

Does Chochos (L. Mutabilis) Production Have the Potential to Increase Farm Revenues and Contribute to Food Security if It Replaces Soybean or Maize Production in Ecuador?

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Chochos (*L. mutabilis*) production does not satisfy Ecuador's demand. Therefore, this paper intends to find if chochos production have the potential to increase farmers revenue and contribute to food security if it replaces maize and soybeans, while assuming three scenarios for chochos production that influence farmers revenue. If so, how would it affect the land use change in terms of food security? A gross margin calculation with three scenarios - current, double and triple revenue - for chochos was compared with maize and soybeans gross margin. Then, a land use analysis throughout yields, crude protein and energy differences. Finally, a narrative literature review to highlight cost-benefits and barriers for chochos. As a result, the current revenue for chochos and if it doubles, demonstrates there would be less income for farmers. However, if revenue triples, farmers would earn more money and contribute towards food security if replacing maize. In contrast, if replacing soybeans, food security is not improved since yield performance for this crop is better than chochos. Even though, chochos would not produce more protein or energy than soybeans in the near future, research has shown that the negative aspects of soybeans such as GM seeds, could give a reason for chochos to become a better alternative for the future. Nonetheless, if monetary and agricultural barriers are not overcome, chochos will not increase their yield performance and farmers will not acquire enough interest to replace influential crops.