ARTICHOKE CRIBRATE WEEVIL IN THE PACIFIC NORTHWEST

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The Artichoke Cribrate Weevil, *Otiorhynchus cibricollis*, has become as much of a pest in California and other commercial growing areas as the Artichoke Plume Moth, *Platyptilia carduidactytla* (Riley). While the plume moth is well established and common in the PNW as a feeder on thistles of the Genera *Cynara* and *Cirsium* it has not established as a major pest. Cribrate weevil just rides up to nurseries and garden center each year and winds up in neat places in rural and suburban Oregon and Washington. This constitutes a California invasive pest species that is largely unknown. I personally found adult weevils skeletonizing my poor little artichoke plant that I purchased at a local garden store last summer.

The Cribrate weevil is dark brown to black with two ridges on it elytra and 8 mm long. It closely resembles other root weevil species and has cee shaped grubs that do the underground damage. Both larvae and adults feed voraciously, reduced plant vigor and lowering the number of the valuable, edible flower buds. The species is ubiquitous and universal. Its host range includes Oxalis, nettles, and mustard as well as domestic and wild thistles.

PNW Nurseries sell small artichokes plants collected in Monterey County, California, grown in 1 gallon cans. These plants are not actually true seedlings, but are grown from root spouts from mature artichoke plants. They come with weevil eggs and larvae attached. Planting the artichokes in the home garden or in small farmer market fields can be a surprise. See the notched leaves? The weevils have a new home!

Cribrate weevil is not "controlled" with extremely toxic insecticides, but is managed like many crop weevils by spraying various blends of insecticides in mid June though July to kill adults feeding on leaves and early larval instars. Early season adults ar*e* sexually immature and must feed on the host extensively, actually skeletonizing the leaves, reducing plant vigor, and bud production. Adult feeding continues to September in California but ends in late July in the Intermountain West. The mated adults lay eggs, and the weevil larvae actually strip the roots from the crowns and stems. Girdling of the crowns under the soil surface occurs in large infestations. The larvae from summer generation adults feed until cold weather and overwinter as grubs near the roots in the PNW. Pupation is in Mid May with immature adults emerging in late June to begin the above ground cycle.

IPM Strategies

Trying to find weevil free nursery stock is very difficult as the plants are leaving California and they have a high percentage of infestation. There are annual varieties which will produce artichoke buds from seeds grown in greenhouses and set out after danger of frost. There will be no weevils unless the ground is already contaminated by previous plants. These seed varieties include "Imperial Star" "Big Heart", and "Desert Globe". They originate from areas where perennial varieties perish from dry heat in the summer e.g. the Imperial Valley. They have excellent bud quality for home and small farm production. Nematodes as biological controls have been investigated by UC Davis scientists; research continues.

Sources for Reference:

~ Crop Profile for Artichokes in California: ipmcenters.org/cropprofiles/docs/caartichokes.html
~ UC IPM Online Integrated Pest Management Program "Artichoke Cribrate Weevil", Dr. Mari author.