

Abstract

Twenty-four seed lots of two common bean cultivars were produced to evaluate the distributions found in individual seed electrical conductivity (EC, $\mu\text{S cm}^{-1} \text{ g}^{-1}$), to determine which parameters would best quantify the observed variation between seeds, and to explore whether cultivar or production environment affected the variation. Distributions were usually skewed towards higher values. Seed lots differed in the degree in which extreme values occurred and in how variable the majority of the seeds was. There was not a single parameter that quantified variation in all seed lots well. The parameters mean – median, range 0 – 100%, variance and standard deviation were high when there were extreme points present, whereas the ranges 0 – 75% and 25 – 75% were high when variation in the majority of the seeds was high. In cv. Rosecoco, seed lots with extreme points did not necessarily have large variation in the majority of the seeds. Coefficient of variation was not suitable to quantify variation in seed lots from different origins. No systematic differences were found between cultivars in the magnitude of the variation because of the large genotype \times environment interaction. The factor growing season within a production location showed the clearest effects on individual seed variation.