## **Proliant**<sup>™</sup>

### **Plant Growth Regulator**

Water Soluble Granule

A plant growth regulator used to increase production of cereal grains, corn, winter brassicas and rotational and permanent grasslands.

Guaranteed Minimum Analysis: Gibberellic Acid, GA3 ...... 40% weight/weight

Registration Number: 2015077A Fertilizers Act

# READ THE LABEL AND ATTACHED LEAFLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

Net Weight: 850 grams

Registrant: Valent BioSciences® 870 Technology Way Libertyville, Illinois 60048 U.S.A.

Canadian Agent: Valent Canada, Inc. 3-728 Victoria Road South Guelph, Ontario N1L 1C6 Office (519) 767-9262

Proliant™ is a trademark of Valent BioSciences Corporation U.S.A

#### **PRECAUTIONS:**

#### KEEP OUT OF REACH OF CHILDREN

Avoid contact with skin, eyes, and clothing. Wear long pants, a long-sleeved shirt and shoes plus socks during mixing/loading, application, clean-up, and repair activities. In addition, wear chemical-resistant gloves during mixing/loading, clean-up and repair activities.

Do not re-enter or allow re-entry into treated areas until 12 hours after application.

#### FIRST AID:

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control centre or doctor for treatment advice.

**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 control centre or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

#### **TOXICOLOGICAL INFORMATION:**

Treat symptomatically.

#### STORAGE AND DISPOSAL:

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

Keep containers tightly closed when not in use.

#### For Recyclable containers:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple or pressure rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the

manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### **DIRECTIONS FOR USE:**

Use only as directed. The label should be read thoroughly and understood before making applications. Keep out of reach of children.

#### **Application recommendations:**

Proliant™ contains 400 g/kg (grams/kilogram) gibberellic acid, an extremely potent plant growth regulator used to increase production of cereal grains, corn, winter brassicas and rotational and permanent grasslands. Grassland and brassica applications are made at the start of spring or the end of autumn growing periods. Applications for cereal grains and corn are made at the beginning of the season.

Proliant formulation is designed to enable users to prepare spray solutions easily. Gibberellic acid is a naturally occurring plant growth regulator which can increase cell size and numbers resulting in increased growth. Applied to cereals, corn, winter brassicas or grassland it can increase the growth rate for a few weeks resulting in greater grain numbers or increased fruit set in cereals and corn or an earlier or later use of grassland for grazing or for cutting for hay or silage production. Crop growth should not be restricted by lack of moisture, nutrition, or by diseases or pests. When grassland (pasture) growth rates are naturally high, there will be little additional growth from treatment. Grass foliage should be green and in a condition which is receptive to foliar treatment. Growth enhancement might also be seen with other species present, e.g. clover or some weed species. Enhanced growth may sometimes appear slightly yellower, but this will not affect grass feed quality or grain production in cereal or corn.

When applying Proliant, 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 Valent Canada agricultural specialist in your area for the spray regimen best suited to your conditions.

- Do not apply to plants under pest, nutritional, or water stress.
- 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 municipal, provincial or federal law.
- For best results, the water pH should be around neutral, and always below 8.5.
- Proliant 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 drying conditions.

• DO NOT apply using ULV (Ultra Low Volume) application methods. DO NOT APPLY BY AIR.

## SPRAY GUIDELINES FOR CROPS

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE	APPLICATION TIMING
Corn: Silage, Field, Popcorn, Sweet Corn	To increase yield and help overcome the effects of plant stress due to cold, heat or drought.	8 - 26 g a.i./ha (grams active ingredient per hectare) 20 - 65 g prod./ha (grams product per hectare)	Apply at V3 - V6. Apply up to two applications.
Cereal Grains (such as barley, oats, rye, sorghum, wheat, triticale)	To increase grain yields by stimulating cool season growth.	8 - 26 g a.i./ha 20 - 65 g prod./ha	Spring Application: 1 to 3 applications starting at green up after 3 to 6 cm of new shoot growth has emerged.  Autumn Application: 1 to 3 applications starting when foliar growth has slowed due to cool temperatures.  Apply during early tillering growth stages prior to stem elongation to avoid lodging. Optimum timing for cereals is growth stage V3 - V4.  Application to cereal grains during stem elongation (jointing onwards) can result in lodging.  Best response occurs when average daily
Winter Brassicas (such as turnip, kale, rape)	To stimulate dry matter production for grazing, hay, green chop or silage when cool season conditions limit growth rates.	8 - 26 g a.i./ha 20 - 65 g prod./ha	temperatures are between 5° C to 15° C and adequate moisture and nutrition are present.  Spring Application: 1 to 3 applications starting at green up after 1 to 2 inches of new shoot growth has emerged.  Autumn Application: 1 to 3 starting when forage growth has slowed due to cool temperatures.  Best response occurs when average daily temperatures are between 5° to 15° C and adequate moisture and nutrition are present.
Grassland and Pasture Perennial Forage Grasses	To stimulate dry matter production for grazing, hay, green chop or silage when cool season conditions limit growth rates.	8 - 26 g a.i./ha 20 - 65 g prod./ha	Spring Application: 1 to 3 applications starting at green up after 3 to 6 cm of new shoot growth has emerged.  Autumn Application: 1 to 3 applications starting when forage growth has slowed due to cool temperatures.  Best response occurs when average daily temperatures are between 5° C to 15° C and adequate moisture and nutrition are present.
Grassland and Pasture Annual Forage Grasses	To stimulate dry matter production for grazing, hay, green chop or silage when cool season conditions limit growth rates.	8 - 26 g a.i./ha 20 - 65 g prod./ha	Spring Application: 1 to 3 applications starting at green up after 3 to 6 cm of new shoot growth has emerged.  Autumn Application: 1 to 3 applications starting when forage growth has slowed due to cool temperatures.

	Best response occurs when average daily temperatures are between 5° C to 15° C and adequate moisture and nutrition are present.
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#### \*Notes:

- <u>V3 to V6 leaf stages for corn:</u> Date when 50% of the plants have either at 3 to 6 fully collared leaf stage. Each leaf stage is defined according to the uppermost leaf whose leaf collar is visible. The characteristically oval-shaped first leaf (V1 stage) is a reference point for counting upward to the top visible leaf collar. Note: V1-V5 leaves will disappear over time.
- <u>V3 to V4 growth stage for cereals</u> is equivalent to Feekes Stages 2 3, which is first tillers emerged to tillers formed.
- Wait 1 2 weeks between applications.
- Spray water volume should be 100 200 L/ha. Use spray nozzles designed or recommended for coverage of foliage. Herbicide 'flood' nozzles are not acceptable.
- In many cases, performance is increased if application is made under slow drying conditions and/or addition of a Non-ionic surfactant at 0.125% volume/volume.

(ISU staging: http://www.extension.iastate.edu/hancock/info/Corn+Develop+Stages.htm)

#### **NOTICE TO USER:**

This product contains a plant growth regulator and should only be used as indicated on the label. Results may produce unintended plant growth responses if misused.