PRODUCT DATA SHEET

Fodder beet

Botanical name Seeding rate Beta vulgaris 15-20 kg/ha normal seeds, 8-10 grains/m² precision seeds, 4-5 ½ units/ha pelleted seeds

Distance between rows40-50 cmSowing periodMarch toSowing depth2-3 cm

4-5 ½ units/ha pelle 40-50 cm March to April 2-3 cm



Botany

- Family: Amaranthaceae
- ▶ Genus: Beet
- Origin: Europe
- Biennial, herbaceous plant (reaches generative flowering phase only in the second year of stand establishment)
- Counted among the most productive feed varieties, particularly in terms of fresh mass yields
- The beet fruit (regardless of whether fed fresh, chopped or as silage) is juicy; it is extremely palatable and easily digestible owing to high quantities of easily metabolised carbohydrates

Varieties and seeds

- Depending on the variety, the beet fruit can vary drastically in terms of shape, colour and shoots
- There are varieties with white, yellow, orange or red coloured beet fruit
- The following seed shapes can be differentiated:

Soil requirements

- Average to better quality, nutrient-rich, deep, loamy and clayey soils are preferable; ideally composed of loam or brown earth with high base saturation
- Waterlogged soils are not suitable

Morphology

 Root system less dense compared to grasses and legumes

Climate requirements

- Thrives in many different climates; prefers humid, mild to moderate climates
- Adequate watering brings about maximum yield
- Does not tolerate frost

Normal seeds	Precision seeds	Pelleted single grain seeds
Untreated, polyspermous (multigerm) fruits (clusters) are harvested on propaga- tion fields in the summer of the second year of crop establishment	At least 70% single-seed (monogerm) grains obtained after splitting up the clusters	At least 90% single-seed (monogerm) grains obtained by means of further seed treatment (pelleting)

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Crop rotation

- As supporting foliage plants fodder beets are mostly cultivated after nutrient-sapping cereal crops; maize, clover or grass also work well as preceding crops
- Fodder beets are self-incompatible, a cultivation interval of 3-4 years (even for sugar beets) should be maintained
- In general, cultivation before or after brassica varieties (rapeseed, cabbage, canola) should be avoided because of the risk of species-specific plant diseases and the proliferation of beet cyst nematodes

Soil preparation

• The aim is to have a well-distributed, even, finely crumbled seedbed for sowing:

Objective	New cultivation
Measures	Basic soil preparation (primary preparation) with a plough for neat cultivation.Secondary processing using a mill or rotary harrow for a fine,
	well-distributed seedbed.

Sowing

- ▶ Target stand: 85,000-105,000 plants/ha
- Rule of thumb for sowing: In many cases, even pelleted seeds may achieve maximum germination of only 60-70% in the field, making the sowing quantity significantly higher than the target stand density



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Sowing rate depending on the seed shape

Seeds	Normal seeds	Precision seeds	Pelleted seeds
Sowing rate	15-20 kg/ha	8-10 kg/ha	4-5 x ½ units/ha
Remarks	It is imperative to 'thin out' the beets – only the strong- est plants should be left behind out of the germinat- ing cluster.	Slight thinning out may be required depending on the germination capacity and emergence, so that the target stand density can be maintained.	¹ / ₂ unit contains 50,000 grains – these are enough for approx. 2,000-2,500 m ² .

Crop protection

- ▶ Adequate weed control, chemical and mechanical processes may be used
- In the event of heavy species-specific infestation, chemical treatment needs to be done for leaf spot disease (Cercospora beticola), beet leaf miner and flea beetles and viral vector control measures need to be taken to prevent yellow virosis

Fertilisation

- · Based on soil testing (comply with the fertiliser regulations!)
- Nutrient administration per year in kg/ha:

	Total N	P ₂ O ₅	K ₂ O
Total	180	100	300

Harvest and treatment

- ► Fodder yield: Beet fruits provide up to 150,000 kg FM/ha (≈ 18,000-22,500 kg DM/ha) plus 15,000-40,000 kg DM/ha
- From early October, beets should be dug out, either manually or using the appropriate machinery, with as little dirt as possible



Any questions? Please feel free to contact us! ♥ +49 2151 - 44 17 0 ■ info@freudenberger.net