



Cow Calf Technical Bulletin

HIT THEM WHERE IT HURTS: Effective Fly Control

*God in His wisdom made the fly,
But He forgot to tell us why.
-- Ogden Nash*

I've always liked this poem. It's certainly a theme we can all relate to! But responding to the presence of flies when they are responsible for significant economic losses requires a less lighthearted, and more detailed, approach.

Effective pest control takes into account an insect's life cycle, how mobile it is, how it eats, and what it feeds on. These key characteristics are different for each of the flies that beef producers have to deal with. Proper identification of problem flies is the first step in selecting appropriate management strategies -- and avoiding spending money on products or practices that have little chance of working.

PASTURE CATTLE

Horn flies. Scientists have estimated that horn flies cost the beef industry \$876 million annually.

- About half the size of a housefly; biting-sucking mouthparts
- Both sexes are blood feeders, eating (biting) 20-40 times per day
- Eggs must be laid in very fresh manure; larvae develop in undisturbed manure; adults do not stray far from their host animal.
- Populations can rapidly climb to 1000 - 4000 flies per animal.
- Damage from reduced grazing, increased stress, and blood loss.
- Horn fly control commonly yields an extra 15-20 pounds of beef per weaned calf or stocker.

Control options include insecticidal ear tags, sprays, pour-ons, backrubbers and dust bags, and oral larvicides. While ear tags can be very effective against horn flies, they need to be managed properly to minimize insecticide resistance. A common recommendation is to use an organophosphate product for two years, a pyrethroid product the third, and then repeat in a 2-1-2-1 rotation. Additionally, the tags should be physically removed from cattle at the end of fly season. Other products applied directly to the animals need to be evaluated in terms of labor requirements, animal stress, and the ability of the operation to repeat treatment as often as needed for effective control.

Methoprene is a feed-through larvacide sold under the trade name Altosid®. The manure of cattle consuming the product is laced with an insect growth hormone that prevents horn flies from maturing into adults -- but has no harmful impacts on the animal, humans, the environment, or beneficial insects. Because horn flies do not travel well, Altosid® can have a significant impact on horn fly populations even if neighboring cattle are untreated. Altosid® was recently approved for inclusion in free-choice liquid supplements, which offer a practical and convenient means to deliver this additive to grazing cattle.



Face Flies. While often thought of as the second-most prevalent pest of pasture cattle, these flies cause far less damage than horn flies.

- Slightly larger than a housefly; sponge-like mouthparts with microscopic “teeth”
- Consume nectar; females also feed on animal secretions (tears, saliva, mucus, blood)
- Eggs in fresh manure
- Very strong fliers
- Primary economic damage from spread of pink-eye.

Since face flies spend so much time away from the cattle, they are difficult to control with insecticides. Most horn fly controls (ear tags and topical insecticides) have some level of effect on face flies. A good pinkeye prevention and treatment program is typically more cost-effective than trying to eliminate a high percentage of the face fly population.

DRYLOT CATTLE

Stable Flies. While primarily a pest of confined cattle, stable flies can move from lots to nearby pastures and cause significant problems there as well.

- Similar in appearance to housefly, but with piercing mouthparts
- Daytime blood feeders; fierce biters, primarily on the feet and knees of cattle
- Eggs in moist, decaying organic matter
- Strong fliers; when not on cattle, they rest in shade on buildings, posts, plants
- Can reduce feedlot gains .2 to .5 lb/day, and feed efficiency 11-13%.

House Flies. Familiar around the world as a nuisance pest and carrier of disease.

- Sponging mouthpart; they regurgitate on feedstuffs, then take in dissolved nutrients
- Eggs in moist, decaying organic matter, fresh or aged manure.

The most effective control practice for either of these species is good sanitation. If flies do not have access to breeding sites, populations can be kept at a minimum. Even a small volume of spilled feed, rotting hay or manure can contain large numbers of maggots.

While satisfactory control of stable flies and house flies will probably not be achieved without keeping pens clean and well drained, additional practices can complement the sanitation program. This can include biologic controls (e.g., parasitic wasps), premise sprays, baits, and oral larvicides (Clarify®, Rabon®). Keep in mind that Altosid’s mode of action is specific to horn flies on pastured cattle, and should not be considered a viable option for controlling flies in confined cattle.

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