

Nitragin® Gold

pre-inoculant nitrogen-fixing bacteria for

alfalfa and sweet clover

ATTENTION:

This Specimen label is provided for general information only.

NON-PLANT FOOD INGREDIENT

ACTIVE: 3 x 10⁸ viable cfu/g *Sinorhizobium meliloti*

INERT: >99% clay based carrier

WARNING: This product contains a chemical known to the State of California to cause cancer.



May cause respiratory tract irritation. Causes damage to lungs through prolonged or repeated exposure. Suspected of causing cancer by inhalation.

DANGER

Precautions

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear eye protection, protective gloves, and protective clothing. If exposed or concerned: Get medical advice/attention. Store locked up. Dispose of contents/ container to comply with applicable local, national and international regulation.

Read entire label before using the product. Use only according to label directions.

How it Works

Nitrogen Gold Alfalfa and Sweet Clover is made specifically for alfalfa or sweet clover. This product meets the demand for a convenient, high-quality pre-inoculant.

Nitrogen Gold Alfalfa and Sweet Clover is produced using a proprietary manufacturing technique employing effective nitrogen-fixing bacteria specially dried in a protective inorganic mineral carrier and ground to micron-size particles for the best seed adhesion. This blend of dry components creates an environment that is optimized for the survival of rhizobia bacteria over extended periods of time.

Directions for Use

Nitrogen Gold Alfalfa and Sweet Clover was developed for bulk treatment by the seed processor. It is a one-step system that provides a convenient and economical inoculant for your customers.

Do not apply with water or sticker solution. Nitrogen Gold Alfalfa and Sweet Clover must be applied dry, directly from the carton.

Application Rate

Nitrogen Gold Alfalfa and Sweet Clover Seed

A unit contains 19.0 kg (42 lb) to treat 2,270 kg (5,000 lb) of seed.

- Apply to alfalfa at the rate of 189 g (6.67 oz) per 22.7 kg (50 lb) of seed or apply 226 g (8.0 oz) for 27.1 kg (60 lb or a bushel of seed).

Application Equipment

Nitrogen Gold Alfalfa and Sweet Clover may be applied conveniently in either a batch or continuous seed mixing system.

Batch Seed Mixing System

A batch system can provide repeated application of Nitrogen Gold Alfalfa and Sweet Clover with a potential reduction of calibration time. In batch seed mixing systems, the seed is first loaded into the mixer. Then the proper amount of Nitrogen Gold Alfalfa and Sweet Clover is added to the operating mixer and blended until the seed is uniformly coated, approximately 5 minutes.

Continuous Seed Mixing System

A continuous system requires initial calibration of seed flow and Nitrogen Gold Alfalfa and Sweet Clover delivery, and periodic spot checking. Standard continuous seed treating equipment can be modified to provide a Nitrogen Gold Alfalfa and Sweet Clover treating system. Nitrogen Gold Alfalfa and Sweet Clover is metered into the auger mixing chamber to provide uniform application. It is necessary to calibrate both the seed flow rate and Nitragin Gold Alfalfa and Sweet Clover application rate to achieve the desired coverage. A properly-calibrated powder feeder is essential for obtaining the optimum treatment of Nitrogen Gold Alfalfa and Sweet Clover.

Powder Feeder

A Powder Feeder, such as either the Acrison 105 XF Powder Feeder with a hopper vibrator, or an AccuRate 602 Powder Feeder, is useful for the accurate application of Nitrogen Gold Alfalfa and Sweet Clover.

Seed Adhesion

To ensure optimal adherence to seed, Nitrogen Gold Alfalfa and Sweet Clover is manufactured under controlled conditions to produce a fine powder composed of very small and uniform particles. These micron-size particles adhere very well to the seed surface forming an even

Nitragin® Gold

pre-inoculant nitrogen-fixing bacteria for

alfalfa and sweet clover

coating over each individual seed. The dry powder is simply mixed thoroughly with the seed to achieve this coating. Do not use water or stickers of any kind. Since there is no increase in moisture during the treatment process, there are no problems with caking of seed or material and no delays in proceeding to the bagging operation. When applied at the proper rate, Nitrogen Gold Alfalfa and Sweet Clover will thoroughly coat the surface area of the seed. The combination of proper rate and good adherence means less dust during the inoculation process.

Application to Seed Mixes

When the final seed mixture contains both a legume and grass, the preferred method of inoculating is to apply the recommended quantity of Nitrogen Gold Alfalfa and Sweet Clover to inoculate the total mixture. For example, with a mixture containing 1,816 kg (4,000 lb) of legume and 454 kg (1,000 lb) of grass seed, apply sufficient Nitrogen Gold Alfalfa and Sweet Clover to treat 2,270 kg (5,000 lb) of seed to the blended mixture.

Applicators and Other Handlers

The active ingredient in Nitrogen Gold Alfalfa and Sweet Clover is *Sinorhizobium meliloti* viable cells. Eye or skin contact, inhalation, or ingestion should be avoided. Wear standard protective clothing and equipment including gloves, safety glasses. Ensure adequate ventilation. Where exposure through inhalation may occur, wear NIOSH-approved respirator. This product contains microorganisms that may have the potential to provoke sensitizing reactions; use appropriate personal protective equipment (PPE) to reduce exposure. In case of contact with skin or eyes, immediately flush exposed areas with plenty of water. Get medical attention if irritation occurs.

Storage and Disposal

The active ingredients in Nitrogen Gold Alfalfa and Sweet Clover are living organisms and require specific storage conditions to ensure viability and product performance. To maintain product viability:

- Store bags under cool conditions <20°C (68°F) away from sunlight and direct heat sources.
- Minimize temperature fluctuations.
- Avoid freeze/thaw cycles.
- Use entire contents of bag within 24 hours after opening. Do not store unopened bags of Nitrogen Gold Alfalfa and Sweet Clover.
- Use before the expiration date. The expiration date is valid only for unopened bags stored under the conditions listed above.
- Use this product only in well-ventilated areas.
- Keep out of reach of children.

The Nitrogen Gold Alfalfa and Sweet Clover are produced in a dry form, which stabilizes the bacteria and allows for long term survival. Moisture activates the bacteria. If the bacteria are activated prior to planting, survival is drastically reduced. To ensure product quality, inoculants and inoculated seed must be kept dry.

Unused Nitrogen Gold Alfalfa and Sweet Clover should be disposed of in accordance with applicable federal, state/provincial, and local requirements. Seed treated with Nitrogen Gold Alfalfa and Sweet Clover is not recommended for food, feed or oil purposes.

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

Limited Warranty

Novozymes warrants that this product contains a minimum number of *Sinorhizobium meliloti* viable cells as specified on this label. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NOVOZYMES MAKES NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, INFRINGEMENT (ALONE OR IN COMBINATION WITH OTHER SEED TREATMENT PRODUCTS) OR MERCHANTABILITY. Novozymes' limited warranty is also subject to the inherent risks, conditions, and limitations stated herein. Buyer and all users shall promptly notify Novozymes of any claims whether based in contract, negligence, strict liability, other tort or otherwise. To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling of the product which results from conditions beyond the control of Novozymes, including, but not limited to, crop injury, ineffectiveness, or other unintended consequences that may result because of factors such as weather conditions at planting, environmental conditions during product or seed storage, presence of other materials, seed of low quality or low vigor or low germination, or the manner of use or application is inconsistent with that set forth in the Directions for Use. Monsanto does not warrant any product reformulated or repackaged from this product except in accordance with Novozymes' stewardship requirements and with Novozymes' express written permission. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF NOVOZYMES OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE, AT THE ELECTION OF NOVOZYMES OR ANY OTHER SELLER, THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR THE REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL NOVOZYMES OR ANY OTHER SELLER OF THE PRODUCT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, SPECIAL OR INDIRECT DAMAGES. Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF LIABILITY AND WARRANTY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.



novozymes® 

Novozymes BioAg
3935 Thatcher Avenue
Saskatoon, SK Canada S7R 1A3
1-888-744-5662
Product of USA