

# Agronomy Notes

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## *Laudis - A New Herbicide for Corn*

Laudis (tembotrione) is a new “bleaching” herbicide registered for use in corn. Laudis is applied postemergence at a rate of 3 oz/A and provides excellent control of pigweeds, ragweed, morningglory, and annual grasses such as crabgrass and goosegrass. This herbicide also possesses a significant level of soil residual activity. One application of Laudis will generally control sensitive weeds for 4 to 6 weeks after application. Because of the spectrum of this herbicide, it is an ideal tank-mix partner for glyphosate and atrazine. Atrazine + Laudis combinations applied to 6” corn has performed very well in University of Florida trials. However, like most postemergence herbicides, control is maximized if weeds that are less than 4 inches are sprayed.

Laudis can be applied from corn emergence until the V8 stage of growth. All applications should be made using either a crop oil or methylated seed oil adjuvant.

Although Laudis has soil residual activity, plant back restrictions are relatively short. Small grains can be planted within 4 months of application. Plant back for soybeans and cotton are 8 and 10 months, respectively.

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*Cotton, Corn, Soybean -*

## *What Crops will be Profitable?*

Costs of seed are increasing on cotton and corn with cotton being the most expensive due to new Roundup technology as well as stacked Bt traits. At one time seed costs were only a minor part of production of these crops, but as genetic technology has resulted in less use of pesticide, growers are being charged more due to the value of these traits to growers. However, growers may want to consider using the technology only where the benefit is the highest. Fields with low yield potential or other factors that could increase risks (sandy, non irrigated fields, resistant weeds, etc) could still use standard crops without genetic technology. Profit margins on these fields are often narrow anyway. Growers are generally optimistic and will use the latest technology available on all crops. This may be unprofitable when seed and technology cost as much as \$70-85/A for the elite lines of cotton with latest technology.

Growers are more undecided on what crops they will be growing in 2009 than at any time in recent history. High costs of fertilizer have resulted in budgets for irrigated corn being over \$1,000/A. Commodity prices have varied more in the past 12 months than at any time in the last several decades. This has led growers to try to find crops that can be grown more cheaply with reduced inputs without giving up the potential for high yields. The two crops that can be grown without a great deal of response to direct fertilization are peanut and soybean. Both of these crops do well when grown with residual nutrients from fertilizer applied to other crops in rotation. Of the common row crops in Florida, corn requires the most fertilizer inputs followed by cotton. Many growers will make last minute decisions on what crops to plant in which fields. The nematode situation should be taken into consideration since nematodes can impact yield very significantly and growers will not get the benefit of inputs applied to the crop even though inputs were applied for high yields.

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# Winter Grazing and Cover Crops

Topdressing small grain with nitrogen for grazing is different than for grain. In most cases, small grain for grazing is planted earlier than for grain. Therefore, the first application of N is often made in December for grazing and in late January or early February for grain. This will help spur tillering and vegetative growth for either use. A total of 90-120 lbs/A of total N is usually adequate for top yields for grain while 3 applications of N 4-6 weeks apart may be made for grazing with 50lbs/A in each application. Include a total of about 15 lbs sulfur/A with the N to prevent sulfur deficiencies. Weed control measures should be done when weeds are small and some materials can be mixed with liquid N to save a trip and application costs. It is important to scout for disease on wheat for grain. In small grains to be used for grains, time the fungicide applications to go out when the plant is at the stage of flag leaf to early head emergence.

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## Checklist for Establishment of New Pastures



...New Year...New Fields ...or New Pastures!

If this is the case, going over the establishment checklist will help keep in mind details that may seem obvious but if left unattended will have undesirable impacts such as more weeds or low germination in the field.

- ◆ Study the selection of your pasture plant options and choose those that are adapted to your soil type and climate condition. An adapted forage will propagate and establish promptly helping to reduce the fertilization and weed control costs.
- ◆ Buy or use good quality seed (whether it is vegetative planting or true sexual seed). It may not be the cheapest but keep in mind that in many cases “cheap” turns out expensive.
- ◆ Select an adequate seeding rate that will guarantee a good stand and will help minimize weed control practices. Recommended seeding rates for bahiagrass are 20 to 30 lb/acre; if lower seeding rates are used you will be fighting warm-season grassy weeds that cannot be controlled chemically until bahiagrass is 6 inches tall.
- ◆ Check the right seeding depth. A common mistake when planting seeds that are very small, such as bahiagrass, is to bury the seed too deep. Bahiagrass recommended seeding depth is less than 1/4 in.
- ◆ Make sure that your seedbed is firm. In many cases an additional roller pass after planting is necessary to seal in the soil moisture.
- ◆ If you have not started your soil preparation, you are still on time, use the dry months to till the soil and get rid of the weeds. Check and prepare your planting equipment, thus when the right weather conditions are present (moisture and warm weather) you will be prepared with a seedbed rid of weeds, will have the bag or bags of seed and/or have contracted the sprigging material, will know what seeding rate to use, and will have the seeding equipment ready to go.

For a listing of the Florida Forage plants, their description, including establishing practices check the *Forages of Florida* website at: <http://agronomy.ifas.ufl.edu/ForagesofFlorida/index.php>

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# Field Days & Other Resources

Feb. 13

## Strawberry Field Day

Gulf Coast Research and Education Center in Balm, FL  
Noon <http://gcrec.ifas.ufl.edu>

March 12-15

[Maize Genetics Conference](#), St. Charles, IL



March 26

## Spring Ranchers' Forum

Yarborough Ranches, Geneva, FL.

April 4

## Horse Short Course, Okeechobee, FL

For more information, call Lindsey Wiggins at (863) 674-4092.

April 15

## Silvopasture Tour, Washington County, FL

April 16

## Range Cattle Field Day

Ona Research and Education Center, Ona, FL

April 29 - May 1

## Florida Beef Cattle Short Course

Gainesville, FL

May 4-7

## [UF Aquatic Weed Control Short Course](#)

Coral Springs, FL

May 6-8

## UF/IFAS Extension Symposium

UF Hilton, Gainesville, FL

May 10-12

## Southern Pasture and Forage Crop Improvement Conference, Lexington, KY

July 20-24

## National Conference on Ecosystem Restoration

[NCER](#), Los Angeles, CA



Newsletters

[Berry/Vegetable Times](#)

[Chemically Speaking](#)

[Entomology and Nematology](#)

Books

*Florida's Agricultural Heritage* 25th Anniversary book presented by the Florida Agricultural Hall of Fame. 800-226-1764 or visit: [www.ifasbooks.com](http://www.ifasbooks.com)

# Counterfeit Pesticides on Global Market

Recently, the European Crop Protection Association's (ECPA) reported there is rapid growth in Europe and other areas of the world of counterfeit and illegally-traded pesticides. These illegal products are produced and distributed by criminal gangs. They are untested, unregulated and threaten the health of farmers and consumers and the environment.

The scale and scope of counterfeit pesticides differs from market to market depending on countries' specificities. Fighting counterfeit pesticides is a complex task. In Europe, there is a dichotomy of more and more regulation related to pesticide use, yet less and less attention devoted to enforcement of these regulations. This has led to more and more abuse. The grave nature of the problem requires urgent actions by all stakeholders – governments, supranational entities, agricultural producers, as well as the food and pesticide industries.



## *Counterfeit!*

*Herbicide product contained in a 5-liter vegetable oil container ready for sale in Italy.*

*The Growing Problem* - In Europe, the growth of counterfeit plant protection products is worrying. The ECPA estimates that 5% - 7% of annual turnover is affected by counterfeiting and illegal trade. At the time of the report, in U.S. dollars, this is about \$260 million - \$370 million of the European pesticide business across Europe. In some regional hot spots, 25% or more of the market is estimated to be counterfeit. These are estimates based on statistics, market dynamics, percentage of customs seizures and case-by-case country studies. And the problem is growing.

In China and India, illegal pesticides are deemed to make up about 30% and 20% of these markets, respectively. The rapid growth of chemical manufacturing capabilities in these countries has made this possible. Pesticide imports from China into the European Union (EU) are growing 8 times faster than average worldwide pesticides imports into the EU. This is worrying, especially in light of the fact that 86% of counterfeited goods seized in 2006 came from China. There are over 2,000 Chinese companies formulating pesticides and over 400 involved in manufacturing. Active substances are readily supplied and exported with no controls to countries around the world where they are formulated and labeled for onward distribution. Likewise, sophisticated copies of proprietary products are manufactured and shipped with fraudulent documentation to countries around the world with growing emphasis on Europe.

*Types of Counterfeit and Illegal Pesticides* - The nature and extent of counterfeit products and illegal trade varies per market and can originate from many different sources in many different forms.

*The three main areas of illegal activity are*

*Fakes*

*Counterfeits*

*Illegal Parallel Imports*

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## *Fakes*

Containing anything, from water or talc, to diluted and outdated or obsolete stocks, including banned or restricted materials. Some fakes may provide a degree of biological control, as they sometimes contain an illegal and untested copy of the proprietary active substance. These products are often sold in simple packs, such as plain bottles with minimal labeling describing their use and no health and environmental precautions. In the photo, the fake product is on left and the legitimate product is on the right.



## *Counterfeits*



*Fake products (example on the left) are often difficult to distinguish from legitimate products (an example on the right.)*

*All photos for this article by F. Fishel*

Sophisticated copies of legitimate branded products usually with high quality labeling and packaging. Most will contain a copy of the original active ingredient; however, its biological efficacy is often diminished due to high levels of impurities of manufacturing and process by-products. Such products, often difficult even for experts to distinguish between legitimate and counterfeit ones, are sold to agricultural producers and only show adverse side effects such as crop damage after application. In the photo, the fake products are on the left.

## *Illegal parallel imports*

Legitimate parallel traded products substituted with illegal generic copies, repackaged and sold as legitimate products. Parallel trade of plant protection products has been a contentious issue for

several years. However, a recent ruling by the European Court of Justice has led to the re-adoption of “common origin” thus precluding the legitimate substitution of an equivalent registered product. The repackaging of plant protection products is still contested by the plant protection industry as repackaging compromises the products’ integrity and allows for contamination and the use of unacceptable packaging leading to an inferior product that may cause harm to crops and pose risks to consumers.

Pesticides and plant protection products sold and used in Europe are extremely well regulated through EU and national regulations and legislation and as such are thoroughly tested to ensure the maximum safety to farmers, the environment, and consumers purchasing and eating fresh produce treated with any pesticide. We are fortunate that here in the United States our laws and regulations governing pesticides and their use are well-established, serving to protect human and animal health while minimizing impacts on the environment.

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