

Managing Cressleaf Groundsel to Avoid Problems in Hay and Pasture

Mark Loux

Horticulture and Crop Science

The Ohio State University



Hay fields infested with cressleaf groundsel in May

The problem with cressleaf groundsel

- Toxic to animals in hay/silage, and in pasture
- Not evident until late spring when becomes taller than the hay and yellow flowers are obvious
- Too late to do anything about it at that point
- Areas infested with groundsel should not be harvested for hay/silage. Hay/silage infested with groundsel must not be sold or fed

Cressleaf groundsel toxicity

- Toxicity due to pyrrolizidine alkaloids (PAs)
 - Highest levels during bud to flower stage
 - PAs are not destroyed by hay curing or ensilage
 - Hay containing significant amounts of groundsel poses highest risk
- Poisoning occurs by consumption over several days to months
 - Effect on liver is cumulative so effects may not be seen for several weeks
 - Depression, loss of appetite, head pressing, incoordination, rectal straining



Hay field variably infested with cressleaf groundsel
OK to harvest areas with just a few plants



Hay field variably infested with cressleaf groundsel
Which areas are safe to harvest?

Cressleaf groundsel biology

- Winter annual – reproduces from seed only
- Emerges in the fall
- Overwinters as a rosette and regrows in spring
- Flowers and sets seed in May, then dies
 - Does not persist past first hay cutting
- Seed are moved by wind

Cressleaf groundsel identification

Fall seedlings

- Initially has rounded tipped leaves with no lobes
- Later leaves become lobed with serrated to toothed margins

Leaves and stems can be green, purple, or both

- Stems are hollow, grooved
- Entire plant is hairless

Bright yellow flowers – similar to other Asters

- Rays of flowers are 0.33 to 0.75 in long



Cressleaf groundsel seedlings – mid to late fall



Small cressleaf groundsel plants – early to mid spring



Mature cressleaf groundsel
Sometime in May
Hollow stems





Cressleaf groundsel flowers

Goals of management program

- Minimize its occurrence in hayfields, pasture where it could lead to livestock poisoning
- Scout and apply control measures in fall or early spring when plants are small
- Prevent occurrence in first hay cutting
- Prevent seed production to limit future infestations

Control of cressleaf groundsel

- Scout in early October and late March, especially in August seedings, fields with history of problems, and where stand is thin
- Most easily controlled with herbicides in late fall or early spring
 - Most emergence occurs by late October
 - Becomes more difficult to control after much regrowth in spring
- Frequent mowing that prevents plants from becoming large can minimize risk of contaminating hay

Grass hay and pasture - herbicides

- 2,4-D amine or ester (1 lb ae/A)
 - Esters may be more effective
 - When rosettes are less than several inches in diameter
- Larger plants – add dicamba or use 2,4-D/dicamba premix
 - Especially in spring
- 2,4-D - do not cut for hay or graze lactating animals for 7 days
- 2,4-D/dicamba premix – do not graze lactating animals for 7 days or cut hay for 37 days
- Dicamba – do not graze lactating animals for 7 to 40 day or cut hay for 37 to 70 days

Alfalfa and alfalfa/grass hay - herbicides

- **Dormant treatment (late February)**
 - Metribuzin (1.3 lbs 75DF) or Velpar (2 to 3 qts)
 - Established stands only (more than one year old)
 - Metribuzin can be used in alfalfa/grass stands (not Velpar)
 - Velpar – do not rotate to other crops for 2 years
- **Glyphosate – Roundup Ready alfalfa – (0.75 to 1.5 lb ae)**
 - Fall or spring – weeds less than 6 inches tall
 - Wait 5 days before cutting or grazing
- **Glyphosate spot treatment - non RR alfalfa**
 - Only as an emergency

Alfalfa and alfalfa/grass hay - herbicides

- Pursuit – 2.16 oz
 - Fall or spring – fall most effective
 - Seedling or established alfalfa with at least two trifoliates
 - Rosette stage of weed if possible – not more than 3 inches tall
 - Spring application should occur in warm weather – above 60F daytime and above 50F nighttime
 - Use recommended adjuvants
 - Will injure or kill desirable grasses

OSU C.O.R.N. Newsletter

[**http://corn.osu.edu/**](http://corn.osu.edu/)

OSU Weed Science Website

[**http://u.osu.edu/osuweeds**](http://u.osu.edu/osuweeds)

OSU Weed Science Youtube

search "Ohio State University Weed Science"

Weed Control Guide for OH/IN

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loux.1@osu.edu

614-395-2440