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Introduction

Today Mexico coffee production receives an important boost at the initiative mainly of private companies. Currently, national production exceeds 3.5 million quintals and it is estimated that before reaching the year 2030, Mexico will be placed together with Brazil, Colombia and Honduras as the countries with the highest production in America.

The state of Chiapas is the main producer and contributes approximately 40% of the total Mexican volume followed by the states of Veracruz with 30% and Oaxaca with 13%. The agro-ecological conditions offered by the extreme south of Mexico are suitable for coffee production, however, like Central America, production is constantly threatened by pests, diseases and extreme weather conditions. After the crisis caused by the impact of coffee rust in Mexico and Central America, the Rogers Family Company founded a breeding program with the aim of creating F1 hybrids with the best varieties adapted to this terroir.

Materials/Methods

In Tapachula, Chiapas since 2021 year were crossed Geisha, Pacamara, Venecia and Centroamericano as a female genitor with Ruiru 11, ANACAFE 14, Icatu, Centroamericano and Mundo Maya as a male genitor. The objective is obtain new F1 hybrids families to initiate the individual evaluation and select finally the best according to their agronomic performance.



Results/Discussion

In the preliminary results, are some F1 hybrids families with greater productive potential, precocity and clear tolerance to coffee leaf rust, compared to the genitors planted in the same field also during this crop 2022-2023 was possible to collect field data and evidence the growth vegetative development, pests and diseases incidence, and cup quality with the first fruit harvest. The Pacamara x Ruiru 11, Pacamara x ANACAFE 14 and Geisha x Centroamericano are the first three population with outstanding results.

Figure 1. Coffee arabica F1 hybrids plot. Tapachula, Mexico.

Conclusion/Perspectives

The creation of new F1 hybrids will add more genetics resources, increase variability and offer to the international scenario the best genotypes to a sustainable coffee activity initiated by Mexico farmers.