



**OKLAHOMA COOPERATIVE
EXTENSION SERVICE**

CHOCTAW/PUSHMATAHA COUNTY EXTENSION AGRICULTURE NEWS

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SMALL HORN FLIES CAN BE A BIG PROBLEM!

Horn flies cause billions of dollars of damage and economic loss to the cattle industry each year, but for producers, managing these pests is a personal drain on the wallet.

Like a horde of fearsome movie vampires, horn flies are voracious bloodsuckers often found in association with grazing cattle, said Justin Talley, Oklahoma State University Extension entomologist.

"Horn flies are at their highest populations from April through October in Oklahoma," he said. "In hot weather, horn flies can complete their life cycle from egg to adult in 10 days, resulting in explosive population growth. Emerging horn flies may travel 10 miles searching for cattle but will most likely stay within a couple miles if cattle are around."

Infested cattle often signal the problem by licking their backs, twitching their skin, switching their tails and tossing their heads.

Studies across the United States have indicated the most effective way to control horn fly populations is to take an integrated pest management approach to both the adults and larvae. Just treating for adult horn flies will not be sufficient, Talley said.

Control of horn flies should begin when 200-300 flies per animal are observed. Researchers have shown that 15-30 pounds of extra gain in calves is achieved over the summer when horn flies are controlled. Ear tags continue to provide a convenient method of horn fly control.

"It's important to note resistance across the state varies with past usage of ear tags containing pyrethroids," Talley said. "Producers should rotate their ear tags every year. If additional treatment is needed, then use a program that utilizes sprays, pour-ons, back-rubbers or dust bags."

OSU Extension recommendations are to not use ear tags containing pyrethroids for more than one year. Various studies have shown alternating control procedures will provide the best long-term horn fly control. Additional key elements include:

- Horn flies lay their eggs in fresh manure, so use a commercial Insect Growth Regulator (IGR) to help prevent large populations by killing the larvae.
- Use a feed-through IGR in a mineral supplement and combine this with an insecticidal ear tag.
- Rotate grazing of cattle between pastures to minimize manure accumulation in one area.
- Treat bulls with a spray or pour-on application, as this will disseminate product more evenly than an ear tag in the case of bulls.

SMALL HORN FLIES CAN BE A BIG PROBLEM CONT.

- Consider pyrethroid products that are synergized because the agent known as piperonyl butoxide (PBO) will bypass some of the insecticide resistance mechanisms in horn fly. There are more than 2,500 pesticide products that contain the active ingredient PBO.

In addition to the hundreds of painful bites that agitate cattle daily, lesions can lead to secondary infections — and even cosmetic defects in tanned or dyed leather. Horn flies have been found to be a carrier of *Stephanofilaria stilesi*, a nematode that causes a granular dermatitis that occurs mainly on the belly, scrotum, prepuce and udder of cattle in the western United States.

Horn flies also attack bison, buffalo, horses and other large mammals. Beneficial predators, parasites and natural competitors occur naturally in horn fly breeding locations, Talley said. Predatory mites, beetles, and other fly larvae feast on the developing horn fly larvae.

Fact sheets detailing research-based recommendations for pest control are available online through OSU Extension and through OSU Extension County offices.

References:

-https://news.okstate.edu/articles/agriculture/2021/stotts_talley-horn-flies.html

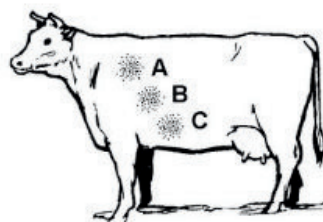
-Donald Stotts-Agricultural Communications Services

HOW DO YOU KNOW IF YOU HAVE A FLY PROBLEM?

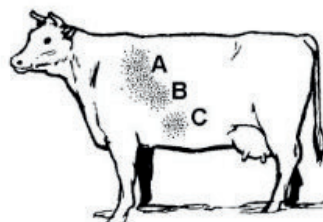
The economic threshold, or the number of flies that cause negative effects on cattle, is 100 flies per side for a cow and 50 flies per side for a calf.

Use the following criteria to estimate fly numbers:

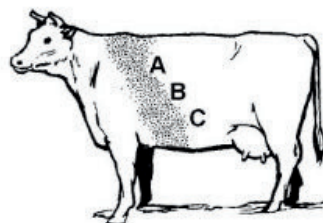
1. A single small patch of flies = 25 to 50 flies.
The patch is located in area A, B or C.



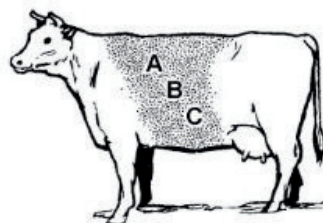
2. A single patch of flies that covers areas A and B, or B and C = 100 to 125 flies.



3. A patch of flies that extends through areas A, B and C = 200 to 350 flies.



4. A patch of flies that extensively covers areas A, B and C = 500+ flies.

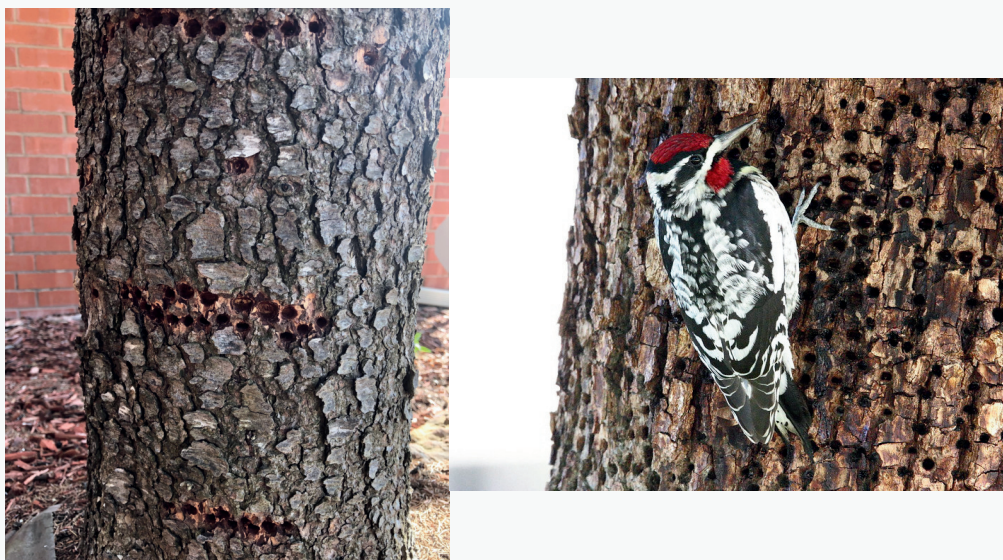


References:

-<https://extension.illinois.edu/blogs/cattle-connection/2018-07-17-fly-control>

-<https://nwdistrict.ifas.ufl.edu/phag/2016/05/06/horn-fly-control-for-beef-cattle/>

WHAT ARE THE HORIZONTAL HOLES ON MY TREES?



Sap suckers, a close relative of woodpeckers, cause damage to trees that is often attributed to wood boring insects. They visit a tree many times, feeding on sap accumulated in the holes they have drilled. Sap sucker damage appears as rows of holes circling or running vertically on the trunk or larger limbs of the tree. This contrasts with emergence holes of borers that occur in a random pattern on the trunk or in limbs of a tree. Contrary to popular belief, these birds rarely, if ever, dig through bark to capture wood-boring insects, but rather feed on cambium and sap in the phloem. The tree species most attacked by sap suckers are pine, sugar maple, birch, willow, magnolia, apple, and pecan.

In Oklahoma, the yellow-bellied sap sucker is the most common species that damages trees. They winter in the South and spend the summer in the northern part of the United States. Thus, they often cause damage during their migrations in the spring through early summer, and again in fall in Oklahoma.

Control

Woodpeckers are classified as migratory, non-game birds and are protected by the Federal Migratory Bird Treaty Act, so killing them is out of the question. To protect trees from sapsuckers, wrap barriers of 1/4-inch (0.6-cm) hardware cloth, plastic mesh, or burlap around injured areas to discourage further damage. This method may be practical for protecting high-value ornamental or shade trees. In orchards and forested areas, it may be best to let the sapsuckers work on one or more of their favorite trees. Discouraging them from select trees may encourage the birds to disperse to others, causing damage to a greater number of trees.

Frightening Devices

Visual: Stationary model hawks or owls, fake and simulated snakes, and owl and cat silhouettes are generally considered ineffective as repellents. Toy plastic twirlers or windmills fastened to the eaves, and aluminum foil or brightly colored plastic strips, bright tin lids, and pie pans hung from above, all of which repel by movement and/or reflection, have been used with some success, as have suspended falcon silhouettes, especially if put in place soon after the damage starts. The twirlers and plastic strips rely on a breeze for motion. Large rubber balloons with owl-like eyes painted on them are included in the recent array of frightening devices used to scare woodpeckers. A good deal of attention has recently been given to round magnifying-type shaving mirrors installed over or adjacent to damaged areas to frighten woodpeckers with their larger-than life reflections. Success is sometimes reported by those using the method and this encourages further testing.

WHAT ARE THE HORIZONTAL HOLES ON MY TREES? CONT.

Sound: Loud noises such as handclapping, a toy cap pistol and banging on a garbage can lid have been used to frighten woodpeckers away from houses. Such harassment, if repeated when the bird returns, may cause it to leave for good. Propane exploders (gas cannons) or other commercial noise-producing, frightening devices may have some merit for scaring woodpeckers from commercial orchards, at least for short periods. Because of the noise they produce, they are rarely acceptable near inhabited dwellings or residential areas. Around homes, portable radios have been played with little success in discouraging woodpeckers. Expensive high-frequency sound-producing devices are marketed for controlling various pest birds but rarely provide advertised results. High-frequency sound is above the normal audible hearing range of humans but, unfortunately, above the range of most birds too. Woodpeckers can be very persistent and are not easily driven from their territories or selected pecking sites. For this reason, visual or sound types of frightening devices for protecting buildings — if they are to be effective at all — should be employed as soon as the problem is identified and before territories are well established. Visual and sound devices often fail to give desired results and netting may have to be installed.

Repellents

Taste: Many chemicals that have objectionable tastes as well as odors have been tested for treating utility poles and fence posts to discourage woodpeckers. Most have proven ineffective or at least not cost-effective.

Odor: Odors such as from naphthalene (mothballs) and wood treatments, such as creosote and pentachlorophenol, are of doubtful merit and do not resolve the woodpecker problem.

Tactile: Sticky or tacky bird repellents such as Tanglefoot®, 4-The-Birds®, and Roost-No-More®, smeared or placed in wavy bands with a caulking gun on limbs or trunks where sapsuckers are working, will often discourage the birds from orchard, ornamental and shade trees. These same repellents can be effective in discouraging birds if applied to wood siding and other areas of structural damage. A word of caution: some of the sticky bird repellents will discolor painted, stained or natural wood siding. Others may run in warm weather, leaving unsightly streaks. It is best to try out the material on a small out-of-sight area first before applying it extensively. The tacky repellents can be applied to a thin piece of pressed board, ridged clear plastic sheets, or other suitable material, which is then fastened to the area where damage is occurring.

Trapping

Live traps have been tried in attempts to capture woodpeckers for possible relocation rather than killing the birds. None of those explored were very successful, and more research is needed to develop an effective woodpecker live trap.

REFERENCES: David Hillcok-Extension Specialist, Consumer Horticulture: Horticulture Tips

DID YOU KNOW?



Blossom end rot is technically a calcium problem, but it actually happens because there is not enough or not consistent water available for the plant to transport available calcium into the fruit. Almost all soils have more than adequate calcium available without the addition of anything. When there is not enough water, leaves are able to pull available water into themselves more successfully than tomato fruit. When the sun shines off the plant, moisture is given off the plant during transpiration which cools the plant and prevents burning. Soft tomato leaves have more transpiration going on than tomato fruit with tough, leathery skin. When there is not enough available ground moisture, the leaves win every time. When plants begin making fruit, there might be one or two defective fruit as the plant adjusts. Water is missing if this is happening more frequently.

Put water all the way around the plant and away from the stem, not just at the stem of the plant. Make sure soil is damp to a depth of at least 6 inches. If weather is exceptionally hot, it may be necessary to mulch the soil with straw to slow top evaporation.

REFERENCES: https://www.canr.msu.edu/news/four_common_lawn_and_garden_myths

MANAGING MIXED FORAGE PASTURES

As pasture stands mature, especially monocultures, they tend to become a complex mixture of plants or polyculture of plants that have become adapted to a specific area and management style. These polycultures may contain a mixture of grasses and legumes. Some producers may look to re-establish these pastures and maintain a pure stand. Others may work to optimize the management of these mixtures to better fit their existing operation. Listed below are a few ways these mixed forage resources can be managed to better meet operational needs.

Liming – In a mixed pasture stands, adding lime to a soil with a low pH would tend to encourage any existing clover. If lime is not applied, acid tolerant species tend to be present in greater quantities. Lime also makes other nutrients in the soil more available to the plant. If pastures need lime as indicated by a soil test, then lime should be the first thing applied.

Soil Fertility – Improved grasses and legumes need good soil fertility to persist and be productive. If soil fertility is low, it will favor species that are more efficient at extracting and using nutrients from the soil. Application rate and timing of nitrogen can also be used to shift the species composition of pastures. Nitrogen fertilization will tend to encourage grass growth shifting the composition toward grasses and away from legumes. Early spring and late summer applications will encourage cool-season grass growth. In contrast, late spring and summer applications will shift the mixed pasture stands toward crabgrass and bermudagrass.

Grazing management and Forage Plant Growth – After grazing or cutting, plants need energy to regrow. In grasses this energy comes from two places. The first is the leaf area remaining after defoliation. The remaining leaf area is like a solar panel that captures sunlight and converts it into energy (sugars and carbohydrates) that the plant can use for regrowth. The more leaf area that is left, the larger the solar panel and the faster pastures will recover. The second place that energy comes from for regrowth is stored carbohydrates. The location of these stored energy reserves depends on the plant species. Grasses that store their energy in the stem base or crown are less tolerant to close and frequent grazing compared to grasses that store their energy in stolons and rhizomes that are safely below the grazing height of livestock. Resting pastures allows the leaf area to regrow and carbohydrate reserves to be restored.

Grazing Height – In our mixed pasture stands, close grazing will tend to favor grass and legume species that have leaf area and energy stores close to the soil surface. Close grazing results in a shift toward low growing species such as bermudagrass, bluegrasses, and white clover. A higher grazing height would tend to shift the pasture mix back toward tall growing cool-season grass species such as tall fescue and orchardgrass.

Grazing Frequency – Some species are more tolerant of frequent grazing. These species tend to have leaf area close to the soil surface that is maintained even under close grazing such as bermudagrass and white clover. This means that grazing mixed pastures closely and frequently will tend to shift the botanical composition toward these species.

Timing of Grazing – Grazing a mixture that includes both cool- and warm-season species during the summer months will tend to shift the botanical composition toward the warm-season species, especially during and after droughts.

Using Improved Varieties – These varieties may offer considerable benefits in terms of improved yield, animal performance, and persistence.

REFERENCES: Mike Trammel, SE Area Agronomist

UPCOMING EVENTS:

June 17, 2025: Ag Recordkeeping Workshop-11am-Antlers, OK

June 18, 2025- Ag Recordkeeping Workshop-11am-Hugo, OK

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