



PANSIES FOR SPRING SALES-Updated 3/28/2005

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Pansies are gaining in popularity as breeders continue to release unique colors and flower forms. Increased heat tolerance has boosted the success of this truly versatile plant. Properly hardened off plants can thrive in below freezing temperatures, allowing the opportunity to free up some valuable early spring greenhouse space by moving pansies outside. Landscapers find that pansies planted in the early spring, or even the previous fall provide early color before yielding to warm weather favorites after the risk of frost is gone.

Potting Media - Any potting medium used must drain well and provide good air space. Composted pine bark and coir are two components that can be included successfully in pansy mixes. The starting pH in most commercial mixes is adjusted to between 5.7 and 6.2. Ideal soil pH for fall pansies is 5.4 to 5.7 because of the need to keep iron available and limit the soil borne disease *Thielaviopsis*.

Container Sizes - Spring pansies sell well in a variety of pack and pot sizes. 606 deep cells are becoming the most common cell size, however more 4" pots are being produced than ever before. Smaller cell sizes lack ideal room for root development, especially in light of the longer production schedules often used with pansies. Color bowls and hanging baskets are other successful ways of marketing spring pansies.

Fertilization - Pansies are light feeders, with a constant feed of 100 ppm usually being adequate. 20-10-20 or 21-5-20 are good choices, with 15-0-15 being used every 4th irrigation to provide calcium. Griffin provides water tests that can be used to fine-tune your pansy fertilizer program. Pansies have a higher than average need for iron and boron. Iron deficiency appears as a chlorosis in the youngest foliage. If lab tests confirm iron is deficient, treated with a soil drench of iron chelate, (Sprint 138 or 330), at 3-4 oz per 100 gallons. Rinse the excess off of foliage to avoid spotting or leaf burn. Boron deficiency can cause mottled younger growth and distorted leaves in more severe cases. Boron can be added by drenching the soil with .25 oz per 100 gallons of Solubor, or 1 oz per 100 gallons of Borax. Do not reapply without testing the soil to confirm more boron is actually needed. Keeping soil pH in the recommended range of 5.4 to 5.7 helps to keep iron and boron available to the plants. pH levels higher than 6.2 can contribute to iron and boron becoming unavailable and steps to reduce pH to the recommended range should be taken.

Crop Timing - Spring pansies grow much slower than those grown for fall sales. Timing is very dependent on the temperatures used to produce the crop. “Fast Crop” schedules utilize warmer temperatures and a shorter crop time but may require some growth regulators to keep them compact. 512 or similar size plugs can be finished in cell packs in 6-8 weeks if night temperatures are maintained between 55° and 58°, with days as close to that as possible. Pansies can be grown with cooler temperatures with a proportional increase in crop time. Night temperatures of 45°-50° F will lengthen the crop time by 2-3 weeks. Add a couple of additional weeks for 4” production. “Fast crop” pansies need to be hardened off at the end of the crop cycle to make sure they stand up to the early spring weather when planted out.

Some growers like to start their spring pansy plugs in the late fall and provide little or no heat over the winter. This method can produce a compact, well hardened off plant that will fair well if they need to be put outside ahead of the selling season to save space. Typically this type of production will not require any growth regulators.

Growth Regulators - Bonzi @ 2 ½-5 ppm (1/2-1 teas. /gal.) is effective as a foliar spray. Pansy foliage should mostly cover the top of the pot or pack before applying Bonzi as it is much more active in the root zone and significant amounts of spray on the soil surface could provide too much activity.

Insects and Diseases - Aphids and thrips are the most common insect pests in spring pansy production. *Thielaviopsis*, also known as black root disease often attacks pansies. Symptoms appear first as uneven growth in the crop. When the smaller plants are examined the root system is typically dark, and sometimes you will find the roots never grew out of the original plug. A distinct yellow arc on the foliage can be another symptom that accompanies the poor root growth. Due to the increasing occurrence of this disease it is recommended that a fungicide drench be done at planting. It is also known that a soil pH of 5.7 or below greatly inhibits *Thielaviopsis*. Pansies prefer a lower soil pH for optimum growth so this can be effectively used to help combat the disease but does not eliminate the need for a preventative fungicide. Specific recommendations for insects and diseases mentioned in this bulletin are available at no charge from Griffin by requesting a copy of the bulletin titled, “Insecticide and Fungicide Options for 2005.”