The World Stevia Organization would like to share this paper by Maria Margarida Ribeiro & al on the

Development of screening methods for functional characterization of UGTs from Stevia rebaudiana.



Stevia rebaudiana Bertoni is an herbaceous perennial plant native to Paraguay, and is considered since ancient times a medicinal plant with important bioactive compounds and pharmacologic and food properties, namely diterpenes glycosides. The high natural sweetener potential stevioside and rebaudioside A produced by S. rebaudiana plants are suitable sucrose substitutes, and their obtention is influenced by environmental, phytosociological, and genetic factors.

In this study, many S. rebaudiana accessions grown in the same plot were genotyped using six

microsatellite markers, including two steviol glycosides biosynthesis functionally involved markers. Additionally,

an aqueous extract of each sample was obtained in a water bath and purified by SPE for stevioside and rebaudioside A quantification by normal phase HPLC.

The results showed that two groups of individuals had the same fingerprinting. Strong relatedness was found within genotypes, possibly due to cloning, thus, influx of new germplasm ought to be made to prevent mating between relatives, and for further selection and genetic improvement.

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