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# Red Sorrel

## *Rumex Acetosella* L.

J.P. Fitzsimmons and L.C. Burrill



Red sorrel (*Rumex acetosella*) also is known as sheep, horse, field, mountain, and cow sorrel or sour dock. This European weed grows throughout the Pacific Northwest under various soil and climate conditions. While it apparently thrives on acid soils with low fertility, it is adapted to other soil conditions.

Competition from other plants on better soils reduces its abundance. It occurs in lawns, fields, gardens, along roadsides, and in burn areas. Red sorrel is especially unwelcome in fields of clover grown for seed because the red sorrel seeds are difficult, if not impossible, for commercial seed cleaners to separate from clover seed.

Red sorrel is not classified as noxious in the Pacific Northwest. There is evidence that the seeds last long enough in the soil to provide a source for new infestations every time the soil is disturbed.

## IDENTIFICATION

Red sorrel is a rhizomatous, creeping perennial that reproduces by seed and by underground stems. Above-ground stems often are less than 12 inches tall but grow up to 2 feet tall with few lateral branches. Lower leaves are somewhat arrowhead shaped

*Figure 1.—The typical color of red sorrel simplifies identification.*

with one or two conspicuous basal lobes. The slender leaf stalks have a papery sheath where they attach to the stem. Both the stems and leaves are acrid tasting, resembling rhubarb, which also is in the buckwheat family. Male and female flowers are produced on different plants, which bear the flowers in branched clusters at the top. Yellow-orange flowers produce large quantities of pollen. Red-orange female flowers blossom from May to September producing small, three-angle fruits enclosed in reddish, persistent flower parts. The triangular seeds are a polished mahogany color.

## TOXICITY

Red sorrel is considered safe for human consumption as a fresh herb or when boiled, but there is potential for poisoning of livestock. Species of Rumex owe their toxicity to soluble oxalates. The degree to which oxalates accumulate in plants

*Figure 2.—The papery sheeth on the stem at the left and the basal lobes on the leaf at the right help distinguish red sorrel.*

depends on several unknown factors, and it appears that Rumex with a dangerous level of oxalate content are rare.

## CONTROL

**MECHANICAL.** Control red sorrel in pastures or perennial crops by shifting to annual crops that require or accommodate tillage.

A 4-year rotation to include a clean-cultivated crop, followed by a grain crop, cover crop or clover, and returning to a pasture or perennial crop helps reduce infestations. Effectiveness of control depends on the thoroughness and persistence of cultivation. Another method is to repeat

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

cultivation during dry weather, which gradually weakens and destroys roots.

Cultivation must be at short intervals to deplete root reserves, but plants must be allowed time to produce 2 or 3 inches of green tissue between cultivations for maximum depletion of reserves. Liming and nitrogen fertilization to increase soil pH and enhance other plant growth where practical may reduce red sorrel infestation. Remove small patches of red sorrel from gardens and flower beds by aggressively digging with a shovel or potato fork to expose and remove the rhizomes.

**CHEMICAL.** In non-crop areas or in grass crops, several herbicides can selectively control red sorrel. Selective control in broadleaf crops or pasture crops with legumes is more difficult. Repeated applications may be necessary in any situation.

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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