

Notice of Release of Sugarcane Variety HoCP 04-838

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 04-838, for commercial planting in the summer of 2011.

HoCP 04-838 is a product of the cross between HoCP 85-845 and LCP 85-384 made at Canal Point (CP) Florida in 1998 and selected at Houma (Ho), Louisiana in 2001. The variety HoCP 04-838 compares well in yield with the variety HoCP 96-540; the prominent sugarcane variety currently being grown in Louisiana. In comparisons with HoCP 96-540 in 31 plant-cane outfield evaluations, HoCP 04-838 had higher sugar/acre (9612 vs. 9019 lbs.) and cane/acre (35.0 vs. 32.7 tons) yields, and equal in sugar/ton cane (275 vs 275 lbs.). It had a greater number of stalks/acre (30,245 vs. 24,550), but its individual stalk weight was less (2.34 vs. 2.73 lbs.). In 21 first-stubble outfield evaluations, HoCP 04-838 essentially equaled the yields of HoCP 96-540 in sugar/acre (8569 vs. 8059 lbs.), cane/acre (32.0 vs. 30.6 tons), and sugar/ton cane (267 vs. 264 lbs.). The stalk population of HoCP 04-838 was again greater than HoCP 96-540 (32,065 vs. 27,015 stalks per acre), but its stalk weight was less (2.02 vs 2.29 lbs.). In 11 second-stubble outfield evaluations, HoCP 04-838 was comparable to HoCP 96-540 in sugar/acre (6130 vs. 5635 lbs.) and tons cane/acre (24.7 vs 23.6 tons). However, Ho 04-838 had greater sugar/ton cane (255 vs 242 lbs.) and stalks/acre (30,038 vs 26492). Only in stalk weight did HoCP 96-540 exceed HoCP 04-838 (1.67 vs 1.82 lbs.).

An important concern of HoCP04-838 is its level of fiber. Fiber levels from 44 evaluations averaged 13.8% fiber for HoCP04-838. This value is 116% and 114% of HoCP 96-540 and L 99-226 respectively. However, this level of fiber is comparable to some other recommended

varieties considered to have high fiber and is thought acceptable to Louisiana sugarcane millers. HoCP 04-838 is less prone to lodging than most commercially released sugarcane varieties in Louisiana; hence, sediment levels of delivered cane to the processors should be lower.

HoCP 04-838 is resistant to smut caused by *Ustilago scitaminea* and brown rust caused by *Puccinia melanocephala*. It is moderately resistant to leaf scald caused by *Xanthomonas albilineans* and resistant to ratoon stunt caused by *Leifsonia xyli* subsp. *xyli*. HoCP 04-838 is also considered resistant to sugarcane borer, *Diatraea saccharalis*, based on bored internode data, but does show a diminished level of tolerance to feeding damage. However, HoCP 04-838 is still considered a variety that can be grown in areas where insecticides cannot be applied.

Field observations suggest that HoCP 04-838 is no more susceptible to herbicides commonly used for the control of problematic weeds than currently grown varieties. Based on a limited amount of data, HoCP 04-838 shows only slight response to glyphosate ripener applications. HoCP 04-838 matures at a rate comparable to other varieties recommended to growers, but is not as early maturing as HoCP 00-950. An important positive trait for this variety is its freeze tolerance, ranking as one of the most cold tolerant varieties to come through the Louisiana variety development program.

Seed cane of HoCP 04-838 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, 2011. 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.

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Summary of yield for HoCP 04-838 and commercial standards in outfield variety trials, 2008 - 2010.¹

Combined plant cane means from thirty-one outfield tests (2008 - 2010)					
Variety	Sugar/ acre (lbs.)	Tons/ acre (tons)	Sugar/ ton (lbs.)	Weight/ stalk (lbs.)	Stalks/ acre (no.)
HoCP 04-838	9612	35.0	275	2.34	30245
HoCP 96-540	9019 -	32.7 -	275	2.73 +	24550 -
L 99-226	9437	32.3 -	292 +	2.97 +	22049 -
L 99-233	9765	35.7	274	2.15 -	33764 +
HoCP 00-950	9561	31.9 -	300 +	2.32	27876 -
L 01-283	9153 -	32.1 -	286 +	2.27	28870
L 03-371	9765	33.4 -	293 +	2.52 +	26860 -
Combined 1st stubble means from twenty-one outfield tests (2009 and 2010)					
Variety	Sugar/ acre (lbs.)	Tons/ acre (tons)	Sugar/ ton (lbs.)	Weight/ stalk (lbs.)	Stalks/ acre (no.)
HoCP 04-838	8569	32.0	267	2.02	32065
HoCP 96-540	8059	30.6	264	2.29 +	27015 -
L 99-226	9186 +	31.5	291 +	2.60 +	24611 -
L 99-233	8499	32.1	265	1.86 -	34758 +
HoCP 00-950	8540	28.5 -	300 +	1.91 -	30006 -
L 01-283	9223 +	32.2	287 +	1.94	33848
L 03-371	8886	31.7	281 +	2.20 +	29045 -
Combined 2nd stubble means from eleven outfield tests (2010)					
Variety	Sugar/ acre (lbs.)	Tons/ acre (tons)	Sugar/ ton (lbs.)	Weight/ stalk (lbs.)	Stalks/ acre (no.)
HoCP 04-838	6130	24.7	255	1.67	30038
LCP 85-384	5813	23.7	248	1.63	29593
Ho 95-988	6456	25.9	248	1.80 +	29208
HoCP 96-540	5635	23.6	242 -	1.82 +	26492 -
L 97-128	6532	24.6	270 +	1.88 +	25959 -
L 99-226	7270 +	27.1 +	270 +	2.16 +	25606 -
L 99-233	6302	26.9	238 -	1.60	33788 +
HoCP 00-950	6407	23.1	281 +	1.67	28041
L 01-283	7509 +	28.6 +	268 +	1.57	36779 +
L 01-299	7511 +	29.6 +	258	1.57	37803 +
L 03-371	7024 +	26.9	262	1.91 +	28398

¹ Yield estimates which are significantly higher or lower (P=0.05) than estimates for HoCP 04-838 are noted with a "+" or "-" respectively.