



  
**perennia**  
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# Newly Established legumes

- Establish early/evenly
- About a month later depending on pressure you have to make the decision to spray or leave it to clip



# 2,4-DB

- Embutox/cobutox/calibur ok on birdfoot trefoil, alfalfa, clovers
  - 700-900 l/ac (\$30.00/ac)
  - Weeds controlled Stinkweed, Ragweed, Redroot pigweed, Shepherd's-purse, Mustards under two leaves
  - Weak on Lady's thumb, Wild Buckwheat, Chickweed, only ok on lambsquarters
  - From the first to the fourth trifoliate leaf stage
- Can not be grazed or cut for forage for 30 days after treatment!



# Staging the Alfalfa or Clover

- 2,4-DB 1-4 Trifoliate Alfalfa or clover  
2-4 leaves on Grasses
- MCPA amine 500 notice the rate 28 ml/ac  
added with the 2,4-DB

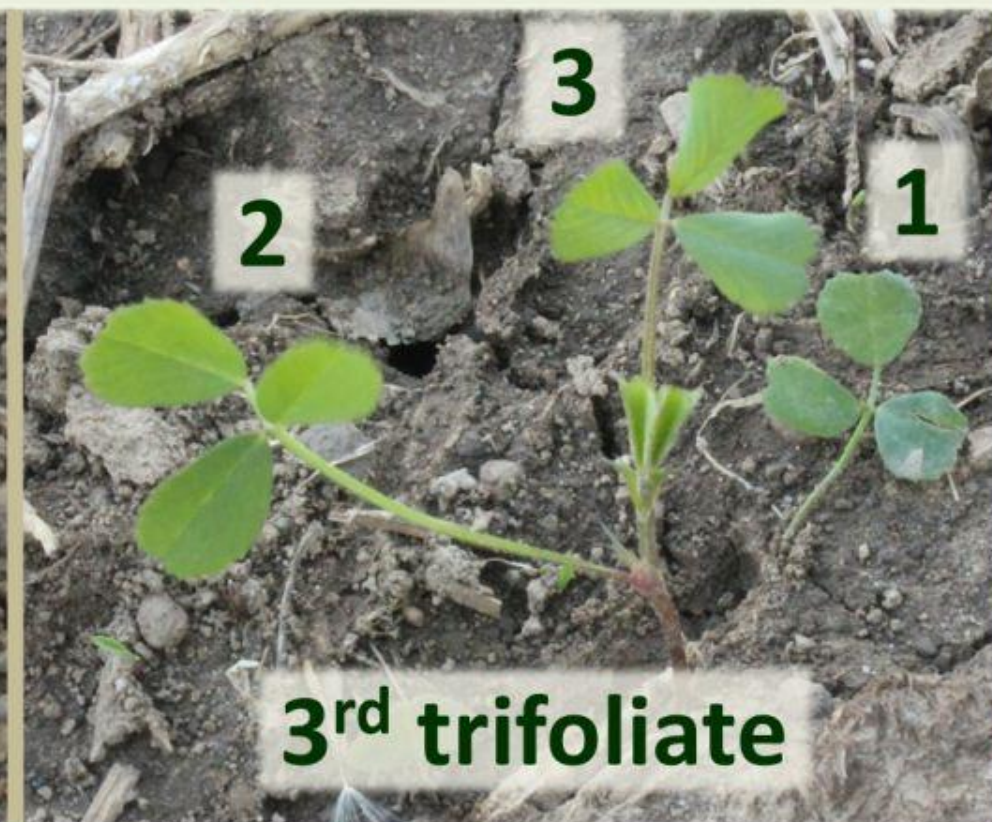
no harvest for 30 days





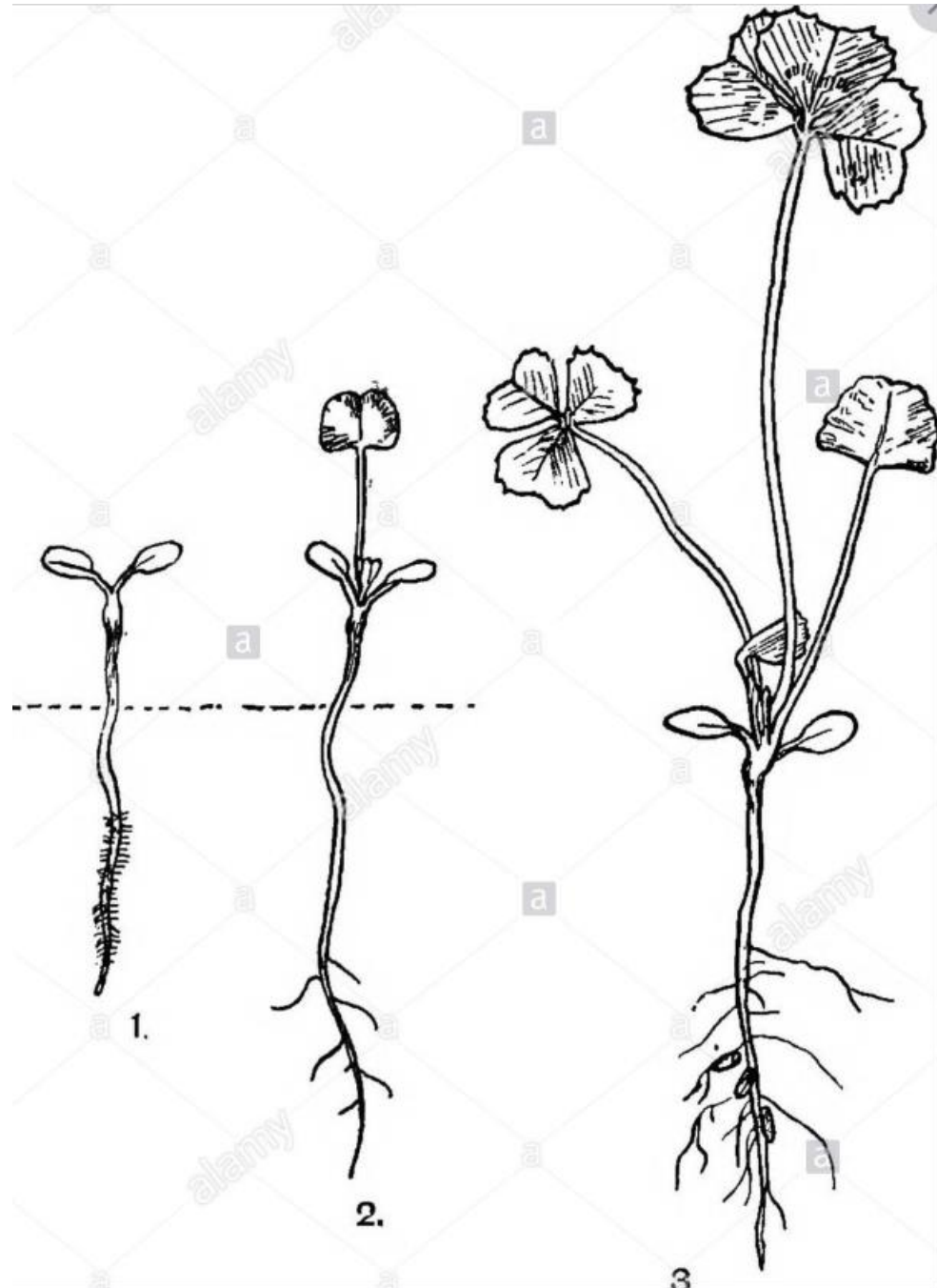
Spray window for 2,4-DB products is when alfalfa is in the 1-4 trifoliate leaf stage, but most tolerant at the 1<sup>st</sup> to 2<sup>nd</sup> trifoliate.

Base staging on the most advance seedlings, as alfalfa become very sensitive to 2,4-DB beyond 4<sup>th</sup> trifoliate.



# Test

- What Stage is the Picture on the right?



# Establishment year - ideally

- Plant in April
- Spray end of May or first of June
- First cut early July



# Pursuit Herbicide: US label

- 2nd Trifoliate or larger
- There maybe a temporary reduction in growth
- Injury is increased under cooler temperatures

Perennial Grass Suppression: If perennial grass (such as orchardgrass, fescue, brome, or timothy) is present in an alfalfa or clover stand, Pursuit will reduce the growth and competitive effect of the grass.





- Very good on Chickweed + leave residual control
- But also Lady's thumb, nightshades, pigweeds, ragweed, velvet leaf and many other weed species



# Established Forages

- Why Control
  - Detrimental to yield?
  - Detrimental to feed quality?
  - Detrimental to the life of the stand: probably
- At what density to control?









## Bi-annual Weeds





# Perennial Weeds







# What are the weeds telling you?



## Dandelions and Plantain...

not enough mid-late season fertility, grazing  
management





# Tall Fescue versus Timothy





# Tall Fescue versus Timothy



# Thistles, Ragwort, Bedstraw...

overgrazing;  
stocking rate,  
fertility and  
grazing  
management





## Soft Rush and Buttercup...

Damp soils, then spread into drier areas







## Sheep Sorrel...

low soil pH, needs  
lime



## Queen Anne's Lace (Wild Carrot)...

drought problems  
and overgrazing







**Mallow,  
lady's thumb  
& pineapple  
weed...**

excessive foot  
traffic, around  
gateways and  
feeders



Hawkweed...

Very sandy soil, droughty

**Moss...**

Very low nitrogen situation, Damp Soils, pH





# You have made the decision to spray:

- When
- What





# Timing: When to spray?

- Most often in late summer to early fall
  - Plants are preparing for winter
  - Perennials and Winter Annuals are newly emerged
    - maybe rain has returned
    - Pastures maybe slightly abused and have an open canopy





# If you don't mind killing the legumes:

- 2,4-D
  - .6-1.8 l/ac depending on formulation and weeds present (\$7.50-\$22.50/ac)
  - Wild carrot (R), Yellow Rocket, Oxeye daisy, Tansy Ragwort, St. Johns Wort, Dandelion, Milkweed (only top growth), Burdock, Canada thistle
- No residual control
- **Pre-Harvest Intervals:**
  - Do not permit lactating dairy animals to graze fields within 7 days after application.
  - Do not harvest forage or cut hay within 30 days after application.
  - Withdraw meat animals from treated fields at least 3 days before slaughter.



# Dicamba (Banvel, Engenia)

- Rate .5-1.1 l/ac (\$13.70-\$30.75/ac)
- Golden rod, fieldbind weed, Canada thistle, Goat's beard, Curly Dock, Field Bindweed, Knapweed, Sow thistle
- 2-3 weeks residual control
  - No grazing for 15 days dairy
  - No grazing for 30 days before slaughter



# MCPA

- Rate: .88 l/ac depending on formulation (500 g/l) (\$9.48/ac)
- Weeds Controlled: Buttercup, annuals, seedling burdock, yellow rocket
- Huge differences in labels between companies
- No residual
- Wait 7 days before grazing





# Milestone

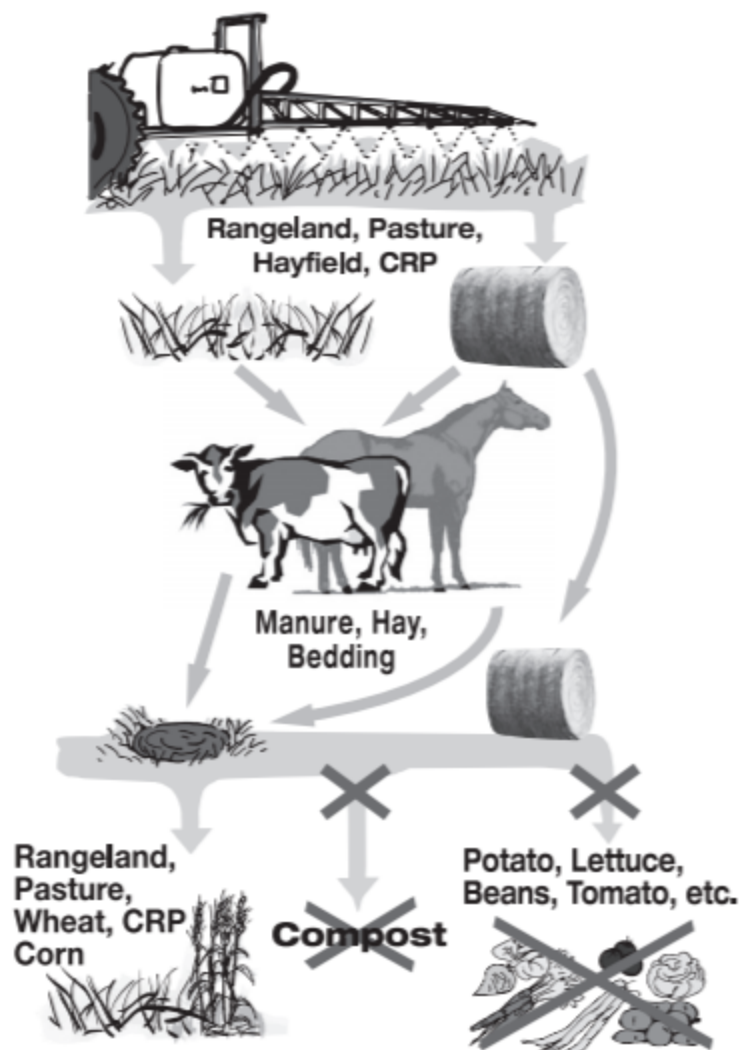
- Rate .1-.2 l/ac    \$32.00ish/ac
- Will control golden rod, knapweed, scentless chamomile, Canada thistle, tansy ragwort, smooth bedstraw, Dock species, Ragweed, suppression of vetch, buttercup, tansy, wild carrot, Control of softtrush when mixed with 2,4-D
- Very powerful and Broadspectrum
- Up to three years of residual control!
  - Do not try to re establish legumes for 4 years
- No grazing restrictions



## IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section “**Restrictions in Hay or Manure Use .**”
- It is mandatory to follow the “**Use Precautions and Restrictions**” section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the “Use Precautions and Restrictions”.  
**Call [1-(800) 263-1196] Customer Information Group.**

## Forage and Manure Management



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# Garlon

- Rate: 0.24-1 l/acre (\$28.10-\$120.00/ac)
- Weeds controlled bedstraw, very good on woody plants
- Alder, Ash, Aspen, Basswood, Beech, Birch, Blackberry, Buckthorn, Cherry, Chokecherry, Cottonwood, Elderberry, Elm, Hawthorn, Hickory, Hop-hornbeam, Honey locust, Locust, Maples, Mulberry, Oaks, Poison Ivy, Pines, Poplar, Red Maple, Raspberry, Sassafras, Sumac, Sycamore, Tamarack, Wild rose, Willow, Witchhazel
- Burdock, dandelion, curled dock, dandelion, lambsquarters, ragweeds,
- Excellent on Bed Straw
- Very short residual control
- Grazing restrictions 14 days. No grazing restrictions on lower rates, or if less than 25% of area is treated.







# Rant: Bedstraw

- USE GARLON NOT BANVEL



## Smooth Bedstraw Management

Smooth bedstraw (*Galium mollugo* L.) is becoming a serious weed in pastures, hayfields and field margins across the Maritime region (Figure 1). This plant typically occurs first along roadsides, progressively moving inwards. Its invasive nature allows smooth bedstraw to out-compete forage species, reducing the value of the stand. Smooth bedstraw is especially problematic within lower input forage areas. This weed contains the toxin anthraquinone that can cause systemic toxicity and skin disorders in mammals. Poor animal performance on high diets of smooth bedstraw has been observed. Proper identification is essential for control.



**Figure 1.** Smooth bedstraw infestation within a New Brunswick hayfield.



# Bedstraw – Coles Notes version

- Treat with Garlon post harvest
- Thicken stand no-till or frost seed
- **Correct fertility problems**





# Pursuit – US LABEL

## Dormant Established Alfalfa or Clover

**Pursuit** may be applied to dormant alfalfa or clover in the fall following the last cutting. **Pursuit** may also be applied in the spring to dormant alfalfa or clover or as alfalfa or clover breaks dormancy. Apply spring treatments before excessive alfalfa or clover growth (less than 3 inches) to reduce spray interference.

## Growing Established Alfalfa or Clover

For weed control during the season, apply **Pursuit** following alfalfa or clover cutting. Remove hay from the field and apply **Pursuit** before excessive alfalfa or clover regrowth.

If perennial grass (such as orchardgrass, fescue, brome or timothy) is present in a birdsfoot trefoil stand, **Pursuit** will reduce the growth and competitive effect of the grass.

(inches)			
Broadleaf Weeds			
Artichoke, Jerusalem	R	6	8
Bedstraw, catchweed	–	3	4
Beet, wild	4	5	6
Buckwheat, wild	–	3	4
Chickweed, common	R	3	4
mouseear	R	3	3
Cocklebur, common	R	8	8
Cress, hoary	–	R	R
Dandelion	–	R	R(5)
Dock, broadleaf (seedling)	–	–	R(6)
curly (seedling)	–	–	R(6)
Dodder	–	–	R*
Fiddleneck	–	–	R(4)
Filaree, redstem	–	R	3
whitestem	–	R	3
Fleabane, rough	–	3	3
Flixweed	R	3	4
Goosefoot, nettleleaf	R	3	4
Grounsel, common	–	–	R(3)
Henbit	–	R	3
Jimsonweed	–	3	4
Knotweed, prostrate	–	R	3
Kochia (non-ALS resistant)	R	3	3
Lambsquarters, common (1 to 2 leaves)	–	R	R(2)

(continued)



# Kinder on legumes

- Embutox/cobutox/calibur ok on birdfoot trefoil, alfalfa, clovers
  - 1.1 l/ac (\$30.00/ac)
  - Weeds controlled yellow rocket, curled dock, Canada thistle, dandelion, plantains,
- Can not be grazed or cut for forage for 30 days after treatment!



# Tropotox

- Ok on clovers
- Rate 1.7 l/ac (\$32.00/ac)
- Controls most broadleaf annuals, docks, Canada thistle in spring, buttercup and field bindweed
- Do not graze in year of application





# Steps

- ID weed problems
- Why are they there?
- Evaluate the forage stand
- Is it more economical to take the stand out?
- Spray
- Overseed/frost seed/no-till to thicken stand
- Correct cultural practices

