

# LitterGuard™

A better environment for growth



## LitterGuard™ Advantages

1. LitterGuard™ treats the entire house not just the brooding end. This improves the litter quality throughout the house and keeps ammonia low throughout the flock cycle.
2. The beneficial microbes in LitterGuard change the end products of the manure decomposition resulting in less production of offensive odors and ammonia. The houses smell better and provides a healthier environment for growing birds.
3. Lower ammonia production during grow out reduces ventilation requirements saving in electric and propane costs.
4. Birds perform better when LitterGuard™ is routinely used resulting in heavier birds, improved feed efficiency and livability.



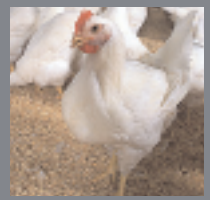
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Carbox is a trademark of Microgenics, LLC

In USA  
**DSM Nutritional Products, Inc.**  
45 Waterview Blvd.  
Parsippany, NJ 07054

In Canada  
**DSM Nutritional Products Canada Inc.**  
395 Waydom Drive  
Ayr, Ontario N0B 1E0

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## LitterGuard™ a new way to regenerate the litter bed in poultry houses.

A safe, effective, environmentally friendly way to regenerate poultry litter beds. LitterGuard™ is a scientifically formulated combination of select microbes and Carboxx™ (proprietary activated humate).

## LitterGuard™ provides the key to obtaining a healthy ecosystem in the litter bed.

The key technologies built into LitterGuard™ work synergistically to rejuvenate the litter bed, creating a healthier ecosystem, resulting in an improved environment in the house and better bird performance.

1. A blend of beneficial microbes was selected for their ability to decompose poultry waste and out compete non beneficial microbes.
2. A proprietary preservative technology is used for the microbes. This technology allows the microbes to transform quickly from a shelf-stable state to hyper growth, providing maximum benefit and competitive advantage.
3. Carboxx™ a supersaturated, highly soluble, high reactivity humic acid (HRHA) acts as a chelating agent and natural catalyst. Carboxx™ enables the microbes to operate quicker and more efficiently.

## How LitterGuard™ Works

Prior to applying LitterGuard™ it is mixed with water, this serves two purposes. First when LitterGuard™ is mixed with water the microbes wake up, grow and begin to replicate. In addition the increased volume makes it easier to obtain a better distribution of LitterGuard™. As soon as it is applied to the litter the microbes go right to work decomposing the poultry waste and competing with the non-beneficial microbes for food. Initially LitterGuard™ releases the ammonia which has accumulated in the litter during the previous grow out cycle. With ventilation this ammonia is rapidly vented out of the house. As the microbes in LitterGuard™ continue to multiply they alter the decomposition process of the poultry waste reducing the production of ammonia and odors during the grow out cycle.

## Recommendations for use

### Application Rate:

Use one gallon of LitterGuard mixed with 19 gallons of water for every 4,000 square feet of floor area. This should be applied evenly over the entire house.

### Procedure:

1. Immediately after a flock is removed, close poultry house(s) up tightly to preserve the heat in the house. Ventilate only enough to prevent condensation.
2. If you plan to decake house or remove a portion of the litter complete this step next.
3. Level Litter and Apply LitterGuard
  - a. \*\* Minimum of 7 days before bird placement – longer is better
  - b. \*\* Allow 24 hours after applying insecticides or disinfectants before applying LitterGuard, or wait 24 hours after Litterguard application to apply them.
4. Leave house closed up and check litter temperature, it should be a minimum of 70° F. If not set your heaters to bring the temperature up. If moisture levels permit you can shut the ventilation fans off for the first 24 hours after application or after levelling piles to conserve heat.
  - a. \*\* If the house is equipped with stir/mixing fans these should be used if you are using heat to maintain litter temperature
  - b. \*\* If the house is equipped with attic inlets you can increase your ventilation rate during the day if and when the attic temperature is above 70° F to increase house temperature.
5. After 24 hours, Begin ventilating enough to prevent condensation while maintaining the litter at 70° F.
  - a. The ammonia trapped in the litter will be released over the next several days before the birds are placed. It is important to allow 7 days from application to bird placement and maintain a litter temperature of at least 70°F to ensure the ammonia release takes place before the birds arrive.
6. 48 hours prior to chick placement - Heat the house up to 80° F
7. 24 hours prior to chick placement - Heat the house up to desired placement temperature.
8. 12 hours prior to chick placement – Adjust ventilation rate to remove any excess ammonia prior to placement.
9. Once the birds are placed, resume your normal ventilation rates to control ammonia, humidity, and provide adequate environment for the birds.