

HORTUS 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 and
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%
Other Ingredients...80.0%
Total...100.0%

Contents: 1 kg
(Equal to .2 kg 100% IBA)
EPA Reg #63310-22
EPA Est #63310 HL-001

Distributed by
PHYTOTRONICS, INC.
13688 Rider Trail North
Earth City MO 63045
(314-770-0717)
Registered by
HORTUS USA CORP.
New York NY 10011

Keep Out Of Reach Of Children
CAUTION

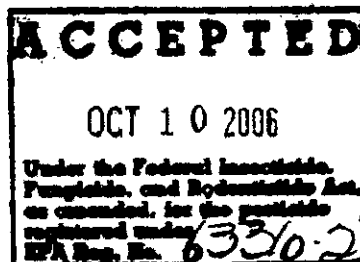
See Additional Precautionary Statements on Back Panel

Use Hortus 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.

Hortus IBA Water Soluble Salts (20%) dissolve easily in WATER up to 60,000 ppm IBA.

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



PRECAUTIONARY STATEMENTS
Hazards to humans and domestic animals.

CAUTION
Causes moderate eye injury. Harmful if inhaled or absorbed through the skin. Avoid contact with eyes, skin, ingestion or inhalation. 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, and for exposure in enclosed areas or outdoors, dust/mist filtering respirator. (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH-approved respirator with any R, P or HE filter.

USER SAFETY RECOMMENDATIONS
Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE 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.

FIRST AID Classification of Pesticide: Plant Growth Regulator	
If in eyes	> Hold eyes open and rinse slowly with water for 15-20 minutes > Remove contact lenses, if present after the first 5 minutes then continue rinsing eye > Call a poison center or a doctor for further treatment or advise
If on skin or clothing	> Take off contaminated clothing > Rinse skin immediately with plenty of water for 15-20 minutes > Call a poison center or a doctor for further treatment or advise
If swallowed	> Call a poison center or a doctor for further treatment or advise > Have person sip water if able to swallow > Do not induce vomiting unless told to do so by the poison control center or doctor. > Do not give anything by mouth to an unconscious person.
If inhaled	> Move person to fresh air > If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible > Call a poison center or a doctor for further treatment or advise
NOTE TO PHYSICIAN: May cause minor eye irritation which will last a short time. This product does NOT contain any petroleum, caustics or active solvent products	
Have the product container or label with you when you call a poison control center or doctor or going for treatment. You may call 800-325-3055 or 314-770-0717. 7:30AM-5PM CST Mon-Fri or the National Pesticide Information Center (NPIC) at 1-800-858-7378	

You may also call 800-325-3055 or 314-770-0717 for an MSDS. 7:30AM-5PM CST Mon-Fri ENVIRONMENTAL HAZARDS
For terrestrial uses. 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 or rinsate.

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
Always use the lowest possible concentration of Hortus IBA Water Soluble Salts to produce the desired effect

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

Hortus IBA Water Soluble Salts contain 20% IBA.

When calculating parts per million (ppm) IBA use five times the weight of Hortus IBA Water Soluble Salts (20%) compared to 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 Hortus 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 salts in other solvents.

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

Final Conc. ppm IBA	Weight of Salts per Liter of Solution (dissolve in WATER)			
	Weight of Hortus IBA Water Soluble Salts (20%) per liter of water		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 Hortus 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 : Plant many cuttings in trays then spray cuttings until drips down.

Immerision 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.

Use the minimum concentration to achieve results. (Excessive concentration may inhibit root formation).

IMMERISION 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.

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 IMMERSE 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. **ALWAYS DO SMALL TRIALS PRIOR TO DOING LARGE SCALE PRODUCTION.** Use the **LOWEST** concentration to produce the desired effect.

IMMERISION-ABSORPTION METHOD (Bare Root Plants)

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

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

Woody, Ornamental and Forestry Plants: 150 (or less)-250 ppm IBA.

After treating roots optionally spray the leaves lightly using 25 (or less)-50 ppm IBA.

SOIL DRENCH METHOD (After Planting)

After planting drench the soil.

House and Foliage Plants: 50 (or less) -100 ppm IBA.

Herbaceous Plants: 50 (or less) -200 ppm IBA.

Woody, Ornamental and Forestry Plants: 200 (or less) -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 (or less) -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.

Pesticide Storage: Store in a cool dry place. Keep in original container.

Pesticide Disposal: 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.

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 Rhizopon b.v. or Hortus USA Corp. To the extent of the law, Rhizopon or Hortus USA shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. To the extent of the law, all risks shall be assumed by the buyer. Rhizopon or Hortus USA make no warranties of merchantability or fitness for a particular purpose nor other express or implied warranty except as stated above.

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