

**Title** Capsaicinoids in hot Habanero peppers (*Capsicum chinense* Jaq.), collect in Yucatan, Mexico

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### **Abstract**

The state of Yucatan has the largest native hot Habanero pepper diversification in Mexico. Pungency is the heat sensation of hot peppers due to alkaloids such as capsaicinoids, which are influenced by genotype, culture practices and the environment; also, this factor is important in the food processing industry. About 90% of the pungency in hot peppers is due to capsaicin and dihydrocapsaicin content. The techniques that use HPLC provide the exact content and type of capsaicinoids present. The objective of this study was to quantify the capsaicinoids content among several collected native varieties and experimental lines from Yucatan, Mexico. A modified technique was used to analyze that concentrate in a Hewlett Packard HPLC, with a detector of diodes. The results showed the content of capsainoids in 26 improved Habanero pepper lines and nine native experimental lines. The range varied between 60,000 and 230,000 Scoville Heat Units (SHU). (17% from 60,000 to 109,000 SHU; 50% from 110,000 to 159,000 SHU, and 33% with 230,000 SHU maximum). The variation in the amount might be due to different environmental factors, such as the time of harvest as well as the variety. The great variability of hot Habanero pepper genotypes offers the opportunity to use them as raw material and the food industry, and for pharmaceutical purposes.