

GROWERTALKS

Culture Notes

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Keys to Producing *Phlox paniculata*

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Commonly referred to as tall phlox or garden phlox, this species consists of numerous cultivars, ranging from 16 to 48 in. tall, although many of the newer cultivars reach a manageable 16 to 24 in. Large, colorful flower heads in blue, lavender, pink, purple, red or white are produced atop plant stems in the summer.

Propagation

Garden phlox is most commonly propagated by vegetative tip cuttings. These can be dipped in a solution of indolebutyric acid (IBA) at 750 to 1,000 ppm to improve the uniformity of rooting. However, rooting compounds are not essential for successful rooting. Avoid using alcohol-based rooting compounds as injury (twisted and curled leaves) to the cuttings may result. It's best to propagate them under 12- to 13-hr. photoperiods, with light intensities ranging from 600 to 1,700 foot-candles. Provide low misting regimes for the first 10 days of propagation. Begin feeding with 150 ppm nitrogen from water-soluble fertilizers at each irrigation as the cuttings begin to develop roots. With soil temperatures of 68F to 74F (20C to 23C), they will usually be well rooted in three to four weeks.

Production

Phlox can be grown in most well-drained growing mixes. Plant one to two liners per container. Bulking plants in the fall will improve fullness, but isn't necessary to produce a nice crop in most instances. They perform best at moderate fertility levels (100 to 200 ppm continuous feed or 250 to 300 ppm as needed or using controlled release fertilizers at the medium rate) and with slightly acidic pH (6.0 to 6.5). Garden phlox can be grown under average watering regimes—when irrigation is needed, water thoroughly and allow the medium to dry between waterings.

Aphids, spider mites, thrips and whiteflies are the most prevalent insect pests. However, caterpillars, grasshoppers, leafhoppers, slugs and spittlebugs are also common. Garden phlox is often the host of several fungal pathogens, including *Alternaria*, *Botrytis*, *Cercospora* leaf spot, *Fusarium*, *Pythium*, *Phytophthora*, powdery mildew, *Rhizoctonia* and stem canker. Of these pathogens, powdery mildew is the most prevalent. In most cases, these insects and diseases can be detected with routine crop monitoring and don't require pro-active strategies.

The need to control plant height varies widely by the cultivar being produced. Growing them at adequate

crop spacing will decrease stem elongation as well as decrease the incidence of plant diseases. Multiple spray applications of daminozide at 2,500 to 5,000 ppm, paclobutrazol at 45 to 60 ppm or Sumagic at 5 to 10 ppm, or a drench application using 6 to 12 ppm paclobutrazol will effectively control plant height.

Forcing Guidelines

Although it's not necessary to bulk plants in the fall, it's recommended to bulk them under 12- to 13-hr. photoperiods to keep them vegetative prior to forcing with temperatures of 64F to 70F (18C to 21C). To promote branching, it's helpful to pinch them four to six weeks after planting. The final pinch should occur at least 12 weeks before the desired flower date.

Garden phlox don't require cold for flowering; however, they are cold-beneficial plants, which have more vigor and flower more rapidly and uniformly following vernalization (minimum six weeks at 35F to 44F [2C to 7 C]). They are obligate long-day plants and won't flower when the natural daylength is less than 14 hours. Photoperiodic lighting (day extension or night interruption) will effectively promote flowering when the days are naturally short. Once they are grown under long days, they will bloom in approximately 10 to 12 weeks at 68F (20C).

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