Fodder Beet Growing guide

Introduction.

Fodder Beet is potentially the highest yielding winter forage option available to farmers currently.

Some of the advantages of growing fodder beet include:

- High dry matter yield
- not susceptible to the brassica diseases and pest problems (as it is not in the brassica family)
- easy to feed
- low nitrogen requirement
- high in energy
- very palatable
- excellent digestibility

However unless care and attention is paid at establishment and the first 8 weeks from planting it can will lead to a poor experience for growers.

Paddock Selection.

Paddocks suitable to grow fodder beet should have light to medium free draining soil types, with a soil pH > 6.

Paddock selection should occur very early in the planning and the first job is to get a soil test. Soil tests should be done using a deep probe (150 mm) and the fertiliser company informed that its end use will be fodder beet. Soil pH is critical to the success of your paddock and can take some time to correct 12-18 months in some cases. If your paddock is low in pH < 6 consideration should be given to not grow fodder beet.

Fodder beet is not a candidate for direct drilling and to help ensuring a good strike of both fodder beet and weed seeds (so you can kill them) you need to deep plough and work until you get a very firm and fine seed bed. We recommend you select paddocks coming out of grass however fodder beet can be grown after a wide range of crops (including brassica) however fodder beet is very susceptible to chemical residues particularly those typically found after a brassica crop.

Also coming out of a cropping program will normally increase weed content that may create issues in the future.

Soil types that have issues with “panning” will need to be either very deep ploughed or sub soiled to allow the important water root of the fodder beet to grow unrestricted.

Fodder Beet Growing guide

Fodder beet, once past the early establishment phase, is very water economic and high yields have been achieved without the use of irrigation, however as with all plants irrigation is desirable. Irrigation has little benefit once the bulbs have fully developed.

Fodder Beet is sensitive to the effects of residue in the soil from many commonly used agricultural chemicals. The paddocks spray history over the last 12 to 15 months needs to be considered, if you are unsure help should be sought from your agricultural chemical advisor when selecting you paddock.

Drilling

- Drilling date is best between late September (in warmer climates) through until mid November.
- Soil temperatures of >5 are fine however ensure these ground temperatures are rising and not fluctuating up and down. This could lead to some plants bolting to straight seed head.
- Early drilling on light soil types is best as the pelleted fodder beet seed can require up to 50 mm to strike. Delay drilling if you are going through a period of heavy frosts.
- Fodder beet needs to be slowly (speed ≤ 4 km per hour) precision drilled at a depth of 2-3 cm. To achieve the desired 60 to 70,000 plants / hectare you will need to sow 80,000 plants per hectare.
- A 50 cm row width and a 15-20 cm plant spacing are ideal.

Fertiliser requirements.

Given the potential high yield of fodder beet its fertiliser requirements at establishment are high. The amount of fertiliser used will depend on your soil results and fine tuning of your requirements should be done in consultation with your local fertiliser representative.

The initial application of fertiliser is best done as a broadcast application prior to drilling. As mentioned soil pH is the single most important requirement for fodder beet. Fodder beet is also responsive to N.P.K.S but has a special requirement for Mg (Magnesium), B (Boron) and Na (Sodium). Levels of Mg and B will be determined by your soil test results. Like all members of the beet family Sodium is very important.

Typically at drilling we would recommend 150-200 kgs/ hectare Cropzeal 16, added to this should be 100- 150 kgs Agricultural salt. It's important to use agricultural salt (readily available) as it is finely ground. Nitrogen after planting should occur every 4-6 weeks after drilling up until bulbs are developed at between 80-100 kgs Urea per hectare.

This will typically mean two applications will be required, but don't over use nitrogen.

Fodder Beet Growing guide

Weed Control.

When weed populations are an issue use the option below:			
Application Timing	**Product**	**Target Weeds**	**Conditions**
Pre Emergence Post sowing/pre emergence the crop	Claw @ 2.0L/ha applied in 250L/ha	General Weed population	Apply as soon as possible after planting to a well prepared , Cambridge rolled seedbed with adequate moisture
1st Post Emergence First post emergence application, applied when crop at 2 true leaves or larger	Claw @ 2.0L/ha Plus Betanal Forte @ 1.2L/ha applied in 250L/ha	Annual Poa, chickweed, fathen, speedwell, spurrey, shepherds purse, nettle and groundsel.	Apply to weeds no larger than 4 true leaves.
When weed populations are high use the option below:			
1st Post Emergence First post emergence application, applied when crop at 2 true leaves or larger	Claw @ 2.0L/ha plus Betanal Forte 1.2L/ha Plus Goltix DF 1.0Kg/ha applied in 250L/ha	Above Weeds plus cornbind, wireweed and willow weed.	Apply to weeds no larger than 4 true leaves.
2nd Post Emergence Optional second post emergence application, applied 7 – 10 days after the first post emergence herbicide.	Betanal Forte 1.2L/ha plus Goltix DF 1.5kg/ha applied in 250L/ha **AND/ OR** Versatill 250ml/ha applied in 250L/ha	Apply Versatill where thistles or yarrow are present	Apply to weeds no larger than 4 true leaves.