



**OREGON
DEPARTMENT OF
AGRICULTURE**



Tansy Ragwort *Senecio jacobaea*

- Native to Eurasia, appeared in 1922.
- Often confused with “common tansy.”
- Tansy ragwort (Asteraceae) is a listed noxious weed species in Oregon.
- Regionally abundant, statewide eradication is not feasible (B-list).
- Targeted for biocontrol in Western Oregon and eradication in Eastern Oregon.
- Plants are 2 to 6 feet tall.
- Seed lasts 15 years.
- Biennial rosette of dark green, deeply lobed leaves.
- Toxic to liver of cattle and horses.
- Dried plants still have poisonous alkaloids that show up in resulting milk or honey.
- Before the use of biocontrol, Oregon agriculture suffered \$5 million per year in livestock losses due to tansy ragwort.

Ragwort reproduces exclusively by seed forming new rosettes. Mowed or grazed plants become short-lived perennials.

Why is tansy bad this year?

- ✓ Plants do best when a low ragwort year is followed by a warm, wet spring causing seed germination.
- ✓ Tansy thrives where grazing, logging, or fire disproportionately restrict native plants.
- ✓ Ragwort is often a symptom of overgrazing or rodent tillage opening room for seed bank germination.
- ✓ Ragwort competes poorly with dense grass formed if grazing is removed early in the growing season.
- ✓ Seeds can still form if treatment is conducted during full bloom, wasting time and money. Treatments before bolting are best.



Biological Control Options for Tansy Ragwort

Biocontrol helps provide a safer, low-cost, and long-term solution.

Seed-head fly (A)
Botanophila seneciella

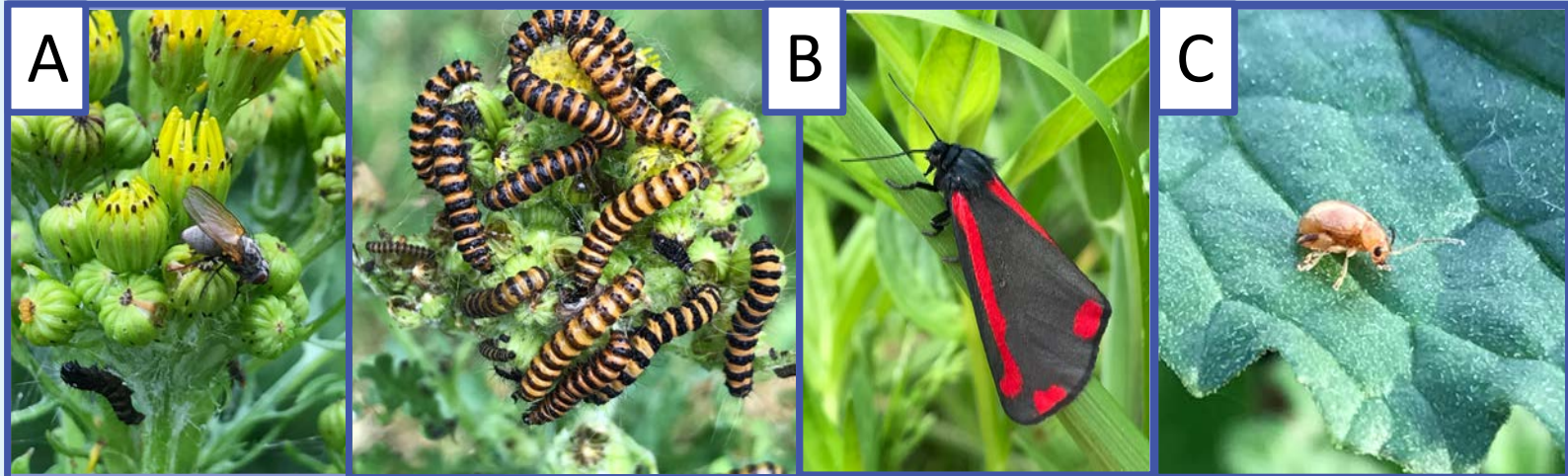
Introduced in 1968 and widespread at most ragwort infestations. Primary biocontrol in eastern Oregon. Larvae feed on seed-head and often create visible cap of spittle on flower disc. 5-10% (max. 40%) of seed heads are attacked, mostly the early buds. More common in shady areas.

Cinnabar moth (B)
Tyria jacobaeae

Introduced in 1960. Can attack at elevations up to 3,000 feet. Adults fly in May/June. Does best on dense stands where inch-long larvae cause severe defoliation in June/July. Ragwort can grow back after defoliation as a short-lived perennial with late-summer moisture. The moth east of the Cascades has been mostly unsuccessful. Avoid distributing into mountain regions to avoid non-target impact concern. Moth populations limited by predators, parasites, and disease. Collect by hand picking mature caterpillars in paper bags. Release 10 larvae per plant with 250 to 500 larvae per site.

Flea beetle (C)
Longitarsus jacobaeae

Introduced in 1971. Real “workhorse” of the three agents. 1/8th inch-sized adults hop about during rainy season cause shot-hole feeding, killing smaller rosettes. Most damage done by larval feeding on root crown. Pupate in soil litter so disturbance damages beetle populations. Reduced ragwort density by 90% in Oregon, seven years post-introduction. If ragwort flares back up, insects will usually control plants within two years. Monitoring did not show beetles established in eastern Oregon. Beetle populations can exist where ragwort densities are low.



**The goal of biocontrol is not eradication, but some level of significant reduction in the target plant to reduce economic impacts. Other forms of integrated treatments should be considered in intensive agricultural settings.*

REPORTING

Check with your County Weed Control Program or local Soil and Water Conservation District for reporting and tips on controlling your noxious weeds.



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Invasive Noxious Weed Control Program
635 Capitol Street NE
Salem, OR 97301-2532 USA
503.385.6517 | oda.direct/OregonWeeds

08/2022

Biocontrol of Tansy Ragwort

In natural settings

- Biocontrols give competitive advantage to un-attacked desirable plants.
- Allow ragwort and insects to cycle naturally undisturbed; insects need their specific target weed to survive.
- Sites that are mowed or sprayed often return if grazing pressure is not reduced.
- If eradication is not attainable on a property, leave a small population of ragwort as an insect reservoir.

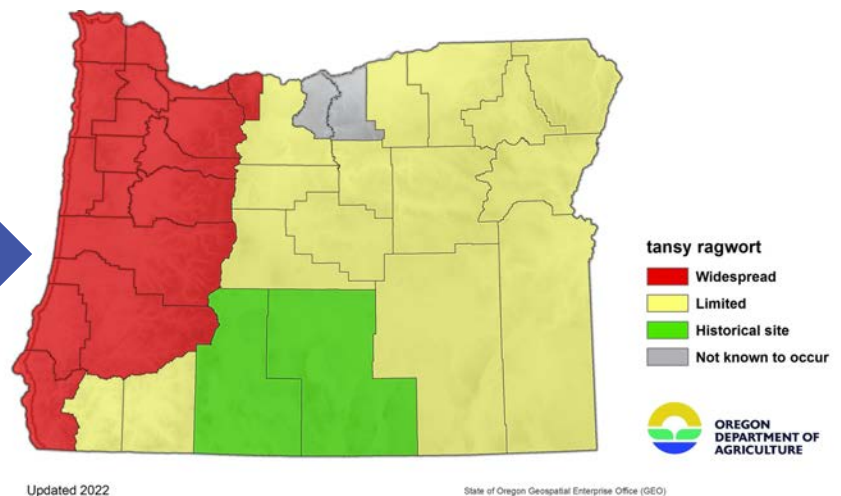
In new or difficult situations

- Biocontrol is best for exceptionally large infestations or rough terrain.
- Most impactful when introduced to sites less than a few years old.
- Biocontrol agents are widely redistributed; nearly all patches in Oregon have at least a small resident population of ragwort flea beetles or caterpillars.
- May take insects several years to resurge and control the weed.

In “unusual” years

- Extreme weather can send the plant/herbivore cycle into significant annual swings causing a significant increase in growth of the patches, as seen in 2018, with matching increase in biocontrol insects the year or two following.
- Extraordinary plant growth conditions can compensate for insect attack.
- Unusually wet springs can flood out overwintering insects in the soil.
- Insects can regionally adapt to new conditions but may take a few years to do so.

Ragwort infests 125,000 acres in Oregon and without controls like our beneficial insects, it has the potential to infest 11 million acres resulting in over \$12 million of negative economic impact.



The Oregon Department of Agriculture has coordinated the successful use of millions of ragwort biocontrol insects for over 60 years at 200 locations statewide.

Observations in the Field

2020

2021

Portland, OR



Salem, OR



Sandy, OR



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