

# SHEEP SORREL

*Rumex acetosella* L.

**Family:** *Polygonaceae* (Buckwheat).

**Other Scientific Names:** *Rumex angiocarpus*.

**Other Common Names:** Field sorrel, red sorrel, sourgrass.

**Legal Status:** Not categorized.



## Identification

**Growth form:** Annual or perennial creeping forb.

**Flower:** Small flowers form in narrow panicles at the end of the stems. Flower stalks are jointed near the base of the flower (Douglas et al. 1999). Male and female flowers are borne on separate plants. Male flowers are orange-yellow and female flowers are red-orange (Cranston et al. 2000). In female flowers the inner sepals tightly enclose the seeds.

**Seeds/Fruit:** Smooth, shiny seeds are triangular, reddish brown, about 1.5 mm long.



**Leaves:** Basal leaves are mostly arrow-shaped with lobes pointed outward, but some may be linear or egg-shaped. Leaves are smooth with blades 1–5 cm long and stalks often are longer than the blades (Douglas et al. 1999). Stem leaves are alternate and nearly without stalks. Leaves have a distinctive sour taste.

**Stems:** Smooth, wiry, unbranched below the inflorescence, and 15–30 cm tall.

**Roots:** Slender, much-branched rhizomes.

**Seedling:** No information available.

### Similar Species

**Exotics:** Garden sorrel (*Rumex acetosa*) has similar arrowhead-shaped leaves, but the leaf lobes point downward, and it is an annual plant with a taproot.

**Natives:** No native sorrels resemble sheep sorrel.



## Impacts

**Agricultural:** Infests meadows and pastures, often on poorly drained or impoverished soils. Sheep sorrel can result in forage seeding failures on soils with large seed banks (Frankton and Mulligan 1970). A common problem in turf as well.

**Ecological:** Commonly occupies roadsides, fields,

pastures, and other disturbed habitats, especially on sandy soils or where recent fires have occurred. Heavy infestations may inhibit re-establishment of native species (Northern Prairie Wildlife Research Center. Undated).

**Human:** No information available.

## Habitat and Ecology

**General requirements:** Tolerates a wide range of soil conditions from acid to alkaline but is most common on soils with low fertility. In BC, it is found in gardens, lawns, pastures, roadsides, meadows, and disturbed areas.

**Distribution:** Found in all agricultural regions, but it is

most common in southern BC. It occurs in all provinces and throughout the US.

**Historical:** Introduced from Eurasia.

**Life cycle:** Perennial that quickly develops spreading rhizomes after germination. The rhizomes produce whitish buds that grow into leafy above-ground shoots

and result in very dense patches. The plant may grow as an annual that completes its life cycle in one growing season.

**Mode of reproduction:** By seeds and creeping rhizomes.

**Seed production:** About 250 seeds/plant.

**Seed bank:** No information available.

**Dispersal:** By wind, water, and vehicles. Soil disturbance spreads rhizomes, which re-establish.

**Hybridization:** No information available.

## Management

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**Biocontrol:** None.

**Mechanical:** Cultivation can be effective in controlling this species, but inadequate treatments may spread rootstocks of established plants. Effective cultivation requires repeated and frequent removal of topgrowth for one or more seasons, which will eventually starve the roots. Plants are generally too low to be affected by mowing.

**Fire:** Fire probably kills topgrowth but may not affect rhizomes.

**Herbicides:** Many herbicides are registered for control. Control is most effective on actively growing, young plants. Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations. **Before applying herbicides, read the label for full use and precautionary instructions.**

**Cultural/Preventive:** Competitive crops resist invasion of this weed. Application of lime or fertilizer

(especially nitrogen) favours desirable plants. Deteriorating pastures may require reseeding. Companion crops help impede population growth of this weed while the forage seedlings get established.

### Integrated Management Summary

Early detection is important to limit establishment of mature plants and large infestations. Hand-pull plants before mature plants establish extensive root systems with rhizomes. Apply herbicides to control mature plants and seed disturbed areas to perennial grasses and forbs to provide cover and competition against this weed.

## References

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Cranston, R., D. Ralph, and B. Wikeem. 2000. *Field Guide to Noxious and Other Selected Weeds of British Columbia*. BC Ministry of Agriculture, Food and Fisheries and Ministry of Forests.

Douglas, G. W., D. Meidinger, and J. Pojar, eds. 1999. *Illustrated Flora of British Columbia*. Vol. 4: *Gymnosperms and Dicotyledons (Orobanchaceae through Rubiaceae)*. Province of British Columbia.

Frankton, C., and G. A. Mulligan. 1970. *Weeds of Canada*. Publication 948. Ottawa: Canada Department of Agriculture.

Rutledge, C. R., and T. McLendon. Undated. An assessment of exotic plant species of Rocky Mountain National Park. Department of Rangeland Ecosystem Science, Colorado State University. Northern Prairie Wildlife Research Center Home Page. <http://www.npwrc.usgs.gov/resource/othrdata/Explant/explant.htm> [15 Dec 98].

