

Growing Lavender

Technical Advice sheet

Introduction

Lavender can be a new and unusual crop that can be integrated into a range of existing grower holdings, and it can even integrate well with other products such as honey if you have hives on site. Dried lavender can be sold as a variety of products such as dried flowers, prepared into bunches either by itself or mixed with other dried flowers like thistle and Gypsophila. For pick-your-own sites lavender can make an attractive addition to the farm site. Large lavender plantations can even be hired out for wedding photograph scenery! From a growing perspective, lavender can be easily cultivated with few pest and disease problems in the long term. Once planted lavender can last for 6 – 10 years according to soil, variety and weather conditions before requiring replanting.

Soil & Climate

Lavender is best suited to area of low rainfall, in calcareous, stony, well-drained soil in dry, sunny situations. Light loam over chalk is the most suitable, although sandy loams can be used if suitably limed. Free draining soil is essential, making heavy soils unsuitable due to the increased risk of disease. Frost-free areas, and protection from strong winds is also required.

Lavender will be well suited to mild Welsh winters, but high rainfall and strong wind exposure can prove a challenge to the crop. It's best to plant lavender in sheltered fields, but if you want to grow on an exposed site consider wind breaks to protect the crop.

Rainfall can be higher in Wales than in typical lavender growing areas, but the harvesting window is between July and August and so is unlikely to pose a challenge. Fields will need good drainage, however, to avoid over-wet soils. A pH of 7 is optimum, but soils of pH 5.8 – 8.3 have been used for cultivation. Conventional liming with normal cultivations before raised bed creation should be sufficient. pH will need to be monitored every two years, and if you see a rapid decline in pH, lime application would be advisable in anticipation, as cultivation won't be easy once the crop is established.

Cultivation

Beds can be made up after cultivation to a height of 30 – 40cm with a flat top. Once formed, Mypex strips should be laid over the beds for weed control, with an irrigation pipe underneath the Mypex. For large areas the beds can be formed with a tractor-pulled ridging machine with a levelling board, followed by Mypex covering with a polythene laying machine if available. When preparing beds, leave a decent headland (c. 5m) if you are using machinery.

Plants are best planted by hand in cross-cut holes in the Mypex – keep this as small as possible to minimise the window for weed establishment. Mypex clips can also be used to stabilise the sheet, but if this is dug in well it won't be necessary.

It's unlikely that the crop will need any significant irrigation, but it is best to have this in place in case of hot, dry weather to sustain growth. Water drawn from a well, or from a storage tank, can be used for irrigation, and you can also consider the use of an in-line feeding device like a Mazai or Dosatron. Feed can also be supplied through a dressing of manure which is incorporated into the beds as you make them up. Plants will only take up significant feed once established, where nitrogen rates of 80 – 100 kg/ha and phosphorous at 33 kg/ha are recommended. Excessive feeding will promote vegetative growth and reduce yields.



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Lavender planted in raised beds through mypex.

Spacing	Dwarf/Medium Plants (e.g. English lavender <i>Lavandula angustifolia</i> e.g. Hidcote blue or Munstead) can be spaced 30 – 40cm between plants. For larger/taller cultivars like <i>Lavandula x intermedia</i> hybrids like Grosso this should be increased to 60cm between plants.
Watering	Once established irrigation will only be required in very hot/dry weather as they are generally drought tolerant. Some watering after harvest will assist regrowth.
Pruning	Once established hardy lavenders can be cut back to older wood in August so they have sufficient time to re-grow before the onset of colder wet weather. This generally covers removal of the spent flower heads and stalks and tightening up the shape of the bushes back into the current season growth.

Variety Choice

The main commercial varieties are Grosso, Provence, Gros Blue and Dutch Mill. *L. x intermedia* hybrids (commonly known as Lavandin) are recommended for oil extraction and fresh and dried flowers – they flower profusely, giving large flower heads with a greater oil content than *L. angustifolia* varieties. These varieties are very hardy, flowering from July to late August. Plants can also reach 60cm, making an impressive sight for visitors. However, dwarf *L. angustifolia* varieties like Hidcote Blue, Maillette and Munstead are recommended for dried flowers as they have strong flower retention after drying. *L. angustifolia* varieties also produce greater quality oil for perfume and cosmetic use. Plug plants raised from seed are likely to be available from ornamental propagators – avoid cutting material to avoid biosecurity risks.

Harvesting Lavender

Lavender can be harvested July – August. If cutting for oil distillation all flowers must be open, generally a week later than flowers would be cut for the fresh or dried market. Flowers are best cut when the plants are dry, and strong sun will improve the oil content. If you plan to grow for oil production you must carefully consider the availability of a distiller, or research and invest in your own distillation apparatus – how the crop is distilled is likely to have a significant impact on how you harvest and handle your crop. Oil yields of 35 – 45 kg oil/ha are achievable in a good year, but 11 kg oil/ha is likely to be more representative. Lavender grown for dried flowers should be cut just before the flowers reach full bloom. These should be laid in open trays and dried outdoors in the sun (covered up at night) or in a well-ventilated, dry room.

For harvest, machinery that either straddles the bed and cuts in front of itself, or is off-set and cuts the row adjacent to the tractor will be useful. A range of purpose-built machinery, such as those based Lavender around tea harvesting. Tractor wheelings (e.g. 1m bed width) should be used to plan bed spacing to aid harvest. However, smaller plantings up to 2 acres could be realistically cut by hand.

Weed, Pest & Disease Control

Some die-back may be seen 3-4 years after planting – this is generally non-specific and due to a variety of reasons. The worst problems are seen in tunnels, especially if kept wet. Pest pressure is generally low, and most disease problems can be managed culturally – this can even be an ideal crop to grow organically. Disease is unlikely to be a significant problem in field grown lavender. Root rots like Armillaria, Fusarium, Pythium and Phytophthora can be a risk, especially in wet fields. Septoria leaf spot and Verticillium wilt should also be watched for. Phoma may become evident from May onwards as young shoots become chlorotic and wilt. Infected plants should be lifted and destroyed quickly, alongside adjacent plants to contain the spread. Insects are also unlikely to be a problem in established crops. Two spotted spider mite, leaf and bud nematodes and leaf hopper can be a problem in freshly planted crops but should not be a problem once established.

The main challenge for cultivation will be weed control of perennials like couch grass, creeping thistle and dock. Mypex coverings will keep a large proportion of these out of the field once laid. If the beds are made up well in advance of planting and not punctured or cut, weeds will germinate and die underneath the Mypex, so it can be best to cover the whole area if you can. Once planted hoe weeding will be necessary, and this is best done early and often to prevent weeds becoming established. Docks, nettles, creeping thistles and couch can rapidly spread from seed so make sure you remove any weeds before they can set seed. Weed controls in paths will also be important. Paths could be sown with an orchard-type grass mix and will help dry the soil, but will require regular mowing to maintain. Woodchip and bark can be used as a cheaper alternative.

Disclaimer

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