

## **Abstract**

Seed vigour in two common bean (*Phaseolus vulgaris* L.) cultivars (Rosecoco and Mwezi Moja), was monitored during seed development and maturation. Seeds were harvested from the whole crop and individual pods of varying age within the crop. Vigour was assessed by electrical conductivity per weight of the seeds and the results compared to seed developmental characteristics mainly seed dry weight (SDW), pod and seed colour. Physiological maturity (PM) occurred 87 days after emergence (DAE) in Mwezi Moja and 97 DAE in Rosecoco for seeds at crop and pod level. Maximum vigour for different pod age seeds was achieved at the time of maximum dry weight (PM). Highly significant differences ( $P < 0.01$ ) in seed dry weight and vigour were noticed between the two cultivars and over time within the crop and at individual pods. The change of 50% of the seed colour from green-yellow to red-purple was identified as a suitable indicator of the maximum dry weight. Harvest maturity was identified as the moment when 50% of the seeds were red-purple 5RP3/2 for Mwezi Moja and 5RP3/6 for Rosecoco, according to Munsell colour chart of plant tissues. Maximum dry weight and harvest maturity were also identified in the field by the change in colour of majority of pods from green-yellow to yellow.