

# AGRONOMY

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# NOTES

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## **Nitrogen Fertilization for Corn**

Corn does not have a high requirement for nitrogen until it starts the peak growth stage. Peak growth, from March planted corn, begins about 40 days after planting. However, early and adequate nitrogen is very important to final yield. Corn should have starter nitrogen so optimum growth occurs until it can be sidedressed. Sidedressing should take place when corn is 10-15 inches tall with the nitrogen placed as near the row as possible. Since the root system of corn extends approximately 3-4 inches on either side of the stalk at this stage of growth, nitrogen applied on a broadcast basis has a high likelihood of being lost to leaching below the root zone. The application at this stage may add several bushels of grain and several tons of silage at harvest. Other applications of fertilizer, when corn is taller, may be put through the irrigation system for ease and convenience.

David L. Wright

## **Cotton Root and Shoot Development**

Cotton plants develop slowly during the first month. However, at 10 days after emergence, root growth will be approximately twice as large as shoot growth. By 30 days after emergence, top growth is still slow and root development may be as much as three times larger than the top. By first flower, or about 60-65 days after planting, root growth will level off while top growth and boll weight will continue to increase until maturity.

David L. Wright

## **Cotton Seed Availability**

Many new varieties with new technologies are available for growers to try. Most of the new technologies being introduced are new Bt events, or two different Bt events (in the same plant) for a wider insect control range coupled with Roundup Flex. Roundup Ready Flex allows later applications of glyphosate to cotton. It is good to try the technology to see if it has merit on your farm. The Roundup Ready Flex will help growers do a better job of controlling weeds late in the season. However, like all of the other cotton growing states, residual herbicides are recommended to combat weed resistance as long as possible.

There will not be a great deal of seed available of many of these new varieties, but trial-size quantities should be obtainable. All of the other popular cotton varieties will be in adequate supply.

David L. Wright

## **Peanut Planting Date**

Peanut planting date is based on the Tomato spotted wilt virus index and the damage that it does to peanut. Many growers may not start planting peanuts until sometime in May, but planting after the first week of May is best. Many of the planting date studies from the past year showed that good yields could still be obtained as late as the first week of June. However, the period from May 11 to May 25 appears to be optimum for least damage and best yields.

David L. Wright

## **Is Prowl H<sub>2</sub>O right for you?**

Prowl H<sub>2</sub>O is an encapsulated formulation of pendimethalin that has been shown to provide equivalent weed control to traditional formulations such as Prowl 3.3 and Pendimax. Prowl H<sub>2</sub>O also offers additional advantages over traditional formulations such as less product odor and less staining of equipment. However, the greatest advantage of Prowl H<sub>2</sub>O is that degradation due to exposure to sunlight is much less than with other formulations. For example, Prowl 3.3EC must be incorporated with rainfall, irrigation or tillage within 7 days of application to the soil surface. If not incorporated within this time, sunlight will degrade the herbicide and significantly reduce its effectiveness. Conversely, Prowl H<sub>2</sub>O is less likely to degrade on the soil surface. Therefore, Prowl H<sub>2</sub>O is a good choice in minimum or strip-till operations where irrigation or equipment is not used for herbicide incorporation. This fact allows more flexibility with Prowl H<sub>2</sub>O and provides additional insurance during dry springs when rainfall may not occur within 7 days of application.

However, Prowl H<sub>2</sub>O is approximately \$29/gal while Pendimax 3.3 remains at \$24/gal. Additionally, Prowl H<sub>2</sub>O will only control weeds if it comes in contact with the root tip soon after seed germination. Since many weeds germinate within the top 1" of soil, some type of incorporation is required to move Prowl H<sub>2</sub>O into the soil so that it will be present to control the germinating seedlings. Regardless of formulation, incorporation is required for effective weed control.

Prowl H<sub>2</sub>O offers some advantages over the traditional pendimethalin formulations, but

cost and tillage type should be considered. If producers intend to mechanically incorporate the herbicide, Pendimax will provide equivalent weed control at a lower price. If no incorporation is planned, Prowl H<sub>2</sub>O will potentially provide "insurance" against dry weather.

Jason A. Ferrell

## **Dry Spring Means Changes in Farm Management**

Agclimate.org is a crop model program developed to help growers decide on farm management strategies. The model predicted a dry spring which changes the way we look at planting different crops. Cotton should be planted as early as possible so that any moisture will bring it up to a stand. Waiting for rain may mean planting past the recommended date or doing tillage on the next rain and then waiting for another rain to plant the crop. Cover crops should be killed as early as possible to keep from depleting any more soil moisture. This and other models will help growers make more informed decisions in the future and take some of the guess work out of farm decisions.

David L. Wright

## **Worker Protection Standard: A 10 Year Summary**

The Worker Protection Standard (WPS) is a Federal regulation designed to protect agricultural workers (people involved in the production of agricultural plants) and pesticide handlers (people mixing, loading, or applying pesticides or doing other tasks involving direct contact with pesticides). It has been in full implementation since 1995.

A complete reference for the WPS is provided by: How to comply with the worker protection standard for agricultural pesticides: what employers need to know <http://www.epa.gov/agriculture/epa-735-b-05-002.pdf>. The WPS is a complex regulation and complete compliance by agricultural producers has been difficult. This has been obvious based upon a summary of agricultural establishment inspections released by the Florida Department of Agriculture and Consumer Services (FDACS). The summary reports that for 1995 through 2004, there were 4,514 firms inspected, most of which were farms and nurseries. The results of the FDACS inspections recorded a total of 2,565 violations. The inspections involved checking for central posting of information, worker safety training, decontamination sites, early re-entry into treated areas, safety equipment, and other requirements as

outlined by the WPS. Most (67%) of the violations involved two aspects: central posting of information and safety training. Central posting of information includes providing a place on the agricultural establishment where workers can learn of pesticide applications made on the site, emergency medical facilities that are at their disposal, and a pesticide safety poster. Training for workers is required before a worker accumulates more than 5 separate days of entry into treated areas where, within the past 30 days, a pesticide has been applied or a restricted-entry interval has been in effect. Pesticide handlers must be trained before they do any handling task. The UF/IFAS Pesticide Information Office cooperates with FDACS, various agencies and commodity associations in helping to educate the regulated community.

Fred Fishel

The use of trade names does not constitute a guarantee or warrant of products named and does not signify approval to the exclusion of similar products.

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