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*Background Information:*

AN EXCERPT FROM

**A NEW LOOK AT AGRICULTURE**



Redefining agriculture's role in our  
economy, landscape, environment  
& social culture

EXCERPT#4

*The Many Values of Agriculture*

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**Prepared by:**

Craig Evans, President, Florida Stewardship Foundation, One Park Place, Suite 240, 621 N.W.  
53<sup>rd</sup> Street, Boca Raton, Florida 33487. Email [craig@us-farm.com](mailto:craig@us-farm.com)

## The Many Values of Agriculture



Some key attributes of agriculture include:

- ◆ **economics:** Agriculture is important to the economies of many states and the nation. It makes up a major share of our economic exports to other countries and is one of the major reasons the U.S. trade deficit is not higher. Other contributing economic segments — such as food wholesaling and retailing — pump billions of dollars to the U.S. economy and account for several million jobs. For example:

Agriculture is Florida's second most important industry, producing \$18 billion in economic value each year.<sup>1</sup> It is the foundation for all other contributing economic segments — such as food wholesaling and retailing — that add another \$35 billion to Florida's economy.<sup>2</sup> It also accounts for more than 500,000 jobs and generates a payroll of \$10 billion per year.<sup>3</sup>

- ◆ **open space:** About 402 million acres of the nation's total land area of 1,893 million acres are in federal ownership. Of the remaining land, almost 90% is devoted to agriculture and forestry. The largest group of private landowners is America's ranchers, who control 523 million acres of rangeland and pastureland — 35% of all the non-federal land in the U.S. Second are farmers, who control 375 million acres plus 33 million acres enrolled in the USDA/NRCS's Conservation Reserve Program — 27% of non-federal land. Third are timber companies and private woodland owners, who control 399 million acres — also 27% of non-federal land. Together, these three groups of private landowners control 1,330 million acres — 70% of the total U.S. land area.<sup>4</sup>

Almost 8 million acres of Florida's total land area of 35 million acres is in public ownership. Of the remainder, 66% is devoted to agriculture and forestry.<sup>5</sup> The owners of these lands are the major stockholders in the state's future, since their lands include:

- *every acre to be used for future development,*
- *every acre to be protected, and*
- *every acre to remain in agriculture & forestry*

These are the lands that will be needed to sustain the state's water resources, wildlife, open space and environment. They are the lands needed for future food and fiber production. And they are the lands that will provide the services for Florida's built environment.

- ◆ **wildlife habitat/habitats for threatened and endangered species:**  
75 percent of the nation's threatened and endangered plant and animal species are found on private agriculture and forestry lands. Some endangered plant species in Florida – Lakla's mint, for example -- are found only on private agricultural lands.<sup>6</sup>

**Agriculture offers many other values to society as well, including:**

- ◆ buffers between natural areas and urban areas
- ◆ a positive cash flow from ad valorem taxes due to ag's low demand for services
- ◆ an economically viable growth management tool that offers an alternative to public land purchases and the current tendency to develop every square foot of land near our urban areas<sup>7</sup>, and
- ◆ traditional rural character; culture & values.

**When carried out with environmental compatibility in mind, agriculture also can provide for:**

- ◆ preservation of wetlands
- ◆ water storage
- ◆ ground water recharge
- ◆ water filtration
- ◆ flood control
- ◆ purification of air
- ◆ carbon sequestering<sup>8</sup>
- ◆ generation of oxygen
- ◆ soil creation, conservation and health
- ◆ decomposition of wastes
- ◆ forests and woodlands
- ◆ ambient healthful living conditions
- ◆ a healthful quality of life

Hence, agriculture produces not only our food and fiber and horticultural products, but can accommodate many important resource values as well.

## Endnotes

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1. Florida Department of Agriculture and Consumer Services, "Florida Agriculture Overview," Ag Facts, p. 1.
2. Ibid.
3. Florida Department of Labor, ES-202 reports, 1996, the most recent data available, accessed via Internet at: [http://lmi.floridajobs.org/LMI\\_LIB.htm](http://lmi.floridajobs.org/LMI_LIB.htm) and <ftp://207.156.40.162/ES202/AN96F01.TXT>. Direct employment in 1996 resulting from agricultural production, services and processing was 288,286 jobs. This generated \$5.1 billion in payroll earnings. However, that is only part of the picture.

[The following information is excerpted from a study on *The Economics of Land Uses in Polk County, Florida*, conducted by Florida Stewardship Foundation, Boca Raton, Florida, January 1999.]

Because agricultural production and other agribusinesses produce products or services for sale outside Florida, which serve to channel outside dollars into the state, they are known as "export" or "basic" industries.

The vast majority of Florida's agricultural products are exported to end-users outside the state, either directly or after packing and/or processing. All of these sales import dollars into the state. The agricultural industries, in turn, use these dollars to pay their employees, pay property taxes and purchase supplies and services. These dollars are then re-spent by each employee, by local governments and by the businesses providing sales and services to agricultural industries. Thus, the dollars generated from the sale of Florida agricultural products are circulated and re-circulated throughout the state economy.

This spending translates into local retail sales; local bank accounts; purchases of consumer products, automobiles and homes; entertainment purchases through local restaurants, theaters and sporting facilities; and purchases of legal, accounting, medical, beauty, cleaning, repair and other personal services.

This process of expanding the economic employment and income base of the state through economic interactions of the agricultural industry and other economic sectors is known as the "multiplier effect."

Economic impact, which is the combination of direct cash sales outside the state plus the "multiplier effect" that these sales have on the state's job market and economy, is calculated by using a *Regional Economic Multiplier* computed by the U.S. Department of Commerce. This multiplier is applied only to the income that results from sales outside the state, not to local sales that are generated within Florida. This multiplier accounts for the *indirect* and *induced* impacts that result when money brought in from outside the

state is spent locally.

When this multiplier is applied to jobs and earnings to determine the economic impact generated by agriculture, it shows that **more than 500,000 jobs — which account for than \$10 billion in payroll earnings — owe their existence to agriculture.**

**In addition, the ES-202 report for 1996 shows that other contributing industries, such as food stores and eating establishments, employed another 674,567 people who had payroll earnings of \$8.1 billion.**

A reviewer from South Florida Water Management District noted that the jobs and earnings cited above “are not heavily dependent on Florida agriculture.” This is true. But it is worth remembering that they *are* dependent upon agriculture, as emphasized in Excerpt 3 - “What Does this Mean to Me?”

***An issue often raised about agricultural jobs is:*** Doesn't the large number of migrant workers, who are paid low wages, put a large demand on social services, which must be paid for by all taxpayers? This concern can be answered by understanding that it is low income jobs, regardless of the type of industry, that creates the need for social services.

Many families that have a member doing agricultural work may also have family members who have low-paying jobs in other industries, so although the family is regarded as a “farm worker household,” any social services received also are provided to the members who are in other industries. Thus, it is often assumed that it is farm workers who need social services, whereas it could be any low income person or family member. Agricultural jobs represent only a small portion of the industries which provide jobs to unskilled and often non-English speaking workers. For example, according to the *1997 Florida Statistical Abstract*, in 1996 there were over 40,000 people employed in Polk County in service jobs, almost 38,000 in retail jobs, over 8,000 in construction, and about 10,000 in agriculture (p 212). All of these industries include low paying jobs and employ workers who may use social services. [Studies conducted by Florida Stewardship Foundation in other counties, such as Collier and Hillsborough, show similar breakdowns in the distribution of workers among low-wage jobs.]

The common belief is that migrant workers often earn *hourly* wages that are significantly lower than *hourly* wages paid in other unskilled positions. However, a worker's total income is perhaps more impacted by the fact that farm work is seasonal and variable even during the season. The earnings of farm workers are not simple to calculate since they often earn an hourly rate and/or a piece rate per box. Wages for Florida citrus workers, for example, are most often paid on a piece rate per box. The Florida Agricultural Statistical Service showed an average pay of \$6.19 per hour for field workers in October, 1995. A study done in 1994 by the University of Florida's Institute of Food and Agricultural Sciences shows that although the piece rates for citrus workers can vary, the resulting hourly wage remains fairly level. The piece rate varies due to such factors as height of trees and amount of fruit per tree, and thus reflects how long it would take to fill a box. Additionally, the study found that the mean hourly wage for citrus workers was \$7.08, with a standard deviation of \$1.64. [Data from: Robert

Emerson, Rebecca Chung, Leo Polopolus, *Harvest Labor Market Efficiency*, University of Florida Institute of Food and Agricultural Sciences, Gainesville, Florida, 1994, p. 11.]

Another study by Ed Kissam and David Griffith states that "Farmwork pays higher wage rates — about 20% over the minimum wage — more than most of the jobs available to domestic and immigrant workers with few marketable vocational skills or with other serious barriers to employment." [Data from: Ed Kissam and David Griffith, *Final Report: The Farm Labor Supply Study: 1989-1990*, Micro Methods, Berkeley, California: prepared under Grant #3-9-M-9-0044 from the Office of the Assistant Secretary for Policy, U.S. Department of Labor, 1991, p. 94.]

Then why do so many migrant workers live in poverty? The main reasons are unemployment and underemployment. The work is highly seasonal and not steady. Workers may not find work every day of the week and on the days they do work, they may work long days or only partial days. This is caused not only by such factors as timing of harvests and weather fluctuations, but also by the casual structure of the labor market.

Seasonal under-employment and off-season unemployment cause farm workers to seek jobs outside of agriculture. Due to employment barriers such as inability to speak English, lack of skills and little formal education, the only other employment generally available is entry level jobs in retail, service and construction with hourly wages comparable to agricultural work. These jobs, however, are attractive since they frequently offer steadier work and may provide some benefits.

Thus, migrant farm workers tend to leave farm work for steadier employment in low paying non-agricultural fields such as service, retail and construction. The attraction of other more stable and permanent jobs causes high turnover and exits from agricultural work. According to Kissam and Griffith, "Stability of employment, turnover and exits are closely linked." [Ibid., p. 87]

As residential growth occurs, there is a correlating growth in the demand for people to enter these fields. For example, Polk County has an average of 19 workers in these fields for every 100 residents. [Derived from the *1997 Florida Statistical Abstracts*, pp. 11 and 212.] Therefore, if agriculture is replaced by residential growth, there would be a corresponding increase in the demand for service, retail and construction jobs and migrant workers would be likely to continue moving into these unskilled and low paying positions.

4. U.S. Department of Agriculture, Natural Resources Conservation Service, National Resources Inventory, 1997.
5. Sources: *Florida Agriculture*, Florida Department of Agriculture and Consumer Services; *1995 Florida Statistical Abstract*; *1992 Census of Agriculture*; and U.S. Forest Service. According to these sources, agriculture utilizes 10.8 million acres and commercial forestry utilizes 13 million acres of the state's total land area of 34.5 million acres. Eight million acres of state land is in public ownership, leaving 26.5 in private

ownership. Forestry utilizes 6.3 million acres of public lands and 6.7 million acres of private lands. Of the private lands, 10.8 million are in agriculture and 6.7 million are in forestry.

6. From Mike Jennings, U.S. Fish and Wildlife Service, Vero Beach, FL, via email June 25, 1999:

*The Road Back: Endangered Species Recovery Success*, U.S. Fish and Wildlife Service, Washington, D.C., no date. Reports that a 1993 study by two project partners, the Association for Biodiversity Information and The Nature Conservancy found: “Only 25 percent of all listed species occur primarily on federal lands. In addition, more than half of the federally listed species have at least 80 percent of their habitat on private lands.”

As Mike Jennings note: “Extrapolating, one could conclude that about 75 percent [of listed species] occur primarily on non-Federal lands.”

According to the *South Florida Multi-Species Recovery Plan*, USFWS, 1999, three listed species are found almost exclusively on private lands: The *scrub blue pine* only has a 2 hectare site (about 5 acres) on public lands; the balance of all other sites are on private lands. The *Florida zizphus* has five sites, only one on public lands; the other four, the largest sites, are on private lands. For *Lakla’s mint*, all known populations within its historic range are on private lands; one translocated population occurs on federal land.

7. Suggestion from Pat and Brady Pfeil, Carlton Bar A Ranches and Groves, Arcadia, Florida. Response to first draft, June 10, 1999.
8. Carbon sequestering is the process of providing plant cover to take CO<sub>2</sub> from the air and create a “carbon sink.” Plants convert CO<sub>2</sub> to carbon, some of which ends up as roots, stems, leaves, and some of which is returned to the soil via plant residues. The objective is to sequester as much as possible to keep it out of the air and thus avoid contributing to the “greenhouse effect.” Information from Bart Lawrence, Soil Conservationist-Plant Materials,. Guam, Micronesia, USA.