PROFESSIONAL PEST MANAGEMENT

KEEP LITTER BEETLES AT BAY

Beetle Control with Demand CS and Archer

In addition to damaging wood and insulation, darkling and other litter beetles can carry and transmit fowlpox, Newcastle disease and avian leukosis to poultry. These and other concerns have led many involved in commercial poultry and egg production to institute rigorous beetle control programs that involve moisture control, ventilation and litter management. However, in most poultry situations, some insecticide applications are also necessary.

Syngenta offers a combination approach for effective beetle control. Both Demand® CS insecticide, featuring iCAP™ technology, and Archer® insect growth regulator (IGR) are labeled for control of beetles that may infest poultry houses, such as hide, darkling, carrion and dermestid beetles.

Demand CS and Archer are labeled for control of the following litter beetles:

- **Hide**
- **Darkling**
- **Carrion**
- **Dermestid**

Product Overviews

Demand CS is a proven pyrethroid residual insecticide. It is not labeled for fogging as a space spray, but is intended for directed applications to areas where beetles are active. With its iCAP technology formulation, Demand CS makes achieving long-lasting residual control and excellent stability on difficult surfaces possible at rates lower than other products.

Applications should be made in areas of buildings where birds are not present. Because fresh litter can cover and deactivate insecticides, treat as soon as cleaning is done and wait as long as possible before introducing birds to give Demand CS time to work on beetles.

Archer contains the active ingredient *pyriproxyfen*, which affects the early development of beetles and prevents eggs, late-instar larvae and pupae from developing into adults. Use of Archer for litter treatment breaks the life cycle of beetles and prevents the development of adults. Because IGRs are slower-acting and take time to build up within insect populations, best results may be seen after one or two full insecticidal treatments.

Demand® CS Insecticide

syngenta®

GS 1112 (12/16)

SCP 240-00069-A

®

Darkling beetle.
Image: Joseph Berger, Bugwood.org

Why the Combination Works

Using Demand CS and Archer together provides control of both adults and immature forms of beetles. Demand CS controls actively foraging adults, while Archer prevents development of eggs, larvae, and pupae into adults. The combination of products provides quicker control of a beetle infestation than either product alone and helps break the cycle of reproduction for more complete control.

Rate Recommendations

For a clean-out treatment of a 20,000 sq. ft. poultry house (for example, measuring 40 x 500 feet), mix 16 fl. oz. of Demand CS and 40 fl. oz. of Archer in 20 gallons of water. For best results, apply 1 gallon of water/1,000 sq. ft.

Clean-out treatment of a 20,000 sq. ft. poultry house:

16 FL. OZ. DEMAND® CS	40 FL. OZ. ARCHER®	20 GAL. WATER

For maintenance treatments, such as with hand-held equipment, apply 0.2-0.8 fl. oz. of Demand CS and 1-2 oz. of Archer per gallon of water as a spot or crack-and-crevice treatment.

To learn more about Demand CS and Archer, please visit **www.SyngentaPMP.com/DemandCS** and **www.SyngentaPMP.com/Archer.**

Total Clean-out

Remove old litter and wash and disinfect the house. Mix Demand CS and Archer together at the recommended rates and spray floors and footings, and along walls. Turn off ventilation and close doors to raise ammonia levels in the house and ensure that beetles are active. Wait one week or longer after treatment before adding new litter and introducing new birds.

Partial Clean-out

Remove old surface litter, mix and level with ventilation to dry litter and top-dress as desired. Mix Demand CS and Archer at the recommended rates and apply to litter and footings. Turn off ventilation and close doors to raise ammonia levels and ensure beetles contact the insecticide. Wait one week or longer after treatment before introducing new birds.

Resistance Management

Using two products with different modes of action helps delay or prevent the development of insecticide resistance. Demand CS, a pyrethroid insecticide, works on the central nervous system of the beetles. Archer, as an IGR, acts as a juvenile hormone mimic and prevents immature stages of the beetles from molting into adults.

With long-lasting residual control of both adult and larval beetles, the combination of Demand CS and Archer can reduce chemical rates and potential applicator and animal exposure over time.

FOR LIFE UNINTERRUPTED™

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Archer® Insect growth regulator

syngenta®