SS-AGR-414
https://doi.org/10.32473/edis-sc103-2017

Sugarcane Cultivars Descriptive Fact Sheet: 'CPCL 97-2730' and 'CPCL 00-4111'[1]

Hardev Sandhu and Wayne Davidson[2]

'CPCL 97-2730' (Milligan et al. 2009) and 'CPCL 00-4111' (Glynn et al. 2011) were developed through the cooperative agreement among the United States Department of Agriculture (USDA) Sugarcane Field Station in Canal Point, the UF/IFAS Everglades Research and Education Center in Belle Glade, and the Florida Sugar Cane League in Clewiston. 'CPCL' indicates that the cultivars' crosses were made at the US Sugar Corporation in Clewiston (CL), and selection at different stages was carried through the cooperative breeding and selection program based at Canal Point (CP). 'CPCL 97-2730' and 'CPCL 00-4111' were ranked among the top 10 sugarcane cultivars in Florida in the 2018 Sugarcane Variety Census (VanWeelden et al. 2019) based on their total acreage. However, the acreage under these cultivars dropped in recent years due to disease concerns and both cultivars were dropped from the list of "Principal varieties" in 2024 sugarcane variety census (VanWeelden et al. 2024). This fact sheet provides basic information (Table 1) and yield and disease information (Table 2) about 'CPCL 97-2730' and 'CPCL 00-4111' to assist growers in decision-making related to further expansion of these cultivars.

Figure 1. 'CPCL 97-2730' at early growth in sandy soil. Credit: Wayne Davidson, Florida Sugar Cane League

Figure 2. 'CPCL 97-2730' stalks at late growth in sandy soil. Credit: Wayne Davidson, Florida Sugar Cane League

'CPCL 97-2730'

'CPCL 97-2730' was released for sand. It currently occupies 3,423 acres in Florida and most of this acreage (3,393 acres) is on sand soil. 'CPCL 97-2730' is resistant or moderately resistant to most of the sugarcane diseases (especially rust) in Florida, which is very important for its expansion to larger acreage.

Figure 3. 'CPCL 97-2730' bud.
Credit: Wayne Davidson, Florida Sugar Cane League

Figure 4. 'CPCL 97-2730' top with auricle.
Credit: Wayne Davidson, Florida Sugar Cane League

'CPCL 00-4111'

'CPCL 00-4111' was released for muck soil and is currently cultivated on 1,307 acres on muck soil. High tonnage and moderate resistance to brown rust (caused by *Puccinia melanocephala*) and orange rust (caused by *Puccinia kuehnii*) are positive qualities that may contribute to expansion of this cultivar's acreage. However, 'CPCL 00-4111' is also susceptible to smut and scald, which are of some concern for sugarcane cultivation on muck soils.

Figure 5. 'CPCL 00-4111' at late growth in muck soil.
Credit: Wayne Davidson, Florida Sugar Cane League

Figure 6. 'CPCL 00-4111' bud.
Credit: Wayne Davidson, Florida Sugar Cane League

Figure 7. 'CPCL 00-4111' top with auricles.
Credit: Wayne Davidson, Florida Sugar Cane League

Figure 8. 'CPCL 00-4111' stalk cross-section: stalk diameter compared to a quarter.
Credit: Wayne Davidson, Florida Sugar Cane League

References

Glynn, N. C., S. B. Milligan, R. A. Gilbert, R. W. Davidson, J. C. Comstock, B. Glaz, S. J. Edmé, et al. 2011. "Registration of 'CPCL 00-4111' sugarcane." *J. Plant Reg.* 5: 325–331.

Milligan, S. B., R. W. Davidson, S. J. Edmé, J. C. Comstock, C.-J. Hu, D. G. Holder, B. Glaz, N. C. Glynn, and R. A. Gilbert. 2009. "Registration of 'CPCL 97-2730' sugarcane." *J. Plant Reg.* 3: 158–164.

VanWeelden, M. T., C. Kammerer, W. Davidson, M. Baltazar and R. Rice. 2024. "Sugarcane variety census: Florida 2023". Sugar Journal. 87(2): 6–11.

Table 1. Basic information on CPCL 97-2730 and CPCL 00-4111.

Trait	'CPCL 97-2730'	'CPCL 00-4111'
Release Date	2008	2010
Soil Type	Sand	Muck
Parents	'CL 75-0853' x 'CL 88-4730'	'CL 83-3431' x 'CL 89-5189'
Freeze Tolerance	Good	Poor to moderate
Flowering	None to light beginning in late December	Generally none
Best Features	Resistance to brown rust, orange rust, and smut	High tonnage and moderate resistance to brown and orange rust
Limiting Features	Low stalk count and poor germination with late planting	Susceptible to ratoon stunting disease, smut, and leaf scald

Table 2. Yield parameters and disease ratings of CPCL 97-2730 and CPCL 00-4111.

Trait	'CPCL 97-2730' (yields are compared to CP 78-1628)	'CPCL 00-4111' (yields are compared to CP 89-2143)
Tons of Cane per Acre (TCA)	+8%	+16%
Commercially Recoverable Sucrose (CRS)	+3%	-1%
Tons of Sugar per Acre (TSA)	+10%	+14%
Economic Index[1]	+16%	+16%
Fiber	9.5%	11.2%
Brown Rust	R	MR
Bru1[2]	Present	Absent
Orange Rust	MR	MR
Leaf Scald	MR	S
Smut	R	S
SCMV[3]	R	R
RSD[4]	Not tested	S
SCYLV[5]	S	S

[1] Economic index is the dollar value of crop on per acre basis. It is calculated based on sugar yield, price of raw sugar, and harvesting and milling costs.

[2] *Bru1* is the name of the gene that provides resistance against brown rust disease.

[3] SCMV stands for Sugarcane Mosaic Virus, which causes sugarcane mosaic disease.

[4] RSD stands for ratoon stunting disease.

[5] SCYLV stands for Sugarcane Yellow Leaf Virus, which causes yellow leaf disease.

Disease ratings: R=Resistant; MR=Moderately resistant; MS=Moderately susceptible; S=Susceptible

[1] This document is SS-AGR-414, one of a series of the Department of Agronomy, UF/IFAS Extension. Original publication date May 2017. Revised July 2020 and January 2025. Visit the EDIS website at https://edis.ifas.ufl.edu for the currently supported version of this publication.

[2] Hardev Sandhu, professor, Department of Agronomy, UF/IFAS Everglades Research and Education Center; Wayne Davidson, senior agronomist, Florida Sugar Cane League, Inc., Clewiston, FL; UF/IFAS Extension, Gainesville, FL 32611.