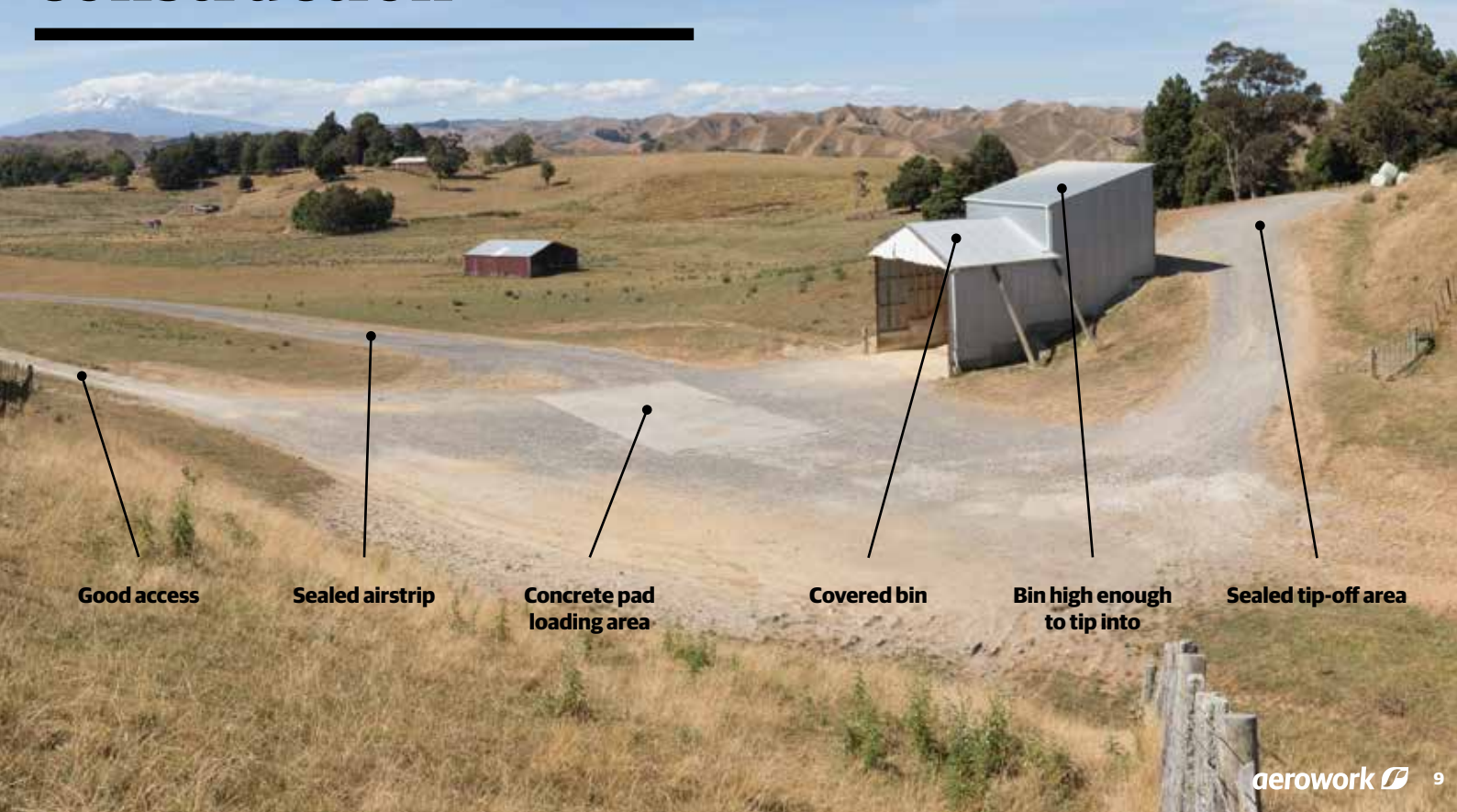
Leave gates open, especially on roadside and hills to avoid unnecessary or dangerous stops. Remove overhead hazards such as single wires or branches.

## Track best practice

- Well maintained
- Regularly sprayed
- Plenty of width in the corners
- 14ft gates

# Ideal airstrip construction

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Good access

Sealed airstrip

Concrete pad  
loading area

Covered bin

Bin high enough  
to tip into

Sealed tip-off area



# Tip-off area and bin

The tip-off area should be big enough for a truck and trailer unit to manoeuvre up to the bin and unhook the trailer, so the truck can tip.

The area should ideally be separated from the aircraft operational area and be well metalled to avoid trucks getting stuck.

All product should be kept dry and free flowing. A good roof on your bin is essential if you are storing product prior to application. If the product is not dry and free flowing it cannot be applied.

If there is no roof a cover must be used. Although this is a less than ideal solution and may not suitably protect the product.

When using a cover, make sure the corners are filled to prevent pooling.

The roof must be high enough to allow a loader to weigh a load of fertiliser inside.

The tip-off doors must be high enough and on an angle to allow transporters to tip-off directly into the bin.



**LEAKY BIN: POORLY MAINTAINED BIN WITH NO ROOF**

Grass clumps, other debris and lumpy fertiliser can jam the hopper doors and kill pilots.



**LUMPY FERTILISER IS A MAJOR HAZARD**



# Airstrip hazards

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**We recommend a thorough check of your airstrip the day before use to help avoid hazards.**

The following is a good checklist to run through. Be sure to brief your pilot on all hazards before you start. A detailed farm map with identified hazards is a good tool.



**A SEVERELY BENT BLADE  
CAUSED BY A PARADISE  
DUCK MID-FLIGHT**



**HAZARDS SUCH AS DUCKS  
AND DEBRIS ARE A  
DANGER FOR PILOTS**

# Hazards checklist



- ☐ Remove all stock and debris including fencing wire and battens, thistles, and cowpats.
- ☐ Check the airstrip is free of potholes or uneven sections. You should be able to safely drive a family car down the airstrip at 80km/hr.
- ☐ Check your access tracks are well maintained and fit for purpose.
- ☐ Notify contractors, staff, family and the public of traffic on the track and advise them to keep away from the airstrip and loading area.
- ☐ Notify neighbouring farms; especially organic farmers and anyone likely to be mustering.
- ☐ Keep all children and pets away from the loading area and airstrip.
- ☐ Close all gates that access the airstrip and remove or lower fences at the end of the airstrip.
- ☐ Birds can cause significant damage if struck mid-flight so avoid planting crops or feeding birds near your airstrip.
- ☐ Consider removing unnecessary wires from your property including power lines, phone cables and elevated fencing or gully wiring. Wires are easily seen from the ground, but near impossible to see from the air.
- ☐ Notify your pilot of any drones, other aircraft or on farm blasting in the area. These activities should be avoided where possible.

Aircraft wheel ruts



# Propeller strike

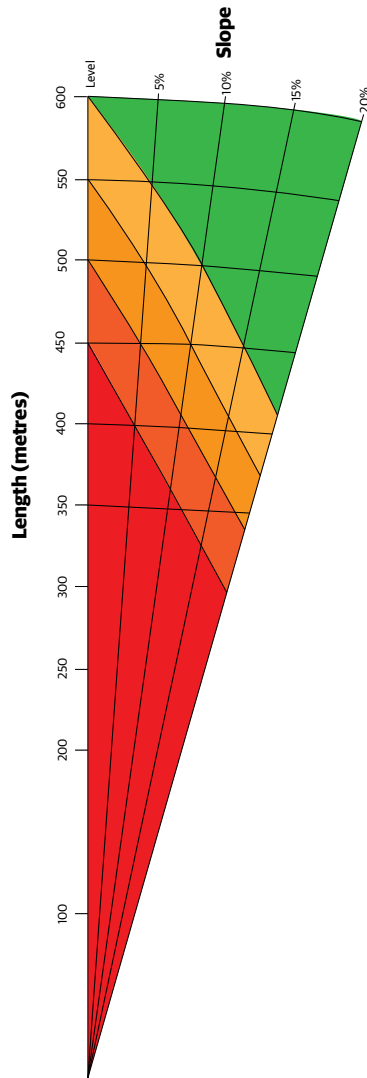


**RESULTS OF  
PROPELLER STRIKE**

**A propeller strike can cause \$100k damage to an aircraft**

- Propeller strike is when the propeller of the aircraft hits the ground or an object.
- Propeller strike happens when the loading area is too soft and is starting to rut.
- The travel of the front wheel shock when it is dropped into a hole or rut will cause a propeller strike.

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# Building an airstrip

The slope of an airstrip will reduce the minimum length required for safe operation. The diagram to the left depicts length compensation adjustments for various slopes. Talk to your local pilot for advice.

## Minimum airstrip requirements

Aerowork have several conditions that we consider minimum requirements to safely operate from. These include:

- An airstrip width of 30 metres
- A runway width of 20 metres for new airstrips or those undergoing improvement (15 meters for existing strips)
- A loading area of 40 metres by 40 metres for new airstrips or those undergoing improvement
- A maximum airstrip slope of 1 in 5 (20%)

If your existing airstrip does not meet one or more of these requirements, please discuss with Aerowork whether it will be safe to operate from.

# Local stores vs. direct cart



There are varied benefits to using either local stores or direct cart to transport your nutrients on-farm. But there are a few things to note:

- Using local stores can often mean faster delivery.
- When using direct cart you must ensure your storage facilities are up-to-scratch.
- If ordering full loads, direct cart can be a cost-effective option.
- If spreading when the weather is uncertain local stores can offer greater flexibility.

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