



**Livestock and Horses**

**Introducing Florida's  
Livestock and Horse Industries**





Livestock and Horses Module

## **Introducing Florida's Livestock and Horse Industries**

Lesson Plan

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## **About Florida SART**

SART, the Florida State Agricultural Response Team, is a multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery for the animal and agriculture sectors in Florida.

SART operates at the local level through county SART organizations.

SART utilizes the skills and resources of many agencies, organizations and individuals with its multi-agency coordination group structure.

SART supports the county, regional and state emergency management efforts and incident management teams.

### SART Mission

- Empower Floridians with training and resources to enhance animal and agricultural disaster response.

### SART Goals

- Promote the establishment of a coordinator in each county responsible for all agriculturally related incidents.
- Provide assistance in the development and writing of ESF 17 plans.
- Promote the establishment of a county SART in each county to serve as a multi-agency group to support emergency management and incident management teams.
- Provide annual training for all SART and agriculturally related personnel.
- Identify county resources available for an emergency or disaster.
- Promote county cooperation at a regional level for mutual aid.

|                 |  |
|-----------------|--|
| <b>SUBJECT:</b> | Introduce participants to Florida's livestock and horse industries.  |
| <b>GOAL:</b>    | To empower SART team members with background knowledge of the breadth, characteristics and composition of the livestock and horse industries in the state. |

## INTRODUCTION

This lesson plan and workbook are designed to be part of the SART training module for livestock and horses entitled *Introducing Florida's Livestock and Horse Industries*. This lesson plan gives the instructor direction for delivering the educational portion of the workshop. The mechanics of planning, organizing and publicizing the entire training event are covered in the companion piece, *Toolkit for Planning a Community-Based SART Training Event*. For information on obtaining this publication, please refer to the resources section.

This lesson plan is developed to help the instructor present an overview of Florida's livestock and horse industries:

**Livestock:** Florida's livestock inventory includes 26 million poultry, 1.5 million beef cattle, 350,000 horses, 140,000 dairy cattle, 100,000 swine, 30,000 goats, 10,000 sheep and untold millions of bees and companion animals. Traditional farm and ranch livestock are raised along with exotic species from around the world. Sales of Florida livestock and livestock products totaled over \$1.48 billion in 2004, accounting for nearly 22 percent of cash receipts for Florida farms and ranches. (FDACS, Div. of Animal Industry)

**Horse:** With more than half a million horses in Florida, the horse industry annually generates product valued at \$2.2 billion, and has a total annual economic impact estimated at around \$7 billion. More than 240,000 Floridians are involved in the horse industry as owners, service providers and employees. There are more than 900 horse farms in Florida with 72,000 employees. Florida horsemen spend more than \$1.2 billion annually in maintenance, including \$185 million specifically on feed and hay. (1996 Study, USDA)

A PowerPoint presentation has been created to accompany this lesson. Throughout the lesson plan, box-like symbols have been placed in the margins to indicate that a PowerPoint slide is available for that section.

Approximately one hour should be allocated for this program.

## SESSION OUTLINE

|  |                   |
|--|-------------------|
| Part 1: Beginning the Workshop                       | 5 minutes         |
| Part 2: Viable Florida Industries                    | 10 minutes        |
| Part 3: Livestock and Horse Industry Characteristics | 15 minutes        |
| Part 4: Livestock and Horse Industry Stakeholders    | 10 minutes        |
| Part 5: Highlight Resources                          | 5 minutes         |
| Part 6: Summary, Discussion and Wrap-Up              | <u>15 minutes</u> |
| Total  | 60 minutes        |

## SPECIFIC LEARNING OBJECTIVES

At the end of this training unit, participants will be able to:

1. Briefly describe why livestock and horses create viable industries in Florida.
2. Name locations of industry concentration.
3. List and discuss some of the characteristics of Florida's livestock and horse industries.
4. Name the agencies involved with livestock and horses and describe their roles.
5. Identify key resources available for more information.

## LEARNING ENVIRONMENT AND LEARNING AIDS

To complete this lesson plan, you will need:

PowerPoint Presentation *Introducing Florida's Livestock and Horse Industries*.

Optional: a companion publication *Introducing Florida's Livestock and Horse Industries: Participant Workbook*, is available. It contains the PowerPoint slides and resources information.

To conduct this training unit, you will need:

A means to show the PowerPoint presentation: a computer with a projector.

(Note: Master black and white copies of the slides are included at the end of this manual if you prefer to use an overhead projector.)

Sufficient seating for all participants.

Each participant will need:

A pen or pencil.

Participant workbook or paper for notes.

## BEFORE THE WORKSHOP

On the day of the workshop, check that your required equipment is in place. Double-check that electronic media works properly with the equipment you have. Also, make certain that any materials such as paper, workbooks and pens/pencils are available in sufficient numbers for all participants.

## PART I: BEGINNING THE WORKSHOP

**Time: 5 minutes**

**Focus: Explain purpose of workshop – Introduce participants to Florida's livestock and horse industry**

Once all participants have taken their seats, welcome them to the *Introducing Florida's Livestock and Horse Industries* workshop. Thank them for attending and congratulate them on taking the time to learn about these important agricultural and economic segments. Remind them that the best way to respond to an agricultural emergency is to have a foundation of knowledge upon which to build.

During this introduction, you may choose to distribute the Pre-Test, which is included in the Resources section of this manual. When compared with the Post-Test, the Pre-Test is a good way to determine your audience's topic awareness before the workshop commences, and how much they have retained from your presentation. Make sure to communicate to the participants that their Pre-Test answers, accurate or indifferent, are only meant to guide them through this learning experience.

Because it is general in nature, this lesson plan can be used with agricultural and non-agricultural audiences. At the end of this training module, participants will be able to explain why industries based on livestock and horses are viable in Florida, name the locations of industry concentration, list and discuss some of the characteristics of Florida livestock and horses, name the agencies involved with livestock and horses and describe their roles, and identify key resources available for more information.

Slides  
1-2

Remind attendees that the reason they are attending the workshop is because they realize the value of understanding Florida's agricultural sectors, its plants and animals and the potential threats to them. Understanding the industries and the threats to their health and

viability will allow us to develop an informed disaster plan. Attendees will carry the results of the workshop with them everywhere.

This introduction should not exceed five minutes or so unless the Pre-Test is to be completed, in which case another few minutes will be required. This is a time when the participants are getting comfortable with the workshop they have decided to attend, their surroundings and you as the presenter. Simultaneously, you are becoming comfortable with the participants, the material you are presenting, and with being a presenter.

Slides  
3-5

Pay attention to time as participants will want to learn what you have to present AND will want to depart on time. If you find that you are nervous when you start, understand that this is a natural response to public speaking. These “nerves” can make people ramble, talk faster or talk slower than normal, or even forget the time altogether. Nevertheless, even if participants enjoy what you are presenting, they will appreciate your discipline when the workshop ends on time.

### **Overview: The value of livestock and horses in Florida**

Slides  
6-8

According to the Florida's Department of Agriculture and Consumer Services, Division of Animal Industry, our state's livestock inventory includes 26 million poultry, 1.5 million beef cattle, 350,000 horses, 140,000 dairy cattle, 100,000 swine, 30,000 goats, 10,000 sheep, thousands of exotic species (zebra, wildebeest, red deer, etc.) and millions of rabbits and companion animals: dogs, cats, ferrets, hamsters, birds, fish, exotic snakes and spiders and so on.

Sales of Florida livestock and livestock products totaled more than \$1.48 billion in 2004, accounting for nearly 22 percent of cash receipts for Florida farms and ranches. On the other hand, it has been estimated that Florida's horse industry generates product valued at \$2.2 billion and has a total economic impact of \$7 billion. By way of contrast and perspective, Florida's forestry products account for \$8 billion, greenhouse and nursery products \$1.6 billion, citrus \$1.17 billion and cane for sugar \$517 million.

Slide  
9

[First, a word of warning. We recognize the old adage that “figures lie and liars figure,” so we caution that the numbers used in this lesson are best estimates only. Counting the sheep on one farm, for instance, can give an exact number – unless we quibble about the old ram about to die or the ewe preparing to birth – but available resources never allow the accumulation of exact statistics over an entire state. Thus, figures from different sources, gathered in different manners for different purposes, may not be precisely consistent.]



## PART 2: VIABLE FLORIDA INDUSTRIES

**Time: 10 minutes**

**Focus: Describe why livestock and horses create viable industries in Florida and the locations of industry concentration**

### **Agriculture in a growing state**

Slide  
10

Florida agriculture is robust and exceptionally varied, even though the state's population has grown to more than 17 million and is still growing rapidly. The United States Census Bureau predicts that the Sunshine State will increase 80 percent by 2030, giving us a population topping 30 million people. It also projects that by that date, Florida (and numerous other states) will have more residents over 65 years of age than under 18, a remarkable demographic statistic ... with multiple consequences for agriculture and our way of life.

Slide  
11

Within the agriculture economy, the livestock and horse sectors remain strong, in part perhaps because they are diverse. These sectors include a varied mix of animals, each with its own specific cash stream: cattle, poultry, hogs, goats, sheep, lambs, rabbits, exotic animals from around the world and several breeds of horses.

Slide  
12

In addition, there are uncounted millions of domestic animals that should be considered part of the livestock industry: dogs, cats, birds, reptiles, exotic fish, greyhounds, spiders and even exotic insects. The care and feeding of pets is an enormous industry. Preparation for emergency situations, must take into consideration the pet industry, both to alleviate cruelty or suffering and because their human owners have often formed strong emotional bonds with them, bonds which can lead to action that may or may not be in the pet's, the owner's, or the public's best interest. For a sense of the size of this economic sector and its potential for additional havoc in a disaster, using a formula developed by the American Veterinary Medical Association, we estimate that there are almost four million dogs in Florida ... and perhaps five million cats!

### **Animals for food, clothing and recreation**

We are going to concentrate on the larger animals, those raised for food, clothing or, in the case of horses, for recreation. Certainly, the majority of horses are raised for recreation rather than for work or to be rendered for by-product consumption. Another SART module will study the case of domestic animals or pets as well as those imported

for zoos or raised in hunting preserves or perhaps, extending our view of livestock, fish raised in commercial stock ponds.

Slides  
13-15

Florida's mild year-round climate, sub-tropical in nature, makes it attractive for horse and livestock production practices. Cows and horses can calve and foal, respectively, any time during the year. The average year-round temperature is 70.7° Fahrenheit (21.5° C) and the rainfall, although unevenly distributed, averages almost 50 inches a year. This relative evenness of temperature also makes Florida excellent for poultry raising.

Livestock and horse farms can be found anywhere in the state, from Pensacola to Miami. Some concentrations do exist, however. A large proportion of the horse farms and thoroughbred racehorse training centers are located in and around Marion County. And more dairy farms are located in the Suwannee River valley and in Okeechobee County than anywhere else in the state.

Slides  
16-17

How much land in Florida is devoted to livestock and horses? According to the 2004 *Florida Agriculture Statistical Directory*, there are 44,000 commercial farms occupying 10,414,877 acres. That is almost one-third (30.1 percent) of the total land in Florida. Acreage used for range and pasture comprises another 3,400,193 acres and land classified as "improved pasture" accounts for another 813,694 acres. Cattle production, dairies, horse farms and poultry-raising operations use land from all of these categories.

The total number of people involved in farm and ranch employment is difficult to separate from the total. According to the United States Department of Labor, Bureau of Labor Statistics, of the 8.9 million people who work in Florida, 8.1 million consider themselves non-farm, non-ranch, non-rural workers. Even so, 800,00 or nine percent of the work force and 4 ½ percent of the total population seems high unless part-time, seasonal and migrant employees are counted.

## **Part 3: LIVESTOCK AND HORSE INDUSTRY CHARACTERISTICS**

**Time: 15 minutes**

**Focus: The characteristics of Florida's livestock and horse industries**

Slide  
18

Livestock and livestock products are 18 percent of Florida's agricultural sales. For 2003, the livestock and livestock products value

was \$1.2 billion. Dairy was \$356 million, beef \$333 million and poultry \$324 million. Another \$166 million was earned from other livestock operations such as like hogs, honey, sheep and lamb's wool.

## Dairy

Slides  
19-20

In 2004, the Florida Department of Agriculture and Consumer Services – FDACS for short – Division of Dairy counted 189 dairy farms in the state with 142,000 dairy cows. That is an average of 750 milk cows per farm. The total head of dairy cattle places Florida first in the southeast in the number of dairy cattle and 16<sup>th</sup> nationally. More than 30,000 cows live in Okeechobee County alone.

Despite high relative humidity and sub-tropical heat Florida's dairy cows are productive. Each cow produces about five gallons of milk a day and, because we all know that *a pint is a pound the world around*, this comes to about 15,218 pounds of milk per cow per year. Got milk? That bible of all dirt-based things, the *Florida Agriculture Statistical Directory 2004*, stated that all of Florida's dairies produced about 2.16 billion pounds of milk ... every year.

In addition to raw milk, 67 frozen dessert manufacturers convert milk-related by-products in Florida. The total frozen product production is more than 46 million gallons. Ice cream production alone contributed 43 million gallons of that total.

## Beef

Slides  
21-22

There are 15,800 beef cattle operations across the state and, in any recent year, these have run almost a million head, which ranks Florida 12<sup>th</sup> nationally in number of beef cattle and 3<sup>rd</sup> among states east of the Mississippi River. Our beef operations produced 920,000 calves in 2003 and three-quarters of them (662,000) were sent to market.

Truly large-scale (500+ head) beef producers are less abundant in Florida. The Agriculture Census of 2002 indicates that, statewide, less than 300 producers have herds with 500 head or more. The majority of beef cattle herds (80 percent) consist of less than 50 head. (The number of horses per farm or ranch is quite variable. No statistics are available, but it stands to reason that a farm or ranch with more than several dozen would be well outside the norm.)

Counties with the greatest number of beef cattle are similar to those with high dairy numbers. Osceola County leads the state with 75,000 head followed closely by Okeechobee County. Polk, Highlands and

Hardee counties round out the top five with between 50,000 and 60,000 each.

Slide  
23

Of course, many operations are diversified, meaning they are not dedicated to any one single agricultural pursuit. A producer who raises

beef cattle may also have timber or row crops. With the growing popularity of hobby farms and those who live on small acreages with horses, the land that horses may be found on may even be zoned residential and this makes it difficult to say for certain how much acreage is strictly dedicated to horse operations.

### **Poultry**

Slide  
24

Florida poultry production ranks 12<sup>th</sup> nationally in the number of chickens on farms. In 2003, 10.8 million layers produced 2.8 billion eggs. Egg sales were \$145 million. Florida also produced more than 91 million broilers and sold them for \$179 million. Looked at another way, that is 511 million pounds of meat.

### **Other**

Slide  
25

Other livestock industries contribute to overall receipts, as well. Swine, a traditional farm sector, has recently been downsizing in Florida and is valued at \$5.27 million. In 2004, approximately 108,200 hogs were slaughtered with an average live weight of 176 pounds – for 19 million pounds of pork and sausage.

### **Honey**

Florida bees are busy, too. In 2003, 210,000 honeybee colonies produced about 15 million pounds of honey. That makes us third nationally in honey production. The overall, direct financial value of this industry is \$20.1 million.

Slides  
26-27

In addition to producing honey, however, Florida's honeybees contribute significantly to the pollination of fresh fruits and vegetables, as well as many wild plant species. It has been said that if no managed honeybee colonies were kept in Florida, we would immediately lose two-thirds of all of our citrus and crops.

The bee we know as the honeybee is itself an import, having been brought to the Americas in the early 1600s. Now, with the appearance of the infamous Africanized "killer bees" and the much more devastating honeybee tracheal mites this indeed is an immediately threatened sector of our state's economy.

## Horses

Florida's horse industry is large and diverse. Nearly 300,000 horses are found in every part of the state. In 2002, the national agriculture census enumerated 12,753 horse and pony farms, and another 576 farms producing mules, burros and donkeys. More than 70 percent of

these animals are for show and recreation. While thousands are still used by cowboys to cover rough or swampy terrain, few are required these days to pull a buggy or plow.

Slides  
28-30

It is estimated that the industry has a \$6.5-to-\$7 billion overall impact in the gross domestic products (GDP) of Florida. This impact is not included in any of the totals listed previously. Goods and service produced are valued at about \$2.2 billion.

With more than 900 farms, Marion County is home to more horses than any other county in the United States and the local Chamber of Commerce refers to it as "The Horse Capital of the World."

Although quite a few breeds of horses and disciplines are represented, from barrel-racing quarter horses to trail-riding paints, thoroughbreds are the dominant horse in Florida. Our moderate climate, ability to train year-round and area racetracks are ideal for the needs of racehorses. Florida has more than 600 thoroughbred farms and training facilities, more than three-quarters of them located in Marion County.

## Part 4: LIVESTOCK & HORSE INDUSTRY STAKEHOLDERS

**Time: 10 minutes**

**Focus: The agencies involved with livestock and horses, and their roles**

Slide  
31

There are several levels of "stakeholder involvement" in Florida's livestock and horse industries: state, federal, academic and ... certainly not the least to be considered, individual or corporate stakeholders:

- Florida's Department of Agriculture and Consumer Services' (FDACS) has two divisions that provide direct oversight: the Division of Animal Industry and Division of Dairy.

- The United States Department of Agriculture 's Animal and Plant Health Inspection Service (USDA-APHIS) provides additional regulatory oversight.
- Academic, research and extension involvement flow primarily through the University of Florida's Institute of Food and Agricultural Sciences (IFAS) and its College of Veterinary Medicine.
- And, although we should probably list them first, producers, those who provide services to producers, and even hobbyists comprise the private stakeholder group.

## FDACS

Slides  
32-34

The FDACS Division of Animal Industry (DAI) "serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals." In carrying out this mission, FDACS-DAI performs and/or oversees the following programs and services: animal ID program, animal movement monitoring, processing of health certificates, livestock hauler permitting and a marks and brands program.

- FDACS' Poultry Disease Control Unit conducts inspections, takes samples and monitors for avian influenza (AI) and exotic Newcastle disease (END).
- Cattle are inspected at markets and are also monitored and tested for brucellosis, tuberculosis, transmissible spongiform encephalopathies (TSEs), Johne's disease and chronic wasting disease (CWD).
- Goats and sheep participate in a Scrapie-free Certification Program (SFCP) run by FDACS-DAI.
- Horses, mules and donkeys are monitored for contagious equine metritis (CEM), equine infectious anemia (EIA), equine piroplasmiasis (EP), arboviruses, Eastern Equine Encephalitis (EEE), and West Nile virus (WNV).
- Brucellosis, pseudo-rabies and garbage feeding operations are monitored for swine.
- Other FDACS programs include the cervidae (deer) program, reptile and amphibian monitoring and miscellaneous companion and small animal programs like Pet Lemon Law reporting and enforcement.

Slide  
35

The Division of Dairy oversees dairy operations with the bureaus of Dairy Inspection and Dairy Compliance Monitoring. These offices issue permits and perform inspections of dairy facilities, transport tankers and bulk milk haulers. Inspectors sample milk for bacteria, residual dairy cow antibiotics, water and other impurities. Weight checking milk has also been conducted for 17 years.

## USDA

Slide  
36

Nationally, USDA's APHIS is a federal agency that oversees and responds to issues and incidents related to livestock and horses. For example, APHIS oversees bovine spongiform encephalopathy (BSE) testing and monitoring. BSE is better known as "mad cow disease." In cattle, BSE is a chronic, degenerative and, ultimately, fatal disorder

affecting the central nervous system. Although it was once believed that it was unlikely to spread to the United States, the USDA recently confirmed North America's eighth case from a cow in Alabama, the second case in 2006.

APHIS also issues animal and animal product import permits and enforces export requirements. Licensing and registration activities associated with the Animal Welfare Act (AWA) are run by APHIS as well.

## UF-IFAS

Slide  
37

The University of Florida-IFAS offers teaching, research and extension activities for those involved in the livestock and horse industries. Several facilities, in addition to those at the main campus in Gainesville where a majority of teaching occurs, are used in the collection, assimilation and distribution of information. These facilities are: Dairy Research Unit (DRU) in Hague, Florida; Beef Teaching Unit (BTU) in Gainesville; Horse Teaching Unit (HTU) in Gainesville; Range Cattle Research and Education Center in Ona, Florida; and the College of Veterinary Medicine in Gainesville.

## Private

The private stakeholder group is comprised of livestock and horse industry producers, service providers and hobbyists. Producers include beef cow-calf and dairy operators, thoroughbred and other horse breeders and poultry, swine, sheep, goat and other operators.

Slide  
38

Service providers surely have a stake in the health of livestock and horses. Florida's thousands of large and small animal veterinarians and their assistants and support staff would be high on this list. Depending of course on where one chooses to draw the boundary, any person or company that provides feed, shelter or accoutrements has a stake.

Hobbyists are perhaps the broadest group and, depending on a particular issue, may be the most emotionally invested in the outcome. Included are thousands of owners of small parcels of land with a few

cattle or horses (called “hobby farms”), horse show participants and operators – even racehorse or dog racing enthusiasts. These people make all or part of their living by producing animals or they contribute money by their mere participation in activities surrounding livestock and horses.

## Part 5: HIGHLIGHT KEY RESOURCES

**Time: 5 minutes**

**Focus: Identify key resources participants can easily access for additional information**

This publication and other materials for SART training programs are available on the World Wide Web at [www.flsart.org](http://www.flsart.org), the Web site of the Florida State Agricultural Response Team. Note: As new modules become available, they will be posted on the Web site.

The following are sources of additional information about the agencies, their missions and roles, especially relating to horses and livestock that are mentioned in this module. Others listed, but not mentioned, may be helpful resources as well.

Slides  
39-41

- United States Department of Agriculture (USDA, [www.usda.gov](http://www.usda.gov))
- Florida Department of Agriculture and Consumer Services  
FDACS ([www.doacs.state.fl.us](http://www.doacs.state.fl.us))  
FDACS Division of Animal Industry ([www.doacs.state.fl.us/ai/](http://www.doacs.state.fl.us/ai/))  
FDACS Division of Dairy ([www.doacs.state.fl.us/dairy](http://www.doacs.state.fl.us/dairy))
- *The Florida Horse Industry*, a brochure from FDACS is available at: [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Horse\\_Industry\\_Brochure.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Horse_Industry_Brochure.pdf)
- *Florida Agriculture Statistical Directory 2004* can be downloaded from: [www.floridaagriculture.com/pubs/pubform/pdf/Florida\\_Agriculture\\_Statistical\\_Directory\\_2004.pdf](http://www.floridaagriculture.com/pubs/pubform/pdf/Florida_Agriculture_Statistical_Directory_2004.pdf)
- *Florida Department of Agriculture Annual Report 2004* is available at: [www.floridaagriculture.com/pubs/pubform/pdf/FDACS\\_Annual\\_Report\\_2004.pdf](http://www.floridaagriculture.com/pubs/pubform/pdf/FDACS_Annual_Report_2004.pdf)
- FDACS' Division of Marketing and Development Web site provides information to agribusinesses and the general public about Florida



agriculture. Brochures, classified ads, fair and exposition information and even recipes are available there. ([www.florida-agriculture.com](http://www.florida-agriculture.com))

- USDA-APHIS National Center for Import and Export (NCIE) Web site lists the regulations, explanations, forms and contacts information for those wishing to import and/or export animals and/or animal products. ([www.aphis.usda.gov/vs/ncie](http://www.aphis.usda.gov/vs/ncie))
- American Veterinary Medical Association ([www.AVMA.org/membshp/marketstats/formulas.asp](http://www.AVMA.org/membshp/marketstats/formulas.asp))
- Sunshine State Horse Council ([www.sshc.org](http://www.sshc.org))

## **PART 6: SUMMARY, DISCUSSION & WRAP-UP**

**Time: 10 minutes**

**Focus: Re-iterate program goal - To empower team members with background knowledge of the characteristics and composition of the livestock and horse industries in the state**

You and your audience have had a stimulating and practical hour, but it is almost over. Prior to answering any audience questions or comments, provide a summary to the participants of what they just learned:

1. Describe why livestock and horses are viable industries in Florida.

The climate is excellent and land, even in a rapidly growing state, has been available. The climate and our unique geographic and sociological position, however, make Florida vulnerable to hurricanes, drought and the importation of both beneficial and harmful exotic species.

2. Review the characteristics of the Florida livestock and horse industries, including numbers of animals and farms and value contributed by the industry.

The viability of Florida's livestock and horse industries are in part due to their diversity. No single industry is dominant and thus, economic fluctuations are not as widespread across the state.

Nevertheless, occupying almost one-third of the state, cattle, horses and dairy are exceptionally important to Florida's economy. Please remember however that the total and virtually un-measurable impact

of domestic animals or pets, however, may be far greater in numbers of animals, dollars spent on their behalf and residents involved.

3. Name the principal state, federal, academic and private stakeholders involved with livestock and horses and describe their roles.

From national to local, those are: USDA, FDACS, UF-IFAS and private individuals or corporations.

4. Review sources for more information, especially Internet sites.

Thank the audience for their attention and participation. Congratulate them for their commitment to the SART endeavor and on their desire to be part of the solution by participating in this overview of the livestock and horse industries.

A content-specific Evaluation is provided next. The generic Evaluation available in the *Toolkit for Planning a Community-Based SART Training Event* can be utilized as well. As the presenter, you should decide which evaluation best meets the needs of your situation. Please have participants complete an evaluation at the conclusion of this unit. Encourage participants to be as honest and forthright as possible as it helps you, the presenter, make adjustments as necessary for future presentations, which in turn benefits future participants.

You may also elect to have participants take the Post-Test provided in the Resources section of this lesson plan. Remember to review the answers after all participants complete the test.

## PARTICIPANT EVALUATION

### ***Introducing Florida's Livestock and Horse Industries***

Please circle the number that best expresses your opinions about the following statements.

|    |  | Fully<br>Disagree | Disagree | Neutral | Agree | Fully<br>Agree |
|----|--|-------------------|----------|---------|-------|----------------|
| 1. | The training unit's format was appropriate.  | 1                 | 2        | 3       | 4     | 5              |
| 2. | Understanding the livestock and horse industries is a good basis for preparing for emergency situations.   | 1                 | 2        | 3       | 4     | 5              |
| 3. | The information presented is useful and interesting.   | 1                 | 2        | 3       | 4     | 5              |
| 4. | The time it took to complete this module was acceptable.   | 1                 | 2        | 3       | 4     | 5              |
| 5. | The importance livestock and horses in the Florida economy was explained.  | 1                 | 2        | 3       | 4     | 5              |
| 6. | The diversity and strength of the Florida livestock and horse industry was clearly outlined.   | 1                 | 2        | 3       | 4     | 5              |
| 7. | Livestock and horse operations are not scattered uniformly about the state. I have a better understanding of their locations than prior to the seminar.  | 1                 | 2        | 3       | 4     | 5              |
| 8. | "Stakeholders" are individuals or organizations with an appropriate, vested interest in an industry or activity. The stakeholders in Florida's livestock and horse industry were adequately discussed. | 1                 | 2        | 3       | 4     | 5              |
| 9. | Available up-to-date resources were clearly outlined.  | 1                 | 2        | 3       | 4     | 5              |

We welcome your comments about this program:

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Please use the back of this sheet for any further comments.

*Thank you for your time.*

**PRE-TEST and POST-TEST**

Slides  
42-45

1. (circle the best answer) The largest agricultural sector of Florida's economy is:
  - a. citrus
  - b. cattle
  - c. forestry
  - d. chickens
2. (True or False) Florida's humid sub-tropical climate compounds the difficulties of maintaining viable economic sectors for large animals – beef and dairy cattle and horses.
3. (circle the best answer) What fraction best represents the total land devoted to farms and ranches (not, however, including tree farms or forests) in Florida?
  - a. 1/3
  - b. 1/4
  - c. 1/10
  - d. 2/3
4. Which one of the following is not considered livestock in Florida?
  - a. exotic imported animals such as zebras
  - b. Poland China hogs
  - c. honeybees
  - d. Siamese cats
  - e. All of the above can be considered livestock.
5. (fill in the blank) The Florida county with the greatest concentration of horses in the United States is \_\_\_\_\_.
6. (True or False) The heart of Florida's beef cattle industry lies below the Tampa-Orlando-Cape Canaveral growth belt.
7. (circle the best answer) The honeybee, a beneficial, but exotic import into the early American colonies, is now threatened by:
  - a. a combination of killer mites and Africanized bees,
  - b. a decline in the public's interest in honey or
  - c. artificial methods of pollination.
  - d. None of the above is important in the future of the honeybee.
8. (circle the best answer) What does it mean that a person, a corporation or an agency of government has "stakeholder involvement" in the horse and livestock industries?
  - a. That those entities have placed legitimate bets either at an authorized racetrack or are wagering on the futures market.

- b. That those entities have an interest in the viability of that economic sector.
  - c. "Stakeholder" is a short-hand term for the person who holds the reins of a winning racehorse once a course has been run.
9. Which of the following is not a role of the Florida Department of Agriculture and Consumer Services, Division of Animal Industry:
- a. monitoring for brucellosis in hogs and pigs
  - b. maintaining an alert status for avian influenza
  - c. periodically surveying cattle for "mad cow" disease
  - d. the quarantine of mink coats to halt mink-flea wart spread
  - e. controlling exotic deer transport to prevent chronic wasting
10. (circle the best answer or answers from your point of view) This is an *opinion sampler* rather than a test question. Please give us your most thoughtful reply. Florida's livestock and horse industries:
- a. have a bright future
  - b. are threatened by the growth of Florida's human population
  - c. have a limited future
  - d. will not be viable in our children's adult lifetimes

## TEST ANSWER KEY: PRE-TEST/POST-TEST

- 1. (c) forestry
- 2. False
- 3. (a) 1/3
- 4. (e) all of the above can be considered livestock
- 5. Marion
- 6. True
- 7. (a) a combination of killer mites and Africanized bees
- 8. (b) That those entities have an interest in the viability of that economic sector.
- 9. (d) the quarantine of mink coats to halt mink-flea wart spread
- 10. Good point for wrap-up discussion and opportunity to send participants for break and coffee discussing the future of the livestock and horse industries.

## GLOSSARY

**Brucellosis:** A highly contagious bacterial disease of cattle, goats, sheep and swine that can be transmitted to humans as undulant fever.

**Chronic wasting disease:** A wildlife disease (akin to bovine spongiform encephalitis or “mad cow”) that affects deer and elk, but is not believed transmissible to humans.

**Exotic:** Not native, introduced from abroad.

**Killer bees:** A strain of honeybees that originated in Brazil in the 1950s as a cross between an aggressive African bee and a European honeybee. These bees retain most of the traits of the African bee: highly aggressive, relatively poor pollinators and relatively poor honey producers.

Slides  
47-48

**Relative humidity:** Ratio of the actual water vapor pressure at a given time to the vapor pressure that would occur if the air were saturated at the same ambient temperature.

**SART:** The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery for the animal and agriculture sectors in Florida.

**Spongiform encephalopathies:** A group of diseases characterised by long incubation and fatal progressive courses with characteristic spongiform degeneration of the brain. The two main human diseases are kuru and Creutzfeldt Jakob disease. Controversy still surrounds the causative agent, the two main theories being “slow viruses” or prions. (“Mad cow” disease is one form of spongiform encephalitis.)

**Stakeholder:** An individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services.

**Tracheal mite (*Acarapis woodi*):** A minute arachnid, order Acarina, parasitic on honeybees, clogging their breathing tubes and eventually killing them.

Slide  
49

**Tuberculosis:** An infectious disease caused by the tubercle bacillus affecting primarily the lungs of humans and animals, more common in urban areas, treatable with antibiotics (though resistant strains are appearing).

**West Nile Virus:** A virus of the genus *Flavivirus antigenically* that is transmitted by *Culex* mosquitoes, with wild birds serving as the reservoir. It occurs widely in Africa, Europe, the Middle East and Asia, and has recently been reported in the United States. Symptoms may be mild or severe, resulting in death.

# PowerPoint Slides

Slides 1-6



## Introducing Florida's Livestock & Horse Industries

State Agricultural Response Team 2

## Introducing Florida's Livestock & Horse Industries

Prepared by

Elizabeth Wang  
Florida SART Coordinator  
Florida Department of Agriculture and Consumer Services  
Division of Animal Industry

Rick Sapp, PhD  
Florida Department of Agriculture and Consumer Services  
Florida SART Technical Writer

State Agricultural Response Team 3

## Acknowledgements

- **Photographs and diagrams**
  - Florida Dept. of Agriculture & Consumer Services
  - Institute of Food & Agricultural Sciences, University of Florida
  - Elizabeth Wang, FDACS, Florida SART Coordinator
  - Rick Sapp, PhD
  - United States Department of Agriculture
  - United States Food & Drug Administration
  - United States Geological Survey
  - National Weather Service


State Agricultural Response Team 4

## Learning Objectives


- Describe why livestock and horses are viable industries in Florida
- List and discuss characteristics of the Florida livestock and horse industries
- Name the stakeholders involved with livestock and horses and describe their roles
- Identify key resources used to produce this unit that participants can easily access for more information

State Agricultural Response Team 5

## Livestock and Horses in Florida



- 26 million poultry
- 1.5 million beef cattle
- 350,000 horses
- 140,000 dairy cattle
- 100,000 swine
- 30,000 goats
- 10,000 sheep



State Agricultural Response Team 6




## PowerPoint Slides

Slides 7-12

### Livestock and Horses in Florida


- Additionally, there are thousands of exotic species (zebra, wildebeest, red deer, etc.) and millions of rabbits and companion animals: dogs, cats, ferrets, hamsters, birds, fish, exotic snakes and spiders and so on.



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### Livestock and Horses in Florida

- Sales of livestock: more than \$1.48 billion
- About 22% of cash receipts for farms and ranches
- Florida's horse industry generates \$2.2 billion
- The total horse industry impact is \$7 billion



State Agricultural Response Team


### About Statistics and Statisticians



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### Agriculture on the Edge

By the year 2030, Florida will have 30 million residents.



State Agricultural Response Team 10

### Agriculture on the Edge

The animal sector of Florida agriculture is strong because it is diverse, with numerous mini-economies, many profit streams, and a diverse base of products and customers.



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### Agriculture on the Edge

Uncounted millions of domestic animals – pets!



State Agricultural Response Team



## PowerPoint Slides

Slides 13-18

### Animals for food, clothing and recreation

We will concentrate on the larger animals, those raised for food, clothing or, in the case of horses, for recreation. The majority of horses are raised for recreation, not for work or to be rendered for by-products. A separate program studies the case of domestic animals or pets as well as those imported for zoos or raised in hunting preserves.



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### Florida's Climate is Ideal

- A long state: 700 miles, Pensacola-Key West
- Average highest temperature: Naples 85°
- Average lowest temperature: Gainesville 58°
- Annual rainfall: Highest in Panhandle and on SE Coast
- A humid state: No point is more than 60 miles from salt water or higher than 345' above sea level



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### Location of Farms and Ranches

Throughout the state, but concentrated in  
 Horses: Marion County  
 Dairy: Suwannee River Valley, Okeechobee Area  
 Cattle: South Central Area



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### Farm Size and Land Use

- 44,000 commercial farms using 10,414,877 acres (30.1% percent of the state's total acreage)
- Range and pastureland use another 3,400,193 acres
- Improved pastureland comprises 813,694 acres
- Some land that horses are kept on may be classified as residential



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### The Farm and Ranch Workforce

A total of 800,000 people are in the farm-and-ranch workforce in Florida: full- and part-time, seasonal and migrant.



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### Livestock Product Values

- Sales of more than \$1.2 billion in 2003
- \$356 million for dairy products
  - \$333 million from beef
  - \$324 million from poultry
  - More than \$166 million from miscellaneous other livestock products like hogs, honey, sheep and lamb's wool and others



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# PowerPoint Slides

Slides 19-24

## Dairy Cattle

- 189 dairy farms
- 142,000 dairy cows
  - 1<sup>st</sup> in Southeast for number of cows, 16<sup>th</sup> nationally
  - Okeechobee county has the most dairy cattle, 30,000 head in 2004
- Farmers milk an average of 750 cows per farm



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## Dairy Cattle

- Per cow milk production 15,218 pounds (about 5 gallons/day/cow)
  - All dairies collectively produced 2.16 billion pounds of milk
- Ice cream production is about 43 million gallons
  - Other frozen foods production about 47 million gallons






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## Beef Cattle

- 15,800 beef operations in Florida with 950,000 head as of 2004
- Ranked 12<sup>th</sup> in beef cows nationally and 3<sup>rd</sup> east of Mississippi River
- 920,000 calves born in 2003, 662,000 of which were marketed
- Large-scale beef producers not the norm: 80% of herds have less than 50 head



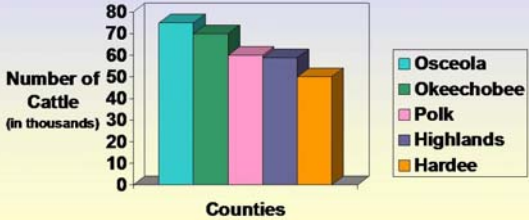


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## Beef Cattle

**Top 5 beef counties as of 2004**



| County     | Number of Cattle (in thousands) |
|------------|---------------------------------|
| Osceola    | ~75                             |
| Okeechobee | ~65                             |
| Polk       | ~60                             |
| Highlands  | ~55                             |
| Hardee     | ~50                             |



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## Diversification










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## Poultry



- Florida is 12<sup>th</sup> in number of chickens on farms (2003)
- 10.8 million layers produced 2.8 billion eggs and \$145 million in sales
- 91.3 million broilers produced 511.3 million pounds of meat and \$179 million in sales

A poultry farm in central Florida. Operations such as this one can house in excess of one million animals.



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**PowerPoint Slides**

Slides 25-30

**The Swine Industries**

- Swine
  - Commercial hog slaughter of 108,200
  - Average live weight was 176 pounds
  - Value \$5.27 million
  - A traditional source of farm income (apparently downsizing now in Florida)



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**The Bee/Honey Industries**

- Honey
  - 3<sup>rd</sup> in production nationally
  - 14,910,000 pounds of honey in 2003 from 210,000 colonies
  - Value of \$20.1 million



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**The Bee/Honey Industries**



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**Horses!**

- About 299,000 horses in Florida
- 12,753 horse and pony farms (2002 Ag Census)
- More than 70% are used for showing and recreation
- \$6.5 billion overall impact on state GDP
- Produce goods and services of \$2.2 billion

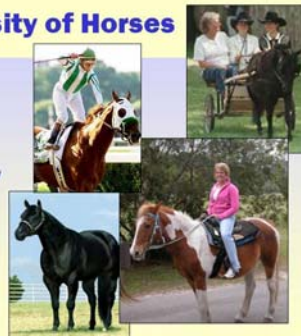


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**The Diversity of Horses**

- Many breeds and disciplines are found throughout the state
- Marion County has more horses and ponies than any other county in the U.S.
  - Known as "Horse Capital of the World"
  - More than 900 farms in Marion County



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**Thoroughbreds**

- Over 600 thoroughbred farm and training facilities
  - More than 75% in Marion County
- Moderate Florida climate provides ideal place to "winter" racehorses



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## PowerPoint Slides

Slides 31-36

### Stakeholder Involvement in the Livestock and Horse Industries

- **State**
  - Florida Department of Agriculture and Consumer Services (FDACS), Divisions of Animal Industry and Dairy
- **Federal**
  - United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS)
- **Academia**
  - University of Florida, Institute of Food & Agricultural Sciences
- **Private**
  - Producers
  - Hobbyists
  - Suppliers

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### Stakeholder: FDACS


- FDACS: "Serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals."
  - Animal ID program
  - Animal movement monitoring
  - Processing of health certificates
  - Livestock hauler permitting
  - Marks and brands program



 State Agricultural Response Team 32

### Stakeholder: FDACS, Division of Animal Industry

- **Poultry**
  - Poultry Disease Control Unit
  - Conducts inspections, takes samples, monitors for AI and END
- **Cattle**
  - Inspected at markets
  - Monitoring and testing for brucellosis, tuberculosis, TSEs, Johne's Disease and CWD
- **Goats and Sheep**
  - Scrapie-free Flock Certification Program (SFCP)

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### Stakeholder: FDACS, Division of Animal Industry

- **Equine**
  - CEM, EIA, EP, arboviruses, EEE, WNV monitoring
- **Swine**
  - Swine brucellosis, pseudo-rabies and garbage feeding operation monitoring
- **Other**
  - Cervidae
  - Reptiles and amphibians
  - Companion animal and other small animals




This remarkable deer, extinct in the wild in its native land, is found in Florida. Can you name the deer and tell where it may be found?


 State Agricultural Response Team 34

### Stakeholder: FDACS, Division of Dairy

Bureau of Dairy Inspection  
Bureau of Dairy Compliance Monitoring

- Issues permits and performs inspections of dairy facilities, transport tankers and bulk milk haulers
- Also collect samples to test for bacteria, antibiotics, water and other impurities
- Weight checking conducted for past 17 years



 State Agricultural Response Team 35

### Stakeholder: US Department of Agriculture, APHIS

- BSE testing and monitoring
- Animal and animal product import permits and enforcement of export requirements
- Licensing and registration associated with the Animal Welfare Act (AWA)

BSE or mad cow disease has appeared at least eight times in the US.




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**PowerPoint Slides**

Slides 37-42

**Stakeholder: UF, IFAS and College of Agriculture**



Research  
Teaching  
Extension

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**Stakeholder: The Private Sector**

- Producers
  - Beef cow-calf and dairy cows
  - Thoroughbred and horse breeders
  - Poultry, swine, sheep, goats and others
- Hobbyists
  - "Hobby farms," horse show participants
  - Racing spectators



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**Key Resources**

- United States Dept. of Agriculture (USDA)
  - [www.usda.gov](http://www.usda.gov)
- Florida Dept. of Agriculture & Consumer Services (FDACS)
  - [www.doacs.state.fl.us](http://www.doacs.state.fl.us)
- FDACS Division of Animal Industry
  - [www.doacs.state.fl.us/ai/](http://www.doacs.state.fl.us/ai/)
- FDACS Division of Dairy
  - [www.doacs.state.fl.us/dairy/](http://www.doacs.state.fl.us/dairy/)
- Sunshine State Horse Council
  - [www.sshc.org](http://www.sshc.org)

State Agricultural Response Team 39

**Key Resources**

- "The Florida Horse Industry" (an FDACS brochure)
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Horse\\_Industry\\_Brochure.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Horse_Industry_Brochure.pdf)
- "The Florida Agriculture Statistical Directory"
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Agriculture\\_Statistical\\_Directory\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Agriculture_Statistical_Directory_2004.pdf)
- "Florida Department of Agriculture Annual Report 2004"
  - [www.florida-agriculture.com/pubs/pubform/pdf/FDACS\\_Annual\\_Report\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/FDACS_Annual_Report_2004.pdf)
- FDACS' Division of Marketing and Development Web site provides information to agribusinesses and the general public about Florida agriculture
  - [www.florida-agriculture.com](http://www.florida-agriculture.com)

State Agricultural Response Team 40

**Key Resources**

- USDA-APHIS National Center for Import and Export (NCIE) [www.aphis.usda.gov/vs/ncie/](http://www.aphis.usda.gov/vs/ncie/)
- United States Dept. of Health & Human Services, Centers for Disease Control (CDC) [www.cdc.gov](http://www.cdc.gov)
- American Veterinary Medical Assn. [www.avma.org](http://www.avma.org)

State Agricultural Response Team 41

**Now, Test Your Knowledge and Awareness (1 of 4)**

1. (circle the best answer) The largest agricultural sector of Florida's economy is:
 

|             |             |
|-------------|-------------|
| a. Citrus   | b. Cattle   |
| c. Forestry | d. Chickens |
2. (True or False) Florida's humid sub-tropical climate compounds the difficulties of maintaining viable economic sectors for large animals - beef and dairy cattle and horses.
3. (circle the best answer) What fraction best represents the total land devoted to farms and ranches (not, however, including tree farms or forests) in Florida?
 

|         |        |
|---------|--------|
| a. 1/3  | b. 1/4 |
| c. 1/10 | d. 2/3 |

State Agricultural Response Team 42

## PowerPoint Slides

Slides 43-48

### Test continued (2 of 4)

4. Which one of the following is not considered livestock in Florida?
  - a. exotic imported animals such as zebras
  - b. Poland China hogs
  - c. honeybees
  - d. Siamese cats
  - e. all of the above can be considered livestock
5. (fill in the blank) The Florida county with the greatest concentration of horses in the US is \_\_\_\_\_.
6. (True or False) The heart of Florida's beef cattle industry lies below the Tampa-Orlando-Cape Canaveral growth belt.



State Agricultural Response Team

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### Test continued (3 of 4)

7. (circle the best answer) The honeybee, a beneficial, but exotic import into the early American colonies, is now threatened by:
  - a. a combination of killer mites and Africanized bees
  - b. a decline in the public's interest in honey
  - c. artificial methods of pollination
  - d. none of the above is important in the future of the honeybee
8. (circle the best answer) What does it mean that a person, a corporation or an agency of government has "stakeholder involvement" in the horse and livestock industries?
  - a. Those entities have placed legitimate bets either at an authorized racetrack or are wagering on the futures market.
  - b. Those entities have an interest in the viability of the economic sector.
  - c. "Stakeholder" is a short-hand term for the person who holds the reins of a winning racehorse once a course has been run.



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### Test continued (4 of 4)

9. Which of the following is not a role of the Florida Department of Agriculture and Consumer Services, Division of Animal Industry?
  - a. monitoring for brucellosis in hogs and pigs
  - b. maintaining an alert status for avian influenza
  - c. periodically surveying cattle for "mad cow" disease
  - d. the quarantine of mink coats to halt mink-flea wart spread
  - e. controlling exotic deer transport to prevent chronic wasting
10. (circle the best answer or answers from your point of view) This is an *opinion sampler*, not a test question. Please give us your most thoughtful reply. Florida's livestock and horse industries:
  - a. have a bright future
  - b. are threatened by the growth of Florida's human population
  - c. have a limited future
  - d. will not be viable in our children's adult lifetimes



State Agricultural Response Team

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### Test Answer Key

1. (c) Forestry
2. False
3. (a) 1/3
4. (e) all of the above can be considered livestock
5. Marion
6. True
7. (a) a combination of killer mites and Africanized bees
8. (b) That those entities have an interest in the viability of that economic sector.
9. (d) the quarantine of mink coats to halt mink-flea wart spread
10. This question asks for your opinion. There is no "right" answer and arguments can be made for every answer. What do you think?



State Agricultural Response Team

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### Glossary

- **Brucellosis:** A highly contagious bacterial disease of cattle, goats, sheep and swine that can be transmitted to humans as undulant fever.
- **Chronic wasting disease:** A wildlife disease (akin to bovine spongiform encephalitis or "mad cow") that affects deer and elk, but is not believed to be transmissible to humans.
- **Exotic:** Not native, introduced from abroad.
- **Killer bees:** A strain of honeybees that originated in Brazil in the 1950s as a cross between an aggressive African bee and a European honeybee. These bees retain most of the traits of the African bee: highly aggressive, relatively poor pollinators and relatively poor honey producers.
- **Relative humidity:** Ratio of the actual water vapor pressure at a given time to the vapor pressure that would occur if the air were saturated at the same ambient temperature.
- **SART:** The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery.



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### Glossary

- **Spongiform encephalopathies:** A group of diseases characterized by long incubation and fatal progressive courses with characteristic spongiform degeneration of the brain (Creutzfeldt Jakob and "mad cow" disease.)
- **Stakeholder:** An individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services.
- **Tracheal mite (*Acarapis woodi*):** A minute arachnid that is parasitic on honeybees, clogging their breathing tubes and eventually killing them.
- **Tuberculosis:** An infectious disease caused by the tubercle bacillus affecting primarily the lungs of humans and animals, more common in urban areas, treatable with antibiotics (though resistant strains are appearing).
- **West Nile virus:** A virus of the genus *Flavivirus* antigenically that is transmitted by *Culex* mosquitoes, with wild birds serving as the reservoir. It occurs widely in Africa, Europe, the Middle East and Asia, and has recently been reported in the United States. Symptoms may be mild or severe, resulting in death.



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**PowerPoint Slides**

Slide 49



## **POWERPOINT SLIDES – HANDOUT PAGES**

The *Introducing Florida's Livestock and Horse Industries* PowerPoint slides are reproduced on the following pages at reduced size with space for participant notes.

Also included in the participant workbook for the *Introducing Florida's Livestock and Horse Industries* unit which is available at the Florida SART web site at: [www.flsart.org](http://www.flsart.org).





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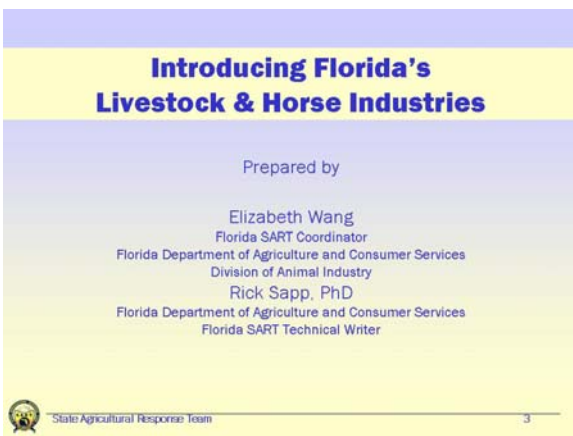
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Slides 4-6

### Acknowledgements

- **Photographs and diagrams**
  - Florida Dept. of Agriculture & Consumer Services
  - Institute of Food & Agricultural Sciences, University of Florida
  - Elizabeth Wang, FDACS, Florida SART Coordinator
  - Rick Sapp, PhD
  - United States Department of Agriculture
  - United States Food & Drug Administration
  - United States Geological Survey
  - National Weather Service

 State Agricultural Response Team 4

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### Learning Objectives

- Describe why livestock and horses are viable industries in Florida
- List and discuss characteristics of the Florida livestock and horse industries
- Name the stakeholders involved with livestock and horses and describe their roles
- Identify key resources used to produce this unit that participants can easily access for more information

 State Agricultural Response Team 5

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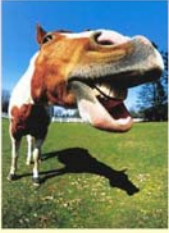
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### Livestock and Horses in Florida

- 26 million poultry
- 1.5 million beef cattle
- 350,000 horses
- 140,000 dairy cattle
- 100,000 swine
- 30,000 goats
- 10,000 sheep



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### Livestock and Horses in Florida

- Additionally, there are thousands of exotic species (zebra, wildebeest, red deer, etc.) and millions of rabbits and companion animals: dogs, cats, ferrets, hamsters, birds, fish, exotic snakes and spiders and so on.



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### Livestock and Horses in Florida

- Sales of livestock: more than \$1.48 billion
- About 22% of cash receipts for farms and ranches
- Florida's horse industry generates \$2.2 billion
- The total horse industry impact is \$7 billion



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### About Statistics and Statisticians



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Slides 10-12

**Agriculture on the Edge**

By the year 2030, Florida will have 30 million residents.



State Agricultural Response Team 10

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**Agriculture on the Edge**

The animal sector of Florida agriculture is strong because it is diverse, with numerous mini-economies, many profit streams, and a diverse base of products and customers.



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**Agriculture on the Edge**

Uncounted millions of domestic animals – pets!



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### Farm Size and Land Use

- 44,000 commercial farms using 10,414,877 acres (30.1% percent of the state's total acreage)
- Range and pastureland use another 3,400,193 acres
- Improved pastureland comprises 813,694 acres
- Some land that horses are kept on may be classified as residential



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### Florida's Climate is Ideal

- A long state: 700 miles, Pensacola-Key West
- Average highest temperature: Naples 85°
- Average lowest temperature: Gainesville 58°
- Annual rainfall: Highest in Panhandle and on SE Coast
- A humid state: No point is more than 60 miles from salt water or higher than 345' above sea level



State Agricultural Response Team 14

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### Location of Farms and Ranches

Throughout the state, but concentrated in

- Horses: Marion County
- Dairy: Suwannee River Valley, Okeechobee Area
- Cattle: South Central Area



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Slides 16-18

### Farm Size and Land Use

- 44,000 commercial farms using 10,414,877 acres (30.1% percent of the state's total acreage)
- Range and pastureland use another 3,400,193 acres
- Improved pastureland comprises 813,694 acres
- Some land that horses are kept on may be classified as residential



State Agricultural Response Team 16

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### The Farm and Ranch Workforce

A total of 800,000 people are in the farm-and-ranch workforce in Florida: full- and part-time, seasonal and migrant.



State Agricultural Response Team 17

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### Livestock Product Values

Sales of more than \$1.2 billion in 2003

- \$356 million for dairy products
- \$333 million from beef
- \$324 million from poultry
- More than \$166 million from miscellaneous other livestock products like hogs, honey, sheep and lamb's wool and others



State Agricultural Response Team 18

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### Dairy Cattle

- 189 dairy farms
- 142,000 dairy cows
  - 1<sup>st</sup> in Southeast for number of cows, 16<sup>th</sup> nationally
  - Okeechobee county has the most dairy cattle, 30,000 head in 2004
- Farmers milk an average of 750 cows per farm



State Agricultural Response Team 19

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### Dairy Cattle

- Per cow milk production 15,218 pounds (about 5 gallons/day/cow)
  - All dairies collectively produced 2.16 billion pounds of milk
- Ice cream production is about 43 million gallons
  - Other frozen foods production about 47 million gallons



State Agricultural Response Team 20

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### Beef Cattle

- 15,800 beef operations in Florida with 950,000 head as of 2004
- Ranked 12<sup>th</sup> in beef cows nationally and 3<sup>rd</sup> east of Mississippi River
- 920,000 calves born in 2003, 662,000 of which were marketed
- Large-scale beef producers not the norm: 80% of herds have less than 50 head



State Agricultural Response Team 21

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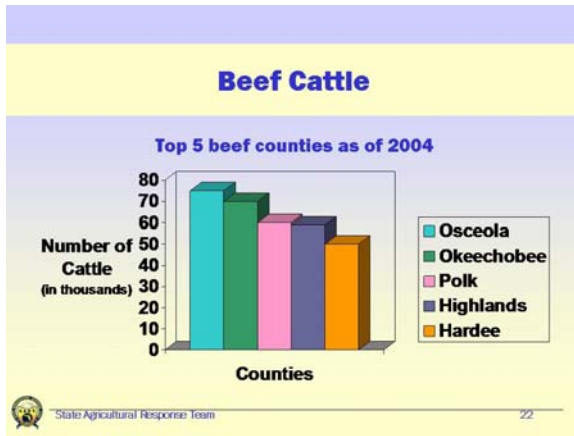
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Slides 22-24



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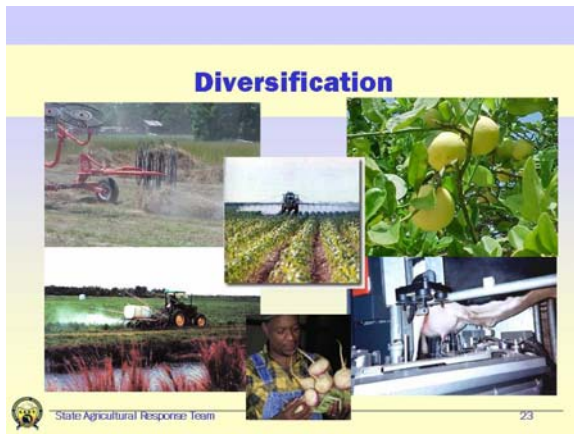
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### Poultry

A poultry farm in central Florida. Operations such as this one can house in excess of one million animals.

- Florida is 12<sup>th</sup> in number of chickens on farms (2003)
- 10.8 million layers produced 2.8 billion eggs and \$145 million in sales
- 91.3 million broilers produced 511.3 million pounds of meat and \$179 million in sales

State Agricultural Response Team 24

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### The Swine Industries

- Swine
  - Commercial hog slaughter of 108,200
  - Average live weight was 176 pounds
  - Value \$5.27 million
  - A traditional source of farm income (apparently downsizing now in Florida)



State Agricultural Response Team 25

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### The Bee/Honey Industries

- Honey
  - 3<sup>rd</sup> in production nationally
  - 14,910,000 pounds of honey in 2003 from 210,000 colonies
  - Value of \$20.1 million



State Agricultural Response Team 26

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### The Bee/Honey Industries



State Agricultural Response Team 27

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Slides 28-30

### Horses!

- About 299,000 horses in Florida
- 12,753 horse and pony farms (2002 Ag Census)
- More than 70% are used for showing and recreation
- \$6.5 billion overall impact on state GDP
- Produce goods and services of \$2.2 billion



State Agricultural Response Team 28

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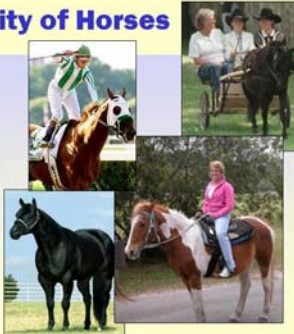
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### The Diversity of Horses

- Many breeds and disciplines are found throughout the state
- Marion County has more horses and ponies than any other county in the U.S.
  - Known as "Horse Capital of the World"
  - More than 900 farms in Marion County



State Agricultural Response Team 29

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### Thoroughbreds

- Over 600 thoroughbred farm and training facilities
  - More than 75% in Marion County
- Moderate Florida climate provides ideal place to "winter" racehorses



State Agricultural Response Team 30

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### Stakeholder Involvement in the Livestock and Horse Industries

- State
  - Florida Department of Agriculture and Consumer Services (FDACS), Divisions of Animal Industry and Dairy
- Federal
  - United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS)
- Academia
  - University of Florida, Institute of Food & Agricultural Sciences
- Private
  - Producers
  - Hobbyists
  - Suppliers



State Agricultural Response Team 31

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### Stakeholder: FDACS

- FDACS: "Serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals."
  - Animal ID program
  - Animal movement monitoring
  - Processing of health certificates
  - Livestock hauler permitting
  - Marks and brands program



State Agricultural Response Team 32

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### Stakeholder: FDACS, Division of Animal Industry

- Poultry
  - Poultry Disease Control Unit
  - Conducts inspections, takes samples, monitors for AI and END
- Cattle
  - Inspected at markets
  - Monitoring and testing for brucellosis, tuberculosis, TSEs, Johne's Disease and CWD
- Goats and Sheep
  - Scrapie-free Flock Certification Program (SFCP)



State Agricultural Response Team 33

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Slides 34-36

**Stakeholder: FDACS, Division of Animal Industry**

- Equine
  - CEM, EIA, EP, arboviruses, EEE, WNV monitoring
- Swine
  - Swine brucellosis, pseudo-rabies and garbage feeding operation monitoring
- Other
  - Cervidae
  - Reptiles and amphibians
  - Companion animal and other small animals



This remarkable deer, extinct in the wild in its native land, is found in Florida. Can you name the deer and tell where it may be found?

State Agricultural Response Team 34

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**Stakeholder: FDACS, Division of Dairy**

Bureau of Dairy Inspection  
Bureau of Dairy Compliance Monitoring

- Issues permits and performs inspections of dairy facilities, transport tankers and bulk milk haulers
- Also collect samples to test for bacteria, antibiotics, water and other impurities
- Weight checking conducted for past 17 years



State Agricultural Response Team 35

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**Stakeholder: US Department of Agriculture, APHIS**

- BSE testing and monitoring
- Animal and animal product import permits and enforcement of export requirements
- Licensing and registration associated with the Animal Welfare Act (AWA)



BSE or mad cow disease has appeared at least eight times in the US.

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**Stakeholder: UF, IFAS and College of Agriculture**



Research  
Teaching  
Extension



State Agricultural Response Team

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**Stakeholder: The Private Sector**

- Producers
  - Beef cow-calf and dairy cows
  - Thoroughbred and horse breeders
  - Poultry, swine, sheep, goats and others
- Hobbyists
  - "Hobby farms," horse show participants
  - Racing spectators



State Agricultural Response Team

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**Key Resources**

- United States Dept. of Agriculture (USDA)
  - [www.usda.gov](http://www.usda.gov)
- Florida Dept. of Agriculture & Consumer Services (FDACS)
  - [www.doacs.state.fl.us](http://www.doacs.state.fl.us)
- FDACS Division of Animal Industry
  - [www.doacs.state.fl.us/ai/](http://www.doacs.state.fl.us/ai/)
- FDACS Division of Dairy
  - [www.doacs.state.fl.us/dairy/](http://www.doacs.state.fl.us/dairy/)
- Sunshine State Horse Council
  - [www.sshc.org](http://www.sshc.org)



State Agricultural Response Team

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Slides 40-42

**Key Resources**

- "The Florida Horse Industry" (an FDACS brochure)
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Horse\\_Industry\\_Brochure.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Horse_Industry_Brochure.pdf)
- "The Florida Agriculture Statistical Directory"
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Agriculture\\_Statistical\\_Directory\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Agriculture_Statistical_Directory_2004.pdf)
- "Florida Department of Agriculture Annual Report 2004"
  - [www.florida-agriculture.com/pubs/pubform/pdf/FDACS\\_Annual\\_Report\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/FDACS_Annual_Report_2004.pdf)
- FDACS' Division of Marketing and Development Web site provides information to agribusinesses and the general public about Florida agriculture
  - [www.florida-agriculture.com](http://www.florida-agriculture.com)

 State Agricultural Response Team 40

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**Key Resources**

- USDA-APHIS National Center for Import and Export (NCIE) [www.aphis.usda.gov/vs/ncie/](http://www.aphis.usda.gov/vs/ncie/)
- United States Dept. of Health & Human Services, Centers for Disease Control (CDC) [www.cdc.gov](http://www.cdc.gov)
- American Veterinary Medical Assn. [www.avma.org](http://www.avma.org)

 State Agricultural Response Team 41

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**Now, Test Your Knowledge and Awareness (1 of 4)**

1. (circle the best answer) The largest agricultural sector of Florida's economy is:
 

|             |             |
|-------------|-------------|
| a. Citrus   | b. Cattle   |
| c. Forestry | d. Chickens |
2. (True or False) Florida's humid sub-tropical climate compounds the difficulties of maintaining viable economic sectors for large animals - beef and dairy cattle and horses.
3. (circle the best answer) What fraction best represents the total land devoted to farms and ranches (not, however, including tree farms or forests) in Florida?
 

|         |        |
|---------|--------|
| a. 1/3  | b. 1/4 |
| c. 1/10 | d. 2/3 |

 State Agricultural Response Team 42

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**Test continued (2 of 4)**

4. Which one of the following is not considered livestock in Florida?  
a. exotic imported animals such as zebras  
b. Poland China hogs  
c. honeybees  
d. Siamese cats  
e. all of the above can be considered livestock

5. (fill in the blank) The Florida county with the greatest concentration of horses in the US is \_\_\_\_\_.

6. (True or False) The heart of Florida's beef cattle industry lies below the Tampa-Orlando-Cape Canaveral growth belt.

 State Agricultural Response Team 43

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**Test continued (3 of 4)**

7. (circle the best answer) The honeybee, a beneficial, but exotic import into the early American colonies, is now threatened by:  
a. a combination of killer mites and Africanized bees  
b. a decline in the public's interest in honey  
c. artificial methods of pollination  
d. none of the above is important in the future of the honeybee

8. (circle the best answer) What does it mean that a person, a corporation or an agency of government has "stakeholder involvement" in the horse and livestock industries?  
a. Those entities have placed legitimate bets either at an authorized racetrack or are wagering on the futures market.  
b. Those entities have an interest in the viability of the economic sector.  
c. "Stakeholder" is a short-hand term for the person who holds the reins of a winning racehorse once a course has been run.

 State Agricultural Response Team 44

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**Test continued (4 of 4)**

9. Which of the following is not a role of the Florida Department of Agriculture and Consumer Services, Division of Animal Industry:  
a. monitoring for brucellosis in hogs and pigs  
b. maintaining an alert status for avian influenza  
c. periodically surveying cattle for "mad cow" disease  
d. the quarantine of mink coats to halt mink-flea wart spread  
e. controlling exotic deer transport to prevent chronic wasting

10. (circle the best answer or answers from your point of view) This is an *opinion sampler*, not a test question. Please give us your most thoughtful reply. Florida's livestock and horse industries:  
a. have a bright future  
b. are threatened by the growth of Florida's human population  
c. have a limited future  
d. will not be viable in our children's adult lifetimes

 State Agricultural Response Team 45

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Slides 46-48

**Test Answer Key**

1. (c) Forestry
2. False
3. (a) 1/3
4. (e) all of the above can be considered livestock
5. Marion
6. True
7. (a) a combination of killer mites and Africanized bees
8. (b) That those entities have an interest in the viability of that economic sector.
9. (d) the quarantine of mink coats to halt mink-flea wart spread
10. This question asks for your opinion. There is no "right" answer and arguments can be made for every answer. What do you think?

 State Agricultural Response Team 46

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**Glossary**

- **Brucellosis:** A highly contagious bacterial disease of cattle, goats, sheep and swine that can be transmitted to humans as undulant fever.
- **Chronic wasting disease:** A wildlife disease (akin to bovine spongiform encephalitis or "mad cow") that affects deer and elk, but is not believed to be transmissible to humans.
- **Exotic:** Not native, introduced from abroad.
- **Killer bees:** A strain of honeybees that originated in Brazil in the 1950s as a cross between an aggressive African bee and a European honeybee. These bees retain most of the traits of the African bee: highly aggressive, relatively poor pollinators and relatively poor honey producers.
- **Relative humidity:** Ratio of the actual water vapor pressure at a given time to the vapor pressure that would occur if the air were saturated at the same ambient temperature.
- **SART:** The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery.

 State Agricultural Response Team 47

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**Glossary**

- **Spongiform encephalopathies:** A group of diseases characterized by long incubation and fatal progressive courses with characteristic spongiform degeneration of the brain (Creutzfeldt-Jakob and "mad cow" disease.)
- **Stakeholder:** An individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services.
- **Tracheal mite (*Acarapis woodi*):** A minute arachnid that is parasitic on honeybees, clogging their breathing tubes and eventually killing them.
- **Tuberculosis:** An infectious disease caused by the tubercle bacillus affecting primarily the lungs of humans and animals, more common in urban areas, treatable with antibiotics (though resistant strains are appearing).
- **West Nile virus:** A virus of the genus *Flavivirus* antigenically that is transmitted by *Culex* mosquitoes, with wild birds serving as the reservoir. It occurs widely in Africa, Europe, the Middle East and Asia, and has recently been reported in the United States. Symptoms may be mild or severe, resulting in death.

 State Agricultural Response Team 48

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**Introducing Florida's  
Livestock & Horse Industries**

That concludes our "Introduction to  
the Florida Livestock and Horse  
Industries." Thank you for  
attending and for participating!



State Agricultural Response Team

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## **POWERPOINT SLIDES – FULL SIZE**

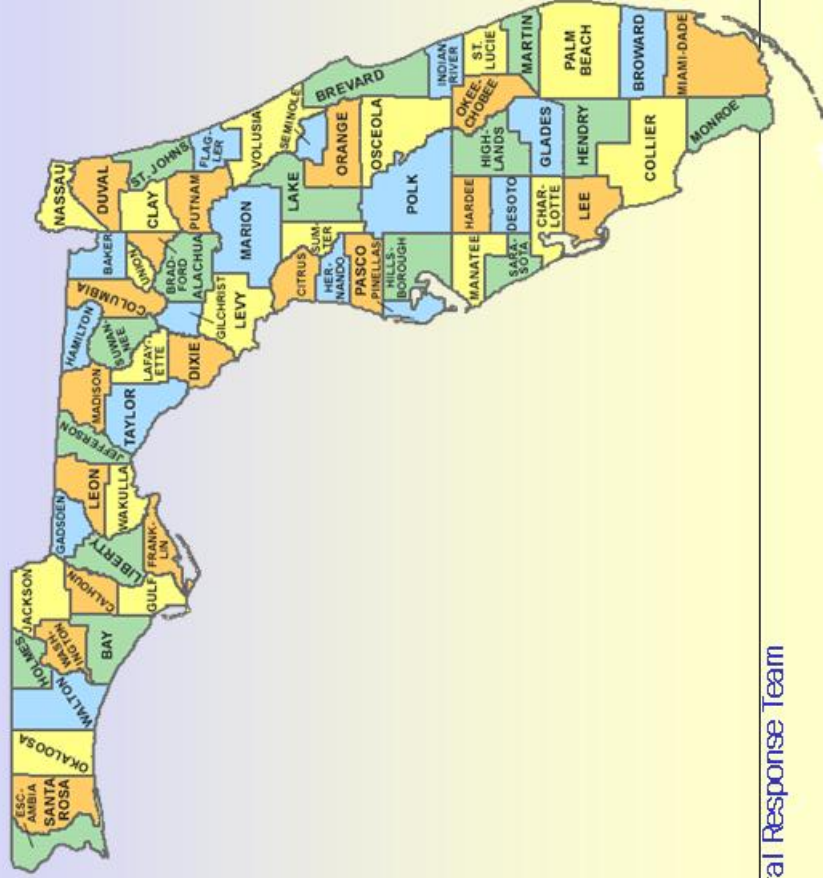
The *Introducing Florida's Livestock and Horse Industries* PowerPoint slides are reproduced full size on the following pages. You may use these pages as a display or photocopy them onto plastic overhead sheets for use with an overhead projector.

Color versions of these slides can be downloaded from the Florida SART web site at [www.flsart.org](http://www.flsart.org).





# Introducing Florida's Livestock & Horse Industries



State Agricultural Response Team



# Introducing Florida's Livestock & Horse Industries

Prepared by

Elizabeth Wang  
Florida SART Coordinator  
Florida Department of Agriculture and Consumer Services  
Division of Animal Industry

Rick Sapp, PhD  
Florida Department of Agriculture and Consumer Services  
Florida SART Technical Writer







# Acknowledgements

- **Photographs and diagrams**

- Florida Dept. of Agriculture & Consumer Services
- Institute of Food & Agricultural Sciences, University of Florida
- Elizabeth Wang, FDACS, Florida SART Coordinator
- Rick Sapp, PhD
- United States Department of Agriculture
- United States Food & Drug Administration
- United States Geological Survey
- National Weather Service





## Learning Objectives

- Describe why livestock and horses are viable industries in Florida
- List and discuss characteristics of the Florida livestock and horse industries
- Name the stakeholders involved with livestock and horses and describe their roles
- Identify key resources used to produce this unit that participants can easily access for more information





# Livestock and Horses in Florida



- 26 million poultry
- 1.5 million beef cattle
- 350,000 horses
- 140,000 dairy cattle
- 100,000 swine
- 30,000 goats
- 10,000 sheep







## Livestock and Horses in Florida

- Additionally, there are thousands of exotic species (zebra, wildebeest, red deer, etc.) and millions of rabbits and companion animals: dogs, cats, ferrets, hamsters, birds, fish, exotic snakes and spiders and so on.







## Livestock and Horses in Florida



- Sales of livestock: more than \$1.48 billion
- About 22% of cash receipts for farms and ranches
- Florida's horse industry generates \$2.2 billion
- The total horse industry impact is \$7 billion





# About Statistics and Statisticians



State Agricultural Response Team





## **Agriculture on the Edge**



By the year  
2030, Florida  
will have  
30 million  
residents.



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## Agriculture on the Edge

The animal sector of Florida agriculture is strong because it is diverse, with numerous mini-economies, many profit streams, and a diverse base of products and customers.





# Agriculture on the Edge

Uncounted millions of domestic animals – pets!



20/02/2005



State Agricultural Response Team





## Animals for food, clothing and recreation

We will concentrate on the larger animals, those raised for food, clothing or, in the case of horses, for recreation. The majority of horses are raised for recreation, not for work or to be rendered for by-products.

A separate program studies the case of domestic animals or pets as well as those imported for zoos or raised in hunting preserves.







## Florida's Climate is Ideal

- A long state: 700 miles, Pensacola-Key West
- Average highest temperature: Naples 85°
- Average lowest temperature: Gainesville 58°
- Annual rainfall: Highest in Panhandle and on SE Coast
- A humid state: No point is more than 60 miles from salt water or higher than 345' above sea level





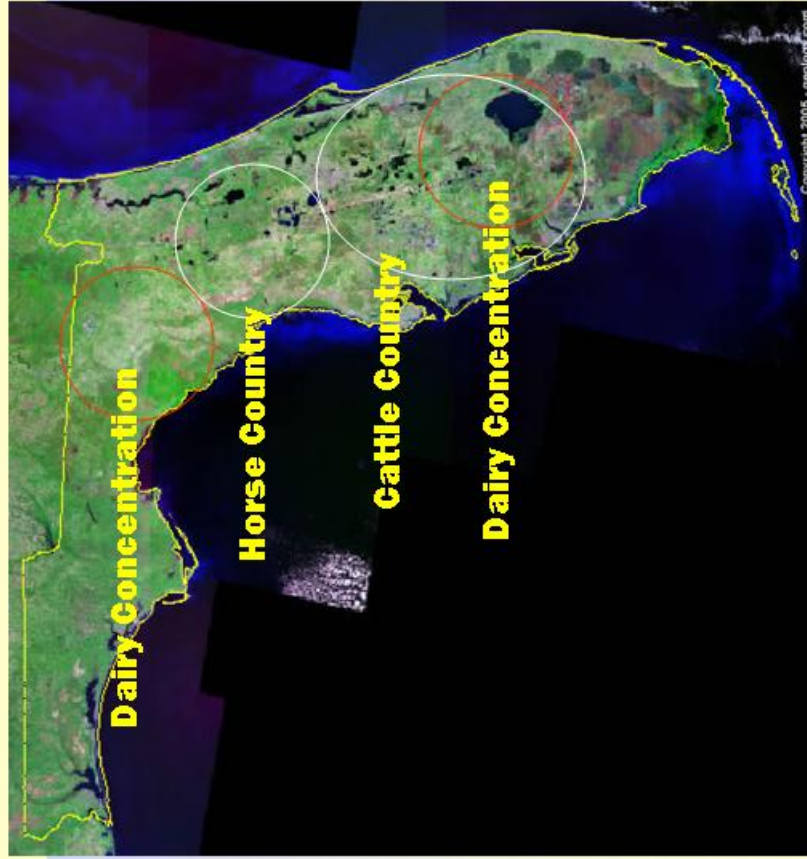
## Location of Farms and Ranches

Throughout the state,  
but concentrated in

Horses: Marion  
County

Dairy: Suwannee  
River Valley,  
Okeechobee  
Area

Cattle: South  
Central Area





## Farm Size and Land Use

- 44,000 commercial farms using 10,414,877 acres (30.1% percent of the state's total acreage)
- Range and pastureland use another 3,400,193 acres
- Improved pastureland comprises 813,694 acres
- Some land that horses are kept on may be classified as residential







# The Farm and Ranch Workforce

A total of 800,000 people are in the farm-and-ranch workforce in Florida: full- and part-time, seasonal and migrant.



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## Livestock Product Values

Sales of more than \$1.2 billion in 2003

- \$356 million for dairy products
- \$333 million from beef
- \$324 million from poultry
- More than \$166 million from miscellaneous other livestock products like hogs, honey, sheep and lamb's wool and others





## Dairy Cattle

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- 142,000 dairy cows
  - 1<sup>st</sup> in Southeast for number of cows, 16<sup>th</sup> nationally
  - Okeechobee county has the most dairy cattle, 30,000 head in 2004
- Farmers milk an average of 750 cows per farm







## Dairy Cattle

- Per cow milk production 15,218 pounds (about 5 gallons/day/cow)
  - All dairies collectively produced 2.16 billion pounds of milk
- Ice cream production is about 43 million gallons
  - Other frozen foods production about 47 million gallons





## Beef Cattle

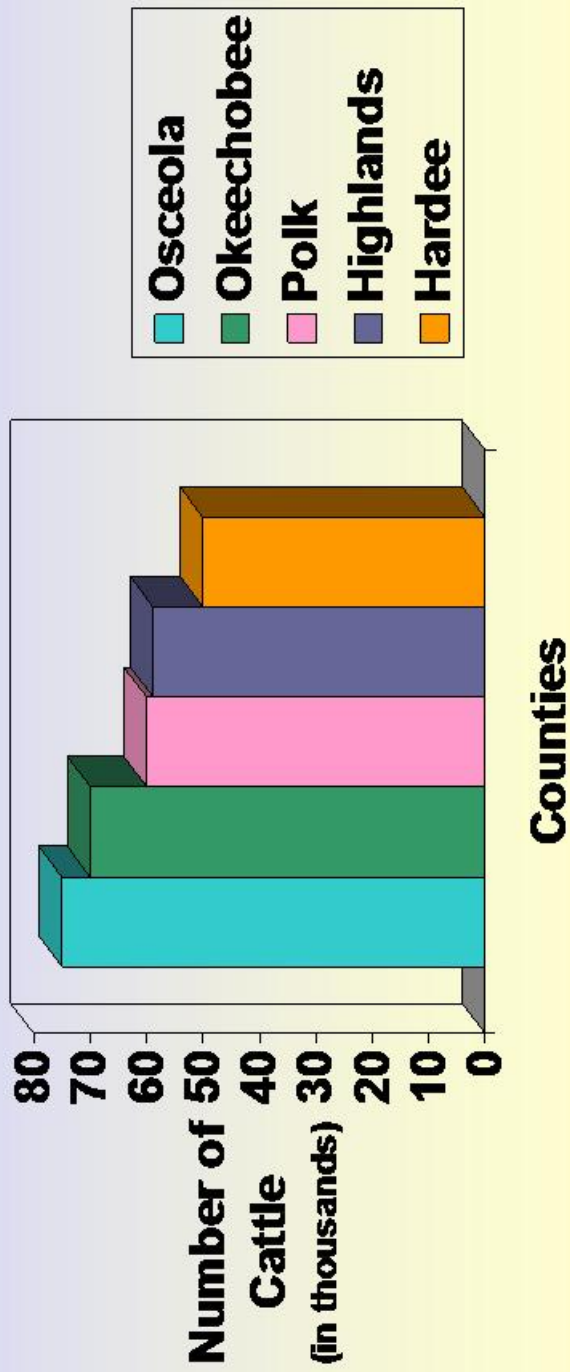
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- Ranked 12<sup>th</sup> in beef cows nationally and 3<sup>rd</sup> east of Mississippi River
- 920,000 calves born in 2003, 662,000 of which were marketed
- Large-scale beef producers not the norm: 80% of herds have less than 50 head





# Beef Cattle

Top 5 beef counties as of 2004







# Diversification



State Agricultural Response Team



## Poultry



A poultry farm in central Florida. Operations such as this one can house in excess of one million animals.

- Florida is 12<sup>th</sup> in number of chickens on farms (2003)
- 10.8 million layers produced 2.8 billion eggs and \$145 million in sales
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  - Commercial hog slaughter of 108,200
  - Average live weight was 176 pounds
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  - A traditional source of farm income (apparently downsizing now in Florida)

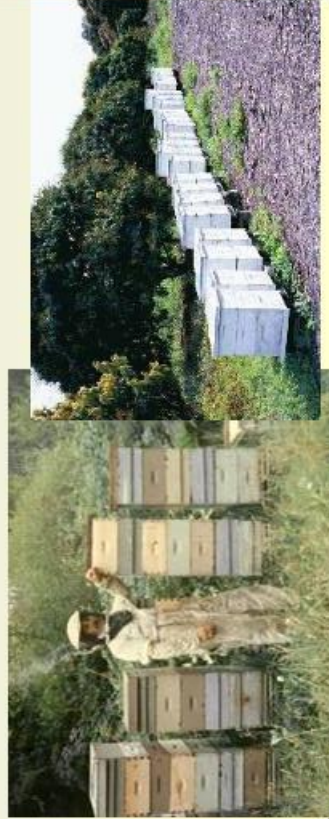






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# The Bee/Honey Industries



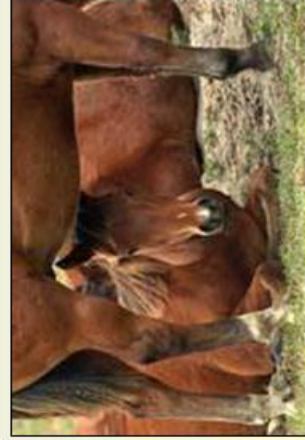
State Agricultural Response Team





## Horses!

- About 299,000 horses in Florida
- 12,753 horse and pony farms (2002 Ag Census)
- More than 70% are used for showing and recreation
- \$6.5 billion overall impact on state GDP
- Produce goods and services of \$2.2 billion







## The Diversity of Horses

- Many breeds and disciplines are found throughout the state
- Marion County has more horses and ponies than any other county in the U.S.
  - Known as "Horse Capital of the World"
  - More than 900 farms in Marion County





# Thoroughbreds

- Over 600 thoroughbred farm and training facilities
  - More than 75% in Marion County
- Moderate Florida climate provides ideal place to “winter” racehorses





## Stakeholder Involvement in the Livestock and Horse Industries

- **State**
  - Florida Department of Agriculture and Consumer Services (FDACS), Divisions of Animal Industry and Dairy
- **Federal**
  - United States Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS)
- **Academia**
  - University of Florida, Institute of Food & Agricultural Sciences
- **Private**
  - Producers
  - Hobbyists
  - Suppliers

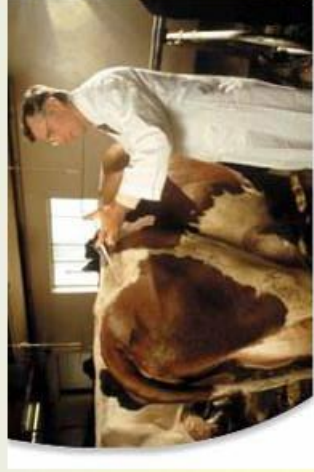






## Stakeholder: FDACS

- FDACS: “Serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals.”
  - Animal ID program
  - Animal movement monitoring
  - Processing of health certificates
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## Stakeholder: FDACS, Division of Animal Industry

- Poultry
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- Goats and Sheep
  - Scrapie-free Flock Certification Program (SFCP)





## Stakeholder: FDACS, Division of Animal Industry

- Equine
  - CEM, EIA, EP, arboviruses, EEE, WNV monitoring
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  - Swine brucellosis, pseudo-rabies and garbage feeding operation monitoring
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  - Companion animal and other small animals



This remarkable deer, extinct in the wild in its native land, is found in Florida. Can you name the deer and tell where it may be found?







## Stakeholder: FDACS, Division of Dairy

Bureau of Dairy Inspection

Bureau of Dairy Compliance Monitoring



- Issues permits and performs inspections of dairy facilities, transport tankers and bulk milk haulers
- Also collect samples to test for bacteria, antibiotics, water and other impurities
- Weight checking conducted for past 17 years





## Stakeholder: US Department of Agriculture, APHIS

- BSE testing and monitoring
- Animal and animal product import permits and enforcement of export requirements
- Licensing and registration associated with the Animal Welfare Act (AWA)



BSE or mad cow disease has appeared at least eight times in the US.





# Stakeholder: UF, IFAS and College of Agriculture







## Stakeholder: The Private Sector

- Producers
  - Beef cow-calf and dairy cows
  - Thoroughbred and horse breeders
  - Poultry, swine, sheep, goats and others
- Hobbyists
  - “Hobby farms,” horse show participants
  - Racing spectators





## Key Resources

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- FDACS Division of Dairy
  - [www.doacs.state.fl.us/dairy/](http://www.doacs.state.fl.us/dairy/)
- Sunshine State Horse Council
  - [www.sshc.org](http://www.sshc.org)





## Key Resources

- “The Florida Horse Industry” (an FDACS brochure)
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Horse\\_Industry\\_Brochure.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Horse_Industry_Brochure.pdf)
- “The Florid Agriculture Statistical Directory”
  - [www.florida-agriculture.com/pubs/pubform/pdf/Florida\\_Agriculture\\_Statistical\\_Directory\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/Florida_Agriculture_Statistical_Directory_2004.pdf)
- “Florida Department of Agriculture Annual Report 2004”
  - [www.florida-agriculture.com/pubs/pubform/pdf/FDACS\\_Annual\\_Report\\_2004.pdf](http://www.florida-agriculture.com/pubs/pubform/pdf/FDACS_Annual_Report_2004.pdf)
- FDACS’ Division of Marketing and Development Web site provides information to agribusinesses and the general public about Florida agriculture
  - [www.florida-agriculture.com](http://www.florida-agriculture.com)







## Key Resources

- USDA-APHIS National Center for Import and Export (NCIE) [www.aphis.usda.gov/vs/ncie/](http://www.aphis.usda.gov/vs/ncie/)
- United States Dept. of Health & Human Services, Centers for Disease Control (CDC) [www.cdc.gov](http://www.cdc.gov)
- American Veterinary Medical Assn. [www.avma.org](http://www.avma.org)





## Now, Test Your Knowledge and Awareness (1 of 4)

1. (circle the best answer) The largest agricultural sector of Florida's economy is:  
a. Citrus                      b. Cattle  
c. Forestry                    d. Chickens
2. (True or False) Florida's humid sub-tropical climate compounds the difficulties of maintaining viable economic sectors for large animals – beef and dairy cattle and horses.
3. (circle the best answer) What fraction best represents the total land devoted to farms and ranches (not, however, including tree farms or forests) in Florida?  
a.  $\frac{1}{3}$                               b.  $\frac{1}{4}$   
c.  $\frac{1}{10}$                              d.  $\frac{2}{3}$





## Test continued (2 of 4)

4. Which one of the following is not considered livestock in Florida?
  - a. exotic imported animals such as zebras
  - b. Poland China hogs
  - c. honeybees
  - d. Siamese cats
  - e. all of the above can be considered livestock
5. (fill in the blank) The Florida county with the greatest concentration of horses in the US is \_\_\_\_\_.
6. (True or False) The heart of Florida's beef cattle industry lies below the Tampa-Orlando-Cape Canaveral growth belt.







## Test continued (3 of 4)

7. (circle the best answer) The honeybee, a beneficial, but exotic import into the early American colonies, is now threatened by:
- a. a combination of killer mites and Africanized bees
  - b. a decline in the public's interest in honey
  - c. artificial methods of pollination
  - d. none of the above is important in the future of the honeybee
8. (circle the best answer) What does it mean that a person, a corporation or an agency of government has "stakeholder involvement" in the horse and livestock industries?
- a. Those entities have placed legitimate bets either at an authorized racetrack or are wagering on the futures market.
  - b. Those entities have an interest in the viability of the economic sector.
  - c. "Stakeholder" is a short-hand term for the person who holds the reins of a winning racehorse once a course has been run.





## Test continued (4 of 4)

9. Which of the following is not a role of the Florida Department of Agriculture and Consumer Services, Division of Animal Industry:
- monitoring for brucellosis in hogs and pigs
  - maintaining an alert status for avian influenza
  - periodically surveying cattle for “mad cow” disease
  - the quarantine of mink coats to halt mink-flea wart spread
  - controlling exotic deer transport to prevent chronic wasting
10. (circle the best answer or answers from your point of view) This is an *opinion sampler*, not a test question. Please give us your most thoughtful reply. Florida's livestock and horse industries:
- have a bright future
  - are threatened by the growth of Florida's human population
  - have a limited future
  - will not be viable in our children's adult lifetimes





## Test Answer Key

1. (c) Forestry
2. False
3. (a) 1/3
4. (e) all of the above can be considered livestock
5. Marion
6. True
7. (a) a combination of killer mites and Africanized bees
8. (b) That those entities have an interest in the viability of that economic sector.
9. (d) the quarantine of mink coats to halt mink-flea wart spread
10. This question asks for your opinion. There is no "right" answer and arguments can be made for every answer. What do you think?







# Glossary

- **Brucellosis:** A highly contagious bacterial disease of cattle, goats, sheep and swine that can be transmitted to humans as undulant fever.
- **Chronic wasting disease:** A wildlife disease (akin to bovine spongiform encephalitis or “mad cow”) that affects deer and elk, but is not believed to be transmissible to humans.
- **Exotic:** Not native, introduced from abroad.
- **Killer bees:** A strain of honeybees that originated in Brazil in the 1950s as a cross between an aggressive African bee and a European honeybee. These bees retain most of the traits of the African bee: highly aggressive, relatively poor pollinators and relatively poor honey producers.
- **Relative humidity:** Ratio of the actual water vapor pressure at a given time to the vapor pressure that would occur if the air were saturated at the same ambient temperature.
- **SART:** The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery.





# Glossary

- **Spongiform encephalopathies:** A group of diseases characterized by long incubation and fatal progressive courses with characteristic spongiform degeneration of the brain (Creutzfeldt Jakob and “mad cow” disease.)  
**Stakeholder:** An individual or group with an interest in the success of an organization in delivering intended results and maintaining the viability of the organization's products and services. Stakeholders influence programs, products, and services.
- **Tracheal mite (*Acarapis woodi*):** A minute arachnid that is parasitic on honeybees, clogging their breathing tubes and eventually killing them.
- **Tuberculosis:** An infectious disease caused by the tubercle bacillus affecting primarily the lungs of humans and animals, more common in urban areas, treatable with antibiotics (though resistant strains are appearing).
- **West Nile virus:** A virus of the genus Flavivirus antigenically that is transmitted by Culex mosquitoes, with wild birds serving as the reservoir. It occurs widely in Africa, Europe, the Middle East and Asia, and has recently been reported in the United States. Symptoms may be mild or severe, resulting in death.





## **Introducing Florida's Livestock & Horse Industries**

That concludes our "Introduction to the Florida Livestock and Horse Industries." Thank you for attending and for participating!





