Explosive™

CAPSICUM ANNUUM

Minimum Germination Rate: 85%

Seed Product Form: Raw

FLOWERING

Flowering Mechanism: Maturity and irradiance, high light and long days will shorten time to flower.

Flowering Type: Day-neutral plant — will flower regardless of daylength.

PLUG CULTURE

The timing approximations are based on optimal culture recommendations below:

Germination 1 (approximately day 1 – 7): From the time a seed is sown until radicle emergence takes place; usually with the root penetrating the media and some cotyledon development. Humidity in the air is 95 – 98% (humidification); media moisture 4+. Expect radicle emergence in 10 – 20 days.

Cover: Cover seeds with a thin layer of coarse vermiculite.

Media: Avoid media compaction to allow for root penetration. pH: 5.5 – 5.8. EC: 0.5 – 1.

Light: Light is not necessary for germination.

Moisture: Wet (4+), from day 1 – 7 or until radicle emergence (approximately day 10). It is important not to avoid over watering. Dehumidify on day 10 or when the radicle has emerged.

Humidity: 95 – 98% from day 1 – 10 or until seed coats are shed.

Temperature: 72° – 76°F (24° – 24°C) until day 10.

Fertilizers: Maintain EC of 0.5 – 1.

Germination 2 (approximately day 8 – 14): From the time cotyledon is observed until it is fully expanded. The roots have expanded throughout the media. Dehumidify from 98% to 50 % in the air. Media moisture during the wet cycle is usually 4+ – 3, and 2 – 3 during the dry cycle; this wet-dry cycle should take place within 12 – 24 hours for most plants.

Media: pH: 5.5 – 5.8. EC: 1 – 1.25

Light: 2,000 – 3,000 foot candles (20,000 – 30,000 lux); 6 – 10 mols of light.

Moisture: Dry back media to moist (3) and alternation to medium (2) within 18 hours at radicle emergence (approximately day 10).

Dehumidify: Lower relative humidity to 40% (approximately day 10). Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.

Temperature: Once cotyledons are observed, reduce temperature to 68° – 72°F (20° – 22°C).

Fertilizers: 14-4-14 or 17-5-17 at 60 – 75 ppm nitrogen as needed for an EC in the soil of 1 – 1.25.

Fungicides: Preventative fungicide may be applied for Pythium and Rhizoctonia between day 10 and 14.

Plug Bulking/Flower Initiation (approximately day 15 – 21): The time it takes for the shoots to proportionately fill the plug cell and for roots to develop throughout the media. Induction and initiation may occur; if buds are present, they should be few in number and small in size.

Media: pH: 5.5 – 5.8. EC: 1.25 – 1.5

Light: 3,500 – 5,500 foot candles (35,000 – 55,000 lux); 12 – 20 mols of light.

Temperature: 68° – 72°F (20° – 22°C)

Moisture: Alternate between moisture level wet (4) to medium (2). Allow the soil to approach medium (2), before re-saturating to wet (4). If media is allowed to dry back further than (2), root damage may occur resulting in a lack of iron uptake. Watering or fertilizing late in the day may increase the susceptibility to airborne disease.

Fertilizers: High fertilizer levels will have a negative affect resulting in vegetative growth with long internodes. Use a 14-4-14 or 17-5-17 fertilizer at 75 – 100 ppm nitrogen, as needed for an EC in the soil of 1 – 1.25.

Growth Regulators: If needed, spray B-Nine (daminozide) at 1,500 – 2,500 ppm.

Fungicides: Preventative fungicide may be applied for Rhizoctonia, Pythium, and Phytophthora.

Initiated Bulking (approximately day 22 – 28): Seedlings develop from juvenile to mature, usually determined by the number of leaves present (cultivar specific). Seedlings are receptive to initiation and flower bud development.

Light: Provide 4,500 – 6,000 foot candles (45,000 – 60,000 lux) or 16 – 22 mols of light.

Temperature: 68° – 72°F (20° – 22°C); with a 5 – 8°F (2° – 4°C) negative DIF or drop in the morning from 2 hours before sunrise until approximately 9 a.m.

Fertilizer: 14-4-14 or 17-5-17 at 75 – 100 ppm nitrogen, as needed for an EC in the soil of 1 – 1.25.

Fungicides: Preventative fungicide may be applied for Rhizoctonia, Pythium, and Phytophthora.

GROWING ON

The timing approximations are based on optimal culture recommendations below:

Transplant to Finish (approximately day 29 – 98): Optimize plant shoot and root growth, which is usually a 1:1 ratio. Flower buds are usually present and developing.

Media: pH: 5.5 – 5.8. EC: 1.25 – 1.5

Light: Provide 5,000 – 7,500 foot candles (50,000 – 75,000) or 18 – 28 mols.

Temperature: Days 72° – 75°F (22° – 23°C); Night 62° – 65°F (17° – 19°C); ADT 70°F (21°C); using a 5° – 10°F (2° – 5°C) negative DIFF or drop in the morning from 2 hours before sunrise until approximately 9 a.m.

Moisture: Alternate between moisture levels wet (4) and medium (2). Allow media to approach level (2) before re-saturating to wet (4). Avoid overwatering; a slight wilt between watering is acceptable.

Humidity: 40%

Fertilizers: Fertilize weekly with a 14-4-14 or 17-5-17 at 100 – 150 ppm, as needed for an EC in the soil of 1.25 – 1.5.

Growth Regulators: B-Nine (daminozide) at 2,500 ppm. Avoid late applications of growth regulators since it can reduce the fruit size. Plant growth is best regulated by moisture management, watering when plants are thoroughly dry.

Fungicides: Preventative fungicide may be applied for Rhizoctonia, Pythium, and Phytophthora.

TECHNIQUES TO ENHANCE POST HARVEST QUALITY

When to Treat: 1 – 2 weeks prior to finish or shipping.

Growth Regulators: B-Nine (daminozide) at 2,500 ppm.

Fertilizer: Potassium nitrate drench at 150 ppm nitrogen.

Common Diseases: Botrytis, Rhizoctonia, Phytopthora and Pythium. Monitor moisture and humidity levels and use preventative fungicide drenches.

Common Pests: Aphids, Fungus Gnats, Shore Flies, Spider Mites, Thrips and Whitefly. Use pesticides according to label directions.

PRODUCT USE	GARDEN SPECIFICATIONS
Pots, containers, mass plantings	***Light:*** Full sun ***USDA Hardiness Zone:*** 11 ***AHS Heat Zone:*** 12 – 1

	Garden Height	Garden Width
Blast	5 – 6” (12 – 15 cm)	6 – 8” (15 – 20 cm)
Ember	10 – 12” (25 – 30 cm)	10 – 12” (25 – 30 cm)
Ignite	3 – 5” (8 – 12 cm)	12 – 14” (30 – 35 cm)

ORNAMENTAL PEPPER SCHEDULING IN WEEKS

	Explosive
Total crop time	17 – 20
‘128’ plug crop time	5 – 6
‘200’ plug crop time	4 – 5
‘288’ plug crop time	3 – 4
Transplant to finish crop time	
Jumbo packs	13 – 14 from a ‘288’ plug
4” crop	13 – 16 from at ‘288’ plug
6” crop	13 – 16 from a ‘288’ plug and three plants per pot

Note: These suggestions are only guidelines and may have to be altered to meet individual grower’s needs. Check all chemical labels to verify registration for use in your region.