News Column

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May 15, 2015

Fly control for pastured cattle

There are three fly species that economically impact pastured cattle; horn fly, face fly, and stable fly. A recent video worth watching on you tube "Fly Control for Pastured Cattle" highlights management options and some product efficacy field trials for control of these species.

Horn Fly Economic Impact: The horn fly is one of the most significant blood-feeding pests of pastured cattle in the United States. Losses have been estimated at $1 billion annually.

Horn fly feeding causes irritation, blood loss, decreased grazing efficiency, reduced weight gains and a decline in milk production. Furthermore, horn flies have been implicated in the spread of summer mastitis.

Studies in Nebraska have demonstrated calf weaning weights were 10 – 20 pounds higher when horn flies are controlled on the mother cows. Yearling cattle weight gain can also be impacted by up to 18%.

The economic injury level (EIL) for horn flies is 200 flies per animal.

Horn Fly Control: Force-use, self-treatment devices like **dust bags and back-rubbers (oilers)** provide effective and economical fly control. However, if used in a free-choice arrangement, expect 25-50% less horn fly control.

Animal sprays can be an effective way of reducing horn flies, but a drawback is the increased cattle handling, cost and stress to the animals.

Another option is to use a **mist-blower sprayer**. With this system the sprayer is taken to the cattle and applications are applied to animals in the pasture, reducing animal stress.

Oral larvicides and insect growth regulators prevent fly larvae from developing in the manure. To be effective cattle must consume a specific amount of product per day. Proximity to untreated cattle and inadequate consumption are two factors that can contribute to poor fly control.

Pour-ons are ready to use products applied to the back line of cattle. Nebraska studies indicate pour-ons will keep horn fly numbers below the EIL for up to three weeks.

Insecticide impregnated ear tags contain one or more insecticides embedded in a matrix. To achieve maximum horn fly control, apply two tags per adult animal and delay application until June 1st. Also these tags should be taken out at the end of the grazing season.

Two new delivery systems are available to aid in horn fly control. **PYthon insecticide cattle strip**, which attaches to the button side of an existing identification tag. Contains the same active ingredient as the PYthon ear tag. The second new product is called the "**Vet Gun**", a CO2 powered device which delivers a capsule that contains 1.5% lambda-cyhalothrin + 7.5% PBO.

Since many horn fly populations in the Great Plains show some degree of resistance to pyrethroid ear tags, it is important to rotate insecticide classes yearly when using ear tags and seasonally for other applications.

Face Fly Economic Impact: The face fly is a robust fly that resembles the house fly, only slightly larger and darker. It is a nonbiting fly that feeds on animal secretions, nectar and dung liquids. The female face fly feeding causes damage to eye tissues, increases susceptibility to eye pathogens, and can vector Moraxella bovis, the causal agent of bovine pinkeye.

Controlling face flies is essential in reducing most pinkeye problems.

Face Fly Control: Achieving adequate face fly control can be difficult because of the habit of feeding around the face and the limited time spent on the animal. Control is enhanced when animals receive daily exposure to insecticides from dust bags, oilers, sprays, or insecticide ear tags.

Both cows and calves must be treated for fly control and reduced pinkeye issues.

Pinkeye vaccines are available and should be considered if pinkeye has been a recurring problem. Please check with your local veterinarian about the use of these vaccines in your area.

Stable Fly Economic Impact: Stable flies are a serious pest of pastured cattle. The stable fly is a blood-feeding fly, mainly feeding on the legs and belly region of animals. Their bite is very painful; cattle will often react by stomping their legs, bunching in corners of pastures, or stand in water to avoid being bitten.

Stable flies cause similar weight losses to both pastured and confined cattle. University of Nebraska research recorded a reduction in average daily gain of 0.44 lbs. per head in animals that received no insecticide treatment compared to animals that received a treatment. Populations of 5 flies per leg are often exceeded in Nebraska pastures.

Stable Fly Control: The only adult management option available for reducing stable fly numbers is the use of sprays. Sprays can be applied using low pressure sprayers or can be applied with mist-blower sprayers. Weekly applications of these products will be required to reduce fly numbers.

Sanitation or clean-up of wasted feed at winter feeding sites may reduce stable fly numbers. If sanitation is not possible, these sites may be treated with a larvicide (Neporex®). But, the application of either procedure may not totally reduce the economic impact of stable fly feeding.

Additional Resources: For current Nebraska control recommendations, please see these NebGuides - The Face Fly, G1204 (PDF 498KB)**,** Horn Fly Control on Cattle, G1180 (PDF 1.02MB)**.**

When applying any insecticide control products, please read and follow label instructions.

Information and article provided by Dave Boxler, West Central Research and Extension Center University of Nebraska.