



## Seed Quality of CGMS Based Chilli (*Capsicum annum* L.) Hybrid Induced by Time of Pollination and Number of Fruit Pickings

Neha Thakur<sup>1</sup>, S.N. Vasudevan<sup>2</sup>, S.R. Doddagoudar and B.V. Tembhurne

College of Agriculture, UAS, Raichur-584 104, India

<sup>1</sup>College of Horticulture & Forestry, Thunag, Mandi -175 048, India

<sup>2</sup>ZARS, VC Farm, Mandya-571 405, India

E-mail: nthakur0708@gmail.com

**Abstract:** Cytoplasmic genetic male sterility (CGMS) based chilli hybrid UARChH42 was developed and seeds were assessed for quality attributes. The objects of research were to optimize time of pollination and number of picking of fruits in this newly released hybrid in Hyderabad Karnataka (H-K) region of Karnataka (2016-17 and 2017-18). In current study it was proven that pollinating A line (male sterile) plants at 10-1100 hour with pollens collected from of R line (male fertile) yielded seeds with maximum seed germination (86.91 %), seedling vigour – length (2369), speed of germination (14.07), dehydrogenase enzyme activity (0.275),  $\alpha$ -amylase enzyme activity (15.18 mm) and minimum electrical conductivity (0.094 dS cm<sup>-1</sup>). Picking red dry chilli pods at second picking i.e. fruits developed from crossing female flower in mid-October to mid-November, and harvesting in the month of December resulted in maximum seed germination (78.62 %), seedling vigour – length (1988), speed of germination (12.17), dehydrogenase enzyme activity (0.202),  $\alpha$ -amylase enzyme activity (12.86 mm) and minimum electrical conductivity (0.114 dS cm<sup>-1</sup>), respectively. The 10 to 11 am pollination time for crossing female line and harvesting red ripe dried fruits at second picking (crossing female flower in mid-October to mid-November and harvesting fruits in December) can be recommended.

**Keywords:** CGMS, Chilli, Pollination, Seed quality