Rhinocyllus conicus

Thistle Head Weevil

Weed(s) Attacked: Musk Thistle, Plumeless Thistle, Canada Thistle

SCNWCB February 2006

GENEALOGY

Original source for U.S. release was numerous sites in Europe. First U.S. releases made in 1969. Now well established in the Northwest, northern plains states, and Stevens county north of Hwy 20 (where most of our Plumeless, Musk, and Scotch Thistle are).

LIFE CYCLE

Starting in May overwintered adults mate, lay eggs, and then die. A single female may lay close to 200 eggs. Eggs are laid on the flower bud bracts and stem, and covered with chewed plant material. This covering turns tan and looks like warts. When the eggs hatch the larvae tunnel into the flower bud and feed in the receptacle and on developing seeds. Larvae in the seed head fashion individual hard protective pupal chambers from chewed plant material and feces, larvae in the stems do not. Development from egg to emerged adult takes anywhere from 40 to 60 days. Adults averaging about 6mm long, emerge from inside the seed head by chewing a hole in their pupa chamber, and then the receptacle face. These new adults look like they are covered in pollen, but this soon wears off and they are almost black to the eye. When they are not feeding, the new adults hide. These new adults do not lay eggs until the following spring. Adults overwinter in sheltered places.

EFFECT

Adults may slightly defoliate the Thistle. The larval stage is more destructive. This is an effective agent against Musk Thistle. It is much less effective against Plumeless and Canada Thistle, even though there may be many larva in a particular seed head.

REDISTRIBUTION

In Stevens County collect the egg laying adults in May and June. Shake the agents off the plant into a sweep net or deep sided plastic dish pan. A funnel assembly can also be used. Overwintered adults need to be released as soon as possible. Some new adults can be collected in the summer and fall if you can find them when they come out of hiding to feed. Release 250-500 per new site. This agent requires sites with less heat and some moisture. Hot dry places are not good.

COMMENTS

This agent is present at most thistle sites in Stevens county. Redistribution will be undertaken only where the need is clear. In Stevens County the agents impact on Plumeless Thistle is helpful, but is not providing control.