

## Sugarcane Variety Census: Florida 1992 <sup>1</sup>

B. Glaz<sup>2</sup>

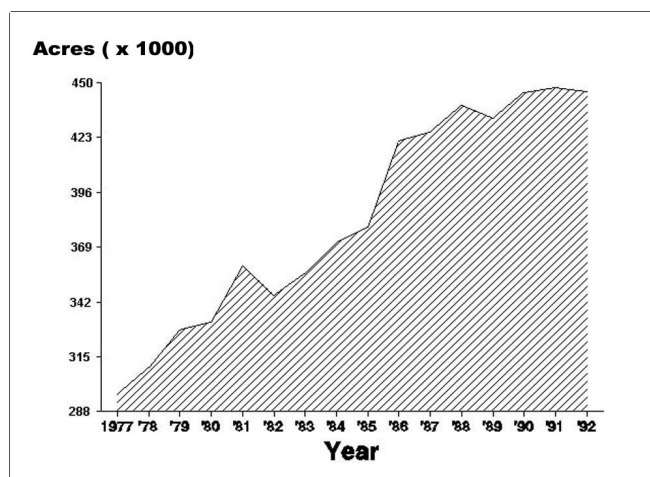
This report was first published in the November 1992 issue of *Sugar y Azucar*.

The annual variety census reports for the Florida sugarcane industry were started by L. P. Hebert in 1964. In this report of the 1992-93 harvest season, mill managers and independent growers displayed exemplary cooperation in supplying the requested data. As a result of this cooperation, much useful information is contained in this census.

This census reflects Florida sugarcane growers' variety preferences. In addition, percentage use of fallow and successive planting systems is reported. The sugarcane crop is categorized as plant cane, first ratoon, second ratoon, third ratoon, and fourth ratoon and older. Estimates of percentages of muck and sand soils are also reported.

Growers reported 440,686 acres of sugarcane grown for sugar and seed for the 1992-93 crop. This figure represents a decrease of 1,737 acres compared to the 1991-92 season (Glaz and Coale, 1992). This small decrease in the 1992-93 crop is in contrast with the 1982-91 average annual increase of 8,178 acres.

The rate of expansion of the Florida sugarcane acreage, as reported in the annual variety censuses, has decreased in recent years and the 1992-93 crop may represent a plateau in industry size ( Figure 1 ).



**Figure 1.** Total sugarcane acreage as reported in annual Florida variety censuses since 1977.

### PLANT AND RATOON CANE

Of the total 1992-93 acreage, 29.3 percent was plant cane and 70.7 percent was ratoon cane. For the 1990-91 and 1991-92 crops, the percentage plant

1. This document is SS-AGR-237, one of a series of the Agronomy Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. First printed January 1993. Revised May 2002. Reviewed April 2008. This publication is also a part of the Florida Sugarcane Handbook, an electronic publication of the Agronomy Department. For more information you may contact the editor of the Sugarcane Handbook, R. A. Gilbert (ragilber@ufl.edu). Please visit the EDIS Web site at <http://edis.ifas.ufl.edu>.
2. B. Glaz, agronomist, USDA-ARS, Sugarcane Field Station, Canal Point, FL; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

**The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication does not signify our approval to the exclusion of other products of suitable composition.**

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Larry Arrington, Dean

cane was 30.0 and 29.9 percent, respectively. Of the 1992-93 acreage, 29.0 percent was first ratoon, 23.1 percent was second ratoon, 10.6 percent was third ratoon, and 7.8 percent was fourth ratoon or older. These compared with 1991-92 percentages of 28.4, 23.2, 10.8, and 7.2, respectively.

For the 1992-93 harvest season, 37 varieties of sugar cane were grown commercially in Florida. As shown in Table 1, varieties grown on at least one percent of the total cane area were designated as "principal varieties". Those representing less than one percent were grouped as "all others." Varieties identified by a "CL" prefix were developed by the United States Sugar Corporation of Clewiston, Florida. Varieties with a "CP" prefix were selected at Canal Point, Florida, by a cooperative program of the United States Department of Agriculture's Agricultural Research Service, the University of Florida, and the Florida Sugar Cane League, Inc.

Of the 25 varieties grouped as "all others", eight were grown as ratoon cane only. The absence of plant cane for a particular variety is an indication that its commercial use will soon be discontinued. This year, no varieties were discontinued from commercial production for the first time.

The most widely grown variety in Florida this year was CL 61-620, with 14.8 percent of the total cane area (Table 1). The total acreage of CL 61-620 increased 16.6 percent (10,291 acres) from 1991 when it was the third most widely grown variety (Glaz and Coale, 1992). Last year's first and second most widely grown varieties, CP 72-1210 and CP 70-1133, had 33.3 and 6.6 percent reductions in acreage, respectively.

Despite a 33.3 percent decline in total acreage from last year, CP 72-1210 was the second most widely grown variety for the 1992-93 harvest season with 13.7 percent of the total cane area (Table 1). Total acreage occupied by CP 72-1210 declined 30,188 acres from the 1991-92 crop. CP 72-1210 had been the most widely grown variety in Florida for each year from 1985 through 1991 and, at its peak in 1987, occupied 61.0 percent of the total cane area (Table 2). A continued decline in acreage of CP 72-1210 is expected because it accounted for only 7.9 percent of the plant-cane acreage (Table 1). This

reduction was a further decline from CP 72-1210's 12.2 percent of plant cane in 1991-92 (Glaz and Coale, 1992).

The third most widely grown variety for the 1992-93 harvest was CP 72-2086, with 13.6 percent of the total acres (Table 1). The total acreage of CP 72-2086 increased 26.3 percent 12,438 acres from the 1991-92 crop (Glaz and Coale, 1992). This is a variety that growers are rapidly expanding (Table 2). For the 1992-93 crop, CP 72-2086 was the most popular variety used for new plantings and was planted on 20.3 percent of the plant-cane acres (Table 1). CP 72-2086 was also the most widely planted variety for last year's crop (Table 3). Continued expansion of CP 72-2086 is expected.

For the first year since 1980, CP 70-1133 was not one of the top three most widely grown varieties in Florida. For the 1992-93 crop, CP 70-1133 was the fourth most widely grown variety with 13.1 percent of the total acreage (Table 1). CP 70-1133 has been a principal variety since 1979 and has occupied a relatively consistent proportion (10.9 to 15.0 percent) of the Florida sugar cane acreage since 1986 (Table 2). This year, CP 70-1133 was planted on 10.7 percent of the plant-cane acreage, which is a slight decline from CP 70-1133's percent plant cane last year (Table 3). In the years ahead, a relatively constant acreage or, perhaps, a slow decline in acreage of CP 70-1133 is expected.

The fifth most widely grown sugar cane variety in Florida was CL 73-239, with 10.8 percent of the total acreage (Table 1). The percent of total acreage occupied by CL 73-239 for the 1992-93 crop was approximately the same as last year (Table 2). CL 73-239's percent of plant-cane acres declined 4.4 percent compared to the 1991-92 crop (Table 3). A modest decline is expected in the total acreage of CL 73-239 harvested for next year's crop.

The sixth and seventh most popular varieties were CP 78-2114 and CP 80-1827, respectively, with 6.1 and 5.7 percent, respectively, of the total crop acreage (Table 1). These two varieties are currently expanding in acreage (Table 2) and had an increase in percentage of plant-cane acres compared to last year (Table 3). Expansion of CP 78-2114 and CP 80-1827 will probably continue.

CP 73-1547 was the eighth most widely grown variety for the 1992-93 harvest season, with 5.5 percent of the total acreage (Table 1). The percent of total acreage occupied by CP 73-1547 has been relatively constant for the past three years (Table 2). Percent of plant-cane acreage declined slightly compared to last year and, therefore, a decline in total acreage of CP 73-1547 is forecast for the future (Table 3).

CL 59-1052, CL 69-886, CP 80-1743, and CP 65-357 round out the last four positions in the list of the twelve principal varieties grown for the 1992-93 crop with 2.9, 2.5, 1.2, and 1.1 percent, respectively, of the total cane acreage (Table 1). The percentage of total cane acreage occupied by three of these varieties, CL 59-1052, CL 69-886, and CP 65-357, did not change from last year (Table 3) and their relative proportion of the Florida sugar industry has been constant for several years (Table 2).

The 1992-93 harvest is the first crop for which CP 80-1743 has been a principal variety. It is expected that the acreage of CP 80-1743 will continue to expand.

### **FALLOW VS. SUCCESSIVE PLANTING**

Of the 128,960 plant-cane acres, 109,277 acres (84.7 percent) were reported as having been planted in either the fallow or successive planting system. Fallow or successive planting was not specified for the remaining 19,683 acres. Of the 109,277 acres for which information was available, 30.7 percent were fallow planted and 69.3 percent were successively planted (Table 4). Fallow and successive planting estimates were 32.7 and 67.3 percent, respectively, in the 1991 census (Glaz and Coale, 1992).

Table 4 contains the actual fallow and successive plant-cane acreage of the principal varieties and their corresponding percentages. Growers did not plant each variety at the overall fallow-successive ratio. CP 80-2086, CP 70-1133, and CP 78-2114 were each planted on over 10,000 acres and 79 percent was successively planted. CL 61-620 was planted on more fallow land than any other variety. Although only 3,764 total acres were planted to the new principal variety, CP 80-1743, 62.3 percent was planted on

fallow land. It is not unusual for new varieties that are currently being expanded to be largely planted on fallow land.

### **FLORIDA SOIL TYPES**

In their census reports, growers labeled 277,196 of the total 440,507 acres reported (62.9 percent) as either a muck or a sand soil. Soil type was not specified for the remaining acres. Of these 277,196 acres, 87.3 percent were reported as muck soils and 12.7 percent were reported as sand soils (Table 5). This year's overall percentages were very similar to those reported in the 1990 and 1991 census reports (87.4 percent muck, 12.6 percent sand; and 87.3 percent muck, 12.7 percent sand, respectively) (Coale and Glaz, 1991; Glaz and Coale, 1992). The proportions of muck and sand soils that comprise the Florida sugar cane production area seem to be relatively constant. In the future, soil type designation will only be incorporated periodically into the annual Florida variety census.

### **VARIETY DIVERSIFICATION**

Until the 1991-92 crop, the three most popular varieties have comprised the majority of the total Florida sugar cane acreage (Table 6). The most dramatic example of this was evident in the 1987 census when the three most widely grown varieties accounted for 79.0 percent of the total acreage (Table 6). Currently in Florida, only 42.1 percent of the sugar cane crop is accounted for by the top three varieties, CL 61-620, CP 72-1210, and CP 72-2086 (Table 6). This percentage is at its lowest point of the past ten years. For the 1992-93 crop, the five most widely grown varieties constituted only 66 percent of the total cane acreage. This high degree of variety diversification in the Florida sugar cane industry is a healthy trend that should be continued and promoted.

### **ACKNOWLEDGMENTS**

The assistance of Miguel Asso, Bob Bass, Manuel Del Valle, Billie Green, Larry Pate, Phyllis Pursell, Billy Sanchez, Maria A. Sanjurjo, Modesto Ulloa and the independent growers who supplied data for this census is gratefully acknowledged.

## REFERENCES

Coale, F.J., and B. Glaz. 1991. Florida's 1990 Sugarcane Variety Census. *Sugar y Azucar* 86(1):20, 22-23, 26 .

Glaz, B., and F.J. Coale. 1992. Sugar Cane Variety Census: Florida 1991. *Sugar y Azucar* 87(1):31-34 .

**Table 1.** Percentage of the 1992 Florida sugarcane acreage planted to the principal varieties.

Variety	Total Grown	Plant Cane	1st Ratoon	2nd Ratoon	3rd Ratoon	4th Ratoon+
CL 61-620	14.8	14.8	14.6	11.7	20.8	15.7
CP 72-1210	13.7	7.9	12.5	16.1	18.8	26.3
CP 72-2086	13.6	20.3	17.4	8.5	4.7	1.5
CP 70-1133	13.1	10.7	12.9	14.4	11.7	21.2
CL 73-239	10.8	6.6	10.6	14.8	14.3	12.0
CP 78-2114	6.1	8.4	7.5	6.2	0.2	0.4
CP 80-1827	5.7	9.5	5.3	5.4	0.8	0.2
CP 73-1547	5.5	6.4	6.6	4.6	4.9	1.1
CL 59-1052	2.9	1.9	1.9	4.1	4.8	3.3
CL 69-886	2.5	0.5	1.6	3.8	6.7	3.6
CP 80-1743	1.2	3.0	0.8	0.3	0.0	0.0
CP 65-357	1.1	0.7	1.0	0.8	1.0	3.9
All others	9.0	9.3	7.3	9.3	11.3	10.8

**Table 2.** Annual percentage of acreage from 1983 through 1992 for present principal sugarcane varieties in Florida.

Variety	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
CL 61-620	5.2	6.4	6.7	6.4	6.8	7.8	9.8	11.2	12.6	14.8
CP 72-1210	8.2	19.8	35.4	53.9	61.0	56.8	44.1	31.8	20.5	13.7
CP 72-2086	---	---	---	0.9	1.1	2.1	4.5	6.4	10.7	13.6
CP 70-1133	30.7	30.5	24.0	15.0	11.2	10.9	12.3	13.5	14.0	13.1
CL 73-239	---	---	---	0.1	0.7	2.3	4.7	8.1	10.7	10.8
CP 78-2114	---	---	---	---	0.2	0.8	2.5	4.3	5.6	6.1
CP 80-1827	---	---	---	---	---	---	0.4	1.6	3.2	5.7
CP 73-1547	1.0	1.2	1.5	1.8	2.2	2.8	4.2	5.0	5.8	5.5
CL 59-1052	8.2	8.8	7.7	6.3	4.8	3.5	3.0	2.9	2.9	2.9
CL 69-886	---	---	0.2	0.2	0.4	0.8	1.6	2.4	2.5	2.5
CP 80-1743	---	---	---	---	---	---	---	---	0.3	1.2
CP 65-357	13.7	12.1	7.5	3.3	1.9	1.4	1.3	1.1	1.1	1.1

**Table 3.** Comparison of percentages of 1991 and 1992 acreage for principle sugarcane varieties.

Variety	Combined Plant and Ratoon Cane			Plant Cane Alone			Ratoon Cane Alone		
	1991	1992	Change	1991	1992	Change	1991	1992	Change
CL 61-620	12.6	14.8	+2.2	14.1	14.8	+0.7	12.0	14.7	+2.7
CP 72-1210	20.5	13.7	-6.8	12.2	7.9	-4.3	24.1	16.1	-8.0
CP 72-2086	10.7	13.6	+2.9	17.8	20.3	+2.5	7.8	10.8	+3.0
CP 70-1133	14.0	13.1	-0.9	12.7	10.7	-2.0	14.6	14.1	-0.5
CL 73-239	10.7	10.8	+0.1	10.7	6.3	-4.4	10.7	12.7	+2.0
CP 78-2114	5.6	6.1	+0.5	7.1	8.4	+1.3	5.0	5.2	+0.2
CP 80-1827	3.2	5.7	+2.5	5.5	9.5	+4.0	2.3	4.1	+1.8
CP 73-1547	5.8	5.5	-0.3	7.8	6.4	-1.4	5.0	5.1	+0.1

**Table 3.** Comparison of percentages of 1991 and 1992 acreage for principle sugarcane varieties.

Variety	Combined Plant and Ratoon Cane			Plant Cane Alone			Ratoon Cane Alone		
	1991	1992	Change	1991	1992	Change	1991	1992	Change
CL 61-620	12.6	14.8	+2.2	14.1	14.8	+0.7	12.0	14.7	+2.7
CL 59-1052	2.9	2.9	0.0	2.1	1.9	-0.2	3.2	2.9	0.0
CL 69-886	2.5	2.5	0.0	1.6	0.5	-1.1	2.9	2.5	+0.4
CP 80-1743	0.3	1.2	+0.9	0.8	3.0	+2.2	0.1	1.2	+1.1
CP 65-357	1.1	1.1	0.0	0.9	0.7	-0.2	1.2	1.1	+0.1

**Table 4.** Actual and percentage acreage of each principal variety in fallow and successive planting systems.<sup>1</sup>

Variety	Acres <sup>2</sup>		Percent	
	Fallow	Successive	Fallow	Successive
Overall	33,585	75,693	30.7	69.3
CL 61-620	6,667	7,748	46.2	53.8
CP 72-1210	2,766	4,663	37.2	62.8
CP 72-2086	4,607	19,404	19.2	80.8
CP 70-1133	3,018	9,408	24.3	75.3
CL 73-239	1,398	3,742	27.2	72.8
CP 78-2114	2,198	8,482	20.6	79.4
CP 80-1827	3,278	5,884	35.8	64.2
CP 73-1547	2,833	4,950	36.4	63.6
CL 59-1052	445	1,717	20.6	79.4
CL 69-886	207	279	42.6	57.4
CP 80-1743	2,347	1,418	62.3	37.7
CP 65-357	141	514	21.5	78.5

<sup>1</sup> Based on 84.7 percent of total plant-cane hectareage.  
<sup>2</sup> Hectares x 2.471=Acres.

**Table 5.** Actual and percentage acreage of each principal grown on muck and sand soils.

Variety	Percent of Total Hectareage Specified <sup>1</sup>	Acres <sup>2</sup>		Percent	
		Muck	Sand	Muck	Sand
Overall	62.9	241,880	35,316	87.3	12.7
CL 61-620	59.3	38,332	237	99.4	0.6
CP 72-1210	81.3	38,409	10,740	78.1	21.9
CP 72-2086	77.0	45,648	390	99.2	0.8
CP 70-1133	51.5	19,412	10,374	65.2	34.8
CL 73-239	45.3	19,876	1,687	92.2	7.8
CP 78-2114	81.6	21,504	437	98.0	2.0
CP 80-1827	71.3	17,013	800	95.5	4.5
CP 73-1547	88.4	16,179	5,150	75.9	24.1
CL 59-1052	27.4	3,312	128	96.3	3.7
CL 69-886	24.8	2,722	0	100.0	0.0

**Table 5.** Actual and percentage acreage of each principal grown on muck and sand soils.

Variety	Percent of Total Hectarage Specified <sup>1</sup>	Acres <sup>2</sup>		Percent	
		Muck	Sand	Muck	Sand
CP 80-1743	79.4	4,085	37	99.1	0.9
CP 65-357	92.9	2,371	2,107	53.0	47.0

<sup>1</sup> Percent of total hectarage of each principal variety for which muck or sand soil type was specified.  
<sup>2</sup> Hectares x 2.471 = Acres.

**Table 6.** Percentage of the total sugarcane acreage of the three most widely grown varieties since 1983 in Florida.

Year	Percent	Varieties by Rank		
		First	Second	Third
1983	56.0	CP 70-1133	CP 65-357	CP 54-378
1984	62.4	CP 70-1133	CP 72-1210	CP 65-357
1985	67.1	CP 72-1210	CP 70-1133	CL 59-1052
1986	75.3	CP 72-1210	CP 70-1133	CL 61-620
1987	79.0	CP 72-1210	CP 70-1133	CL 61-620
1988	75.5	CP 72-1210	CP 70-1133	CL 61-620
1989	66.2	CP 72-1210	CP 70-1133	CL 61-620
1990	56.5	CP 72-1210	CP 70-1133	CL 61-620
1991	47.1	CP 72-1210	CP 70-1133	CL 61-620
1992	42.1	CL 61-620	CP 72-1210	CP 72-2086