

## AUTUMN MANAGEMENT GUIDE

The primary autumn focus is on setting up the farm and herd for a great start to next season. This needs to be achieved while continuing to maintain high quality pasture and converting it to milk.

This Autumn Management Guide is to be used alongside an Autumn Feed Budget in Agrinet.

There are two key targets for the autumn period that are not-negotiable, and must be met; the end of season (1 June) cow BCS targets and the average pasture cover target. This guide will cover the key tools to achieve these targets while keeping a tight control of spending.

### TARGETS

#### a) Cow body condition score

Herd Group	Target CS at calving	Target at 1 <sup>st</sup> June if 0.3 of a CS is achievable at wintering	Target at 1 <sup>st</sup> June if 0.5 of a CS is achievable at wintering
R3yr (milking heifers)	5.5	5.2	5.0
Mature cows	5.0	4.7	4.5

Note:

1. These targets are not an average – **they need to be achieved for every animal.**
2. Late calving cows will spend more time at winter grazing and would be expected to be able to put on 0.5 CS.

#### b) Average pasture cover

The average pasture cover target is determined by how much is required at Planned Start of Calving (PSC). For most farms this will be between 2,300 and 2,400.

On most Dairy Holdings Limited (DHL) farms some stock are wintered on and will be eating a mix of pasture and possibly either straw, hay, baleage or silage. It is important to know how much pasture DM will be allocated each day and this will depend on the condition score required and the age of the animal. Pasture allocation (kg DM) ex-winter Stocking Rate (/ha) = demand.

If the pasture demand for those stock equals the expected pasture growth, then the target cover at 1 June will be the same as that at PSC ie, between 2,300 and 2,400 kg DM / ha.

If the demand is less than expected growth the target cover at 1<sup>st</sup> June will be lower by the amount of surplus expected to be grown.

If demand is higher than expected winter growth, then the target cover at 1<sup>st</sup> June will be need to be higher by the amount of extra demand.

## THE TOOLS ARE:

1. Selective management of thin cows.
2. Grazing round length management.
3. Matching demand to supply.

1. **Selective management of thin cows** to achieve the target condition scores above.

Table 1 is taken from the DairyNZ March 2016 Technical Series "The transition period starts now" which is highly recommended reading.

Drying off cows and feeding them well is the most reliable method of putting weight on modern high BW cows and is the strategy to be used in DHL herds. The reason that OAD is not used is because most of our best cows are those that are still thin at the start of the autumn and they will not put on weight when on OAD milking– they simply eat less and put all they eat into milk.

Cows dried off on the milking platform are best run adlib ahead of the milking mob who then clean up the paddock to the target residual. This makes it easy to manage rotation length as it is the area / day that the milking mob gets allocated that determines the rotation length.

Table 1 - *Days required from drying-off until calving to achieve the target calving BCS based on cow age and BCS at dry off.*

Body Condition Score at Dry-off		Days the cow needs to be dried off before calving
Mature Cows	Rising 3 yr old	Days on high quality Autumn Pasture
3.0	3.5	160 days
3.5	4.0	130 days
4.0	4.5	100 days
4.5	5.0	70 days

*Note:*

*Includes 10 days where cows are being dried off and not gaining BCS and 30 days when cows do not gain BCS before calving. For this strategy to work, dry cows need to be allocated a minimum of 9 – 11 kg DM/day or 108 to 144 ME / day (depending on breed).*

Most DHL cows also are required to transition to either Kale, Fodder Beet or Swedes, and during this transition they also are not putting on BCS and in some years' cows out at wintering also have to contend with snow, sleet and rain.

Use your pregnancy scanning to identify the early (first four weeks) and late calving cows.

In practice this means that **in colder areas dry off must be at the beginning of the month indicated.**

When to dry off cows	Which cows to dry off	
	Early calving (first 4 weeks)	Late calving
From early March	Mature cows CS 3.5 or lower R3yr's that are CS 4.0 or lower	Mature cows CS 3.0 or lower R3yr's that are CS 3.5 or lower
From early April	Mature cows CS 4.0 or lower R3yr's that are CS 4.5 or lower	Mature cows CS 3.5 or lower R3yr's that are 4.0 or lower
From early May	Mature cows CS 4.5 or lower R3yr's that are CS 5.0 or lower	Mature cows CS 4.0 or lower R3yr's that are 4.5 or lower
Early June	All remaining early calving animals	Mature cows CS 4.5 of lower All R3yrs

The number of cows dried off in March and April should be small if good stockmanship has occurred all season. The impact of drying of these cows will be small on current herd production performance but hugely beneficial on herd mating performance next year.

**Supervisors are expected to visit farms to see that the correct actions are taking place.**

**The independent CS assessment done in late summer / early autumn are a guide to the number of animals requiring early action. The assessment done in mid-May will measure how effective your autumn management has been on achieving CS targets pre-wintering.**

## **2. Grazing Round Length Management**

Lengthening the grazing round during the late autumn is a critical management tool. Used skilfully, it allows us to use the last weeks of surplus grass growth to promote pasture growth, minimise the need for purchased supplements, achieve the 1 June average pasture cover target, and set up a high-quality sward for next year. A key indicator that the round is being lengthened correctly is that post grazing residuals of between 1300 and 1500 kg DM / ha continue to be achieved.

Achieving this requires regular farm walks and monitoring what cover can be pushed forward without compromising pasture quality. It is important not to exceed canopy closure which will happen in pre-grazing covers above 3,800. At this level of cover (average pasture cover will be above 2500 kg DM / ha) pasture quality will have declined more than desirable and there will also be loss of new daughter tillers as they are shaded out. These new daughter tillers make up between 25 and 30% of the high-quality spring pasture sward that we are after and will only survive if average farm overs do not exceed 2500 for less than a few weeks.

If pasture growth is unseasonably good, then either a small amount of deferred grazing (poorest paddocks that are to be resown in new pasture or cropped in the spring) or baleage will need to be made.

As a rough guide, all farms should be on a 25 to 30 day round by the end of January depending on the quality of their irrigation system. Farms with better irrigation and more reliable water or who have surplus baleage or silage on hand should remain confident of staying on a 25-day rotation for a month longer.

Table 2 is a guide to typical round lengths to be achieved at some time during that month. Farms in favourable areas would target these round lengths by the end of the month and other farms in colder areas would target these round lengths earlier in the month.

Table 2 - Round Length and Pasture Cover Target guidelines for a 3.5 c/ha SR. **Again, in colder areas the rotation length needs to be at the longer end of the range for each month.**

Month	Round Length	Average Pasture Cover
January	25 to 30	2,200 to 2,300
February	30 to 35	2,300 to 2,400
March	35 to 40	2,400 to 2,500
April	40 to 45	2,500 to 2,600
May	50 plus	2,300 to 2,400
1 June	Slower Winter round to minimise area used	As per contract or higher at PSC target cover

Note:

Each farm needs to do a backwards feed budget from "Balance date" to work out required Target cover at Planned Start of Calving (PSC) and then 1 June target cover.

*In areas prone to snow, the pasture cover target at 1 June will be lower eg, 2,200 – 2,300 and there will need to be more silage or other additional feed on hand – the equivalent of another 100 - 200 kg DM / ha to make up the feed shortfall.*

### 3. Matching stock demand to pasture supply

This is also an important task. The most common situation is that as days shorten and temperatures get colder, pasture growth reduces and so stock demand has to be reduced. This is particularly important in May.

This will be a mix of reduced numbers and by naturally reducing intakes by stock as lactation continues.

Key strategies when pasture supply is declining are:

#### a) Irrigation

Continuing to irrigate to meet soil moisture deficits especially in February, March where the target must still be to water to field capacity. From the beginning of April on it is still important to irrigate but now the target is to irrigate to within 25% of the way to field capacity thus starting to leave room in the soil for any autumn rains and not have the soil get water logged. In May, this process continues and it is still important to not let soil moisture levels get below half way between stress point and field capacity. A changing weather pattern that is delivering more rain will need to be matched with less or no irrigation.

In May 2015, many farms stopped irrigating and then got too dry, and pasture growth in May and June was slow because of lack of soil moisture.

b) *Nitrogen*

Once you are into March there are only 1 or 2 grazing rotations left for this lactation season. The new environmental rules oblige us not to put on N fertiliser in May. This means that we need to get a decent amount of N fertiliser on March and April. Check how you are going against your total for the year and if possible there should be at least one round of 80 kg Urea / ha to kick pasture growth along. The response will most likely be a very profitable 10:1.

c) *Culling*

Early culling is essential and results in an immediate reduction on demand. This often also allows rotation lengths to be increased. Early culling also gets higher prices at the works, and usually there are no delays in getting stock off the farm.

Early culling is very unlikely to affect autumn production as the remaining cows consume the additional available grass and produce more milk.

Any culling decision should be made with your farm supervisor, and take into account your end of season target numbers. General criteria are;

- All empty cows – none to be carried over.
- Cows with multiple events of mastitis or lameness
- Negative PW and LW cows
- Cows over 10 years old

Cull cows with distended udders need to be dried off at least a month before culling to prevent any occurrence of leaking milk. Inserting a lactating cow antibiotic into each quarter (with about 10 days meat withholding) will help prevent any mastitis.

All other cull cows should be drafted into a separate OAD milking mob. This ready them for transport to the works, and also makes them easily available when the call comes to off load them.

d) *Drying cows off*

Initially this will be based on CS requirements.

Cows dry off quickly if feed levels are reduced for 5 - 7 days, and cows are kept away from the milking shed. **Ad lib water must always be available.** The use of straw, or low ME grass silage, can help do this while keeping the cows feeding fuller and thus more settled.

Use Dry Cow antibiotics when provided and make sure that you are properly trained to do this. Teats must be sterilized before the dry cow antibiotic or teat seal is introduced into the entrance of the teat canal.

If pasture supply drops further, then dry off fat cows and graze them on any marginal areas on the farm. Do not put thin dried off cows in public view.

Thin cows must always be grazed on your best quality pasture within a few days of being dried off.

If the situation continues to get worse keep your supervisor informed so that other solutions can be put into place.

In some exceptional years, excellent pasture growth continues well into the autumn. This can create some difficult problems if average pasture covers are allowed to rise above the guidelines previously stated or pasture residuals are allowed to rise. Both result in poorer quality pasture and much less production. It is also easy to get trapped into thinking that this will continue into June when past experience shows that the excellent growth always comes to an abrupt stop either in May or June.

#### Key strategies when pasture growth is unseasonably good in the autumn

- a) Keep irrigating to moisture deficit
- b) Put on less nitrogen initially but the last round still needs to be at least 80 kg Urea / ha.
- c) Dry off any thin cull cows and feed to put weight on them before sending to the works.
- d) Immediately cull any fat cows that are in the normal cull criteria while there is space at the works and there is a premium. Also, consider sell health cull cows as store cattle because this market is often good when there is lots of feed in the region.
- e) If round lengths are longer than the guidelines and target covers are higher continue to conserve some paddocks into baleage especially in February and March.
- f) If the situation continues into April, defer some paddocks to be grazed in the winter by stock kept at home.

#### **FARMS GENERALLY**

As more time becomes available use this to:

- 1) Attend to general maintenance and farm appearance.
- 2) Start planning for spring and get set up for calving.
- 3) Clean out and sterilise calf sheds.
- 4) Take the opportunity to get staff to undertake further training.