

# Cultivation of white lupin

A cool-season and environmentally friendly protein crop

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White lupin (*Lupinus albus*) is a different botanical species to narrow-leaved or „blue“ lupin (*Lupinus angustifolius*). It tolerates heavier soil and has a higher yield potential, but does not ripen until August/September. Important cultivation practices include the use of healthy, certified seed, sowing as early as possible and using the right cultivar to reduce the impact of the fungal disease anthracnose, which is spread through the seed. The most important experiences from organic farming are summarized here.



**Figure 1.** The white lupin

## Decision-making aids

White lupin is the most valuable protein crop after soybean for animal feed and human nutrition due to the high protein content and good amino acid profile. The yields are usually around 3 t/ha, typically varying from 2 to 4 t/ha. Advantages over soybeans include above all the possibility of sowing in March (frost down

## Applicability

**Topic:** Cultivation of the white lupin

**For:** Growers of grain legumes

**Where:** Free-draining soils with low lime content

**Sowing time:** March (April), earliest possible

**Harvest time:** Late (August-September)

**Technique:** Either narrow row spacing like for cereals and harrowing once or twice, or 50 cm row spacing with inter-row hoeing. Combine harvester

**Follow-up:** Identify a market before sowing. Very suitable as raw material for food products

**Role in the farming system:** Cold-tolerant protein crop without N-fertilization with benefits for subsequent crops

to -5 °C is no problem), a better preceding-crop or break-crop effect, and clearly visible flowers which are attractive for pollinators. Lupin thrives well in acidic, low phosphorus soils. Disadvantages of white lupin are the risk of losses due to anthracnose, problems with late weed infestations, and a relatively late harvest (mid to late August). The marketing of lupin also requires care.

## Anthracnose

Avoiding anthracnose is key to success. Anthracnose is a leaf-spot disease transmitted through the seed. The use of visually clean certified seed is the foundation of control. All cultivars available so far are susceptible to the disease. In Germany, the less susceptible cultivar "Frieda" has been approved since 2019.