

PRODUCT DATA SHEET

Opium poppy

Botanical name	Papaver somniferum
Seed rate	0.8-1 kg/ha (at target plant density of 50-80 plants/m ²)
Distance between rows	Like cereals; 20-50 cm is also possible to enable mechanical weeding
Sowing period	March to early April
Sowing depth	0.5 cm (with rolling)



General information and usage

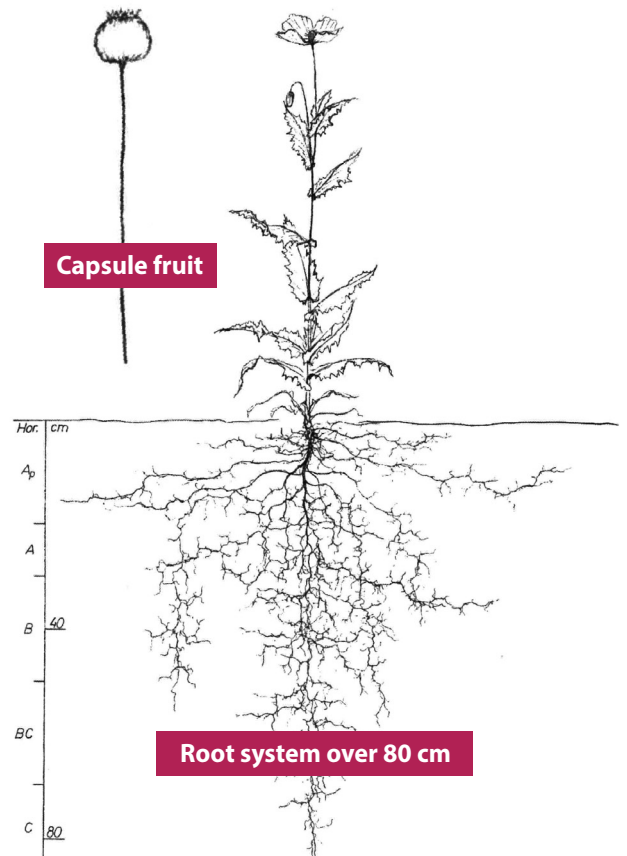
- ▶ Other names: Poppy
- ▶ Used in medicine as an anaesthetic
- ▶ Used in food for dishes and pastries, also for oil extraction
- ▶ Opium poppy cultivation in Germany requires a permit (according to the German Narcotics Act)

Botany

- ▶ Family: Papaveraceae (poppy family)
- ▶ Genus: Papaver
- ▶ Origin: Europe, Near East, North Africa, North America, Eastern China, Australia

Morphology

- ▶ Annual, upright and herbaceous plant growing to a height of 0.5-1.5 m
- ▶ Forms a long taproot with numerous lateral roots and is sensitive to soil compaction
- ▶ Stem is round, rarely branched, covered with bristle hairs on the upper part
- ▶ Leaves are smooth-edged and short-stalked during the early growth stages
- ▶ Leaves formed later have crenate or irregularly lobed and toothed margins
- ▶ The flower consists of 2 large sepals attached to 4 inner petals
 - Flower colour: white, pink to violet with a dark spot at the base
- ▶ Seeds are formed in closed capsule fruits
- ▶ Self-pollinator



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Varieties and seeds

- Low-morphine varieties are permitted in Germany

Climate requirements

- Central European climate and transition areas from maritime to continental climate are optimal
- Locations exposed to the wind are unfavourable, as there is a risk of the stems buckling
- Known for strong resistance to winter and drought
- Water requirement is highest from the beginning of flowering
- Minimum germination temperature of 3°C
- Frost-tolerant to -5°C (also for emergence)

Soil requirements

- Humus-rich soils with good water capacity, good structure and low risk of capping (loess loam, sandy loam soils) are favourable
- Soils with no soil compaction and waterlogging
- Sandy and clayey soils are not advantageous
- The optimal pH value is 6.0-7.0

Crop rotation

- Maintain cultivation breaks of 3-5 years
- Good preceding crops are sugar beets, maize, legumes and vegetables
- Potato is unsuitable as a preceding crop



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Soil preparation

- ▶ Similar soil preparation and seedbed requirements as for sugar beets
- ▶ The aim is to have a well-distributed, even, finely crumbled and weed-free seedbed:

Objective	New cultivation
Measures	Basic soil preparation (primary preparation): in heavy soils, clear by ploughing; in areas with light soil, a cultivator can also be used. Secondary processing: use a tiller or rotary harrow for an evenly crumbled, well-distributed seedbed.

Crop protection

- ▶ Very little weed suppression in early development
- ▶ Where weed pressure is severe, herbicide application should be considered prior to sowing
- ▶ Mechanical weed control:
 - With harrows
 - With cereal cultivators (in this case, the row spacing must be adjusted)
- ▶ Among many fungal diseases, downy mildew poses a particular threat in poppy cultivation
- ▶ Black bean aphid and aphids are the main insect pests

Fertilisation

- ▶ Based on soil testing (comply with the fertiliser regulations!)
Annual nutrient losses in kg/ha for 1,300 kg/ha seed yield:

	Total N	P ₂ O ₅	K ₂ O	MgO
Total	71	50	80	1

- ▶ If planning to use mineral fertiliser: perform prior to sowing, since young plants are very sensitive to elevated salt levels in the soil

Harvest and treatment

- ▶ Harvest period: 90% of the capsules have reached harvest maturity (→ makes a rattling noise when shaken)
 - Likely mid-August to mid-September (in Central Europe)
- ▶ Seed yield: 1,300 kg/ha
- ▶ Cut height: 50-70 cm
- ▶ Wide threshing concave setting (e.g. 30 mm at the front and 20 mm at the rear)
- ▶ Drum speed about 50-70% of the usual speed and fan power for cereals
- ▶ After harvesting, seeds should be dried to below 9% moisture

Any questions? Please feel free to contact us!

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