

# Anthocyanin profiling of wild maqui berries (*Aristotelia chilensis* [Mol.] Stuntz) from different geographical regions in Chile

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**BACKGROUND:** Maqui (*Aristotelia chilensis*) is a Chilean species which produces small berries that are collected from the wild. Anthocyanins, because of their health benefits, are the major focus of interest in maqui fruit. For this study, we examined anthocyanin and phenolic content of maqui fruits from individuals that belonged to four geographical areas in Chile, and used DNA marker analysis to examine the genetic variability of maqui populations that had distinctly different fruit anthocyanin content. **RESULTS:** Twelve primers generated a total of 145 polymorphic inter simple sequence repeat-polymerase chain reaction (ISSR-PCR) bands. ISSR-PCR showed different banding patterns for the individuals evaluated, confirming that maqui populations belonged to different genotypes. Maqui fruit from four different geographical regions during two consecutive growing seasons showed high total anthocyanin (6.6-15.0g cy-3-glu kg<sup>-1</sup> fresh weight (FW)) and phenolic (10.7-20.5g GAE kg<sup>-1</sup> FW) contents and