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New Insect Pests Threatening Bearded Iris by Michael Lockatell

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Bearded irises are tough customers in the growing space. Novice gardeners will plant rhizomes in any blank space around the yard. Site selection can be problematic, but this perennial's persistence in any growing condition is a testament to the plant's durability. Plant foliage makes bearded irises impervious to frequent deer invasions in ever expanding suburban landscapes. Despite their charm and endurance, new threats are materializing to challenge the modern hybrid's standing in today's perennial borders.

It is important to be aware of disease and insect pests plaguing our modern bearded hybrids. The same suspects on the disease side continue to put pressure on healthy clumps particularly in abnormally wet growing seasons. Insect pests have remained the same for decades, but nature has recently added some new twists to keep us on our toes.

We can expect iris borer larvae to emerge right after bloom season. Their life cycle doesn't vary too much from year to year. Good garden sanitation has proven to be very effective on their overall control by removing all dead foliage on clumps during late fall, winter and early spring. We entirely avoided insecticide application due to thorough garden cleanup and daily IPM scouting. Not one to tempt fate, a residual insecticide spray will be planned as a backup measure to combat any unforeseen infestations this summer.

Salt marsh caterpillar (*Estigmene acrea*) or yellow whollybear, is an entirely different adversary. Its existence in a given geographical area can be tied to previous farm activity. Soybeans are a host for these pests along with a number of vegetable crops. A recent report from Maryland indicates salt marsh caterpillars were feeding on fall pansy crops. They readily adapt to secondary hosts, primarily perennial weeds.

My garden is located in a portion of a twenty acre field being used for hay production and Christmas trees. Soybeans may have been part of a crop rotation plan for the ground during its days as a working farm. Farming is long gone. These pests adapted by feeding on field weeds like dogbane. They therefore migrate from other sections of this site to feed on my iris plantings. These insect pests have multiple generations during spring and summer, so Integrated Pest Management scouting is crucial to plan on effective insecticide remedy to keep them at bay.

Larvae are covered with dense soft setae (hairs) of variable length. Body color is extremely variable, from pale yellow to black. (1) "Full grown caterpillars are about two to two and one half inches long. They have a reddish brown body that may be difficult to see because of the long black hairs that cover the entire body. (2) These fur balls look like rich black brillo pads in my garden display beds. I have discovered examples of this stage of development in February in landscape plantings.

Salt marsh caterpillars over winter as larvae in a protected place. They prepare inside a silk cocoon interwoven with the long hairs from their body. Adult moths appear in early spring. Their wing is about two inches, but their front wings are milk white. Male hind wings are yellow-orange, while the female's hind wings remain milk white. Both adults can be identified by a peppering of irregular black spots in front and hind wings. (2)

Iris growers should always be scouting for salt marsh caterpillar adult moths each spring. Their appearance starts the next cycle, and plans for control measures should be considered. Female moths lay large masses of eggs on host plants. Larvae can be observed crawling rapidly across the ground, lawns or roads to find targets for their dining pleasure. If encountered, young caterpillars will curl up and play dead.

Yellow whollybear damage can be extensive on any planting of bearded or Siberian irises. They seem to like feeding later in the day. These monsters prefer chewing on tender new plant tissue. The caterpillar will climb to the top of the iris fan. They pick an individual leaf and begin feeding from the tip working towards the rhizome. A quarter of each leaf is usually consumed before moving on to another healthy fan. Another favorite tactic of these pests is chewing a gaping hole in the center leaf at the mid point of a given fan. Damage on a one fan seedling could be fatal or stunt future increase for months. If yellow whollybears are not seen on the upper portions of the iris fans, try inspecting the center of the clumps along the ground for their existence and potential feeding damage.

Unlike salt marsh caterpillars, yellow striped army worm (*Spodoptera ornithogalli*) has one generation to scout for bearded iris defoliation. As an iris breeder, these pests are a major threat to any healthy first year seedling bed. Most of their feeding damage is done at ground level. One of their favorite modes of attack is sawing off just emerged side increases. They also like to eat a gaping hole in the center leaf of the fan near the rhizomes. The succulent leaf tissue of these sites is easy for the yellow striped army worm to digest, so newly divided plantings are equally at risk of a late summer attack.

The life cycle for yellow striped armyworm averages 30 days during summer months depending on temperature. These pests can have four generations per year, but they seem to be active in my garden from late July through the month of August. Larvae (worms or technically known as *instars*) are the dangerous stage of the life cycle. They will appear dark to velvety black with a yellow or light colored band running down each side of the back. A black spot can be observed on each side of the abdominal segment. Adult worms can measure up to 50mm long.

Foliar damage occurs during the last three instars of larval development. Host plant research indicated defoliation during this span is 5, 16 and 77%. Observations at my garden reveal substantial feeding can take place in a matter of days. After the yellow striped armyworm passes through the larval instar, it pupates about 1-3 inches deep into the soil to over winter. Pupae emerge in the spring to mature as adult moths.

They have a wingspan of 30-35mm with a very complex color pattern on the fore wings.

Eggs are laid in masses from 50 to several hundred. They are then covered with gray scales from the female moth. Armyworm populations are considerably larger during cool, wet springs followed by warm humid summers. Since Central Virginia has experienced these weather conditions in recent years, iris gardeners should be scouting their gardens for these pests by the beginning of June.

Insecticide remedies vary for salt marsh caterpillars (yellow whollybear) and yellow striped armyworm. They have proven to be immune to applications of Imida Chloprid used for iris borer control. Contact your local Cooperative Extension Service office for the latest control recommendations for these insect pests. Always use a spreader sticker to keep formulations on target foliage. A residual spray application is your best option. Rotate insecticides and always read the product label before any application.

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Reference:

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