

Nursery Pest Watch List



Viruses: This is Hosta Virus X, one of several in the trade.

These pests pose a serious threat to Kansas forests, landscapes, agriculture, natural ecosystems and the public wellbeing. The Kansas Department of Agriculture would like your help in preventing the establishment of these pests. These pests are occasionally detected on nursery stock being shipped into Kansas from other states as well as from in state sources. Please take a moment to review these pests and familiarize yourself with identification characteristics of each pest on the reverse side of this page. When handling plants please watch for these and other pests. Early detection can save your business costly treatments and long term management expenses. With early detection, we can prevent the establishment and spread of these and other pests.



Japanese Beetle



Gypsy Moth's & Egg Mass



Black Vine Weevil



Red Imported Fire Ant



Daylily Rust



Canada Thistle

Hosta Virus X and other viruses - Symptoms vary by virus, species/cultivar, temperature, and time of infection. For Hosta Virus X, many Hosta cultivars have natural coloring or striping, so it is important to know what is “normal” for a given cultivar. The most dramatic and diagnostic symptoms include line patterns (especially along veins), mosaic patterns, blotches, puckering, twisting, or ring spots. Some plants may be infected but display no symptoms. This can occur if the plant was infected recently—it can take a year or more for symptoms to develop. Certain cultivars simply do not express symptoms well. These “symptomless carriers” add to the challenge of preventing spread of this disease. Other viruses such as Impatiens necrotic spot, tobacco mosaic, tomato ring spot, and *Pelargonium* flower break virus can also be moved via nursery stock and cause significant problems. Plants with any symptoms that include stunting, unusual growth patterns, mosaics, blotches, puckering, necrosis, or ring spots should be examined by a professional diagnostician.

Japanese Beetle (*Popillia japonica* Newman)- The adult is a shiny, metallic green beetle with coppery brown wing covers and has tufts of white hairs along the sides of the abdominal segments just below the elytra. They are approximately 1/2 inch long. Larva are grayish-white. The slightly curled grub has a dark brown head and measures about 5/8 inch long when mature. It can be distinguished from other white grubs by two rows of spines which form a "V" on the underside of its last abdominal segment.

Daylily Rust (*Puccinia hemerocallidis*)- Symptoms of daylily rust are orange to yellow raised spots on the underside of leaves, leaves with yellow to brown streaks, yellow spots on the surface of leaves and in severe infections leaves turn yellow and dry up.

Gypsy Moth (*Lymantria dispar* Linnaeus)- Adult moths are rather large, with a wingspan of 1.5 inches for males and up to 2.5 inches for females. The male is dark brown, and the female light gray with dark wavy bands across the wings. The male is a strong flier, but the female is so heavy bodied that she cannot fly. The principle means of movement is by human activity. Eggs are laid on outdoor furniture, cars, nursery stock and other items left exposed.

Black vine weevils (*Otiorhynchus sulcatus* Fabricius)- The adults are oblong oval in shape, about 1/2-inch long and have a short, broad snout with elbowed antennae. The body is black and the wing covers have numerous small pits and short hairs. They are all females. These weevils can not fly but they are very active walkers. Symptoms are leaf notching. Favorite host plants include: yew, spruce, rhododendron, and euonymus.

Red Imported Fire Ant (*Solenopsis invicta* Buren)- The pedicel, or "waist" consists of two segments. Workers consist of many sizes between (1/8 & 1/4 in) (Hedges 1998). The mandible has 4 distinct teeth and the antennae are 10-segmented, ending in a 2-segmented club. A stinger is present at the tip of the abdomen. The body is usually red to brown in color with a black abdomen (Hedges 1997). Fire ants are similar to common ant species. Nests vary in shape and size, the internal structure is honeycomb-like. They can appear dome-shaped up to 16 inches high and usually have no obvious entry or exit hole. Mounds are usually found in open areas such as lawns, pastures, roadsides and unused cropland, but rarely occur in frequently cultivated areas.

Canada Thistle (*Cirsium arvense*)- *Seedling*: Young leaves are covered with short hairs. Leaf margins are wavy with spines. Shoots that emerge from rhizomes lack cotyledons. *Roots*: An extensive rhizome system that can extend up to 3 1/2 feet into the soil in a creeping horizontal growth pattern. *Leaves*: Alternate, sessile, simple, oblong to lanceolate. Leaves are irregularly lobed, developing into triangular indentations with age, with spiny margins. The upper surface of mature leaves is dark green and hairless, while the lower surface is light green in color and may be with or without hairs.

If you suspect you have found one of these pests:

1. Collect more than one specimen for identification if possible. At least 10 individuals are requested for ant identification.
2. Preserve ants and beetles in alcohol.
3. Place moth specimens in a container or plastic bag and freeze.
4. For disease specimens call for instructions. It usually involves collecting some infected tissue and bagging it.
5. For plant samples collect whole plant including roots and press between sheets of newspaper. Photograph the plant at the site.
6. Record the location noting land marks, a legal description or physical address.
7. Describe the situation where the pest was found (landscape, forest, park, roadside, cropland).
8. Note pest level of occurrence (single pest, low, moderate, high).
9. Contact the Kansas Department of Agriculture Plant Protection and Weed Control Program at (785) 862-2180.

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