



Upcoming Events

K-State – KLA Ranch Management Field Days

August 13
Gates Angus Ranch
Coldwater

August 19
O'Brien Cattle Co.
Hepler

August 21
Ferguson Brothers
Kensington

(Details on Page 3.)

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Identifying type of fly essential to pest treatment

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Medical and Veterinary Entomologist

Flies can be annoying this time of year. There are lots of products on the market to cure your fly problems, but if you don't know what type of fly is giving you grief, you might not find your solution. The following information on flies should help you tackle fly problems.

House Flies

House flies do not bite. They are a nuisance and can transmit foodborne and animal pathogens. They generate brown or yellow spots on the walls and other surfaces where they rest (unlike stable flies that feed on blood and form dark red or black spots).



House fly

They are common from spring until late fall. House fly larvae can develop in any decaying organic substrate (garbage, spilled feed, manure) of any age. The development from egg to larva to adults takes only eight days under ideal conditions. They are pests on cattle in feedlots.

Control

Sanitation: The key to managing house flies is a good sanitation program that includes cleaning around feedbunks (spilled grain, unused hay, straw, silage), under fences and gates, and around water systems, and maintaining good drainage.

Baits: Many brands of baits are available for controlling house flies.

Residual sprays: These insecticides are sprayed on the surfaces of sites where flies rest — fences, walls of buildings, outside walls of feedbunks — and should be effective for about 5 weeks. They are available in several formulations: wettable powder (WP), microencapsulated, and emulsifiable concentrate. Examples include Tempo WP (cyfluthrin), Atroban, Ectiban, Permethrin (all permethrin), or Ravap (tetrachlorvionphos+dichlorvos).

Stable Flies

Stable flies (males and females) bite and suck blood of animals and people. They are very similar to house flies in appearance. The main difference is the proboscis, the piercing and sucking mouth part. They generate black or dark red spots on surfaces where they rest. Populations are usually highest in the spring, the second, smaller



Stable fly

peak may occur in the fall. On cattle, the primary biting sites are legs. Cattle react to stable flies by bunching and standing in water, which reduces feeding and negatively affects weight gain. The larvae develop in manure mixed with soil, straw, or hay as well as decaying spilled grain and fermenting grass clippings. Development from egg to larva to adult takes three to four weeks. They are important pests of feedlot and pastured cattle.

continued page 2

continued from page 1

Control

Controls for stable flies include good sanitation, as with house flies, and residual sprays. Baits or ear tags are not effective.

Horn Flies

Both females and males bite and feed on blood of animals. They are about a half the size of the house fly. Horn flies usually aggregate on the shoulders, back, and sides of animals. On hot days they move on the underside of the belly. Unlike most other flies they stay on the animal and leave only when disturbed or when females lay eggs into very fresh (several minutes old) animal feces. In Kansas, they are active from April to October. They are pests on pastured cattle.



Horn fly

Control

Ear tags: There are many brands of ear tags, all of them based on either organophosphate or pyrethroid active ingredients.

Recommendations for ear tag use

- One ear tag per animal is good enough. (The difference in efficacy between two versus one ear tag per animal is very small.)
- Not all animals need to be tagged to gain good horn fly control. Actually, tagging every third animal with one tag will provide good control. That's because horn flies move between animals and eventually will take blood from an animal that has been tagged.
- Rotate tags two years on organophosphates, then one year on pyrethroid, two years on organophosphates, and so on. Read the label and find out if the active substance belongs to the organophosphate or pyrethroid group.
- Control face flies only if they appear in very large numbers or if cattle have pinkeye infection caused by the bacterium *Moraxella bovis* that is transmitted by face flies.

Bayer Animal Health has introduced two new ear tags for controlling horn flies on beef and non-lactating cattle:

CyLence® Ultra contains 8 percent pyrethroid called *beta-cyfluthrin* and 20 percent synergist chemical piperonyl butoxide. This can be used for control of pyrethroid-susceptible horn flies, and it should help to manage face flies. Cost: \$1.50 per tag.

Co-Ral® PLus is based on two organophosphates, *diazinon* (20 percent) and *coumaphos* (20 percent). This ear tag should control horn flies, including pyrethroid-resistant horn flies and ticks (Gulf coast tick, Spinose ear tick). Cost: \$1.50 per tag.

Other Horn Fly Control Methods

Animal sprays: Co-Ral (coumaphos), Atroban, Ectiban, Permethrin (all permethrin), Rabon (tetrachlorvinphos), Ravap (tetrachlorvinphos +dichlorvos).

Pour-ons: CyLence (cyfluthrin), Ivomec Pour-on (ivermectin), Saber Pour-on (lamdacyhalothrin), many brands of permethrin.

Dust bags: Co-Ral (coumaphos), Rabon (tetrachlorvinphos), many brands of permethrin.

Backrubbers: Co-Ral (coumaphos), Ravap (tetrachlorvinphos+dichlorvos).

Oral larvicides: There is no convincing evidence that these products effectively manage fly populations.

Follow product directions for use and safety for all fly control products. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. Additional information can be found in the publication *Managing Insect Problems on Beef Cattle*, C-671, available on the Internet at www.oznet.ksu.edu/library/ENTML2/C671.PDF or from your local K-State Research and Extension office.

Lepto and reproductive problems in cattle

Larry C. Hollis, DVM
Beef Veterinarian

At the recent "Investigating Pregnancy Wastage in Cattle Herds" conference held at the College of Veterinary Medicine at Kansas State University, Lepto researcher Dr. Carole Bolin gave an interesting update on leptospirosis. She said *Lepto hardjo*, not *Lepto pomona*, was the most common cause of leptospirosis in cattle. However, the *Lepto hardjo* she referred to is not the one contained in any of the popular 5-way Lepto vaccines. The *hardjo* strain used in current U.S. vaccines is *Leptospira interrogans* serovar *hardjo*, a strain that causes leptospirosis primarily in the United Kingdom. The primary *hardjo* strain that causes leptospirosis in the United States and the rest of the world is *Lepto borgpetersenii* serovar *hardjo* (*hardjo-bovis*).

She said *hardjo-bovis* enters the body through any non-haired surface and infects the kidneys and reproductive tracts of males and females. It can cause classic Lepto signs such as late-term abortions, stillbirths, weak calves and retained placentae; however, abortion storms are usually seen only upon initial infection in naïve cows.

Infected animals often develop a chronic kidney infection and shed the organism in their urine. They also develop a persistent reproductive tract infection, allowing the infection to act like a venereal disease and be mechanically transmitted during breeding. Following initial infection, *hardjo-bovis* abortions become more sporadic and the disease becomes subclinical in the herd where it shows up as either infertility (low pregnancy rates, early embryonic deaths, delayed return to heat, etc.) or results in clinically normal, infected calves.

Diagnosis of *Lepto hardjo-bovis* is dependent on a good clinical and vaccination history and laboratory testing. Bolin emphasized that coordination between producers, their veterinarians and the diagnostic laboratory is necessary to maximize the chance of making a diagnosis. If you have unexplained reproductive problems in your herd, check with your veteri-

narian to see if *Lepto hardjo-bovis* might be the cause, and follow treatment or vaccination guidelines. Remember that Lepto from animals can infect and cause disease in humans.

Ranch field days set

K-State Research and Extension and the Kansas Livestock Association will conduct three ranch management field days in August. The first will be held August 13 at Gates Angus Ranch near Coldwater. O'Brien Cattle Company of Hepler will host the August 19 field day. The site for the third event, August 21, will be Ferguson Brothers near Kensington.

The field days will start late in the afternoon, include educational sessions pertaining to each specific operation and close with a complimentary meal. The K-State/KLA Ranch Management Field Days are made possible by sponsorships from Bayer Animal Health and the Farm Credit Associations of Kansas.

Program details will be available from Twig Marston, KLA, or your local K-State Research and Extension office.

Kuhl retires

Gerry Kuhl, Ph.D., beef specialist in nutrition and management, retired in June after 22 years of service with K-State. A native of Michigan, he grew up on a diversified farming operation and received his B.S. degree from Michigan State University in 1967. Kuhl earned his M.S. and Ph.D. degrees in animal nutrition from Cornell University.

Kuhl joined K-State's Department of Animal Sciences and Industry in 1981 after serving in the Army Medical Corps and at South Dakota State University. Kuhl was responsible for statewide extension programs in stocker and feedlot nutrition and management related to growth, energetic efficiency, and profitability. He has been a valuable member of the beef extension group, and his contributions will be missed.

Kansas Feedlot Performance and Feed Cost Summary*

Gerry Kuhl, Feedlot Specialist, Kansas State University

May 2003 Closeout Information**

| Sex/No. | Final Weight | Avg. Days on Feed | Avg. Daily Gain | Feed/Gain (Dry Basis) | % Death Loss | Avg. Cost of Gain/Cwt. | Projected Cost of June - Placed Cattle |
|----------------|--------------|-------------------|---------------------|-----------------------|--------------|--------------------------|--|
| Steers/12,481 | 1,232 | 152 (126-199) | 3.29 (2.64-3.56) | 5.70 (5.28-6.24) | 1.07 | \$52.60 (50.04-57.58) | \$50.80 (48.00-53.00) |
| Heifers/25,720 | 1,113 | 154 (140-190) | 2.97 (2.66-3.15) | 5.92 (5.47-6.12) | 1.44 | \$56.35 (54.52-58.43) | \$53.20 (50.00-55.00) |

Current Feed Inventory Costs: Mid-May 2003

| | Avg. Prices | Range | No. Yards |
|--------------------|-------------|----------------|-----------|
| Corn | \$ 2.80/bu | \$ 2.65-3.25 | 6 |
| Ground Alfalfa Hay | \$96.14/ton | \$80.00-115.00 | 6 |

K-State, County Extension Councils, Extension Districts, and U.S. Department of Agriculture Cooperating.

All educational programs and materials available without discrimination on the basis of race, color, religion, national origin, sex, age, or disability.

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