

LARVADEX®

Broiler Breeders • Layers

INSECTICIDE 

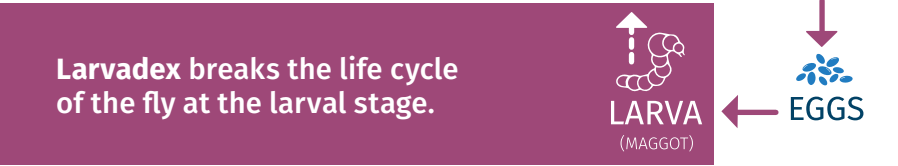
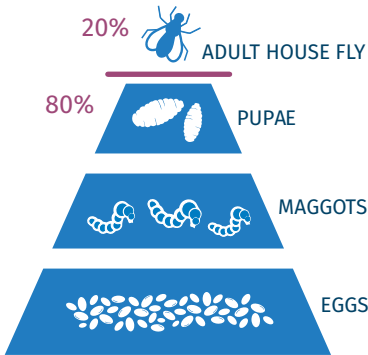
Easy and Effective Fly Control

If they don't become flies, they won't become a problem for poultry. Larvadex® is a highly selective, in-feed solution for fly control, proven to control the larvae of the house fly and other fly species in breeder and layer housing.

Animal Manure: An Ideal Environment for Flies

The house fly (*Musca domestica*), the lesser house fly (*Fannia canicularis*) and the soldier fly (*Hermetia illucens*) are some of the most common species of nuisance flies that can impact your operation. The poultry house is a complex ecological system where larvae emerge from an egg, grow and develop into pupae and eventually become adult flies. The unavoidable presence of manure and the adaptability of flies mean that these insects will never be fully eliminated. Only

15% – 20% of the fly problem in poultry houses is adult flies — the other 80% is a silent army still in the larval stage.¹ In fact, there can be more than 7,000 maggots in 1 kg of manure.¹ What if you could help control the development of flies before they become a problem for your operation? Now you can — with Larvadex.



Larvadex: A Novel Mode of Action

Larvadex is an in-feed insect growth regulator (IGR) for the control of dipterous (fly) larvae that is mixed with feed and fed normally. The larvicide is metabolized by the birds and left behind in their manure. Larvadex has a novel mode of action — it disrupts the molting process, which is essential for the fly life cycle. It interferes with the chitin metabolism of fly larvae at all three stages,⁵⁻⁷ stopping these larvae from developing and preventing the proliferation of the fly population. The active ingredient, cyromazine, is from the triazine group, which as a family of pesticides is one of the least toxic to wildlife.⁸ Additionally, Larvadex has no negative impact on beneficial insects when used according to the label.⁹

House Flies: Not Just a Nuisance

They can be expensive — and dangerous:

- House flies can transmit more than 100 human and animal disease-causing organisms,² including avian influenza³ and salmonellosis⁴
- Flies can migrate up to 20 miles away. Additionally, flies can disperse in the wind, and potentially several hundred miles via pickup trucks and other animal transport vehicles²

When to Use Larvadex

- Start at the beginning of the fly season
- Incorporate Larvadex into the feed according to the label during fly season
- It is recommended to use Larvadex in tandem with an effective adulticide

Benefits of Larvadex

- Approved to use with breeders and layers
- Three-day withdrawal period for layers and breeders before processing for food
- As a result of fewer flies, birds are healthier and more productive (improves weight gains and egg quality)¹⁰
- Easy, convenient application saves time and labor
- Minimal environmental risk when used according to the label
- Helps minimize the risk of fly-borne parasite infestation
- Reduces fly nuisance to birds and humans

Confidence raised.

For more information, visit elanco.us/larvadex.



Poultry

**The label contains complete use information, including cautions and warnings.
Always read, understand and follow the label and use directions.**

Directions for Use:

- Monitor adult flies in and near the poultry house. When the population reaches a level to cause concern, use a registered adulticide spray or fog to reduce the breeding potential.
- Examine manure in the pits for maggot activity. If maggots are active, start Larvadex 1% Premix in the ration.
- Feed Larvadex 1% Premix continuously as directed for 4 to 6 weeks.
- Usually, this is enough time for Larvadex 1% Premix to thoroughly cover the droppings and break the fly population cycle in the poultry house.
- After a minimum of 4 to 6 weeks of Larvadex 1% Premix feeding, carefully examine the manure pits. If little or no activity is observed in the manure, discontinue Larvadex 1% Premix and continue the sanitary and management program.
- Continue monitoring the manure pits. If maggots become active again, repeat the procedure.
- Discontinue Larvadex during winter months or during periods of low fly pressure (at least 4 consecutive months/year).
- Do not feed to broilers.
- Do not use Neporex® 2SG in conjunction with Larvadex 1% Premix in chickens. If chickens have been fed Larvadex-treated feed, do not apply Neporex 2SG to manure.
- Three-day withdrawal period (when used according to the label).

¹ Reece D. "Create a 'low-fly' zone." Pig Poult Mark. 2014;Spring:18-19.

² Ramanujan K. "House Flies." Cornell Chron. 2014.

³ Wanaratana S et al. "The potential of house flies to act as a vector of avian influenza subtype H5N1 under experimental conditions." Med Vet Entomol. 2011;25:58-63.

⁴ Olsen AR et al. "Isolation of *Salmonella* spp. From the Housefly, *Musca domestica* L., and the Dump fly, *Hydrotaea aenescens* (Wiedemann) (Diptera: Muscidae), at Caged Layer Houses." J Food Protect. 2000;HFS-315.

⁵ El-Oshar MA et al. "Studies on Cyromazine in the House Fly, *Musca domestica* (Diptera: Muscidae)." J Econ Entomol. 1985;78:1203-07.

⁶ Mulla MS et al. "Evaluation of Larvadex, a New IGR for the Control of Pestiferous Flies on Poultry Ranches." J Econ Entomol. 1983;76:520-24.

⁷ Awad TI et al. "Morphogenetic and histopathological effects induced by the insect growth regulator cyromazine in *Musca domestica* (Diptera: Muscidae)." J Med Entomol. 1984;21(4):419-26.

⁸ Fishel FM. "Pesticide Toxicity Profile: Triazine Pesticides." UF IFAS Extension. 2018. <<http://vet.entomology.cals.cornell.edu/arthropod-identification/chicken-recommendations/house-flies>>.

⁹ Axtell RC et al. "Efficacy and Nontarget Effects of Larvadex as a Feed Additive for Controlling House Flies in Caged-Layer Poultry Manure." Poultry Science. 1983;62:2371-77.

¹⁰ Grogan K. "Beetles and Houseflies Play Role in Disease Transmission." Poultry Times. 2008.