

NOGALL®

Biological Pesticide

For Biological Control of Crown Gall Disease

FOR USE ON NON-FOOD OR NON-FOOD BEARING PLANTS ONLY

Active Ingredient:

Agrobacterium radiobacter (strain K1026)* 37.50%

Other Ingredients: 62.50%

Total: 100.00%

* Contains not less than 1×10^9 colony-forming units (cfu) per gram of moist peat medium. When mixed as directed, it will provide a suspension of not less than 2.64×10^7 cfu per milliliter in the dip solution.

EPA Reg. No. 62388-1-93445

EPA Est. No. 93445-AUS-1

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

See insert for complete **First Aid, Precautionary Statements, Directions For Use, and Conditions of Sale and Warranty.**

You may contact Poison Control for emergency medical treatment information at 1-800-222-1222.

Net Weight:

8.8oz (250g)



FIRST AID

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Poison Control for emergency medical treatment information: 1-800-222-1222.

Precautionary Statements

Hazards To Humans & Domestic Animals

Caution: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers/loaders and applicators must wear a NIOSH-approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions 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:

- 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.

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 disposing of equipment washwater or 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 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:

- coveralls
- shoes plus socks
- waterproof gloves

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store at refrigeration temperature (35-40°F) and use before the date stamped on the side panel of this box. **DO NOT** store cartons where they can be punctured or crushed by sharp or heavy objects. **DO NOT** store part of an opened packet as it may deteriorate through contamination. Store **NOGALL®** separate from other pesticides, fertilizer, food, and feed to prevent cross contamination. Maximum period of storage is 6 months from the date of manufacture. The date of expiration is printed on the side panel of this box. If the foil or plastic pouch in the carton is ruptured accidentally or spilled, sweep the spilled contents into a dust pan, place the contents in a tied plastic bag and discard in the garbage. Rinse the area of the spill with several rinses of water.

Pesticide Disposal

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling

Nonrefillable container. DO NOT reuse or refill this container. Completely empty foil or plastic pouch by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then, offer for recycling if available or dispose of empty foil or plastic pouch in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If outer carton is contaminated, dispose of it in the same manner as required for the foil or plastic pouch.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- Poison Control 1-800-222-1222

Product Information

NOGALL® is a living culture that must be protected against sunlight and extremes of temperature. **DO NOT** use with any other pesticides, fertilizers or chemicals that may harm the bacteria. Mix only with clean, chlorine-free water, using clean containers and utensils. **DO NOT** wash treated stock prior to planting. **NOGALL** is used to dip or spray (inoculate) germinating seeds, roots and stems, and cuttings of non-food (gall free) or non-food bearing (gall free) almond, apricot, caneberry, cherry, euonymus, nectarine, peach, pecan, plum, rose and walnut. Plant material should be inoculated at each transfer stage, if possible.

NOGALL helps protect infection sites against the crown gall disease organism (*Agrobacterium tumefaciens*) and should be used when highly susceptible plant material is transferred and/or subjected to wounding, such as when taking cuttings, germinating seeds, re-potting, field lifting, and replanting, etc. Successful control of crown gall disease in the above hosts is largely due to the production of the antibiotic agrocin 84 and root colonization by *Agrobacterium radiobacter* strain K1026 contained in **NOGALL**. Control of sensitive pathogenic agrobacteria is most effective with correctly applied **NOGALL**. Where pathogenic bacteria are resistant to agrocin 84, however, then control can be considerably reduced.

NOGALL is shipped in packs of 8.8 ounces (250 grams) of concentrated, moist peat bacterial cultures.

Use Limitations

Chemigation: DO NOT apply this product through any type of irrigation system.

Application Instructions

Germinating Seed Application to almond, walnut, pecan, peach, apricot, nectarine, cherry and plum: Dip 37.5 pounds of seed into a suspension of **NOGALL** prepared by adding 8.8 oz of **NOGALL** to 2.5 gallons of clear, unchlorinated water in a clean container. The surface of the seed must be thoroughly wet. Remove the seed from the suspension, drain off excess liquid and sow immediately. **DO NOT ALLOW THE SEED TO COMPLETELY DRY BEFORE SOWING.**

Root and Stem Application to non-food bearing almond, walnut, pecan, peach, apricot, nectarine, cherry, plum, caneberry and non-food euonymus and rose: Treat seedlings of stone fruit trees, nut trees, spindle trees and roses with **NOGALL** within 2 hours of lifting, root pruning or other handling operations that damage plant tissue and before and after cold storage. Dip or spray bare rootstock with **NOGALL** suspension (8.8 oz of **NOGALL** to 2.5 gallons of clear, unchlorinated water) until root surfaces and the stem above the bud or graft union are completely wet, or spray these tissues to runoff. Replace treatment suspension after treating the equivalent of 1,000 plants/gallon of suspension or sooner when larger trees are dipped or when the suspension becomes excessively dirty. Larger plants may require 10-15 gallons of suspension per 5,000 plants. Protect treated plants from direct sunlight and excessive drying by storing in a cool, humid area or heeled-in clean, moist material such as sphagnum or sawdust. Treated plants must be protected from drying during transport to the planting site and during the planting operation.

Cutting Application to non-food bearing almond, walnut, pecan, peach, apricot, nectarine, cherry, plum, caneberry and non-food euonymus and rose: Treat cuttings by dipping clean basal ends in a suspension of **NOGALL** prepared by adding 8.8 oz of **NOGALL** to 2.5 gallons of clear, unchlorinated water in a clean container. Treated cuttings must be protected from drying and direct sunlight by storing in a cool, humid area until they are placed in rooting media. When using alcohol-based rooting compounds, dip cuttings in accordance with directions, allow to dry for 2 hours and then treat with **NOGALL**. Treat cuttings with **NOGALL** before and after cold storage.

MIXING INSTRUCTIONS

Stir vigorously and periodically stir solution during use. An 8.8 oz (250 g) pack properly mixed in water will treat 2,500 bare root seedlings (1/4 inch caliper). **DO NOT HOLD DILUTED SUSPENSION FOR MORE THAN 8 HOURS.**

CONDITIONS OF SALE AND WARRANTY

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 use on infected stock, the presence of other or untested or unapproved materials, seed of low quality or low vigor or low germination, use of the product in a manner inconsistent with its labeling, misapplication of this product, or weather conditions at planting or environmental conditions during seed storage, all of which are beyond the control of BIO-CARE TECHNOLOGY PTY LTD ("BIO-CARE") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BIO-CARE warrants that this product conforms to the description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIO-CARE MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BIO-CARE'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THIS PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIO-CARE AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BIO-CARE and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** that may be varied only by agreement in writing signed by a duly authorized representative of BIO-CARE.

NOGALL is a registered trademark of BASF.

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Manufactured for:

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Distributed in the U.S. for

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