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The flies of summer

I've been battling flies ever since we raised hogs. I cannot go to bed at night if there is a fly in the house, perhaps that makes me obsessive.

The face flies, stable flies and horn flies on our cattle and horses are excessive this year. If you see cattle in the pastures, in the ponds, when it's only 70 degrees, it's probably because of horn flies.

You also might see them herded all together to combat flies, swishing their tails for the benefit of the group. These are the three main pests:

1. The horn fly is a small blood-feeding fly found on the shoulders, back, and belly region of cattle. They take some 24 to 38 blood meals per day. Females deposit eggs in fresh cow manure where the complete life cycle, egg to adult, can be completed in 10 to 20 days during warm conditions. In Kansas, there are multiple generations during the fly season, which can lead to extremely high fly numbers in late August and early September. The face fly is a robust fly that externally resembles the house fly. It is a non-biting fly that feeds on animal secretions, nectar, and dung liquids. Adult female face flies usually cluster around the animals' eyes, mouth, and muzzle, causing significant irritation. They also congregate around wounds caused by mechanical damage or other injuries to feed on blood and other fluids. Since face flies are on the animals for only short time periods, they are difficult to control. Most of the time, they are found in shaded areas resting on plants, fence posts, and other objects. Stable flies are blood-feeding flies, mainly feeding on the legs of cattle. To avoid being bitten, animals stomp their feet and switch their tails. Other avoidance behaviors include standing in water, lying with legs tucked underneath, and bunching at the corners of pastures. Horn fly -control options are many; backrubbers (oilers), dust bags, insecticide ear tags, pour-on, oral larvicides (IGR's), low-pressure sprayers, mist blower sprayers, and the VetGun™. Backrubbers (oilers) and dust bags can be an effective way to reduce horn fly numbers if cattle are forced to use them; if used in a free-choice arrangement, expect between 35 –50 percent less control. Insecticide ear tags are a convenient method of horn fly control if applied at the correct time frame. Animal sprays, mist blower applications, and pour-on products will provide 7-21 days of control and will need to be re-applied throughout the fly season.

Oral larvicides (IGR's) prevent fly larvae in manure pats from developing into adults. An important factor when using an oral larvicide is ensuring steady consumption. An additional complicating issue when using an oral larvicide is horn fly migration from neighboring untreated herds, which can mask the effectiveness of an oral larvicide (IGR). The Vet Gun™ applies an individual capsule of insecticide to an animal using a device similar to a paintball gun and can provide horn fly control between 21 and 35 days.

2. Face Fly Control is maximized when the cattle receive daily insecticide applications by either dust bags, oilers, sprays, or an insecticide-impregnated ear tag/strip. Ear tags/strips should be applied at the label recommended rate. Both cows and calves must be treated if control is to be achieved. Pinkeye vaccines are available and should be considered if face flies and pinkeye have been a recurring problem. Currently, commercial and autogenous pinkeye vaccines are available; please check with your local veterinarian about the use of these products in your area.
3. Stable Flies-The only option available for the control of adult stable flies on range cattle is sprays. Sprays can be applied using a low-pressure sprayer or can be applied with a mist blower sprayer. Weekly applications of these products will be required to achieve reduction in fly numbers. Sanitation or clean-up of wasted feed at winter feeding sites may reduce localized fly development. If sanitation is not possible, these sites may be treated with a larvicide (Neporex®). But, the application of either procedure may not reduce the economic impact of stable fly feeding.

David G. Hallauer
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Managing Fungicides to Combat Resistance

As summer field crops continue to develop, disease management becomes a greater concern. Southern rust was reported in corn just last week in northeast Louisiana. Does that mean it's imminent? Nope. Does it mean we need to be on the lookout? Absolutely.

Part of being on the lookout for a disease often means planning ahead for a potential fungicide application. While we may see southern rust in northeast Kansas this summer, there's certainly a possibility we won't as well. That's why disease trackers like the Pest Information Pipeline for Extension and Education (corn link: <https://corn.ipmpipe.org/>) are so important. They not only tell us what might be coming, but what might not get here as well. That's a big help when it comes to making an economic decision like applying a fungicide. It can also be a big help towards helping reduce fungicide use that can contribute to disease.

Now is a great time to initiate disease scouting, particularly in corn. Much of the corn crop is in the 10 to 14 leaf stage, meaning we could be flowering in as little as two weeks. Don't know what that lesion on the leaf might be? Check out *Diagnosing Corn Production Problems in Kansas* (<https://bookstore.ksre.ksu.edu/pubs/S54.pdf>). I have a handful of copies as well. E-mail me if you are interested at dhallaue@ksu.edu. Next week: fungicide resistance?

Squash Bugs

Time for my annual 'heads up' on one of our most hated garden insect pests: squash bugs. Remember what they look like? Grey, with a hard, shield-shaped back. They feed on squash and pumpkin plants, resulting in unhealthy plants and loss of production. By the time you notice the adults, they are almost impossible to control. That means it's time to scout.

First-generation eggs and nymphs may be present now; with the second generation, they often create the one that wreaks havoc on squash family plants. Identification/control are key.

Squash bug eggs are brick-red in color. The nymph stage will be a small green insect with black legs. Both will be found on the backside of the leaves.

Implementing a control program now can be a huge deterrent to bigger problems later. Insecticides must come in direct contact with the insect to be effective, meaning you must spray/dust the underside of the leaves. Products like permethrin, malathion, and methoxychlor provide control if a direct application is made to young, soft-bodied squash bugs.

Want more information about squash bugs control? Check out our *Squash Bugs* publication available at <https://www.bookstore.ksre.ksu.edu/pubs/MF3308.pdf> or by request from District Offices. A list of common homeowner products is also available upon request.

Cindy Williams
Meadowlark Extension District
Food, Nutrition, Health, and Safety

Spending Less—Getting More with Frugal Foods

During the coronavirus pandemic, it has become even more important to find ways to get the most for your grocery dollars. Building meals based around the most low-cost, health-promoting foods is one way to cut costs while still providing proper nutrition for our families. So what are some of those “frugal foods”?

The following foods are among the least expensive, great-tasting, and most health-promoting foods available. They offer great taste while packing a nutritious punch. Try them for breakfast, lunch, supper, and snacks.

Apples and bananas. They are a perfect on-the-go snack. Both are satisfying and a sweet nutritional powerhouse that can be eaten raw or cooked in a variety of ways. Eat one alone or add to salads, desserts, and baked goods.

Beans. Beans offer dietary fiber, protein, and antioxidants that help fight disease. Canned beans cost about 30-35 cents per serving. Dry varieties that you cook yourself cost even less. Serve them as a main dish, side dish, or healthy addition to a soup or salad. Keep them on hand to pack into brown bag lunches and to make quick suppers.

Brown rice. With a slightly nutty taste, brown rice is a fiber-rich whole grain that is more nutritious than white rice. Brown rice can be served with cinnamon and milk for breakfast, used to complement a variety of entrees, and as a flavorful addition to soups, stews, casseroles, and salads.

Canned tomatoes. Canned tomatoes make an excellent base for countless main dishes, dips, sauces, soups, stews, and chili. Tomatoes are rich in vitamin C and lycopene (two healthful antioxidants). Buy them without added salt, if possible.

Canned tuna. Tuna offers high protein at a low cost. The versatile fish is a source of vitamin D, low in calories and fat, and lends itself to sandwich fillings, salads, and main-dish casseroles. Tuna is also a good source of heart-healthy Omega-3 fatty acids.

Eggs. Eggs are a relatively inexpensive high protein food. Boiled, fried, or scrambled—eggs cook quickly. They are perfect for breakfast, lunch, or supper. For variety, try French toast, huevos rancheros, or egg salad.

Fat-free milk. A natural convenience food, fat-free milk offers a healthy dose of vitamin D, calcium, protein, and potassium. Milk is essential in building and maintaining healthy bones. Serve fat-free milk as a beverage with meals and snacks and use in soups, smoothies, and desserts.

Kale. Kale is one of the least costly green vegetables you’ll find. Kale is easy to serve stir-fried with a small amount of vegetable oil and garlic, lightly steamed, or as a colorful addition to salads. Kale is even good used as a topping on home-made pizza, or in green smoothies.

Potatoes. While potatoes and sweet potatoes are satisfying and are high in dietary fiber, vitamin C, and potassium. They can be baked, steamed, boiled, mashed, pan or oven-fried, roasted, or added to soups, stews, and casseroles.

Rolled oats. At just a few cents per cup, rolled oats are a heart-healthy whole grain with 4 grams of dietary fiber. Rolled oats also offer complex carbohydrates that break down slowly to provide lasting energy and stave off mid-morning hunger. A perennial hot-cooked cereal, oats also can be included in such foods as breakfast bars, bread, rolls, cakes, cookies, meatloaf, and more.

Do you need to get the most from your food dollars? Building meals and snacks around these “frugal foods” help ensure proper nutrition for your family yet allows you to spend less on trips to the grocery store.

Nancy Nelson
Meadowlark Extension District
Family Life

The Role of Disinfectants

We've been hearing a lot about disinfectants lately. Wipes and sprays are in high demand and frequently recommended for protecting us from illnesses like the novel coronavirus. The American Cleaning Institute® explains what they are and what they do.

Cleaning is a great way to remove dirt and germs from surfaces. Disinfectants go a step further and kill the germs on that surface. They work best on hard, non-porous surfaces and can dramatically lower the risk of infection.

When using a disinfectant, you'll need to clean first, then apply the product and give it time to work. The surface needs to stay wet for the entire time indicated on the product label; this is called contact time.

June is National Safety Month and a good time for a reminder that these products should be used and stored with care. Don't mix them with other cleaning products and find a place to store them that's up and out of sight of children.