
Fly Season Control Tips

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Fly season, along with its economic ramifications comes around each year. Regardless of cattle numbers, proximity to other cattle, breed, or how many flies were present last year; rest assured that flies will cost you lots of money each year if left untreated. Many costs are associated with not controlling flies. A single case of pinkeye on a 500 pound calf can cost \$50.00 to \$100.00. The amount of blood removed from an animal by a large population of horn flies can reach in excess of 4 pounds per day. While this in itself can cause added stress due to energy being redirected to replenish blood supply, disease transmission is also a concern. Other flies such as face flies cost money in terms of aggravation of cattle resulting in less time spent eating, resting, and ruminating therefore less of the desired performance is realized. Any time cattle spend time belly deep in ponds, stomping their feet, or seeking shade is time that does not contribute to weight gain, milk production, or growth. Documented losses of 60 or more pounds of weight gain in backgrounded steer calves valued at \$90.00 or more due to flies are commonplace. Fly aggravation in milking cows has been documented to lower weaning weights by 20 pounds or more due to lowered milk production. These losses can exceed \$30.00 per head for weaned calves.

Since there are many documented instances of losses in beef cattle due to fly control failures, it is easy to see why the industry reports multi-million dollar losses due to fly damage. To plan any effective control program, it is essential to understand the pest that is to be dealt with. There are two major fly pests for beef cattle. The first is the face fly which mainly causes damage by aggravating the cow by clustering on and around the face and eyes. They are one of the major vectors for pinkeye as they feed on the tears of the eye and in doing so can carry the bacteria present in one eye to another. These flies are unique in that they spend only about 10% of their time on the cattle and the rest of their time roosting in trees and on strings, wires, etc in open and airy barns. Hence, the black specks on anything hanging down around the entrance to barns. Most flies are hesitant to enter dark areas such as dark stables or barns. The second major fly pest of beef cattle are horn flies. These flies have biting and sucking mouthparts that enable them to bite and pull blood from an animal. They spend almost all their time from hatching to death on the animal and are almost continual feeders on that animals blood, usually 20 to 30 blood meals per day. These flies will not travel as far as face flies although they may still move as much as 3 miles by flight. The life cycle of this fly is about 45 days from the laying of the egg till death. Both types of flies reproduce by laying eggs in manure and the larvae hatch into adults and emerge from the manure pats. This is important as we will see later as it gives another avenue of treatment.

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Treatment options are many but rely upon appropriate treatments at correct time and situations to be effective. Options include baits, sprays, dusts, ear tags, pour-ons, oral larvicides, back rubbers, oral insect growth regulators (IGR), and predatory insects. Most well planned control programs will include two or more options depending on appropriateness. A good plan will also address the facts that young cattle will express more economic loss due to the fact they are growing faster than older cattle and gain will be more affected, and they are also more susceptible to diseases such as pinkeye. Fly tags also have some problems due to resistance issues with horn flies to some chemical options requiring producers to be aware of the chemical in the tags. Producers may want to consider an organophosphate tag to avoid resistance related control failures. Fly tags also have a limited effective life, usually of 3 to 4 months. “Self Medicators” or back rubbers, dusts bags, face flips, oilers, and others can be very effective if kept full or “charged” as they put high concentrations on the animals at fairly regular intervals. Placing these control aids strategically to encourage forced use such as the entrance to water or minerals can greatly increase the effectiveness of control efforts. When looking at pour-ons and sprays, it is important to remember that treatments are on a regularly scheduled basis that will dictate that the producer will have to contain the cattle by some means and manually apply the material as often as every two weeks. This labor intensity can be a real issue when compared to the labor intensity of recharging dust bags and back rubbers. Baits can be effective control methods when the animals in question are confined in a barn or other fairly close area where baits can be monitored and replaced as necessary, but are impractical for pasture fly control. Oral larvicides and insect growth regulators fed orally are methods that will work quite well under the proper circumstances. For these materials to work as planned, fenceline contact with untreated cattle must be at a minimum. These materials work by impregnating the manure with an insecticide or growth regulator that will either kill or alter the growth of the larvae when hatching out in the manure piles. When untreated animals are in close proximity, the insects reproduce as normal in the untreated manure and are then available to infest the cattle that have been treated. Reductions in numbers of flies are noticeable even when untreated cattle are nearby however, due to the fact that a portion of the potential breeding material is treated. Another method of insect control works similarly to the oral larvicides and baits in that predatory insects may be introduced to control flies. These predatory insects, usually of the wasp family, feed on the emerging larvae thereby reducing the population of flies through population depletion. These wasps must be introduced and work in the area where the waste is deposited to provide measurable control. Again, if animal waste is present in near proximity, and these predators have not increased their territory sufficiently, there can be enough reproduction occur to reinfest the animals. As early as the 1930’s, there have been efforts to develop successful fly “traps” to reduce the insect population. While some of these designs have been somewhat effective, there is a need to position them such that the animals travel through them several times a day. They work by creating an alley way for the cattle to move through that is covered and mostly dark inside with screened sides. As the animal walks through, pieces of canvas hanging from the roof of the structure dislodge flies which then fly toward the screened side to light with the animal leaving the trap with fewer flies. Since flies do not like dark places, most of the flies are then unable to escape and reinfest the animals.

The most important question is now which method should you use? There is no standard answer for all producers. Several questions must be answered, including is there fenceline contact with neighboring cattle?, can I get the animals up and restrain them for treatment?, do I have the time for bi weekly treatment of the animals?, How many animals do I have?, how much money can I spend?, do I have the ability to direct travel of the animals to enhance the use of self medicators?, and others. The answer to fly control issues are: 1) Have at least two

methods of fly control in your arsenal for defense, and 2) Know what the fly population is before treatment is initiated and measure the success or failure of the selected methods. If treatments do not successfully reduce the number of flies present, re-evaluate the methods that are practical and re-plan your program. For help in developing a fly control program, feel free to call your local Extension office at 798-1710.