

Tall and Smallflower Buttercup

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Providing research-based information to Minnesota horse owners



Tall buttercup

Scientific Names: Tall Buttercup (*Ranunculus acris*) and Smallflower (*Ranunculus abortivus*).

Also Known As: Bachelor's Button, Butter Daisy, and Gold Cup.

Origin: Introduced from Europe. Some varieties are also grown as ornamentals.

Lifecycle: Tall buttercup is a perennial. Smallflower buttercup is an annual or biennial. Both reproduce by seeds.

Identification: Stems are slender, slightly hairy and branched, reaching heights of six inches to three feet. Lower leaves of smallflower buttercup are kidney shaped. Lower leaves of tall buttercup are deeply divided and hairy. Upper leaves are smaller and differ in shape. Flowers are small, yellow, and divided into 5 to 7 petals.

Distribution: Both are found throughout most of the United States, but is rarely found in western Minnesota, the Dakotas, or eastern Montana.

Habitat: Both are found in lowland meadows, pastures, and fields. Tall buttercup prefers moist soil conditions.

Control: Buttercup species are often found in overgrazed pastures, so proper pasture management will help control or eliminate it. Buttercup will not survive cultivation or tillage and prefers moist soil conditions. Therefore, plowing a field or improving drainage in an area will also help control this weed. Some herbicides exist for suppression and control of buttercup species, but multiple treatments will be required. When using a herbicide, be sure to carefully follow all labeled information and grazing restrictions.

Toxin: Protoanemonin, and a cyanogenic glycoside triglochin in some species. Most toxicity is associated with gastrointestinal tract (GI) irritation effects of protoanemonin.



Smallflower Buttercup

When Toxic: When eaten fresh in pasture. Protoanemonin may be present or formed from the hydrolysis of the precursor ranunculin. Protoanemonin concentrations may be 1 to 2% when the plant is flowering. The dried plant is not normally toxic because protoanemonin is converted to non-irritating anemonin.

Toxicity: Toxicity is highly variable with the protoanemonin concentration of the plant. This concentration varies widely with the species, and plant growth stage. Protoanemonin concentrations are likely to be highest in the flowering plant. The dry plant, as in hay, is no longer toxic.

Signs and Effects of Toxicosis: Clinical signs generally include blistering of the mouth, skin, and digestive system. Swelling of the nose, lips, face, and skin may be observed after contact with the plant. Diarrhea and colic may occur if the plant is ingested. Tremors, seizures, and paralysis have rarely been observed.

Treatment: Remove animals from pasture(s) containing buttercup species. Supportive care for colic and diarrhea may include fluid therapy, and an analgesic (pain killer).

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