

# ***Weed Control Strategies for Piedmont Pastures***

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NC Cooperative Extension Service

**NC** State University  
A&T State University  
**COOPERATIVE  
EXTENSION**

*Empowering People • Providing Solutions*

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# Methods of Control

*We Control the Weeds: Weeds Don't Control Us*

- Mechanical
- Chemical
- Cultural
- IPM

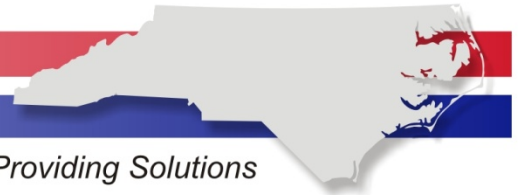


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# Principles of Control

- Annuals
  - Come back each year from the seed they produce the year before – keep them from reseeding
- Biennials
  - Take two years to complete life cycle – will bloom in the second year – control in year one
- Perennials
  - Grow back each year from their root systems – to control long term must use a product that kills the root not just burns the top

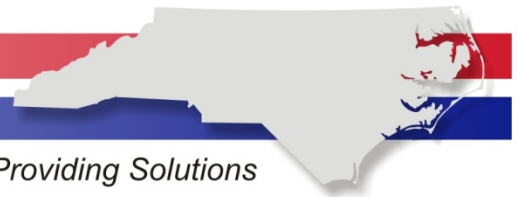


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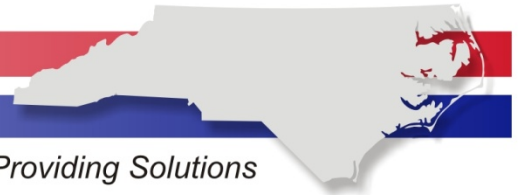
# Growing Season

- Cool Season Plants
  - Grow best when temperature is under 75°F.
- Warm Season Plants
  - Grow best when temperature is above 75°F.



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# Weeds We See Everyday





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# *The Spring Nasties*



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# Buttercup



- Blooms in early May
- Cool season
- Perennial weed
- Will reseed from flowers
- Control:
  - Thicken forage stand
  - Spray 2 pts. 2,4D in early April



Virginia Tech Weed ID Guide





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# Wild Garlic

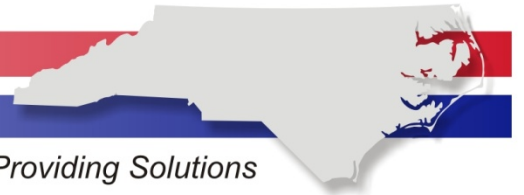


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# Wild Garlic Control

- Perennial
- Often confused and called wild onion
- Not poisonous but will cause off flavor in milk and meat
- Control chemical – control early spring





# Henbit

- Nuisance Weed
- Chokes out grass
- Begins growing in early spring
- Takes advantage of thin forage.





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# The Chickweeds



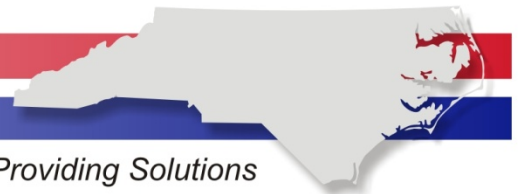
Common Chickweed



Mouse-eared Chickweed Flower



Common Chickweed Flower





# Hedge Mustard



- Grows vegetatively in the spring
- By summer produces a thin wire like seed pod.
- Chemical control before flowering



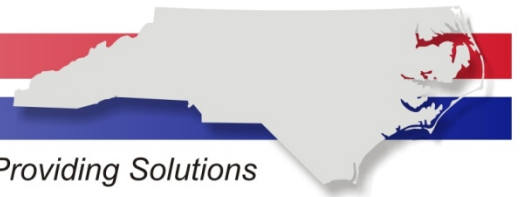
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# Prickly Lettuce



- Similar in appearance to hedge mustard
- Begins growing in late fall
- Control must be prior to flowering

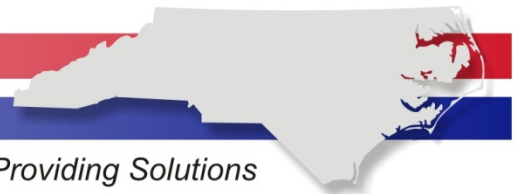


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# Shepherd's Purse



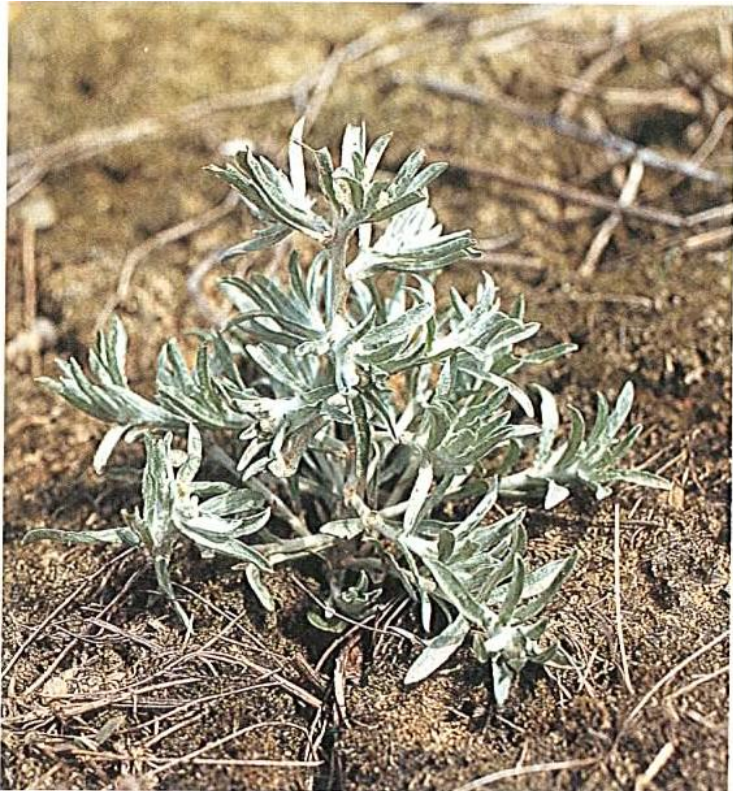
- Very similar to cressy greens.
- Competes with early growing forage.
- Will begin to grow in late fall





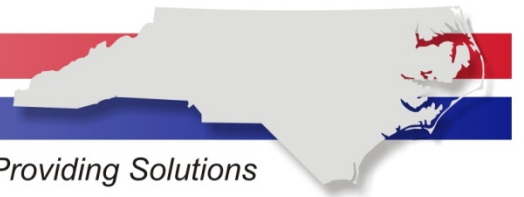
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# Rabbit Tobacco or Cudweed

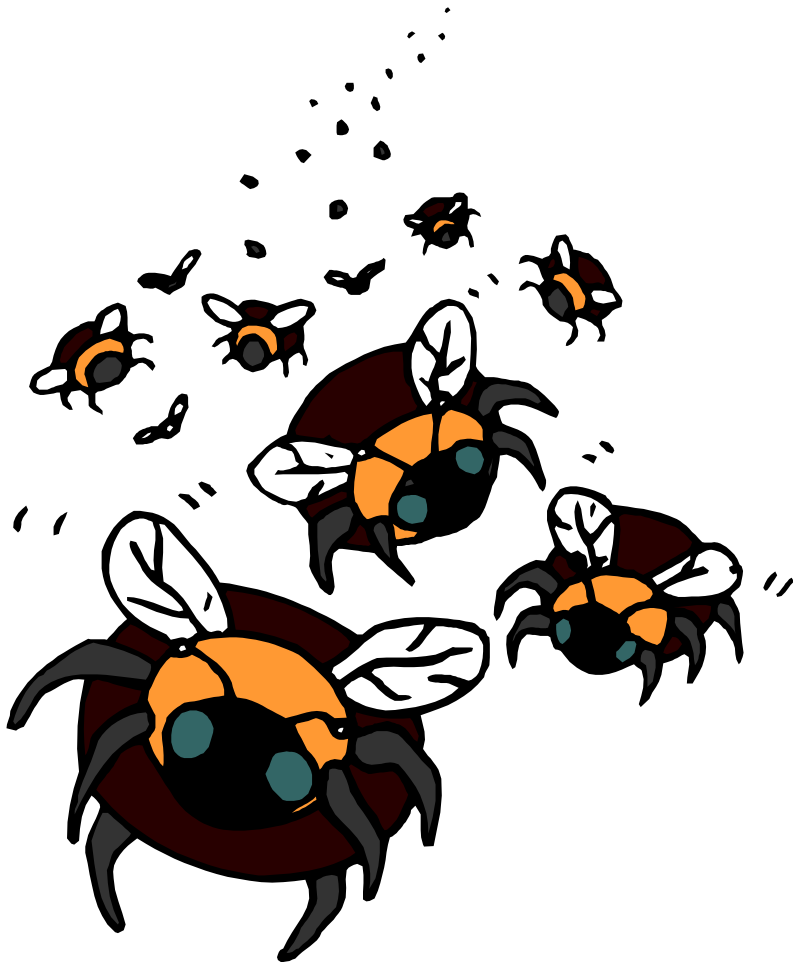


J. Neal

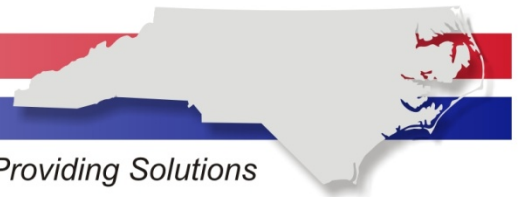
- Several varieties
- Dicot
- Winter or summer annual
- Can be biennial
- Low fertility, thin forage







# *The Summer Pests*



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# Dogfennel



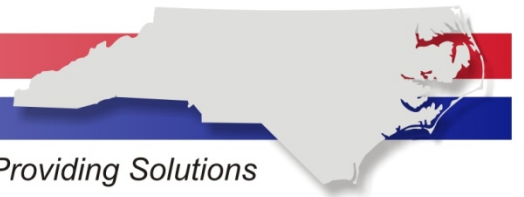
- Tall, growing perennial
- Highly aromatic when cut
- Easily controlled with Weedmaster<sup>®</sup>, Cimmaron<sup>®</sup> or Grazon<sup>®</sup>
- Seeds prolifically in the fall





# Curly Dock

- Perennial
- Deep tap root
- Goats are a great biological control
- Digging or spraying

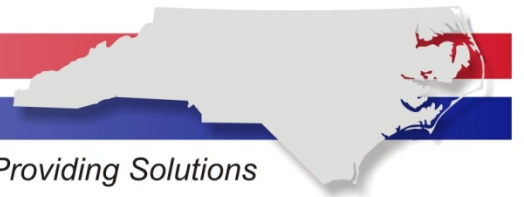




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# Yellow Crownbeard



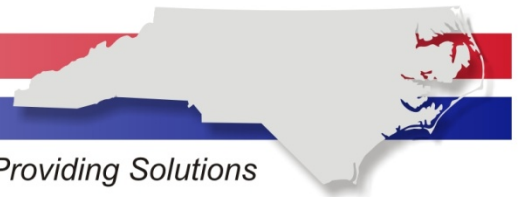


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# Yellow Crownbeard

- A perennial with showy yellow flowers that can reach a height of 13 feet.
- Considered to be a wildflower when growing on roadsides.
- Control is mainly chemical – Weedmaster<sup>®</sup>, Cimarron<sup>®</sup> or Grazon<sup>®</sup>
- Clipping will reduce population some



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# Smartweed

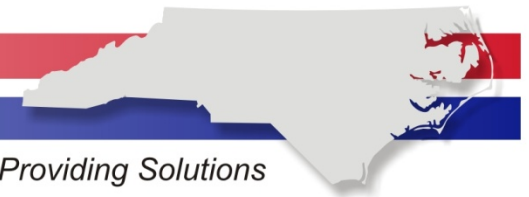


- Annual
- Tends to grow in wetter areas.
- A minor poisonous plant.
- Major problem is seed can get in eyes and be a severe irritant.



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# ***The Pigweeds – Amaranth***

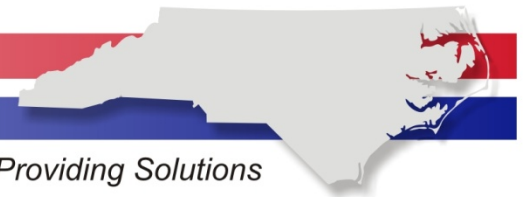




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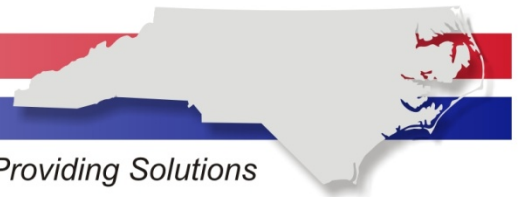
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# Red Root Pigweed & Spiny Amaranth







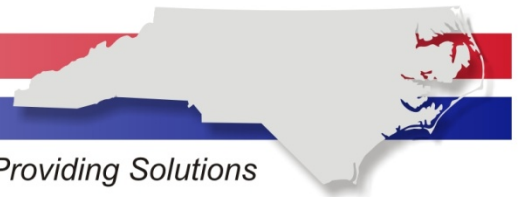




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# Control of Pigweed

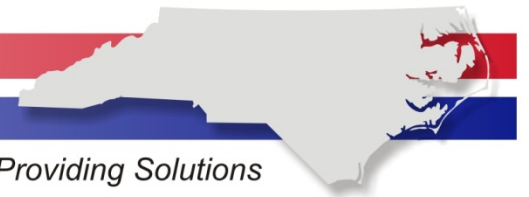
- Summer annual.
- Can be tall growing.
- Does not compete well with forage.
- Prolific seeder.
- To control must keep it from going to seed.
- Clip several times per season.
- Chemical control – extreme low rate of Cimarron<sup>®</sup> is effective.

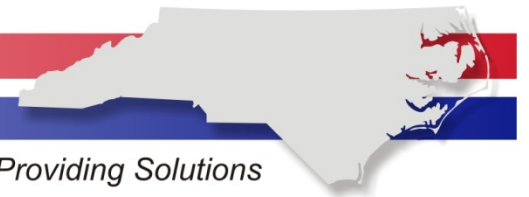
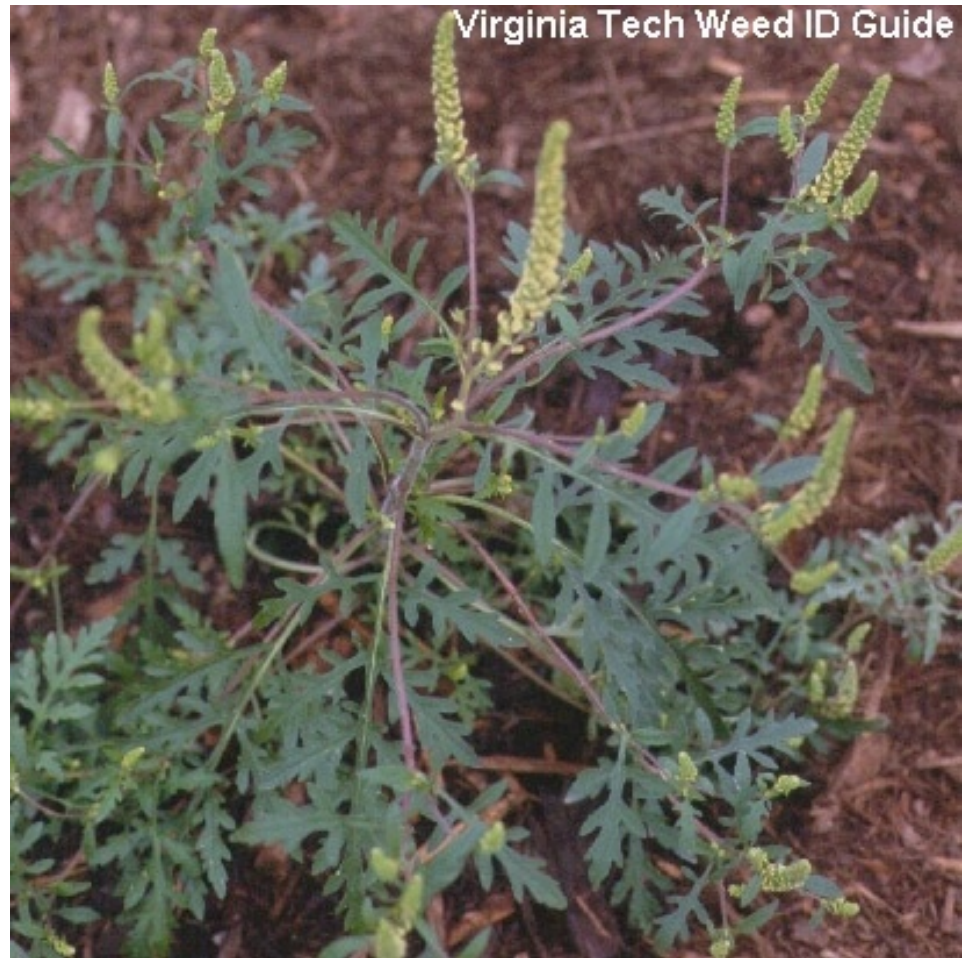


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# ***The Ragweeds:***





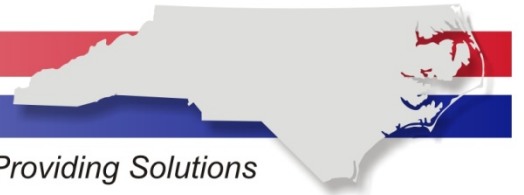


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# Control of Ragweed

- Summer annual
- Has an abundance of pollen that causes hay fever!
- Control is frequent clipping or use of Weedmaster<sup>®</sup>, Cimarron<sup>®</sup> or Grazon<sup>®</sup>



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# Golden Rod



- Perennial
- Grows by rhizomes
- Blamed for hay fever, but the culprit is ragweed
- Can be controlled mechanically or chemically



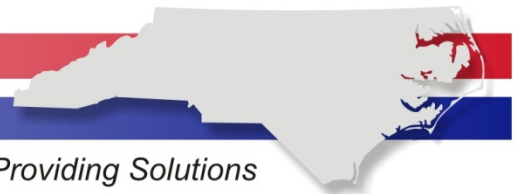
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# Horseweed



- An annual reaching a height of 6 ½ feet
- Begins in the winter as a low rosette and grows into the summer to reach its full height.
- Mechanical & chemical

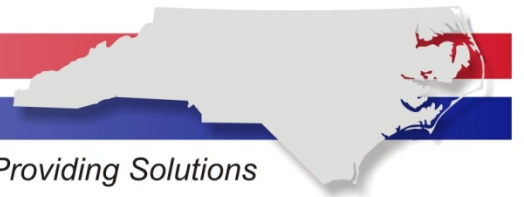






# Common Mullein

- Biennial that can reach up to 7 feet in height.
- Brought to US by the Puritans, who made medicine from it.
- Control mechanical or chemical.



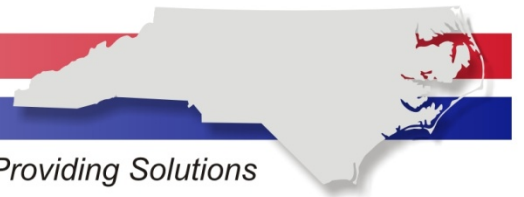
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# Musk Thistle



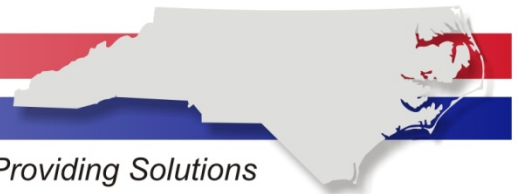
- Biennial that can reach a height of 6 feet.
- Deep taproot
- Control is digging or chemical
- Spread is through seed blowing in wind





# Bull Thistle

- Grows early spring
- Biennial
- Will spread by cutting ripened flowers
- Deep taproot
- Control is digging or chemical





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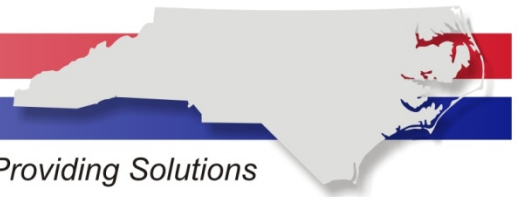
# Bitter Sneezeweed



*Helenium amarum*

**bitter sneezeweed**

Summer annual. Stems 4 to 24 inches tall, purplish color, branching. Leaves small, thread-like, numerous. Flower heads yellow, center dome-like. Plants with pungent odor. Bitter taste, imparting undesirable odors or flavors to dairy products. Found in wastelands, unimproved pastures.





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# Cockleburr



Summer annual that produces a conspicuous prickly 'cocklebur' and ranges from 1/2 to 6 1/2 feet in height



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# Broomsedge



- No chemical control
- Soil pH or phosphorus level is too low
- Lime or phosphorus must be tilled in



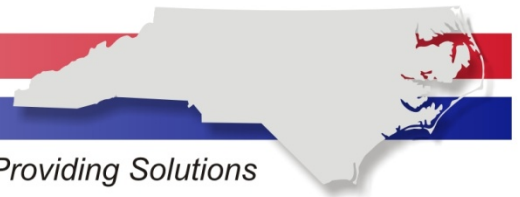
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# Dodder



- Parasite
- Cannot chemically control
- If found burn it
- Try not to move or far
- Any stems that break off will spread





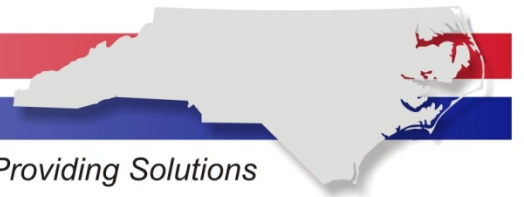
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# Privet



- Woody shrub
- Tends to grow in shady wet areas
- Will escape into pastures
- Clipping causes it branch out.
- Chemical only way to effectively control.



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# Greenbrier



- Perennial vine
- Climber
- Hard to control
- Roundup???
- Others???

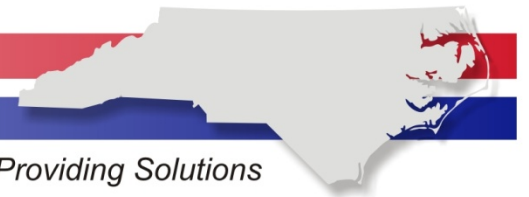




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# Coral Berry

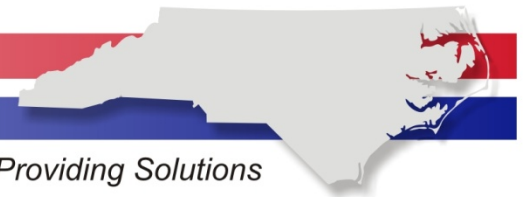




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# The Nasty Poisonous Weeds



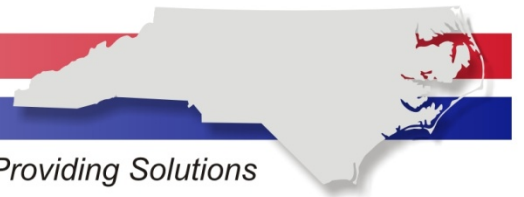
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# Hemp Dogbane



- Poisonous to Cattle
- In early stages looks similar to Milkweed
- Hard to control



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# Milkweed



- Perennial
- Grows from a deep rhizome
- Secretes a milky substance when broken.
- Young plant is more poisonous than older plant.
- Treat similar to Hemp Dogbane



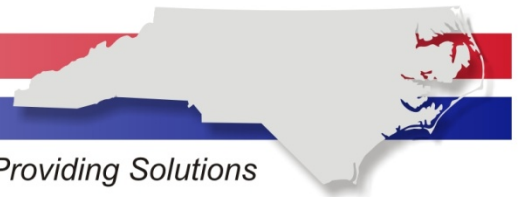


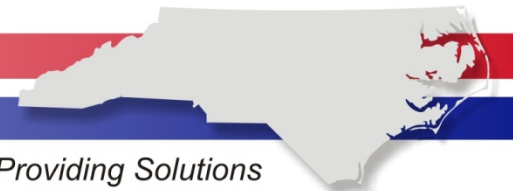
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# Jimsonweed (Loco Weed)

- Annual
- Deep taproot
- Seeds prolifically
- 0.06 – 0.09% of body weight is fatal – also dangerous in dried condition









# Poke Berry

- Shoots, leaves, and berries are poisonous
- Dangerous in spring summer and fall
- Severe gastrointestinal irritation after two hours





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# *Solanum* sp.



Horsenettle



Black Nightshade



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# Horsenettle & Black Nightshade



- Leaves and especially unripe fruit are dangerous
- Death from respiratory paralysis
- Grows spring, summer, and fall



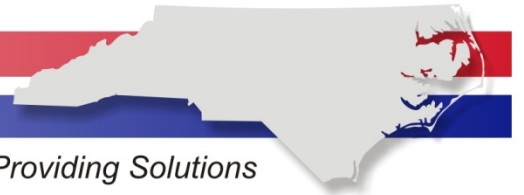
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# Bracken Fern



- Found in damp, shady areas
- Beautiful native fern
- Toxic to livestock
- Causes Thyroid problems





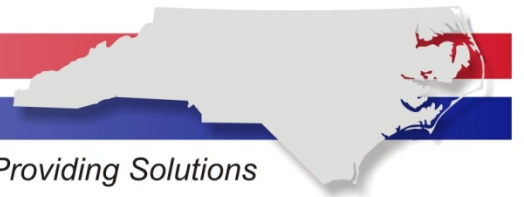
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# Perilla Mint



- Entire plant is dangerous
- Available spring to fall
- Respiratory distress, lowered head, nasal discharge



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# Chinese Lantern



- Perennial with thick fleshy rhizomes
- Grown ornamentally
- Dangerous, but rarely eaten

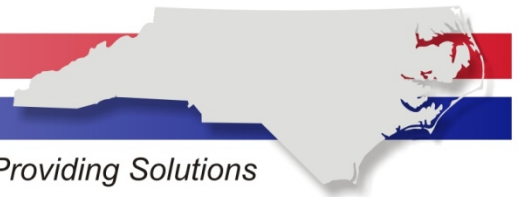


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# Weedy Grasses

- There are no herbicides to control weedy grasses in forages.
- Strategies –
  - Manage for the preferred species
  - Watch grazing heights
  - As weedy grasses grow, keep them clipped

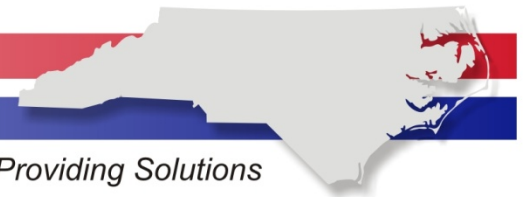




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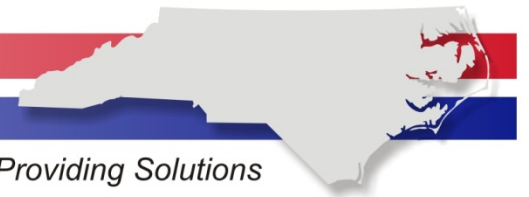
# ***What Do We Do Now?***



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***Weeds Do Not Compete  
Well With Well  
Established and Actively  
Growing Forages***



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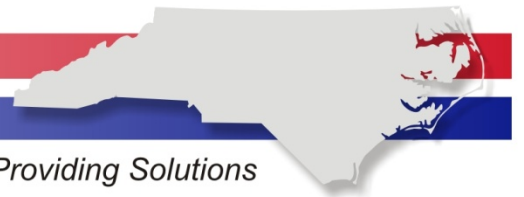
# Know What You Are Controlling

- Great ID Websites

- <http://ipm.ppws.vt.edu/weedindex.htm>

- <http://ceres.cals.ncsu.edu/wetland/poisonousplants/>

- <http://www-aes.tamu.edu/mary/Wdid.htm>

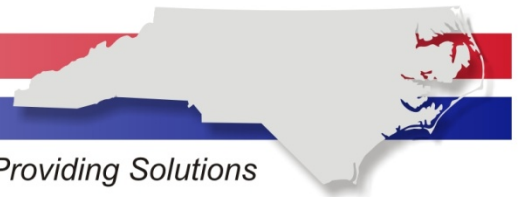




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# Goats as Biological Control

- Browsing habit makes them effective on woody plants.
- Will eat many herbaceous weeds also.
  - Good guardian animals for other livestock
  - i.e. plants poisonous to other livestock will not affect goats.
- Watch out for nitrates in some weeds during drought.













F6.7



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# The Strategies

- Soil Test
  - Lime and fertilize according to the soil test report
- Plant New Forages
  - Choice of several new varieties
    - Bromegrasses - Matua, Lakota
    - Bermuda – Wrangler, Cheyenne
    - Clover – Will, Tripoli, Kopu II

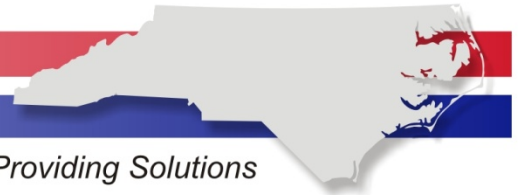


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# The Strategies

- Decide what is important
  - If you have a severe weed problem, but have native clovers in your pastures, you may want to sacrifice the clover to get rid of the weeds and then replant the clover
- Make a plan, then follow through





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# The Selective Herbicides

- 2,4-D
  - Good for annual broadleaves, not good on perennials
- Weedmaster
  - Combination 2,4-D and Banvel
- Cimarron
  - May stunt (seed head suppression) of fescue if used in the early spring.
- Grazon
  - Combination of 2,4-D and Picloram – has a residual effect



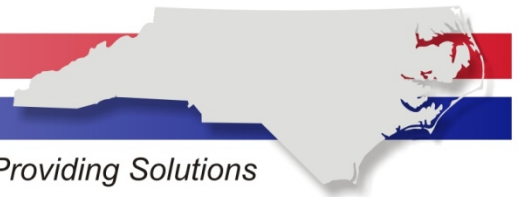
- Remedy<sup>®</sup>
  - Triclopyr ester – Crossbow addition of 2,4-D
- Surmount<sup>®</sup>
  - Picloram & fluroxypyr
- Redeem R&P<sup>®</sup>
  - Triclopyr & clopyralid
- Curtail<sup>®</sup>
  - 2,4-D & clopyralid
- Forefront<sup>®</sup>
  - Aminopyralid & 2,4-D – controls about like Grazon<sup>®</sup> - more expensive, but not restricted use

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# A Scenario

- March
  - Use 2,4-D to control buttercup, chickweed, etc.
- June
  - Use Grazon for control of perennial weeds
- August
  - Use Weedmaster or Cimmaron to clean up pigweed that is not being controlled from early summer Grazon treatment



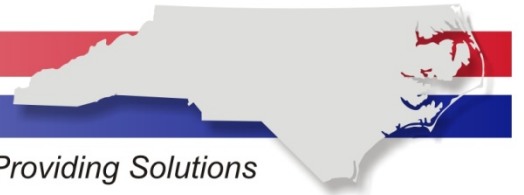


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# A Potential Problem

- 2,4-D
  - May not want to make 3 applications of 2,4-D in a growing season. Check label.
- Resistance
  - By making multiple applications of the same product resistance may start to develop in some plants





# Persistence of Grazon®

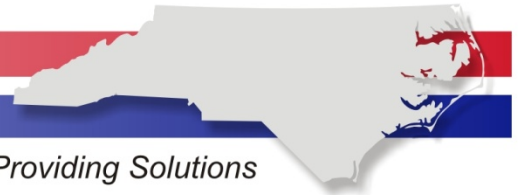
Grazon® applied 09/18/01,  
picture taken 05/05/02

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# Woody Plant Control

- Crossbow/Remedy
  - Both are triclopyr products
- Tank mixing with Grazon will increase effectiveness on certain weed problems
- May need to use with an oil for stump control





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# The Before Picture

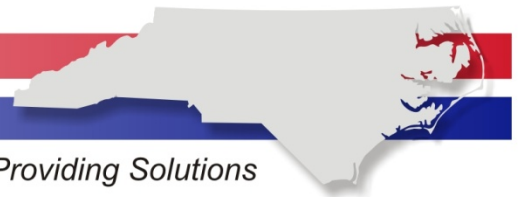




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# Remedy Fence Line Treatment



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# Residual Effects of Remedy on Privet???

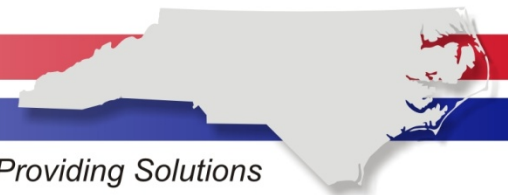




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Remedy/  
Grazon  
Combo  
Fence Line  
Treatment





***The End!***

