

Technical Guide

The best definition of an Herb is "a useful plant." Many plants which are today known and grown purely as ornamentals were historically used for medicinal or other purposes.

Various species are used in medicines or beverages.

The Herb market is composed of many small players who grow herbs almost exclusively, and of larger growers who include herbs as a sideline to perennial or vegetable production.

General Culture

Potting and Spacing: Root media must be well drained and should rewet easily when dry. Avoid media with high water holding capacity (e.g., those with a high percentage of peat), which tend to foster crown and root rots. Choose media with the appropriate texture for the finishing container. Large-particle bark medias are not suitable for small pots. Optimum pH is 6.0 to 6.5.

Herbs are generally produced in 3½" to 4½" containers. One liner per pot is sufficient. Six-inch or gallon containers can also be used, if you have a market for larger pots. Multiple liners are often used in larger pots for a faster finish. More time and pinching are needed with only one liner. Plant liners level with the root medium surface.

Spacing of containers is generally not required since the production period is relatively short. However if sales are delayed, spacing (one-half to one pot space between pots) will be necessary.

Pinching: Liners may have been trimmed during our production at some point prior to shipment, but not always. Use your "grower



sense" to evaluate plants and pinch liners at planting if needed or within one week after planting for bushier plants and to help control height. Most benefit from pinching.

Fertilization and Irrigation:

Nutrient requirements are relatively low. Apply 100 to 150 ppm nitrogen every third irrigation from a complete N-P-K fertilizer with micronutrients that contains the majority of nitrogen in the nitrate form. Often a low rate of controlled release fertilizer like Osmocote or Nutricote is incorporated into the root medium at planting. Avoid overfertilization, which can cause elongated, soft growth.

Allow plants to dry between irrigations. Slight water stress can help control height but don't allow excessive wilting. Avoid overwatering to prevent root and crown rots.

Light and Temperature: Use maximum available light intensity for best growth. Lavender, Rosemary and Tarragon grow best with natural long days. Most herbs are produced with night temperatures between 55° and 60°F. Day temperatures are normally 5° to 10°F higher. Use cooler day

temperatures (low DIF) when possible to help control height. An exception is Basil, which needs warmer temperatures to prevent leaf discoloration.

Overwintering: Six-inch or gallon containers could be overwintered to enhance flowering (Lavender) or bushiness (Rosemary, French Tarragon) of finished plants the following year. Smaller pots should not be overwintered since losses are more likely to occur. Overwinter in protected structures at 35° to 40°F.

Pests and Diseases: It's no surprise that few pesticides are registered for use on Herbs since they are often intended for human consumption. Since pesticides are limited, prevention is critical. Scout crops often to detect pests. Eliminate weeds in and around the growing area. Use proper watering practices and sanitation to reduce algae formation.

Aphids, two-spotted spider mites and whiteflies are the most common pests.

Diseases also plague herbs. Some crops and their disease sensitivity (in parentheses) are Basil (Fusarium), Sage (Rhizoctonia) and Mints/Rosemary (powdery mildew). Botrytis can also cause problems during cool, wet, overcast weather. Very few disease control pesticides are available for use with Herbs. The best approach to disease control is prevention. Good sanitation and discarding diseased plants is important. It is also critical to control the environment. Heat and ventilate moist air at the end of the day to reduce relative humidity over night. Use horizontal air-flow fans to improve air circulation.

Before using any pesticide, read the label to be sure they are registerd for use and that the herbs to be treated are on the label. Follow label directions. The label is the law.

Scheduling

Approximate time required to finish 3½" to 4½" pots for early-April sales in USDA Hardiness Zones 5b to 6b, using one 72-liner per pot and 55° to 60°F night temperature. Add 1 to 2 weeks if using 128 liners. Add 1 week to finish in March, subtract 1 week if finishing in May. Finishing times can vary depending on the Herb, light, temperature and specific grower culture.

Basil: 4 weeks Chives: 4 weeks

French Tarragon: 6 weeks
Lavender: 7 weeks ('Hidcote', 'Munstead')

Sage: 4 weeks
Thyme: 4 weeks

Lavender: 12 weeks ('Blue Cushion')

Mints: 3 weeks

Oregano: 4 weeks
Rosemary: 8 weeks
Sage: 4 weeks



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