

# Plant Growth Stimulant For Foliar Application Enriched with Micronutrients

# **ACTIVE INGREDIENTS:**

oberellic Acid (GA <sub>3</sub> )*	3%
lole Acetic Acid (IAA)*	3%
tokinin*	35%
HER INGREDIENTS:	9%
TAL:	00%

<sup>\*</sup>Equivalent to 33 ppm GA, activity, 33 ppm IAA activity, and 85 ppm Zeatin activity, respectively, as measured by bioassay.

# KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguie ara que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)
See inside booklet for complete Precautionary Statements and Directions for Use

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROPHARMA: 1-866-303-6952 or +1-651-603-3432.

FOR 24-HOUR CHEMICAL EMERGENCY (Spills, leaks, fire, exposure, or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

For PRODUCT USE INFORMATION: Call 1-866-761-9397

EPA Reg. No.: 66330-381 EPA Est. No.: 089332-GA-002

121416V001 104297-A Manufactured For: ARYSTA LIFESCIENCE NORTH AMERICA, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

1-0-5

NET WEIGHT: \_\_\_\_\_ NET CONTENTS: \_\_\_\_ WEIGHT PER GALLON: 9.2 POUNDS (4.17 KILOGRAMS)@68°F



#### **Guaranteed Analysis**

Total Nitrogen (N).	1.0%
1.0% Water-Soluble Nitrogen	
Soluble Potash (K <sub>2</sub> 0)	5.0%
Boron (B)	0.09%
Manganese (Mn)	0.18%
Zinc (Zn)	0.41%

Derived from: corn protein hydrolysate, muriate of potash, disodium octaborate, manganese sulfate, and zinc sulfate monohydrate.

CAUTION: This product contains boron, therefore must only be used on crops listed on this label at the recommended rates and according to the directions for use. The use of this fertilizer material on any other crops may result in seRiOus crop injury.

Information regarding the contents and levels of metals in this product is available on the internet at: http://www.aapfco.org/metals.htm.

F1721

# PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

# PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- . Long sleeved shirt and long pants:
- · Shoes plus socks; and
- Chemical resistant gloves made of any waterproof material (nitrile rubber ≥ 14 mils, butyl rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) > 14 mils, viton > 14 mils, and/or barrier laminate).

Follow manufacturer's directions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## **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 change into 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.

## **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 when cleaning equipment or disposing of equipment washwaters.

# **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirement specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 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 label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is long sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves made of any waterproof material (nitrile rubber  $\geq$  14 mils, butyl rubber > 14 mils, neoprene rubber > 14 mils, polyvinyl chloride (PVC) > 14 mils, viton > 14 mils, and/or barrier laminate).

# Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled.

#### GENERAL INFORMATION

RIO™ is a unique biochemical plant growth stimulator derived from plant extracts and enriched with micronutrients. It is formulated specifically to improve / enhance / optimize crop yield and quality. RIO improves flower and fruit setting, fruit growth and quality, as well as general plant growth and vigor. This product is specifically formulated to provide micronutrients to the stimulated plant in order to maintain plant vigor and strength. In addition, when growing conditions stress plants, RIO helps plants to recover by providing a source of nutrients.

Compatibility: RIO is compatible with all neutral pH agrochemicals and inoculants.

Apply **RIO** as a foliar spray in enough water to thoroughly cover the foliage, usually 20 to 100 gallons per acre for ground equipment and 5 to 10 gallons per acre for aerial application. Refer to the Table below for application rates and timing.

CROP	RATE/ACRE	TIMING
Banana	16-24 fl oz	Apply 30 to 45 days after transplant. Repeat monthly.
Cereal Grains, such as: Barley, Buckwheat, Canola, Corn, Hops, Millet, Oats, Popcorn, Rice, Rye, Sesame, Sorghum, Wheat, Wild Rice	8-12 fl oz	Apply at tillering (4 to 6 leaf stage). Repeat at second node appearance for Corn and Sorghum. For Barley, Oats, Rice and wheat repeat 30 to 40 days after first spray.
<b>Citrus, such as:</b> Calamondin, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Orange (sour and sweet), Pummelo, Tangerine	12-16 fl oz/ 100 gal water	Apply two weeks after bloom begins. Repeat during bloom and at petal drop.
Cotton	8-12 fl oz	Apply when squares begin to appear. Repeat 2 to 3 weeks after first spray.
<b>Cole Crops, such as:</b> Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage (Chinese), Cauliflower, Cavalo Braccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens	16-24 fl oz	Apply when there are 2 to 3 pairs of leaves. Repeat 30 to 45 days after first spray.
Cucurbit Vegetables, such as: Cantaloupe, Chayote, Chinese Waxgourd, Citron Melon, Cucumbers, Gherkin, Edible Gourds, Muskmelon hybrids and/or cultivars, Pumpkin, Summer Squash (such as Crookneck and Zucchini), Watermelons, Winter Squash (such as Acorn and Butternut)	16-24 fl oz	Apply when there are 2 to 3 leaves. Repeat during bloom.
Fruiting Vegetables, such as: Eggplant, Groundcherry, Pepino, Peppers (such as Bell, Chili, Pimento and Sweet Peppers), Tomatillo, and Tomatoes	16-24 fl oz	Apply during bloom. Repeat 2 to 3 times at 20-day intervals.
Grapes, such as: Dried, Table, Wine	24-28 fl oz	For seedless grapes, apply after blooming. Repeat 3 to 4 times at weekly intervals.
	24-32 fl oz	For SupeRIOr and Red Globe varieties, apply to bunches. Repeat 1 to 2 times at weekly interval.
Leafy Vegetables, such as: Amaranth, Arugula, Asparagus, Cardoon, Celery, Celtuce, Chervil, Chrysanthemum, Corn Salad, Cress (garden and upland), Dandellion, Dock, Endive, Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach, Swiss Chard	12-20 fl oz	Apply when there are two to three pair of leaves and repeat 10 to 15 days later.
Pineapples	24-30 fl oz/ 250 gal water	Apply 18 days after flora induction. Repeat 24 days later.
Pome Fruit, such as: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental), Quince	12-16 fl oz/ 100 gal water	Apply between bloom and petal fall. Repeat when fruit appears.
Potatoes, Root and Tuber Vegetables, such as: Arracacha, Arrowroot, Artichoke, Canna (edible), Cassava, Chayote (root), Garlic, Ginger, Onion, Potato, Sweet Potato, Tanier, Turmeric, Yam Bean, Yam	16-24 fl oz	Apply during bloom. Repeat 21 days (3 weeks) later.

CROP	RATE/ACRE	TIMING
Root Vegetables, such as: Beet (garden & sugar), Burdock (edible), Carrot, Celeriac, Chervil, Chicory, Ginseng, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Skirret, Turnip	16-24 fl oz	Apply during bloom. Repeat 15 to 20 days later.
Strawberries	16-24 fl oz/ 100 gal water	Apply when blooming begins. Repeat at 50% bloom, then repeat weekly for up to 4 weeks.
Stone Fruit, such as: Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum, Plumcot, Prune (fresh)	12-16 fl oz/ 100 gal water	Apply between bloom and petal fall. Repeat when fruit appears.
Succulent, Dried Beans and Peas, such as: Beans ( <i>Phaseolus</i> and <i>Vigna</i> spp.), Jackbean, Pea ( <i>Pisum</i> spp.), Pigeon Pea, Soybean, Sword Bean, and dried cultivars of Bean ( <i>Lupinus</i> , <i>Phaseolus</i> , <i>Vigna</i> spp.), Broad Bean, Chickpea, Guar, Lablab Bean, Lentil, and Pea.	8-12 fl oz	Apply during bloom. Repeat 15 to 20 days later.
Tree Nuts and Pistachio, such as: Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory Nut, Macadamia Nut, Pecan, Walnut (Black and English), and Pistachio	12-16 fl oz/ 100 gal water	Apply between bloom and petal fall. Repeat when fruit appears.
Tropical Tree Fruits, such as: Avocado, Cherimoya, Coffee, Guava, Lychee, Mango, Papaya	12-16 fl oz/ 100 gal water	Apply 2 weeks after bloom begins. Repeat during bloom and at petal drop.

# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Do not store at temperatures above 75°F for prolonged peRIOds, Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Do not contaminate food or feed by disposal. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. CONTAINER HANDLING:

## Nonrefillable containers equal to or less than 5 gallons:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, OR THE SELLER SHALL NOT BE LIBLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE BUYER AND THE USER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER OR USER'S EXCLUSIVE REMEDY, AND ARYSTA'S, THE MANUFACTURER'S, OR THE SELLER'S TOTAL LIABILITY SHALL BE LIMITED TO DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT. OR AT ARYSTA'S ELECTION. THE REPLACEMENT OF THE PRODUCT.

Arysta LifeScience and the Arysta LifeScience logo are registered trademarks of Arysta LifeScience Corporation.

RIO is a trademark of Arysta LifeScience North America, LLC.

©Copyright 2017, Arysta LifeScience North America, LLC



Plant Growth Stimulant For Foliar Application

**Enriched with Micronutrients** 

## **ACTIVE INGREDIENTS:**

Gibberellic Acid ( $GA_3$ )*	0.0033%
Indole Acetic Acid (IAA)*	0.0033%
Cytokinin*	0.0085%
OTHER INGREDIENTS:	99.9849%
TOTAL:	00.0000%

\*Equivalent to 33 ppm GA<sub>3</sub> activity, 33 ppm IAA activity, and 85 ppm Zeatin activity, respectively, as measured by bioassay.

# KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguie ara que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.) See inside booklet for complete Precautionary Statements and Directions for Use

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROPHARMA:

1-866-303-6952 or +1-651-603-3432.

FOR 24-HOUR CHEMICAL EMERGENCY (Spills, leaks, fire, exposure, or accident) CALL CHEMTREC: 1-800-424-9300 or +1-703-527-3887.

For PRODUCT USE INFORMATION: Call 1-866-761-9397

# PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

#### 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 when cleaning equipment or disposing of equipment washwaters.

# 1-0-5

# Guaranteed Analysis 1.0% Total Nitrogen (N). 1.0% 1.0% Water-Soluble Nitrogen 5.0% Soluble Potash (K₂0) 5.0% Boron (B). 0.09% Manganese (Mn). 0.18% Zinc (Zn) 0.41%

Derived from: corn protein hydrolysate, muriate of potash, disodium octaborate, manganese sulfate. and zinc sulfate monohydrate.

CAUTION: This product contains boron, therefore must only be used on crops listed on this label at the recommended rates and according to the directions for use. The use of this fertilizer material on any other crops may result in serious crop injury. F1721

Information regarding the contents and levels of metals in this product is available on the internet at: http://www.aapfco.org/metals.htm.

# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a cool, dry place. Do not store at temperatures above 75°F for prolonged periods. Keep container tightly closed when not in use.

PESTICIDE DISPOSAL: Do not contaminate food or feed by disposal. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility. CONTAINER HANDLING:

## Nonrefillable containers equal to or less than 5 gallons:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

RIO is a trademark of Arysta LifeScience North America, LLC. Arysta LifeScience and the Arysta LifeScience logo are registered trademarks of Arysta LifeScience Corporation.



EPA Reg. No.: 66330-381 EPA Est. No.: 089332-GA-002 121416V001 104297-A Manufactured For: ARYSTA LIFESCIENCE NORTH AMERICA, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

NET WEIGHT:	
NET CONTENTS:	
WEIGHT PER GALLON: 9.2 POL	NDS (4 17 KII OGRAMS)@68°F