



November 17, 2014

Results of the 6<sup>th</sup> sampling (November 3, 2014) of the first-stubble, Sugarcane Maturity Test at the USDA-ARS Sugarcane Research Unit's Ardoyne Research Farm in Schriever, LA are attached. This study is designed to examine the natural ripening process and compare the results for the same harvest dates over a 5-yr period (2010 – 2014); consequently, a glyphosate-containing ripener is not applied. Samples consist of 10 hand-cut stalks, stripped of leaves, and properly topped. **On a commercial farm, one can expect TRS/TC levels to be as much as 20% lower due to the additional trash in the cane associated with mechanical harvesting.** The study includes eight released Louisiana varieties: HoCP 96-540, L 99-226, HoCP 00-950, L 01-283, L 01-299, HoCP 04-838 and the newly released variety Ho 07-613.

Since the last sampling the farm has not received any measurable rainfall and at the time of this sampling most varieties in the test remain erect with the exception of L 99-226 and Ho 07-613.

Over the 2-week sampling period the crop showed a decrease in weight by 0.06 lbs. and grew only 2 in. When compared to the 4-yr average, stalk weights are 0.35 lbs. lighter and lengths are 8 in. shorter. Of the varieties, L 99-226 (2.24 lbs.) and Ho 07-613 (1.98 lbs.) had the heaviest stalks, while HoCP 96-540 (1.68 lbs.) and HoCP 00-950 (1.69 lbs.) had the lightest stalks. The longest stalks were produced by L 01-299 (112 in.); the shortest stalks were produced by HoCP 00-950 (87 in.) and HoCP 04-838 (91 in.).

Brix and sucrose remain slightly below the 4-yr average while % purity continues to be higher. Theoretically recoverable sugar (TRS) levels are 11.4 lbs. better than last year, but equal to the 4-yr average. The average increase in TRS during the 2-week period was 17.8 lbs. or 1.27 lbs./day.

Of the recommended varieties in 2014, HoCP 00-950 (312 lbs./TC) and L 01-283 (300 lbs./TC) continue to have the highest early TRS levels. The lowest TRS levels were produced by L 01-299 (261 lbs./TC) and HoCP 96-540 (270 lbs./TC). The varieties with the largest increase in TRS during the sampling period were L 99-226 (37.0 lbs.) and HoCP 96-540 (32.4 lbs.). The smallest increase in TRS occurred in L 01-283 (2.7 lbs.).

The seventh sampling for the 1<sup>st</sup> stubble maturity test and the third sampling of the plant-cane maturity test are scheduled for November 17.

**Reminder.** If you would like to discontinue your receipt of these reports or if you know of individuals who would like to begin receiving this information, please contact Mrs. Brenda Aysenne by email (Brenda.Aysenne@ars.usda.gov) emailing insures address accuracy. Information regarding USDA research activities can also be found on our website:

[http://www.ars.usda.gov/main/site\\_main.htm?modecode=64-10-00-00](http://www.ars.usda.gov/main/site_main.htm?modecode=64-10-00-00).

*Maturity reports are prepared by Mr. Mike Duet of the USDA-ARS Sugarcane Research Unit.*

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Maturity studies on first-stubble cane grown on mixed land at the Ardoyne Farm, USDA-ARS, Sugarcane Research Unit, Houma, LA, November 3, 2014<sup>1</sup>.

Variety	Year	Stalk <sup>2</sup>				Normal juice <sup>3</sup>			Sugar yield TRS	Previous sample date <sup>4</sup> TRS	TRS change from previous sample (lb.)
		Wt.	Lh.	Dia.	Density	Bx.	Su.	Pu.			
		(lb.)	(in.)	(in.)	(g/cm3)	(%)	(%)	(%)	(lb.)	(lb.)	
Averages <sup>5</sup>	2014	1.87	98	---	---	17.73	15.05	84.84	282.6	264.8	17.8
	2013	2.00	105	---	---	17.22	14.50	84.09	271.2	240.0	31.2
	2012	2.40	113	---	---	18.06	15.33	84.85	288.8	272.2	16.6
	2011	2.30	100	---	---	18.35	15.52	84.56	291.3	278.1	13.2
(Cont'd)	2010	2.20	106	---	---	17.98	15.19	84.44	283.6	270.7	12.9

<sup>1</sup> Data for each parameter represents the average of four replications of 10 stalks each.

<sup>2</sup> Stalk diameter and density will be taken on the 1st, 4th and the 8th maturity study sampling dates.

<sup>3</sup> Brix factor = .8854; Sucrose factor = .8105.

<sup>4</sup> Previous scheduled sample date was October 20, 2014 .

<sup>5</sup> Averages are based on all varieties in the first-stubble maturity study.