

# USER GUIDE



Advantage Feeders is passionate about helping farmers. We invest time and money into research and development, and share the results from our existing customers with our new customers. We want to see farmers succeed in agriculture.

The aim of this guide is to provide you with a greater understanding of how Advantage Feeders can best operation on your farm without any issues. The feeders aren't a "silver bullet" or a "set and forget" system. It is essential that stock are competent at accessing their supplement. Once stock are competent at eating from Advantage Feeders, the benefits are enormous and easily pay off the initial investment of training stock.

By talking to our customers over the phone, at shows and at our information sessions, we know that our customers like to be updated about what has and has not worked. Sharing the problems people experience and their solutions allows everyone to learn from what they have done. Advantage Feeders is hoping to update this guide every 12 months as new problems, solutions and systems come to light.

## Terminology

Terminology varies from country to country. If you have any questions about any of the terminology used within the document, please feel free to contact your local Sales Manager or Distributor.

There are numerous references to sheep within the document. In the majority of instances, goats have very similar results as sheep.

In some countries, Advantage Feeders have the products branded under 3IN1FEEDERS. Where "Advantage Feeders" is used, "3IN1FEEDERS" can be interchanged.

We encourage any feedback you are willing to provide. We hope this guide will benefit you and others.



# USING THE FEEDERS

## What are the recommended numbers per feeder?

For farmers that are unfamiliar with the feeders, the following recommendations are suggested.

The number of stock per feeder depends on whether you are using the feeders to supplement or substitute the animal's diet. Substitute feeding is when stock are receiving their whole ration from the feeder. Stock receiving a substituted diet need to access the feeder more often and longer than stock receiving a supplement.

When SUBSTITUTE FEEDING, sheep require about 35mm of trough space each and cattle require about 150mm. This equates to about 136 sheep and 32 cattle per 3800 and 1800 feeders and half these numbers for the 800.

When SUPPLEMENT FEEDING, sheep require about 24mm of trough space each and cattle require about 100mm. This equates to about 200 sheep and 48 cattle per 3800 and 1800 feeders and half these numbers for the 800.

Ewes that have multiple lambs often receive a higher supplement and need to be at the feeder for longer than usual sheep being supplemented. During lambing, having fewer ewes and lambs around the feeder also makes it more likely that the ewe will leave the feeder with all their lambs. In this situation, they require about 40mm of trough space each.

This equates to about 120 sheep per 3800 and 1800 feeders.

Weaners are more susceptible to being bullied and developing into shy feeders. When using the feeders with stock that are in their initial months of weaning, the same number of stock per feeder as substitute feeding should be used.

Farmers have chosen to put more or less stock with feeders than the recommended numbers. After using the feeders for some time, farmers will then be able to better assess whether to run more or less stock per feeder. It is important that the condition of stock is regularly assessed as this will impact on feeding requirements.



## What's the smallest gap stock can eat out of the feeder?

Many users of Advantage Feeders think that the minimum gap sheep and cattle can lack from is 20mm and 30mm respectively. The tongue of a sheep can fit into a 8mm gap and a cattle tongue can fit in a 15mm gap. Having these narrow gaps will play an important role in restricting the ration and preventing overconsumption issues. A 15mm gap

for sheep instead of a 10mm gap can result in double the intake.



## What increment is used for the volume scale?

The volume scale in the feeder measures litres or cubic metres. Different feeds have varying densities, and cubic metres in a consistent way of measuring volume.



## What system should I use to manage feed outflow?

### Regulation Tables

The feeders come with stickers on the side walls above the trough area. This sticker has a regulation table that provide an estimate of what cattle and sheep will consume at each setting of the adjustment system. IT IS IMPORTANT TO NOTE THAT TABLES ARE ONLY A GUIDE. There are many variables that can influence the feed intake of stock but the tables can provide a good starting point when setting up the adjusters.



Advantage Feeders has had numerous methods on how to position the adjusters accurately. Please read the information on the sticker on your feeder for directions on how best to do this.

### Measuring feed outflow

The hopper has volume stickers in it. The level of feed in the hopper can be measured against this sticker to assess the consumption rate. Advantage Feeders has created a document, the



Feed Consumption Table which allows farmers to easily enter the date and feed level to calculate the average daily consumption rate.

### Filling the hopper for a set period

Another system that some farmers use is to put a period, such as a week's supply, of feed into the hopper. After a week, if the feeder is empty, then the adjusters need to be closed slightly to reduce the outflow of the ration. If there is feed left, open the slides wider to increase the outflow to the desired rate. Note that if stock are very reliant on the supplement and the feeder is empty for a considerable time, they may be aggressive and trample other stock.

## What variables influence feed intake?

The main variables to influence intake are:

- Feed size: the larger the feed, the more open the adjusters have to be set to allow the feed to flow under the Upper Adjuster and for stock to access the feed between the adjusters.
- Breed of stock: some breeds are more intuitive than others and will learn how to feed quicker than other stock.
- Age of stock: stock will increase feed intake until they reach mature weight.

## Using the Adjuster Guard

The Adjuster Guard is a part that limits stock pushing other stock along the trough. It forces stock to lick from the one location and reduces bossy behaviour.

It can easily be placed in and out of position to clean the licking groove.

It is important that the Adjuster Guard on the 800 sits behind the brackets at each end and the brace in the middle of the trough. On the 1800 and 3800, it also sits behind the brackets at each end but has three braces in the trough to sit behind.



For more information, see the 'When and how to use the Adjuster Guard' Standard Operating Procedure

# USING THE FEEDERS

## How can the feeders be filled?

- Picking up the feeder, taking it back to a silo, filling and taking it back. The 1800 and 800 models can be picked up and moved full. The 3800 can be moved with up to 2000kg of feed in it.



- Bags. It is difficult to fill the 3800 due to its height.
- Front end loaders. The opening width where the feed enters is 2320mm.



- Dumpy/Bulka bags. It is important to measure what height your front end loader can lift. If lifting height is an issue, some farmers have made a pallet like frame that the bulk bag can be placed on.



- Bulk bin. If it is filling the 3800 model, the auger height will need to be measured to ensure it is high enough.



## When the feeder has feed in it, which adjuster should I move to change the ration?

If the feeder contains feed, and you want to change the ration, it is recommended that you move the upper adjuster. If the lower adjuster is relocated the feed may get under the lower adjuster and this is difficult to resolve until the feeder is empty.

## Where do I put the feeders in the field?

It is recommended that feeders be situated as far away from the water point as possible. This encourages the sheep to graze the pasture rather than staying near the water point and where they are being supplement fed.

If there is more than one feeder in the paddock, it is recommended that they are located far apart. This dilutes bossy animals across the feeders. If ewes are lambing, this will reduce the numbers around the feeders and limit mismothering and lamb pinching.



## What methods can stop stock hollowing out soil around feeders?

The feeder is a high traffic area and depending on the type of soil, it is possible for stock to hollow out the soil around the skids. Advantage Feeders customers have offered the following cost effective solutions:

- Recycled conveyer belting;
- Recycled carpet;
- Steel mesh;
- Recycled synthetic grass; and
- Shade cloth.



## The rain protection keeps most of the moisture out.

Some farmers are concerned that rain will waste feed in the trough. The weather protection on Advantage Feeders effectively prevents feed wastage from rain because:

- The trough is always empty if the adjusters are set correctly;



- Feed sits in the groove between the two adjusters, which is set back from the edge of the feeder.
- If rain blows in against the side panel there is a small trough to channel the water to the ends.



- Even if the feed does get wet, only the small amount of feed sitting in the feed access area is affected and stock can usually still lick this out and allow dry feed to fall into the area;

The Advantage Feeders Creep Panel can also be used to limit rain getting into the feed access area. Several positions will allow ewes and young cattle to feed under the Creep Panel while providing a very good shelter of the licking groove.



## How do I feed ad lib?

There is a perception that in order to feed ad lib, the feed must be flowing through the slides and into the trough. It is possible to feed ad lib if the slides are only open 30-35mm.

This gap allows the sheep to scoop the feed out of the feed access area with their tongue. With a gap of this size the sheep do have to work a bit harder to access the feed, but the benefit is that the trough doesn't fill up with feed.

This means less wastage as the sheep will not ignore the feed in the trough in favour of fresh feed between the slides.



## Can large pellets be fed?

Yes, however the lowest ration that can be restricted with 9mm pellets is about 600g/head/day for sheep and 4kg/head/day for cattle because the adjusters need to be opened wider to allow the pellets to flow.

## Can "total mix rations" and palm kernel be fed?

Farmers with mixing equipment often put total mix rations in the feeders. It is best if the mixes have less than 25% roughage. Palm kernel is another feed type that is commonly used. The peak of the trough is steep, being 45 degrees, and allows this feed to flow.

## What is the best way of changing from one type of feed to another?

When you are transitioning to an acidosis prone feed, it is recommended to change the feed incrementally over a period of time. A suggested ration when transitioning from a safe feed, like pellets, to acidosis prone cereal feed is as follows:

- 2/3 of the ration is pellets, 1/3 of the ration is a cereal grain, for 5 days;
- 1/3 of the ration is pellets, 2/3 of the ration is a cereal grain, for 5 days;
- All cereal grain.

For more information, see the 'Safely feeding cereal grains to stock' Standard Operating Procedure

# USING THE FEEDERS

## Can the height of the feeder be changed?

All feeders can be used for sheep and cattle because the skids can be fastened at different heights. The height of the skids can be changed by lifting the unit up, taking the tek screws out of the skids, repositioning the skids and refastening the tek screws.

The 1800 and 3800 models have a brace in the centre of the trough that requires adding or taking out extensions to change the height of it.

## Can minerals and other supplements be fed in combination with other feeds?

Yes. It is best if the minerals and/or other supplements are pelletised when fed with grains to prevent clogging. Some minerals contain corrosive substances, like salt, and can damage the galvanising. Advantage Feeders does not guarantee the use of these supplements in the feeders.

## How can corrosive supplements be fed with Advantage Feeders?

The Advantage Feeders Mineral Attachment ensures that your stock receive their nutritional requirements while reducing waste and labour and preventing corrosion of the feeders. The Mineral Attachment has a capacity of hold 85 litres or 110kg.

If the Mineral Attachment is used to supplement 200 sheep, consuming 25 grams/head/day, it will take 22 days before it empties. It is able to be attached to the end of the feeders or hung on gates or steel posts.



## What is the best way to clean the feed access area between the adjusters?

A screwdriver or rod can be used to run along the groove.



## How do I best maintain the feeders?

When feed gets wet and left for long periods, it can be corrode galvanised sheetmetal. Some feeds can become wet through humid climates.

If a feeder is not going to be used for a period of time, it is best to ensure it is empty, unbolt the adjusters and clean any dust of feed that is under them. If the adjusters are left loose, this will ensure they are better able to dry if they do happen to get wet.

Although the skids are hot gal dipped, it is best to keep these off the ground when not being used. A simple way to do this is to place some blocks of wood under them.

## Is lambing recommended in confined areas with feeders?

It is not recommended but if the situation demands this, it is best to have no more than 18 ewes per hectare. Lambing in confinement can lead to lamb stealing and mismothering, especially amongst twin-bearing ewes.

## What causes lamb stealing?

If there are ewes with new born lambs in close proximity to a ewe that is on the point of lambing, the strong maternal instinct of the lambing ewe encourages her to take/mother up with another ewe's lamb. When she does then lamb, she may then leave her lamb/s. If this happens, the feeder should immediately be moved.

The incidence of lamb stealing is reduced if ewes are receiving a ration that fully meets their nutrient requirements. Lambing ewes receiving an adequate ration often don't access the feeder for a few days after lambing because they know their supplement can be accessed any time after they form a strong ewe-lamb bond.

The rate of lamb stealing is higher amongst twin bearing ewes. For this reason, flocks of twin-bearing lambing ewes should have no more than 120 ewes per 1800 or 3800 model.

## Why is it important to have a narrow trough?

Trough size plays an important role in training lambs. It is important that the trough is narrow but deep so young lambs easily access to the feed access area.

## Health problems

It is important to monitor pregnant ewes to ensure they are not eating more or less than the ration allocated to them.

## What can I do if my stock show signs of acidosis?

When used correctly, Advantage Feeders allow acidosis prone feed to be fed safely. If the feeders are not used correctly and stock do show some signs of acidosis, bi-carbonate soda should be immediately provided to stock along with a vet being contacted. Bi-carbonate soda can be provided by spread it over the grain the feed access area and in the trough so the stock quickly consume it.

## How do I prevent ewes from becoming calcium deficient in pregnancy?

Calcium deficiency is a problem that generally affects older ewes, and can lead to mortality. All grains are deficient in calcium so a high intake of grain through the feeders does not provide sheep with adequate calcium. The easiest way to prevent the calcium deficiency is to supplement the grain with a calcium source, like suitable stock lime.

## What problems are associated with ewes being under-weight?

Underweight ewes, especially those with multiple foetuses and ewes that are shy feeders in late pregnancy are also prone to pregnancy toxemia.

## What problems are associated with ewes being over-fat?

Dystocia or "difficult birth" is lambing which takes more than one hour after the rupture of the foetal membranes. Obesity is considered a factor which contributes to the incidence and severity of dystocia in sheep. It often leads to the death of a ewe and her lamb/s.

Pregnancy toxemia (preg tox) occurs when drastically low levels of glucose in the blood damage the brain and result in dehydration, kidney failure and potentially death. Foetal growth is most rapid in the last 4-6 weeks of pregnancy and the ewes must eat enough quality feed to meet the high demand for glucose to support foetal growth in this period.

Over-fat ewes carrying multiple foetuses are the most susceptible to preg tox associated with ketosis because the space occupied by the foetuses in the abdominal region prevents the ewe consuming the feed required to meet the big demand for glucose, especially from roughages.

The ewe will then mobilise fat from her body stores to help meet the demand for glucose and this leads to the production of ketone bodies, which further exacerbates the ewe's demand for glucose. For this reason, it is critical to ensure ewes receive a high quality feed during this period.

# FURTHER INFORMATION

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