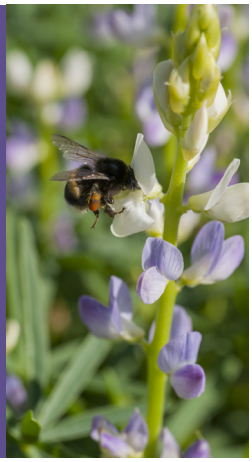
PRODUCT DATA SHEET

Blue bitter lupin

Botanical name	Lupinus angustifolius
Seeding rate	180 kg/ha
Distance between rows	as cereals
Sowing period	June to end of July
Sowing depth	4-6 cm



Potential of blue bitter lupin

The blue bitter lupin - also known as narrow-leaved lupin (Lupinus angustifolius) - is ideally suited for establishing itself as a catch crop, cultivated pure or in mixtures. In contrast to blue, yellow and white sweet lupin, the blue bitter lupin is specially bred for catch crops. Compared to the sweet lupins, blue bitter lupins overall are characterized by greater robustness and greater emphasis on the characteristics of root-penetration-depth and -intensity as well as biomass formation.

Lupin as a fertilizer factory

As a coarse-grained legume, the blue bitter lupin has a good nitrogen fixation potential. This quantitative assessment is dependent on numerous factors, above soil, vegetation period and the annual weather. On average for many years and locations, a nitrogen fixation rate in pure seed stands with long growing periods, orientated to the use as a main crop, of 120 to 200 kg N/ha can be assumed. Assuming a pure nutrient price of currently around 0.75 €/kg nitrogen, this results in a monetary fertilizer value of blue bitter lupins of 90 to 150 €/ha.

Cultivation claim

Since the three common types of lupin all differ in terms of their cultivation requirements, this should be briefly explained for the blue bitter lupin: Compared to yellow lupin (Lupinus luteus), blue lupin tolerates higher pH values in a range between 5.0 and 6.6. Sandy soils, loamy sands and sandy loams are ideal for cultivation. Compared to white lupin (Lupinus albus), blue lupin makes less demands on soil and location.

With the strength of its roots

Blue bitter lupin is an excellent pioneer plant, ideal for making newly cultivated or recultivated areas rootable again and thus fertile. A strong, rapidly growing taproot is characteristic for this species (see Fig. 1). Austrian tests have shown that three months after sowing, root penetration depths of around 150 cm were reached. The increasingly finely branching, bright white root system can eventually reach a depth of up to 200 cm. Roots of blue bitter lupins show an enormous ability to improve soil structure for subsequent plants, even on dry locations with acidic soils.

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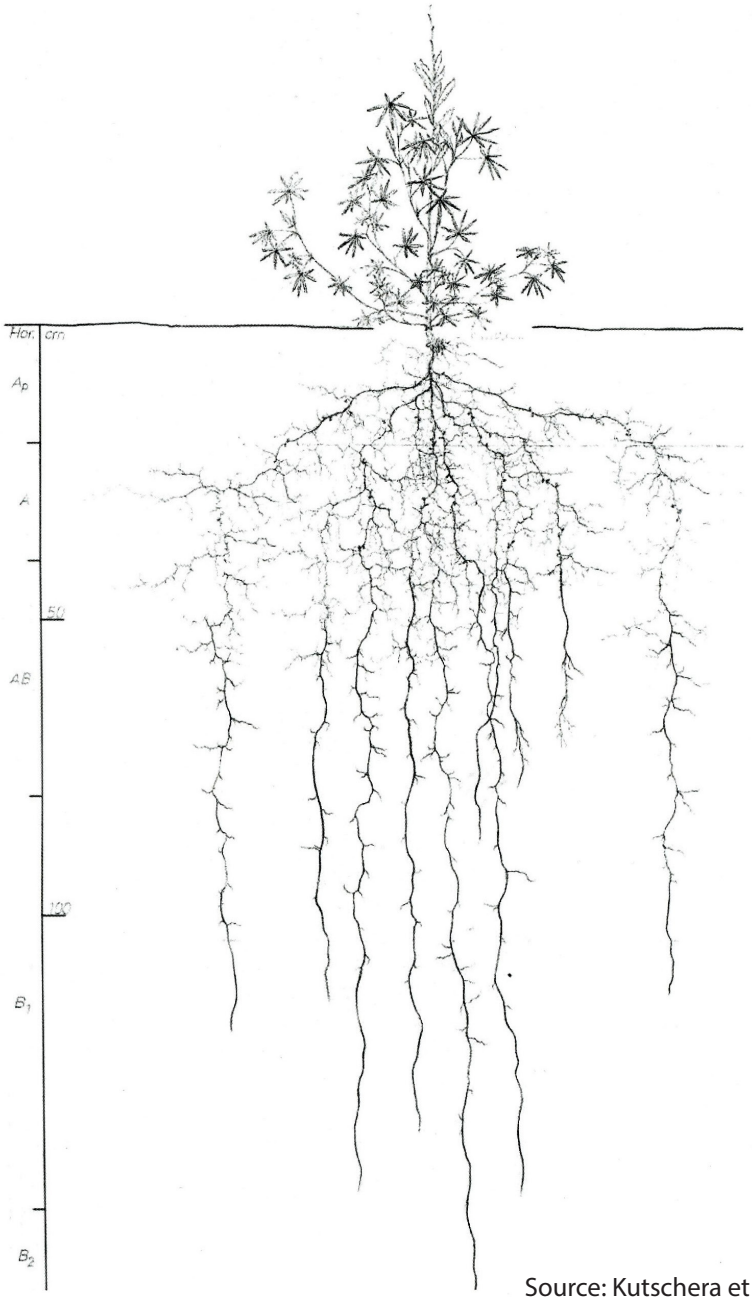
Bitter substances for higher yields

The recommended seed rate is around 180 kg/ha at a sowing depth of 4 to 6 cm. Another advantage: The name bitter lupin results from the existing antinutritional alkaloids. These bitter substances ward off predators, but also make the blue bitter lupin unusable for human consumption. The defense against predators promotes a safe population establishment. Tests show that 25 to 30 t/ha fresh matter and around 3.5 to 4.5 t/ha dry matter are possible. The dry root mass can be up to 1.5 to 2.0 t/ha.



Source: Kutschera et al. 2009, S. 279

Do you have further questions? Contact us!
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