Notice of Release of Sugarcane Variety HoCP 00-950

United States Department of Agriculture
Agricultural Research Service
Washington D.C. 20250

And

Louisiana Agricultural Experiment Station
Louisiana State University Agricultural Center
Baton Rouge, Louisiana 70803

And

American Sugar Cane League of the U.S.A., Inc.
Thibodaux, Louisiana 70301

The Agricultural Research Service of the United States Department of Agriculture, the Louisiana Agricultural Experiment Station of the LSU Agricultural Center, and the American Sugar Cane League of the U.S.A., Inc., working cooperatively to develop improved sugarcane varieties, have jointly developed and hereby announce the release of a new sugarcane variety, HoCP 00-950, for commercial planting in the summer of 2007.

HoCP 00-950 is a product of the cross between HoCP 93-750 and HoCP 92-676 made at Canal Point (CP) Florida in 1995 and selected at Houma (Ho), Louisiana, in 1997. HoCP 00-950 has a close ancestral relationship with L 99-226 and a more distant relationship with LCP 85-384, Ho 95-988, HoCP 96-540, L 97-128, and L 99-233. The variety has a high population of medium-sized stalks that turn greenish-yellow when exposed to sunlight. Its stalk number is 110% and weight is 91% of HoCP 96-540, Louisiana's current industry standard for variety comparison purposes, when averaged over plant, first-ratoon and second-ratoon crops. Similar to HoCP 96-540 and other recently released varieties, HoCP 00-950 is a good stubbling variety.

Yield data from a total of 51 mechanically harvested, replicated yield trials in environments representative of the sugar industry in Louisiana indicate that HoCP 00-950 produces gross cane yields that are slightly less than HoCP 96-540 (31.7 vs. 32.3 tons/acre = 98%), but because of its higher sugar content at harvest (296 vs. 276 lbs./ton = 107%), its recoverable sugar per acre has been slightly higher (9380 vs. 8940 lbs. sugar/acre = 105%) than HoCP 96-540 in combined harvests from plant-, first- and second-ratoon crops. HoCP 00-950 is an early-maturing variety that continues to accumulate sugar throughout the normal harvest season in Louisiana. Numerous field observations suggest that HoCP 00-950 grows at a slower pace in the late-winter and early-spring; however, by harvest time cane yields are similar to currently grown varieties due in part to its high stalk population. Like HoCP 96-540, HoCP 00-950's leaves do not tightly adhere to the stalk, but it tends to lodge slightly more. Nevertheless, it should be well adapted to harvesting by both chopper (combine) and whole-stalk harvesters. When harvesting green with chopper harvesters, timely removal of the residue blanket is encouraged to expedite the emergence of this variety in the spring.

HoCP 00-950 is resistant to sugarcane mosaic virus (strains A, B, and D) and sorghum mosaic virus (strains H, I, and M). The variety is resistant to smut (*Ustilago scitaminea* Sydow) and rust (*Puccinia melanocephala* H. and P. Syd.) and is moderately susceptible to leaf scald [*Xanthomonas albilineans* (Ashby) Dowson] diseases. It is more susceptible to ratoon stunting disease [*Leifsonia xyli* subsp. *xyli* (Davis et al.) Evtushenko et al.] than most sugarcane varieties that have been

recently released in Louisiana. As a result, it may sustain significant reductions in yields of both cane and sugar in stubble crops from this disease. It is essential that seed cane of this variety be free or nearly free of this disease to fully realize its yield potential. Based on field observations in yield trials and seed increase areas, HoCP 00-950 is no more susceptible to the sugarcane yellow leaf virus than current commercially grown varieties.

HoCP 00-950 is susceptible to the sugarcane borer [*Diatraea saccharalis* (F.)]. Hence, it should be scouted frequently to insure timely insecticide applications and should not be grown in areas where insecticides cannot be applied.

Field observations suggest that HoCP 00-950 is not any more susceptible to herbicides commonly used for the control of problematic weeds than currently grown varieties. The response of HoCP 00-950 to glyphosate ripener applications has not been determined.

Seed cane of HoCP 00-950 will be distributed by the American Sugar Cane League of the U.S.A., Inc., in accordance with procedures to be announced to all sugarcane growers in Louisiana on or after July 1, 2007. Inquiries concerning seed cane should be directed to the American Sugar Cane League, 206 East Bayou Road, Thibodaux, LA 70301. Neither the United States Department of Agriculture nor the Louisiana Agricultural Experiment Station has seed cane available for distribution.

Dr. Judith B. St. John
Associate Deputy Administrator, USDA, Agricultural Research Service

Dr. David Boethel
Director, LSU AgCenter, Louisiana Agricultural Experiment Station

Mr. Jessie Breaux
President, American Sugar Cane League of the U.S.A., Inc.

Summary of results comparing the yield of HoCP 00-950 in 45 combine-harvested, replicated trials on light- and heavy-textured soils from 2004 – 2006.

Plant Cane means over three years (2004 – 2006) at 25 locations

Variety	Sugar/ acre (lbs.)		Tons/ acre (tons)		Sugar/ ton (lbs.)		Weight/ stalk (lbs.)		Stalks/ acre (no.)	
LCP 85-384	7396	-	27.3	-	271	-	1.80	-	30665	
HoCP 96-540	9456		33.8	+	280	-	2.33	+	29533	
L 97-128	8651	-	31.4		276	-	2.35	+	26987	-
L 99-226	10065	+	34.3	+	294		2.69	+	26076	-
L 99-233	9204		33.7	+	272	-	1.86	-	36840	+

First stubble means over two years (2005 – 2006) at 15 locations

Variety	Sugar/ acre (lbs.)		Tons/ acre (tons)		Sugar/ ton (lbs.)		Weight/ stalk (lbs.)		Stalks/ acre (no.)	
LCP 85-384	7075	-	26.2	-	270	-	1.56	-	34209	
HoCP 91-555	8046		28.7		280	-	1.74		33286	
HoCP 96-540	8461		30.0		282	-	2.01	+	30522	
L 97-128	7906	-	28.9		273	-	2.07	+	28351	-
L 99-226	9506	+	32.0	+	296		2.39	+	27199	-
L 99-233	8184		30.2		271	-	1.64	-	37829	+

Second stubble means for one year (2006) at 5 locations.

Variety	Sugar/ acre (lbs.)		Tons/ acre (tons)		Sugar/ ton (lbs.)		Weight/ stalk (lbs.)		Stalks/ acre (no.)	
LCP 85-384	7429	-	28.3	-	263	-	1.64	-	35954	
HoCP 91-555	8040	-	30.4		266	-	1.67	-	37413	
HoCP 96-540	9074		33.0		273	-	2.06		32835	
L 97-128	9151		32.3		284		2.13		30516	
L 99-226	9417		31.9		297		2.15	+	31265	
L 99-233	9041		32.7		276		1.75		37790	

Yields which are significantly higher or lower (P=0.05) than estimates for HoCP 00-950 are noted with a "+" or "-" respectively.