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Developmental Archetype of Lentil (Lens culinaris Medik) Seed Considering A Few Seed Traits

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ABSTRACT

Lentil is most preferred rabi pulse crop of West Bengal due to its better nutritive value and easy mode of cultivation. In current study, the precious developmental pattern of seed considering the morphological and biochemical changes may gather the knowledge on seed growth, physiological maturity, and critical period of seed/grain enlargement that may ensures the cultivation schedule. The seed of lentil (Lens culinaris Medik) cv. Asha were collected from each 3 replications under RBD fashion in University (BCKV) farms considering consecutive two years (2013-14 and 2014-15). A large numbers of appeared pod of tagged flowers were collected on specific day considering 5 days interval with an initiation from 10th day after anthesis (DAA) to 45th day during maturation. The collected seeds were exploited for analyzing the seed maturity programme utilizing seed length, width, fresh and dry seed weight, chlorophyll content, alpha-amylase activity of seed, etc. Seed length was increased upto 35 DAA though the seed width was enlarged upto last stage of maturity. Enhancement nature of seed fresh and dry weight was noted up to 40 DAA. The chlorophyll content and alpha-amylase activity was highest in 20 DAA and 25 DAA respectively though it was declined afterwards. In consideration of physiological maturity, the stage VII (40DAA) may be as the valuable stage of this maturity.

Key words: Lentil seed, Development, Seed morphology, Physiological maturity.

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