

Pansy Production Program

Media

Different soilless mixes may be used for pansy production, including mixtures of peat, perlite, rice hulls and composted pine bark. The media should provide good air space and be well drained. The starting pH should be adjusted between 5.7-6.2 for soilless mixes. Iron and boron are two micro elements in high demand for optimal pansy growth. These two micronutrients decrease in availability when the pH rises above 5.8. pH during pansy production should be maintained between 5.4-5.7 for soilless media and 5.6-6.0 for soil-based substrate.

EC levels should be maintained between 0.75-1.5 mmhos to promote good growth. Pansies are light feeders with a constant feed of 100 ppm N being sufficient. In addition to their high demand for iron and boron, pansies also require 12.5-50 ppm of magnesium, depending on their stage of growth.

Fertilization

Plugs

Starting from seed, pansies should be fed with **Plant-Prod® 12-2-14 Optimum** or **Plant-Prod 14-0-14 Cal Mag**. Both products have a 2:1 Ca:Mg ratio and higher levels of molybdenum, iron, and magnesium.

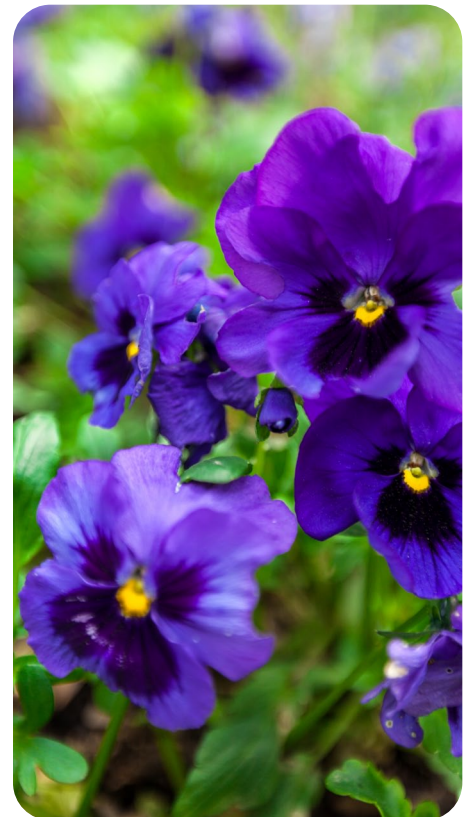
Growing

Pansy fertilizer, as with all crops, is dependent upon the quality of the irrigation water being used. Options are available for various alkalinity levels. Acid injection (usually sulfuric acid) is used when the alkalinity level is above 250 ppm CaCO_3 for growers who want a constant feeding program. Plant-Prod can provide water tests to determine your alkalinity level and general water nutrient levels. Based on your water analysis, we can determine which fertilizer schedule would work for you.

For all water types, if extra boron is required, as indicated from a soil test, drench the soil with 1.87 g per 100 litres of solubor. Boron deficiency shows up as mottled younger growth and distorted leaves in severe situations. If acid is not an alternative, rotation between acidic blends and a Cal Mag is suggested. The fertilizer analysis suggested would be determined by the water sample results but in general the following guidelines apply:

Water alkalinity between 75-100 ppm CaCO_3 with low Ca/Mg levels:

Use **Plant-Prod® Solutions 17-5-17 Complete** at 100 ppm N. Keep soil pH between 5.4-5.7.



Water alkalinity between 150-200 ppm CaCO₃ with low Ca/Mg levels:

Option 1 - Use **Plant-Prod Solutions 19-8-13 Total Plus** at 100 ppm N.

Option 2 - Use **Plant-Prod 20-8-20 All Purpose High Nitrate** or **Plant-Prod Solutions 19-2-19 Fertility Plus** to provide extra iron, manganese, and magnesium. Fertility Plus has a lower amount of phosphorus which also helps to keep pansies compact. Continue to monitor magnesium and boron levels. When needed, supplement with magnesium nitrate and solubor.

Water alkalinity greater than 250 ppm CaCO₃:

Option 1 - Use acid as mentioned above. Use **Plant-Prod Solutions 17-5-17** at 100 ppm N, alternated with **Plant-Prod Solutions 19-8-13 Total Plus** at 100 ppm N. Check pH of soil to keep pH between 5.4-5.7.

Option 2 - Use **Plant-Prod Solutions 18-9-18 pH Reducer** and alternate every 2nd or 3rd watering with **Plant-Prod Solutions 19-8-13 Total Plus**. Make sure you check your pH to keep it between 5.4-6.0. pH Reducer will decrease the pH in the soil and will also provide extra iron, manganese, zinc and boron.

Finishing

Fertilizer should be reduced in the 2-3 weeks prior to shipping and **Plant-Prod Solutions 15-0-20 No-Stretch®** should be used to maintain compact but sturdy growth.

Plant-Prod® Solutions 17-5-17 Complete

Contains 3% calcium and 1% magnesium and is an all-in-one formula. Over 70% of N is in nitrate form. Contains a full micronutrient package.

Plant-Prod® Solutions 19-8-13 Total Plus

Contains 2.5% calcium and 1% magnesium. This modification of 17-5-17 provides a greater acidic potential. Contains a complete and enhanced micronutrient package with 3 chelating agents.

Plant-Prod® 20-8-20 All Purpose High Nitrate

An all season fertilizer with a high potential acidity and complete micronutrient package.

Plant-Prod® Solutions 19-2-19 Fertility Plus

A balanced growth formulation that's urea free, high in nitrate, and contains an enhanced micronutrient package with 3 chelating agents.

Plant-Prod® Solutions 18-9-18 pH Reducer

Contains high nitrate, and is urea free. Decreases media pH levels while providing enhanced micronutrients with 3 chelating agents.

Plant-Prod® Solutions 15-0-20 No Stretch®

Works to harden plant structure and prevents leggy growth. Contains a complete and enhanced micronutrient package with 3 chelating agents to improve the availability of iron and other micronutrients.



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