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Grazing Cattle on Row Crop Land

Row crop growers would benefit from establishing working relationships with cattle producers for winter grazing. Soil sampling taken over the past two years on crop land that had cattle grazed vs. just cover crops in the same field had as much as $120 worth of nutrients that were kept in the top foot of the soil profile as compared to just growing cover crops. Most of this value in nutrients was in N and K but also in other nutrients. Cotton grown after the cattle vs. no cattle has averaged about 200 lbs. more lint per acre than where cattle were not grazed. There was slightly more soil compaction in the top 6 inches of the soil profile. However, overall cattle added benefit to cotton and would be expected to add benefit to corn but had no impact on peanut. Wright & Marois.

Decisions for 2011 Planting

Due to the favorable prices for row crops at the present time, growers who make variety selection decisions early will be able to get the best varieties. In many cases there is some discount for seed purchases made by the end of the year for the coming year. The favorable prices will make it easier for growers to do a better job of rotating crops. Seldom do all of the row crops have good prices and best rotations are not followed due to crop price. 2011 will be a good year for peanut or soybean growers to rotate to cotton since the prices are very favorable for making a profit. Rotation is one of the best practices to maintain yield of all crops in a rotation and reduce pesticide costs. Wright.
Camelina an Oil Seed Crop

There has been much discussion about camelina as a winter crop for Florida farmers. Camelina [Camelina sativa (L)] is a semi-arid, old world crop used primarily for oil that has had very little improvements done from breeding efforts. It is a member of the Brassicaceae family which is related to canola and cole crops. Oil content of the seed is 29-40% and is high in omega-3 fatty acids which have been cited as having health benefits. The meal can be fed to livestock producing eggs and meat that is higher in omega-3 fatty acids. The interest in camelina is not only due to omega-3 fatty acids but as a as a renewable source of energy for high quality jet fuel. It has a wide range of adaptation. Camelina has a fit in many different cropping systems due to its short period of growth (70-90 days). Camelina seedlings can survive intense cold (into the teens) and can be planted before or after main cash crops in southern latitudes in either the spring or fall. Even though the crop has been grown for thousands of years, research related to production is limited and will develop as its value increases as a renewable energy crop. Data from Colorado has shown that water use efficiency was higher for camelina than either canola or sunflowers. Many of the production practices being used are taken from related crops (mainly canola). In dry climates, camelina can replace fallow between crops to produce income and serve as a renewable energy and rotation crop.

Since breeding efforts have been limited on camelina, only a few varieties are available. It can be established with no-till drills in firm seedbeds. Recommended seeding rate is 3-10 lbs/A at a depth of ¼ - ½ inch deep. A cultipacker seeder may be the best implement for establishing stands for new growers on prepared seedbeds as they experiment with establishment. Getting a stand is a critical component of production. At the present no herbicides are labeled for camelina. Likewise, little is known about impacts of residual herbicides from other crops on its establishment. Currently, most university researchers working on camelina suggest that the same restrictions on residual herbicides on canola be followed for camelina. It is also suggested that camelina not be planted more than once every 3 years in the same field. However, it is a very short season crop and these restrictions may be altered after field testing in Florida. Yields of 1000-1500 lbs/A or more have been made with N application rates of 60-90 lbs/A in other parts of the country. Soil tests should be followed for other nutrients. Direct harvesting can be done with a combine when pods turn yellow. Like canola, reel speed is critical to keep from shattering seed during the harvest operation. Recommended moisture for storage is 8% to keep from damage and spoilage. We do not have good experimental information on best planting dates or nitrogen rates at the current time in Florida but trials are under way for N rates, planting dates and planting after the major row crops (peanut, corn, cotton, and soybean) to determine residual herbicide impacts on canola establishment and yield. In Florida at the present time, little is known about camelina. However, camelina has been grown in south Florida and the oil has been tested as a “drop-in” fuel for military jets with good results. Little breeding work for yield or oil content has been done but it offers potential as a short season biofuels crop that could fit into many different cropping systems in Florida. No data are available on the impact of residual herbicides on camelina grown after harvest of peanut, cotton, or other row crops. Information will be provided as we learn more about production management and markets.
Grazing of Winter Annual Forages

Target the stubble height to start grazing of winter annuals not earlier than 6 to 8 inches tall.

Winter annuals that are grazed too early, at 4 inches, will fail to persist or provide adequate forage. The grazing or utilization of winter annuals should start when plants have reach 6 to 8 inch and livestock should be removed when plants have 3 to 4 inches of growth remaining.

Leaving a stubble height of 3 to 4 inches will maintain enough leaf area to generate the new leaf growth and recover from grazing. If grazed too early, the subsequent growth is not abundant and forage yield will be substantially reduced.

Freeze, Sorghum and Prussic Acid

In sorghums there is the potential for ‘prussic acid’ poisoning to cattle for a short period of time after frosts. Prusiacid or hydrocyanic acid is a toxic compound that is released in plants in the sorghum family when the plant is affected mainly by freeze or drought.

Plants are more likely to produce prussic acid in soil that is high in nitrogen but poor in phosphorus and potassium.

Hay maybe unsafe if cut under drought or after a freeze. BUT, in time, the toxic compounds gradually volatilize, and danger may only occur if hay is not cured properly.

Because the prussic acid volatilizes, allow 7 to 10 days to pass before grazing after a light frost. Do not graze plants that are wilted or plants with young regrowth. If ensiling material that has been frosted, allow fermentation to occur for six to eight weeks before feeding.
Florida Granted 24C Label for Wick-Bar Applications of Gramoxone Inteon

Palmer amaranth populations that are resistant to Cadre herbicide (imazapic) have become more common and problematic in Florida. Without Cadre, the only postemergence herbicide option for Palmer amaranth control is Cobra or Ultra Blazer – both of which only work effectively if weeds are 3” tall or less. But late-season Palmer amaranth escapes can reach heights of over 6”, drop millions of seed, and greatly complicate peanut harvest. Hand-removal crews have been frequently used in these situations since no herbicide options were available. But recent research has shown that Gramoxone Inteon (50% solution) can effectively control these large plants when applied through a selective-wiper system. Based on these data, a petition was sent to the Florida Department of Agriculture to approve a 24C label (Special Local Needs) and the request was granted on November 8, 2010.

Wiper-type applicators are notoriously difficult to adjust. Either the system is too loose and the herbicide drips onto the crop causing considerable injury, or they are too tight and not enough herbicide is transferred onto the weeds. Due to this dilemma, rope-wick (or gravity flow, Figure 1) applicators generally are less effective and have been shown to provide approximately 60% control of Palmer amaranth. This is because it is difficult to transfer sufficient herbicide solution to the weeds without having leaks in the system. This can be partially overcome by wiping the weeds in two directions (two passes through the field) and driving less than 5 MPH. A more effective solution to this problem is to use a rotating wiper which has been shown to provide over 90% control (Figure 2). Since the application surface is constantly rotating, more herbicide solution can be applied before dripping occurs. The wetter the surface, the more herbicide is transferred to the weeds and greater control is observed. But regardless of which system is chosen, it is essential to spend considerable time adjusting the flow on your wiper in order for this system to work properly without dripping. It is also important to remember that dense weed patches can quickly dry out either wiper system. In dense patches, you will need to either increase the herbicide flow on the wiper, slow down, or both.

This 24C label is a great addition for management of Cadre-resistant Palmer amaranth. However, wipers should NOT be relied upon as part of your overall weed management program. For these wipers to be effective, the weeds need to be considerably taller than the crop. As this occurs, considerable yield loss will be expected. A full weed control program should be employed to manage Palmer amaranth every season in order to maximize yield, but we now have the means of “rescue” a field if the need arises.

*The use of these images is not an endorsement of a single product, but rather an example of two different forms of application technology. Many manufactures and many different
New Core Manual for Pesticide Applicators Now Available

Practically all applicators of restricted use pesticides must successfully pass the Core exam in order to become certified prior to being issued a license by FDACS. The 50-question Core exam is based upon the contents of the study manual SM 1, “Applying Pesticides Correctly.” The recently-released 7th edition is formatted into 9 chapters along with an appendix containing useful information for handlers of pesticides. The 180-page manual is illustrated with full-color photographs and costs $20. It may be obtained through the UF/IFAS Extension Bookstore by calling (352) 392-1764, toll-free (800) 226-1764, or online at www.ifasbooks.com.

New Drift Management Guide Available

A 17-page illustrated guide by F. M. Fishel and J. A. Ferrell, provides common-sense solutions for minimizing potential drift problems and was recently published by the UF Department of Agronomy. The guide presents an overview of the problem, describes types of pesticide drift, and the factors that influence it – understanding droplet size and how equipment setup affects it, are a major point of discussion. “Managing Pesticide Drift,” UF/IFAS EDIS Document PI232, may be accessed at http://edis.ifas.ufl.edu/pi232.
To follow the link, press “Ctrl” and put cursor over link, and “click.”

Dec. 16-17  Drip Irrigation School, Live Oak (North Florida REC)

Jan. 8-10  Ag Connect Expo. Atlanta, Georgia. For more information, please check http://www.agconnect.com

Jan. 20  UF/IFAS Cattlemen’s Institute and Allied Trade Show, Kissimmee

Feb. 6-8  American Society of Agronomy (ASA) Southern branch meeting, Corpus Christi, TX.
https://www.agronomy.org/membership/branches/southern

New Year Wishes …
…from the Agronomy Department...

Happiness and Joy, and the Best of Everything…
...That You So Well Deserved!!

Happy holidays!!