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Agricultural Newsletter of the LSU AgCenter's Iberia Cooperative Extension Service



This issue contains information regarding:

- *Hurricane Affected Sugarcane/Damage & Yield Loss
- *Billet Planting vs. Whole-Stalk Planting
- *Use of Ripeners
- *Disaster Assistance
- *Updated Variety Recommendations
- *Other
- *Closing Comments



Post Hurricane Observations

As I am writing this newsletter I hope that all of you and your families were safe during Hurricane Gustav. I am also hoping that Hurricane Ike does not hit the Louisiana Coast. Last week I toured Iberia and Vermilion Parish, talked to County agents Jimmy Flanagan and Andrew Granger, and spoke on the phone and visited with several of you to get an idea of the crop situation following Hurricane Gustav. Iberia and Vermilion did not receive the worst of the storm compared to the other parts of the cane belt; but did encounter damage none the less. It is still early, but most damage seemed to be lodging of cane with about 10-15% having broken tops. Flooding has been minimal, however; many fields planted just prior to the hurricane were "washed out." Also fallen trees and limbs in fields are of concern, but debris in fields compared to three years ago is nearly non existence. Also many of you have shops and barns that received moderate wind damage mostly to roofs.

In conversations with Dr. Ben Legendre I think he best sums up the current situation in terms of damages and losses attributed to Hurricane Gustav. Please see below and keep in mind this information is based on facts immediately following the storm.

It has been approximately one week since Hurricane Gustav crossed the state. Initially, much of the crop was laid down (lodged) by the storm; however, during the past six days much of the cane has erected itself more so than one might have expected. I believe that this can be attributed to the fact that the leading variety, HoCP 96-540, planted on over 50% of the state's acreage is much more tolerant to lodging than its predecessor LCP 85-384 which currently occupies less than 20% of the state's acreage. The second leading variety, L 97-128, is also more tolerant to lodging than LCP 85-384. A third variety, Ho 95-988, which is grown on approximately 5% of the state's acreage experienced the worst of the storm in that most Agents are reporting significant top breakage in this variety. There is also considerable top breakage along tree lines where the wind was funneled. Top breakage was also noticed where the eye of the storm passed in the southern parishes as the wind came from different directions prior to and after the passage of the eye of the storm. There was considerable damage reported from the northern parishes, Pointe Coupee, Avoyelles and Rapids, as cane was not only lodged but also flooded. Further, it was noted that there was considerable top breakage in Ho 95-988 in these parishes. However, I do not believe that standing cane will suffer significantly from the fresh-water flooded conditions.

This does not mean that we are out of the woods. Approximately, 100,000 acres are planted each year in Louisiana. Only 15-25% of this intended planting had occurred prior to the storm and some of the acreage that was planted might require replanting as the intense rainfall that followed the storm washed away the soil that covered the cane. Although the acreage is minimal, the impact on those affected growers could be great. The crooked stalks will make it extremely difficult to plant whole stalks which might mean that growers will resort to plant using billets. This will increase planting costs significantly due to the increased amount of seed cane required to plant an acre.

With harvest scheduled to commence in less than one month the affected cane will not be as mature as anticipated. Lodged cane requires a period of adjustment before it resumes normal growth and maturity. This could take several weeks. Further, the use of the chemical ripener glyphosate will not be as effective in enhancing maturity. Although much of the crop can be harvested successfully with the cane combine there will be greater losses (scrap), more trash, lower cane and juice quality and generally a lower yield of recoverable sugar per ton of cane. Also, growers can anticipate increased harvesting costs.

My educated guess is that the overall loss to the State's sugarcane industry will be approximately 10-15% because of loss of cane growth, loss of scrap during harvest, reduced cane and juice quality resulting from the increased trash and later maturity. (This is assuming that Hurricane Ike will continue on a westerly path and not affect the Louisiana sugarcane belt). If the weather remains dry during the harvest, the losses could be minimal; however, if we have a second hurricane (Ike) that causes additional damage and/or have a wet harvest from start to finish with an early freeze (worst case scenario), the losses could be 25-30% which is not a total loss but would be disastrous to the industry.

STALK BREAKAGE.

Concerning stalk breakage Dr. Legendre reports the following:

It has been reported that there was considerable breakage in Ho 95-988 and HoCP 00-950 as a result of Hurricane Gustav. The following is an excerpt from a paper I wrote (Legendre, JASSCT 15:15-31. 1995) following Hurricane Andrew which occurred on August 25-26, 1992 when we experienced considerable stalk breakage in all varieties.

“The primary effects of hurricane-induced stalk breakage on sugar yield components were on stalk weight and yield of theoretical recoverable sugar per ton and its associated parameters. Estimated losses of cane yield at harvest per 1% broken stalks averaged 0.19%, as an average of six varieties. Estimated losses at harvest of theoretical recoverable sugar (TRS) per ton of cane per 1% broken stalks averaged 0.20% across all varieties. The overall loss in yield of sugar per acre for each 1% broken stalks averaged 0.35%.” This would mean that if one had 100% broken stalks, the estimated loss of sugar per acre would be approximately 35%.“ In those fields of Ho 95-988 where the percent broken stalks approached 50%, the loss of sugar per acre would be approximately 17.5%. We have seen fields of Ho 95-988 with broken stalks following late-season thunder storms but the level of breakage following Hurricane Gustav was the most severe. It is too early to tell if HoCP 00-950 has a tendency to break with high winds; however, it is still recommended that producers increase this variety due to its early, high sucrose content.

USE OF RIPENERS.

In mid August of this year you were mailed The Sugarcane Ripener Recommendations for 2008. It is available on the intranet at the following web address:

www.lsuagcenter.com/en/our_offices/parishes/Iberia/Features/ANR. Dr. Ben Legendre has provided the following additional information.

Now that the cane has mostly erected itself producers can consider applying glyphosate again. One would not want to consider applying glyphosate to a field of Ho 95-988 where more than 50% of the stalks are broken. No ripening can be anticipated for the broken stalks as they have no functional leaves. Therefore, with 50% of the stalks broken one could only expect that improvement in sugar per ton of cane would be only half of what would be obtained if there were no stalks broken. Producers might want to consider increasing the rate on Ho 95-988 to the 8-ounce equivalency of Polado-L. It is not recommended that glyphosate be applied to cane where the leaves are completely frayed. Producers should delay application of glyphosate until new leaves emerge. In general ripeners work best when cane is least lodged, twisted or broken.

BILLET VS. WHOLE-STALK PLANTING. With only approximately 15% of the estimated 100,000 acres planted and with seed cane lodged and possibly tangled, producers might want to consider planting billets. Dr. Jeff Hoy, Professor, has been conducting research on using billets and whole-stalks as planting material for the past three years. What follows is a summary of that research.

BILLET PLANTING RESEARCH

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Research continued to develop methods to maximize the chances of success with billet planting. During 2007, results were obtained from three field experiments conducted at the Sugar Research Station at St. Gabriel comparing yields obtained from billet and whole stalk planting of recently released and experimental varieties. Differences were detected among varieties in tolerance to billet planting.

Multiple yield components were compared for billet and whole stalk plantings of eight varieties in plant cane (Table 1). Millable stalk population, cane tonnage and total sugar per acre were yield components for which differences were detected between billet and whole stalk plantings for some varieties. Cold and wet winter conditions resulted in lower yields for billet plantings in multiple varieties. The two experimental (unreleased) varieties, L 01-283 and L 01-299, were the only ones with equivalent yields for billet and whole stalk plantings for all yield components.

Table 1. Comparison of yield components for billet and whole stalk plantings of eight varieties in plant cane during 2007.

Variety	Treatment	Stalks/acre (x1000) ¹	Stalk wt. (lbs.)	Sugar/ton (lbs.) ¹	Tons cane per acre ¹	Sugar/acre (lbs.) ¹
LCP 85-384	Billet	38.9 B	1.95	181	29.0 B	5227
	Whole	53.3 A	2.00	167	37.5 A	6231
Ho 95-988	Billet	34.5 B	2.42	186	32.7 B	6094 B
	Whole	44.9 A	2.56	180	46.7 A	8429 A
HoCP 96-540	Billet	38.0 B	2.25	181	38.8 B	9259
	Whole	50.7 A	2.20	187	53.8 A	9880
L 97-128	Billet	29.0 B	2.66	177	33.6 B	5941 B
	Whole	40.3 A	2.53	187	48.9 A	8573 A
L 99-226	Billet	40.6	2.84	193	41.0 B	7918 B
	Whole	40.3	2.92	191	50.6 A	9650 A
L 99-233	Billet	53.2	2.00	180	42.7	7657 B
	Whole	56.9	2.10	188	46.7	8729 A
L 01-283	Billet	59.4	1.82	190	48.7	9241
	Whole	57.3	2.06	194	49.5	9608
L 01-299	Billet	50.4	1.90	183	46.9	8576

Whole	48.0	2.09	189	45.4	8599
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¹Values of different yield components for billet and whole stalk comparisons within a variety followed by different letters were significantly different (P=0.05).

First ratoon yield results were obtained from another experiment for the same eight varieties. Following a mild winter, plant cane tonnage and total sugar yields for billet plantings were only lower in two varieties, Ho 95-988 and L 97-128, and the 2007 first ratoon yields for billet and whole stalk plantings were equivalent for all varieties (Table 2).

Table 2. Comparison of yield components for billet and whole stalk plantings for eight varieties in 2006 plant cane and 2007 first ratoon.

Variety	Treatment	Plant cane		First ratoon	
		Tons cane per acre ¹	Sugar/acre (lbs.) ¹	Tons cane per acre ¹	Sugar/acre (lbs.) ¹
LCP 85-384	Billet	31.4	6740	31.1	5535
	Whole	32.7	7105	34.1	6450
Ho 95-988	Billet	35.1 B	7560 B	41.6	8677
	Whole	45.2 A	10509 A	40.6	8650
HoCP 96-540	Billet	41.4	9259	34.4	6635
	Whole	45.1	9880	39.3	7730
L 97-128	Billet	37.3 B	7872 B	32.6	6656
	Whole	46.2 A	10146 A	37.1	7786
L 99-226	Billet	41.7	9719	38.5	7878
	Whole	43.1	10539	39.0	8301
L 99-233	Billet	38.6	8094	39.3 A	7557
	Whole	39.0	8368	34.0 B	6845
L 01-283	Billet	50.9	11473	44.5	8933
	Whole	51.5	11553	44.7	9268
L 01-299	Billet	50.0	11139	46.6	9276
	Whole	52.6	11368	51.3	10118

¹Values of different yield components for billet and whole stalk comparisons within a variety followed by different letters were significantly different (P=0.05).

Second ratoon yields were obtained for an experiment with seven varieties that experienced severe drought conditions after planting. Cane tonnage and total sucrose yields were lower in billet plantings for five of seven varieties in plant cane, but yields were lower for only two varieties in first ratoon and one variety in second ratoon (Table 3).

The field experiments comparing billet and whole stalk planting yields demonstrate that varieties vary in the tolerance of billet planting and that environmental stress affects the amount of yield reduction compared to whole stalk planting. Ho 95-988 appears to be intolerant to billet planting. A group of varieties, LCP 85-384, HoCP 96-540, L 97-128, and L 99-226, experience yield

reductions in billet plantings when stressful environmental conditions occur, and the newer varieties, L 99-233, L 01-283, and L 01-299 have thus far exhibited tolerance to billet planting.

Table 3. Comparison of plant cane yield components for billet and whole stalk plantings of four varieties in 2005 plant cane, 2006 first ratoon, and 2007 second ratoon.

Variety	Billet vs. whole	Plant cane		First ratoon		Second ratoon	
		Tons per acre	Sucrose (lbs/acre)	Tons per acre	Sucrose (lbs/acre)	Tons per acre	Sucrose (lbs/acre)
LCP85-384	Billet	28.4 B	5756 B	25.7	5401	28.6	4812
	Whole	40.2 A	8297 A	31.6	6474	33.5	5812
Ho95-988	Billet	18.6 B	3511 B	21.8 B	4361 B	20.4 B	3820 B
	Whole	35.2 A	7231 A	33.7 A	6668 A	36.5 A	6932 A
HoCP96-540	Billet	39.4 B	8241 B	34.2	7040	38.0	6354
	Whole	47.3 A	10018 A	36.2	7809	39.4	6691
L97-128	Billet	33.6	7298	30.6	6258	29.9	5548
	Whole	39.5	8256	29.8	6534	31.4	5780
L99-226	Billet	35.5 B	6973 B	34.5	7393	40.2	6911
	Whole	50.5 A	10401 A	37.3	8032	42.5	7123
L99-233	Billet	43.6	9212	31.6 B	6569 B	39.2	6827
	Whole	48.2	9844	36.9 A	7890 A	39.7	6781
L00-266	Billet	30.6 B	5652 B	36.6	7558	36.0	6134
	Whole	40.5 A	7761 A	37.8	7394	38.6	6491

Values of different yield components for billet and whole stalk comparisons within a variety followed by different letters were significantly different (P=0.05).

Dr. Hoy summarized his research where he ranked the varieties in order of their tolerance to billet planting and the percent losses that occurred when comparing billets vs. whole-stalks. Below are his rankings for billet planting tolerance (from best to worse):

Variety	Ranking
L 01-283	G
L 99-233	G
L 99-226	I
HoCP 96-540	I
LCP 85-384	I
L 97-128	I
Ho 95-988	P

G= good; I=intermediate; and, P=poor

With only limited results, no reduction has been detected in billet plantings of L 01-283. Only once, has a lower yield been detected with L 99-233. The group of L 99-226, HoCP 96-540, LCP 85-384, and L 97-128 has been lower in billet plantings whenever stress conditions have occurred after planting. Yields of Ho 95-988 have been lower in billet plantings regardless of whether stress has occurred. Dr. Hoy said to avoid planting billets of Ho 95-988 if at all possible.

The following is a table depicting the results of billet planting for most of the new varieties with the exception of HoCP 00-950.

Lower yields for billet plantings in three experiments

Variety		Plant cane 2005	Plant cane 2006	Plant cane 2007
LCP 85-384	I	*		*
Ho 95-988	P	*	*	*
HoCP 96-540	I	*		*
L 97-128	I		*	*
L 99-226	I	*		*
L 99-233	G?			*
L 01-283	G	Not included		
L 01-299	G	Not included		

Disaster Assistance

The process to try to get federal assistance with losses related to Agriculture Enterprises following Hurricane Gustav are beginning. You may not know this but one of the new features of the 2008 Farm Bill was that permanent disaster assistance programs were included. What this inclusion does is now automatically makes disaster assistance programs available to producers in **parishes that have been declared as a disaster area** without having Congress have to create new legislation to make funds available.

Unlike in some previous disaster assistance programs, however, the programs outlined in the 2008 Farm Bill require that producers have crop insurance or non-insured crop disaster assistance (NAP) coverage on **all the land for which assistance is being requested**. Since the 2008 Farm Bill was not passed to after some of the insurance sign-up period, the Farm Bill allows producers, who did not get crop insurance or NAP coverage for 2008 to “buy-in” to the disaster assistance program. Every producer whose crops, including grazing lands, are not fully covered by crop insurance or NAP may take advantage of this one-time opportunity. **The buy-in fee is due no later than Sept. 16, 2008. Those who miss this opportunity will not be eligible for disaster assistance.**

Producers are also reminded that the payment of the applicable buy-in fee does not afford the producer crop insurance or NAP coverage; it only affords eligibility for the 2008 disaster programs. Producers who meet the definition of "Socially Disadvantaged, Limited Resource," or "Beginning Farmer or Rancher," do not have to meet the Risk Management Purchase Requirement, and, therefore, are not required to pay the buy-in fee. The buy-in fee for 2008 eligibility only for either the catastrophic risk protection insurance (CAT) or NAP is \$100 per crop, but not more than \$300 per producer per administrative county, or \$900 total per producer for all counties less any previously paid fees for CAT and/or NAP.

Producers can contact their local administrative FSA County Office to file the application for waiver and pay the applicable fees. Payment of the applicable fees will allow the producer to be eligible for benefits for losses under the following disaster assistance programs:

- Supplemental Revenue Assistance Payments (SURE) Program,
- Livestock Forage Disaster Program (LFP),
- Tree Assistance Program (TAP), and
- Emergency Assistance Livestock, Honeybees and Farm-Raised Fish Program (ELAP).

This “buy-in” is **not** required for producers to participate in the Livestock Indemnity Program (LIP). **Producers are strongly encouraged to contact their local Farm Service Agency (FSA) office to determine if this “buy-in” waiver is needed for their operation.**

SURE Program One of the programs made available with the passage of the 2008 Farm Bill was the Supplemental Revenue Assistance Payments (SURE) program. The USDA has recently released a spreadsheet based calculator that will allow you to estimate the amount of disaster assistance that may be available to a producer. The calculator can be found at the following webpage:

<http://www.fsa.usda.gov/FSA/fbapp?area=fbhome&subject=landing&topic=landing>

The contact information for the USDA Service Centers is as follows:

Iberia: Mr. Ronnie Boudreaux
2617 Northside Road
New Iberia, La. 70563
(337) 369-3234 Extension 2

Vermilion: Mr. Larry Thibodeaux
1049 W. Summers Drive
Abbeville, La. 70510
(337) 893-5781 Extension 2

Please take the time to either check on you status for crop insurance and check in with your local USDA Service Center to pay your buy-in waiver if you do not have crop insurance to ensure that you will be eligible to receive federal disaster assistance.

Also if you have soybeans that are damaged to the point where you are not going to harvest them, please contact your local FSA office before you plow them as they can provide you with additional details.

Updated Variety Recommendations

Following Hurricane Gustav, Dr. Legendre has updated the 2008 Variety Recommendations as follows:

There are nine varieties to consider for planting in 2008. They are LCP 85-384, HoCP 91-555, Ho 95-988, HoCP 96-540, L 97-128, L 99-226, L 99-233, HoCP 00-950, and the newest variety, L 01-283, to be released for commercial planting in the late summer 2008.

Variety	Percentage of Acreage
LCP 85-384	48.26
HoCP 85-845	1.35
HoCP 91-555	3.06
Ho 95-988	3.85
HoCP 96-540	29.17
L 97-128	11.90
L 99-226	0.84
L 99-233	0.49
Other	1.08

LCP 85-384, in the past, was known for its high population, very good stubbling and adaptability to all soil types. However, its weaknesses include its susceptibility to rust and borers, poor vigor, and tendency to lodging. LCP 85-384 is intermediate when billets are used for seed cane purposes meaning that in some years one can expect lower yields when billets are used while in other years there is no difference between the use of billets and whole stalks.

HoCP 91-555 has high sugar per ton, high population, good harvestability and can be grown on all soil types. Its weaknesses include its susceptibility to RSD, rust and borers and its field yield tends to drop off in older stubble.

Ho 95-988 has high sugar per acre, medium maturity, very good stubbling ability and can be grown on all soil types. Its weaknesses include its susceptibility to rust and borers and its moderate susceptibility to smut. Following Hurricane Gustav it has been reported that Ho 95-988 had a high percentage of top breakage throughout the state and caution should be observed if considering replanting this variety. Further Dr. Jeff Hoy, LSU AgCenter said to avoid planting billets of this variety as his research has shown lower yields with billets for each of the three years he planted it in his tests.

HoCP 96-540 has high yield of sugar per acre, medium maturity, high tonnage, good stubbling ability and can be grown on all soil types although it does best on lighter textured soils. HoCP 96-540 has good resistance to deterioration following subfreezing conditions. Its weaknesses include its susceptibility to borers, moderate susceptibility to rust and its lower population.

HoCP 96-540 is intermediate when billets are used for seed cane purposes meaning that in some years one can expect lower yields when billets are used while in other years there is no difference between the use of billets and whole stalks.

L 97-128 has excellent early vigor, very early sugar, moderate resistance to rust, good stubbling ability and can be grown on all soil types although it does best on heavier textured soils. Its weaknesses include susceptibility to RSD and borers, moderate susceptibility to smut and its propensity to produce a large number of bull shoots at harvest that tend to lower recoverable sugar per ton of cane. L 97-128 is intermediate when billets are used for seed cane purposes meaning that in some years one can expect lower yields of sugar per acre when billets are used while in other years there is no difference between the use of billets and whole stalks.

L 99-226 has very high yield of sugar per acre and medium maturity, good stubbling ability and shading, resistance to borers and rust and can be grown on all soil types. Its weaknesses include its susceptibility to RSD, tendency to lodge, lower population of large stalks and its susceptibility to deterioration following subfreezing conditions. L 99-226 is intermediate when billets are used for seed cane purposes meaning that in some years one can expect lower yields of sugar per acre when billets are used while in other years there is no difference between the use of billets and whole stalks.

L 99-233 has high yield of sugar per acre with a very high population of small stalks, medium maturity, very good stubbling and shading ability, resistance to rust and is recommended for all soil types. Its weaknesses include its susceptibility to RSD and borers, moderate susceptibility to smut, its tendency to lodge and its susceptibility to deterioration following subfreezing conditions. L 99-233 is good when billets are planted meaning that there is little difference in yield of sugar per acre when billets or whole-stalks are used for seed. Following Hurricane Gustav, Windell Jackson, Senior Agronomist, ASCL, reported that there were several locations in the state where this variety broke into pieces (not just top breakage). This variety is very brittle and extreme caution should be followed if planting this variety in the event that similar conditions prevail in subsequent years as the loss of tons cane and sugar per acre could be excessive. It has been suggested that this variety might have a place on heavier soils that could serve to reduce its vigor and, consequently, its brittleness.

HoCP 00-950 has early, high sugar. It is also known for its excellent yield of sugar per acre. One of its weaknesses includes its susceptibility to borers. Also, following Hurricane Gustav, there were several reports of top breakage in this variety and caution is advised with regards to planting large acreages of this variety in the event of similar wind events in subsequent years.

L 01-283, to be released in late summer 2008, has excellent yield of tons cane per acre and sugar per ton of cane. It is resistant to most major disease although it is susceptible to RSD. Furthermore, it is difficult to tissue culture; therefore, it might become necessary to heat treat seed cane to reduce the incidence of RSD bacteria. L 01-283 is good when billets are planted meaning that there is little difference in yield of sugar per acre when billets or whole-stalks are used for seed.

Other

Following natural disasters such as Hurricane Gustav, we all look for guidance and recent history is always a good start. The following website

http://www.lsuagcenter.com/en/our_offices/parishes/Iberia/Features/ANR contains information on estimated losses in Sugarcane following Hurricane Andrew in 1992 and Hurricanes Katrina and Rita in 2005. These are valuable resources that will be used to calculate losses from Hurricane Gustav. Another good website is <http://www.bwdyer.com>. This information is in the Dyer Special Report from the 2008 International Sweetener Symposium in Hawaii.

Many of you have asked about soybeans in terms of damages and the 2009 projects for cost of production and market values. I will send this information out once it is available.

Closing Comments

At times like these it may seem difficult to count our blessings, but we still have many things to be thankful for such as our health, our friends and our families. As you are busy cleaning up after the storm, looking for dry land and trying to harvest beans and plant sugarcane, please remember that we at the LSU AgCenter are here to help you. If you need us in any way, we are only a phone call away and don't hesitate to call your county agent's office. I will keep praying as I am sure many of you will too that Ike takes a hike.

Sincerely,

Blair Hebert

Blair J. Hebert
County Agent
Iberia Parish

BJH/rv

