Fact sheet
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LAVENDER FLOWER AND OIL PRODUCTION

Overview

Lavender farming is associated with Mediterranean climates. It is an evocative plant with immense popularity used in a wide range of cosmetics, as dried flowers or as pure oil. Lavender is an evergreen perennial. As lavender is a drought-tolerant plant that thrives in dryer conditions, the Irish environment can be a little challenging. Production has a relatively low labour input after establishment has been completed. A plantation would be expected to be productive for between eight and 15 years.

Lavender farming has traditionally been associated with the south of France. It has now increased its geographic range, with significant production areas in Bulgaria, Turkey, Croatia and Spain. Global trade in oils is highly valuable for a wide range of cosmetics. There are a small number of farms established in Ireland and the UK. Many of these farms have created a destination based on the lavender business, making the spin-off enterprises more viable.

Lavender is a low-input crop and makes high-value compact products.

Benefits

- Sustainable production of high-value compact products;
- harvesting can be mechanised and completed in a narrow time frame;
- low-input perennial crop;
- therapeutic benefits of lavandin (a hybrid variety of lavender) include antiseptic, anti-bacterial, anti-fungal and analgesic properties; and,
- small-scale steam extraction using a still is feasible.

Grants and schemes

The Department of Agriculture, Food and the Marine (DAFM) provides supports and annual capital grant aid of 40% to appropriate developments. Your Local Enterprise Office may provide support for the development of new enterprises.

Facts and figures

True lavender yields 8-30kg per hectare (ha) and lavandin 40-220kg/ha essential oil, and 500-1,000kg/ha dried flower stems, depending on location, management and cultivar. The global market for botanicals continues to grow and was valued at $108 billion in 2015, with herbal medicines making up 48% of that, cosmetics 17% and supplements and functional foods 35% (Dechema, 2017). Indicative prices: grosso flowers €25.00/kg; *Lavandula hybrida var. abrialis* €36/kg; and, *Lavandula angustifolia var. maillette* €155/kg (Ultra International BV 2020).

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Cultivation

Lavender production requires dry roots and shoots, free-draining soils, and reasonable light levels. Low-fertility sandy soils are ideal with a pH range of 6.0 to 7.5. Suitable growing areas in Ireland include the south east, south coast and areas in the east where rainfall levels are relatively low. Plants are hardy enough to tolerate moderate frost and some snow and will flower well in relatively cool climates. High humidity is not tolerated by lavender. A south-facing slope will improve drainage and increase oil production. As there is a wide variation in lavender varieties, their response to different climates varies and requires testing to ensure you select the best species for your climate.

Harvesting and pruning

Depending on varieties, harvesting for oil is carried out in mid summer. It is important for oil processing that the flowers are dry during harvest. Harvesting for fresh or dry flowers happens about 10 days later. It can be completed by hand or machine. Pruning is carried out in early autumn.

Pests and diseases

There are few pests to concern growers, however, as it is a Mediterranean plant, the damp Irish climate can cause some disease issues including mildew, root rots and botrytis. The bacterial disease *Xylella* is transmitted by spittle bugs and has caused significant plant losses on the continent in some limited areas.

Lavender can be sold as dry flowers or as pure oil.

Plant selection

Most lavender varieties used are raised from cuttings rather than from seed. It is important to select quality plant material when establishing a long-term plantation. Use reputable suppliers who can demonstrate high-level plant traceability and hygiene standards.

The pot plant and landscaping trade has a significant range of varieties to choose from. The high camphor lavandin variety *Lavandula hybrida var. Grosso* dominates world production, as it is the most high-yielding oil variety. Other lavandin varieties used in production include Grappenhall, Provence, Dutch Mill, Abriali and Seal. English lavender is hardier and both Munstead and Hidcote have been grown successfully for many years in Irish conditions. However, the aroma from *angustifolia* varieties is more highly regarded than lavandin. They are sometimes blended to improve their scent. It should be noted that *L. angustifolia* flowers are blue when dried, however, lavandin ones are greyer.

Growing requirements

A soil pH of between 6.0 and 7.5 is optimum. Lavender tolerates low-fertility soils and requires more fertiliser during establishment. Addition of lime and organic matter may be required, depending on soil test results.

Ideal soil type is free draining. A bed former should be used to improve drainage and a weed control barrier implemented to prevent weed growth and competition. Chemical weed control is possible and requires close attention to detail. Mechanical weed control is not recommended as plant damage increases. Lavender is normally planted with 30-60cm between plants. Row width depends on machinery used and varies from in-row widths of 1.2-2.0m apart, resulting in between 8,000-28,000 plants per hectare.

Marketing and sales opportunities

- Small producers should aim for high-quality, value-added markets for essential oil and flower production;
- bunches of fresh lavender can be sold direct through farmers' markets, farm gate sales, and supply specialist artisan retailers;
- value-added products such as soaps, lavender bags and aromatherapy oils will increase margin significantly;
- some food products can be produced with lavender; and,
- agritourism for lavender farms includes tours, accommodation, pick your own, cafés and retail sales.

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Further information

For further information, please contact Dónall Flanagan, Nursery Stock/ Ornamentals Specialised Advisor, Teagasc Ashtown Research Centre, Ashtown, Dublin 15 at:

+353 (0)76-111 4021

donall.flanagan@teagasc.ie

The following resources are also helpful:

ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_fg_medicinal_plants_final_report_2020_en.pdf

www.latelierpaysan.org/English

www.uslavender.org/

www.teagasc.ie/ruraldev

www.teagasc.ie

Fact sheet produced by Dónall Flanagan, Nursery Stock/ Ornamentals Specialised Advisor, Teagasc Ashtown Research Centre, Ashtown, Dublin 15.