Key Takeaways

- Flies not only are an annoyance, they can reduce performance and worsen heat stress.
- Successful control strategies start with sanitation.
- Sprays, biological controls, or feed additives may also help reduce fly pressure in feedlots.

Just as longer days mark the beginning of summer, so does the arrival of increased numbers of flies in feedlots.

Stable flies and house flies are the most common pests of cattle in feedlots. Of the two species, stable flies cause the greatest economic loss. As few as five stable flies per leg can reduce ADG by 3 to 20% during a summer. Most of that lost performance results from the indirect effects of flies, such as bunching and increased heat stress, along with the energy losses from fighting flies. Flies also act as disease vectors and can lead to poorer relations between feedlots and their neighbors.

Sanitation is Key

Controlling feedlot flies starts with sanitation. Without this key step, any of the other mitigation strategies will likely be disappointments. Stable flies breed in mixtures of spilled feed and manure, especially around feeding aprons, under feed bunks, feed storage areas, and under fences. Any wet or stagnant area with combinations of organic matter, manure and soil can be a potential...
Removing feed and manure from these areas promptly deprives the flies of potential breeding areas, which in turn helps prevent explosive increases in fly populations.

Stable flies are most active between 10 am. and 4 pm; after that they seek shaded areas to roost. Eliminating weedy areas around the edges of pens, near feed storage areas, or along the edges of manure containment facilities reduces the number of “safe spaces” for flies which should help keep populations in check.

The life cycle of a stable fly lasts about 2 to 3 weeks, so scraping pens every 14 days reduces the opportunities for the flies to reproduce. Hoof action also disrupts the life cycle, so keeping pens fully stocked will help to reduce fly numbers, if mud issues can be avoided.

What About Chemical Control?

Chemical controls can be a part of a fly control plan in conjunction with sanitation efforts. Stable flies prefer to feed on the front legs of cattle, meaning that getting good spray coverage for this pest is difficult. Spraying the animals directly would only provide short-term relief but could still be useful as a quick “knock-down” to reduce pressure while implementing other practices. Premise sprays may be more effective, especially in areas where the flies rest such as vegetation or on shady sides of structures.

Biological Control Strategies

Biological control using parasitic wasps is another option to consider. Parasitic wasps lay eggs in the pupae of flies. These wasps can reduce the number of adult flies in a feedlot and delay the peak in population if the parasite population is high enough during the fly breeding season. This strategy is not a “quick fix”, but rather a part of a longer-term strategy to reduce fly pressure. Finding a reputable supplier who can provide the right species and manage the release is a key factor to successfully implement a biological control strategy for optimal results. Periodic releases throughout the fly season are more effective than one massive release.

Sanitation is still critically important with biological control programs. If the fly breeding areas are too large, the flies will simply overwhelm the ability of the parasitic wasps resulting in little to no effect on cattle performance or overall fly populations. Reducing the number of breeding areas will concentrate the flies and help make the parasite control more effective. It is important to remember not to use chemical control in all the breeding areas when using parasitic wasps. The parasite requires live pupae to reproduce.

How About Feed Additives?

Several feed additives have been developed for use with pasture cattle, particularly for face and horn flies. If a feeder is considering using either an insect growth regulator (IGR) or larvicide product, make certain that they are labeled as being effective against stable flies and house flies.

Adding garlic to mineral mixtures at a rate of 2% has been promoted as a potential fly repellent. The amount of research data on this strategy is limited. One published study from Canada reported reduced fly numbers in grazing cattle when garlic was added to the mineral. While this is only one study and it was not conducted in a feedlot setting, this could still be worth considering as a component of a multi-faceted control strategy, particularly if the costs were reasonable.

Source: Warren Rusche, SDSU Extension Beef Feedlot Management Associate, Courtesy of extension.sdstate.edu

Forage Timely Tips: July

- Apply 40-60 lb N/A to stimulate summer annual regrowth.
- Clip pastures late June/early July as needed to maintain vegetative growth and to reduce weed seeds, but don’t clip lower than 4”.
- Identify rescue pastures for stockpiling. Choose pastures that are well drained, have a strong sod, and have not been overgrazed.
- Soil test pastures to determine fertility needs.
- Using UK variety trial results, select varieties to plant in the fall and order seed.
- Use a designated sacrifice lot to feed livestock hay and supplements as needed if drought sets in and no forage is available for grazing.
4 Ways to Minimize Risk in Such a Risky Business

Risk. Some people thrive on it, while others struggle with it. It’s been said that “all life is a management of risk, not its elimination.” So what can beef producers do to manage risk in such a risky business?

At the Idaho Young Cattle Producer Conference in June, Ben Eborn, an economist with the University of Idaho, reminded producers to focus on things that can be controlled and offered ways to plan and prepare to manage those types of risks.

Looking at CattleFax data depicting the dollar per head change from the cycle highs in 2014 to the cycle lows two years later in 2016, Eborn noted a value decrease of $900 on average for a 550-pound steer.

“You can’t even sell 550-pound steers for 900 dollars nowadays,” Eborn said. “It’s kind of crazy how fast things can change. We have to figure out ways to hold the line, even when prices are volatile and markets swing that wide. There has to be a way to stay profitable.”

Below are a few key takeaways from his presentation:

Average producers don’t make any money

Again, looking at CattleFax data, Eborn pointed out the differences between a low-cost producer and a high-cost producer in 2019:

- A low-cost, high-return producer’s cash cow costs were $550 per head, with total cow cost (including labor and depreciation) at $725 per head. Their breakeven was around $120 to $140 per hundredweight.
- The average producer’s cash cow cost was $600, with their total cow costs at $800 and their breakeven around $135 to $155 per hundredweight.
- A high-cost, low-return producer’s cash cow cost was $700, with their total cow costs at $925 and their breakeven around $160 to $180 per hundredweight.

“If your costs are around 800 dollars per cow, is that a good thing or a bad thing? It’s average, right?” Eborn said. “You’re not going to survive. You’ve got to figure out a way to get those costs below 800 dollars. You might say ‘well, I live above 6,000 feet; we have to feed our cows six months out of the year. There’s no other way to do it.’ I guarantee there is another way. You just might have to get super creative. Feed is only one of the costs.”

Eborn also reminded attendees that cutting corners is not the same thing as cutting costs. He encouraged them to find small ways to increase efficiency, whether that’s figuring out a way to extend the grazing season; buying replacement heifers instead of feeding them through the winter; taking a good, hard look at family living expenses and if that number is where it should be; stock up on fuel when it is cheaper; or even something as simple as driving a car around instead of a pickup.

Expansion may not be the best way to improve profitability

Expansion may be a good way for some, but probably not the best way, Eborn told attendees. He encouraged producers to focus on decreasing costs first and tabling the thought of expanding until they have a good positive gross margin.

Improve your timing

Danny Klinefelter, a retired extension specialist at Texas A&M said this about good managers: “The main difference between the top 10 percent and the rest of the top 25 percent is their timing.” They do everything the same, except for their timing, Eborn explained.
As an example, Eborn noted the feeder cattle futures chart for August. The 12-month high was $156 and the $12-month low right after the coronavirus was $110; that’s a $46 difference in feeder cattle. That’s a lot of price variation.

“Knowing when to pull the trigger and sell your calves will easily make up 5 percent or 10 percent of your net profit,” Eborn said. “Especially in a year like this when there is so much volatility.” Also, it is important to note that about 20% of cow-calf returns come from cull cows. Producers should know when the best time and the worst time to sell cull cows is and spend time marketing them. The same can be said for the seasonality in feeder cattle, he said.

**Leave emotion out**

What’s so bad about a little fear and greed? It messes up our timing, Eborn said. Fear blinds us to opportunities, and greed blinds us to danger. “I know every time I sell my calves, I feel sick inside,” Eborn said. “Having a solid marketing plan will take almost all of that emotion out. It will keep us from hanging onto those calves hoping the prices will go higher when they are already 2 dollars, and it’ll keep us from panicking as the prices start to go down and panic selling at the bottom of the market.”

Wrapping up his presentation, Eborn offered the next generation of producers some advice. He said, “The only reason average producers are still in business is their dad or grandpa sweated and worked their butts off, so they could pass this down for the next generation, and what does the next generation do? They are really just bleeding the operation to death, and some day, they will run out. Those of you that were handed an operation or went back to an operation or inherited an operation, make that thing make money like your grandparents did. Manage it like they had to manage it to survive.”

*Progressive Cattle Editor Cassidy Woolsey*

**Corn Disease Update: Time for Foliar Fungicide Application Decisions**

Corn is moving through growth stages quickly, and the warm, humid weather in many parts of Kentucky has been conducive for foliar disease development. Fungicides are commonly promoted to reduce the impact of foliar disease in corn, but with tight margins and a difficult market, it is important to pay careful attention to the factors that influence the profitability of a fungicide application.

**Factors to Consider**

(1) Crop production factors

Check hybrid ratings for foliar diseases, such as gray leaf spot, prior to fungicide application. Fungicide applications to hybrids with good foliar disease resistance are less likely to provide economic returns. Hybrids susceptible to foliar diseases are more likely to respond to foliar fungicides, especially if planted in continuous corn or fields under conservation tillage. These fields are at higher risk for foliar disease development since the fungi that cause several foliar diseases survive in residue. Additionally, irrigated fields are at higher risk for foliar diseases since irrigation creates an environment favorable for disease development.

(2) Fungicide timing

University research indicates that foliar fungicides applied at tasseling or early silking (VT-R1) provide optimal foliar disease control and also the best chance for seeing a yield response, compared to
applications that occur after ‘brown silk’ (R2) for most foliar diseases in corn. Early vegetative stage applications are less likely to provide an economic return, and applications that occur at brown silk or later may be too late to realize the full benefit of the fungicide application for diseases like gray leaf spot.

(3) Fungicide class

Recent University research indicates that fungicide class influences the potential for yield response from foliar fungicide applications occurring at VT. Applications of products containing both strobilurin (QoI; FRAC group 11) and triazole (DMI; FRAC group 3) fungicide classes are more likely to result in a positive return on fungicide investment compared to applications of products containing only a strobilurin or triazole fungicide active ingredient. Fungicide classes and efficacy of specific fungicide products for foliar diseases like gray leaf spot are described in the updated fungicide efficacy table for management of corn diseases, which is developed by the national Corn Disease Working Group and posted on the Crop Protection Network website.

(4) Yield potential in damaged corn

Flooding, hail damage, and other weather events have reduced corn yield potential in certain fields in Kentucky. Before applying a fungicide to these fields, assess yield potential and determine if additional investment in the crop is warranted. Remember that fungicide applications are most successful when used to help protect yield from foliar diseases. Fungicide applications used to ‘recover’ yield in a compromised crop may be less economically viable.

(5) Disease identification

It is important to accurately identify foliar diseases before deciding if a fungicide application is needed. There are several diseases appearing across Kentucky, some of which do not warrant fungicide application. For more information on identifying diseases, contact the Boone County Extension Service.

Pond Turnover Could Cause Fish to Die

Each summer through the early fall, we get questions from landowners searching for reasons why fish are dying in their ponds. Pond turnover is often the answer.

During the summer months, water can become stagnant and stratify, which means it separates into distinct layers of cool and warm water. This occurs because the sun only penetrates the water closest to the surface. Since the sun is unable to penetrate to the water at deeper depths, that water stays cooler. These waters will start to mix when cooler air temperatures begin to arrive and cool the surface water. Heavy rains or strong winds can mix pond water too. This mixing process is called pond turnover.

(Continued on next page)
When the water from the lower depths of the pond reaches the surface, it may not be as oxygenated as the previous surface water. This is because water in the bottom of the pond may have a higher organic matter content and fewer oxygen producing plants. Fish need dissolved oxygen to live. This water may also contain gases, such as hydrogen sulfide, which are toxic to fish. When turnover occurs, it can cause an algal bloom die-off, a fish kill due to low dissolved oxygen or both.

Turnover usually only occurs during the warmer months of the year. Late fall, winter and early spring typically have lower surface water temperatures, and wind and rain help pond waters stay well mixed and maintain a more uniform temperature.

People will build commercial fish production ponds at shallower depths to prevent pond turnover. For existing ponds, the only way to prevent turnover is to install a system that mechanically aerates or mixes the pond and circulates the water from spring through fall. However, these systems are often expensive.

If you have dead fish in your pond, you can allow the fish to decompose in the water. You can also remove and discard the fish, but they may smell far more pungent on land than in the water.

Source: Forrest Wynne, extension specialist for aquaculture, Kentucky State University

**Get More Animals To Call Your Woodlands Home**

Woodlands may already be home to birds, bats, snakes, salamanders, turkeys, white-tailed deer, and many other types of wildlife. But how can woodlands be improved to make them more attractive to wildlife? Like most things in life, a plan is paramount. Do woodland owners want to attract more game species such as deer and turkey or more songbirds for bird watching? Narrowing down objectives can help determine the management activities that need to be implemented to meet goals.

In general, all wildlife need three basic things: food, cover, and water. It’s just that each species needs different types of food, cover, and water. That’s where contacting a natural resources professional such as a Private Lands Biologist with the Kentucky Department of Fish and Wildlife Resources or a Service Forester with the Kentucky Division of Forestry can help. These individuals can provide guidance on how to attract the kinds of wildlife desired in a woodland.

**Food**

Woodlands provide various types of food for animals. Berries and fruits (referred to as ‘soft’ mast) and nuts and acorns (‘hard’ mast) are produced by numerous shrub and tree species. Thus, having a wide variety of these food producing plants in the canopy and understory of woodlands can attract a wide range of wildlife. Proper timber management and wildlife management usually go hand in hand. Consider thinning young stands with an emphasis on enhancing the dominance of a variety of mast-producing species in the main canopy. Thinning also opens the canopy allowing light to reach the forest floor. This light will allow for the development of more abundant cover and food in the understory.

Although larger trees typically produce more mast than smaller ones, size alone is not a good indicator of acorn or nut production. Individual trees success at producing large mast crops for several years is the best indicator of future success. Reduce competition around the crowns of these high mast-producing trees to ensure their survival and enhance their mast-production capabilities.

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Cover

‘Cover’ refers to any type of habitat that an animal considers their temporary or permanent home. Salamanders need streams, golden-winged warblers need open shrubby areas, cerulean warblers need older forests, frogs need ponds, and white-tailed deer can thrive in varying types of habitats. To attract a wide variety of animals to a woodlands, a wide variety of cover is required. If a specific animal is desired, increase that species’ specific habitat.

Wildlife’s specific habitat needs may depend on the age of the woodlands. Young woodlands are covered in thousands of tree seedlings, bushes, and vines. As woodlands age they provide different types of habitat structures that are desirable for wildlife. Golden-winged warblers nest and lay eggs in densely packed young stands of tree seedlings and brush. After the young can fly, they move to mature forests. Disturbances can change the age or successional stage of the woodlands. Natural disturbances such as ice storms, fires, major wind events, or tornadoes may reset the age of the woodlands and attract wildlife that was not present before.

Timber harvests and thinnings may be implemented to artificially create disturbance to attract a woodland owner’s desirable species.

Dead trees (snags) serve as significant sources of cover and food for wildlife. Woodpeckers and bats use cavities and bark or dead trees to shelter themselves and their young. Dead trees attract large amounts of insects, feeding on the decaying wood, which attracts birds and other animals to feed on the insects. If nature is not creating enough snags, consider creating some through girdling or herbicide application. But follow proper safety protocols (using chemicals or chainsaws), and don’t create a hazard tree that could harm life or property.

Water

Whether it is vital for survival (fish) or necessary for drinking (deer), water is an important factor when attracting wildlife. Constructing a large pond or lake could attract a huge amount of wildlife if water sources are not common in the area. But significant water features are expensive to construct and may fall under government regulations particularly where wetlands are concerned. However, constructing a small, shallow pond, one that only holds water in spring, can be valuable breeding habitat for numerous amphibians. Such ephemeral pools can be constructed with small equipment of even by hand. Shallow water impoundments can also be constructed and can provide valuable habitat for waterfowl, wading birds, and furbearers.

Woodland owners should be concerned about the protection of water resources during forest management activities. Leaving strips of undisturbed woodlands next to streams and lakes is advised to prevent sediment from reaching water bodies and potentially harming aquatic wildlife. Road and trail construction, ATV and horseback riding, and any chemical applications should take place a safe distance away from water.

Woodlands are already a great place for wildlife to live. Small woodland owners should review what habitats are present in their woodlands and compare them to their neighbors. By focusing on improving access to food, cover, or water, landowner’s can attract even more of their favorite birds, frogs, bats, deer, or any other animals.

Written by: Christopher Reeves, Department of Forestry
Contributed by: Lacey Kessell, Boone County Extension Agent for Natural Resources & Environmental Education
Bacon and Tomato Dip

1 cup fat free sour cream
1 cup low fat mayonnaise
2 large tomatoes, diced, reserve excess juice
4 slices bacon, cooked crisp and crumbled
1 teaspoon garlic powder

Combine all ingredients. Add reserved tomato juice until dip reaches desired consistency. Serve with fresh vegetables or reduced fat crackers.

Makes 16 (2 Tbsp.) servings. Per serving: 50 calories; 3g fat; 1g saturated fat; 5mg cholesterol; 160mg sodium; 6g carbohydrate; 0g fiber; 3g sugar; 1g protein.

Plate it up! Kentucky Proud Project. https://www.planet陇move.com/recipes/recipe/bacon-and-tomato-dip/

Pasture-finished beef

EDUCATIONAL WORKSHOP

Three concurrent sessions, 7:00 pm - 9:00 pm EDT each day:

- **August 11**: Pasture-finished beef production overview
  - Forages and grazing management

- **August 12**: Cattle selection, supplementation & winter management
  - Marketing & processing

- **August 13**: Producer panel
  - Frame size X supplementation
  - Putting it all together

Hard copies of materials will be mailed to participants in VA, WV, and KY, and if available to other states. Electronic versions of the materials will be made available to everyone.

REGISTER at vaforages.org/events

Mark your calendars now!

► Crossing Through This: Managing Farm & Family in 2020
  - July 23, 30, Aug 6, 13 • 7:00 pm
  - On-line

► Hay Day at Kinman Farms
  - August 20 • 6:00pm

► Kentucky State Fair
  - August 20-30

► CAIP deadline for receipts
  - August 28 • 4:30pm

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