

# Anti-nutritional factors and mineral content of different oat (*Avena sativa* L.) varieties

Bhawna Mehta and Sudesh Jood

Five oat varieties namely HJ-8, HFO-114, OS-6, OS-346 and KENT were examined for their antinutritional factors and total and available minerals. The results showed that anti-nutritional factors like phytic acid and polyphenols were found highest (137.33 and 231.80 mg/100g) in OS-6 variety and lowest (112.80 and 203.60 mg/100g) in OS-346 variety. OS-346 variety contained significantly higher calcium, phosphorus, magnesium, iron and zinc content as compared to other four varieties. *In vitro* availability of calcium of different oat varieties varied from 42.80 to 49.16 per cent, respectively, the highest (49.16%) being observed for OS-346 variety and the lowest (42.80%) in OS-6 variety. *In vitro* availability of iron was also found maximum in OS-346 variety. Among the five oat varieties, OS-6 variety exhibited minimum (30.96%) *in vitro* availability of iron and OS-346 variety showed maximum (40.70%) *in vitro* availability of iron. *In vitro* availability of zinc varied from 31.56 to 35.82 per cent, with variety OS-6 had lowest (31.56%) and variety OS-346 exhibited highest (35.82%) *in vitro* availability of zinc. On the whole, it was concluded that the OS-346 variety was found superior than other four oat varieties used in this study.

**Key Words :** Oat varieties, Total and available minerals, Anti-nutritional factors

**How to cite this article :** Mehta, Bhawna and Jood, Sudesh (2018). Anti-nutritional factors and mineral content of different oat (*Avena sativa* L.) varieties. *Food Sci. Res. J.*, 9(1): 117-120, DOI : 10.15740/HAS/FSRJ/9.1/117-120.

---

MEMBERS OF RESEARCH FORUM

Author for correspondence :

**Bhawna Mehta**, Department of Foods and Nutrition, College of Home Science, C.C.S. Haryana Agriculture University, Hisar (Haryana) India  
(Email : [bhawna.mehtaa2013@gmail.com](mailto:bhawna.mehtaa2013@gmail.com))

Associate Authors' :

**Sudesh Jood**, Department of Foods and Nutrition, College of Home Science, C.C.S. Haryana Agriculture University, Hisar (Haryana) India