YIELD AND PROTEIN PERCENTAGE IN COWPEA CULTIVARS HARVESTED IN PINAR DEL RÍO, CUBA

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INTRODUCTION

Grain legumes with high human consumption demand are frequently affected by biotic and abiotic factors limiting their yield and grain quality. Thus, finding resilient cultivars of grain legumes that face these challenges imposed by climate change in tropical regions is a priority for Cuba's agriculture.

In this context, in Cuba, cowpea [*Vigna unguiculata* (L.) Walp.] is an alternative for grain production due to its acceptable tolerance to abiotic stress conditions. Furthermore, its productive potential in low-input agroecosystems and its high nutritional quality (in terms of proteins, vitamins and minerals) make it an interesting crop for research.

AIM**:** Evaluate the yield and protein percentage in cowpea cultivars harvested in Pinar del Río, Cuba.

METHODOLOGY

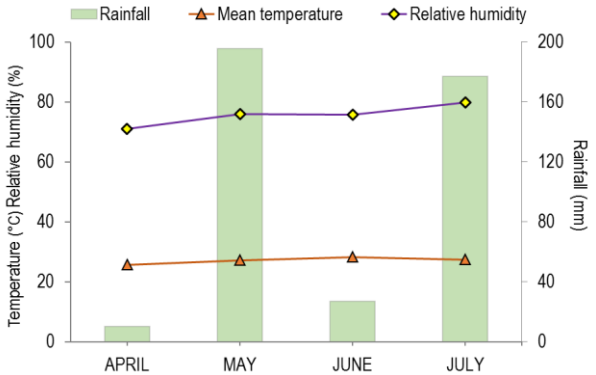
Cultivation: Pinar del Río (Cuba), locality "San Juan y Martínez"

Tobacco agroecosystem (22° 18' N 83° 47' W)

Cowpea cultivars:

INIFAT 93, INIFAT 94, IPA 206 y TITÁN

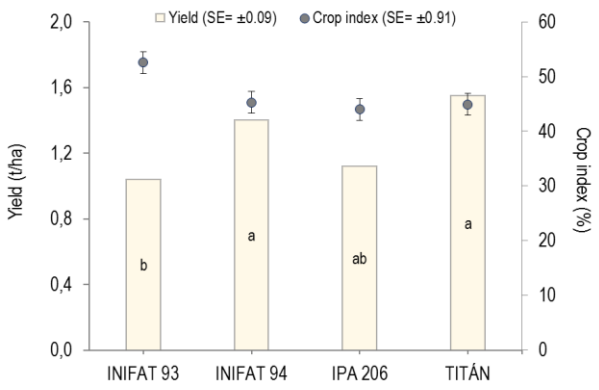
Soil: Yellowish Ferralitic (Hernández et al., 2015)



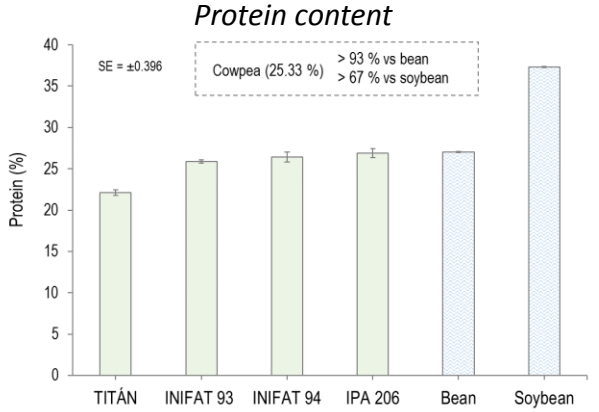
Protein analysis: Kjeldahl method (AOAC, 2005); reference crops common vean (*Phaseolus vulgaris*) and soybean (*Glycine max*).

RESULTS

Yield and Crop index



Protein content



CONCLUSIONS

Greater biological productivity and yield were obtained in the INIFAT 94 and TITAN cultivars which exceeded the production of INIFAT 93 by >32%. The latter reached a harvest index of over 50%.

Protein percentage in cowpea cultivars had values between 22.1% and 26.9%, representing on average more than 93% and 67% of the content found in common bean and soybean, respectively.

The results suggest that cowpea may be considered an optimum alternative to grain production for crop rotation in tobacco agroecosystems of Pinar del Río.