

# Sugarcane Cultivars Descriptive Fact Sheet: CPCL 97-2730 and CPCL 00-4111<sup>1</sup>

Hardev Sandhu and Wayne Davidson<sup>2</sup>

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). Both are emerging sugarcane cultivars in Florida with rapid expansion in last couple of years. CPCL 97-2730 and CPCL 00-4111 were ranked among the top 10 sugarcane cultivars in Florida in the 2015 Sugarcane Variety Census (VanWeelden et al. 2016) based on their total acreage. High biomass yield and better rust resistance greatly improve the chances of the cultivars’ adoption by growers. 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.

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

## CPCL 97-2730

CPCL 97-2730 is ranked ninth based on its total acreage in Florida (VanWeelden et al. 2016). CPCL 97-2730 was released for sand. It currently occupies 7.6% of the total sugarcane area on sandy soil (88,206 acres). It is also planted on approximately 1% of total sugarcane area on muck soil (312,345 acres). 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.

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

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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 <sup>1</sup>	+16%	+16%
Fiber	9.5%	11.2%
Brown Rust	R	MR
<i>Bru1</i> <sup>2</sup>	Present	Absent
Orange Rust	MR	MR
Leaf Scald	MR	S
Smut	R	S
SCMV <sup>3</sup>	R	R
RSD <sup>4</sup>	Not tested	S
SCYLV <sup>5</sup>	S	S

<sup>1</sup> 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.

<sup>2</sup> *Bru1* is the name of the gene that provides resistance against brown rust disease.

<sup>3</sup> SCMV stands for Sugarcane Mosaic Virus, which causes sugarcane mosaic disease.

<sup>4</sup> RSD stands for ratoon stunting disease.

<sup>5</sup> SCYLV stands for Sugarcane Yellow Leaf Virus, which causes yellow leaf disease.

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



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



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



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



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

## CPCL 00-4111

CPCL 00-4111 is ranked tenth based on its total acreage in Florida. It was released for muck soil and is currently cultivated on approximately 3% of total sugarcane area on muck soil and less than 1% on sandy soil. High tonnage and moderate resistance to brown rust (caused by *Puccinia melanocephala*) and orange rust (caused by *Puccinia kuehni*) 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.  
Credits: Wayne Davidson, Florida Sugar Cane League



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



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



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

## References

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