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Better lives through livestock

Fodder beet *(Beta vulgaris)* for livestock feed on small-scale farms

Objective

To provide palatable and high energy feed for livestock with nutritive value similar to cereal grains

Description

- Fodder beet is a biennial plant with thick roots and is cultivated in a cooler climate
- The roots are a rich energy source for livestock
- Fodder beet needs a long growing season, 6–7 months and is grown in the highlands (1800–3000 masl) of Ethiopia with 750 mm rain and above.

Limitations of use

- Porcupine damage can be a problem
- Not suited to water logging areas
- Declines in yield at low soil fertility
- It cannot withstand frost

Management

- Field preparation

  A clean and well-prepared seed bed is required

- Establishment

  Fodder beet does better on light or medium soils to avoid harvest problems. The recommended seed rate is 5–10 kg/ha or use raised seedlings from nursery. Seeds can be row planted in June at 2 cm sowing depth and in rows 50 cm apart. Thinning can be done to give 20–25 cm spacing between plants or seedlings can be transplanted from nurseries 1–2 months after planting.

- Fertilizer

  Apply DAP at 100 kg/ha during establishment or requires about 10–15 t/ha of farm yard manure. Manure is very variable in quality and hence rates may vary depending upon soil types and previous cropping.

- Weeding

  Requires effective hand weeding especially during the early establishment period (the first one–two months).

- Performance

  Fodder beet requires a lot of work but rewards are high in terms of yield and animal performance. Average tuber yield is in the range of 13–17 tonnes dry matter/ha. The leaves/tops will also contribute a further

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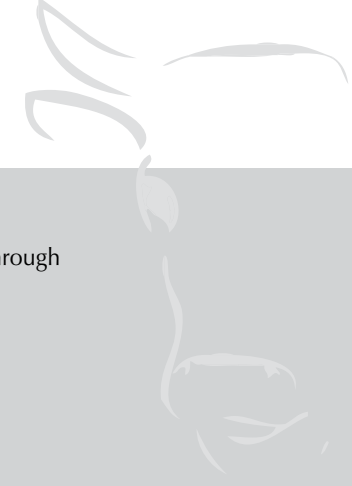
3–4 tonnes dry matter/ha. Roots are high in energy but low in protein with crude protein values of 6% whereas the tops are modest in energy levels and reasonably high in crude protein compared with the root.

- Seed production

  Fodder beet flowers and produces seeds in the second year and the root decreases in size. When seed of fodder beet is ready for harvest, stripping is used for seed collection. Seed yield is about 400–500 kg/ha.

- Utilization

  The roots can be harvested after about 6 months from planting when they are at their maximum size. The roots are harvested carefully by digging them out of the ground. They have to be washed and separated from any soil material. In general, washed roots can be used for intensive management systems in dairy or fattening farms by chopping before feeding. Tops may also be fed after wilting. The tops can also be grazed or can be ensiled.



Information leaflet on livestock feeds and feeding technologies for small-scale farmers developed through collaboration between ILRI and its partners

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