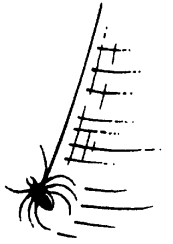


Spider Alert!



Few creatures are feared as much as spiders. There are over 3,000 different kinds of spiders in this country. Fortunately most of them can't penetrate our skin with their fangs. When they do bite people they either inject no venom or not enough to affect us. Keep in mind, spiders do not actively seek out people to bite.

Nevertheless, there are two types of spider venom that sometimes cause a serious reaction. The black widow and it's cousins have a **neurotoxic venom**. This kind of venom can cause pain as well as muscle cramping, sweating, weakness, and breathing difficulties. Fortunately, fatalities are extremely rare.

Brown recluse spiders (and possibly hobo spiders) have a **cytotoxic venom** that can result in a necrotic (ulcerating) wound that is slow to heal. Bites from these spiders is much less common than it might seem. Recent research shows that many people who think they have been bitten by this kind of spider have not been. There are other things that can cause a necrotic wound. They include bites from other pests, as well as conditions completely unrelated to pests, such as certain kinds of bacterial and fungal infections, gangrene, and ulcers from diabetes or bed sores.

Recent evidence shows that the common yellow sac spiders, which many

people believed caused necrotic wounds, don't cause those wounds at all; their toxin is neurotoxic.

We are the area experts at spider control. Keep in mind that reinfestations occur when young spiders catch a breeze and use it to "parachute" to your home on a silk strand. Also, some spiders are "hunting spiders" that don't wait for prey to come to them; these occasionally wander indoors.

Pest Prevention Tip of the Month

Help reduce your home's "curb appeal" to wandering rats and mice by: 1) removing dense landscaping or trimming up plants so the area under them is exposed, 2) keeping lawns and weedy areas trimmed, 3) daily picking up fallen fruit and garbage, and 4) cutting branches that nearly touch the house.

Common Indoor Fly Problems

We are often asked about flies and where they breed. The answer depends on the kind of fly, because many different types of flies come indoors, and each kind breeds in a very different place. Here are some common indoor flies.

There is a fly called the *common house fly*. It breeds in nearly anything moist and decaying, from food products to garbage to animal droppings. *Flesh flies* are larger and slower than these, and they breed in dead snails and animal carcasses. *Cluster fly maggots* develop in earthworms. *Drain flies* breed in the moist gunk on the inside of drains. *Fungus gnats* breed in damp house plant soil. *Fruit flies* lay their eggs in any break in the skin of very ripe fruit, but also on wet, dirty mops and garbage



cans, and similar places.

The disease-carrying capacity of flies is legendary. One study found that a single fly was carrying approximately *one million bacteria!* These germs can easily be transmitted to food or food-preparing counters when flies simply land, when they regurgitate, or leave their feces.

Persistent household fly problems are best solved with a multi-pronged approach. Excluding flies with screens and other methods, plus removing breeding places and odors that attract flies, is an important defense. It is also important to identify the flies so that we will know where they might be breeding and how to stop them. Our professionally applied treatments are part of an overall fly control strategy.



Don't let THESE Summer Olympics come to YOUR home!

Bed Bug Phrase Origin

The origin of the phrase "Good night, sleep tight, don't let the bedbugs bite." is controversial. Bed bugs by the second half of last century had pretty much been wiped out in this country—if biting occurred, it was almost always the closely related bird and bat bugs that were the culprit, and these continue to be a problem today. But before that time, bed bugs had been a widespread scourge, and in the most disgusting cases people would wake up completely covered with characteristic bed bug red welt bite marks.



The phrase "sleep tight" is relatively recent. The main meaning of the word 'tight' was 'firm, sound, secure' (as in 'sit tight'), so "sleep tight" probably originally meant to 'sleep soundly'. Another theory is that this phrase dates to the time when mattresses were supported by crisscrossing ropes (such as during the American Colonial period) that needed to be pulled tight to provide a well-sprung bed, but the phrase seems to date to much later—the first record where 'sleep tight' can be found is not until 1866. And at that time, the phrase had nothing to do with bed bugs, but rather referred to a famous quote about a diary, "Goodbye little Diary. Sleep tight and wake bright, for I will need you when I return."

The phrase, "don't let the bed bugs bite" was added much later—amazingly, today's well known phrase does not appear anywhere in print until well into the 20th Century.

Protecting Our Borders

A 700-mile buffer zone along the Rio Grande from Brownsville to Del Rio, Texas, is being guarded by an elite, if unusual, group called the "Tick Riders". This U.S. Department of Agriculture force, a special group of 61 mounted inspectors, are commissioned to prevent fever ticks from coming back into this country. All cattle in the quarantine area must be certified as being tick-free before they can leave the area, and Tick Riders routinely look for stray cattle that can be carrying ticks.



Currently there is an outbreak of the fever tick beyond the usual quarantine area, so the quarantine area has been enlarged to more than 1,100 square miles. This tick was eradicated in the U.S. by 1943, but there have been outbreaks since then. Besides cattle, the tick can infest wildlife like deer, elk, and antelope, complicating the situation because they jump fences and can carry the ticks far and wide. Without the service of our Tick Riders, the fever tick would spread to the entire southeastern U.S. and beyond.

Rat & Mouse Myth Buster

MYTH: Most of the damage caused by rats and mice is because they eat our stored food. (usually babies) and pets. Rats and mice also cause a great deal of damage because of their chewing activities. They chew into everything from upholstery to books to use as nesting material. They chew to enlarge holes into buildings, and even chew through electrical wires, causing fires.

FACT: These pests do eat humans and pet food, but that's only one of many problems they cause. They actually contaminate more food than they eat with their urine, excrement, and hairs. They also carry and spread parasites such as fleas, mites, and worms, they spread various diseases, and they cause allergic reactions in some people. Rats occasionally bite people



Rats and mice are indeed costly pests in terms of the food they eat and contaminate, damage from their chewing, and health-related costs.

"Robo-Pests"

Becoming More Common



Unlike the real thing, these pests are good! Robotically controlled creatures are being used increasingly to study animal behavior. One study has shown that cockroaches become accustomed to **robo-cockroaches** doused with familiar odors, and that they will even follow the fake cockroaches out of dark areas and into the light. This might be used someday to lure roaches into areas sprayed with insecticides.

Robo-squirrels are being used to study communication between squirrels—the artificial ones flick their tails and make sounds like real squirrel, so scientists can use them to study how squirrels signal to court, intimidate rivals, and warn other squirrels of danger. It's when other squirrels respond to different signals by the robo-squirrel that scientists are able to decode an aspect of squirrel communication.

Robo-lizards do "push-ups" that trigger responses from other lizards. How the push-ups are done might signal "come over here, sexy", or to another male, "this is my territory; stay away."

Did You Know?

Wasp stings are on the rise in Alaska. There has been a *seven-fold* increase in stings in northern Alaska within the past decade. Some of the most serious stings (involving people with severe allergic reactions) have increased *five-fold* this decade. One explanation for the large increase is the gradual rise of temperatures in Northern Alaska: they have risen about 4 degrees since 1950, which results in larger summer wasp colonies and more queens surviving the winter. There are also more kinds of yellowjackets in Alaska now—11 species, whereas in 1900 there were only 2 species.

