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## Biochemical characterization of different cactus pear accessions (*Opuntia* spp.) from different regions of Morocco

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The cactus pear genus (*Opuntia*) plays important socio-economic and agricultural roles in Morocco. Indeed, it is used for nutritional, agro-industrial, cosmetic and therapeutic purposes. Nevertheless, the biochemical characterization of Moroccan *Opuntia* accessions has never been investigated. In the present study, 126 *Opuntia* accessions belonging to different species were collected from different regions of Morocco. Subsequently, we studied some biochemical characteristics of the cladode such as total proteins (using the method of Kjeldahl), total sugars and ash contents (by incineration). Our results showed that the total proteins content varied from 4.38 to 14.37% within *O. ficus indica* (86 accessions), 4.99 to 14.18% within *O. megacantha* (38 accessions); 5.78 to 14.37% within *O. leucotricha* (4 accessions) and was 9.1% and 7.53% in *O. aequatorialis* and *O. dillenii*, respectively. Concerning total sugars content, we observed 4.75% in *O. robusta*; 8.7% in *O. inermis*; 3.22% in *O. aequatorialis*; 5.39 % in *O. dillenii*; 2.58-14.5% in *O. ficus indica*; 3.14-11.85% in *O. megacantha*, and finally 3.55-12.51% in *O. leucotricha*. The ash content varied among and within species, and ranged from 10.59 to 24.11% in *O. ficus indica*; 13.69 to 20.89 % in *O. Leucotricha* and from 12.05 to 23.11% within *O. megacantha* accessions, while we observed an ash content of 14.17%, 18.73%, 16.95% and 16.48% in *O. dillenii*, *O. aequatorialis*, *O. robusta* and *O. inermis*, respectively. As a conclusion, we observed high variability of the measured biochemical traits among and within different Moroccan *Opuntia* species, confirming therefore the various possibilities of their use as a human food and/or as animal fodder.

### Biography

Youssef El Kharrassi is a PhD Student, and he is doing a thesis in cotuelle between the University of Burgundy Faculty of Gabriel Sciences Dijon France and Hassan 1st University Faculty of Science and Technology of Settat Morocco. He is also a Researcher at the National Institute of Agronomic Research Settat Morocco. He has published more than 3 papers in reputed journals.

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