

# Cressleaf Groundsel (*Packera glabella*)

Every spring we receive several calls and e-mails about a certain 3-foot tall weed with yellow flowers. Cressleaf groundsel is once again in full bloom across the entire state of Indiana in many no-till fields and pastures. This article is meant to provide information on the biology and life cycle of cressleaf groundsel, as well as how to control it in fields and pastures.

## Biology and Identification

Cressleaf Groundsel is a winter annual weed that has been becoming more prevalent in Indiana pastures and agronomic crop ground over the past couple of years. The small seeds produced by this weed allow it to thrive in reduced and no-till systems as well as poorly established pastures. Cool and wet springs of the past couple of years have also favored cressleaf groundsel, as it is a weed that prefers moist soils and typically struggles in hot and dry weather.

Much like most winter annual weeds, cressleaf groundsel emerges as a rosette in the fall then bolts, flowers, and produces seed in the spring. Basal rosette leaves are deep pinnate serrations with roundly lobed leaf margins. Leaves are typically 2 to 10 inches in length (Britton and Brown 1970). Bolting stems are hollow and can reach up to three feet in height with inflorescences that contain six to twelve yellow ray flowers that are often compared to the flowers of common dandelion. When looking for cressleaf groundsel in older weed id or taxonomic guides be aware that it has traditionally been placed in the *Senecio* genus and only recently was placed into the *Packera* genus.



Rosette and lower leaves of cressleaf groundsel.

## Toxic Properties

The competitiveness of cressleaf groundsel with agronomic crops has not been researched, though its presence as a winter annual in no-till fields will have the same implications of slowing soil warming and drying as other winter annual weeds. The presence of this weed in pastures and hay fields should be of more concern as it does contain toxic properties when ingested by livestock. Leaves, flowers, and seeds of cressleaf groundsel contain alkaloids that will cause liver damage in livestock that is termed seneciosis and typically occurs on a chronic level (Kingsbury 1964). Symptoms of seneciosis are loss of appetite, sluggish depressed behavioral patterns, and in extreme cases aimless walking without regard to fences or structures. Although cressleaf groundsel is not as toxic as many of its relatives in the *Packera* genus, livestock producers encountering this weed in pastures or hay should take steps to avoid prolonged ingestion by animals.



Flower clusters of cressleaf groundsel

## Control

Herbicide applications to control of cressleaf groundsel are most effective when applied to plants in the rosette stage, bolting plants are very difficult to control with herbicides. Infestations in pastures can be controlled with 2,4-D or a combination of 2,4-D and dicamba

applied to rosettes in the fall or early spring prior to bolting (Nice 2008). Producers should be aware that applications of these herbicides will also kill favorable broadleaves that are present in pastures.

Control recommendations for cressleaf groundsel in no-till agronomic crop fields has typically been to apply 2,4-D @ 1 qt/A to actively growing rosettes in the fall. Research at University of Illinois (Lake and Hager 2009) has shown that fall or spring applications to 2-8 inch diameter rosettes with the following herbicides and rates can achieve 94% or greater control of cressleaf groundsel:

- 1 oz/A Canopy EX
- 1-2 qt/A glyphosate (4lb ai formulation)
- 1-2 qt/A glyphosate + 1-2 pt 2,4-D (4 lb ai formulation)
- 3 pt Extreme

In general the treatments applied in the fall resulted in greater biomass reduction of cress leaf groundsel, although all treatments and timings prevented plants from producing seed.

#### Reference:

- Britton, N. and A. Brown. 1970. An Illustrated Flora of the Northern United States and Canada. Volume 3. Dover Publications, Inc., New York. Pp 540-544.
- Kingsbury K.M. 1964. Poisonous Plants of the United States and Canada. Pentice-Hall, Inc., Englewood Cliffs, N.J. pp 425-435
- Lake, J.T. and A.G. Hager. 2009. Herbicide Selection and Application Timing for Control of Cressleaf Groundsel (*Packera glabella*). Weed Technol. 23:221-224
- Nice, G. 2008. Guide to Toxic Plants and Forages. Purdue Extension Publication WS-37



Field on the left received a fall burndown application, while the field on the right did not.



A field of cressleaf groundsel in full bloom.

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