

Lupins

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Interest in grain legumes continues to be high, as purchasing protein is expensive, and organic livestock farmers are increasingly looking for home-produced protein. One such option available to farmers in Scotland is the use of lupins. This technical summary will take you through what you need to know about planting these in Scotland.

Growing lupins can be tricky, and to begin with, growers should only try the crop on a small area. Lupins are notoriously difficult to grow in Scotland's cooler climate and shorter growing season.

There is **no established market** for lupins though the quality (amino acid profile) and high oil content of the crop indicates that it **could be more valuable than peas or beans**.

Lupins are **higher in protein** (32% to 40% of DM) than beans (29% of DM) but are often **lower yielding** (expect 2.5 – 3.0 t/ha compared to beans 3.5 – 4.5 t/ha).

Sowing

Lupins **prefer more acidic soils** than those suited to peas or beans, normally below about pH 6.0, and this, coupled with an ability of some lupin species to take up phosphorous efficiently, may make them **better adapted to low-fertility sites**.

Spring lupins are **sown in March or April** and early varieties should be chosen so that ideally they mature around September.

The aim is to establish 100 plants /m². This will require around 200 kg /ha seed to compensate for losses to pests.

Seed should be inoculated immediately before sowing, with inoculant usually supplied with the seed.

Weed & pest control

Lupins are not competitive in the early stages and the determinate varieties do not give much weed suppression at any stage. The full range of pre-sowing weed control methods should be used, and possibly a comb harrow or similar in drier weather when plants are young.



As with spring beans, consideration should be given to undersown forage legumes (e.g. white clover or trefoil).

The main pest and disease problem for UK lupins are rabbits and birds at establishment.

Harvesting

Harvesting options include dry combining, whole-crop harvesting of mature crop and crimping/ensiling at 30% MC.

Sole-cropped lupins are unlikely to be widely successful in most of Scotland **but growers are increasingly trying them in mixtures with cereals.**

Lupicalage, a combination of lupins and triticale, is lower risk and easier to manage than sole-cropped lupins. It has received interest from beef and dairy farmers, particularly in SW Scotland. Current evidence suggests its greatest benefit is to milk quality.

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February 2026