

Nutritional Composition of Iranian Desi and Kabuli Chickpea (*Cicer arietinum* L.) Cultivars in Autumn Sowing

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Abstract : The grain quality of chickpea in Iran is low and instable, which may be attributed to the evolution of cultivars with a narrow genetic base making them vulnerable to biotic stresses. Four chickpea varieties from diverse geographic origins were chosen and arranged in a randomized complete block design. Mesorhizobium Sp. cicer strain SW7 was added to all the chickpea seeds. Chickpea seeds were planted on October 9, 2013. Each genotype was sown 5 m in length, with 35 cm inter-row spacing, in 3 rows. Weeds were removed manually in all plots. Results showed that analysis of variance on the studied traits showed significant differences among genotypes for N, P, K and Fe contents of chickpea, but there is not a significant difference among Ca, Zn and Mg contents of chickpea. The experimental coefficient of variation (CV) varied from 7.3 to 15.8. In general, the CV value lower than 20% is considered to be good, indicating the accuracy of conducted experiments. The highest grain N was observed in Hashem and Jam cultivars. The highest grain P was observed in Jam cultivar. Phosphorus content (mg/100g) ranged from 142.3 to 302.3 with a mean value of 221.3. The negative correlation (-0.126) was observed between the N and P of chickpea cultivars. The highest K and Fe contents were observed in Jam cultivar.

Keywords : cultivar, genotype, nitrogen, nutrient, yield

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