Evaluating macro- and micro-mineral contents and agronomic traits of Turkish oat landraces

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Summary:
The cultivated oat (*Avena sativa* L. and *A. byzantina* Coch.) is an important annual cereal and forage plant. A large collection of historical oat landraces gathered from different diversity centers is maintained in various seed banks. A historical oat collection consisting of 174 Turkish landraces was evaluated for agronomic performance and mineral nutrient content.

The most important finding of the study was that the landraces manifested a wide range of variation in all agronomic traits, and that some historical landraces outperformed the check cultivars.

The top ten landraces for yield and mineral content were identified based on each year's performance, as well as on the 3-yr average.

The landrace TL69/PI411401 was found to be prominent for high calcium (Ca), magnesium (Mg), phosphorus (P), boron (B), and zinc (Zn) content; TL86/PI167378 for Ca, P, potassium (K), and iron (Fe) contents; and TL71/PI411414 for Ca, P, B, and Zn content.