

# *Introducing a totally unique way to control darkling beetles and other poultry pests*



# Darkling Beetles Pose a Significant Threat to Poultry Growers' Bottom Line

- Beetles consume as much feed by weight as a chicken; a typical infestation of beetles consumes more than 1 point of feed conversion
- Because chickens will readily consume beetles instead of feed, beetles also have a negative impact on feed efficiency
- Beetles transmit many diseases, including IBDV, Marek's, LT, RSS, E. Coli, Salmonella, and Dermatitis, just to name a few
- Beetles can cause skin lesions and infection on birds as they chew at the base of the birds' feathers
- Beetles can cause significant damage to poultry houses

# Current Pesticides are Deficient

- **Current pesticides have MINIMAL EFFICACY**
- Beetles have become resistant to the current pesticides, requiring constant pesticide rotation
- Current pesticides are highly toxic
  - To the user
  - To other people, pets or livestock that might come in contact with it
  - To the poultry
  - To the environment
- Current pesticides cannot be used directly on birds or in poultry houses when birds are present
- Current pesticides have re-application limits and re-entry wait times

# Davis Poultry Spray is **PROVEN** Effective, **Non-toxic**, and **Less Expensive!**

- ✓ Kills even resistant darkling beetles and lesser mealworms
- ✓ Also kills bed bugs, mites, fleas & ticks
- ✓ Simplifies chemical rotation
- ✓ Non-toxic
  - ⇒ Safe to use in poultry facilities even when birds are present
  - ⇒ Can use directly on birds
  - ⇒ No re-entry wait time or re-application limit
  - ⇒ Safe for the environment

**And... it is less expensive to use than the leading brand!**

# Davis Poultry Spray Significantly Outperforms the Competition

## % Mortality of Beetles

	Davis Poultry Spray	Tengard One Shot	Credo SC	No Treatment
4 hours after treatment	<b>77%</b>	<b>37%</b>	<b>27%</b>	<b>0%</b>
1 day after treatment	<b>70%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
2 days after treatment	<b>60%</b>	<b>0%</b>	<b>7%</b>	<b>0%</b>
3 days after treatment	<b>60%</b>	<b>0%</b>	<b>7%</b>	<b>0%</b>

\*Competitors only temporarily “stun” the beetles

**Chemical resistance has made the current pesticides ineffective, and requires complex rotation to deliver any efficacy whatsoever**

- “Once a beetle population becomes resistant to a class of chemical, it will no longer provide control and must be removed from the rotation for several years”.
  - The Poultry Engineering, Economics & Management Newsletter
- “Long-term use may promote insecticide resistance”
  - Tengard SFR One Shot label
- “Darkling beetles have the ability to develop resistance to insecticides. When a single chemical class is used continuously, this increases the likelihood that resistance to that chemical class will develop. This product should be used in an insecticide rotation program with other classes of insecticides.”
  - Credo SC label



# Davis Poultry Spray is Less Expensive To Use Than the Leading Brand

- A bottle of Davis covers the same square footage as a bottle of Credo SC, at less than half the price!

	Price per Bottle	Dilution Rate	Total Diluted Gallons per Bottle	Coverage Rate for Diluted Product	Total Coverage Per Bottle	Cost per 1,000 sq ft of Coverage
Credo SC	\$62 (30 oz)	3 oz of chemical to 1 gal of water	10 gallons	1 gal per 1,000 sq ft	10,000 sq ft	\$6.20
Davis	\$25 (1 gal)	1 part chemical to 9 parts water  (for severe infestations)	10 gallons	1 gal per 1,000 sq ft	10,000 sq ft	\$2.50

# Davis Poultry Spray is Non-toxic

Davis Poultry Spray Label	Tengard SFR One Shot Label	Credo SC Label
<ul style="list-style-type: none"> <li>• Non-toxic</li> <li>• Safe to apply when birds are present</li> <li>• For use directly on birds</li> <li>• No re-entry wait time or re-application limit</li> <li>• Environmentally Friendly</li> </ul>	<ul style="list-style-type: none"> <li>• Do not apply when people and pets are present</li> <li>• Do not apply directly to animals</li> <li>• Do not allow people or pets on treated surfaces until the spray has dried</li> <li>• Environmental hazards</li> <li>• This product is highly toxic to aquatic organisms.</li> <li>• This product is highly toxic to bees.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not apply when birds are present</li> <li>• Apply between flocks, following de-caking and sanitation process</li> <li>• Keep children and pets away from treated area</li> <li>• Environmental hazards</li> <li>• This product is highly toxic to aquatic invertebrates.</li> </ul>



## How Can Davis Poultry Spray be More Effective *and* Non-toxic?

- Breakthrough technology has a completely different mode of action versus traditional insecticides
- This insecticide targets neurological receptors active only in insects and arthropods
  - These neurological receptors are not active in birds or mammals
- Unique formulations have been proven effective, even against insects that have developed a chemical resistance to traditional insecticides

# Davis Poultry Spray is the Obvious Choice for Controlling Darkling Beetles and Other Poultry Pests!

