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Check economics of crops before growing them in 2008

With fertilizer and fuel prices at the highest prices ever, study the production cost of each crop prior to committing to growing them. Corn often requires as much as 500 lbs/A of total N, P, K nutrients and requires more water than most agronomic crops. The nutrients alone would cost close to $300/A at current prices. Cotton and peanut are among the most drought tolerant row crops and can do well with limited or no irrigation. Soybeans normally grow best on heavy soils with good water holding capacity and can also be double cropped with small grain and after corn. All of these factors have to be reviewed when growing crops in the new year. When planning your planting, be aware that the spring of 2008 is projected to be drier and warmer than normal. Plant as early as possible for all crops since moisture generally becomes more limiting later into the spring if dry conditions persist.

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Topdress Small Grains with Nitrogen in late January or early February

Small grains should be topdressed with nitrogen no later than early February. Small grains will be tillering usually by early to mid January if it has been planted timely. Herbicide may be applied with the nitrogen application to control broadleaf weeds by late January to keep weeds from becoming too big for effective control. Growers generally use nitrogen with sulfur since most of our soils are deficient in sulfur. Growers can use 16-19% solutions of nitrogen with sulfur which are usually cheaper per unit of nitrogen than the more concentrated 28-32% nitrogen solution. However, more volume is needed to get the same rate (28-32%) when using the low nitrogen concentration solution (16-19%). About 90-120 lbs of total nitrogen per acre is enough to make top yields. The total amount of nitrogen needed depends on soil type, previous crops, and rainfall amount. Additional nitrogen can be applied about 4-5 weeks after the January - February early application if needed.

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Liming Needs for Florida Pastures

The reason for liming pastures is to guarantee the right soil conditions for the pasture plant to take up the soil nutrients.

If the soil pH is not the correct one, soil nutrients will not be available for the plant to absorb them. In many cases, raising the pH of the soil by applying lime makes the nutrients available at less cost than applying those nutrients through inorganic fertilizer. Only apply lime when your soil test recommendation calls for it - otherwise you might be spoiling what might be an existing good soil condition, plus if it is not needed you are just wasting money.

The soil pH, or soil reaction, is a measure of the degree of acidity or alkalinity of the soil. A soil pH reading of 7.0 is neutral, below 7.0 is acid, and above 7.0 is basic or alkaline. The target pH for most forage crops is slightly acidic (6.0); perennial peanut has a target pH of 6.0; cool-season annual grasses, 6.0. Most legumes will require a slightly higher pH: warm-season legumes or legume-grass mixtures, 6.5; soybeans, 6.5.

However, for perennial warm-season 'bahiagrass' the target pH is 5.5 for any fertilization management intensity used (High-N, Medium-N, or Low-N fertilization). And for limpograss the target pH is one of the lowest at 5.0.

Whichever the pasture plant, this soil pH will only be determined by doing a soil test. The coming months, January and February, are timely for lime application, particularly if you are planting new areas or renovating others.

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Keeping Connected

UF/IFAS
Entomology and Nematology
newsletter available at
http://entnews.ifas.ufl.edu/

For a listing of Insects, Mites
and other topics, check:
http://pests.ifas.ufl.edu/
January is a time when most people are not thinking about pasture maintenance. But right now is when thistles are the most productive. In January, most thistles are still in the rosette stage (a small ring of leaves on top of the ground) and are easily overlooked. However, as warm weather approaches the thistle will send up a stalk and produce a flower.

* A single thistle plant can produce at least 4,000 seeds that will drift in the wind and produce higher thistle populations in the pasture the following year.

Consequently, management practices need to be conducted prior to flower formation for effective thistle control. Even if thistles have not infested your pasture in the past, it is ideal that your pastures are scouted in late fall through mid-spring to ensure that thistles do not get out of control. New infestations are easier to manage than large-scale populations.

Although there are at least nine different species of thistle in Florida, most are closely related and control recommendations will not differ. As a general rule, thistles in the rosette stage are much easier, and cheaper, to control than thistles that are flowering (Table 1). If caught early, a few dollars per acre of 2,4-D ester is the best solution. This application is best made when daytime temperatures are consistently in the 60s. Applications made during a cold snap can decrease activity.

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Rate</th>
<th>$/A&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Thistle Growth Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rosette&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>2,4-D</td>
<td>2 qt/A</td>
<td>6</td>
<td>90</td>
</tr>
<tr>
<td>Weedmaster</td>
<td>2 pt/A</td>
<td>6</td>
<td>95</td>
</tr>
<tr>
<td>Remedy</td>
<td>2 pt/A</td>
<td>21</td>
<td>95</td>
</tr>
<tr>
<td>Pasturegard</td>
<td>3 pt/A</td>
<td>18</td>
<td>95</td>
</tr>
<tr>
<td>Milestone</td>
<td>4 oz/A</td>
<td>11</td>
<td>99</td>
</tr>
</tbody>
</table>

<sup>a</sup> Approximate herbicide costs.

<sup>b</sup> The rosette stage is when the thistle forms a low-growing ring of leaves.

<sup>c</sup> The bolting stage is when the thistle forms a stalk and prepares to flower.

*Now is the time to quickly scout your pastures* and determine if enough thistles are present to require a herbicide application. If so, spraying early will always be easier and provide much greater dividends. For more information on thistle control, check the reference titled: Thistle Control in Pastures at [http://edis.ifas.ufl.edu/AG253](http://edis.ifas.ufl.edu/AG253).

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Peanut Inoculation

There is much speculation about whether to inoculate peanuts each year and how often they need to be inoculated and if newer, higher yielding varieties have a greater need to be inoculated than older varieties.

A study was conducted in 2007 with three of the newer peanut varieties, Florida 07, AP-3, and McCloud to compare inoculated with non inoculated plots over conventional and strip tillage planting methods.

Tillage did not affect nut yield with 4297 lb acre\(^{-1}\) for conventional tillage and 4372 lbs acre\(^{-1}\) for strip till averaged across inoculations and cultivars. These data indicate that tillage can be reduced without loss of yield and can reduce input costs and increase net economic return. Inoculated treatments had slightly higher yield than non-inoculated plots in conventional tillage (turned and harrowed), but results were reversed in strip till treatment. Peanut yields were 4371 lbs acre\(^{-1}\) for the inoculated and 4299 lbs acre\(^{-1}\) for the non-inoculation treatments even though the area had been in bahiagrass for 3 years and had not been in peanuts for more than 6 years.

\textit{Results from this study indicate that inoculation may not be important for either old or new varieties of peanuts if peanuts have been grown in the fields within five years.}

However, cultivars varied in yield with Florida 07 having highest yield of 4668 lbs acre\(^{-1}\) followed by AP-3, 4371, and McCloud, 4335. Yield difference was only detected between Florida 07 and AP-3 in conventional tillage with non-inoculation Florida 07 being significantly higher yielding than non-inoculated AP-3.

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Calendar Dates

| January 26-31 | American Forage and Grassland Council (AFGC) 
Louisville, Kentucky |
|--------------|-------------------------------------------------|
| January 29-30 | 19th Annual Florida Ruminant Nutritional Symposium 
at the Best Western Gateway Grand in Gainesville, FL 
http://conference.ifas.ufl.edu/ruminant |
| February 3-5  | Southern Association of Agricultural Scientists (SAAS) 
Dallas, Texas |
| July 13-17    | Caribbean Food Crops Society Meeting 
Miami, FL ~ Hosted by UF/IFAS |