

# SAFE ELIMINATION OF DARKLING BEETLES IN POULTRY PRODUCTION

## Economics:

Poultry producers spend millions of dollars annually fighting darkling beetles

Beetles destroy wooden structures and insulation causing excessive heating/cooling costs

## Deadly Pathogens:

Beetles harbor cecal worms and bacteria including *Salmonella* and *Campylobacter*

Beetles harbor avian pathogens including Bursal Disease, Fowl Pox, Newcastle Disease, Marek's Disease and protozoon pathogens

## Hard To Kill:

Darkling beetles' behavior makes them harder to kill with traditional insecticides

Overuse of conventional insecticides has caused major resistance issues and forces expensive secondary insecticide applications

## Darkling beetles: An overview

Darkling beetles are the most common poultry house pests. They can be present in extremely high numbers, cause facility damage and reduce productivity. Recent studies have proven darkling beetles to be vectors of poultry diseases, including infectious bursal disease virus (IBDV), astrovirus, RSS orthoreovirus and other unidentified viruses.

!"#\$%&#'()\*+,-(. #  
'()\*+,-(.#!"/&#0123415#6-)14\*7#%-3)-18#



## BENEFITS OF PESTO

- ▶ EPA Registered and Registered USDA National Organic Program
- ▶ Does not harm birds and safe around feed and water supplies
- ▶ Applications are permitted mid-flock while birds are present.
- ▶ Kills beetles within 48 hours of application.
- ▶ Effective single rate application of dust with drop spreader.
- ▶ Easy to apply with back pack applicator for crack and crevice treatments.
- ▶ No insecticide resistance issues.
- ▶ Economical, highly effective alternative to commonly used Chemical Pesticides.

PESTO Products desiccate and eliminate in every stage of development, Egg, Larvae, Pupae, and Adult.



# SAFE AND EFFECTIVE TO MEET YOUR REQUIREMENTS



DROP SPREADER APPLICATION

## APPLICATION RATES

- ▶ To control darkling litter beetles and other crawling insects, apply dust to litter at a rate of up to 4 lbs. per 1,000 sq. ft.
- ▶ **Uniformly cover floors and walls**, paying particular attention to cracks and crevices, corners and underneath feed and watering equipment and lines.
- ▶ Application can be made up to 75 lbs. per 1,000 sq. ft. for severe infestations and in wet areas.
- ▶ **Applications are permitted mid-flock** while birds are present.
- ▶ Litter should be re-treated when replaced and before each new batch of poultry is introduced to the facility.
- ▶ Repeat treatments as necessary to maintain adequate control.

## Insects Can Not Become Immune to PESTO

Resistance to insecticides is a growing concern and will likely become a larger issue as additional insecticides are removed from the approved list for use in poultry operations. The active ingredient in **PESTO PRODUCTS** is not a conventional stomach poison or nerve toxin insecticide, it is an EPA Registered physical property desiccant.