

pHase5

Water Soluble Adjuvant

SPECIMEN LABEL

pHase5 is an adjuvant containing a combination of nonionic and anionic components and is suitable for all horticultural and agricultural applications.

Principle Functioning Agents

Wetters, Spreaders and Penetrants 49%
 Spray Water Buffers 34%
 Other Ingredients 17%

Improves Pesticide Performance by:

- Reduces and buffers the pH of the spray solution.
- Prevents hard water inactivation of post-emergent herbicides, insecticides, fungicides, and growth regulators.
- Prevents rapid hydrolysis (degradation) of alkaline sensitive pesticides such as organophosphates, carbamates, synthetic pyrethroids and chlorinated hydrocarbons.
- Has excellent wetting and spreading properties, helping to reduce the possibility of chemical damage to the plant.
- Improves cuticular penetration and increases plant uptake of systemic pesticides and foliar nutrient sprays.
- Contains a unique pH indicator that turns the color of the spray water pink when the optimum pH range of 4.5-5.5 has been reached.
- Improves the compatibility of emulsifiable concentrates with foliar nutrients.

Alkaline and Hard Spray Water Can Sabotage Your Spray Efforts

The two most important factors affecting spray water quality are pH and water hardness.

The Effect of pH

The efficacy of many pesticides is adversely affected by exposure to alkaline spray water (high pH) through the degradation process known as alkaline hydrolysis.

Chemicals sensitive to alkaline hydrolysis include:

- Organophosphates
- Synthetic Pyrethroids
- Carbamates
- Chlorinated Hydrocarbons
- Triazines and Others

The Effect of Hard Water

Hard water contains high levels of calcium, magnesium, and iron that inactivate pesticides. Many insecticides, fungicides, and post emergence herbicides are inactivated in combination with hard water salts.

The Value of pHase5

The use of pHase5 counters both the detrimental effects of high pH and hard water on sensitive pesticides. One function of pHase5 is to reduce the pH of whatever type of spray

water to be used. The ideal pH range of 4.5 to 5.5 can be readily obtained by addition of pHase5 to the spray water, using its unique color change reaction to pink.

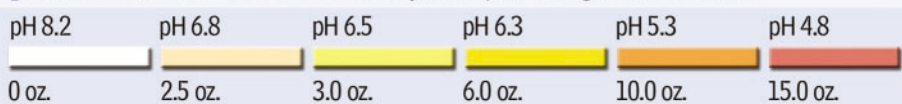
pHase5 also acts as a wetting, spreading and penetrating agent. When spray water turns pink the surface tension is reduced to 26 dynes per centimeter, depending on water conditions, resulting in an even film of spray over the leaf and better pesticide performance.

pHase5 Indicates the Optimum pH Level

Patented pHase5 is the only adjuvant that contains a built in pH indicator, turning the spray water pink as soon as the optimum level of 4.5-5.5 is reached. It eliminates the need to test the water pH with any additional equipment. In fact, even in the unlikely event of overdosing with pHase5 the solution will be automatically buffered and the pH will remain at a safe level.

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use; but neither this warranty or any other warranty of merchantability of fitness of a particular product expressed or implied, extends to the use of this product contrary to label instructions or under normal conditions, or under conditions not reasonably foreseeable to the seller; and buyer assumes the risk of such use.

pHase5 Rates Hard Water Adjusted per 100 gallons of water



Directions for Use

Mix pHase5 with the spray water before the addition of any chemicals. Add pHase5 until the spray water turns pink to get the optimum pH 5.0. Add pHase5 until the spray water turns orange to select pH 6.0.

Soft Water: A rapid color change occurs from milky white to pink. **Hard Water:** Color changes slowly from milky white to yellow to orange to pink. The correct volume of pHase5 to be added to the spray water is indicated by the color. Pink at pH 5; orange at pH 6.

Water Hardness Rating	Total Dissolved Salts (t.d.s.)	Conductivity s/cm	Drops Per Pint	Rate (oz.) Per 100 gal. water
Soft	0-100	0-200	7-9	5-6
Medium	100-200	200-300	9-10	6-7
Medium Hard	200-250	300-400	10-15	7-10
Hard	250-300	400-450	15-30	10-20
Very Hard	300-400	450-500	30-44	20-30
Extremely Hard	400+	500+	44+	30+

MANUFACTURED EXCLUSIVELY FOR:
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