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FLY CONTROL

With warmer temperatures continuing in August and even the early fall, this continues to be an excellent time to focus on preventing the problems caused by flies for cows and optimum production goals. Flies can be costly to a dairy herd (especially replacement heifers) by reducing feed intake at different times of the year. Proper control of flies and their effects can be a challenge for many farmers. Prevention and appropriate treatment depends upon which fly species causes the irritation. Some of the most common irritating flies are:

- 1. **Horn flies** (*Haematobia irritans*) this is one of the most serious and injurious pests for cattle, since they are known for transmitting mastitis-causing bacteria. These flies spend most of their time on the animal and take 20 to 30 blood meals a day. The resulting pain and annoyance interferes with feeding, resting and other routine actions of cattle.
- 2. **Face flies** (*Musca autumnalis*) face flies are considered to be severe enemies of cattle (and most livestock). These flies spend most of their feeding on mucous secretions from around the eyes and mouth of cattle, while sucking on areas around the mouth. They tend to cause irritation and can spread the bacteria that cause pinkeye.
- 3. Stable flies (Stomoxys calcitrans) the bites inflicted from these flies are very painful. They take 2 to 3 painful blood meals/day, usually on the legs of cattle or other livestock. Stable flies cause cattle to bunch up, stomp and kick.
- 4. **House flies** (*Musca domestica*) house flies spend their time feeding on decaying organic matter and spoiled feed. Their eggs are laid in rotting organic matter, such as old hay or manure. This species of flies causes mild irritation to livestock.

Preferred practices for managing fly infestation:

- 1. **Ear Tags** are recommended for flies that spend most of their time on the host. These flies include the horn flies and face flies. Although ear tags are recommended, farmers need to remember there is a limited lifespan for ear tags. It is suggested to wait for the fly season to attach the ear tags. If you have attached ear tags previously, it might be worthwhile to review the suggested efficacy date and attach new tags. Another tip is rotating between organophosphate and pyrethrin-based ear tags, as it will slow fly resistance to the chemicals.
- 2. **Pour-on** is a fly control method that may assist in protecting against all species. This treatment is labor intensive and must be repeated often for continued results.
- 3. **Insect growth regulators (IGRs)** can be used in feed rations to prevent horn fly development in manure. IGRs should be fed *throughout* the fly season in order to maintain complete control over flies.
- 4. **Environmental control** is an important element in controlling the house fly population, as well as reducing their nesting environment. Management is key to the success of this approach.
- 5. Other options for managing flies and problems linked with flies include such things as parasitic wasps, back rubbers and commercially-available traps.

Although these are recommended management practices for controlling flies, the best fly control strategy varies by geographical location, rainfall, stocking density and management. Producers need several different forms of fly control throughout the season to ensure proper control. It is always a good idea to seek advice from your veterinarian and nutritionist for more definite recommendations specific to your operation. Effectively working to control flies around your cattle and livestock can contribute to improving the health and productivity of your operation, and aid the development of heifers and calves. (Article by the Dairy Calf & Heifer Association)

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HOW DOES YOUR FORAGE SMELL?

Different smells can help you determine what is actually happening in your silage. It can also provide you with tips regarding certain problems that may be occurring during the silage fermentation process. Dr. Limin Kung, noted for his research of silages and forage fermentation, shares the following advice on what you can learn from these silage smells and their impact to a dairy operation. Sweet-smelling silage is not always an indicator of the best fermentation because the sweet smell is probably coming from high concentrations of alcohols produced by spoilage yeast and undesirable bacteria. High concentrations of alcohols are commonly found in both high-moisture corn and corn silage, and are usually associated with a significant amount of dry matter loss. These silages are also very likely to heat when exposed to air in the silo, bunker or feedbunk.

In contrast, foul smelling silage is a pretty good indicator that something has gone wrong. There are several foul odors you may encounter in silages. First, the butyric acid smell (which smells like baby vomit) is common in alfalfa and grass silages that are high in moisture content. This acid is produced by bacteria called *Clostridia*. Additionally, these silages may also smell fishy and ammonia-like because of the excessive breakdown of protein and resulting formation of compounds known as polyamines.

You probably will never smell these odors in silages if the dry matter content is greater than 35-40%, because *Clostridia* do not grow well in dry silages. Ironically, silages with high butyric acid content are very stable when exposed to air and will not overheat, but are also characterized by large losses in dry matter, high ammonia and soluble protein content, poor digestion, and low energy. Consumption of large quantities of silage with a high concentration of butyric acid may also sometimes lead to subclinical ketosis.

Another foul smell is the musty/moldy odor that comes when silages have undergone aerobic spoilage, which smells like rotten socks. Excessive amounts of air (a result of poor packing, poor covering, slow feedout rate, or poor face management) lead to an explosion of spoilage yeasts that is then followed by rapid growth of molds and spoilage bacteria. Moldy silages should not be fed to cows. Sometimes, but not always, this silage may contain high concentrations of mycotoxins. Silages that smell moldy are usually hot and steamy (or have gone through a heat). Feeding aerobically spoiled silage can lead to depressed intakes and production.

Sometimes silages have a very sharp smell of vinegar. Vinegar is the common name for acetic acid, which is an end product of many organisms that are active in silage fermentation. Extremely wet corn silages often have high concentrations of acetic acid. In the past, silages that were high in acetic acid because of uncontrolled fermentation were considered undesirable because there was some evidence that such silages depressed intake.

Research shows, however, that silages inoculated with *Lactobacillus buchneri* undergo a "controlled" acetic acid fermentation to help improve aerobic stability and when fed, they do not depress intake. Other inoculants may also provide the same results (check out inoculant products from Renaissance).

A mildly sweet tobacco/molasses smell in corn silage is a definite indictor of heat-damaged protein. In all silages, when this smell is noticed you can be sure of excessive heating. The silage should be tested for bound nitrogen, also known as unavailable nitrogen or acid-detergent insoluble nitrogen (ADIN), and the protein requirements adjusted in the ration accordingly. In some silage, a nail polish-like smell may be present. Compounds like phenyl-acetic acid may be responsible for this smell. To date, researchers are unsure of the significance of this odor in silage.

Arguably, the best silage fermentation, called homolactic acid fermentation, should have little or no distinct odor because the dominant acid produced in this process (lactic acid) has almost no smell. Forage should be wilted to the correct moisture, chopped to the correct length, and silos, bags, and bunkers filled quickly, packed tightly and sealed promptly.

Good silage has a positive impact on productivity and profitability. What is planted, and how it is harvested and preserved is critical to the end results. Smell the silages on farms! It might make a difference. (Edited from an article by Mycogen)

TIME TO DEWORM YOUR LIVESTOCK

Fall is an excellent time to deworm your livestock. Worms can cause loss of weight, reduce the rate of gain, and may create other health concerns. Consider deworming ~ an investment that makes a difference. Ask us for details today.

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