

# PRODUCT DATA SHEET

## Teff

<b>Botanical name</b>	Eragrostis tef
<b>Seeding rate</b>	As a main or second crop, approx. 10-12 kg/ha, as a catch crop approx. 15 kg/ha
<b>Distance between rows</b>	Similar to cereals
<b>Sowing period</b>	Before late May when used as a main crop, before late August as a catch crop
<b>Sowing depth</b>	0,5 cm
<b>Germination temperature</b>	From soil temperatures of 16°C



### Summary of key characteristics

Teff is an extensive, robust and drought-tolerant plant for forage production. It is an annual plant that is not winter hardy. Due to increasingly frequent extreme weather conditions such as summer droughts, conventional forage production systems based on native grasses are increasingly being pushed to their limits. Teff can provide a potential solution to quickly close gaps in forage production. The species provides valuable summer forage for cattle and is well suited for hay production and silage. Stands become ready for the first cut by 35-40 days after sowing.

### Botanical information

- Family: Poaceae (grasses)
- Origin: Ethiopia and tropical East Africa, where it has been cultivated since 4000 BC
- Wild forms are frequently found in moderate and temperate climate zones
- Today, it is also grown in the USA (California, Texas, Nevada), India, Australia and Spain

### Morphology

- Teff is an annual C4 grass that grows in upright tufts
- Height: 30-100 cm
- Stems upright and mostly simply branched
- Hairless internodes and leaf blade
- Ligules: present and with hair in a single straight line (with trichomes)
- Leaf blade: hairless, flat and curled upwards, 6-30 cm long and 0.2-0.4 mm wide
- Flowering period: July to August
- Fruits: very small relative to other millets, with a diameter of just 1-1.5 mm

### Varieties and seeds

- Regional varieties predominate in agriculture
- Predominance of commercial seed
- No established varieties available in most countries
- Individual varieties have been bred in the Netherlands

### Usage

- Can be sown pure or in mixtures
- Possible applications as a main crop and in shorter seasons as a summer catch crop
- In the USA, used as a cover crop for seed multiplication fields



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## Climate requirements

- Low climate requirements
- High tolerance to heat and drought
  - Optimal temperature between 10 and 27°C
- Susceptible to frost

## Soil requirements

- Generally low soil requirements
- All-rounder: everything is possible, from marginal, sandy soils to areas affected by standing water

## Crop rotation

- The species is autotolerant
- Does not place any major demands on subsequent crops
- Can be deployed in many crop rotations
  - In cereal rotations or for grass seed multiplication: keep it from developing seeds in order to prevent the emergence of volunteers

## Soil preparation

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

Objective	New cultivation
Measures	<b>Basic soil preparation (primary preparation)</b> clear by ploughing on heavy soils, a cultivator can also be used on lighter sites. <b>Secondary processing</b> using a mill or rotary harrow for a fine, well-distributed seedbed.



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## Crop protection

Teff is very robust and, to date, has been nearly unaffected by diseases or pests.

### ▸ **Weed control**

Especially for no-till scenarios, choose sites with low weed pressure; after sowing it establishes itself quickly and can effectively suppress weeds.

### ▸ **Fungal pathogens**

When cultivated in the tropics or subtropics, infestations of rust fungi (*Uromyces eragrostidis*) can occur.

## Fertilisation

▸ Under consideration of current legislation, the N demand amounts to 60-110 kg N/ha, with 30-55 kg N/ha at each cut

## Harvest and treatment

- First cut about 35-45 days after sowing
- Subsequent cuts possible under favourable conditions (around every 30-35 days after the previous cut)
- Mowing height: 10 cm
- Yield: 10,000-20,000 kg DM/ha under favourable conditions

## Usage

- Feed uses (especially brownish seeds)
  - Silage
  - Hay
- Human food (especially whitish seeds)
  - Flour production
  - Used as a starting product in malting
- Seeds are gluten free and rich in essential fatty acids and iron



**Any questions?** Please feel free to contact us!

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