

Pest Management News

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Paper Wasp Management around the Home

John D. Hopkins

“Paper wasp” is a term that commonly refers to members of the vespid subfamily Polistinae. These insects are long-legged, reddish brown to black insects and may have differing degrees of yellowish or brown striping. Their abdomens are slender and spindle-shaped. Paper wasps should not be confused with mud dauber wasps that also occur around the home. Mud daubers are dark blue/black metallic colored wasps that build mud nests and are not prone to sting. Paper wasps, while not as aggressive as hornets or yellow jackets, will readily sting in defense of their nests.

Before beginning a scorched earth campaign against all paper wasps on your property, remember, paper wasps are actually beneficial insects. They are predaceous on other insects that we consider pests in the home vegetable garden or of ornamental plants and turf around our homes. On the other hand, unlike honeybees, wasps can sting a victim multiple times and do not lose their stinger in the stinging process as honey bees do. If a wasp nest is located in an area frequented by people and presents a stinging hazard, it should be eliminated, especially if someone in the home is allergic to stings. Wasp, hornet, yellow jacket and honey bee stings can be life-threatening to persons who are allergic to the venom. People who develop hives, difficulty breathing or swallowing, wheezing or similar symptoms of allergic reaction should seek medical attention immediately upon being stung. First aid



treatment for stings from wasps and other stinging insects can be seen by going to the following link:

<http://www.nlm.nih.gov/medlineplus/ency/article/002857.htm>

Additional information about wasps including stings and the associated wasp venom can be obtained through the link below.

<http://science.howstuffworks.com/zoology/insects-arachnids/wasp3.htm>

The wasp lifecycle begins when a female paper wasp queen emerges from a sheltered overwintering site in the spring and begins to build her grey, papery, umbrella shaped nest under eaves/overhangs, in window sills, in open barns, etc. Once the first few cells have been constructed, tiny, whitish, sausage-shaped eggs are laid. These eggs will hatch in a few days. This queen wasp will feed chewed-up prey insects to her young wasp larvae until they seal their cells and become pupae. Once enough new female worker wasps have emerged, they take over the duties of food collection, nest construction, and defense. The queen, in the meantime, remains with the nest producing more offspring. During the late spring and summer the nest may enlarge to 6-8 inches in diameter with increasing numbers of wasps. A typical colony normally contains fewer than 25 wasps, but late in the season, the number may swell to over 100. This is the time when the greatest stinging risk exists. In the early fall, the colony produces males and special reproductive female wasps.



These reproductive females, which constitute next year's queens, mate with males and soon leave the nest in search of protected sites where they spend the winter. The remaining worker wasps eventually die and the nest becomes vacant. The old nest is not reused the following year.

Overwintering wasp queens seek shelter in hollow trees, under bark, in wood piles, attics, chimneys, barns, under siding, etc. On any warm day, the wasps may become active and fly about. If they have been resting in an attic, wall void or crawlspace, the wasps may be attracted to light coming through a gap in the baseboard, or a wall fixture, or around a heater vent, and emerge inside the home or building. Once inside a dwelling, the wasps may be found crawling around on the floor or furniture, or they may be attracted to light shining through windows. Since there is no nest or young to defend, the only real danger of being stung is from accidentally stepping on or pressing against one.

Spring through early summer is the best time to consider controlling paper wasps around your home. At this time, nests are still small and have less wasps associated with them than later in the summer and thus the stinging risk is reduced. Mechanical methods are always a viable option for control. If the nest is just beginning with a single queen, a broom may be all that is needed to knock it down. Wasps that somehow enter a dwelling may be swatted, stepped on or vacuumed up. If these early season nests have gone unnoticed and have been allowed to become larger nests tended by many wasps, they may be more easily destroyed in the evening with a freeze-type aerosol insecticide that is labeled for "wasps or hornets". These formulations have an added advantage in that they often spray as far as 10 to 20 feet. Most wasp and hornet sprays cause insects to drop instantly when contacted by the insecticide so do not stand directly below a nest when applying this type of insecticide or you

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risk being stung. Some of the “Green Category” materials such as mint oil sprays and soap based products also provide adequate control of paper wasps outdoors. Following and insecticide treatment, wait a day to ensure that the colony is destroyed, then scrape or knock down the nest. This will prevent the development of secondary problems from carpet beetles, ants and other scavenging insects.

In homes, cracks and crevices should be sealed and attic vents should be properly screened to exclude overwintering queens. If wasps are already present in an attic or storage room, a total-release aerosol may be used on a warm day. Follow the product’s label instructions concerning the number of cans needed for the size area you are treating. **NEVER** exceed the number of recommended units and always be careful using these products near open flames or electrical sparks due to the risk of explosion.

For recommended residual surface spray insecticides, see the “Hornets, Mud Daubers, Wasps, Yellow Jackets” entry under the “HOUSEHOLD AND STRUCTURAL PEST CONTROL SECTION” in the current MP144 “Insecticide Recommendations for Arkansas.”

<http://www.uaex.edu/publications/pdf/mp144/m-household-pests.pdf>.

Bayer and Monsanto Reach Merger Agreement for \$66 Billion

Adapted from an article by Dillon Stewart in Landscape Management Direct, Sept. 14, 2016

John D. Hopkins

Following a lengthy negotiation process, Bayer (German / chemicals and pharmaceuticals) reached an agreement to acquire Monsanto (American / seed/plant biotechnology traits, and crop protection chemicals) with the deal reportedly being valued at \$66 billion. Bayer will take on \$57 billion in debt to finance the purchase, which is the largest-ever foreign acquisition by a German company. The accepted offer is \$4 billion more than Bayer’s initial offer on May 9th of this year. The merger will create one of the world’s largest agrichemical companies.

St. Louis-based Monsanto is an agricultural seed supplier, fertilizer producer and also produces a wide array of herbicides, most notably Round Up. Bayer is well-known for products in the areas of consumer health (Aspirin and Alka Seltzer), pharmaceuticals, crop science, and animal health. Following the merger, Monsanto and Bayer’s agriculture business, which focuses on seeds and traits, will be based in St. Louis, and its crop science headquarters will be based in Monheim, Germany.

The deal follows a trend among agriculture companies. Last December, DuPont and Dow Chemical, parent company of DowAgroSciences, agreed to merge, creating a company with a combined revenue of \$92 billion in sales. Then, in February, ChemChina acquired Syngenta for \$43 billion in cash pending regulatory approval. Monsanto itself had last year offered to buy Syngenta, but was rebuffed.



MONSANTO



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The Bayer/Monsanto deal will face U.S. and European regulatory scrutiny due to the control the new company will have over agricultural markets. However, in August, U.S. regulators approved the ChemChina-Syngenta merger, which faced similar regulatory concerns due to potential market overlap.

If the Bayer/Monsanto deal fails to pass regulatory hurdles, Bayer has agreed to pay Monsanto a break-up fee of \$2 billion.

The Bayer/Monsanto merger marks a dramatic reshaping of the crop and seed industry. A year ago, the sector had at least a half-dozen global players. The Bayer/Monsanto agreement creates a company with \$26 billion in combined revenue from agriculture alone and shrinks the number of global players to just four.

The merger will also mark a shift for Bayer with agribusiness replacing healthcare as its biggest revenue earner. Under the deal Bayer would get access to up to 2000 seed varieties for crops like corn, soybeans, and wheat. Bayer itself has already developed seeds for rice, cotton, and oilseed.

In the latest news, investors and analysts see a developing wall of regulatory and political scrutiny that will eventually kill the biggest merger of 2016.

Baiting Imported Fire Ants during the Fall

Kelly M. Loftin

During the summer, imported fire ant (IFA) activity may have gone unnoticed by many, even though colonies were present. Once rainfall returns, fire ant calls return. Following ample rainfall, colonies will become much more visible as the ants clean up and rebuild their colonies.

Is applying fire ant bait in the fall effective? Yes, as long as temperature do not get too cool baiting is effective. A good rule of thumb would be to apply fire ant baits prior to October 15, especially if north of Interstate 40. However during some milder falls, baits can be effective after that date. Fire ant baits should be applied when soil



Red imported fire ant colonies following recent rains.

temperatures are 60 degrees °F or above. When in doubt, determine if IFAs are actively foraging. Foraging activity is easily evaluated by placing small pieces of hot dogs or greasy potato chips in the area you plan on treating. Leave the hot dogs out for 15 to 30 minutes. If this bait is covered in fire ants you know they are actively foraging.

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Now is an excellent time to control imported fire ants in your garden or fruit/vegetable farm especially if you plan on using the insect growth regulators (IGR) methoprene (Extinguish®) or pyriproxyfen (Esteem®). Baits containing an IGR generally take longer to achieve the desired results, however if either of these baits are applied now you will notice a good level of control prior to gardening next spring.

A wider variety of baits are labeled for use around the home. Those listed above are approved as well as those containing, abamectin, hydramethylnon, indoxacarb and metaflumizone. Baits containing indoxacarb (Advion® Fire Ant Bait) and metaflumizone (Siesta™) are among the fastest-acting baits to enter the market. With these baits, foraging activity is significantly reduced 2 days after application and colonies controlled from 2-7 days following application. With increased speed in activity comes increased cost, both indoxacarb and metaflumizone baits are a more expensive than some of the other slower-acting baits. Older baits such as Amdro® (hydramethylnon) and Extinguish® Plus (hydramethylnon and methoprene) are still very effective and easy to find but may require a few weeks to achieve control.

Livestock producers have four choices of fire ant bait products that are labeled for use in pastures. Extinguish® (methoprene), Amdro® Pro (hydramethylnon), Extinguish® Plus (methoprene and hydramethylnon) and Esteem® (pyriproxyfen) are all labeled for use in pastures. Extinguish® and Esteem® are IGRs; Amdro® Pro is a slow acting toxin; and Extinguish® Plus is a combination of a slower-acting toxin and an IGR. Products such as Amdro® Pro and Extinguish® Plus provide control within about 3 weeks. The IGRs, Esteem® and Extinguish®, will provide control within a couple of months.

Should you broadcast or treat individual mounds? The best answer is to broadcast if the infestation is 20 or more colonies per acre. If less than twenty per acre, then treat individual colonies. In most cases we see over 20 colonies per acre. When baiting individual colonies remember do not apply



Foraging red imported fire ants on a hot dog.



Applying fire ant bait with a Herd seeder attached to an ATV.

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directly to the mound instead apply uniformly from 1 to 3 feet around the base of the mound. Also, never disturb the mound prior to treatment. It might make you feel better but generally decreases product efficacy.

On occasion, fire ants will forage inside structures which leads to the next question. Can you apply fire ant bait inside structures? Usually an effective bait application outside and particularly around the structure's perimeter will provide the necessary control. However, Amdro® Pro, Extinguish®, Extinguish® Plus and Ascend® Fire Ant Bait (abamectin) can be used inside structures but only under specific circumstances. These products are labeled for use in inaccessible areas such as cracks, crevices, wall voids, unfinished attics and crawlspaces of structures such as homes, commercial residences, commercial buildings and warehouses. Please consult the product label for more detailed information on indoor use.

Name That Weed

Bob Scott

This month's weed is a major problem for soybean if you have it. Although the advent of Roundup Ready and Liberty link soybean has made it easier to control, you can see by the seed size that it could easily contaminate a load of soybeans! A member of the soapberry (Sapindaceae) family it can be mistaken for morningglory or other vining/trailing annual herbaceous weeds. It gets its common name not from its distinctive black and white seeds as shown in the picture, but from the fruiting structures in which they develop. For a hint, check out page 276 of "Weeds of the South". This book replaced the big yellow three ring binders previously supported by the Southern Weed Science Society. If you don't have this book in your county or you are a new agent, never fear, help is on the way, just be sure and attend any upcoming Weed ID trainings that Tom or I are doing. PS-Yes sometimes all I get is a picture of the seed.



To The Readers

Please offer any suggestions for Urban or Livestock Integrated Pest Management topics (insect pests, plant diseases, weed problems, wildlife control problems) that you would like to see – **OR** – feel free to submit an article that you have prepared. Kelly and I will be glad to include it (subject to editing). Send feedback to jhopkins@uaex.edu or kloftin@uaex.edu

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