

FEED WEDGES: WHAT ARE THEY AND HOW CAN THEY HELP YOU?

Richard Reynolds

Feed wedges are a way of looking at the feed inventory that you have on farm each week; a 'stock take' of what you are going to feed the cows for the next week. Feed wedges provide more information than just average cover or longest and shortest paddocks. Feed wedges are a tool and the most value around a feed wedge is gained when the wedge generates discussion on feeding options and decisions using the information. A used feed wedge should have writing on it.

Using the wedge to identify surpluses

- Spot surpluses earlier
- Move surpluses to desired area of farm
- Avoid cutting too much area for silage - feast then famine
- Book contractors before anybody else
- Reduce/stop N use – save money
- Stop feeding out supplements – save money and time
- Change round speed

Using the wedge to identify deficits

- Decide on the size of the deficit and what you are going to do
- Advanced warning – start saving feed earlier
- Use to calculate amount of feed short
- Use as a discussion tool as to what to do
- See if it is a long term deficit or short term
- Alter N use – longer term
- Change round speed

Below are three feed wedges. Which has the highest average cover and what management would be required to farm with these covers?

Farm Name Kotuku

2/01/2002

Wedge Date

2028

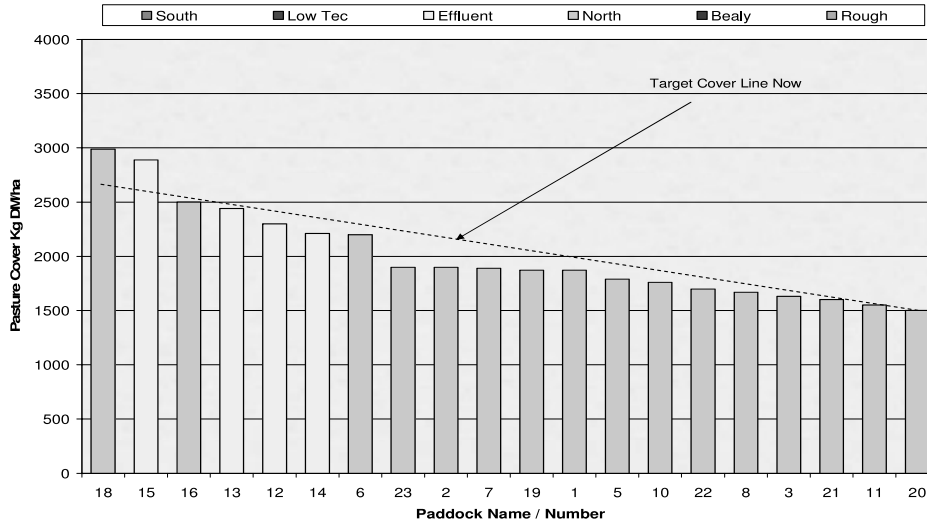
Average Farm Cover

Feed Wedge for Farm Block -

Herd 4

17.0

Current Growth Rate



Farm Name Kotuku

6/01/2002

Wedge Date

2028

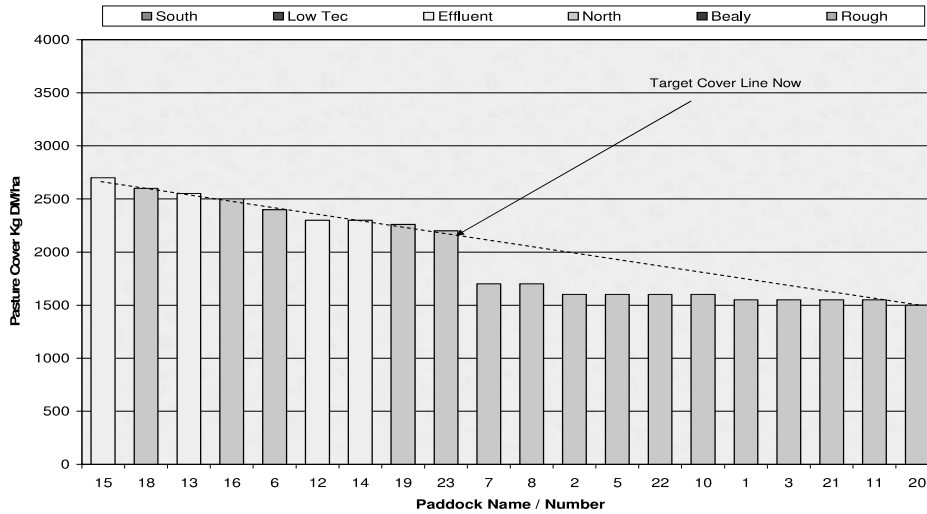
Average Farm Cover

Feed Wedge for Farm Block -

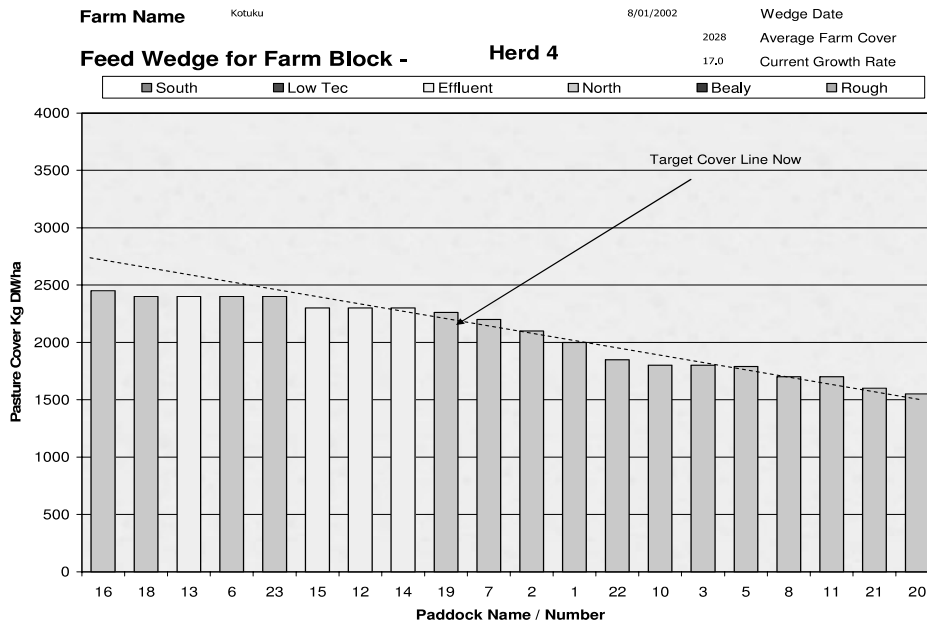
Herd 4

17.0

Current Growth Rate

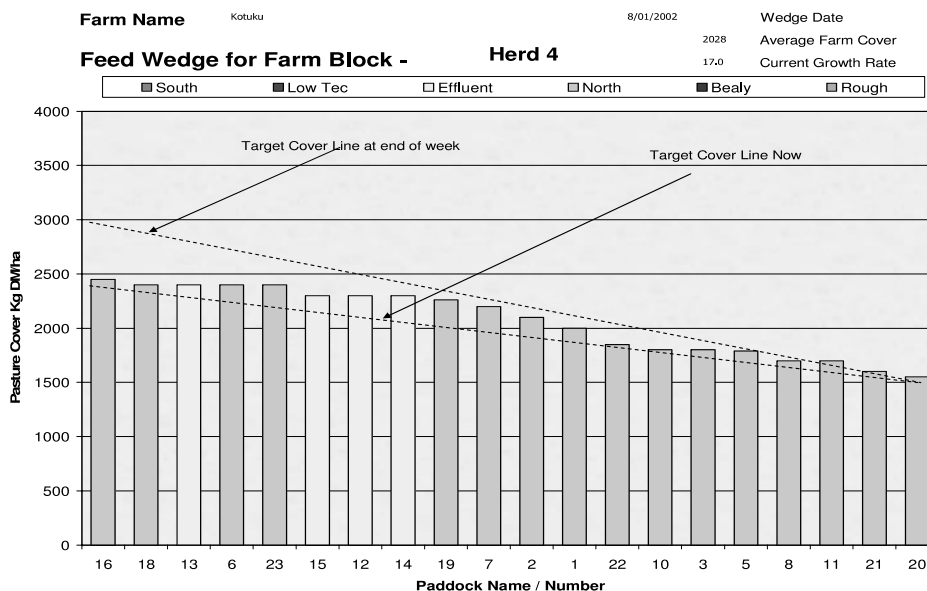


Notes:



With the above feed wedges, all farms have the same average cover, but all three will be in quite different feed situations, an average cover does not provide enough information.

In the early spring when the area is being increased to the cows, the target line is constantly changing. In the wedge below, the upper target line was for the previous week. Since then the rotation length has reduced and the target line for this week is lower, the average cover is also lower as the farm gets close to balance date.



Formula to use to work out the average cover needed

Cover to feed cows + Residual /2

$$2520 + 1500 (= 4020) / 2 = 2010 \text{kgDM/ha}$$

Target line start point

Stocking rate x round speed x intake (grass minus supplements) + target residual

If you are keeping on the same round length you will be able to check your calculations of intake, or pasture cover, by seeing if the cows have achieved the target residual. If a residual of over 8 clicks is left in the paddock, intake was set too high, or there was more grass in the paddock than measured. If the residual was too low - below 7 clicks - cow intake was not as high as planned because there was not as much grass in the paddocks as you thought.

So for an example farm

- 100ha
- 300 cows
- Eating 17kg day
- Using 5ha day i.e. a 20 day rotation
- Aiming to leave 1500kgDM behind

Adding a demand line

Start point

Stocking rate x Intake x Round speed + Residual = Cover

$$3 \text{ cow/ha} \times 17 \text{kgDM} \times 20 + 1500 = 2520 \text{kgDM/ha}$$

$$\text{End point set at residual} = 1500 \text{kgDM}$$

Notes:

Round length

Available farm area is the area available for cows to graze. Remove paddocks not available due to regressing, crops etc.

Available farm area/area used per day by *all* stock. Area used per day includes all area including area used by sick/lame mob.

Transferring the paddock cover information into a feed wedge is only the beginning of the process. This wedge can then be used to greatly improve decision making on the farm. More often than not, the decisions that are made will be timely and correct. This will greatly improve the financial profitability on the farm and make management much less stressful.

Adding value

- Use wedge as basis for weekly decisions
- Use to communicate decisions to staff
- Talk about options
- Can run what ifs
- Planning for supplement start/stop
- Can use to work out cover after surplus removed, future planning

A feed wedge will show either of three situations

- Too short of feed
- Too much feed
- Just right

Short of feed?

More information you may need to help make decisions

- Weather forecast, predict growth
- Soil temperature
- Expected change in stocking rate
- Paddocks coming in from re-grassing etc
- Fertiliser use last week, especially N
- Check that you have the demand line correct

Questions to ask when considering a deficit.

- Is this a long term situation?

- what is the current growth rate and what do we need?
- How can we use Nitrogen?
- How many days before we hit the hole?
- How many Kg/DM cow is the hole?
- What growth rate would we require to fill the hole?
- How much can we slow round down, to give more time for grass growth?
- Are we on the right round speed?

Tip

With a hole in the feed wedge you can work through what growth rate you will require to fill that hole.

When looking to use N to fill a feed hole remember that it will take time for the N to have an effect on growth rates, you will not fill a hole in a week's time by putting on N now.

Feed surplus?

Questions to ask

- Is this a long term situation?
- Current growth rate and what do we need?
- How much Nitrogen are we using?
- How much above required APC are we?
- Are we on the right round speed?
- What will new round speed be with silage paddocks cut/shut up?
- How long do we need to maintain growth rates if silage shut up?
- What will wedge look like after cutting silage?

Notes:

Tip

If your paddocks get cut at above your target residual, for the first week after cutting put them in at target residual.

Maintaining round speed with a surplus: eat longest paddock then a middle length paddock, can use to delay having to make supplements.

Just right?

- Will demand stay the same?
- Will demand change?
- Will supply change?
- What about the weather?
- What are we doing with N?
- Do our residuals agree with our target in cover?
- Where are the risk areas of the farm?
- Do residuals agree with graph?

There are two periods of the year when the use of a feed wedge with a single demand line can be misleading; this is during spring and autumn, when round speed and demand is changing rapidly.

- Spring when increasing cow numbers after calving and increasing intakes
- Autumn with culling and reducing intakes.

To overcome this issue during this time, place two demand lines on the feed wedge with the demand line at the start of the period and a demand line at the end of the period. The feed wedge should fall in between the two lines (see figure).

Tips

With the use of Spring Rotation Planner there is the ability to tell where cows will be at a future date by counting forward the average area used. This has the ability to help make decisions on when to apply Nitrogen and how much to apply.

If your farm has some paddocks that take twice as long to graze as others, name the paddocks A1 and A2, this way on the graph there will be a more even representation of the time it takes to graze in the wedge, than if all paddocks were given just one bar.

On farms that run two herds it has been found to be much easier to have two wedges, and run the two herds as if on two separate farms. This gives the ability to keep track of feed and where it is.

If using a computer program colour code the bars, so that wet paddocks, paddocks that cannot be cut for silage and any other unusual paddock can be seen easily when looking at the wedge.

Feed wedges have the ability to add value by reducing the stress associated with allocating feed on daily/weekly bases and can add \$ to your bottom line through increasing feed utilisation on farm.

Notes: