| STATED STATED  | U.S. ENVIRONMENTAL PROTECTION AGENCY<br>Office of Pesticide Programs<br>Biopesticides and Pollution Prevention Division (7511P)<br>1200 Pennsylvania Ave., N.W.<br>Washington, D.C. 20460   | EPA Reg. Number:<br>69361-49  | Date of Issuance:<br>4/28/2016  |  |  |
|--|---|---|---|--|--|
|  | NOTICE OF PESTICIDE:<br><u>X</u> Registration<br>Reregistration   | Term of Issuance:<br>Unconditional  |   |  |  |
|  | (under FIFRA, as amended)   |   | Name of Pesticide Product:<br>Homobrassinolide 0.1%   |  |  |
| Name and Address of R<br>Repar Corporatio<br>PO Box 4321<br>SILVER SPRING  |   |   |   |  |  |
|  | g differing in substance from that accepted in connection with this regist<br>on Prevention Division prior to use of the label in commerce. In any cor-   |   |   |  |  |
| Federal Insecticide<br>Registration is in r<br>Environmental Pro-<br>his or her motion,<br>The acceptance of<br>as giving the regis<br>This product is une<br>1. Submit an<br>requires al<br>2. Submit sto<br>data requir<br>have 18 m | Formation furnished by the registrant, the above name<br>e, Fungicide, and Rodenticide Act (FIFRA or the Act<br>no way to be construed as an endorsement or recomm<br>betection Agency (EPA). In order to protect health and<br>may at any time suspend or cancel the registration of<br>any name in connection with the registration of a pro-<br>trant a right to exclusive use of the name or to its use<br>conditionally registered in accordance with FIFRA s<br>d/or cite all data required for registration or registrat<br>ll registrants of similar products to submit such data.<br>prage stability and corrosion characteristics (Guidelin<br>rements are not satisfied. A one-year study is require<br>bonths from the date of this registration to provide the | t).<br>hendation of this prod<br>the environment, the<br>f a pesticide in accord<br>oduct under the Act is<br>e if it has been covered<br>ection 3(c)(5) provide<br>ion review of your pro-<br>hes 830.6317 and 830.<br>d to satisfy these data | uct by the U.S.<br>e Administrator, on<br>ance with the Act.<br>s not to be construed<br>d by others.<br>ed that you:<br>oduct when the EPA |  |  |
| Signature of Approving   | . Engelin   | Date:   | 016   |  |  |
| Biochemical Pesti  | cides Branch<br>Pollution Prevention Division (7511P)   |   |   |  |  |

Page 2 of 2 EPA Reg. No. 69361-49 OPP Decision No. 510054

- 3. Make the following labeling change before you release this product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 69361-49."
- 4. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statement of Formula (CSF):

• Basic CSF dated 12/27/2015

If you have any questions, please contact Menyon Adams of my branch by phone at (703) 347-8496 or via email at adams.menyon@epa.gov.

Sincerely,

andrew C. Buycelow

Andrew Bryceland, Team Leader Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7511P) Office of Pesticide Programs

Enclosure



# **HOMOBRASSINOLIDE 0.1%**\* PLANT GROWTH REGULATOR

04/28/2016 Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No

ACCEPTED

69361-49

#### FOR USE ON CEREALS, FIELD CROPS, FRUIT AND NUT TREES, OILSEEDS, **ORNAMENTALS, VEGETABLES**

Homobrassinolide 0.1% is recommended as foliar spray for most agricultural and horticultural crops such as :

- Grain crops such as Rice, and Wheat
- Vegetable crops such as Eggplant, Tomato, Bell pepper and Other Varieties such as Okra, Cabbage, and . Cauliflower
- Fiber crops such as Cotton
- Tuber crops such as Potato
- Oil seeds such as Peanut, Sunflower, and Soybean
- Perennial flowering plants such as Jasmine, and Rose
- Annual flowering plants such as Marigold
- Cash crops such as Banana, Sugarcane, Sugar beets, Tea, Coffee, and Pepper
- Fruit crops such as Grapes (Table and Wine), Pomegranate
- Nut crops such as Almonds and Walnuts .

Homobrassinolide 0.1% is fully biodegradable, leaves no residues, and is environment friendly.

| ACTIVE INGREDIENT:  |  |
|---|--|
| Homobrassinolide  |  |
| OTHER INGREDIENTS:  |  |
| <b>TOTAL</b>  |  |
| Each fluid ounce of HOMOBRASSINOLIDE 0.1% contains approximately 0.03 gram of active ingredient |  |
| * Alternate Brand Names: HBR 0.1%; Homobrassin; Initiator Homobrassin                           |  |

#### **KEEP OUT OF REACH OF CHILDREN**

#### CAUTION

Si usted no entfende la etlqueta, busque a alguien pare qua se la explique a usted on detalle. (if you do not understand the label, find someone to explain it to you in detail)

| (11  | (if you do not understand the faber, find someone to explain it to you in detail)          |  |  |
|--|--|--|--|
| For Product Use Information Call 1-866-248-7426                        |  |  |  |
| FIRST AID  |  |  |  |
| If swallowed   | • Have person sip a glass of water if able to swallow.                                     |  |  |
|  | • Do not induce vomiting unless told to do so by a poison control center or doctor.        |  |  |
|  | • Do not give anything by mouth to an unconscious person.                                  |  |  |
|  | • Call a poison control center or doctor for treatment advice.                             |  |  |
| If on skin or  | • Take off contaminated clothing.  |  |  |
| clothing   | • Rinse skin immediately with plenty of water for 15-20 minutes.                           |  |  |
|  | • Call a poison control center or doctor for treatment advice.                             |  |  |
| Have a produc  | t container or label with you when calling a poison control center or doctor, or going for |  |  |
| treatment.   |  |  |  |
| <b>Note to Physician:</b> No specific antidote. Treat symptomatically. |  |  |  |

**sician:** No specific antidote. Treat symptomatically.

Symptoms of Poisoning: The compound does not cause any definite symptoms that would be diagnostic. For chemical emergency: spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

> Manufactured for: **Repar Corporation** P.O. Box 4321 Silver Spring, MD 20914

EPA Reg. No. 69361-

EPA Est. No.

# **PRECAUTIONARY STATEMENTS**

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

# CAUTION

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton
- Shoes plus socks

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

#### **ENGINEERING CONTROLS STATEMENTS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### User Safety Recommendations

Users should:

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

# **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 when disposing of equipment washwater rinsate.

#### **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 handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the 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). The REI for each crop is 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:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton
- Shoes plus socks

# **PRODUCT INFORMATION**

Read the entire Directions for Use and Conditions of Sale before using this product.

Homobrassinolide 0.1% contains a new generation plant growth promoter called 'homobrassinolide' as active ingredient, which is a natural substance with profound plant growth promoting activity.

# The natural plant growth substance present in Homobrassinolide 0.1% improves the physiological and biochemical processes involved in crop growth and development.

Homobrassinolide 0.1% *enhances crop growth and development:* 

- Promoting cell division and cell elongation
- Acting synergistically with other endogenous hormones
- Promoting seed germination and increasing early vigor of seedlings
- Increasing photosynthesis and translocation of assimilates to economic plant parts
- Increasing the levels of enzymes responsible for the synthesis of nucleic acids, proteins and sugars
- Imparting stress resistance under adverse environmental conditions
- Inducing flowering, and increasing fruit set and fruit growth
- Increasing quality of produce.

When applying plant growth regulators, deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, may result in undesirable effects. Always consult the State Extension Service Specialist in your area for the spray regimen best suited to your

conditions.

- Do not apply to plants under pest, nutritional or water stress.
- When a range of rates is indicated, use the concentration and spray volume recommended locally by the State Extension Service Specialist or Repar Corporation representative.
- For optimum effectiveness, thorough spray coverage must be achieved. All parts of the plant or crop must receive the spray or desired results will not occur. Prepare solution concentrations by mixing the required amount of product with water in a clean, empty spray tank. Discard any unused spray material at the end of each day following local, state or Federal Law.
- For optimum results, the water pH should be around neutral, and always below 8.0.
- Homobrassinolide 0.1% applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night time applications are encouraged when day time conditions are not conducive to slow during conditions.
- Product persistence: Homobrassinolide 0.1% should be reapplied if significant rain occurs within 4 hours of application.
- DO NOT apply if rain is expected before sprays have dried completely. DO NOT use overhead irrigation before sprays have dried.
- DO NOT apply using ULV application method. For aerial applications spray volumes must be greater than 2 gallons per acre (10 gallons per acre for tree crops).
- Homobrassinolide 0.1% can be applied up to 15 days before harvest (PHI = 15 days).
- Apply a non-ionic surfactant (NIS) at a label rate approved for use on respective crops for all applications of Homobrassinolide 0.1%.

# **Compatibility:**

Homobrassinolide 0.1% is compatible with pesticides, herbicides, fertilizers and micronutrients commonly used by the farmers/growers. Homobrassinolide 0.1% can be mixed with most of these common agrochemicals after diluting with water separately. However, the pH of the spray solution should be around 6.0, that is alkaline pH should be avoided.

# **ROOT AND TUBER VEGETABLES**

| APPLICATION DIRECTIONS   |  |                                |  |
|--|--|--------------------------------|--|
| CROP   | GROWTH STAGE   | Homobrassinolide 0.1% FL. OZ./ |  |
|  |  | ACRE                           |  |
| Potato,  | 1 <sup>st</sup> Application: 25 days after sowing      | 3.3/application                |  |
| Artichoke,   | 2 <sup>nd</sup> Application: 10 days after first spray |                                |  |
| Sweet Potato,  |  |                                |  |
| Yam  |  |                                |  |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |                                |  |

| Seed Potato | Prior to planti | ng |  | 13.3 to 26.6 |  |
|-------------|-----------------|----|--|--------------|--|
|             |                 |    |  |              |  |

**COMMENTS:** To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of newly harvested potatoes that have not had a full rest period dip whole or cut seed pieces in 100 gallons of water.

**PRECAUTION:** Under high soil temperatures use the minimum concentration for dormant seed. **RESTRICTION:** Do not treat rested seed.

| Sugar Beet   | Apply spray at 10-13 leaves | 13.3 to 26.6 |  |
|--|-----------------------------|--------------|--|
| <b>COMMENTS:</b> To increase yield and sugar content apply in sufficient water volume for thorough |                             |              |  |
| coverage of exposed foliage.   |                             |              |  |

#### **BULB VEGETABLES**

| APPLICATION DIRECTIONS       |   |   |  |
|------------------------------|---|---|--|
| CROP                         | GROWTH STAGE                                  | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./<br>ACRE |  |
| Onion                        | 30 days after sowing                          | 13.3 to 26.6Homobrassinolide 0.1%<br>+ 132.0 NAA        |  |
| <b>COMMENTS:</b> tank mixed) | Apply in 50 gallons of water volume per acre. | (Naphthalene acetic acid (NAA) is                       |  |

#### LEAFY GREENS

| APPLICATION DIRECTIONS  |                            |                       |  |
|---|----------------------------|-----------------------|--|
| CROP  | GROWTH STAGE               | HOMOBRASSINOLIDE 0.1% |  |
|   |                            | FL. OZ./ ACRE         |  |
| Celery  | 1-4 weeks prior to harvest | 13.3 to 26.6          |  |
| <b>COMMENTS:</b> To increase plant height and yield and overcome stress due to cold weather conditions or saline soils, and to obtain earlier maturity apply using 25 to 50 gallons per |                            |                       |  |

acre by ground application or 5 to 10 gallons per acre for aerial application. Use lower concentrations applying 3 to 4 weeks before harvest and higher concentrations within 1 to 2 weeks before harvest.

**RESTRICTIONS:** Do not apply by air in California. Do not apply earlier than 4 weeks before harvest as bolting (seed stalk formation) may occur.

| Lettuce For  | 1 <sup>st</sup> -4 <sup>th</sup> Application: Apply at 2 week | 13.3 to 26.6/application |  |
|--|---|--------------------------|--|
| Seed   | intervals, beginning at the fourth true leaf                  |                          |  |
| COMMENTS: To obtain uniform bolting and increase seed production apply in sufficient water |   |                          |  |
| volume to insure   | e thorough wetting.   |                          |  |

| npletely broken                 | 13.3   |
|---------------------------------|--|
| blication: When the rest period |  |
| en by cold weather              | 13.3   |
| 2                               | npletely broken<br>blication: When the rest period<br>en by cold weather |

**COMMENTS:** To break dormancy on plants receiving insufficient chilling and to increase marketable yield of forced rhubarb apply 2 fluid ounces of PGR solution prepared in 10 gallons of water to each cleaned crown.

**PRECAUTION:** Keep forcing house temperatures at 40°F to 50°F for 25 hours after application. If house is warmer than 50°F, the crowns should be covered with plastic. Temperatures in the forcing house above 50°F may lower yields and cause poor stalk color.

| Spinach | 10 to 18 days before each anticipated   |              |
|---------|---|--------------|
|         | harvest on fall or over-winter spinach, |              |
|         | ideally when daytime temperatures are   | 13.3 to 26.6 |
|         | 40°F to 70°F and during early morning   |              |
|         | hours when dew is present on crop       |              |

**COMMENTS:** To facilitate harvest, increase yield and improve quality of fall and over-winter spinach apply in 10 to 50 gallons by ground sprayer use only water for spray. When applied to promote growth of second cutting, wait until some regrowth has started before spraying. Maximum benefit is obtained when below normal temperatures predominate following application and growth would be otherwise slowed in untreated spinach.

**RESTRICTIONS:** Since the promotion of bolting may occur, do not apply after the mid-winter period or if temperatures may be expected to exceed  $75^{0}$ F within several days of application. Do not apply on spring plantings.

#### **BRASSICA LEAFY VEGETABLES**

| APPLICATION DIRECTIONS   |  |  |  |
|--|--|--|--|
| CROP   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1%<br>FL. OZ./ ACRE |  |
| Cabbage/<br>Cauliflower  | 1 <sup>st</sup> Application: 3 to 5 days after head initiation | 13.3 /application                      |  |
|  | 2 <sup>nd</sup> Application: 10 days after first spray         |  |  |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |  |  |

#### LEGUME VEGETABLES

| APPLICATION DIRECTIONS              |  |                                   |
|-------------------------------------|--|-----------------------------------|
| CROP                                | GROWTH STAGE                               | HOMOBRASSINOLIDE 0.1%             |
|                                     |  | FL. OZ./ ACRE                     |
| Bean(Phaseolus)                     | Spray 45 days after sowing                 | 13.3                              |
| <b>COMMENTS:</b> T exposed foliage. | To increase yield apply in sufficient wate | r volume for thorough coverage of |

Bean(Lupine)Spraying at flowering13.3COMMENTS: To increase protein content apply in sufficient water volume for thorough coverage<br/>of exposed foliage.

| Pea              | 1 <sup>st</sup> Application: Spraying at bushing | 13.3 /application                 |
|------------------|--|-----------------------------------|
|                  | 2 <sup>nd</sup> Application: Spraying at budding |                                   |
| <b>COMMENTS:</b> | To increase yield apply in sufficient wate       | r volume for thorough coverage of |
| exposed foliage  |  |                                   |

# FRUITING VEGETABLES

| APPLICATION DIRECTIONS   |  |                       |
|--|--|-----------------------|
| CROP   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1% |
|  |  | FL. OZ./ ACRE         |
| Tomato,  | 1 <sup>st</sup> Application:15 days after transplantation        | 13.3                  |
| Eggplant,  | 2 <sup>nd</sup> Application: 8 to10 days after flowering         |                       |
| Pepper, Okra   | 3 <sup>rd</sup> Application: 10 days after 2 <sup>nd</sup> spray | 13.3 /application     |
| etc.   |  |                       |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |                       |

# **CUCURBIT VEGETABLES**

| APPLICATION DIRECTIONS  |   |                       |
|---|---|-----------------------|
| CROP  | GROWTH STAGE  | HOMOBRASSINOLIDE 0.1% |
|   |   | FL. OZ./ ACRE         |
| Melon,  | 1 <sup>st</sup> Application: spraying at flowering        |                       |
| Cantaloupe,   | 2 <sup>nd</sup> Application: 7 days after 1 <sup>st</sup> | 13.3 /application     |
| Cucumber,   | application at fruit formation stage.                     |                       |
| Squash(Summer,  |   |                       |
| Winter),  |   |                       |
| Watermelon  |   |                       |
| <b>COMMENTS:</b> To promote disease suppression apply in sufficient water volume for thorough |   |                       |
| coverage of exposed foliage.  |   |                       |

# **CITRUS FRUITS**

| APPLICATION DIRECTIONS |   |   |
|------------------------|---|---|
| CROP                   | GROWTH STAGE                              | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./<br>ACRE |
| Orange(Valencia,       |   |   |
| Navel, Sweet           |   |   |
| Orange,                |   |   |
| Mandarin, Other        | When fruits are of marble size            | 26.6 Homobrassinolide 0.1% +                            |
| Round)                 |   | 148.5 GA  |
| Grapefruit             |   |   |
| including Star         |   |   |
| Ruby Red,              |   |   |
| Lemon, Lime,           |   |   |
| Tangerine              |   |   |
| Hybrids                |   |   |
| COMMENTS: A            | pply in 100 gallons of water volume per a | acre. (Gibberellic acid (GA) is tank                    |
| mixed)                 |   |   |

# **POME FRUITS**

| APPLICATION DIRECTIONS |  |   |
|------------------------|--|---|
| CROP                   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./ |
|                        |  | ACRE  |
| Apple                  | 1 <sup>st</sup> Application: Spray at anthesis                   |   |
|                        | 2 <sup>nd</sup> Application: Spray 14 days after 1 <sup>st</sup> | 13.3 Homobrassinolide 0.1% + 66.0               |
|                        | application (Gibberellic acid (GA) and                           | GA + 66.0 BA/application                        |
|                        | Benzyl adenine (BA) are tank mixed)                              |   |
| COMMENTS:              | Apply in 50 gallons of water volume per acre.                    |   |

| APPLICATION DIRECTIONS |   |   |
|------------------------|---|---|
| CROP                   | GROWTH STAGE  | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./<br>ACRE       |
| Pears                  | 1 <sup>st</sup> Application: Spray at anthesis<br>2 <sup>nd</sup> Application: Spray 14 days after 1 <sup>st</sup><br>application (Gibberellic acid (GA) and<br>Benzyl adenine (BA) are tank mixed) | 13.3 Homobrassinolide 0.1% + 66.0<br>GA + 66.0 BA/application |
| COMMENTS:              | Apply in 50 gallons of water volume per acre.   |   |

# **STONE FRUITS**

| APPLICATION DIRECTIONS  |  |                       |
|---|--|-----------------------|
| CROP  | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1% |
|   |  | FL. OZ./ ACRE         |
| Cherries  | 1 <sup>st</sup> Application: at the beginning of fruit |                       |
| (Sweet, Red   | coloring, when cherries are translucent to             |                       |
| Tart)   | straw colored  | 13.3 to 26.6          |
|   | $2^{nd}$ Application: 3-7 days later if coloring is    |                       |
|   | uneven due to extended bloom                           |                       |
| COMMENTS: To enhance ripening (color and sugar), apply in 100 gallons of water volume per |  |                       |
| acre. If it is necessary to change water volume, adjust the rate of Homobrassinolide 0.1% |  |                       |
| accordingly to keep the concentration of Homobrassinolide 0.1% to water volume the same.  |  |                       |

| APPLICATION DIRECTIONS   |  |   |
|--|--|---|
| CROP   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./ |
|  |  | ACRE  |
| Peaches,   | 1 <sup>st</sup> Application: Spray at anthesis                   |   |
| Plums,   | 2 <sup>nd</sup> Application: Spray 14 days after 1 <sup>st</sup> | 13.3 Homobrassinolide 0.1% + 66.0               |
| Apricots,  | application (Gibberellic acid (GA) and                           | GA + 66.0 BA/application                        |
| Nectarines   | Benzyl adenine (BA) are tank mixed)                              |   |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |   |

# **BERRIES AND SMALL FRUIT**

| APPLICATION DIRECTIONS  |   |   |
|---|---|---|
| CROP  | GROWTH STAGE  | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./<br>ACRE |
| Banana ( <i>Dwarf</i> ,<br><i>Cavendish</i> ),<br>Strawberry,<br>Blueberry( <i>Highbush</i> ,<br><i>Rabbiteye</i> ) | 1 <sup>st</sup> Application: Spray on fruit bunches<br>at shooting stage<br>2 <sup>nd</sup> Application: Spray 15 days after 1 <sup>st</sup><br>spray | 6.6 Homobrassinolide 0.1% + 66.0<br>GA /application     |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. (Gibberellic acid (GA) is tank mixed)                |   |   |

| Table Grapes  | 1 <sup>st</sup> Application: One (1) week after berry set |                                    |
|---|---|------------------------------------|
|   | 2 <sup>nd</sup> Application: 5-7 days after the first     |                                    |
|   | application   |                                    |
|   | 3 <sup>rd</sup> Application: if desired could be made     |                                    |
|   | two (2) weeks after berry set                             |                                    |
| Wine Grapes   | 1 <sup>st</sup> Application: during late bloom before     |                                    |
|   | berry set   | 13.3 to 26.6 Homobrassinolide 0.1% |
|   | 2 <sup>nd</sup> Application: one (1) week after berry     |                                    |
|   | set   |                                    |
|   | 3 <sup>rd</sup> Application: If coloring is uneven        |                                    |
|   | following extended bloom, a third                         |                                    |
|   | application, if desired, could be made two                |                                    |
|   | (2) weeks after berry set                                 |                                    |
| <b>COMMENTS:</b> To enhance ripening (color and sugar) apply in 100 gallons of water volume per acre. |   |                                    |
| If it is necessary to change water volume, adjust the rate of Homobrassinolide 0.1% accordingly to    |   |                                    |
| keep the concentration of Homobrassinolide 0.1% to water volume the same.                             |   |                                    |

# **TREE NUTS**

| APPLICATION DIRECTIONS   |  |                            |  |
|--|--|----------------------------|--|
| CROP   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1%      |  |
|  |  | FL. OZ./ ACRE              |  |
| Almond   | Apply at 90% petal fall (about 4-6mm                                       | 13.3 Homobrassinolide 0.1% |  |
|  | nutlet length)   |                            |  |
|  | OR   |                            |  |
|  | Apply at one (1) to two (2) weeks post-<br>petal fall                      | 26.6 Homobrassinolide 0.1% |  |
| <b>COMMENTS:</b> To enhance nut set and kernel weight, make one application only in 100 gallons of |  |                            |  |
|  | ne per acre. If it is necessary to change water volume, adjust the rate of |                            |  |
| Homobrassinolide 0.1% accordingly to keep the concentration of Homobrassinolide 0.1% to water      |  |                            |  |
| volume the same  | e.   |                            |  |

| Walnut | Apply 10 days after 10% state of pistillate | 13.3 – 26.6 Homobrassinolide 0.1% |
|--------|---|-----------------------------------|
|        | flower receptive                            |                                   |

**COMMENTS:** To enhance nut set and kernel weight, apply in 100 gallons of water volume per acre. If it is necessary to change water volume, adjust the rate of Homobrassinolide 0.1% accordingly to keep the concentration of Homobrassinolide 0.1% to water volume the same.

#### CEREAL GRAINS

| APPLICATION DIRECTIONS  |                       |                       |  |  |  |
|---|-----------------------|-----------------------|--|--|--|
| CROP  | <b>GROWTH STAGE</b>   | HOMOBRASSINOLIDE 0.1% |  |  |  |
|   |                       | FL. OZ./ ACRE         |  |  |  |
| Barley  | Spraying at flowering | 13.3                  |  |  |  |
| <b>COMMENTS:</b> To increase yield apply in sufficient water volume for thorough coverage of exposed foliage. |                       |                       |  |  |  |

| Buckwheat        | 1 <sup>st</sup> Application: at 3 true leaves | 13.3 / application                |
|------------------|---|-----------------------------------|
|                  | 2 <sup>nd</sup> Application: at budding       |                                   |
| <b>COMMENTS:</b> | To increase yield apply in sufficient wate    | r volume for thorough coverage of |
| exposed foliage. |   |                                   |

| Corn  | 1 <sup>st</sup> Application: at 4-5 true leaves     | 13.3 / application |  |
|---|---|--------------------|--|
|   | 2 <sup>nd</sup> Application: at emergence of tassel |                    |  |
| <b>COMMENTS:</b> To increase yield, increase of lysing and truntophen content apply in sufficient |   |                    |  |

**COMMENTS:** To increase yield, increase of lysine and tryptophan content apply in sufficient water volume for thorough coverage of exposed foliage.

| Oats             | Spi | raying at ti | illering | 5     |    |            |       |        |     | 13.3     |          |    |
|------------------|-----|--------------|----------|-------|----|------------|-------|--------|-----|----------|----------|----|
| <b>COMMENTS:</b> | То  | increase     | yield    | apply | in | sufficient | water | volume | for | thorough | coverage | of |
| exposed foliage  |     |              |          |       |    |            |       |        |     |          |          |    |

| Wheat and  | 1 <sup>st</sup> Application: 15-20 days after sowing | 13.3 to 26.6      |  |  |  |  |
|--|--|-------------------|--|--|--|--|
| Sugar Cane   | 2 <sup>nd</sup> Application: At booting stage        |                   |  |  |  |  |
|  | 3 <sup>rd</sup> Application: At flowering stage      | 13.3 /application |  |  |  |  |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |                   |  |  |  |  |

| Rice   | 1 <sup>st</sup> Application: At the time of booting – |                   |  |  |
|--|---|-------------------|--|--|
|  | bulging of leaf stem                                  | 13.3 /application |  |  |
|  | 2 <sup>nd</sup> Application: 10 -15 days after first  |                   |  |  |
|  | spray   |                   |  |  |
| <b>COMMENTS:</b> Apply in 26 gallons of water volume per acre for lengthy panicle, enhanced pollen |   |                   |  |  |
| germination, improved fertilization, reduced chaffiness, more filled spikelets per spike, heavier  |   |                   |  |  |
| grains, and reduc  | ced electrolyte leakage, Cost : Benefit of 1 : 15     | 5 – 21.           |  |  |

| Rye | Spraying at flowering | 13.3 |
|-----|-----------------------|------|
|     |                       |      |

**COMMENTS:** To increase yield apply in sufficient water volume for thorough coverage of exposed foliage.

# NONGRASS ANIMAL FEEDS

| APPLICATION DIRECTIONS  |  |                       |  |  |
|---|--|-----------------------|--|--|
| CROP  | GROWTH STAGE                                       | HOMOBRASSINOLIDE 0.1% |  |  |
|   |  | FL. OZ./ ACRE         |  |  |
| Lucerne   | 1 <sup>st</sup> Application: Spraying at bushing   | 13.3 /application     |  |  |
|   | 2 <sup>nd</sup> Application: Spraying at flowering |                       |  |  |
| <b>COMMENTS:</b> To increase number of clusters per square inch and number of seeds per pod apply |  |                       |  |  |
| in sufficient wa  | ater volume for thorough coverage of exposed f     | foliage.              |  |  |

#### OIL SEED

| APPLICATION DIRECTIONS |  |   |  |  |
|------------------------|--|---|--|--|
| CROP                   | GROWTH STAGE   | HOMOBRASSINOLIDE 0.1%<br>AND OTHER PGR FL. OZ./<br>ACRE |  |  |
| Peanut                 | 1st Application: 35 days after sowing                    | 13.3 /application                                       |  |  |
|                        | 2nd Application: 10 days after first spray               |   |  |  |
| COMMEN                 | <b>TS:</b> Apply in 50 gallons of water volume per acre. |   |  |  |

| Rape             |  | 13.3 to 26.6                          |
|------------------|--|---------------------------------------|
| <b>COMMENTS:</b> | To decrease frost injury apply in sufficient w | vater volume for thorough coverage of |
| exposed foliage  |  |                                       |

| Soybean   | 1 <sup>st</sup> Application: At the time of floral bud |                   |  |  |  |
|---|--|-------------------|--|--|--|
|   | initiation (25-35 days after sowing)                   | 13.3 /application |  |  |  |
|   | $2^{nd}$ Application: 10 – 15 days after first         |                   |  |  |  |
|   | spray  |                   |  |  |  |
| <b>COMMENTS:</b> Apply in 26 gallons of water volume per acre for more floral buds, more flowers, |  |                   |  |  |  |
| enhanced pollination and fertilization, higher setting of seeds/pods, more pods per plant, Cost : |  |                   |  |  |  |
| Benefit ratio of  | Benefit ratio of 1 : 12 - 18.5                         |                   |  |  |  |

| Sunflower  | 1 <sup>st</sup> Application: 15 days after sowing                | 13.3              |
|--|--|-------------------|
|  | 2 <sup>nd</sup> Application: 8 to 10 days flowering              |                   |
|  | 3 <sup>rd</sup> Application: 10 days after 2 <sup>nd</sup> spray | 13.3/ application |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |                   |

| APPLICATION DIRECTIONS   |   |                       |
|--|---|-----------------------|
| CROP   | <b>GROWTH STAGE</b>                                       | HOMOBRASSINOLIDE 0.1% |
|  |   | FL. OZ./ ACRE         |
| Cotton   | 1 <sup>st</sup> Application: At initiation of square      |                       |
|  | formation (35-45 days after sowing)                       | 1.6 /application      |
|  | 2 <sup>nd</sup> Application: 10-15 days after first spray |                       |
| <b>COMMENTS:</b> Apply in 25 gallons of water volume per acre for more squares, better pollination |   |                       |
| due to enhanced nellon commination, enhanced familization, loading to more number of good act nor  |   |                       |

due to enhanced pollen germination, enhanced fertilization, leading to more number of seed set per locus, bold seeds, improvement in lint quality (length, strength, texture), higher lint weight per boll, more bolls per plant, higher seed cotton yield, C:B Ratio of 1 : 15 - 25

| Flowering  | 1 <sup>st</sup> Application: 10 days before initiation of | 3.3 |
|--|---|-----|
| plants   | flower buds   |     |
| (perennial)  | 2 <sup>nd</sup> Application: At initiation of flower      | 1.6 |
|  | buds  |     |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |   |     |

| Flowering  | 1 <sup>st</sup> Application: 10-15 days after        | 3.3 |
|--|--|-----|
| Plants   | transplanting  |     |
| (Annual)   | 2 <sup>nd</sup> Application: At initiating of flower | 1.6 |
|  | buds   |     |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |  |     |

| Нор   | When vine growth is 5 to 8 feet in length1           | 3.3 to 26.6           |
|---|--|-----------------------|
| <b>COMMENTS:</b>  | : For seeded and seedless Fuggle hop and similar var | ieties adapted to the |
| Northwestern states. To increase yield and fruit set apply in 100 to 150 gallons. |  |                       |

| Non Bearing  | 1 <sup>st</sup> Application: 2 to 4 weeks after bloom |              |
|--------------|---|--------------|
| Young Tart   | 2 <sup>nd</sup> Application: Under conditions of low  | 13.3 to 26.6 |
| and Sweet    | vigor, spray at least 7 days after first              |              |
| Cherry Trees | application   |              |

**COMMENTS:** To reduce flowering and fruiting in young tart and sweet cherry trees in order to minimize the competitive effect of early fruiting on tree development apply a foliar spray of 25 to 50 gallons per acre, assuming a tree density of 100 trees per acre equivalent. **PRECAUTIONS:** Treat in the second season for reduction of flowering in the third season, and again in the third season it flower reduction and fruiting is desired in the fourth season. Treat only trees that are in good physiological condition, Discontinue treatment the year before desired harvest.

#### **RESTRICTION: DO NOT SPRAY TREES IN THE FIRST YEAR.**

| Pomegranate | 1 <sup>st</sup> Application: Spray at bloom stage                   |                 |
|-------------|---|-----------------|
|             | 2 <sup>nd</sup> Application: Spray at fruit set                     | 6.6/application |
|             | 3 <sup>rd</sup> Application: Spray 20-25 days after 2 <sup>nd</sup> |                 |
|             | spray   |                 |

| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |   |                    |
|--|---|--------------------|
| Tea  | 1 <sup>st</sup> Application: April/May/June |                    |
|  | 2 <sup>nd</sup> Application: July/August    | 13.3 / application |
|  | 3 <sup>rd</sup> Application: Sep/Oct        |                    |
| <b>COMMENTS:</b> Apply in 50 gallons of water volume per acre. |   |                    |

\* Consult a representative of Repar Corporation or local specialist for technical information or if you have questions.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 <sup>1</sup>/<sub>4</sub> 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.

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The Directions for Use of this product must be followed carefully. 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 manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of REPAR CORPORATION or Seller. To the extent consistent with applicable law, All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold REPAR CORPORATION and Seller harmless for any claims relating to such factors.

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