

# Nitragin<sup>®</sup> Gold

pre-inoculant nitrogen-fixing bacteria for

alfalfa and  
sweet clover

## ATTENTION:

This Specimen label is provided for general information only.

## MINIMUM GUARANTEED ANALYSIS

ACTIVE: 3 x 10<sup>8</sup> viable cfu/g *Sinorhizobium meliloti*  
INERT: >99% clay based carrier

## NONPLANT FOOD INGREDIENT

Not a fertilizer substitute

## 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.

## How to Apply

Nitragin<sup>®</sup> Gold is a pre-inoculant made specifically for alfalfa or sweet clover. This product meets the demand for a convenient, high-quality pre-inoculant.

Nitragin Gold 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 Rhizobium bacteria over extended periods of time.

## Application

Nitragin Gold pre-inoculant 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. Nitragin Gold must be applied dry, directly from the carton.

## Application Rate

### Nitragin 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 or sweet clover 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

Nitragin Gold 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 Nitragin Gold 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 Nitragin Gold is added to the operating mixer and blended until the seed is uniformly coated, approximately 5 minutes.



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

## DANGER

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

### Continuous Seed Mixing System

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

### Powder Feed

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 Nitragin Gold.

### Seed Adhesion

To ensure optimal adherence to seed, Nitragin Gold 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 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, Nitragin Gold will thoroughly coat the surface area of the seed. The combination of proper rate and good adherence means less dust during inoculation.

### 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 Nitragin Gold 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 Nitragin Gold to treat 2,270 kg (5,000 lb) of seed to the blended mixture.

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## Applicators and Other Handlers

The active ingredient in Nitragin Gold pre-inoculant nitrogen-fixing bacteria for 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 and safety glasses. Ensure adequate ventilation. Where exposure through inhalation may occur, wear a 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 Nitragin Gold are living organisms and require specific storage conditions to ensure viability and product performance. To maintain product viability:

- Store bags under cool conditions <68°F (20°C) 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 opened bags of Nitragin Gold.
- 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 Nitragin Gold inoculants 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 Nitragin Gold pre-inoculant nitrogen-fixing bacteria for alfalfa and sweet clover and Nitragin Gold inoculated seed should be disposed of in accordance with applicable civil statutes.

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

## Limits of Liability and Warranty

The seller warrants that this product contains a minimum number of *Sinorhizobium meliloti* viable cells as specified on this label. The seller makes no other warranty expressed or implied as to product viability since product storage, use, and growing conditions are beyond the seller's control. Seller's guarantee is limited to the terms set out on the label and subject thereto. Buyer assumes the risk to persons or property arising from the use or handling of this product and accepts on that condition.