ST. JOHNSWORT

(*Hypericum perforatum* L.)

State Noxious Weed List: **No.**

St. Johnswort, also referred to as Klamath weed, is native to Europe, North Africa and parts of Asia and first was introduced to the United States in the late 1600s for ornamental and medicinal purposes. St. Johnswort is sold as an antidepressant, often in the form of tea. However, St. Johnswort is also well-known to cause photosensitizing in man and animals. Numerous cultivated hybrids are available.

Identification and growth form:

St. Johnswort is a taprooted perennial herb that typically grows 1 to 5 feet tall. Stems are multi-branched, smooth, reddish and woody at the base. The leaves are opposite, entire, linear to oblong with in-rolled edges and 3/8 to 1 inch long. The leaves are dark green above and light green below and dotted with tiny, translucent glands. The "spotted leaf" appearance is a key characteristic for identification.

St. Johnswort has opaque spots on the leaves

ST. JOHNSWORT

Flowers of the plant are yellow, starlike with five petals and 0.5 to 1 inch in diameter, with tiny black dots on the margins. Petals are twice as long as the sepals and numerous stamens arranged in three groups are apparent. The seeds are egg-shaped and are held within a three-valved capsule that bursts at maturity. Seeds are tiny, dark brown, 3/64 inch long, somewhat cylindrical, slightly pointed at the ends and coarsely pitted.

St. Johnswort spreads both by underground and above-ground creeping stems, and by seed. Annual seed production ranges from 15,000 to 33,000 up to 100,000 with a small percentage germinating and reaching maturity. Seeds may remain viable in the soil for up to 10 years. Germination occurs during the warm summer months; however, seedlings may require several years to reach reproductive maturity. Basal foliage that has overwintered may begin to bolt during early March and by early April, older plants will have produced floral shoots. Flowering generally occurs from May through September and may be dependant on soil moisture.

Why is this plant a concern?

Glands found on the plant produce oils that contain hypericin, a phototoxin. Once the plant is consumed, animals become overly sensitive to sunlight, which results in dermatitis, an inflammation of the mucus membranes causing itching, swelling, blisters and open sores. All growth stages of the plant are toxic, including dried plants in hay. Poisoning or hypericism has been reported in cattle, horses, sheep and goats, with symptoms detectable within two to 21 days following ingestion of the plant. Light-haired or unpigmented skin areas such as the mouth, nose, ears and hooves are the most sensitive.

Livestock that suffer from hypericism generally lose weight, are difficult to manage and possess reduced market value. Affected animals usually recover once consumption of St. Johnswort is stopped. St. Johnswort has become popular as an herbal stimulant and will induce photosensitivity in some people.

How do I control this plant?

Chemical. A variety of herbicides can be applied for St. Johnswort control and are most effective when applied to seedlings and young plants. Tordon (picloram) or glyphosate (various) are most effective when applied in the spring. Escort (metsulfuron) also will control St. Johnswort effectively. Herbicide treatments are most successful if applied at bud stage before flowering occurs and late in the fall when the plant is going dormant. Repeated applications often are required to achieve adequate management.

Mechanical. Hand-pulling or digging may be effective on small and isolated infestations if repeated several times per season and if conducted prior to flowering and seed production. In larger infestations, lateral roots of older plants left behind can give rise to new plants.

Biological. Several biological agents have been introduced into the United States for St. Johnswort control since the mid-1940s. The Klamath weed beetle *(Chrysolina quadrigemina)* was one of the first highly successful biological control insects introduced into North America. This insect is credited with controlling St. Johnswort on millions of acres in California and the Pacific Northwest.

However, the Klamath weed beetle has not been successful in all areas St. Johnswort occurs, so other agents have been introduced. The root-boring beetle *Agrilus hyperici* and the leaf bud gall-forming midge *Zeuxidiplosis giardi* have become established but the effectiveness has been quite variable. More recently, a St. Johnswort foliage- and flower-feeding moth, *Aplocera plagiata,* has been released and established in the northwestern United States.