

# Beauveria bassiana HF23 (090305) Fact Sheet

**OPP Chemical Code:** 090305

## Summary

Many strains of *Beauveria bassiana*, a fungus, occur naturally and can be found throughout the world. These fungi kill insects by growing on the outer surface and into the bodies of the pests they infect. This particular strain, *Beauveria bassiana* HF23, attacks house fly and is being registered for use to control that pest in chicken manure. After the poultry houses are treated, the chicken manure is composted to be used as fertilizer in agricultural fields. Use of this fungus as a pesticide active ingredient is not expected to harm humans, non-target organisms, or the environment. This conclusion is based on studies evaluated by EPA, and published literature from the scientific community.

## I. Description of the Active Ingredient

## II. Use Sites, Target Pests, and Application Methods

- **Use Sites:** Poultry houses and chicken manure pits.
  
- **Target Pests:** House fly
  
- **Application Methods:** The manufacturing use product (MP) is formulated into an End-use Product (EP) which is sprayed onto chicken houses during the active house fly season.

## III. Assessing Risks to Human Health

No harmful effects are likely to occur to workers or the public from the use of *Beauveria bassiana* HF23 when it is used to control housefly on chicken manure. Laboratory studies in rabbits and rats indicate that the active ingredient is not toxic or infective following lung, oral, eye or skin exposure or if injected into test mammals. In these studies, the microbe did not survive in the tissues, indicating that the microbe is unlikely to cause infections in mammals. During laboratory research, no workers reported adverse effects.

When *Beauveria bassiana* HF23 is used as a pesticide active ingredient, human exposure will be minimal. The pesticide is applied to the poultry houses to control house fly. The treated chicken

manure obtained from the pits is composted and spread as fertilizer on agricultural fields. Dietary exposure is highly unlikely because the pesticide is neither directly applied to food or feed items in the field, nor after the crops are harvested. Thus residues do not remain on treated food. Even if some residues were ingested, rat studies indicate that no harm is expected to adult humans, infants and children who eat food commodities which have been grown in fields using the fertilizer. Because the end product is applied at low concentrations, minimal residential and worker exposure is expected from the uses of this pesticide on poultry houses. Exposure to workers is further minimized because they are required to wear appropriate Personal Protective Equipment (PPE) when applying the pesticide.

#### **IV. Assessing Risks to the Environment**

No harmful environmental effects are expected from pesticidal uses of this microbial active ingredient. Published literature and submitted studies indicate that the active ingredient will not cause adverse effects to mammals, birds, honeybees, other non-target insects, or plants. Runoff problems into water are not expected, because the active ingredient is expected to decline before the chicken manure is applied to the agricultural crops. Moreover, the pesticide is not permitted to be applied to bodies of water, minimizing exposure and potential adverse effects to aquatic organisms.

**Endangered Species.** There is no evidence of toxicity or pathogenicity for this active ingredient in the literature or in submitted studies on mammals, birds, insects, aquatic organisms, and plants. Consequently, there is a "NO AFFECT" finding for *Beauveria bassiana* HF23, which is not expected to harm endangered or threatened species.

#### **V. Regulatory Information**

Two products are conditionally registered as of December xx 2006. One of these is to be used for manufacturing other end-use products, and the other is an end-use product to use as a spray in poultry houses to control house fly. Chicken manure, obtained from houses treated with this fungal insecticide, will be composted into fertilizer for use on agricultural crops. Any potential residues of the fungus on food/feed commodities are not expected to pose any harm to human adults and children and are exempt from the requirement of a tolerance.

#### **VI. Registrant Information**

JABB of the Carolinas  
456 E. Main Street,  
P.O. Box 310  
Pine Level, NC 27568

#### **VII. Additional Contact Information**

Ombudsman, Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs  
Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460