

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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Pesticide Safety and IPM website

The pesticide safety and integrated pest management website can be found at www.ksre.ksu.edu/pesticides-ipm. This site contains information about how to order study manuals, upcoming training opportunities for commercial applicators, and information about laws and regulations. I encourage you to take a minute to take a look and let me know if there should be anything else posted that will help you assist your clients. –Frannie Miller, fmiller@ksu.edu

Frannie Miller

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K-State Research and Extension to Host Commercial Pesticide Applicator Training

MCPHERSON, Kan. - Kansas State University Research and Extension will host commercial pesticide applicator recertification training this year in Hays [Nov. 9-10](#) and Manhattan [Nov. 12-13](#).

"These training sessions are for a wide array of individuals who have become licensed to apply pesticides to someone else's property for compensation. This applies to farmers who spray for their neighbors, residential pesticide applicators, the KDA personnel who control noxious weeds, and many others," said Frannie Miller, coordinator of K-State's Pesticide Safety and Integrated Pest Management Program.

To renew their certification in Kansas, individuals can either study a manual and pass an examination or attend training courses approved by the Kansas secretary of agriculture. Each applicator must accumulate the needed number of credit hours for his or her particular certification category.

The training provides practical updates, as well as helps commercial pesticide applicators meet state requirements, Miller said.

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The Hays training will be at the Fort Hays State University Memorial Union, starting with registration at 11:30 a.m. and the program at noon. The Manhattan training will be at the Clarion Inn Hotel, 530 Richards Drive, starting with registration at 7:30 a.m. and the program at 8 a.m.

Miller, who is based in McPherson, said other specialized training sessions are also on the books. Aquatics training will be **Nov. 19** at the McPherson County Extension Office. Wildlife damage control training is **Dec. 3** at the Ford County Fair Building in Dodge City.

More information about the **November** training sessions in Hays and Manhattan, as well as other upcoming training opportunities is available by accessing the Web at <http://www.ksre.ksu.edu/pesticides-ipm> or calling Miller at 620- 241-1523.

Story by: Mary Lou Peter; KSU Communications Specialist

Submitted by: Frannie Miller

Lies My Father Told Me Spiders

Cinematic version: a sensitive drama regarding a young Orthodox Jewish boy growing up in Montreal in the 1920's. Bauernfeind daughters' version: growing up in the 1980's in Hutchinson, "But Dad said that they were just grass spiders!"

Sometimes a lie is appropriate. Rather than scare my daughters and cause my wife concern, "grass spiders" was more acceptable than "brown recluse spiders". It wasn't until (maybe about) 2003 when my youngest daughter (then 23) asked me about the spider next to the light switch in her bedroom. Well, truth finally prevailed. We had lived along side brown recluse spiders both in our "older" Hutchinson residence and newer (built in 1993) Manhattan home.

For many people, the mere mention of a brown recluse spider (BRS) sends a shiver up and down their spine. This is because they have read about severe reactions or viewed horrific images related to BRS bites (keep in mind that some of the gruesomeness of those images is attributable to accompanying necrotizing bacteria and pyoderma gangrenosum --- I had to look up the latter). To the contrary, however (as reported in a credible source), more than 90% of BRS bites are medically insignificant. This does not mean that a person should be dismissive of potential effects, but rather, bear in mind that "the sky is not falling" ---- that we do not have to run in fear.

There reportedly are 13 species of *Loxosceles* "brown spiders" in the United States. In particular, the brown recluse spider, *L. reclusa* is the most widely distributed species. All but the most western portion of Kansas is within what is considered their natural range. Their native habitat is outdoors where they actively hunt for their

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food ----- preferably soft bodied insects ----- during the evening hours. At the first light of day, they seek cover in secluded areas (under piles of debris, wood, logs, rocks, etc). Their outdoor habits follow them into manmade structures, and thus, they hide by day and hunt by night. Indoor haunts include dark secluded areas such as closets, attics, cellars, basements, crawl spaces, venting systems and wall voids. They also seek out clutter and “layered spaces” such as boxes, papers, furniture, clothing, blankets, anything-providing-cover.

Fortunately, brown recluse spiders are shy creatures (again hiding by day) and are not aggressive. They will only “defensively” bite if provoked. Such incidences are accidental encounters where “hiding spiders” are “pinched” such as when putting on items of clothing, hats, gloves, thrusting hands into pockets and/or rolling over a spider while asleep. Accidental bites may also be incurred while unpacking storage boxes in which spiders have sought refuge.

The bite of a BRS may be painless (for instance, if one were sleeping). If awake, there might be (what is described as) a slight stinging sensation. What happens after-the-bite is dependent on several factors: the amount of injected venom, the sensitivity of an individual to the venom and a person’s overall stamina/health. Fortunately (as previously mentioned), most bites do not result severe reactions. A localized reaction might be as simple as a small ulcerous area requiring time to heal. A more severe localized reaction characterized by an expanding necrotic area might require surgical excision followed by a skin graft. The most severe case would be a systemic reaction with resultant symptoms such as jaundice, spleen enlargement, hemolysis and renal failure.

It is commonly accepted that many homes harbor brown recluse spiders (and by account of some PCO’s, all homes that they have serviced for various insect-related situations ---- always signs of brown recluse spiders from sighting the actual BRS or their cast skins). Introductions are achieved by spiders entering/migrating through openings such as structural cracks, ill fitting doors and windows and vents. People moving into newly constructed homes may introduce spiders in shipping boxes and crates or any items brought in from former residences. Once in, brown recluse spiders readily adjust to their new surroundings.

Initially, people may be unaware of spider presence due their secretive nature coupled with low population levels. But over time as spider populations build, they spread out/expand their territory. It is at this point that people may spot a spider (or two) as they are on-the-prowl.

So is it “a grass spider” or a brown recluse? Brown recluse spiders vary in size [small juveniles (less than ¼-inch leg span) to mature adults (when flattened out, a leg span exceeding 2-inches)] as well as in the color of their legs and abdomens. But there is a very definitive dark violin-shaped marking on the “head-end” of all brown recluse spiders (Figure 1). Another descriptor of the BRS is that they possess 3 pairs of eyes positioned in a semicircle pattern at the base of the violin (also seen in Figure 1).

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Figure 1

Obviously a person should not pick up a live specimen in order to examine it. Rather, capture the spider in a container with a lid. Place the container in your freezer overnight. Then examine the “dead” spider.

So what should a person do if they know that there are brown recluse spiders in their homes? It depends on individual tolerance levels. I have known that (for the past 31 years) my family and I have shared space with these shy and reclusive creatures.

Simply, as I encounter them, I gather them up, walk them outdoors and release them a good distance away from my home (or more recently, take them to our Insect Zoo for display purposes). Some people might destroy them on sight. Others yet may open and inspect every box in their home, shake out every article of clothing hanging in their closet, clean out dresser drawers, tidy their homes in attempts to eliminate harborage sites and so forth. This being done **does not guarantee** that the situation has been rectified. Remember that brown recluse spiders exploit secretive areas in the home which are confining and difficult to inspect (attic areas) or to which there is no access (such as vents, duct work and wall voids).

The use of sticky traps (“Roach Motels”) or mouse glue boards is a favorite tactic for ensnaring crawling critters (including brown recluse spiders). Preferably place traps in “dark” areas that might provide favorable resting places for the BRS. Also remember that if you have pets, traps should be placed in out-of-bound areas.

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Personal experience: rather than purchasing any of the aforementioned sticky traps, I used what I had on hand -- the bottoms of pheromone wing-traps --- VERY THICK LAYER OF STICK-UM. Without thinking, I just set them out in an unfinished portion of our basement ---- and family dog Etta decided to take a nap on top of one -- -- she was a mess!

There are a number of “homeowner” insecticides (registered for indoor use) which list “spiders” on their product labels. However, they provide but minimal control of brown recluse spiders. If directly sprayed, spiders may die. But remember that most spiders are hidden during the daytime when a person is most likely to apply insecticide sprays. By the time the spiders emerge for their nighttime hunting forays, insecticide treatments will have dried, and spiders can cross treated areas with impunity. Contracting the services of Commercial Pest Operator may result in better control of brown recluse spiders ---- not because they necessarily have superior products, but rather they are trained to take their time to be thorough in their work, and they recognize and treat areas that the homeowner might not have considered. But even their best efforts will fall short of eradicating brown recluse spiders.

More information on brown recluse spiders is available in Extension Publication MF-771,

Pests That Affect Human Health: Spiders and Scorpions. Extension publications are available in County Extension Offices, or electronically available (www.ksu.edu/entomology) Once on the Entomology Department’s Home Page, click on Extension, than Publications ----- enter the publication number.

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Sincerely,

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