

Elemental Analysis of Groundnut Germplasm Using the Particle Induced X-ray Emission (PIXE) Method

A. U. REHMAN* and U. KHAN, Department of Botany, Hazara University Mansehra KPK Pakistan.

In the current study nine genotypes of Groundnut were evaluated to choose high elemental value genotypes based on elemental behavior in Agriculture Research. The results showed none significant difference in elemental variation among nine genotypes. However high significant results noticed among elements found in groundnuts germplasms. Maximum concentration to potassium 74.74 % was recorded by PG-458 while minimum percentage 66.6% was noticed by PG-1058. Greatest Calcium percentage 20.86% was noticed by PG-1058. Among entire evaluated varieties maximum magnesium percentage 2.73% was showed by PG-1058. Greatest phosphorus concentration 2.89% was showed by PG-1163. Variety PG-1166 showed higher concentration 2.46% of sulphur. Maximum Chromium attention 1.78% was recorded by PG-1166. Among all the genotypes maximum manganese concentration 0.44% was recorded by PG-1163, whereas lowest value 0.14% was recorded by PG-214. Maximum iron concentration 3.66% was showed by PG-1166. Maximum concentration of Cobalt 0.59% was showed by PG-1166. Similarly Nickel maximum concentration 0.31% was noticed by PG-1058. All the differences may be due to genetic variation, environmental conditions and nutrient availability among the groundnut varieties.