

PRODUKTDATENBLATT

Winter hemp

Botanical name	Cannabis sativa L.
Seeding rate	On its own as a catch crop 55-65 kg/ha for fibre harvesting 45-55 kg/ha (goal: sparse stand, which can gently dry out over the winter months)
Distance between rows	15-20 cm, normally sown in rows, precision seeding possible
Sowing period	July to August following early-harvested preceding crops such as barley or wholecrop cereal silage (winter hemp is not greening-eligible)
Sowing depth	3 cm in a fine, well-distributed seedbed



Rustic fibres from natural hemp: An exciting alternative to imported cotton from abroad and synthetic fibres made from plastics!

Natural hemp textiles: A regional solution, which means no lengthy shipping routes, mostly grown without the aid of pest control measures and requires much less water than cotton.

Winter hemp: One of the few species with potential economic uses (fibre harvest without displacing the main crop) that can also offer all the advantages of winter catch crop cultivation.

Botany

- Family: Cannabaceae (Hemp)
- Herbaceous, annual, non-winter hardy leaf crop
- Plant height at beginning of dormancy:
150-200 cm
- Cultivated as a winterkilled catch crop that dries out but remains standing while generally not reaching seed maturity
 - "Drying" of the hemp crop occurs somewhat earlier than for white mustard under frosty conditions
 - Dried winter hemp stands offer excellent natural cover for cleared agricultural fields and are a favourite feeding place for birds, which enjoy eating its seeds

Climate requirements

- Undemanding
- Sufficient precipitation levels during early development are advantageous

Soil requirements

- Low soil requirements
- Suitable as a pioneer plant thanks to strong root penetration and shade formation from its thick foliage
- Suitable for permeable soils without compacted areas and standing moisture
- Ideal soil pH between 6 and 7.5
- Remarkable root system deeply penetrates the soil with a central taproot; roots can reach depths of up to 3 metres

i Drying refers to the slow and gentle ripening of the whole plant over the winter months.



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Crop rotation

- Considered a neutral plant (like niger or phacelia), since the genus Cannabis is genetically quite distant from all known crop plants
- Known to be self-tolerant

Sowing

- The remaining vegetative period following sowing is sufficient for the formation of long shoots, from which fine textile fibres can be extracted following the harvest

Crop protection

- Diseases and pests not yet known
- Quick germination and early shading of the ground are largely able to control emerging weeds without the need for herbicides

Fertilisation

- Fertilisation in accordance with current regulations
- Use of organic fertiliser recommended prior to sowing
- Sufficient potash provision on the site is beneficial
- Nutrient acquisition capacity during the winter comparable to well-managed mustard stands

Harvest and treatment

- Harvest timing: as long as the ground is accessible, ideally once the stand has dropped below 20% moisture from late February/early March
- Harvest similar to hay mowing with a stubble height of 15-20 cm (sharp blade must be ensured) and subsequent pressing into bales from the swathe
 - Fibre yield: under favourable weather conditions (sufficient precipitation during establishment), up to 3 t DM/ha in the autumn, or between 0.6 and 2.5 t DM/ha in drier years depending on the site
 - In case of uncertainty, non-harvestable winter hemp stands provide all the benefits of a good winter catch crop (nutrient absorption, ground cover, ground closure, good shading, etc.), which can be mulched or rolled in March
- Hemp bales must first undergo decortication in the storage facility before being processed further
 - Decortication: opening the bales and separating the valuable fibres from the woody parts and debris, from which so-called bast fibre is obtained
 - The bast fibre is then degummed, which consists of washing and separating the fibres
 - Subsequently processed in the textile industry

Important information:

For many centuries, hemp was an important crop in Germany as a source of fibres. Because of the intoxicating effects of its flowers, hemp cultivation was prohibited in Germany between 1982 and 1996. This ban was lifted in 1997, albeit under strict requirements and the condition that the flowers not contain more than 0.2% of the psychoactive ingredient THC. This restriction applies to both winter hemp production and the much wider-known summer cultivation for seed production.

All commercial hemp cultivation in Germany must be registered with the Federal Agricultural Office (Bundesanstalt für Landwirtschaft; BLE). It must also be recorded in the IACS single application. During the hemp cultivation period, the BLE will take a field sample from the stand to check the THC content.

Planned cultivation of winter hemp must be reported no later than 1 July of the respective planting year.

Any questions? Please feel free to contact us!

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