

PHOTON SG



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KEEP OUT OF THE REACH OF CHILDREN

PHOTON® SG

Contents: 50% mixture of selected dicarboxylic acids as a soluble granule

Introduction

PHOTON SG reduces the impact of environmental stressors, such as excess light, heat, drought, cold and other environmental conditions that negatively impact crop productivity. The active ingredients in PHOTON SG are natural compounds, found in all plants, which control a specific enzyme system associated with stress response. PHOTON SG effectively prepares the plant for the onset of environmental stress. The use of PHOTON SG results in higher yields of better quality crops. PHOTON SG can be applied at any time during the growing season, from pre-plant to post-harvest, on all crops.

PRECAUTIONARY STATEMENTS: Causes slight eye irritation. Avoid contact with eyes. May cause irritation to the respiratory system. Avoid breathing dust or mist.

PERSONAL PROTECTIVE EQUIPMENT: Applicators and other handlers should wear dust/mist-filtering respirator.

FIRST AID: If in eyes, hold eyes open and flood gently with water. For further information refer to Material Safety Data Sheet.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage and disposal. Store in a cool, dry, sheltered location. In case of a spill or leak, avoid breathing dust, clean up and dispose of wastes in compliance with applicable local regulations.

CONTAINER DISPOSAL: Completely empty bottle into application equipment. Dispose of empty bottle according to local regulations.

Directions For Use:

Application Information:

For the greatest protection against environmental stress damage, apply PHOTON SG at the rates and specific crop stages noted below. Repeat applications at the intervals noted in the crop specific section below. For row crops, early PHOTON SG applications can be applied in a band over the row at the equivalent broadcast rate.

Foliar applications should be made in sufficient water volume to provide adequate uniform coverage. A surfactant should be added to aid in spreading over the leaf surface. Preferred surfactants include non-ionic or organo-silicone adjuvants.

Note: Apply PHOTON SG in sufficient spray volume to wet foliage. Applying to drip or beyond will be a waste of product. For horticultural crops best results are obtained from season-long, multiple application treatment programs, per the detailed use instructions below.

Mixing Instructions:

1. Fill spray tank one-third to one-half full, maintaining agitation
2. Add surfactant and other materials to the spray tank
3. Add appropriate amount of PHOTON SG

Maintain Vigorous Agitation of the spray solution containing PHOTON SG.

Tank Mix Instructions – To date, there have been no compatibility issues with PHOTON SG and nutrients, pesticides, or other crop protection products. Since all combinations have not been tested, the compatibility of PHOTON SG with any potential tank mix partners should be determined in small amounts, such as with a jar test.

Crop Specific Recommendations

Vegetables Annual and Biennial Crops

Group A: Tomato, Pepper (Capsicum), Cucurbits (melon, squash, cucumber, gourds), Leafy Vegetables (lettuce, chard, spinach, etc.), Cruciferae (broccoli, cabbage, cauliflower, mustard, etc.), Root Crops other than Potato and Sweet Potato, (beets, onions, garlic, etc.)

Preferred Program -Apply 0.3 oz. (wt) PHOTON SG per acre beginning immediately after transplant or two leaf stage for seeded or tuber crops; repeat applications at 14-21 day intervals through to harvest. Early applications can be made as a band over the row.

Specific Growth Stages: apply PHOTON SG at 0.3 oz per acre as below:

Reduction of transplant shock: make applications after watering in transplants.

Reducing flower abortion and increasing fruit set: apply 7-14 days prior to flowering. Repeat at 14-21 day intervals while flowering continues.

Improved fruit sizing and quality (*better finish, higher soluble solids, etc.*): begin applications at flowering. Continue at 14-21 day intervals through to harvest.

Group B: Root Crops (potato, sweet potato)

Preferred Program - apply 0.3 oz. (wt.) of PHOTON SG per acre beginning immediately after transplant (Sweet Potato) or two leaf stage for seeded or tuber crops; repeat applications at 14-21 day intervals through to harvest. Early applications can be made as a band over the row.

Cold stress applications must be made at least two (2) days prior to a cold event, ensuring adequate coverage of the foliage.

Group C: Pineapples

For heat and light stress: apply PHOTON SG at 0.6 oz. per acre at specific growth stages as below:

Reduction of transplant shock: make applications after watering in slips.

Improved fruit sizing and quality (*higher sugar*): begin applications at flowering. Continue at 14-21 day intervals through to harvest.

For cold stress: apply PHOTON SG before the onset of cold temperatures and continue throughout the cold period. Apply PHOTON SG at 1.5 oz. per acre for the first 2 applications at 21 days apart and 0.75 oz per acre for the third and subsequent applications, at 21 day intervals.

Vine Crops

Wine & Table Grapes: apply PHOTON SG at a rate of 0.25 oz. per 20 gallons. Apply a minimum of 0.3 oz. per acre and a maximum of 0.6 oz. per acre. Begin applications between bloom and cap fall. Apply PHOTON SG at 21 day intervals through just prior to harvest. For additional stress protection and better early season growth the following year, make one to two applications of Screen Duo beginning immediately after harvest.

Other Vine Crops (Tropical Fruits): apply at 0.25 oz. per 20 gallons with a minimum of 0.3 oz. per acre and a maximum of 0.6 oz. per acre of PHOTON SG when plants bloom in sufficient spray solution to cover. Continue applications to harvest at 14-21 day intervals.

Berries: PHOTON SG may be applied to the foliage and fruit of berry crops to reduce injury due to excessive heat, cold, light, and drought. Apply 0.3 oz. per acre of PHOTON SG at 14 day intervals beginning at flowering, using sufficient spray solution to provide complete coverage. For best results, begin applications when foliage is fully expanded. The addition of a spray additive, as noted above, is extremely important for berries that have a waxy surface, such as blueberries.

Tree Crops

Pome Fruit (apple, pear, quince), Stone Fruit (apricot, peaches, nectarines, cherries, plums, etc.), Nut Crops, Mango, Avocado: In Season apply PHOTON SG at a rate of 0.25 per 20 gallons water. Total volume per ha should be determined using the Tree Row Volume formula. Apply a minimum of 0.3 oz. per acre and a maximum of 0.6 oz. per acre. Begin applications within 7 days of petal fall. Continue to apply at 14-21 day intervals to harvest.

For reduction in cold injury to avocado, macadamia, and other chilling/frost sensitive tree crops: apply PHOTON SG at 0.25 oz. per 20 gallons of water. Begin applications at least five (5) days prior to cold event. Better results will be obtained with two to three applications applied at 14 day intervals prior to a cold event. Apply in sufficient water to provide thorough coverage.

PHOTON SG does not leave a residue, and as a natural plant constituent, can be applied at any time throughout the cropping season to harvest. All standard crop protection materials can be applied to PHOTON SG-treated crops.

Citrus: Apply PHOTON SG at a rate of 0.25 oz. per acre water in sufficient spray solution to wet all foliage. Apply a minimum of 0.3 oz. per acre and a maximum of 0.6 oz. per acre. For best results, begin applications one month prior to flowering. Alternatively, PHOTON SG applications may begin at flowering. Repeat applications at 21 day intervals. PHOTON SG can be applied through harvest.

Row Crops

Cereals: Apply PHOTON SG at 0.6 oz. per acre to cereal crops between flag leaf and anthesis (pollen shed - Growth Stages 47 -59) in sufficient water to wet the foliage.

Cereals may benefit from an early application of PHOTON SG of 0.6 oz. per acre, applied at tiller initiation (Growth Stage 21). This does not eliminate the need for a second application at heading.

PHOTON SG can be tank mixed with commonly used herbicides, insecticides and fungicides.

Maize: Field corn, sweet corn, waxy corn, starchy corn

Apply PHOTON SG at 0.6 oz. per acre in sufficient spray solution to wet foliage. Application should be made between early silk emergence and pollination (Growth Stages R1-R3).

An early application of PHOTON SG at 0.6 oz. per acre can be made at the four to six leaf stage (Growth Stage V4- V6). This does not eliminate the need for an application at silk emergence.

Soybeans

Apply PHOTON SG at a rate of 0.6 oz. per acre in sufficient spray solution to wet foliage. Application should be made between first flowering and early pod fill (Growth Stages R1-R3). An early application of PHOTON SG at a rate of 0.6 oz. per acre can be made at V4-6 (4-6 trifoliolate). Follow with an R1-3 application at 0.6 oz. per acre as directed above.

Cotton

Apply PHOTON SG at a rate of 0.6 oz. per acre in sufficient spray solution to wet foliage. Application should be made between mid-pin stage and first flower. A second application of 0.6 oz. per acre can be made before vegetative growth stops (cutout) to protect later blooms.

Canola

Apply PHOTON SG at a rate of 0.6 oz. per acre in sufficient spray solution to wet foliage. Apply PHOTON SG when canola plants are between half and full bloom to protect flowers and small pods. PHOTON SG must be applied at least five (5) days prior to any heat events of 80F (27C) or higher.

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