



Impact of traditional and innovative technologies on Characteristics and bioactive compounds of *Opuntia macrorhiza* juice

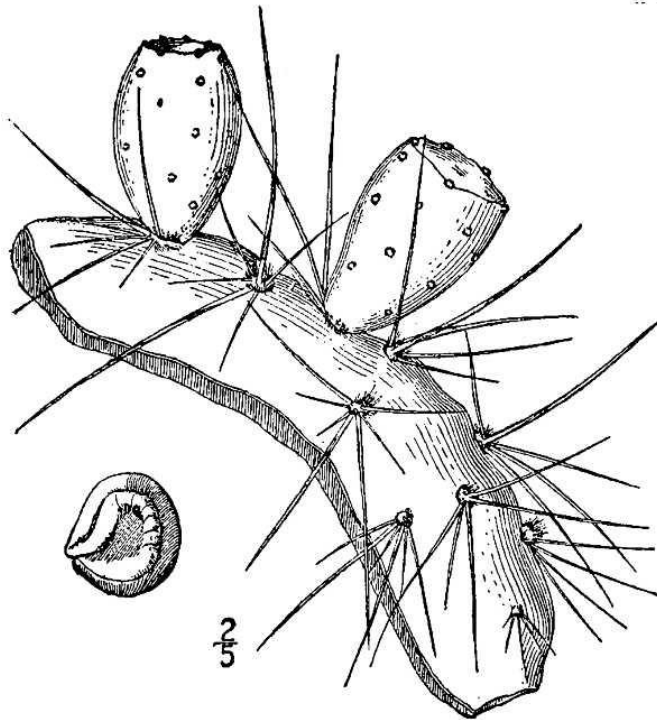
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Opuntia macrorhiza (Twist-spine cactus pear)

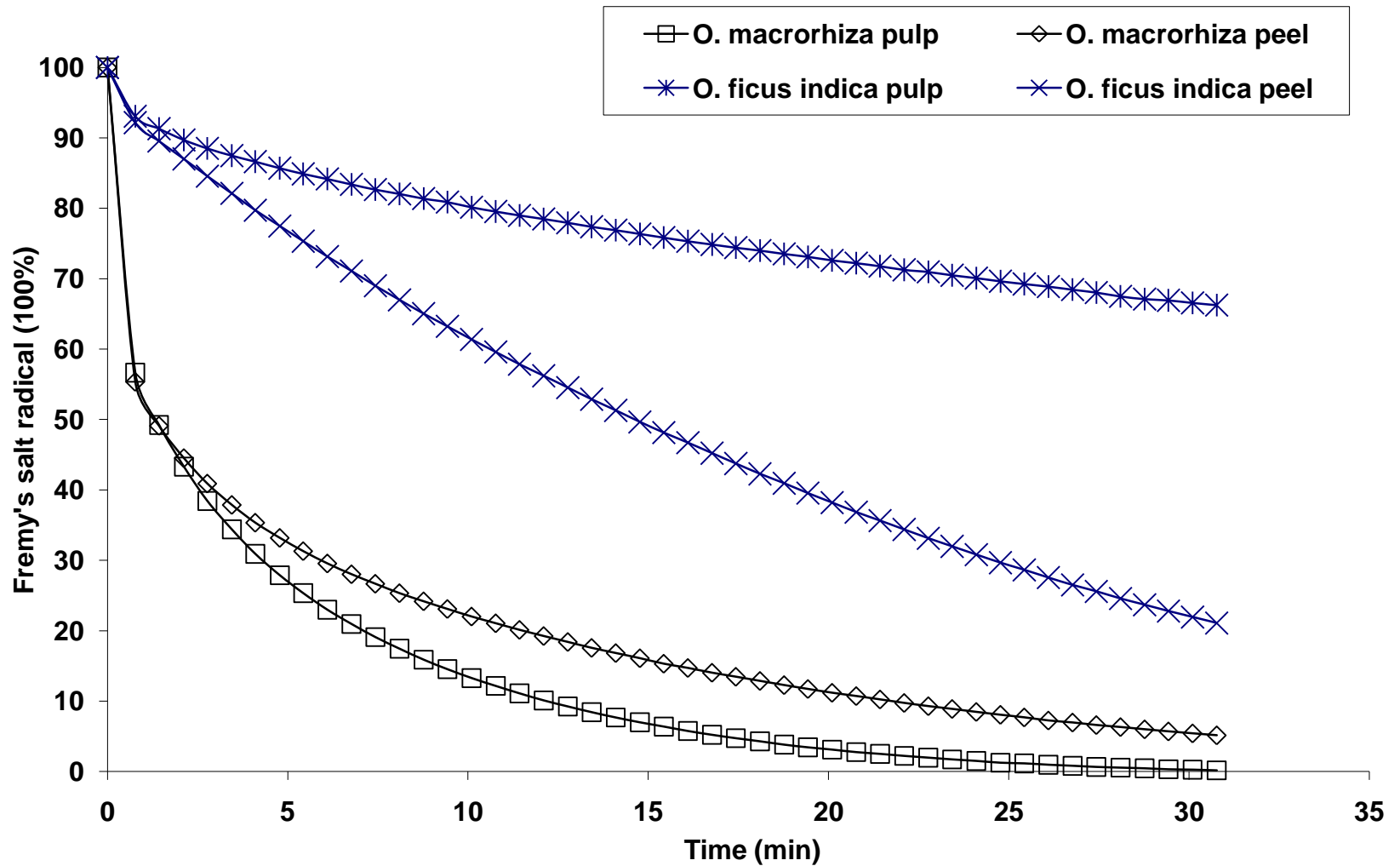


Some characteristics of *O. ficus indica* and *O. macrorhiza*



	<i>O. ficus indica</i>	<i>O. macrorhiza</i>
season	Jul.-Aug. Oct.-Nov.	Nov.-Dec.
length (mm)	100-120	20-50
width (mm)	50-60	15-30
peel %	40-45	55-60
pulp %	40-50	35-40
moisture %	86-88	83-85
pH	6.0-6.2	3.6-3.8
TSS (°Brix)	11.5-13.5	10-10.5

Antioxidant activity of *O. macrorhiza* & *O. ficus indica* (ESR spectroscopy)



Problems & Aims

To turn focus towards the other promising species of *Opuntia*.

To introduce new species and cultivars for sustainable development in poor regions (arid and semi arid lands).

To produce cactus pear juice from *O. macrorhiza* fruits with high yield and bioactivity.

To evaluate effects of innovative non-thermal cell disintegration (PEF) on yield and bioactive compounds of *Opuntia* juices.

Materials and Methods

