Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

Weed Management Issues for Georgia Cattlemen

Tim Murphy
Extension Weed Scientist
University of Georgia

What is the Economic Threshold?
Rule of thumb: When weeds are more than 20% of the pasture.

Woolly croton

Do I spray or fertilize first?
- Spray first.
- Control existing weeds.
- Begin soil-test based lime and fertilizer program.

Grazing for Weed Control
- Small weeds are more palatable
- Many weeds have comparable protein levels to forages
- Good fencing and cattle numbers are needed

Broomsedge is intolerant of early, heavy continuous grazing

Dr. Tim Murphy
Extension Weed Scientist
Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

“Weeds” in grazing situations serve multiple purposes

- Can dilute toxins in tall fescue during critical times
- Chickweed, crabgrass, dallisgrass, lespedeza
- Can extend grazing season and improve productivity
- Crabgrass in tall fescue
- Can improve quality
- Crabgrass and Johnsongrass

Spray or Bush Hog?

- About $10/acre including 1 qt/a 2,4-D
- About $12 to $14/acre
- More than $12/acre

Mowing

- Too late to prevent competition.
- No selectivity.
- Perennials will regrow.
- May prevent weed seed production.
- Consistency is key to effective weed control with mowing.

Mowing

- Mowing 3 times per year for 2 years provided 80 to 90% control of ironweed and goldenrod.
- Late summer mowing of dogfennel provided 80% control

Dr. Tim Murphy
Extension Weed Scientist
Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

**Herbicides and Legumes**

- Establish legumes after good weed control has been practiced for 1 to 2 years.
- 2,4-D amine is safe on white clover and lespedeza.

**Haying and Grazing Restrictions for Dairy Animals (Cattle and Goats)**

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Grazing</th>
<th>Hay</th>
<th>Grazing</th>
<th>Hay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsulfuron</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cimarron Plus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Milestone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Forefront</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Chaparral</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grazon P+D</td>
<td>7</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>Remedy</td>
<td>One season</td>
<td>14</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Weedmaster</td>
<td>7</td>
<td>37</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>2,4-D</td>
<td>7</td>
<td>30</td>
<td>7</td>
<td>30</td>
</tr>
</tbody>
</table>

**Haying and Grazing Restrictions for Various Livestock Species**

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Beef</th>
<th>Horses</th>
<th>Goats</th>
<th>Beef</th>
<th>Horses</th>
<th>Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metsulfuron</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cimarron Plus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Milestone</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GrazonNext</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Chaparral</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grazon P+D</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Remedy</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Velpar</td>
<td>0</td>
<td>0</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Weedmaster</td>
<td>0</td>
<td>0</td>
<td>37</td>
<td>37</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>2,4-D</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

**When do you spray?**

- **Winter annuals** - henbit, chickweed, buttercups, thistles
  - November through March
- **Summer annuals** - spiny amaranth, bitter sneezeweed
  - April through mid-July
- **Perennials**
  - growth stage dependent

**Herbicide Options**

1. 2,4-D
2. dicamba (Vanquish, Banvel)
3. 2,4-D + dicamba (WeedMaster, others)
4. dicamba+ diflufenzopyr (Overdrive)
5. diuron (Direx, Diuron)
6. triclopyr (Remedy)
7. imazapic (Impose,Panoramic)
8. 2,4-D + triclopyr (CrossBow)
9. triclopyr + clopyralid (Redeem)
10. 2,4-D + picloram (Grazon P+D, HiredHand, GunSlinger)
11. fluroxypyr + picloram (Surmount)
12. fluroxypyr + triclopyr (PastureGard)
13. tebuthiuron (Spike)

Dr. Tim Murphy
Extension Weed Scientist
Herbicide Options (cont.)

14. aminopyralid (Milestone)
15. aminopyralid + 2,4-D (ForeFront, GrazonNext)
16. aminopyralid + metsulfuron (Chaparral)
17. nicosulfuron + metsulfuron (Pastora)
18. metsulfuron (MSM E.Pro, others)
19. metsulfuron + chlorsulfuron (Cimarron Plus)
20. metsulfuron + 2,4-D + dicamba (Cimarron MAX)
21. hexazinone (Velpar)
22. sulfosulfuron (OutRider)
23. pendimethalin – Prowl H₂O
24. paraquat (Gramoxone Intecon, Firestorm, Parazone)
25. glyphosate (Roundup PowerMax, others)
26. thifensulfuron + tribenuron (Harmony Extra)
27. chlorsulfuron (Telar)

Newest Herbicides

- Milestone – aminopyralid
- GrazonNext, ForeFront – aminopyralid + 2,4-D
- Chaparral – aminopyralid + metsulfuron
- Telar - chlorsulfuron
- Prowl H₂O – pendimethalin
- Pastora - nicosulfuron + metsulfuron
- Harmony Extra - thifensulfuron + tribenuron

Milestone

- 2.0 lbs./gal. aminopyralid
- Use rate: 4.0 to 7.0 fl. ozs./acre
- Numerous broadleaf weeds – thistles, horseradish, tropical soda apple, buttercup
- Do not seed legumes year of application (additional research being conducted)
- Delay application until grasses have 4 to 5 leaves.

GrazonNext, ForeFront

- 0.33 lbs./gal. aminopyralid + 2.67 lbs./gal 2,4-D
- Use rate: 1.5 to 2.6 pts./acre
- Numerous broadleaf weeds – thistles, horseradish, buttercup, henbit, plantains, verbena
- Do not seed legumes year of application (additional research being conducted)
- Delay application until grasses have 4 to 5 leaves.

Dr. Tim Murphy
Extension Weed Scientist
Forage Conference at GCA Convention

Weed Management Issues for Georgia Cattlemen

Chaparral

- Bermuda, orchardgrass, tall fescue (up to 2.0 oz/a)
- Native grasses – wheatgrass, bluestems, grama
- Apply to fully tillered or established
- Same tall fescue precautions as metsulfuron products (2 yr establishment)

<table>
<thead>
<tr>
<th>Act. Ingredient</th>
<th>Rate (oz. product/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aminopyralid</td>
<td>0.049 0.066 0.098</td>
</tr>
<tr>
<td>metsulfuron</td>
<td>0.009 0.012 0.018</td>
</tr>
</tbody>
</table>

*Chaparral at 2.0 oz/a = 4.0 fl oz/a of Milestone 2SC + 0.3 oz/a Metsulfuron 60DG

Chaparral

- Non-volatile
- Injurious to legumes
- Do not seed legumes year of application (additional research being conducted)

Aminopyralid- It’s Good - BUT!!!!!

- Do not
  - use hay from treated areas for compost or mulch
  - transfer livestock to untreated areas without 3 d cleanout
  - use manure for fertilizing broadleaf crops
  - use in any temporary forage system involving broadleaf crops
- USE ONLY ON PERMANENT GRASS FORAGE SYSTEMS

Aminopyralid

- For Milestone, ForeFront, Grazon Next, Chaparral:
  - Aminopyralid is prohibited from use on hay that will be distributed or made available for sale off the farm where harvested unless allowed by supplemental labeling.
- Get aminopyralid stewardship info at:
  - http://www.dowagro.com/range/aminopyralid_stewardship.htm

Telar

- Sulfonyleurea
  - Chlorsulfuron 75.0%
  - Bahiagrass, bermudagrass - 0.25 to 1.0 oz/a
  - Tall fescue – 0.25 to 0.5 oz/a
- Telar controls:
  - Blackberry, pigweed(s), wild radish
  - Many annual broadleaf weeds < 4.0 in. tall
  - Does not control grass weeds, horehound, ragweed, fireweed (southern nettle)
- Add nonionic surfactant at 0.25% v/v
- Highly injurious to legumes
- No grazing or haying restrictions

Dr. Tim Murphy
Extension Weed Scientist
Dr. Tim Murphy
Extension Weed Scientist

Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

---

Grass Control Options - Bermudagrass

- Dormant bermuda
  - Glyphosate – 1.0 pt./acre (4.0 lb./gal.)
  - Gramoxone Inteon – 1.0 to 2.0 pts./acre
- Active Growth Bermuda
  - ‘Pensacola’ bahiagrass – Cimarron, Chaparral, Impose
  - Smutgrass – Velpar
  - Annual grasses
    - Roundup PowerMax, after first hay cut
    - Impose (imazapic)
  - Johnsongrass – OutRider, Impose
  - Spot treat or ropewick glyphosate

---

Prowl H₂O - BASF

- Pendimethalin
- Preemergence herbicide: 3.2 to 4.2 qts/acre
  - Needs rainfall for incorporation within 30 days of application
- Labeled on dormant forage bermudagrass hay or pasture (NOT LABELED ON TALL FESCUE)
- 45 day hay harvest restriction
- 60 day grazing restriction – all livestock types
- See supplemental label at: http://www.cdms.net/LDat/ld6CT014.pdf

---

Pastora – DuPont

- Sulfurylurea
  - Nicosulfuron 56.2% + Metsulfuron 15.0%
- Pastora controls:
  - Sandbur, panicum sp., foxtails, barnyardgrass, signalgrass < 2.0 in. tall
  - Pensacola bahiagrass, before seedheads emerge in spring
  - Vaseygrass (after hay cutting)
  - Italian ryegrass < 6.0 in. tall
  - Johnsongrass – 6 to 10 in. tall
  - annual broadleaf weeds < 4.0 in. tall

---

Pastora – DuPont

- Use rates: 1.0 to 1.5 oz./acre + NIS
- Bermudagrass only (injures tall fescue and legumes)
- No grazing or haying restrictions
- Rotation Intervals
  - Wheat, ryegrass, fescue – 4 months
  - Oat, barley – 10 months
  - Legumes – 12 months

---

Conclusions - Pastora

- Will control Italian ryegrass
- Crabgrass not as sensitive as other annual grasses (best control of crabgrass is at seedling stage)
- Established bermudagrass (one growing season)
- Application Timings
  - Winter – dormant bermuda
  - Spring – before 2 inches of new growth
  - Summer – within 7 days of hay cutting

---

Eatonton, GA 2010-2011
Dr. Tim Murphy  
Extension Weed Scientist

**Forage Conference at GCA Convention**

**Weed Management Issues for Georgia Cattlemen**

### Harmony Extra Products
- Harmony Extra SG – 50 SG  
  - 0.45 to 0.9 oz/a  
- Harmony Extra – 75 WDG  
  - 0.3 to 0.6 oz/a  
- Both contain thifensulfuron + tribenuron  
- Add a nonionic surfactant at 0.25% v/v

### Harmony Extra Products
- Wheat, barley, triticale and oats  
- Apply after two-leaf stage but before flag leaf is visible  
- Controls small henbit, common chickweed, wild radish  
- Also effective on wild garlic  
- Use at air temps. above 50 F  
- 7 day grazing restriction – all livestock types  
- 30 day haying restriction

### Thistle Control
- Too late to spray  
- Treat at this stage  

*bull thistle*  
*musk thistle*

### Thistle
- Late fall or early spring application  
- Treat at rosette leaf stage  
- 2,4-D ester  
- WeedMaster  
- Grazon P+D  
- Chaparral  
- ForeFront  
- Milestone  
- Pastora

### Blackberry Control

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate</th>
<th>% Control 1 year later</th>
</tr>
</thead>
<tbody>
<tr>
<td>PastureGard</td>
<td>1%</td>
<td>87</td>
</tr>
<tr>
<td>Remedy</td>
<td>1%</td>
<td>90</td>
</tr>
<tr>
<td>Milestone</td>
<td>0.5%</td>
<td>33</td>
</tr>
</tbody>
</table>

June 2005 to June 2006 Faulkner County, AR
Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

Blackberry control with Remedy, 1 qt/ac, Fall application, 6 MAT
Blackberry control with Cimarron Plus 0.5 ozs/ac at bloom, 5 MAT

Dewberry
- 0.625 oz Cimarron Plus per acre.
- Spray at full bloom.

Dogfennel
- Perennial – seed, roots
- Treat at 18 to 24 inch growth stage
- Best – PastureGard, Remedy, Grazon P +D, Weedmaster
- Good – 2,4-D, 2.0 qts./acre
- Poor to Fair – Metsulfuron

Hemp Dogbane
- Very tough to control.
- Surmount at 3 to 6 pts per acre is the best.
- Remedy provides temporary burn down.

Dr. Tim Murphy
Extension Weed Scientist
Forage Conference at GCA Convention
Weed Management Issues for Georgia Cattlemen

Horsenettle

- Best – Grazon P+D at 3.0 pts/acre or ForeFront at 2.6 pts/ac
- Fair – WeedMaster at 4.0 pt/acre or 2,4-D at 3 pts/ac
- Add a nonionic surfactant at 0.25% v/v.
- Apply at mid-bloom through fruiting

Pigweed

- Treat when small (2 to 4 inches) early May
- Metsulfuron 0.25 to 0.33 oz/acre
- Grazon P+D, Weedmaster, 2,4-D - 1-2 pts/acre, Cimarron Max 1 pt + 0.25 oz
- Germinates all summer. Repeat applications needed.

Keys to Herbicide Use

- Identify weed
- Select the right product
- Time the application correctly
- Apply accurately
- Follow grazing and haying restrictions

Incorporate…

- Mowing
- Grazing
- Fertilization
- Herbicides

……in an integrated approach to weed management

Dr. Tim Murphy
Extension Weed Scientist