

Expanding sustainable iron sources: analysis of the mineral in Non-Conventional Food Plants

V. M. NAKAJIMA¹; I. S. P. SILVA², J. P. F. PEREIRA³, P. P. R. MOURA⁴, M. V. MARTINS¹, R. A. SOUSA⁵

¹Professor, Nutrition Department, Biological Science Institute, Federal University of Juiz de Fora

²Student, Nutrition Department, Biological Science Institute, Federal University of Juiz de Fora

³Research assistant, Nutrition Department, Biological Science Institute, Federal University of Juiz de Fora

⁴Student, Chemistry Department, Sciences Exact Institute, Federal University of Juiz de Fora

⁵Professor, Chemistry Department, Sciences Exact Institute, Federal University of Juiz de Fora

*E-mail: vania_nakajima@ufjf.br

INTRODUCTION & AIM

Alternative plant sources of iron



Non-Conventional Food Plants

METHOD



Amaranthus viridis
Caruru



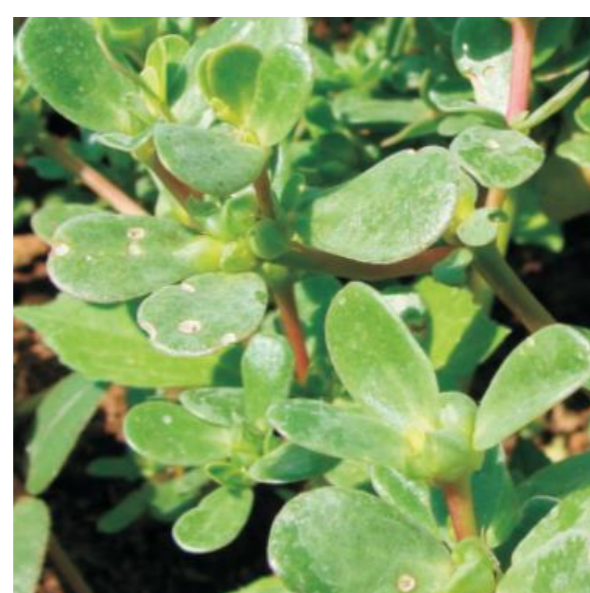
Anredera cordifolia
Bertalha-coração



Lactuca canadensis
Almeirão-de-árvore



Pereskia aculeata
Ora-pro-nóbis



Portulaca oleracea
Beldroega



Stachys byzantina
Peixinho-da-horta

Flour

Oven at 70 °C
for
approximately
70 hours

Iron

Flame Atomic
Absorption
Spectrometry

Phytate

Spectrophotometer
at 517 nm

RESULTS & DISCUSSION

NCFP	Iron		Ratio
	(mg/100g)	Phytate	
<i>Amaranthus viridis</i>	14,7 ± 17,01	0,86	17,09
<i>Anredera cordifolia</i>	19,2 ± 2,08	1,07	17,94
<i>Lactuca canadensis</i>	3,0 ± 2,65	1,45	2,07
<i>Pereskia aculeata</i>	7,0 ± 8,02	0,65	10,77
<i>Portulaca oleracea</i>	20,7 ± 4,00	1,17	17,7
<i>Stachys byzantina</i>	72,6 ± 22,94	1,41	51,49

Flours with the best possible bioavailability, assessed by the iron:phytate ratio, were *S. byzantine* and *A. cordifolia*.

High iron content compared to traditionally consumed vegetable sources, as kale (0.5mg/100g) and broccoli (0.6mg/100g).

10% of a simple cookie recipe, it can already provide in one serving size enough iron to be considered a source of the mineral (at least 1.8mg of iron per serving size)

CONCLUSION

S. byzantine flour stood out in terms of higher iron and iron:phytate ratio, being a potential iron source, providing an alternative to complement the nutritional needs of the population.

FUTURE WORK / REFERENCES

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