Chrysolina hyperici - Chrysolina quadrigemina

St. Johnswort beetle

Weed(s) Attacked: St. Johnswort

SCNWCB February 2006

GENEALOGY

Original source for U.S. release was Australia. First U.S. release occurred in California in 1946. In 1949 Chrysolina was brought to Stevens County, and was the first BioControl agent ever released in the county. Established in California, Idaho, Montana, Oregon, and Washington. Widespread in Stevens County, these agents are everywhere they are going to be.

LIFE CYCLE

These agents have a somewhat confusing life cycle. Females may lay eggs in fall or spring. It's possible to find eggs, larvae, or adults year round. Any of the three stages may overwinter. Sunlight kills the larva, but the adults avoid shade. Adults enter the soil and become dormant during summer. Fall and Spring rain is thought to stimulate them to emerge, mate, and lay eggs. Eggs are deposited singly or in clusters of 2-4 on the underside of leaves in the fall or spring. A female can lay hundreds of eggs in her lifetime. Eggs are oval in shape, and orange in color. When the eggs hatch the larvae start feeding on younger leaves. Larvae hide from the sun during the day under leaves or in the soil. When the larvae are mature they construct cells in the soil and change into adults. Adult beetles are metallic green, blue, bronze, or black in color, and about 5 to 7 mm long.

EFFECT

Both adult and larvae consume the leaves of St. Johnswort. Larvae feed nocturnally, adults feed during the day.

REDISTRIBUTION

Shake adults off into a sweep net, pan, or funnel assembly. You can collect adults from St. Johnswort blooms in June. Sometimes dozens of adults can be collected from a single plant. Their presence from year to year is variable.

COMMENTS

These agents devastated St. Johnswort in areas that had a favorable weather and rain pattern. Parts of California and western Oregon are examples. Chrysolina did so well in California that a monument was erected in it's honor. Unfortunately, the agents life cycle is often out of synchronization with the weather patterns of the inland northwest, and this serves to disrupt the impact of the agents from year to year . Overall, these agents have reduced St. Johnswort in Stevens county, but expect their effect and population to vary from year to year.