

SUGAR CANE

Increased yield in organic farming

ILSA

TEC

BIO

ILSA



PLACE

Test location:	Ingenio La Cabaña, Cali - Valle del Cauca
Person in charge:	NutriPacific s.a.s.
Number of thesis:	2
Type of cultivation:	Open field
Period:	Soil application + Foliar application
Variety:	01/10/2020 - 16/11/2021
Tested products:	FERTIL, ILSAMIN N90

OBJECTIVE

To evaluate the efficacy of Fertil and Ilsamin N90 on increasing the yield of organically grown sugar cane.



TROPICAL CROPS



RESULTS ACHIEVED

In an important Colombian company, producer of organic sugar cane, a trial field was carried out with Fertil and Ilsamin N90, integrated into the nutritional strategy based mainly on the use of soil improvers. In fact, many organic sugar cane companies use large quantities of compost or by-products of processing (cachaza) to meet the nitrogen needs of the crop. Despite the low unit cost of these products, the high quantities to be applied per hectare, combined with the costs for the application and the chemical-physical characteristics of the products themselves, leave room for alternatives that improve fertilisation efficiency. For this reason, Fertil was applied together with a smaller amount of compost, in order to prove its efficacy in the field and the convenience of application. Ilsamin N90 was applied twice by foliar application at the time of main crop development, during the vegetative stage. The results proved the validity of the alternative solution with **ILSA** products. Due to an error at harvest time, it was not possible to distinguish the yields of the two different fields, so the company's technicians made a comparison with the yields of previous years. In recent years, yields per hectare tended to decrease, whereas in 2021 (with half of the field managed according to the **ILSA**) alternative, there was a clear increase, equal to +58% compared to 2020 and +54% compared to 2019.

TEST PROTOCOL

	ILSA thesis	Company thesis
20 days after transplanting (01/10/2020)	Fertil: 400 kg/ha Compost*: 10,000 kg/ha	Compost: 15,000 kg/ha
3rd month after transplanting (10/12/2020)	Ilsamin N90: 3 kg/ha	Liquid fertiliser 3% N: 3 kg/ha
6th month after transplanting (10/03/2021)	Ilsamin N90: 3 kg/ha	/
Units/ha	N = 143.54 P ₂ O ₅ = 291 K ₂ O = 49	N = 139.5 P ₂ O ₅ = 436.5 K ₂ O = 73.5

The other treatments, fertilisation and plant protection, were similar for both thesis, as per company practice.

* Compost: soil improver containing 10.7% organic carbon, 0.93% organic nitrogen, 2.91% P₂O₅, 0.49% K₂O, 5.35% CaO, 1.24% MgO + micro-elements. Humidity: 20.9%, Conductivity: 2.71 dS/m.

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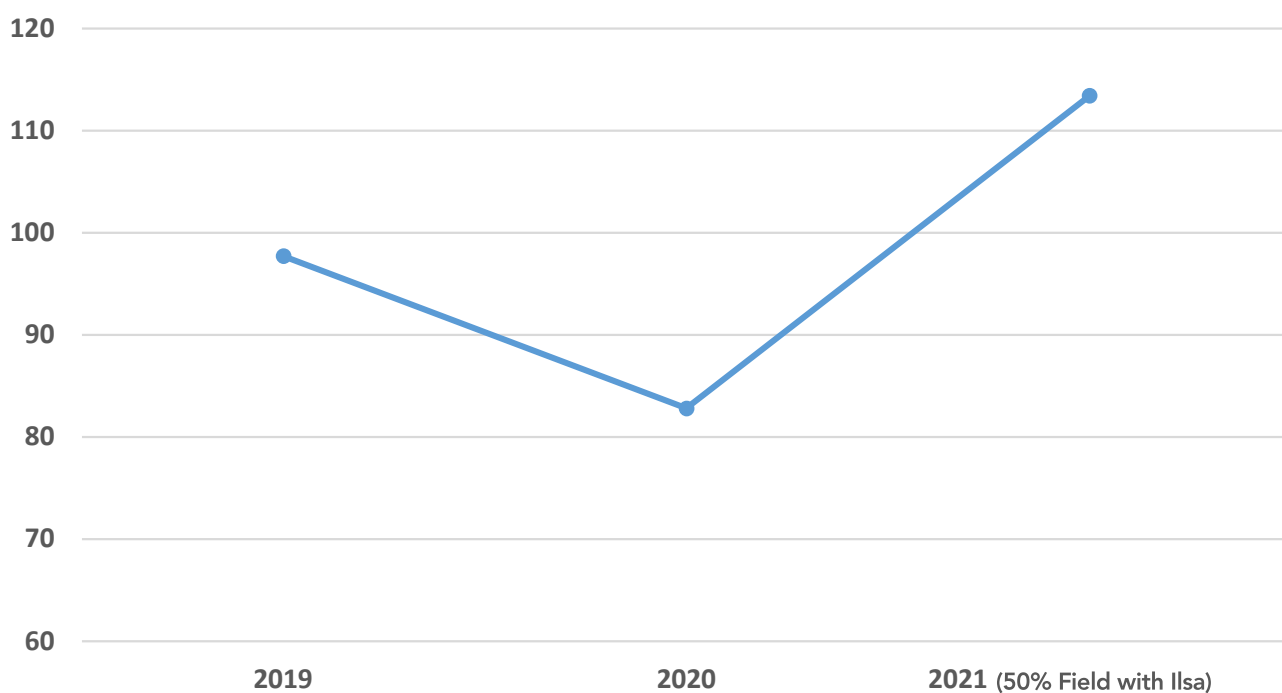


Due to an error at harvest time, the test field was harvested without distinguishing the thesis. However, it is possible to extract the positive result of the **ILSA** thesis by comparing the total yield and the monthly yield (generally more used by Ingenio technicians) of 2021 with the yields of the previous years.

RESULTS ACHIEVED

YEAR	Total yield (t/ha)	Monthly yield (t/ha/month)
2019	97.7	8.14
2020	82.8	6.9
2021 (50% ILSA sample field)	113.4	9.45

Total yield (t/ha)



TROPICAL CROPS



Overview of the test field on sugar cane.