Billet Planting Update

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Why plant billets?

- Mechanical planting of billets is up to 3X faster than hand planting whole stalks.
- Requires less labor to complete.
- Easy to use down, twisted stalks for seed.

Why to not plant billets?

- Usually requires more seed cane ($).
- Some varieties may not respond well.
- Early planting billets not ideal due to immature eyes.

2024 Experiments

- **Chemical seed treatment test.**
- **Date of planting test.**
- **Rate of planting test.**
- **Potential varieties.**

Chemical Seed Treatment Tests




- **Variety: HoCP 96-540, 24” machine cut billets, hand-cut whole stalks.**
- **Planted as 2 running billets or 2 stalks Sept. ‘22.**
- **Cancienne silt loam.**

Chemical Seed Treatment

Platinum, thiamethoxam (insecticide)

Xyway, flutriafol (fungicide)

Quilt Xcel, azoxystrobin + propiconazole (fungicides)

Zironar, *Bacillus licheniformis*, plus

Bacillus subtilis (bionematicide and biofungicide).

Vantacor, Rynaxypyr (insecticide)

Plant cane, TRS, and sucrose yield for billet chemical seed treatment test at USDA Ardoyne Farm. The variety was HoCP 96-540 either planted as whole stalks (untreated) or 2 running billets either untreated or treated with the below chemicals.

Treatment	Tons cane per acre	lbs. sucrose per ton cane	lbs. sucrose per acre
Billets (untreated)	31.5	256	8,130
Whole stalks (untreated)	42.5	269	11,420
Xyway	35.3	279*	9,780
Xyway + Zironar	45.3*	274	12,430*
Xyway + Platinum	41.9	271	11,390
Xyway + Vantacor	37.8	277	10,450
Zironar	37.9	257	9,820
Zironar + Platinum	38.6	279*	10,720
Quilt Xcel + Platinum	52.1*	256	13,340*

***Means in a column with an asterisk are statistically greater (P<0.05) level when compared to the untreated billet treatment.**

2024 Test – USDA Farm

- Switched to L 01-299.
- Spray treatment, not dip treatment.
- Fungicides: Veltyma, Priaxor, Revylok, Quilt Xcel, Xyway
- Insecticides: Vantacor, Nurizma, Platinum

Date of Planting

- **Planted whole stalks and billets (non-treated).**
- **August, September, October.**
- **L 14-267, Ho 13-739, HoCP 14-885.**
- **No chemical seed treatment.**
- **Harvest with combine and weigh wagon for cane yields.**
- **Billet samples collected for sucrose determination.**

Plant cane and sucrose yield for L 14-267, Ho 13-739, and HoCP 14-885 planted as whole stalks or 24” billets in either August, September, or October 2022 at the USDA Ardoyne Farm.

		L 14-267	Ho 13-739	HoCP 14-885
Date of planting		---------- Tons cane per acre ----------		
August		44.3 abc*	40.5 abcd	31.4 d
September		38.6 bcd	36.1 cd	51.1 ab
October		48.0 abc	51.5 a	53.5 a
		---------- Pounds sucrose per acre ----------		
August		10,960 bcd*	10,010 cd	8,260 d
September		9,910 cd	9,490 cd	13,520 ab
October		11,660 abc	12,240 abc	14,820 a

*Means for tons or sucrose followed by the same letter are not statistically different at the P<0.05 level.

Date of Planting

- **Overall L 14-267 performed the same whenever it was planted.**
- **HoCP 14-885 yields increased when planting was delayed to at least September.**
- **Ho 13-739 yielded highest when planted in October.**
- **Early season – planting whole stalks, Later season – planting billets, may be a good hybrid strategy.**

Rate of Planting

- **Planted whole stalks (3), or 24” billets (3, 6, or 9).**
- **No chemical seed treatment.**
- **L 01-299 or Ho 12-615.**
- **Silt loam soil.**
- **Planted in 2020 and 2021 at USDA farm.**

Plant cane, TRS, and sucrose yield for L 01-299 and Ho 12-615 planted as whole stalks or 24" billets at the USDA Ardoyne Farm. Data are combined over plant-cane, first-stubble, and second-stubble harvested in 2021, 2022, and 2023, respectively. There was no variety effect.

Treatment	Tons cane per acre	lbs. sucrose per ton cane	lbs. sucrose per acre
3 whole stalks	34.8 a	196 a	6,810 a
3 billets	33.5 a	195 a	6,540 a
6 billets	36.7 a	197 a	7,210 a
9 billets	35.5 a	195 a	7,000 a

*Means in a column followed by the same letter are not statistically different at the P<0.05 level.

Potential Variety Trial

- **In 2023 we planted assignments from the 17, 18, 19, and 20 series along with commercial checks at the USDA Ardoyne Farm.**
- **20-501, 20-521, 20-527, 20-568, 17-738, 18-803, 19-947, along with HoCP 14-885 and L 01-299.**
- **3 stalks or 3 24” billet planting rate.**
- **Silt loam soil.**
- **To provide billet tolerance information on variety releases.**

Summary

- **Billet planting with modern varieties works well in Louisiana.**
- **Several varieties (299, 267, 739, 615, 885) appear to be tolerant of billet planting.**
- **Whole stalk yields almost always perform as well.**
- **Chemical seed treatment of billets works but often requires more than one chemistry.**
- **If planting billets, plant later (end Sept./early Oct.).**

Thank you!

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