



## Forms and Quantity-Intensity Parameters of Potassium Applied to Wheat under Temperate Conditions of Kashmir

J.A Wani, M.A. Malik, M.A. Dar, Farida Akhter and M.A. Bhat

Division of Science Science, S.K.University of Agricultural Sciences and Technology of Kashmir, Shalimar-191 121,India  
\*E-mail: javaidwani@rediffmail.com.

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**Abstract** A field trial was conducted to study the influence of potassium on forms and quantity-intensity parameters of potassium of soil under wheat. The treatments consisted of 5 levels of potassium (0,20,40,60,80 Kg K<sub>2</sub>O ha<sup>-1</sup>) and two methods of application viz single basal and split (1/2 basal+1/2 at tiller initiation stage). All forms of potassium viz water-soluble, exchangeable and boiling HNO<sub>3</sub> extractable and lattice potassium increased with increasing levels of potassium and were found to be maximum when potassium was applied @ 80 kg ha<sup>-1</sup> in two equal splits except lattice K, which was maximum in treatment where potassium was applied @ 60 kg ha<sup>-1</sup>. The quantity as well as intensity factors recorded higher values with increasing potassium levels indicating a greater K-release into soil solution resulting in large pool of labile potassium. Higher potential buffering capacity of potassium (PBC<sup>k</sup>) was found at lower levels of potassium. A significant and positive correlation was found among Q/I parameters whereas a negative and significant relation existed between Q/I and PBC<sup>k</sup>.

**Key Words:** Potassium, Quantity–intensity relations, Wheat, Temperate region

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