



063310-00022-012799

Printed: 13:25:15 Friday, 14 May, 1999 # 12 / 2801

Systems Integration Group, Inc.

## IBA WATER SOLUBLE SALTS™ (20%)

Plant Growth Regulator - Rooting Hormone

PROPAGATE NEW PLANTS BY ROOTING CUTTINGS.

IMPROVE TRANSPLANTING - PROMOTE ROOT REGENERATION.

IMPROVE PLANT GROWTH & FLOWER YIELDS. BUILD ROOT MASS

Use on house, tropical, herbaceous, perennial & foliage plants,  
hardy ornamental plants, trees & shrubs, evergreen and deciduous plants.

Use in Greenhouses and Nurseries Only

Active Ingredients:

Indole-3-butyric Acid ...20.0%

Inert Ingredients...80.0%

Total...100.0%

Contents: 1 kg

HORTUS USA Corp., New York NY 10011

EPA Reg #63310-

EPA Est #63310-

Keep Out Of Reach Of Children

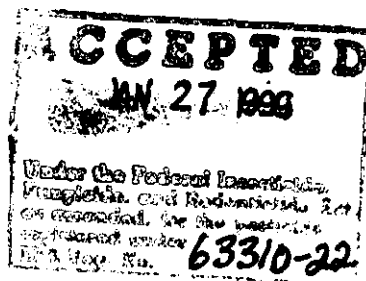
### CAUTION

See Additional Precautionary Statements on Back Panel

**IBA Water Soluble Salts (20%) dissolve easily in WATER.**

**IBA Water Soluble Salts (20%), due to percentage formulation, are easier to measure accurate concentrations than 100% IBA salts.**

**Use IBA Water Soluble Salts (20%) to propagate new plants from cuttings. The new plants will have the same characteristics as the parent plant. Treated cuttings will expect to produce uniform roots all around the basal end of the cuttings; the results are beautiful symmetric plants.**



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with labeling. For any requirements specific to your State or Tribe, consult the agency responsible.

**AGRICULTURAL USE REQUIREMENTS**

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR 170. This Standard contains requirements for the protection of agricultural workers on farms, forests nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this labeling about personal protective equipment and restricted-entry intervals.

The requirements in this box only apply to the uses of this product that are covered by the Workers Protection Standard (WPS).

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

**THE RESTRICTED-ENTRY INTERVAL (REI)  
FOR THIS PRODUCT IS "0" HOURS.**

**RATE DETERMINATION**

A wide dosage range is indicated for most uses of this product. The ideal rate will vary according to specific plant variety and local growing conditions. To assure compatibility of this product under the specific growing conditions and to determine the dosage rate best suited for your growing conditions, it is necessary that you test a few plants at varying rates within the specified dosage range prior to large scale operations. If combined with other plant regulators, test varying rates of each product. If foliar application causes phytotoxicity, try soil applications or decreased rates.

**PREPARING A IBA WATER SOLUBLE SALT (20%) SOLUTION**

- IBA Water Soluble Salts contain 20% IBA. When calculating parts per million (ppm) IBA use five times the weight of IBA Water Soluble Salts (20%) compared to using 100% IBA.
- Mix a portion of the solution for the same day use. Dispose of un-used portion as described in the 'storage and disposal' statements on this label.
- Container: Use plastic not metal.
- Temperature: Dissolve at 68F-85F.
- Water: Mix IBA Water Soluble Salts (20%) with WATER only. To avoid precipitation problems with the solutions use distilled or demineralized water not tap water. Do not dissolve in solvents.

The following table illustrates typical concentrations from 500 to 10,000 ppm IBA

Final concentration ppm IBA	Weight of salts per liter of solution			
	Weight of IBA Water Soluble Salts (20%)		Equivalent weight of 100% IBA	
	mg	gram	mg	gram
100	500	0.5	100	0.1
200	1000	1.0	200	0.2
300	1500	1.5	300	0.3
400	2000	2.0	400	0.4
500	2500	2.5	500	0.5
600	3000	3.0	600	0.6
700	3500	3.5	700	0.7
800	4000	4.0	800	0.8
900	4500	4.5	900	0.9
1,000	5000	5.0	1,000	1.0
5,000	25,000	25.0	5,000	5.0
10,000	50,000	50.0	10,000	10.0

- To make a 10,000 ppm IBA stock solution (10,000 mg/liter or 1 percent stock solution) dissolve 50.0 grams of IBA Water Soluble Salts (20%) in one liter of water.
- To make a one liter (1000 ml) of a 1000 ppm IBA working solution from a 1 percent stock solution add 100 ml of the 1 percent stock solution to 900 ml of water.

**PROMOTE ROOTING OF PLANT CUTTINGS**

Use to propagate new plants from cutting- from those easy to root to the most difficult to root.

**EASY STEPS**

1. Take plant cuttings, usually stem cuttings.
2. For woody cuttings usually wound by making a 3/4" notch at basal end.
3. Apply to plant cuttings by convenient methods:
  - Total Immerse: Completely immerse several cuttings at a time for a few seconds then plant.
  - Quick Dip: Immerse basal end of cuttings for a few seconds then plant.

- Spray Drip Down <sup>TM</sup>: Plant many cuttings in trays then spray cuttings until drips down.
  - Immersion Method: Immerse basal end of cuttings for a few hours then plant.
4. Take care of cuttings as appropriate for the plant variety.  
Control watering, temperature, humidity, light and other environmental factors. Observe and control external factors such as insects and fungus.

**IMMERSION METHOD**

Immerse Basal End Then Plant.

Immerse basal end of cuttings approximately 1" in solution for 4 to 12 hours. Plant immediately.

- Herbaceous and Woody Cuttings, including hard to root cuttings and rootstocks: 50-150 ppm IBA

**QUICK DIP METHOD**

Immerse Basal End Then Plant.

Immerse basal end of cuttings approximately 1" in solution a few seconds. Plant immediately. Use the minimum concentration to achieve results. Excessive concentration may inhibit root formation.

- Herbaceous Cuttings, Tropical Plants, House Plants, Roses, etc.: 150-500 ppm IBA
- Chrysanthemum: 200-500 ppm IBA.
- Softwood Cuttings: 500-1000 ppm IBA.
- Hardwood Cuttings: 500-2000 ppm IBA.
- Difficult to Root Cuttings: 5000-20000 ppm IBA.

**TOTAL IMMERSION METHOD**

Total Immerse Cuttings Then Plant

Immerse whole cuttings in solution a few seconds. A basket is useful. Plant immediately.

- Herbaceous Cuttings, Chrysanthemum, Plumbago, Ivy, Clematis, Delphinium, Lavender, Ficus, Potted Rose Bushes, etc.: 50-250 ppm IBA.
- Softwood Cuttings, Buddleia (Butterfly Bush), Hydrangea, Pieris, Hedera (Ivy), etc.: 50-300 ppm IBA.
- Hardwood Cuttings, Conifers, etc.: 200-500 ppm IBA.

**SPRAY DRIP DOWN METHOD™****Plant Cuttings Then Spray**

Plant cuttings. Spray solution on leaves and stems until drip down into media.

- Herbaceous Cuttings, Chrysanthemum, Begonia, Dieffenbachia, Heath, Hibiscus, etc.: 50-250 ppm IBA.

For Cuttings Which Take a Long Time to Root, or When Roots of Cuttings are Killed by Root Fungus periodically spray solution on leaves and stems until drip down into media: 50-250 ppm IBA

**TRANSPLANTING**

Use solutions to promote root regeneration when transplanting.

**IMMERSION-ABSORPTION METHOD™ (Bare Root Plants)**

Immerse bare roots in solution. Plant immediately or use before storage.

Immerse roots in solution at 50-150 ppm IBA for 10 minutes, or 150-250 ppm IBA for 5 minutes. After treating roots optionally spray the leaves lightly using 25-50 ppm IBA.

**SPRAY OR DIP METHODS (Plants in Plug or Ball)**

Spray plug, ball or bare roots after taking the plants out of propagation tray, or dip whole plug or ball in solution until fully saturated.

Herbaceous Plants, House and Foliage Plants: 50-150 ppm IBA.

Woody, Ornamental and Forestry Plants: 150-250 ppm IBA.

After treating roots optionally spray the leaves lightly using 25-50 ppm IBA.

**SOIL DRENCH METHOD (After Planting)**

After planting drench the soil.

House and Foliage Plants: 50-100 ppm IBA.

Herbaceous Plants: 50-200 ppm IBA.

Woody, Ornamental and Forestry Plants: 200-400 ppm IBA.

Use higher rate when soil composition draws water away from the roots. After treating roots optionally spray the leaves lightly using 25-50 ppm IBA.

**IMPROVE PLANT GROWTH**

- Use on house, tropical, herbaceous, bedding, flowering plants: Improve growth and flowering by increasing root mass. Apply at 3-5 week intervals during the active growing season or whenever fertilizing. Apply after harvesting to improve flower regeneration. Drench the soil and or spray foliage. Use 5-50 ppm IBA.
- Hardy Ornamental Plants, Deciduous and Evergreen Shrubs and Trees: Apply at 4-6 week intervals early in the active growing season or whenever fertilizing. Apply one to two times late in the growing season to reduce winter kill and improve following year growth. Drench the soil and or spray foliage. Use 15-50 ppm IBA.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal. Store in a cool dry place. Keep in original container. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Container disposal-triple rinse (or equivalent). Then offer for recycling, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

**PRECAUTIONARY STATEMENTS**

Hazards to humans and domestic animals.

**CAUTION**

Causes moderate eye injury. Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust (vapor or spray mist). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**PERSONAL PROTECTIVE EQUIPMENT**

Applicators and other handlers must wear: long sleeve shirt, long pants, shoes, socks and waterproof gloves.

**USER SAFETY RECOMMENDATIONS**

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**STATEMENT OF PRACTICAL TREATMENT**

If on skin wash with plenty of soap and water. If in eyes wash with plenty of water. Get medical attention if irritation persists. If inhaled remove victim to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. Get medical attention.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

**WARRANTY**

It is warranted that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of application all of which is beyond the control of Hortus USA Corp. In no case shall Hortus USA Corp. be liable for consequential, special or indirect damages resulting from the use or handling of this product. All risks shall be assumed by the buyer. Hortus USA Corp. makes no warranties of merchantability or fitness for a particular purpose nor other express or implied warranty except as stated above.

HORTUS USA CORP.

PO Box 1956 Old Chelsea Station, New York NY 10113 USA

<http://www.rooting-hormones.com>, [info@hortus.com](mailto:info@hortus.com) FAX:212-929-0927