



Extend your knowledge with Lee County Extension

# Agri-link

**HIGHLIGHTS!!**

- Flu season scare—Avian Influenza or 'Bird Flu'
- The benefits of Florida bats
- Killer bees
- What's happening with invasive plants in Florida

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**New**

Lee County has come a long way over the years, and the one constant the county has seen is change. Population growth has not only increased the demand for housing, but also for those commodities that new populations both need and desire.

In addition to basic food needs there have been changes in the tastes and preferences of Americans who have migrated south to retire. These new residents are educated, health conscious and still desire an active lifestyle. The ethnic demographics of the county is also changing rapidly and

this has triggered demand for certain food products which are largely unavailable in local markets.

As traditional agriculture becomes more marginalized, new trends will take its place. Agricultural entrepreneurs need not look too far to identify areas in which lucrative investment opportunities with significant growth potential exist.

Agriculture in Lee county is not a dying industry, it is a changing industry. There is, therefore, the necessity to identify the new needs of the growing county and find novel ways to satisfy demands.

One objective of county Extension education is to identify areas of potential agri-business investment and educate entrepreneurs to take advantage of a largely untapped market.

Change, urbanization and globalization should never be allowed to obliterate the impact of the old American adage - 'a country rich in agriculture is never poor'.



*Galia - the new trend in melons*

**Are The 'Killer Bees' Here?**

Ever since 'Africanized' bees escaped from scientists in Brazil in 1957, they have moved steadily up through Central America, finally reaching the United States in 1990.

Since then, several attacks have been reported in California, Arizona and Texas and human deaths have occurred in

both Texas and Arizona. Florida has since reported several sightings, and attacks on humans and animals have been documented.

'Africanized' bees are easily agitated and will attack quicker and in far greater numbers than the common European honeybees. One male 'Africanized' bee

mating with a queen bee will change the temperament of an entire European hive. This change in temperament is indicated by an increased propensity to attack.

Despite having no positive identification, reports of highly agitated bees which sting in large numbers have been received in

FROM THE AGENT'S  
DESK...

Roy Beckford—Ag & Natural Resources Agent

Hello again friend,

Our program is just five months old but already we have answered dozens of questions and offered relevant advice on topical issues.

Knowledge for decision-making is far more valuable than its weight in gold, and Extension education continues to play a vital role in the development of our community.

Please continue to take advantage of the ready resources that the Institute of Food and Agricultural Sciences make available. Shaping the legacy of our county rest in your hands and mine, and only when the quest is made in unity can we accomplish the impossible.

Sincerely,  
Roy.

## Farmers Involved In Cleaner Production

Traditionally, farmers in Florida have applied phosphorous and nitrogen to crops in large quantities as fertilizers. Because Florida's soils are sandy and lack natural barriers, a portion of these nutrients is washed away to groundwater.



Over time, massive nutrient loading into lakes, ponds, rivers and into the gulf of Mexico resulted in continual algae blooms and other serious environmental damage.

Livestock farmers have not escaped blame for contributing to water pollution as manure wastes also contain high levels of both nitrogen and phosphorus.

According to the 1997 agricultural census, Florida ranked sixteenth in the country with total cattle waste output of 16 million tons, Okeechobee County accounting for 1.5 million tons of that total. Largely due its high visibility, past atrocities and negligence, agricultural activity has been blamed for emitting the largest amounts of nutrient waste into

*With the adoption of Best Management Practices, farmers are becoming better stewards of Florida's delicate water resources.*

the Everglades system, lakes, rivers and the gulf waters.

The technology that helps to feed the world has therefore brought increasing pressures on our natural resources. In addition to assuring an abundant and affordable food supply, farmers must now also strive to protect the environment. To enable this change, strategies have been ad-

vanced to assist farmers to continue to produce efficiently while utilizing management practices to reduce reliance on fertilizers and pesticides. At the same time, livestock producers use modern waste management principles to operate within the boundaries of the Clean Water Act (CWA).

These principles of farm management called *Best Management Practices* (BMP's), are ensuring that farmers make more efficient use of their resources, becoming as a group, better stewards of Florida's delicate water resources. This is definitely a trend that urban users of pesticides and herbicides should follow.



## Farmers' Safety Box

### Killer bees safety precautions



- Be attuned and alert to buzzing in your environment—this may indicate a nest or swarm of bees.
- Use care when entering sheds or outbuildings where bees may nest.
- Examine work areas before using power equipment such as lawn mowers, weed cutters, chain saws and tractors.
- Be alert when engaged in outdoor activities.

## Controlling Aphids Without Pesticides



Aphids are important because they are vectors of many viral diseases on plants. They contribute to crop damage by sucking on plant sap which results in leaf curling, wilting and browning. Some species of aphids appear to even have toxins in their saliva, and in

dense populations may kill young shoots. Honeydew excretion from aphids is usually followed by the growth of sooty molds and large numbers of ants attracted by the sugary excretions.

Aphids may be controlled using cultural and biological methods. Cultural control involves the use of soapy water or mild bleach solutions to wash the insects off the plants and expose their soft bodies to the harsh ele-

ments of the weather. Biological control involves the use of other insects to prey upon aphids. Many beneficial insects such as ladybird beetles play an important role in aphid control.

Since ants milk the honeydew from aphids they offer protection in return by fighting off beneficial insects. The use of sticky bands or spray-banding on tree trunks will prevent ants from climbing into the foliage.

## Understanding Bats

Bats are not flying rats. In fact they are more closely related to monkeys than they are to rodents. They belong to a unique order of mammals called Chiroptera, most species giving birth to just one baby each year.

Around the world, bats feed on many types of food including flying insects, mice, fish, fruits and blood. People who fear bats believe they are all blood drinkers and the animals evoke fear similar to that for snakes, spi-

ders and sharks.

In Florida there is no need to fear bats. Florida bats are highly beneficial, mostly feeding on night-flying insects including mosquitoes. A small colony of bats will consume hundreds of pounds of insects each week.

Bats rest in dark secluded roosting spots during the daytime. These roosts include caves, tree hollows, and even the attics of build-



ings. It is their occupancy of the latter why they are considered a nuisance, but their noise, smell, accumulation of feces and urine also attracts flies and cockroaches, making them even more unwelcome guests.

Perhaps the greatest mis-

conception about bats is that they transmit rabies. Only a small fraction of bats have rabies and infected bats usually become paralyzed and die quietly.

People who protect bat habitats or build bat houses enjoy the advantage of not needing to use large amounts of insecticides to get rid of mosquitoes. These rainy season nuisance will be drastically reduced by one colony of mosquito-eating bats.

## Tackling The Problem of Invasive Plants



*The invasive Brazilian Pepper tree*

Natural Resource managers such as those who work in National parks, take care of our lakes, rivers, canal systems and large water bodies worry about weeds. Except, the weeds of concern are not only exotic to Florida but plants that flourish and grow in alarming abundance on land and

in our water bodies.

Plants which become abundant, widespread and uncontrollable are called invasive. The problem with invasive plants is that they take over the landscape, crowd out native plant species and they do not support native animal species.

Imagine the Everglades system being taken over by an expansive grove of Melaleuca trees. These prolific invasive trees would ensure

the end of the 'River of Grass', disrupting the unique diversity of life existing in this giant Florida ecosystem.

Scientists and natural resource managers have begun a quest to slow down and turn back the invasion. Invasive plant species thrive because they arrived in Florida without the pests and diseases that keep them in check. This missing link is one area of focus as carefully selected insect pests or

certain disease pathogens are imported and released on invasive plants. Selection of these natural enemies is done to ensure that no other species of plants will be affected.

In many communities across Florida, field days are organized to clean up invasive plants that infest neighborhoods. Not only scientists are involved in the quest. Community action is a valuable tool in the process of invasive plant control.

## Why The Ado About Avian Flu?

Avian Influenza (AI) or bird flu is a viral disease of birds with severity ranging from mild to rapidly fatal.



The fatal form of the disease was first documented in Italy more than 100 years ago

where it was called fowl plague. Highly pathogenic AI first occurred in the United States in 1924-1925 and again in 1929 but was eradicated both times. Another epidemic in the northeastern United States in 1983-1984 cost over 70 million dollars and required more than two years of work to eradicate.

The disease is transmitted from country to country

mostly by migratory waterfowls who can carry the virus over long distances yet develop only a mild and brief form of the disease.

In recent years, a number of Asian countries have been affected by avian 'bird' flu. In some of these countries, a small number of people have contracted the avian flu virus from chickens. Scientists are concerned by

these events because it was discovered that the avian flu virus could merge with a human flu virus to produce a new, highly infectious, rapidly fatal flu virus in humans.

Such a new virus would be transmitted rapidly from person to person with potentially devastating results across the world.



## FARM JOKES



### Vampire Splat !!

**Blood**, a young vampire bat came flapping in from the night covered in fresh blood, and perched himself on the roof of the cave to get some sleep. Before long, all the other bats smelled the blood and began hassling him about where he got it. He was tired and needing a rest, so he told them to please leave him alone. However, it was clear that he wasn't going to get any sleep until he satisfied their curiosity.

"OK!" he said with exasperation, "follow me," and he flew out of the cave with hundreds of bats following close behind him. Down through the valley they went, across the river and into the deep forest. Finally he slowed down and all the other bats excitedly gathered around him.

"Do you see that tree over there?" he asked.

"Yes, yes, yes!" the bats all screamed in a frenzy.

"Good," said **Blood**, "Because I DIDN'T!"

Check out our  
Website!

<http://lee.ifas.ufl.edu/>

## Tid-bit News On Agricultural Science

### Blueberries help fight cancer

Recent research have shown that blueberries can help protect against some forms of cancer and heart disease. As a result, consumers have been rushing to add the fruit to their diet and though it still trails strawberries in consumption and production, sales have exploded in popularity in the past three years. (From Florida Agricultural Journal)

### Plastics developed from chicken feathers

Scientists have applied for a patent seeking to convert cleaned and chopped feather material into plastic products. Each year, the USA alone generates nearly four billion pounds of poultry feathers—an astronomical figure when it is considered that most of this ends up as garbage. The feather-derived plastic would be a unique mate-

rial for packaging or any other application where high strength and biodegradability are desired. (From Agricultural Research, Sept. 2005 Issue)

### Research into Mad Cow resistant cattle

The South Korean government plans to fully support research efforts to develop a new breed of cattle resistant to Mad Cow Disease. Stem cell scientist Hwang Woo-Suk recently performed artificial insemination of a specially fertilized egg into a cow as part of an ongoing research to develop specific genetic strands immune to BSE infection.

Hwang made international headlines last year by cloning the world's first human embryos. He said that it could take four to five years to develop BSE-resistant cattle. Hwang's research is being performed in conjunction with the National Livestock Research Institute. (From Animal Science Newsletter)

## Disease Profile

### Avocado Root Rot

#### Symptoms

Plants become droopy and wilted, have yellow to brown leaves which may die back at the tips. Branches also show die-back and trees may be killed in as little as six months.

#### Cause

Root rot is caused by a soil fungus. The name of the fungus is Phytophthora cinnamomi.

#### Action

The fungus kills the young rootlets especially under poorly drained or wet, waterlogged soil conditions.

Several other plant species are also susceptible to the same disease or-

### Colic In Horses

There are three types of colic which affect horses and equines.

- 1) Flatulent colic - where there is a collection of gas in the abdomen
- 2) Obstructive colic - where there is a hard mass of food blocking the passage of all materials
- 3) Twist colic - when the bowel becomes twisted on itself. Twist colic is the most life-threatening of the three types.

#### Causes

Improper diet, excessive work, accidents.

#### Symptoms

Includes discomfort, pain, rolling, swollen abdomen. Treatment by a veterinarian is usually required.

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