

# Managing a Small Beef Herd in Wet Conditions

## Herds with less than 100 head

North Coast Local Land Services, June 2022

In addition to the impacts of the Feb/March floods, prolonged wet conditions occurring throughout autumn have resulted in widespread pasture damage across the North Coast. Pastures were either directly impacted by the flood waters, or have since been impacted while stock are grazing, even on high and hilly country.

Further, North Coast pastures typically undergo a winter/spring feed gap, where pastures stop growing and decline in quality. Whilst this scenario is well known and typically well prepared for, the combined seasonal conditions will significantly exacerbate the winter/spring feed gap. Producers will need to prepare to reduce stock numbers or provide sufficient supplementary feed to maintain livestock nutrition.

Regardless of the size of your herd, your animal health and welfare responsibilities should be front and centre in your planning.

### Challenges of owning a small farm or herd

On smaller holdings you may not have the option to move your stock to dry ground within the same property, own the required equipment to regularly feed your livestock or have access to the machinery required to support your livestock through a challenging season.

Often the person responsible for the cattle has competing time priorities which take them off-farm every day. This increases the challenges and associated costs per cow to manage a small herd through a tough season.

On the contrary, owners of smaller herds are often able to access alternative off-farm income. While this is a great benefit, the costs of feeding cattle over a long period can be very high and it is wise to consider this ongoing cost.

This document will guide you through some of the considerations for managing a small beef herd through a challenging season.

### Why do I have cattle & what is my budget?

There are often many motivations for running cattle, and these may influence the choices you make. Getting a financial return may be less critical for those who see the animals as pets or hobbies, as opposed to the person running cattle as a business.

A landholder running cattle as a business may decide to agist the cattle out of the district or sell and wait for better seasonal conditions to return. A hobbyist may be prepared to spend large amounts of money to purchase feed and keep their animals at home.

Regardless of your motivation for running cattle, when it comes to handfeeding in an extremely wet year it is important to ensure you have a clear budget. Consider what you are prepared to spend on feed and ensure that you understand how much a feeding

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program could cost you. The next step is to think very critically about how practical it is to feed the number of cattle you have under such wet conditions.

Things to consider include how you will get the feed to your cattle each day, and whether the cattle will be able to access it safely and effectively:

- When cattle cannot reach feed without getting stuck in mud, they will eat less.
- Cattle lose as much body heat when covered in mud as they do from prolonged exposure to wind and rain. Discomfort makes cattle reluctant to eat.
- Mud increases the risk of contracting a number of diseases and infections, as well as common physical ailments such as lameness.

Impact of Feed cost per cow, per day, per week and per month										
Cost per day (\$)	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10
Cost per week (\$)	\$7	\$14	\$21	\$28	\$35	\$42	\$49	\$56	\$63	\$70
*Cost per Month (\$)	\$30	\$60	\$90	\$120	\$150	\$180	\$210	\$240	\$270	\$300

Table 1. The impact of feed cost. E.g. Budget of \$25,000 -if you are feeding a cow for \$5 per head per day (see section on calculating feed costs) that's \$35 per week or \$150 per month. Multiply this by the number of cows in the herd to get your feed costs over time, so if you have a herd of 30 head, multiply by \$35 per head per week = \$1050 per week, or \$4550 per month, meaning your \$25,000 budget only lasts about 5 ½ months.

\*Assumes 30 days per month

If you feel your budget won't stretch far enough to cover feeding costs for all animals, then selling or agisting will help. You can potentially hold on to your better performing or favourite animals and keep them in good condition. However, there can still be a point when the season hasn't improved, and you have reached your budget. The remaining cows you have been feeding may need to be sold or continue to be fed. Can you afford it? Long term feeding can become very costly.

For paddocks that are already heavily grazed it is unlikely there will be sufficient pasture recovery until late September or October in a typical year, meaning feeding is likely required for 5 to 6 months.

### Agistment

Agistment is a popular option for North Coast landholders and for most holdings this has meant sending cattle out to the New England Tablelands or further west. This is a very sensible decision, and often works out far cheaper than a long-term feeding regime.

Agistment rates per head per week are variable depending on the class of cattle, the property, and its facilities. An approximate guide for agistment in the western areas of NSW and south east QLD (current as at June 2022) is included in Table 2.

Type	Approximate agistment cost per head per week
Weaners/Yearlings	\$5 - \$8+ per head per week
Dry adults	\$6 - \$8+ per head per week
Cow-calf units	\$8-\$10+ per cow calf unit per week

Table 2. Common approximate agistment rates for the Western areas of NSW and south-east QLD as at June 2022. As a comparison - agistment for 30 cows & calves at \$9/head/week for 5 months (20 weeks) will cost \$180 per head from June to October or \$5,400 total. It is unlikely that you will fully hand feed a cow calf unit for less than \$180 per month on the North Coast based on current supplementary feed prices.

In addition, there will be freight costs to and from the agistment property as well as fuel costs associated with trips to check the cattle. In comparison to fully hand feeding, agistment is almost certainly going to be a cheaper option.

If you are considering agistment then contact your stock agent and discuss opportunities with them. North Coast Agistment is generally difficult to find under poor seasonal conditions. As winter approaches it becomes more difficult to locate agistment properties to the west so acting early is advisable. As the western winter crops develop there are sometimes short term (2 – 3 months) agistment opportunities that arise, so it is worth contacting your agent to investigate.

Always use an agistment agreement. Agents and some landholders may be able to assist with this - having a written agreement can avoid issues down the track regarding length of tenure, payment terms and responsibilities of both parties.

### Feeding

When pasture levels are low, a decision must be made to either agist, sell or feed your cattle. If you decide to feed you must ensure you have considered the practicalities of what is required. This is especially important if you have no pasture remaining on which your cattle can graze and you will be buying-in 100% of your animals nutritional requirements.

Ask yourself;

- What time do I have available?
  - Full feeding can take a few hours a day, seven days a week.
  - Bulk feeding equipment can reduce the time required but this comes at a cost and you are still required to check that animals are accessing the feed at appropriate rates.
- How can I provide the feed in a way that cattle can access it without excessive bogging? Or can I move the feeding system frequently enough to prevent bogging issues?
- Where will I store large quantities of feed such as hay or grain?
- Do I have the machinery to handle large feed items such as round bales or bulk bags? Can this machinery access the feeding areas of where cattle are?
- Do I have feeders to prevent wastage of the feed?
- Do I know how to feed the product? Some feed sources such as grain can kill cattle if introduced too quickly. If you haven't had experience with a particular feed seek advice.

**Access to paddocks by feeding machinery is an important consideration compared with agistment or selling stock.**

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Image 1. Accessing paddocks to feed cattle may be challenging under wet conditions, causing extensive damage over time.



Image 2. Using hay feeders helps reduce feed wastage. Wastage of hay bales without feeders can be as high as 20% or 64kg (approx. equal to \$28/bale wasted) in the case of an average round bale. In wet seasons its likely that the feeder will need frequent moving, often daily to prevent excessive bogging, this will cause significant pasture damage. The photo above shows the bogging around a round bale ring by 15 cows and calves in 12 hours.

### How much feed do I need?

The below table is from the NSW Department of Primary Industries fact sheet [Hand feeding Cattle](#). It highlights the need to understand how much feed cattle need and that quality of the feed is as important as the quantity. If you are unsure about how much to feed, seek advice.

There can be considerable differences in the quality of bailed hay. Examples of hays that are usually good quality include Lucerne, Oaten, Barley, Wheaten and Ryegrass hay. Some tropical grasses can be ok quality if cut at the correct time. Poor quality hay includes couch, corn stubble, cane tops and mature tropical grasses - particularly rhodes grass.

Ask your feed supplier for a feed quality test. Feeding poor quality hay can result in weight loss in cattle, requiring additional feed supplements which will add cost.

A 500kg pregnant cow needs a minimum 8kg of hay per day, provided the energy level of the hay is 8.5 Megajoules of Metabolisable Energy. So a herd of 30 cows needs 240kg of hay per day minimum. If the quality is low more hay or additional feeds will be required.

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Stock class	Liveweight (kg)	Grain* 12MJ ME	Hay 8.5MJ ME	Pit silage 35%DM 8.5MJ ME	Bale silage 45%DM 10MJ ME	Grain:hay 50:50	Grain:hay 80:20
<b>young stock gaining 0.2kg/d</b>	200	3	5	13	8	4	3.5
	250	3.5	6	15	9.5	4.7	4
	300	4	7	17	11	5.5	4.5
	350	4.5	7.5	19	12	6	5
	400	5	>9MJ ME required		13	6.5	5.5
<b>dry stock at maintenance</b>	450	4.5	7.5	18	12	6	5
	500	5	8	19.5	13	6.5	5.5
	550	5.5	8.5	21	14	7	6
<b>8 month pregnant cow (no gain)</b>	500	7	8	19	18	9	8
	550	7.5	8	20	19	9.5	8.5
	600	8	Not Achievable		20	10	9
	650	8.5	>9MJ ME required		21	10.7	9.5
<b>Lactating cow (no gain) with calf</b>	500	Not Suitable	Not achievable		25	12	10.5
	550	20%	>10MJ ME required		26	12	11
	600	roughage	to maintain cow weight		27	13	11.5
	650	required			28	14	12

\* Calculations are for crushed grain. Feeding whole grain can increase the amounts required. Increase all amounts by 20% in cold weather, using hay where possible.

### How much do bales weigh?

Hay bale type	Approximate weight range (kg)
Small square	18-24kg
4 x 4 round	280-330kg
4 x 4 round (silage)	500-650kg
8 x 3 x 3 (big square)	400-480kg
8 x 4 x 3 (large square)	620-650kg +

Silage bales do not necessarily contain more feed – instead, they are made with more moisture in the material when baled, meaning that a portion of the actual bale weight (approx. 55%) is water and not feed. Water contained in silage is not a replacement for drinking water.

Using the example herd of 30 head needing 240kg of hay per day minimum, and average bale weights, you would need to feed:

- Minimum 10 small square bales per day,
- Minimum of one 4 x 4 round bale per day,
- Minimum of one 4 x 4 silage bale per day, or
- Minimum of half a large square bale per day.

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Requirements for 30 head/day	Example cost	Daily cost	Weekly cost
10 small square bales	\$20/bale	\$200	\$1400
1 round bale	\$125/bale	\$125	\$875
Agistment	\$9/head/week	\$39	\$270

Table 3. Given the large quantities of material needed for even a small number of cows it is evident how machinery would assist in feeding. Without machinery smaller bales are more practical but they quickly become comparatively expensive. Bale prices presented here are a guide only - there can be a considerable range in pricing at any given time.



Image #. Large bales often require machinery to assist in storing and feeding. They can be fed out by hand but it takes a lot more labour.



Image #. The plastic wrap on silage bales needs to be disposed of appropriately.

### Feeding grain

Introducing grain too quickly or providing too much grain can cause grain poisoning and even kill cattle. If you haven't fed grain before, seek advice.

Day	Amount of hay	Cereal grain (kg/head/day) as fed for cattle
1	To requirements	0.5
2-3	To requirements	0.5-1.0
3-4	Decrease hay	1.0-1.5
5 on	Decrease hay	Increase by 0.5 kg/head/day until desired feeding level is reached

Table #. A guide for introducing grain. If cattle run out of grain for one day or more you will need to re-introduce the grain slowly and work to building up to the desired feeding level.

Options for purchasing grain on small farms include:

- Small 20kg bags (usually the most expensive)
- 500kg or 1000kg bulk bags (requires machinery to handle or bucket grain out)

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- Bulk loads delivered from local feed mills. (Usually requires a minimum 2-tonne load and somewhere to store the grain)

### Grain feeding quantities

To work out how much grain you are feeding, weigh the bucket when it is full. If it is a self-feeder, mark the inside of the feeder when it contains a known amount. Restrict the intake to a low setting, monitor how many days it takes your cattle to consume the known amount and divide it by the number of cattle. e.g., 500kg eaten in 7 days by 30 head =  $500/7/30 = 2.3\text{kg}$  grain per head per day.



Image #. Self feeders are great for all weather storage of grain, but positioning on a stable surface or having the ability to move the feeders is essential. Gravel, road base, concrete, rubber matting and geohex mats are all used to prevent bogging around feeders with reasonable success. You will need to consider the access areas around the pad where bogging may still occur and restrict access to the feeder – if this is unavoidable it may be better to ensure you can easily move the feeder.

### Lick Blocks, Dry Licks, Liquid Molasses supplements

Lick Blocks, Dry Licks and Liquid Molasses supplements (e.g. Anipro & Truegraze), contain various minerals, salt, molasses and protein sources. They are designed to help supplement a deficiency, meaning they are consumed at low rates (100-500g per head per day depending on the product, up to 2kg per head per day for liquid products) and they can be a very good easy option for this purpose.

Supplements are designed to be fed when there is still adequate feed (pasture, hay, or silage) available to meet the intake requirements of the cow. They are not an adequate replacement for fodder and should not be used instead of pasture, hay or silage.

### Calculating feed costs

Calculating feed cost is as simple as taking the cost of the product and dividing it by the amount of feed available in kilograms, and this will give you the cost per kilogram. e.g., Grain costing \$600 for 1000kg = ( $\$600 / 1000\text{kg} = \$0.60/\text{kg}$ ) multiply this by how much the cow is eating.

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If a cow is eating 3kg per day of grain:  $\$0.60 \times 3 = \$1.80$  per cow per day

If a round bale costs \$125 and weighs 280kg ( $\$125/280\text{kg} = \$0.45/\text{kg}$ ) and the same cow is eating 8 kg of hay per day = \$3.60 per cow per day.

Total feed cost in this example is  $\$1.80$  grain +  $\$3.60$  hay =  $\$5.40$  per cow per day

### Monitor the condition of the cows

It is vital to keep an eye on the body conditions of your animals. If your cows are beginning to look like the cow in this photo you will need to intervene and start feeding to prevent further loss of body condition. It may be an indication that it is time to sell some cows to leave more pasture (if available) for the rest of the herd.

Refer to the North Coast Beef Cattle Health and Husbandry Guide (link at the end of this guide) for more information on body condition scoring.

The cow pictured is in Fat score 1 (0–2 mm P8, 0–1 mm 12th rib) Animal is emaciated. Ribs and short ribs are sharp. There is no fat around the tail head. Hip bones, tail head and ribs are prominent.



### Monitor pasture conditions

It is important to make decisions around agistment, selling or feeding before your pastures sustain extensive grazing damage. Assessing and calculating pasture can be complex and it is recommended you seek advice, although further information can be found on the [MLA website](#).

The images below show flood impacted pastures at two different stages which are both insufficient to maintain a herd through a typical North Coast winter.



Image #. Even though there is some green pasture, there is insufficient dry matter in this paddock to maintain a single adult beef cow per hectare through winter. Reducing cow numbers therefore allowing more grazing area per cow is the only way to ensure there is adequate feed available.



Image #. This paddock will not sustain any class of beef cow. Damage under wet conditions is very rapid at this stage and regrowth will be severely hampered.

One adult beef cow with calf at foot requires 15kg of dry matter per head per day, so over the next 5 months or 150 days she needs a minimum 2250kg of dry matter. With minimal growth likely from our tropical grasses through winter due to cold temperatures that means there needs to be at least this amount of paddock feed available per hectare now, to enable a stocking rate of 1 cow calf unit per hectare. When the amount of available feed per hectare is under this the stocking rate must also reduce to enable enough grazing area to be available for the cows to access enough feed, or you must supplementary feed the cows to ensure they are accessing enough feed. E.g. if there is only 1125kg of pasture dry matter available, then to ensure there is enough feed for winter you have to allow 2 ha per breeding unit (2ha x 1125 = 2250kg DM).

Importantly once available pasture dry matter drops below 700kg DM/ha it is often too short for cattle to be able to consume adequate quantities of feed per day regardless of the area offered, excessive walking in search of food also uses energy meaning more feed is needed to maintain condition.

For more information on measuring pastures and calculating stocking rates can be found [here](#). Over a typical North Coast winter, tropical grass feed quality and quantity declines through to October/November when temperatures start to rise again. This is known as the 'Winter Feed Gap'.

### **Over sowing with winter forages**

North Coast farmers typically sow ryegrass as a winter feed option which provides good quality feed. This is difficult in extremely wet conditions when unable to get machinery onto paddocks.

Ryegrass has a high fertiliser requirement, especially in wet seasons, and if unable to get machinery back on to paddocks growth will be stunted. This is an important consideration when sowing ryegrass under wet conditions, as the investment may not produce enough fodder to carry a herd.

For those considering if ryegrass is still an option at the beginning of winter on the Northern Rivers, be mindful that - even with suitable fertiliser input (based on a soil test) - it takes approximately 6-8 weeks from planting until it is ready for grazing. There may still be a need to feed stock in the meantime.

Ryegrass performance depends on the seasonal conditions. If conditions remain extremely wet, it may not be very productive reducing the potential cost benefit significantly.

In a 'normal' year on the Northern Rivers, June is late for planting ryegrass. Yield will be much lower than if it were planted in April, further reducing the cost benefit. The decision about planting late ryegrass is individual and depends on your unique situation. Always seek advice about your situation.

### Further resources to help

[North Coast Beef Cattle Health and Husbandry guide](#) - contains information about feeding, water requirements and body condition monitoring of cattle as well as common health issues.

[Understanding Stock feed Product Labels](#) - will help you determine what the labels on various stock feed products mean and help in making feeding decisions.

[Pasture Recovery after a coastal flood](#) - will help you understand what to expect from flooded pastures.

[Understanding Pasture-Recovery for North Coast Beef Producers](#) - will help you to make decisions about pasture recovery and likely feed supply for the herd over the coming winter spring

### Contact us

Call your nearest Local Land Services office on 1300 795 299

Visit our Flood Recovery Hub: [www.lls.nsw.gov.au/flood-recovery](http://www.lls.nsw.gov.au/flood-recovery)

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