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## **Pest Check**

### **What Is Making You Itch This Summer?**

As we enjoy the warm outdoors, we need to protect ourselves from a small red mite, also known as a chigger. Chiggers develop through four life stages: egg, larva, nymph, and adult. Six-legged larvae hatch from the eggs and climb up onto vegetation, so they can crawl onto a passing host. This is the only stage that feeds on humans and animals. Chigger larvae prefer to bite people in places where clothing fits tightly over the skin such as around the waistline, under socks, or where the skin is thin or creased such as around the ankles or the back of knees. Chigger larvae insert their mouthparts into a skin pore or hair follicle, and then inject a digestive fluid to dissolve skin cells. This results in itchy, reddish welts on the skin. After feeding, the larvae drop off of the host to molt into eight-legged nymphs which then molt into adults. Chigger nymphs and adults feed on eggs of springtails, isopods, and mosquitoes. Under favorable conditions, most chiggers complete their development from egg to adult in 40 to 70 days.

#### **Suggestions for Prevention:**

Avoid sitting on the ground when camping, picnicking, or working outdoors. Wear tightly woven socks, long pants, long sleeved shirts, and high shoes. Also tuck pant legs inside boots and button cuffs and collars as tightly as possible to prevent chiggers from climbing inside your clothes. Apply repellents such as DEET or permethrin to both the skin and clothing. Powdered sulfur is another repellent that can be dusted around the opening of your pants, socks, and boots or rubbed on skin such as over legs, arms and waist.

#### **Suggestions for relief after exposure to chiggers:**

Wash clothes in hot, soapy water to kill chigger larvae. Take a hot bath or shower and soap repeatedly after chigger exposure. Creams or ointments such as hydrocortisone or calamine lotion can be applied to relieve itching temporarily.

### **Suggestions for Use of Insecticides:**

Chiggers sometimes become a problem in home lawns, so chemical control may be desirable. Insecticide sprays may provide some temporary reduction of chiggers and they are effective when applied in areas where chiggers and their animal hosts are living and/or roaming. Insecticides containing carbaryl, permethrin, cyfluthrin are some suggestions for control.



Photo of chigger bites. Photo by Michael Merchant, Professor and Extension Entomologist, Texas A&M University.

### **Summer Means A Time For Fleas**

Due to the warmer weather, flea populations are likely to increase. Fleas are around 1/8 inches in length, dark brown in color and have a wingless, flattened body. Adult fleas have mouthparts for piercing and sucking blood, so they can bite multiple times. Not only are flea bites irritating due to an itchy reaction, but fleas can also transmit diseases such as murine typhus.

Flea eggs are laid on a furred host after consuming the host's blood. The white round eggs fall off of the host onto the ground in the area where the host spends time and rests. Whitish, legless larvae hatch from eggs in 2 to 3 weeks. Fully developed larvae will then pupate by spinning a cocoon of silk that becomes covered with soil particles and debris. This protects the pupa and makes them hard to detect. Under optimum temperature and humidity conditions, fleas can complete their lifecycle from egg to adult in 30 to 75 days.

### **Non-Chemical Control Suggestions:**

Change pet bedding regularly and vacuum thoroughly. Vacuum under furniture, cushions, chairs, beds, and along walls. Make sure to discard vacuum cleaner contents at least once a week, since fleas can continue to develop inside vacuum cleaners.

### **Some Chemical Control Suggestions:**

**Treat your pets.** Treatments are available as sprays, spot-ons, pills or food additives for pets. Products designed for use on adult dogs should not be used on puppies or cats, unless specified on the label.

**Treating homes.** The pet's living area should be treated at the same time that the pet is treated. Citrus sprays containing d-limonene is one suggestion that can be applied to rugs, carpeting and pet bedding. Also, insect growth regulators such as methoprene and pyriproxyfen can be used indoors. Methoprene is unstable in sunlight so it is an effective indoor treatment. However pyriproxyfen sprays, can be applied both indoors and outdoors. Outdoors, treat areas where pets spend most of their time, such as bedding areas or under shade trees.

**Remember to inspect your pet regularly for fleas and carefully follow the label directions on the insecticide products!**



Photo of a cat flea, *Ctenocephalides felis* (Bouche) (Siphonaptera: Pulicidae). Photo by R. Meola, Texas A&M University.

### **Cicada Killer Wasps Emerging A Little Earlier this Year**

It is that time of year where we notice small holes in the landscape and large wasps flying around, such as the cicada killers that are 1 ½ inches in length. These wasps have black and yellow markings on their abdomens and brown wings. Adult cicada killers feed on flower nectar and sap. The female wasps are non-aggressive and rarely

sting unless disturbed. However, male cicada killers are aggressive and tend to defend nesting sites, but they lack a stinger so they are harmless.

The female cicada killers usually dig burrows in areas that are sandy, bare, and exposed to full sunlight. Each female captures at least one cicada (some collect two or three) and the wasp lays a single egg in the chamber before it is sealed off. The cicada killer larva then hatches and eats the cicada. It takes about a year for the entire lifecycle from egg to adult, so there is only one generation a year.

### **Some Control Options:**

#### **Non-Chemical Control Options:**

- 1) Apply fertilizers and water turfgrass to promote growth.
- 2) Also place mulch in flowerbeds and around shrubs to cover bare soil.

#### **Chemical Control Options:**

Control is usually not recommended, since this is considered a beneficial insect. Sometimes, these wasps can become a problem in high traffic areas around homes and in commercial areas such as around swimming pools, and golf course greens. If control is necessary, first the nesting sites should be located. One treatment option is to sprinkle 1 tablespoon of carbaryl dust into the burrow and then close the entrance of the burrow. Other suggestions for spray treatments that are labeled for wasp control include acephate, cyfluthrin, cypermethrin, permethrin, and resmethrin.



Cicada killer, *Sphecius speciosus* (Hymenoptera: Sphecidae).

## Are Fuzzy Caterpillars Safe To Touch?

It is true, that it is not wise to pick up a fuzzy caterpillar with your bare hands! Usually if the caterpillar has hairs or is brightly colored, they can harm you. These features are meant to protect them from predators. If a predator such as a bird or lizard eats a fuzzy or brightly colored insect, it either tastes bad, gives the predator an upset stomach, or hurts the predator in some other way. This causes the predator to avoid eating another one in the future. Some fuzzy caterpillars such as the Woolly Bears and Tussock Moth Caterpillars have urticating hairs. These hairs can irritate the digestive tract of their predators, and can irritate your skin feeling like fine cactus needles. Puss caterpillars or Asps are more painful when touched. They are blonde in color and extremely hairy. These caterpillars have poison glands that produce an itchy skin rash when touched and hypersensitive individuals may require medical attention.



Whitemarked tussock moth, *Orgyia* (= *Hemerocampa*) *leucostigma* (J. E. Smith) (Lepidoptera: Lymantriidae), caterpillar. Photo by Bart Drees, Professor and Extension Entomologist, Texas A&M University.



Puss caterpillar or "asp", *Megalopyge opercularis* (J. E. Smith) (Lepidoptera: Megalopygidae). Photo by Bart Drees, Professor and Extension Entomologist, Texas A&M University.

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