



# MANAGING ABIOTIC STRESS AND SUN DAMAGE IN POMEFRUIT

## The Product

**Active:** Contains 500g/kg of a mixture of dicarboxylic acids.

## Mode of Action

**PHOTON® 500SG** 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 500SG are biochemical compounds, found in all plants, that control a specific enzyme system associated with stress response. PHOTON 500SG effectively prepares the plant for the onset of environmental stress. The use of PHOTON 500 SG results in more vigorous crop growth and increased productivity.

## Formulation, Rate & Rainfastness

**Excellent** low dust water soluble granule formulation that leaves NO white residue. **DOES NOT FLARE SCALE.** **Low rate** of 4g/100L of water for easy mixing and handling - maximum of 40g/ha. **Rainfast** within 4 hours.

## Compatibility & WHP Re-Entry Period

**Good compatibility** with commonly used tank mix product. **WHP** - Not required when used as directed. **Re-Entry** Period: 0 days.

## Key Benefits

**NO visible residue** ensures excellent fruit finish. Provides season long mitigation from heat, chill and light stress. Four years of trial work shows proven efficacy and crop safety.

## Application - Foliar

**PHOTON 500 SG** applications should commence at least 5 days before the onset of stress events. This allows time for the enzymatic response triggered by PHOTON 500SG to build in the plant. This response continues for approximately 21 days after which the plant will return to normal function. Therefore applications must continue to be made every 14 -21 days to sustain stress mitigation.

**Crops will achieve** best levels of performance after the second application. A season long application program will maximise the productivity benefits of PHOTON 500SG.

## Application - Fertigation

**The key** to an effective application of PHOTON 500SG through irrigation/fertigation systems is similar to a foliar application. That is, coverage is still important. Therefore be certain that the irrigation program gives a good distribution of water across the active root system of the crop. The addition of IrriGate® soil surfactant has been shown to enhance the distribution of irrigation water through improved infiltration and lateral spread. PHOTON 500SG and IrriGate are compatible with other nutrient programs in all fertigation systems.

\*To date, there have been no compatibility issues with PHOTON 500SG and nutrients, pesticides, or other crop protection products. Since all combinations have not been tested, the compatibility of PHOTON 500SG with any potential tank mix partners should be determined in small amounts, such as a jar test.



## Directions for Use

**Restrains:** \*When applying PHOTON 500 SG to crops at a per 100L rate, the rate per hectare SHOULD NOT go below 20 g/ha or exceed 40 g/ha. Photon 500 SG must be applied 5 days prior to a stress event to achieve maximum performance.

## Foliar Application

Crop	Situation	State	Use rate	Critical comments
POMEFRUIT including apple, pear and quince.	Environmental stress mitigation program  To reduce cold stress in frost sensitive crops	All states	*4g/100L	Apply PHOTON 500 SG at a rate of 4g/100 L of water*. The total volume applied per ha should be determined using the Tree Row Volume formula. Begin applications within 7 days of petal fall. Continue to apply at 14-21 day intervals until harvest.  Begin applications prior to a 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.

## Fertigation Application

Crop	Situation	State	Use rate	Critical comments
POMEFRUIT including apple, pear and quince.	Environmental stress mitigation program	All states	40g/ha	Use a "constant dose application system" to ensure even distribution of PHOTON 500 SG is achieved across the crop via irrigation. Apply every 14-21 days during the growing season. Commence spray program at least 7 days before the onset of a heat or chill event. For best results, the second application should have been applied before the onset of a stress event. If a significant period of stress is approaching, the application interval should be reduced to 14 days.

