

The Economic Impact of Agriculture and Natural Resources in Volusia County, Florida¹

Introduction

This report provides a profile of agriculture and natural resource industries and an overview of their economic impacts in Volusia County, Florida. The report is based on data from the IMPLAN Pro database for Florida counties for 2006, data from the 2002 Census of Agriculture and data from reports by the Volusia County Property Appraiser. The format, structure and wording for this report copies extensively from a guide developed by Rahmani, Hodges and Mulkey to report economic impacts.

The IMPLAN Pro Economic Impact and Social Accounting software package, licensed to the University of Florida by the Minnesota IMPLAN Group, Inc., was used to generate multipliers for total industry output, total value added, total exports, total output impacts, total value added impacts and for employment impacts for each agricultural and natural resource sector of the economy to allow a more comprehensive assessment of impacts. In addition to direct sales of the industries in question, IMPLAN multipliers capture inter-industry purchases (indirect effects) and employee household spending (induced effects).

An attempt was made to adjust for particular local conditions through a meeting reporting preliminary results to the county's "Agri-Business Interrelationship Committee" and following up on questions raised by that group. This analysis focuses only on economic impacts resulting from operating revenues and employment created by agricultural and natural resource industries. All economic impacts generated from IMPLAN are reported in 2006 dollars but have been adjusted by the gross domestic price deflator to 2007 dollars.

For informational purposes a brief summary of the organization and definition of the agriculture and natural resource industry group in this report is provided. The early focus of the report is on production agriculture in Volusia County. This includes crops, all types of livestock and forestry production in the county. The focus then expands to a broader group of industry sectors. Included as a part of the agriculture and natural resource group are agricultural inputs and services (veterinary, fertilizer, pest control, etc.), food and kindred products manufacturing (fruit and vegetable canning, bread and bakery products, seafood product preparation and packaging, etc.), forest products manufacturing (truss manufacturing, wood pallet manufacturing, etc) and mining (stone, sand, gravel, etc.). However, nature based recreation (golf, fishing, trapping, etc.) and food and kindred product distribution (food services, wholesale trade of food products, food and beverage stores, building material and garden supplies, etc.) are not included as agriculture and natural resource industry sectors presented in this report.

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Data from the 2002 Census of Agriculture, the Volusia County Property Appraiser's Office and the State Department of Revenue were used to augment the economic impact analysis and to allow for a detailed description of agricultural and natural resource industries in Volusia County. The 2002 Census of Agriculture, conducted by the National Agricultural Statistics Service of the U.S. Department of Agriculture (USDA), provides information at the county level on farm numbers; land use; operator characteristics; the market values of land, buildings, and machinery; crop and livestock sales; farm expenses; and income from federal programs. A more recent Census of Agriculture was conducted in 2007 but data collected by USDA for Florida and Volusia County from that survey has not been publically reported and is not expected to be available for several months (2009).

Volusia County Agriculture: A Snapshot

According to the 2002 Census of Agriculture, Volusia County agriculture can be summarized as following. It is important to note how a farm is defined by the Census of Agriculture. Farms are "any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year." This definition was first used for the 1974 Census of Agriculture and has remained consistent since so that data are comparable across time periods since 1974. More detailed information on Volusia County agriculture is presented in Tables 1-8.

Farm Numbers

There were 1,114 farms reported in Volusia County (Table 1). Greenhouse and Nurseries comprise the largest number of farms (353), or about 31 percent of all farms in the county. Cattle ranked second (264 farms) and Other Animal Production ranked third (251 farms). Discussions with those most familiar with Volusia County agriculture indicate the large numbers of Other Animal Production is the result of a large and growing registered horse industry in the county. In total these three farm enterprises account for about 77 percent of all farms in the county.

Farm Size Distribution

The 1,114 farms identified in the Census consisted of 93,842 acres of land (Table 2). The majority of farms were less than 100 acres (1,002 farms) and these farms totaled 19,541 acres. There were a total of 76 farms between 100 and 499 acres, with total acreage for this size of operation at 15,765 acres. There were 36 farms of 500 acres or larger with a total acreage of 58,536. Farms less than 100 acres accounted for 90 percent of total farms but only about 21 percent of acreage. Farms between 100 and 499 acres represented 7 percent of total farms and about 17 percent of the total acreage. Farms over 500 acres represented 3 percent of total farms and 62 percent of total acreage. Farms greater than 500 acres are relatively small in number but dominate in acreage.

Market Value of Agricultural Products Sold and Net Farm Cash Income

Table 4 reports the market value of agricultural products (all crops and livestock) sold in Volusia County. According to the 2002 Census of Agriculture, “market value of agricultural products sold represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place in 2002 regardless of who received the payment.” Market value is equivalent to total sales, but does not include payments received for participation in other federal farm programs nor income from farm-related sources such as custom-work, other agricultural services, or income from non-farm sources.

The total market value of agricultural products sold in Volusia County was \$106.3 million in 2002 (Table 4). This represents an average market value of \$95,419 per farm. The total market value was 13 percent lower than in 1997 and on a per farm basis was 8 percent lower than the 1997 Census.

Net farm cash income in the county from agricultural production in 2002 was estimated in the Census at almost \$35 million. This implies gross farm income from agriculture in the county is in the range of \$105-\$106 million.

Value of Agricultural Products by Commodity Group

Crops including nursery and greenhouse production account for 92.6 percent of agricultural sales in Volusia County (\$98.5 million). Nursery, greenhouse, floriculture and sod account for \$95.5 million of the \$98.5 million of crop (including nursery and greenhouse) sales. Livestock, including poultry and dairy production and their products, represent the other 7.4 percent of sales. It should be noted that timber sales are not reported by the Census of Agriculture because they are not considered a part of agricultural industry by the North American Industry Classification system. This will be discussed later in more detail.

Farm Operator and Farm Organization Characteristics

There are 1,698 farm operators in Volusia County. These operators represent three-tenths (.3) of one percent of the county’s total population. About 32 percent of the operators consider agriculture (farming) as their primary occupation. The remainder of the operators (68 percent) considers something other than farming as their primary occupation. The vast major of the farms in Volusia County (about 89 percent) are organized as individual or family farm businesses.

Individuals interested in more detail about Volusia County agriculture based on data from the 2002 Census of Agriculture should review the information presented in Tables 1-8.

Other Important Agriculture and Natural Resource Data

While Census of Agriculture data is helpful in understanding the industry it is not the sole source of information and has certain short-comings. An example presented earlier was that not all timber land sales are reported (corporations) in the Census because the North American Industry Classification system does not classify some corporate sectors as part of the agricultural and natural resource industry group. It also needs to be remembered that the Census data are self-reported by the producer or landowner and other data may be available from professional sources that provide more reliable information.

Land Use Information

Census of Agriculture data reported 93,842 acres of land in agriculture in Volusia County based on the Census definition of a farm and with the knowledge that land in timber is not fully reported. A more reliable source of information for land use is often available from local property appraiser's offices. Information from the Volusia County Property Appraiser Office based on the 2007 property tax roll indicated there were 7,144 agricultural parcels with 230,430 acres in agricultural classified use. Preliminary tax rolls for 2008 indicate 7,385 parcels with agricultural classified use. From the property appraiser's preliminary 2008 tax roll it is estimated agricultural classified land use will be between 229,000 to 251,000 acres (Table 9). In 2002 there were 252,415 acres classified in agricultural use in the county. The estimated acreage in 2008 represents between 32 and 36 percent of Volusia County's land base. Information available from the property appraiser's office is a more accurate representation of land in agriculture and natural resource use in the county.

It was specifically requested in the meeting of the Agri-Business Interrelationship Committee to attempt to determine how much government owned property was agriculturally classified. Contact with the property appraiser's office was made and that office indicated that government owned property exempt from taxation does not have a classification code for tax purposes. From form DR-403 PC in 2007 it can be documented that there were 5,967 government (federal, state, local) parcels in Volusia County that have a just (market) value of slightly more than \$3.0 billion.

Land Value Information and Property Tax Payments

Data collected from the Volusia County Property Appraiser's Office indicates the market or just market value of agricultural land in Volusia County in 2007 was valued at slightly more than \$2 billion. This equates to a market value per acre value of about \$7,968-\$8,734 per acre. However, agricultural land in Florida is taxed at its use value. That value in Volusia County in 2007 was reported as almost \$266 million or about 13 percent of market value.

Total just value of real property in Volusia County was \$59.6 billion in 2007. Agricultural real property just value in Volusia County therefore amounts to approximately 3.4 percent of total just value in the county. However, since agricultural

property is taxed at its use in agriculture (Florida Statutes 193.461), real agricultural property accounts for six-tenths (.6) of one percent of real property taxable value in the county.

Property tax payments in Volusia County vary based on taxes levied by various units of government including special districts. In 2007 it is estimated the millage rate paid by Volusia County property owners varied between 17.9 and just over 19 mills (tax rate per \$1000 dollars of value). This calculates to a property tax payment on agricultural lands in the county that is estimated to range between \$4.8 and \$5.1 million.

Economic Impact Results

As noted earlier, the IMPLAN software package and associated databases allow the estimation of multipliers to capture the total economic impact of agricultural and natural resource industries within the local economy. This section reports the results of impact estimations for Volusia County. For each measure the impacts reported include the direct impacts of output of the agricultural sector in question, the indirect impacts associated with inter-industry purchases of inputs by agriculture and its supplying industries, and the induced impacts of spending by employees and owners of agricultural and supplying industries.

Reported impacts include activities within production agriculture, natural resource industries (forestry, mining, and fishing), food and forest products manufacturing, agricultural input supply, and agricultural services.

Table 10 presents estimates of economic impacts for Volusia County's agriculture and natural resource industries. Additional detail for specific agriculture and natural resource industry groups are presented in Table 11. All dollar amounts are reported in 2007 dollars.

- Total industry output for all agricultural and natural resource industries was \$559 million dollars in the county. In economic terms the agriculture and natural resource industries accounted for 2.6 percent of the county's total output.
- Total value added to production for agriculture and natural resource industries was \$263 million. This represents 2.2 percent of the total value added by Volusia County industry groups.
- Total exports from Volusia County's agriculture and natural resource based industries were \$293 million. This represents 5.6 percent of the total exports by all industry in Volusia County

The total output impacts for agriculture and natural resource industries in Volusia County were estimated at \$781 million. This represents 3.04 percent of total industry output for all sectors of Volusia County's economy. The largest total output impacts were from the following agriculture and natural resource industry groups:

Nursery and Greenhouse and Landscape Services

\$ 318 million (M)

Fruit and Vegetable Farming and Processing	\$ 111 M
Mining	\$ 106 M
Livestock and Dairy Farming and Animal Products Manufacturing	\$ 70 M
Forestry, Wood and Paper Product Manufacturing	\$ 62 M
Agricultural Inputs and Services	\$ 62 M

Total value-added impacts are the market value of a firm's output less the value of the inputs which it has purchased from others. It can be viewed as a net economic contribution by the industry sector after direct costs have been subtracted from gross sales. Value-added is the difference between the value of goods as they leave a particular stage of production and the costs of the goods as they entered that stage. Value-added includes payments made by industries to workers, interest, profits, and indirect business taxes.

The total value-added impacts of agriculture and natural resource industries in Volusia County were \$396 million and represented 2.7 percent of the county's total valued added impacts. Value added is a broad measure of economic contribution that is comparable to the Gross Domestic Product at the national level, and represents the net income created by an industry, or the difference between industry revenues and input purchases from other sectors; it includes personal and business net income, and capital consumption (Hodges).

It is estimated that the agriculture and natural industry group directly generates almost 6,000 jobs in the county (5,993 from IMPLAN model; see Table 12). When indirect and induced job estimates are added, the sum of employment impacts increases to over 8,300 jobs, or about 3.3 percent of all employment in the county.

Conclusion

Agriculture and natural resource based industry is a large and diverse component of the Volusia County economy. The impact can be summarized in the following manner:

- Total industry output for all agricultural and natural resource industries was \$559 million dollars in the county.
- In economic terms the agriculture and natural resource industries group accounted for 2.6 percent of the county's total output.
- The total output impacts for agriculture and natural resource industries in Volusia County were estimated at \$781 million.
- This represents 3.04 percent of total industry output for all sectors of Volusia County's economy.

- The total value-added impacts of agriculture and natural resource industries in Volusia County were \$396 million and represented 2.7 percent of the county's total valued added impacts.
- The sum of total exports from the industry group is \$293 million or 5.6 percent of the county's total exports.
- The direct, indirect and induced jobs generated by the agriculture and natural resource industry group are estimated to be in excess of 8,300 jobs.
- The agriculture and natural resource sector also accounts for at least 32-35 percent of the land ownership and use in Volusia County.
- About 89 percent of this land use is in individual and family farms.
- Property taxes from this land generates between \$4.8 to \$5.1 million dollars in tax revenue each year.

What makes the impact of the agriculture and natural resource industry group economic impact so impressive in Volusia County? It's not any individual number generated by this report. It's a combination of all these factors:

- ❖ The industry generates over three-quarters of a billion in economic activity
- ❖ The industry generates almost \$400 million of net income of the county
- ❖ The agriculture and natural resource industry group generates almost \$300 million in total exports
- ❖ The agriculture and natural resource industry group owns or uses about one-third of the Volusia County land base
- ❖ The agriculture and natural resource industry group generates over 8,300 jobs
- ❖ The agriculture and natural resource industry group generates about \$5 million per year in ad valorem tax revenue on real property
- ❖ Additionally, the industry group generates other non-economic benefits such as water recharge, wildlife habitat, open space, locally grown food products and scenic beauty, and
- ❖ All this economic and non-economic activity is generated by 1 percent or less of the county's total population.

Volusia County agriculture and natural resource industries not only serve local markets but regional and national markets as well. Without the contributions of the agriculture and natural

resource sectors in Volusia County a “major hole” would need to be filled in the county’s economy and land use base.

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Source for Tables 1-8: 2002 CENSUS OF AGRICULTURE, Florida, State and County data, Volume 1, Geographic area Series, Part 9, AC-02-A-9, Issued June 2004, NATIONAL STATISTICS SERVICE, U.S. Department of Agriculture.

Table 1. Farms by North American Industry Classification System: Volusia County, Florida, 2002

Total farms	Oilseed and grain farming (1111)	Vegetable and melon farming (1112)	Fruit and tree nut farming (1113)	Greenhouse, nursery, and floriculture (1114)	Other crop farming (1119)	Tobacco farming (11191)	Cotton farming (11192)	Sugarcane, hay, and other crop (11193,11194,11199)	Beef cattle ranching and farming (112111)	Dairy cattle and milk production (11212)	Hog and pig farming (1122)	Poultry and egg production (1123)	Sheep and goat farming (1124)	Animal aquaculture and other animal production (1125,1129)
1,114	6	9	140	353	20	-	-	20	264	3	17	12	39	251

Table 2. Farm Size Distribution, and Investment in Land & Building, Machinery: Volusia County, Florida, 2002 and percent change 1997- 2002

Farms		Average size of farm		Farms Less than 100 acres		Farms 100 to 499 acres		Farms 500 acres or more		Estimated asset value of land and buildings				Estimated asset value, machinery & equipment		
(Number)	(% chg)	(Acres)	(% chg)	(Acre/farm)	(% chg)	(Number)	(Acres)	(Number)	(Acres)	(Number)	(Acres)	(\$1000)	(% chg)	(\$/farm)	(\$/acre)	(\$/farm)
1,114	-5	93,842	-19	84	-14	1,002	19,541	76	15,765	36	58,536	367,788	-19	329,264	4,357	20,565

Table 3 A. Farm Land Use: Volusia County, Florida, 2002 and percent change 1997- 2002

All cropland		Harvested cropland		Cropland used only for pasture or grazing		Cropland in cultivated summer fallow		Nursery, Greenhouse, Floriculture (1), Under glass or other protection		Nursery, Greenhouse, Floriculture(1), In the open	
18,906	-37	12,522	-15	1,889	-9	56		105,501,155		5,573	

(1) Aquatic Plants, Mushrooms, Flower & Vegetable seeds and Sod Harvested

Table 3 B. Farm Land Use: Volusia County, Florida, 2002 and percent change 1997- 2002

Pasture- and rangeland, other than cropland & woodland pastured		Pastureland, all types		Woodland		Woodland pastured		Woodland not pastured		Land in Conservation or Wetlands Reserve Programs		Certified organically produced crop lands		Land enrolled in federal or other crop insurance programs	
(Acres)	(% chg)	(Acres)	(% chg)	(Acres)	(% chg)	(Acres)	(% chg)	(Acres)	(% chg)	(Acres)	(% chg)	(Acres)	(Acres)	(Acres)	(Acres)
30,261	32	60,604	-19	32,903	-39	25,848	-34	7,055	-52	116	-75	18		957	

Table 4. Market Value of Agricultural Products Sold, Value of Government Payments, Production Expenses, and Net Farm Cash income from Operation: Volusia County, Florida, 2002 and percent change 1997- 2002

Market value of all agricultural products sold				Value of government payments		Total farm production expenses		Net farm cash income from operation	
(\$1000)	(% chg)	(\$/farm)	(% chg)	(\$1000)	(\$1000)	(\$/farm)	(\$1000)	(\$/farm)	(\$/farm)
106,297	-13	95,419	-8	23	70,392	63,019	34,984	31,319	

Table 5. Value of Agricultural Products by Commodity Group: Volusia County, Florida, 2002 and percent change 1997- 2002

Market value of all (+Livestock & Poultry) agricultural products sold	All crop Including nursery and greenhouse		Vegetables, melons, potatoes, & sweet potatoes	Fruits, tree nuts, and berries	Nursery, greenhouse floriculture, & sod	Livestock, poultry, and their products		Poultry and eggs)	Hogs and pigs	Sheep, goats, & their products	Aquaculture	Horses, ponies, mules, burros, & donkeys			
(\$1000)	(\$1000)	(% chg)	(\$1000)	(\$1000)	(% chg)	(\$1000)	(\$1000)	(% chg)	(\$1000)	(% chg)	(\$1000)	(\$1000)			
106,297	98,465	-15		2,320	46	95,533	7,832	15	10	-98	30	-86	40	721	852

Table 6. Characteristics of Principal Operator, and Primary Occupation of Farmers: Volusia County, Florida, 2002 and percent change 1997-2002

Total operators	Total women operators	Primary occupation: Farming		Primary occupation: Other		Female farms	
(Number)	(Number)	(Number)	(% chg)	(Number)	(% chg)	(Number)	(% chg)
1,698	648	541	2	573	-11	270	52
						(Acres)	(% chg)
						14,503	34

Table 7. Type of Business Organization: Volusia County, Florida, 2002 and percent change 1997- 2002

Family or individual farms				Partnership farms				Corporation: Family-held farms				Corporation: Other than family held farms			Other-cooperative, estate or trust, institutional, etc.		
(Number)	(% chg)	(Acres)	(% chg)	(Number)	(% chg)	(Acres)	(% chg)	(Number)	(% chg)	(Acres)	(% chg)	(Number)	(% chg)	(Acres)	(Number)	(% chg)	(Acres)
991	-5			47	-11	8,573	-25	52	-30	15,808	-26	18	125	2,734	6	50	

Table 8. Ethnicity of Farm Operators: Volusia County, Florida , 2002

White			Black or African American			Spanish, Hispanic, or Latino Origin			Other ethnic groups *		
(Farm Numbers)	(Operator Number)	(Acres)	(Farm Number)	(Operator Number)	(Acres)	(Farm Number)	(Operator Number)	(Acres)	(Farm Number)	(Operator Number)	(Acres)
1,089	1,622	93,485	14	15	218	67	85	5,161	23	25	365

Table 9. Land Use Classifications (Acres) 2002 and Estimated Acreage 2008

DESCRIPTION	2002 Total Acres	2008 Estimated Total Acres
CROPLAND VEGETABLES	599	369-404
CROPLAND SPECIAL	2,045	3,138-3,437
ALL TIMBER	151,273	139,011-152,257
WASTELAND	14,497	11,001-12,049
ALL PASTURE	66,021	58,531-64,108
ALL CITRUS	2,120	1,831-2,006
FEED LOT	846	310-340
REGISTERED STOCK	918	4,394-4,813
AG ORNAMENTAL	*14,097	10,799-*11,828
TOTAL	252,415	229,384-251,242

2002 data supplied by Volusia County Property Appraiser's Office.

2008 data estimated from Volusia County Property Appraiser Database (preliminary), 8/1/2008.

* is total for 2003 and 2008 total obtained from Volusia County Property Appraiser's Office.

Table 10. Volusia County, Florida, Economic Impacts, Agriculture and Natural Resources Industry Group, 2007 Dollars

Agriculture and Natural Resources Industry Group	Sum of Industry Output (\$M)	Sum of Total Value Added (\$M)	Sum of Total Exports (\$M)	Sum of Output Impacts (\$M)	Sum of Total Value Added Impacts (\$M)
Agricultural Inputs & Services (fertilizers, pesticides, veterinary, support activities, equipment manuf)	52	25	14	62	32
Environmental Horticulture (nursery & greenhouse, landscape services)	217	141	113	318	203
Fishing & Seafood Products	3	0	1	4	1
Forestry, Wood & Paper Product Manufacturing	51	20	17	62	26
Fruit & Vegetable Farming & Processing	71	21	59	111	45
Grain & Oilseed Farming & Processing	0	0	1	0	0
Livestock & Dairy Farming & Animal Products Manufacturing	61	7	15	70	12
Mining	64	39	60	106	64
Other Crop Farming	2	1	1	2	1
Other Food Product Manufacturing	37	9	11	44	13
Sugarcane Farming, Refined Sugar & Confections	0	0	0	0	0
Tobacco Farming & Manufacturing	0	0	0	0	0
Wildlife (hunting)	0	0	0	0	0
Grand Total	559	263	293	781	396

Source: IMPLAN Professional Data, Minnesota IMPLAN group Inc., Stillwater, Minnesota 55082

Table 11. Volusia County, Florida, Economic Impacts, Agriculture and Natural Resources Industry Group, 2007 Dollars

Agriculture and Natural Resources Industry Group	Industry Output (\$M)	Total Value Added (\$M)	Total Exports (\$M)	Output Impacts (\$M)	Total Value Added Impacts (\$M)
Agricultural Inputs & Services (fertilizers, pesticides, veterinary, support activities, equipment manuf)	52	25	14	62	32
Agriculture and forestry support activities	13	8	11	21	13
Pesticide and other agricultural chemical man	0	0	1	0	0
Veterinary services	39	17	2	41	18
Environmental Horticulture (nursery & greenhouse, landscape services)	217	141	113	318	203
Greenhouse and nursery production	98	79	78	164	120
Landscape Services	119	61	35	154	83
Fishing & Seafood Products	3	0	1	4	1
Fishing	3	0	1	4	1
Forestry, Wood & Paper Product Manufacturing	51	20	17	62	26
Coated and laminated paper and packaging mate	0	0	2	0	0
Engineered wood member and truss manufacturing	7	3	0	7	3
Forest nurseries- forest products- and timber	2	0	4	6	2
Logging	11	3	7	16	6
Miscellaneous wood product manufacturing	1	0	0	1	0
Other millwork- including flooring	1	0	0	1	0
Sawmills	1	0	0	1	0
Wood container and pallet manufacturing	1	0	0	1	0
Wood windows and door manufacturing	26	12	4	29	14

Fruit & Vegetable Farming & Processing	71	21	59	111	45
Frozen food manufacturing	0	0	1	0	0
Fruit and vegetable canning and drying	59	14	56	97	36
Fruit farming	4	2	1	4	2
Vegetable and melon farming	8	5	1	9	6
Grain & Oilseed Farming & Processing	0	0	1	0	0
Oilseed farming	0	0	1	0	0
Livestock & Dairy Farming & Animal Products Manufacturing	61	7	15	70	12
Animal- except poultry- slaughtering	1	0	0	1	0
Animal production- except cattle and poultry	8	3	3	10	4
Cattle ranching and farming	7	1	0	7	1
Fluid milk manufacturing	46	4	12	53	7
Mining	64	39	60	106	64
Oil and gas extraction	4	1	0	4	1
Sand- gravel- clay- and refractory mining	0	0	2	0	0
Stone mining and quarrying	58	36	56	99	61
Support activities for oil and gas operations	2	2	1	3	2
Other Crop Farming	2	1	1	2	1
All other crop farming	2	1	1	2	1
Other Food Product Manufacturing	37	9	11	44	13
All other food manufacturing	1	0	0	2	0
Bread and bakery product- except frozen- manufact.	18	6	0	18	6
Frozen cakes and other pastries manufacturing	2	0	0	2	0
Mayonnaise- dressing- and sauce manufacturing	5	1	0	6	1
Other snack food manufacturing	1	0	0	1	0
Soft drink and ice manufacturing	10	2	10	16	5
Grand Total	559	263	292	781	396

Source: IMPLAN Professional Data, Minnesota IMPLAN group Inc., Stillwater, Minnesota
55082

Table 12. Volusia County, Sum of Employment Impacts

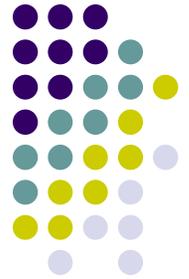
Agric. & Natural Resources Industry Group	Sum of Employment (Jobs)	Sum of Employment Impacts (Jobs)
Agricultural Inputs & Services (fertilizers, pesticides, veterinary, support activities, equipment manufact.)	1,053	1,164
Environmental Horticulture (nursery & greenhouse, landscape services)	3,447	4,525
Fishing & Seafood Products	127	135
Forestry, Wood & Paper Product Manufacturing	249	398
Fruit & Vegetable Farming & Processing	303	682
Grain & Oilseed Farming & Processing	0	0
Livestock & Dairy Farming & Animal Products Manufacturing	438	532
Mining	169	597
Other Crop Farming	13	22
Other Food Product Manufacturing	194	258
Sugarcane Farming, Refined Sugar & Confections	0	0
Tobacco Farming & Manufacturing	0	0
Wildlife (hunting)	0	0
Grand Total	5,993	8,313

Source: IMPLAN Professional Data, Minnesota IMPLAN group Inc., Stillwater, Minnesota 55082



The Economic Impact of Agriculture and Natural Resources In Volusia County, Florida





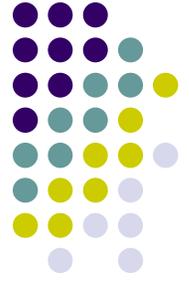
The Economic Impact of Agriculture and Natural Resources In Volusia County, Florida

What's Not Included?



- ❖ Nature Based Recreation (e.g., golf, fishing)
- ❖ Food and Kindred Product Distribution (e.g., food and beverage stores, food services, garden supplies)

Agriculture and Natural Resource Industries Are Important to Volusia County Because of...



- ❖ Size and Scope of Contributions to the Local Economy
- ❖ Economic Diversity, Entrepreneurship and Employment
- ❖ Providing the Land Base for Future Community Growth
- ❖ Environmental and Other Benefits

! All Are Important !

Agriculture and Natural Resource Industries Are
Important to Volusia County Because of...



Contributions to the Local Economy

Pay To The Order Of..

2006

Pay To The
Order Of

The Volusia County Economy
Over Three-Quarters of a Billion -----

\$

781,000,000

Dollars

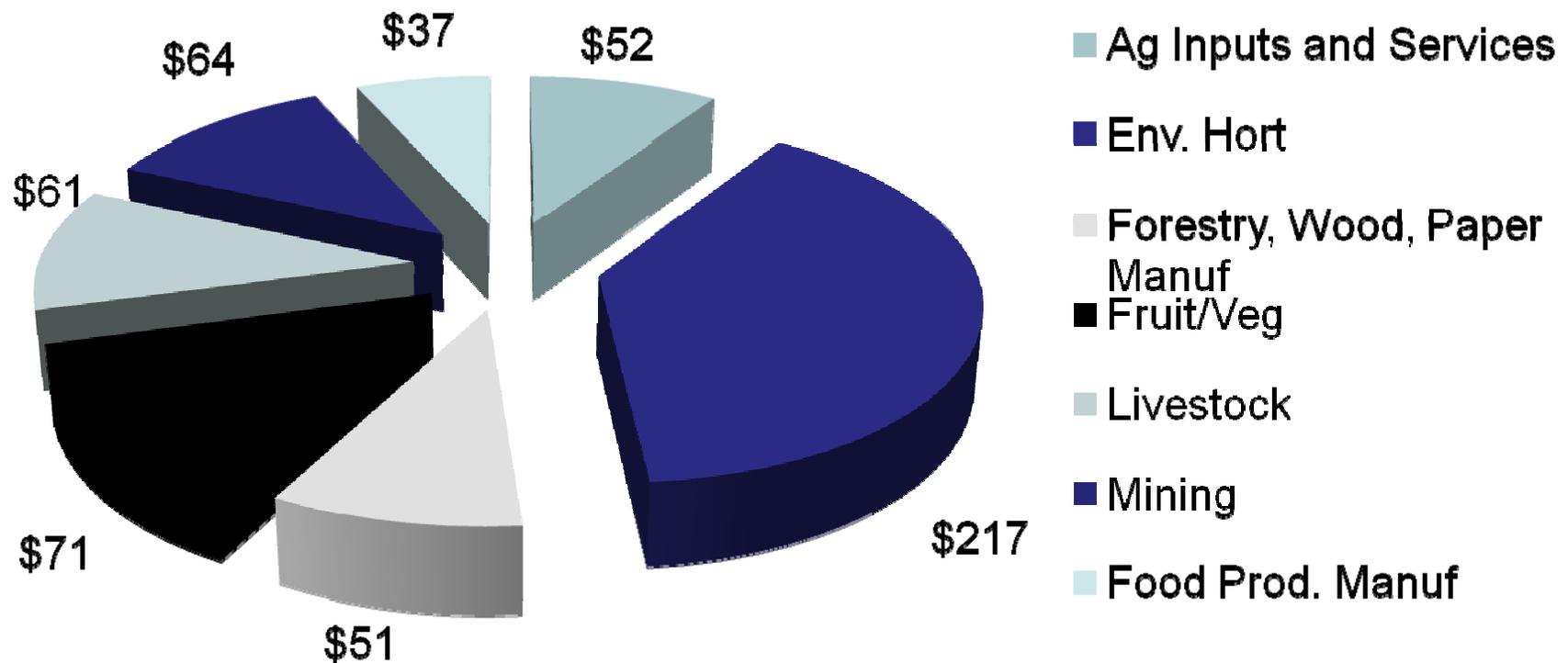
Memo

Contributions to Local Economy

Volusia County Agriculture and
Natural Resource Industries

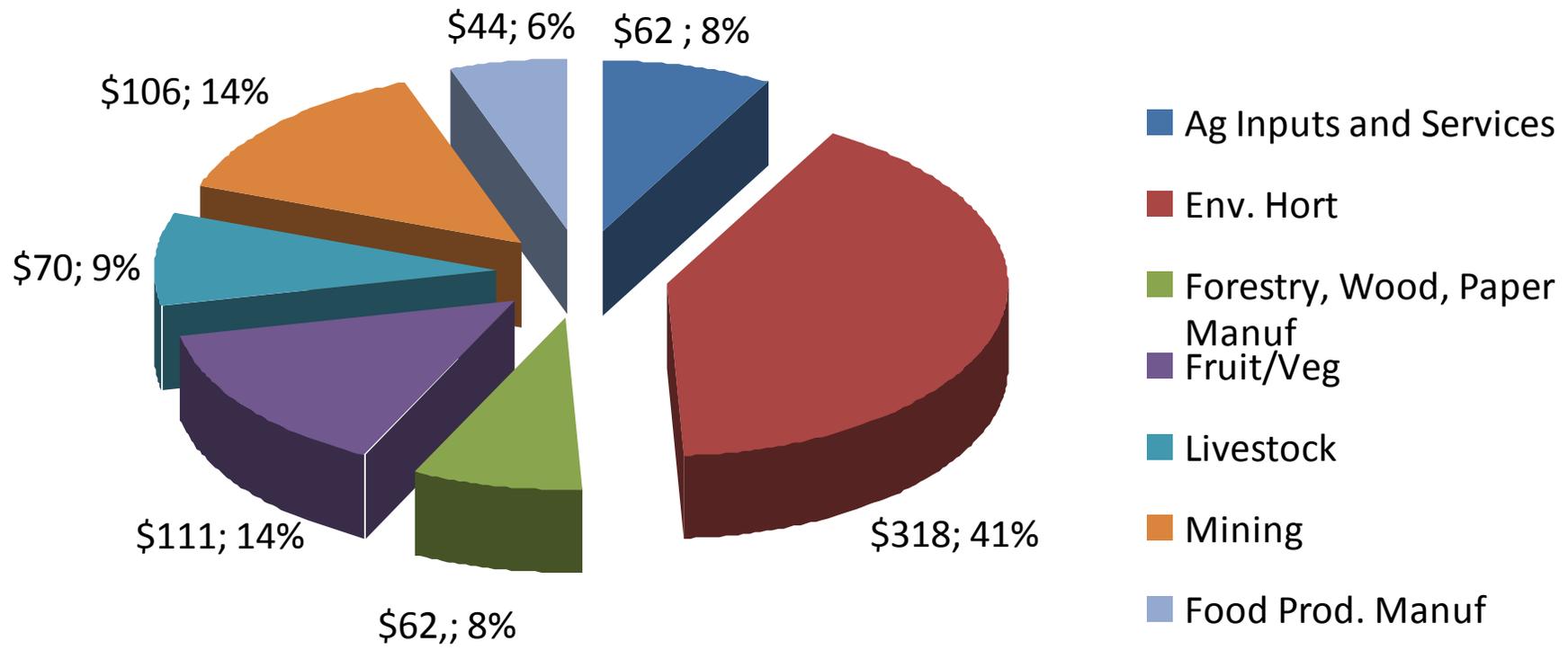


Volusia County Agriculture and Natural Resource Economic Impacts: Industry Output (\$559 million)

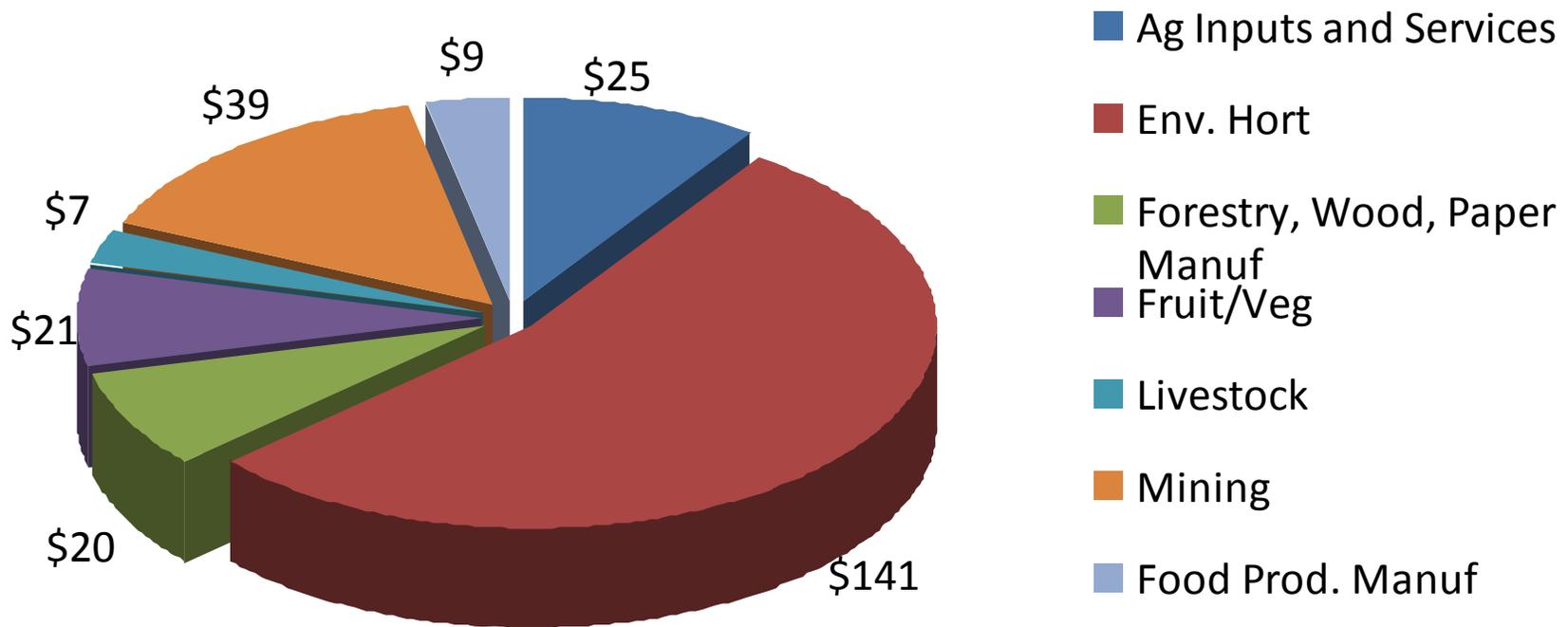
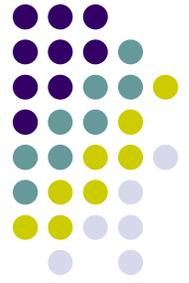




Volusia County Agriculture and Natural Resource Economic Impacts: Output Impacts (\$781 million)



Volusia County Agriculture and Natural Resource Economic Impacts: Total Value Added Impacts (\$263 million)



Agriculture and Natural Resource Industries Are Important to Volusia County Because of...

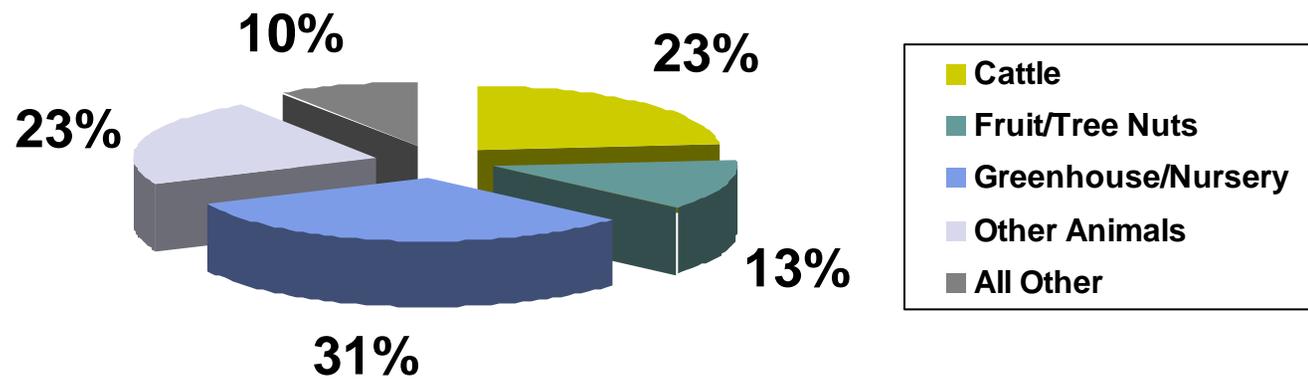


❖ Contributions to the Local Economy

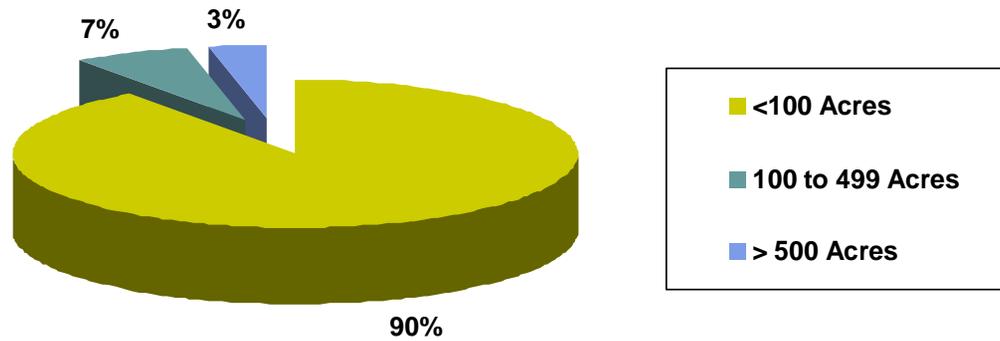
Economic Diversity,
Entrepreneurship and Employment



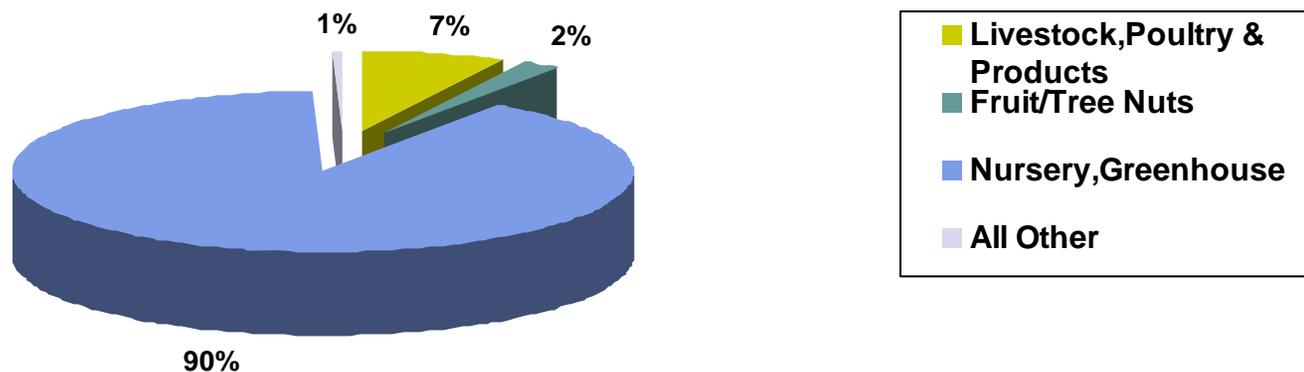
Volusia County Farms by Production Classification



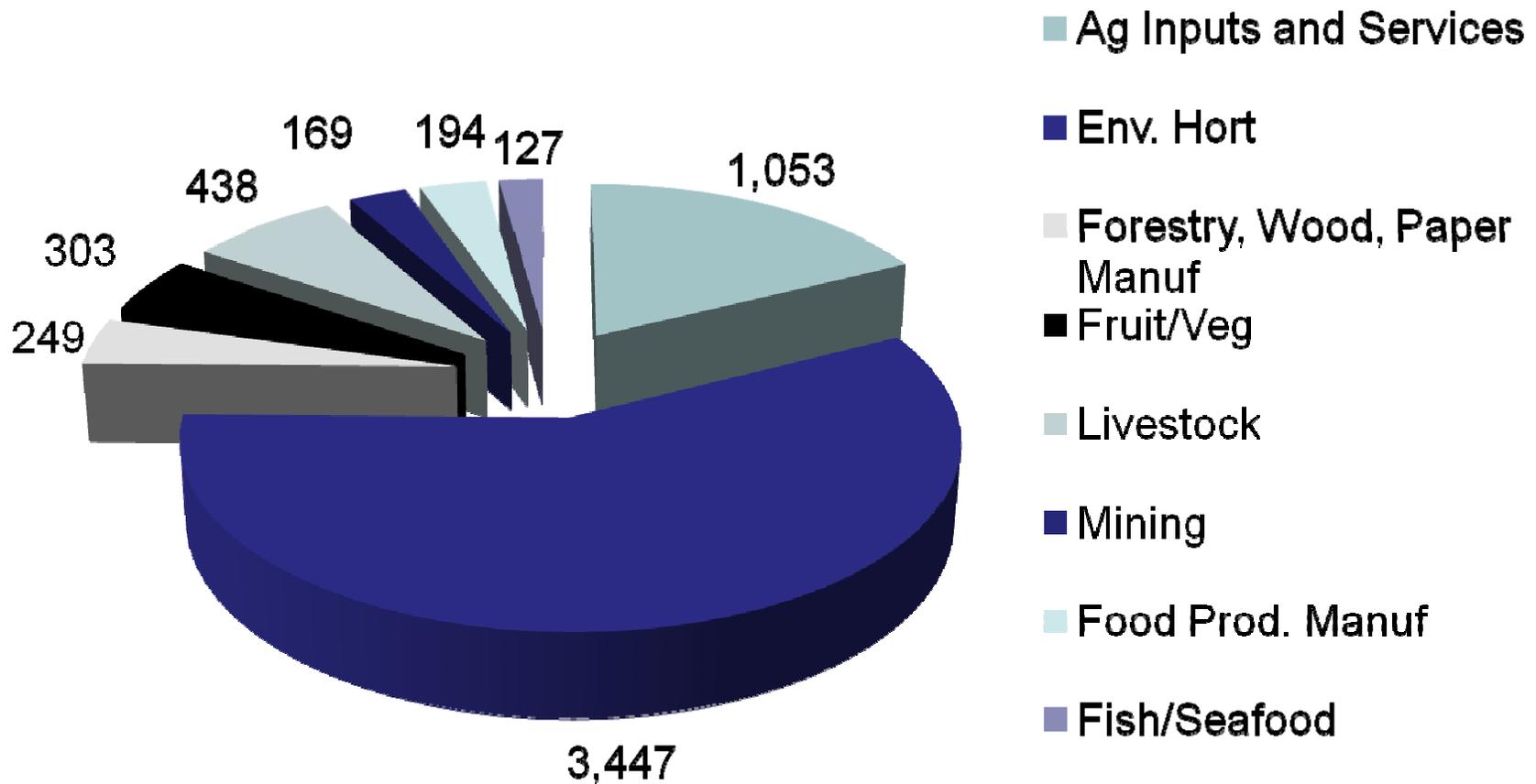
Volusia County Farms by Farm Size



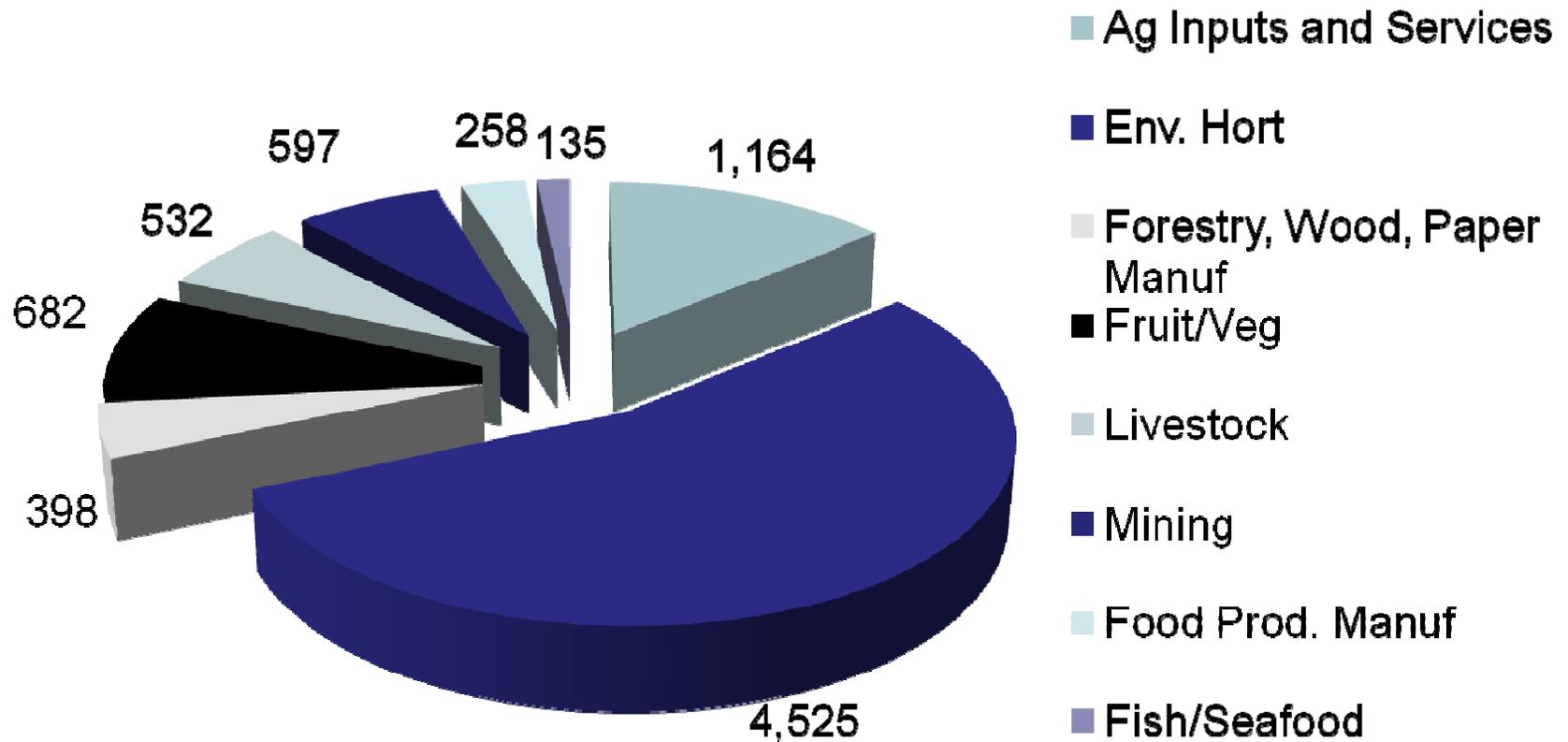
Volusia County Farms Market Value of Commodities



Volusia County Agriculture and Natural Resource Economic Impacts: Employment/Jobs (5,993)



Volusia County Agriculture and Natural Resource Economic Impacts: Sum of Employment/Jobs Impacts (8,313)

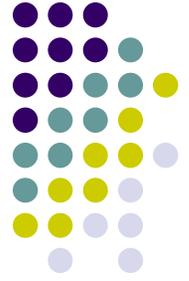




You Won't Grow The County Economy Or Individual Wealth By "Taking Each Others Laundry"

- ✓ Growth Is Faster When New Money Is Infused
- ✓ The "Pie" Gets Bigger
- ✓ Agriculture and Natural Resource Industries Generate Over 5.5% of Total Exports in Volusia County And Represents Only 2.6% of County Output

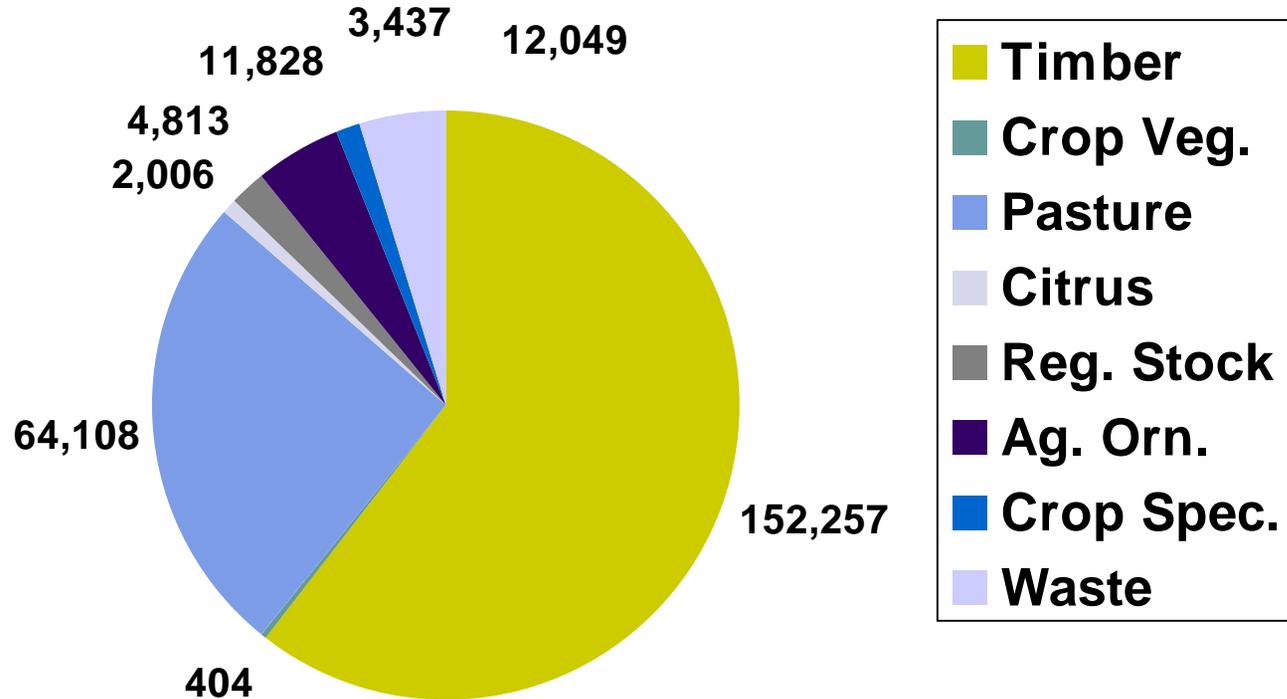
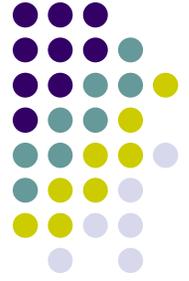
Agriculture and Natural Resource Industries Are Important to Volusia County Because of...



- ❖ Contributions to the Local Economy
- ❖ Economic Diversity, Entrepreneurship and Employment

Providing the Land Base for Future
Community Growth

Volusia County Farms Major Land Uses Preliminary 2008 Acres



Agriculture and Natural Resource Industries Are Important to Volusia County Because of...



- ❖ Contributions to the Local Economy
- ❖ Economic Diversity, Entrepreneurship and Employment
- ❖ Providing the Land Base for Future Community Growth

Environmental and Other Benefits

Environmental and Other Benefits Such As...



Open Space



Water Recharge and Retention



Wildlife Habitat and Food



Locally Produced Fresh Food

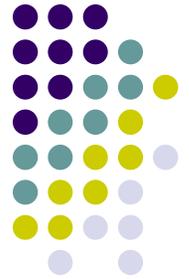


LocalHarvestSM
real food, real farmers, real community



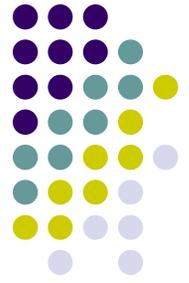
A Word of Caution...

Volusia County Agriculture and Natural Resources Are Heavily Dependent On One Sector: Horticulture, Greenhouse and Nursery and Landscape Services



- ❖ 39% of Industry Output
- ❖ 41% of Output Impacts
- ❖ 58% of Direct Employment
- ❖ 54% of Total Employment Impacts

Agriculture and Natural Resource Industries: Two Important Questions...



How and What Would the County Replace Agriculture and Natural Resource Industries With if They Decline

What Other Industry Group Would Provide The Benefits of:

- ❖ Size and Scope of Contributions to the Local Economy
- ❖ Economic Diversity, Entrepreneurship and Employment
- ❖ Providing the Land Base for Future Community Growth
- ❖ Environmental and Other Benefits

The Industry In-Whole And The Benefits Derived In Total Is Much More Important Than Any Individual Part