



St. Johnswort



Hypericum perforatum L.

J.P. Fitzsimmons and L.C. Burrill

St. Johnswort (*Hypericum perforatum*), also called Klamath weed and goatweed, was introduced from Europe and was found in California about 1900. It was a major pasture weed west of the Cascade mountains from Tacoma south to central California until the successful introduction of the chrysolina beetle, a leaf-eating insect.

East of the Cascades, St. Johnswort established and spread rapidly, invading pastures, non-crop areas, and grazeable woodlands. It seems to grow best in sandy, gravelly soils but commonly is found in heavy soils.

When livestock eat St. Johnswort, they become sensitive to sunlight. Light-colored animals are most susceptible, developing dermatitis, including skin

blisters and hair loss. Symptoms do not result from casual contact; the plant must be eaten. Animals avoid eating St. Johnswort when possible, so the displacement of desirable forage probably is a greater concern. St. Johnswort in hay retains the harmful chemicals, and animals have trouble avoiding it.

Livestock prefer grass over St. Johnswort when both plants are present. This may lead to overgrazing of grass and more opportunity for the weed to spread. St. Johnswort commonly is found in ornamental plantings, Christmas tree plantations, orchards, roadsides, and other sites where ground is not tilled every year. St. Johnswort is a Class C noxious weed in Washington and a Class B noxious weed in Oregon.

Identification

St. Johnswort is in the St. Johnswort family with the old Latin name *Guttiferae* and the new name *Hypericaceae*. It is a perennial plant that spreads by seed and by underground and above-ground creeping stems. Main stems are reddish and woody at the base. Plants grow from 12 to 36 inches tall with numerous upright stems from the base of the plant. Multiple branching occurs above a short, leafy, often prostrate stem area.

Leaves are numerous, simple, opposite, and borne on the stem with no petiole; they occur the length of the stem. When held up to the light, each leaf appears to be perforated by pin pricks, hence the name "perforatum." Flowers are numerous in flat groups at the top of the plant. Each flower contains five deep-yellow petals with minute, black dots along the margins and has many stamens.

Fruits are three-cell capsules with numerous seeds that are $\frac{1}{32}$ inch long, pointed at both ends, glossy, and dark brown.



Figure 1.—This yellow flower with many stamens is typical of the St. Johnswort family.



Figure 2.—Mature St. Johnswort plant.

Jim P. Fitzsimmons, former graduate student, crop and soil science; and Larry C. Burrill, Extension weed specialist emeritus, Oregon State University.

Seeds have a gelatinous coating that sticks to legs, hooves, boots, vehicles, and other objects when the seeds are wet. Later in the day, after the dew evaporates, the seeds fall back to the ground. Seeds are widely distributed this way.

Control

Biological. Several insects have been tested and released in the Pacific Northwest to control St. Johnswort. The Klamath weed beetle (*Chrysolina quadrigemina*) was released in the Pacific Northwest in 1948 with great success in some heavily infested areas. Another beetle, *Chrysolina hyperici*, also was released and is better adapted to wetter sites. A root-boring beetle, *Agrilus hyperici*, was introduced and has become established in eastern Washington and northern Idaho.

Attempts to establish a seed head fly, *Zeuxidiplosis giardi*, failed. A defoliating moth, *Aplocera plagiata*, is established in a few sites in northern Washington. The cyclic increase and decrease of the St. Johnswort population over years is a normal response to a change in the population of the biocontrol agents. In northeastern

Washington, the beetles control St. Johnswort less effectively because climate limits their populations.

Mechanical. Repeated cultivation soon destroys this weed; therefore, it is not found in cultivated crops. Rotation of pastures or perennial plantings to cultivated crops for 1 or 2 years reduces problems. Mowing several times to prevent seed maturation helps control spread of the plant.

Chemical. Selective herbicides are available for control of St. Johnswort in grass pastures. Grazing restrictions may apply, so follow label recommendations carefully. Several applications may be necessary to control the weed. Selective control is more difficult in grass-legume pastures. Spot spraying or sponge wipers may be used.

Herbicide registrations change frequently; therefore, this publication does not contain specific herbicide use instructions. Registered uses are summarized each year in the *Pacific Northwest Weed Control Handbook*.

In addition, detailed instructions for herbicide use are provided on herbicide container labels and in other literature provided by herbicide manufacturers.

USE PESTICIDES SAFELY!

- **Wear** protective clothing and safety devices as recommended on the label. **Bathe or shower** after each use.
- **Read** the pesticide label—even if you've used the pesticide before. **Follow closely** the instructions on the label (and any other directions you have).
- **Be cautious** when you apply pesticides. **Know** your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.

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