

Abstract

Two experiments with common bean cultivars Rosecoco and Mwezi Moja aimed at increasing insight into differences in development with time of seeds from pods of different earliness classes within a crop. Pods were divided into three earliness classes (early, medium, and late) in relation to the fourth class, the overall crop. In all pod classes, cultivars and seasons, seeds achieved physiological maturity (PM: maximum dry weight) when fresh weight was at its maximum. PM was achieved at 58% seed moisture content in seeds from all pod classes and cultivars. Seeds from earlier pods tended to reach PM earlier than those from other classes. The time when seeds developed their final red purple colour pattern was a reasonable indicator of PM, though not completely accurate. Harvest maturity (HM: 20% seed moisture content) was reached earlier in earlier pods in cv. Rosecoco, but the timing was the same for all pod classes in cv. Mwezi Moja. The period for seeds to dry down from 58 to 20% moisture content was longer in seeds from earlier pods in cv. Mwezi Moja, but not in cv. Rosecoco. The course of decline in moisture content between 58 and 20% differed between pod earliness classes, but was not systematically affected by earliness. The timing of seed development in the overall crop could be explained by the timing of seed development in pods of different earliness classes. Relationships among seed moisture content and seed or pod colour in whole crops differed from those in pods of individual earliness classes.