

Determination of adoption of sugarcane varieties for the 2014-15 harvest season in the Pantaleón-Concepción Corporation, Guatemala by using a variety transfer management model.

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INTRODUCTION

The Sugarcane Breeding and Development Program of CENGICAÑA aim is to ***increase economic gains and crop sustainability*** by releasing new high yielding varieties in the sugarcane growing area of Guatemala.

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INTRODUCTION

Currently the program has released several varieties for commercial use that meet agreed performance specifications for key production.

CG98-10	**(PR87-2078 x PR87-2073)**
CG98-78	**(TUC68-19 x CP57-603)**
CG98-46	**(CP56-59 x CP57-603)**
CG00-102	**(CP63-588 x Co421/CP72-2086)**
CG00-033	**(CG95-125 x CP81-1384)**
CG01-53	**(SP71-6180 x CP88-1508)**
CG01-87	**(Ja64-19 x CP81-1384)**
CG02-064	**(CGCP95-53 x CP57-603)**
CG02-163	**(CP65-357 x CP72-2086)**



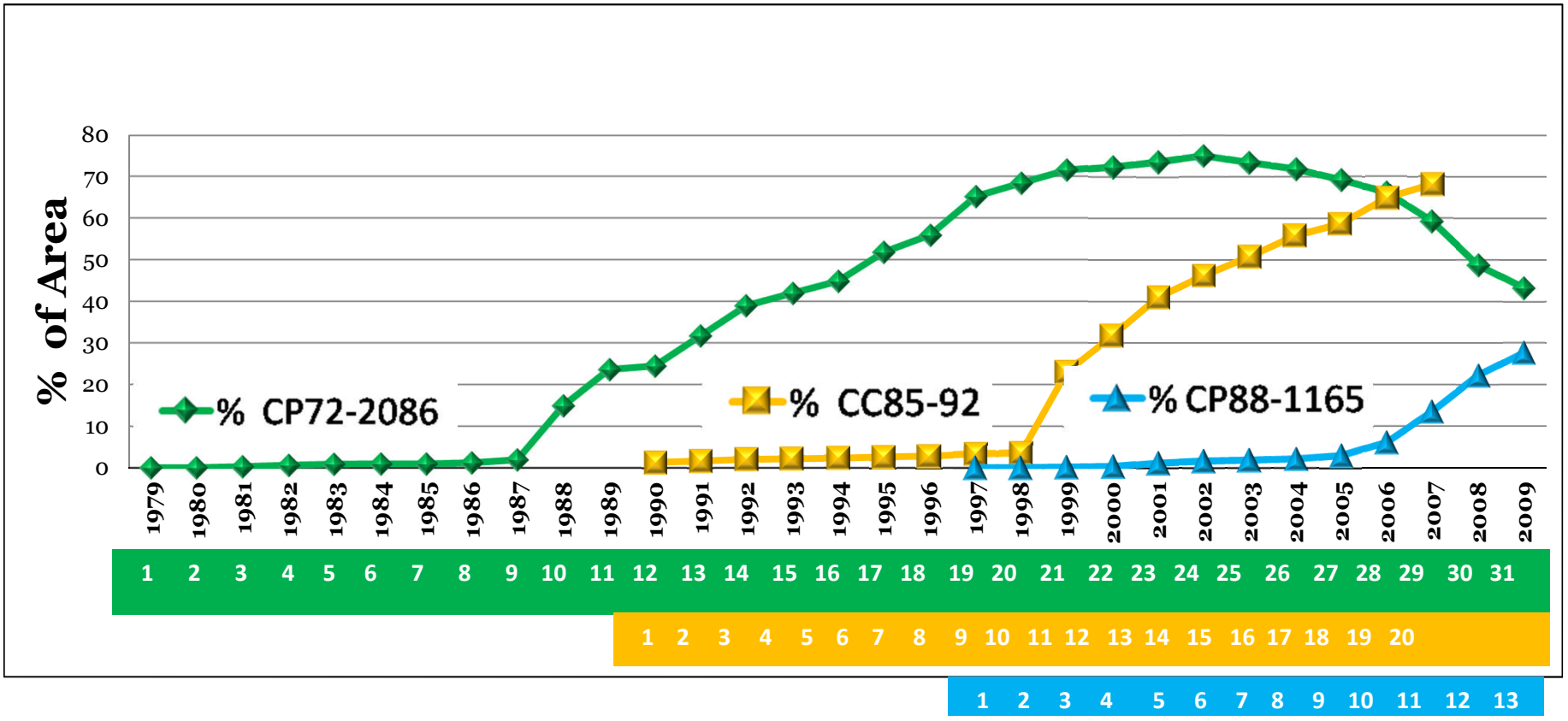






INTRODUCTION

However; the **widespread problem of slow adoption is a critical issue that adversely affects the opportunities to generate economic gains and may reduce the useful life of a variety released** (Burnquist, 2010).



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OBJECTIVE

The objective of this study is ***to determine the adoption rates of recommended varieties*** for the 2014-15 harvest season in the Pantaleón-Concepción sugar mill corporation by using a sugarcane variety transfer management model.

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CONCEPTS AND METHODOLOGY

- The sugarcane variety transfer management model is the ***strategy to speed up the transfer of knowledge*** in each of the varieties released to the decision makers of the CENGICAÑA´s associated mills**.**

- ***The model is based on the innovation perspective*** concept based on the fact that the industry has new and highest sugar yield and disease resistant varieties.

- The model phylosophy is to establish the ***best strategic combination*** between available sugarcane varieties and the actual soil, weather and management of land to be planted.

METHODOLOGY

- The model is a ***decisión making process*** thus aplication is after discussions on each farm or field have taken place.

- The participants as a group manager of the model are researchers from CENGICAÑA and sugarmills staff members and ***its philosophy as a group is to be responsible for success or failure of results.***



METHODOLOGY

What are the expectations from the model?

- ***Technical and production criteria unification*** for each particular sugarcane variety, based on knowledge from the group manager.

- Sugarcane variety recommendations based on the strategical decision of planting them ***in a proportional way and with projection in the short and midterm.***

- ***Avoid the overgrowht*** of one particular variety and ***not growing a variety*** with the potential to increase economic gains.

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METHODOLOGY

- The model has two components: ***planning and following up*** **of recommended varieties.**

- ***Adoption rates*** as result of planning are determined by analyzing the databases that contains the ***recommended variety and the planted variety*** per each field according to the model.

- ***Adoption rates in this study are expressed as performance indicators*** (relationship between the recommended and the planted variety in a field) and the percentage of planted area with the recommended variety in the model.

RESULTS

Sugarcane Variety Plans 2012-13 and 2013-14:

- Differences in varieties and proportion of varieties.
- CP72-2086 shows the sharpest change toward a decrease from 49.2 to 37 % while the rest of varieties mainly CG98-78 and others CG has been increased.
- Differences are the result of following up of sugar yield of recommended varieties.

Variety	Sugarcane variety plans			
	2012-13		2013-14	
	Area (ha)	%	Area (ha)	%
CP72-2086	5,124	49.2	3,853	37.0
CP73-1547	1,581	15.2	1,440	13.8
CG98-78	1,191	11.4	1,633	15.7
CP88-1165	846	8.1	781	7.5
Mex79-431	453	4.4	425	4.1
SP79-1287	445	4.3	233	2.2
RB84-5210	254	2.4	152	1.5
CP72-1312	130	1.3	125	1.2
CG00-033	120	1.2	243	2.3
Others CG	100	1.0	1,141	11.0
Others	174	1.7	392	3.8
Total area (ha)	10,418	100.0	10,418	100.0

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RESULTS

Adoption rates of recommended varieties for 2014-15 harvest season:

- **Adoption rates based on 10,418 ha (20 % from the total area of Pantaleón-Concepción sugar mills).**
- **Adoption rates are high and reaching 100 % or even more.**
- **These results suggest that the Model is effective as sugarcane variety strategic planning thus to speeding out adoption.**

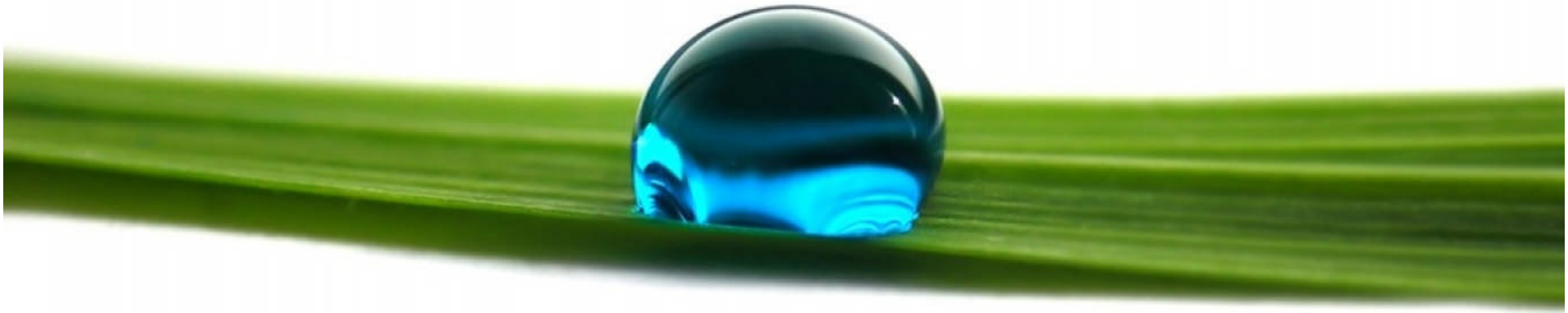
Variety	Sugarcane variety plan 2012-13	Sugarcane variety planted 2014-15	Adoption rate	
	Area (ha)	Area (ha)	Performance indicator	Percentage of variety
CP72-2086	5,124	4,998	98	48.0
CP73-1547	1,581	1,555	98	14.9
CG98-78	1,191	1,248	105	12.0
CP88-1165	846	884	105	8.5
Mex79-431	453	366	81	3.5
SP79-1287	445	404	91	3.9
RB84-5210	254	283	111	2.7
CP72-1312	130	130	100	1.3
CG00-033	120	199	166	1.9
Others CG	100	185	186	1.8
Others	174	165	95	1.6
Total area (ha)	10,418	10,418		100

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CONCLUSION

The adoption rates and percentage of area of recommended varieties for the 2014-15 harvest season in the Pantaleón-Concepción sugar mills are high which indicates that the ***sugarcane variety transfer management model was an effective tool for speeding out adoption on new sugarcane varieties.***

Thank



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