Economic Impact

Face Flies

The face fly is an excellent vector for eye diseases since it repeatedly feeds on eye fluids and frequently moves from one animal to another. Face flies have been implicated in the transmission of Moraxella bovis, a bacterium that is the primary causative agent of infectious bovine keratoconjunctivitis (pinkeye).

Costs associated with pinkeye from decreased weight gain, reduced milk production, and treatments are estimated to **be $150 million in the U.S. alone.**

Horn Flies

The economic losses from horn flies cost the North American cattle industry **over $1 billion per year**.

These losses can be attributed to reduced weight gains, decreased feed efficiency and decreased milk yields caused by loss of blood and excessive energy expenditure to dislodge the flies.

Based upon studies evaluating these production losses, the generally accepted economic threshold for infestations of horn flies is 50 flies per animal in a confined space.

House Flies

The house fly has been implicated in the transmission of 65 disease organisms, such as the bacteria that causes Mastitis, some of which can be spread to cattle inflicting economic damage.

Another house fly associated economic threat to cattle facilities is nuisance lawsuits.

If left untreated, the house fly's prolific reproduction rate can spread populations to nearby properties creating complaints and generating potential fines from neighboring communities.

Stable Flies

The economic injury level for feeder cattle is when the stable fly population reaches an average of about five flies per front leg.

The economic threshold of just five flies per animal showed a reduction in feed efficiency that resulted in an **average loss of $8.51 per animal per season.**

Champion

Champion Farmoquimico LTDA

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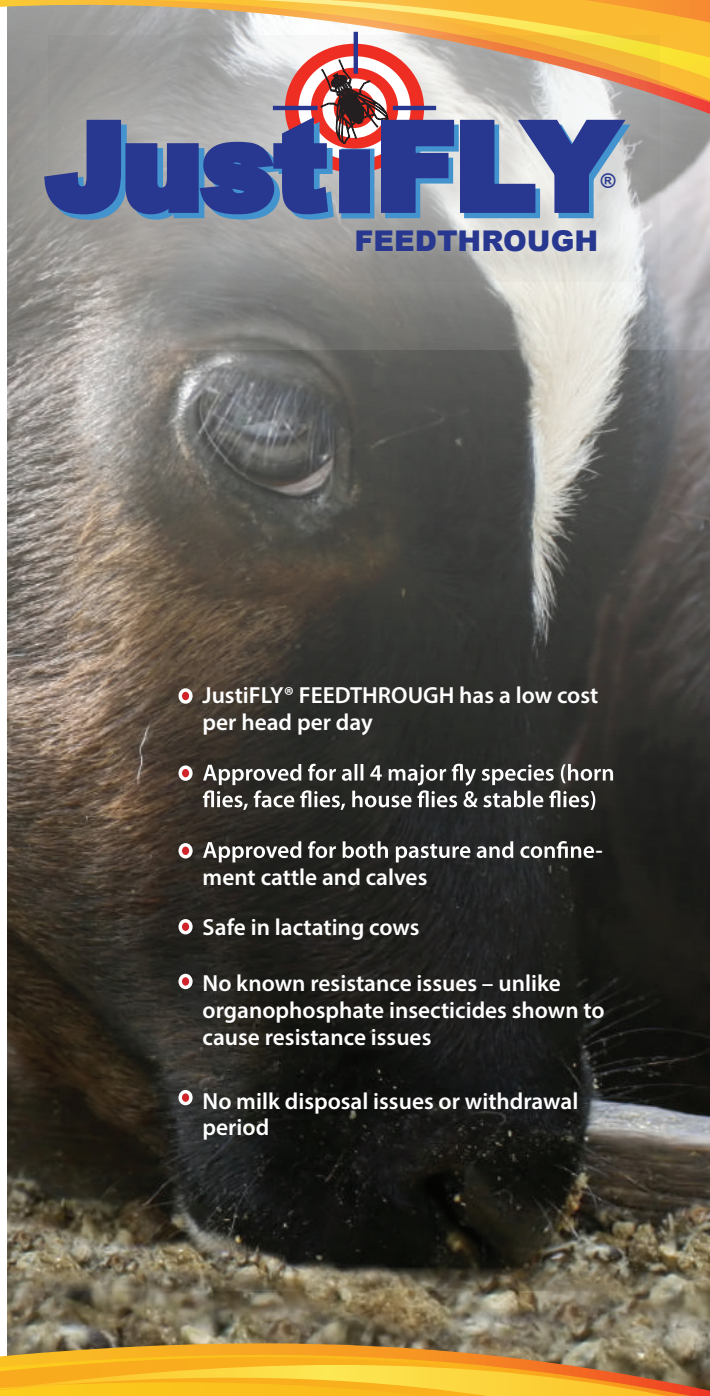

Productive, Fly-Free Cattle Start With JustiFLY® Feedthrough

JustiFLY® Feedthrough is a feed supplement that prevents production of the four major nuisance flies - horn flies, face flies, stable flies and house flies from developing in and emerging from the manure of treated cattle.

Non-Toxic Fly Control Benefits

Unlike conventional insecticides that attack the nervous system of insects, **JustiFLY® Feedthrough** works by interrupting the fly's life cycle, rather than through direct toxicity.

When mixed into cattle feed, **JustiFLY® Feedthrough** passes through the digestive system and into the manure. With only very small concentrations, it is able to disrupt the normal molting process of the fly larvae.

The mode of action is specific to insects. It disrupts the production of a substance called chitin, a key component of an insect's exoskeleton NOT found in mammals. Without a properly formed exoskeleton, the immature fly cannot survive to adulthood.

Not a Conventional Pesticide

JustiFLY® Feedthrough's active ingredient, diflubenzuron, is considered by the Environmental Protection Agency (EPA) to pose a low risk to human health and the environment.

Diflubenzuron has the following advantages over existing conventional pesticides:

- Low impact on human health
- Lower toxicity to non-target organisms (birds, fish, plants)
- Low potential for groundwater contamination
- Low use rates
- Compatibility with Integrated Pest Management (IPM) practices

Start JustiFLY in Spring For Best Results

Begin feeding **JustiFLY® Feedthrough** in early spring before flies appear and continue feeding though the summer and fall until cold weather reduces or ends fly activity. The actual feeding period will depend on the regional climate. Starting a program during the fly season will require the use of other fly control measures to reduce existing adult fly populations.

JustiFLY® Feedthrough prevents the emergence of face flies, horn flies, house flies and stable flies from developing in and emerging from the manure of treated cattle. It has no effect on existing adult fly populations.

To control manure-breeding flies, all cattle on the premises need to consume adequate quantities of **JustiFLY® Feedthrough** every day.

The feeding level for this product should not exceed 0.10 mg of Diflubenzuron per kg of bodyweight per day.

Daily consumption of **JustiFLY® Feedthrough** by individual animals may vary. However, fly control will not be affected. Feeds and supplements containing **JustiFLY® Feedthrough** may be fed up to slaughter and to lactating dairy cows without withholding the milk from market during or after treatment.