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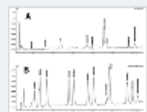


Table 3.

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Acknowledgements



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Analytical Methods

Isoflavone determination in spontaneous legumes identified by DNA barcodes

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Abstract

Isoflavones have been associated with several health protective effects. In this work spontaneous legume plants were screened as putative sources of dietary isoflavones. A molecular identification of the collected species was performed throughout DNA barcoding using *ITS*, *rbcL*, *rpoC1* and *matK* sequences. The use of a multi-locus barcoding system complemented with basic morphological information allowed the unequivocal identification at the species level of 90% of the samples. The determination of isoflavone content was performed by high-performance liquid chromatography with diode-array detection. Total average contents in the studied species were significantly different, *Ononis natrix* and *Cytisus scoparius* possessing the highest total isoflavones content (396 and 273 mg kg⁻¹, respectively) and *Lotus creticus*, the lowest (20 mg kg⁻¹). The correlation of total isoflavone content with the phylogeny of this set of plants as determined by the *rpoC1* sequences was evaluated for the first time.

Highlights

► Spontaneous legume plants were screened as potential sources of dietary isoflavones. ► A DNA

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