Rain Series F_1 Pansy

A Gorgeous "Basket Pansy" That Also Has Exceptional Overwintering Ability!

■ **Rain** pansies **perform well in Fall**, last through Winter wind chill temperatures as low as -40°F (-40°C) with proper care, and **emerge again in Spring** for a fresh show of early color.
■ Under early Spring conditions, **Rain** pansies flower up to **2 to 4 weeks earlier** than other pansies on the market. NOTE: Frosty Rain flowers 5 to 7 days later than Purple Rain.
■ An **innovative look in pansies** – the 1.5-in. (4-cm) blooms are twice the size of hybrid violas.
■ The well-branched, free-flowering plants grow vigorously and spread up to 10 to 12 in. (25 to 30 cm) in diameter. **Rain** pansies are a good choice for filling large beds with quick Spring color.
■ **Rain** pansies have a **well-branched habit** that keeps them lasting longer and looking good all season in the garden.
■ A true basket pansy, **Rain** varieties create a mound of cascading color for consumer "wow" appeal.

Viola x wittrockiana
Approximate seed count: 21,650 S/oz. (7,655 S./g)

Plug Production

Plug Tray Size

Use 288-cell plug trays. Finish time is about 5 weeks.

Media

Use a well-drained, disease-free seedling medium with a pH of 5.4 to 5.8. Avoid plug media mixes with a high initial nutrient charge. Keep phosphorus levels as low as possible to avoid initial stretch.

Sowing

A medium covering of coarse grade vermiculite is recommended to help maintain high humidity around the germinating seed for better germination performance. Takes 3 to 4 days to germinate.

For optimal germination performance, maintain the plug media at "wet" moisture levels, i.e., the media is glistening, but water will not ooze out from the bottom of the tray and will penetrate only slightly from the top around the fingertips. Avoid germination temperatures above 70°F (21°C) to prevent seedling stretch.

Stage 2 timing: 10 days
Stage 3 timing: 14 days
Stage 4 timing: 7 days

Temperature

Germination: 68°F (20°C)
Stage 2: 65 to 70°F (18 to 21°C) days; 60°F (15°C) nights
Stage 3: 65°F (18°C) days; 60°F (15°C) nights
Stage 4: 60°F (15°C) days; 55°F (13°C) nights

Water

Beginning at Stage 3, reduce the moisture level in the media once the seedlings are established. Stage 4 plugs can be grown under wet/dry cycles to tone the seedlings and avoid soft growth.

Light

Light is not required for germination. Quality seedlings can be produced with light levels up to 3,000 f.c. (30,000 Lux).

Humidity

Maintain 95 to 97% relative humidity.

Fertilizer

Beginning at Stage 3, start fertilizing the seedlings twice a week with 50 ppm N, increase the nitrogen concentration to 100 ppm after a week, and continue this program until finishing the plugs. Maintain an EC of 0.5 to 0.75 mmhos/cm and a pH of 5.4 to 5.8 at Stage 2; at Stage 3 and 4, EC and pH values can be at 1.0 and 5.6 to 5.8, respectively.

A high pH (greater than 6.0) can induce boron deficiency and also encourages fungal black root rot, caused by *Thielaviopsis sp.*

Growth Regulators

Seedlings of **Rain** pansies in general are more compact and prostrate than other pansy types,

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therefore they may not need any PGR treatments in the plug stage. If necessary, a foliar spray of A-Rest at 10 ppm is recommended for plug production. One application is sufficient when the first set of true leaves is fully developed (when plugs are approximately 3 weeks old). If necessary, the foliar spray can be applied a few days earlier than week 3.

Note: Transplant the plugs "on time" to avoid initiation in the plug stage. Plugs that are initiated will not fill out the finished container well at the time of flowering.

Growing On to Finish

Container Size

For marketing to landscapers: 1801 packs and 4-in. (10-cm) pots.
For marketing to home gardeners: 4-in. (10-cm) pots and baskets.

Media

The level of starter nutrient charge incorporated into the growing mix influences crop quality. Too low a starter charge can result in a pansy crop that will flower before enough foliage has grown to fill the packs/container. Incorporate a medium level of supplemental nutrient charge in the growing media mix to encourage good foliar growth before the crop flowers.

Temperature

Provide day temperatures of 60 to 65°F (15 to 18°C) and night temperatures of 50 to 55°F (10 to 13°C) for greenhouse production.

Light

No supplemental lighting is required.

Fertilizer

A week after transplant, begin fertilizing with 150 ppm N once a week when grown in the greenhouse. Additional fertilization may be needed if grown outside. Maintain an EC of 1.5 and a pH of 5.6 to 5.8 after transplant until finish. If the media pH is greater than 6.0, then take corrective measures.

Growth Regulators

The use of plant growth regulators on pansies is largely dependent on day/night temperatures, location and time of year. If the day/night temperatures are optimal, i.e., not too high for pansy production (days in the 60s°F (16 to 20°C) and nights in the 50s°F (11 to 15°C), then foliar sprays of A-Rest at 10 to 20 ppm, applied 1 to 2 times beginning a week after transplant with 7 to 10 days interval, will work. When grown under warmer day/night temperatures, tank mix foliar sprays of B-Nine at 5,000 ppm and Cycocel at 500 to 1,000 ppm, or a tank mix foliar spray of B-Nine at 5,000 ppm and A-Rest at 5 to 10 ppm applied 1 to 2 times beginning a week after transplant with 7 to 10 days interval will also work.

NOTE: Adjust the timing and frequency of PGR applications based on the size and type of container used.

Temperature is the best natural growth-controlling factor. Minimal to no plant growth regulators are needed when the crop is produced at lower temperatures during the Spring.

To produce the best-quality **Rain** pansies, grow them outside beginning a week after transplant under cold frame-type conditions. Optimal outside growing temperatures are 60 to 70°F (15 to 21°C) days, and nights in the low 50s°F (11 to 15°C) for the first few weeks. Pansies can also tolerate lower night temperatures – in the 40s°F (5 to 9°C).

Crop Scheduling

Sow to transplant: 5 weeks in a 288-cell plug tray.

Container Size	Plants Per Pot	Weeks from Transplant to Flower
3.5-in. (9-cm) pot	1	4
4.5-in. (11-cm) pot	1	5
10-in. (20-cm) hanging basket	3-4	7

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Common Problems

Insects: Fungus gnats and shore flies can be problem pests during plug production. Aphids, thrips, mites and whiteflies can be a problem during finishing stages.

Diseases:
Damping-off, black root rot, foliar leaf spots and *Botrytis* blight are common.

Garden Exposure
Full sun to partial shade

Garden Height
8 to 10 in. (20 to 25 cm)

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