

# Growing Lavender

## TECHNICAL ADVICE SHEET

### Introduction

Lavender can be a new and unusual crop that may be integrated into a range of existing growing systems. Lavender couples well with other products such as honey if you have hives on site. Dried lavender can be sold as a variety of products including 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. Large lavender plantations can even be hired out for wedding photography! 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 areas of low rainfall, in calcareous, stony, well-drained soil. Light loam over chalk is the most suitable, although sandy loams can be used if limed. Free-draining soil is essential, making heavy soils unsuitable due to increased disease risk. Frost-free areas and protection from strong winds are also required.

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

Rainfall can be higher in Wales than in typical lavender growing areas, but as the harvesting window is between July and August this is unlikely to pose a problem. A pH of 7 is optimal, but soils of pH 5.8 – 8.3 have been used for lavender cultivation. Conventional liming with normal cultivations, before raised bed creation, should be sufficient. The pH will need to be monitored every two years, and where a rapid drop in pH is observed, lime application is advisable 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. For large areas, the beds can be formed with a tractor-pulled ridging machine with a levelling board, followed by a Mypex covering with a polythene laying machine, if available. When preparing beds, leave a decent headland (c. 5 m) if you are using machinery.

Lavender is best planted by hand in cross-cut holes in the Mypex – keep these as small as possible to minimise the window for weed establishment. Mypex clips can also be used to stabilise the sheet, but if the sheet is well dug in clips 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 could also consider an in-line feeding device like a Mazai or Dosatron. Feed can also be supplied through a dressing of manure, incorporated into the beds as you make them. Plants will only take up significant amounts of feed once established, 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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Spacing	Dwarf/Medium Plants (e.g. English lavender <i>Lavandula angustifolia</i> , Hidcote blue or Munstead) can be spaced 30 – 40cm. For larger/taller cultivars like <i>Lavandula x intermedia</i> hybrids like Grosso this should be increased to 60cm.
Watering	Once established irrigation will only be required in very hot/dry weather as lavender is 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 the removal of the spent flower heads and stalks and tightening up the shape of the bushes back into the current season's growth.

### Variety Choice

The main commercial varieties are Grosso, Provence, Gros Blue and Dutch Mill.

*Lavandula 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 better quality oil for perfume and cosmetic use. Plug plants raised from seed are likely to be available from ornamental propagators.



### Harvesting

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 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 at night) or in a well-ventilated, dry room.



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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 is available, those based around tea harvesting are particularly well-suited. Tractor wheelings (e.g. 1 m bed width) should be used to plan bed spacing and aid harvest. However, smaller plantings up to 2 acres could be realistically cut by hand.



### Weed, Pest & Disease Control

Some dieback may be seen 3-4 years after planting – this is generally non-specific and can be 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 – lavender is an ideal crop to grow organically. Disease is unlikely to be a significant problem in field-grown lavender, however there are some key diseases to watch out for:

- Root rots like *Armillaria*, *Fusarium*, *Pythium* and *Phytophthora* can be a risk in wet fields.
- *Septoria* leaf spot and *Verticillium* wilt.
- *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 mites, leaf and bud nematodes and leaf hoppers can be a problem in freshly planted crops but should not be an issue 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 is best to cover the whole area where possible. Once planted, hoe weeding will be necessary; this is best done early



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and often to prevent weeds from becoming established. Docks, nettles, creeping thistles and couch can rapidly spread from seed be sure to remove any weeds before they can set seed.

Weed controls in pathways will also be important. Paths could be sown with an orchard-type grass mix which will also help dry the soil, but will require regular mowing to maintain. Woodchip and bark could be used as a cheaper alternative.

## Disclaimer

Every effort is made to ensure the accuracy of information and recommendations given in these notes. All applications of crop protection chemicals should be made in accordance with label recommendations, which should be consulted before spraying. Some of the pesticides mentioned in these notes may not be supported by label recommendations for their use on lavender but are permissible via Extension of Authorisation for Minor Use (EAMU) in the UK under 'The Revised Long Term Arrangements For Extension Of Use (2002)'. In these cases, the use of the pesticide is at the risk of the user. The references to on-label approvals and EAMUs for the use of pesticides in lavender are correct at the time of writing. These are subject to change and approval may be withdrawn at any point. It is the grower's responsibility to check approvals before the use of pesticides. If in doubt a grower should seek advice from a BASIS-qualified advisor.



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