

TEMPERATURE STRESS AT DIFFERENT STAGES OF GROWTH AND ITS EFFECT ON PHENOPHASE IN TWO VARIETIES OF MUNG BEAN GROWN DURING SUMMER SEASON

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Abstract: Two varieties of mung beans viz Pusa 9531 and Pusa Vishal were used in the present investigation under pot culture conditions. The plants were grown under natural and temperature elevated conditions throughout the season. To know the critical stage, plants were exposed for 15 days at elevated temperature at early vegetative stage (0-15) days, (15-30) days, (30-45) days, and (45-60) days stage. For the rest of the period, plants were grown under natural conditions. The results revealed that phenophase was altered due to elevated temperature. It enhanced flower initiation but decreased total number of flowers, pod numbers and pod setting percentage. The seed number per pod and seed weight decreased affecting the grain yield of the plant in both the varieties. The critical stage was found during pod development stage (45-60) days followed by flower initiation and grain development stage (30-45) days. However the plants exposed to high temperature (15-30) days stage showed the recovery after exposure to natural conditions.

Keywords: Phenophase, elevated temperature, Summer mung bean, pod setting, grain yield

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