Common weeds in Mississippi pastures
—www.msstate.edu/dept/pss/weeds/pastureweed.html

Forage Weeds

Mechanical versus Chemical

Mississippi Forage Shortcourse 2010

Forage producers need both as well as cultural and biological control
because there is no one silver bullet


Table 3—Number of Weeds per Acre on Adjacent Renovated and Unrenovated Portions of 20 Widely Distributed Permanent Bluegrass Pastures in Western and Southwestern Wisconsin

<table>
<thead>
<tr>
<th>No. of pastures</th>
<th>Year portions of pastures were renovated</th>
<th>Average number of weeds per acre in 1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1934</td>
<td>937,467</td>
</tr>
<tr>
<td>12</td>
<td>1938</td>
<td>1,019,853</td>
</tr>
<tr>
<td>1</td>
<td>1929</td>
<td>2,975,459</td>
</tr>
<tr>
<td>1</td>
<td>1955</td>
<td>1,004,000</td>
</tr>
<tr>
<td>1</td>
<td>1956</td>
<td>808,000</td>
</tr>
</tbody>
</table>

Note: The crops were cut or harvested in a succedent manner. See Table 3 below.

PERMANENT PASTURE

With the rapid manner in which weeds spread, the cost of weed control is high. It is necessary to control weeds in pastures as they become too costly to control. Weeds are a menace to the pasture and should be controlled before they become too costly to control. Control of weeds in pastures is not only necessary but is economically beneficial.

PERMANENT PASTURE

Further green and black grasses would be better managed for the benefits they provide. The benefits of the green and black grasses are not enough to justify the cost of control. The benefits of the green and black grasses are not enough to justify the cost of control. The benefits of the green and black grasses are not enough to justify the cost of control. The benefits of the green and black grasses are not enough to justify the cost of control.

Commercial Weed Control Recommendations

1. Use a 20-40% solution of the same species of plants for all pasture and all hay applications. For permanent pastures, use a 40-60% solution of species and species of plants.

2. Use 20-40% solution of the same species of plants for all pasture and all hay applications. For permanent pastures, use a 40-60% solution of species and species of plants. If needed.
Herbicides for forage crops

- 2,4-D (several)
  - ester
  - Amine
- 2,4-DB (several)
- Clarity (dicamba)
- Remedy (triclopyr)
- Cimarron (metsulfuron)
- Velpar (hexazinone)
- Gramoxone Inteon (paraquat)
- Glyphosate (several)

- Weedmaster (2,4-D + dicamba)
- Grazon P+D (2,4-D + picloram)
- Crossbow (2,4-D + triclopyr)
- Aim (carfentrazone)
- Pursuit (imazethapyr)

- Cimarron Max (Ally/Weedmaster copack)
- Cimarron Plus (metsulfuron + chlorsulfuron)
- Telar (chlorsulfuron)
- Pastureguard (triclopyr + fluroxypyr)
- Surmount (picloram + fluroxypyr)
- Milestone (aminopyralid)
- Grazon Next (aminopyralid + 2,4-D)
- Overdrive (dicamba + diflufenzopyr)
- Journey (Plateau + glyphosate)
- Arsenal Powerline (imazapyr)
- Lineage Clearstand (imazapyr + metsulfuron)
- Maverick (sulfosulfuron)
- Chaparral (aminopyralid + metsulfuron)
- Pastora (metsulfuron + nicosulfuron)

Generics

- Metsulfuron (Cimarron, Accurate, Chism, Report, Patriot, etc.)
- Triclopyr (Remedy, Redeem, Triclopyr, Candor, etc.)
- Picloram (Tordon, Picloram, etc.)
- 2,4-D+picloram (Grazon, Picloram + D, Toram, Trooper, etc.)
- Imazapyr (Arsenal, Polaris, etc.)
- 2,4-D+dicamba (Weedmaster, Brash, Pasturemaster, Rangestar, Rifle D, etc.)
- Dicamba (Banvel, Cruise Control, Diablo, Rifle, etc.)
- Glyphosate (too many to name)
- Aimsulfuron (too many to name)

Aim

- 0.5 to 1.5 oz/A with NIS and 2.5 lbs/A AMS
- No grazing or haying restrictions
- 7 days between applications; no more than 3 per season
- Bitterweed, spiny amaranth, buffalobur, cocklebur, woolly croton, jimsonweed

New herbicides

- Pastora (nicosulfuron + metsulfuron)
- Grazing interval on Velpar shortened to 0 days grazing restriction
- MAT 28 (aminocyclopyrachlor)
  - +2,4-D?
  - +metsulfuron?
  - +chlorsulfuron?
Granular formulations available for some herbicides, such as Spike and Pronone Power Pellets (Velpar), are very convenient to apply, but these are easily overdosed.
• Velpar DF – 1 to 1.5 lb/A or 3.5 pt/A Velpar L for smutgrass control. Do not graze cattle or harvest hay less than 60 days after application. Do not seed ryegrass less than 60 days after treatment.

Pastora
• Inconsistent control of knotroot foxtail, dallisgrass; poor on large crabgrass;
• Excellent on horsenettle;
• Repeat treatments needed for johnsongrass;
• Slight injury at 3 WAT evaluation;
• Adding diuron to mix reduced Tifton 44 injury.
Current research

- Clover tolerance to herbicides
- Potential forage herbicides
- Spray tip evaluation
- Herbicide tolerant ryegrass
- New forage tolerance to herbicides

6th Circuit Court of Appeals
Ruling on Pesticide Applications
January 7, 2009 Action

- Vacated 2006 EPA rule which exempted pesticides/fertilizers applied near or into U. S. waters from National Pollutant Discharge Elimination System permits under Clean Water Act even if pesticides were applied according to EPA label.

Opinions Issued

- Any spray nozzle used for pesticide application is now considered “Point Source”
- Any chemical/fertilizer residue remaining beyond effective life of pesticide is now “Pollutant.” All biological pesticides are also “Pollutants.”
- Pesticides/fertilizers applied to land but eventually get into water are “Regulated Discharges.”

Waters of the U. S.

- Any drainage which flows into a ditch which in turn flows into a navigable creek

Effect

- Every business that applies any type of pesticide, chemical or fertilizer will be required to obtain a NPDES permit.
- Permits must be obtained 180 days in advance and must be open for public hearing.
- Applicators without a permit will be subject to citizen lawsuits and can be fined $27,500 per day if pollutants are found in water flowing from site of application.
EPA Response

- Asked for 2 year stay before implementation
- Types of pesticide applications likely to require NPDES permit: mosquito control, weed control in lakes, weed control in irrigation ditches and drains, wide-area aquatic invasive weeds, wide-area insect suppression programs, pesticides used in forestry programs applied over water of the U. S.

Forage producers need both plus some