

## RESEARCH ARTICLE

# Pre-sowing seed hardening enhancement treatment on seed quality and seed yield in rice ADT 36

■ T. Prabhu, P. Satheesh Kumar, K. Saravanan and A. Kamaraj

### SUMMARY

Rice is one of the main staple food of man and is grown in almost all the tropical and subtropical regions of the world. An experiment was carried out to investigate the effect of pre-sowing seed hardening treatment with different chemicals such as 1% CaCl<sub>2</sub>, 1% KCl, 1% KNO<sub>3</sub> and 1% NaCl and organics such as 10% cow dung and 3% panchagavya on seed quality and seed yield in rice cv. ADT 36. In general seed hardening treatment of rice before sowing significantly increased the seed quality characteristics and yield attributing characters when compared to untreated seeds. From the result, it was observed that 1% CaCl<sub>2</sub> seed hardening treatment improved the seed quality characters such as germination percentage, speed of germination, shoot length, root length, seedling length, dry matter production, vigour index and yield attributing characters such as number of productive tillers per plant, number of seeds per panicle and seed yield per plant. Hence, rice seeds hardened with 1% CaCl<sub>2</sub> may be recommended to get higher seed yield and seed quality.

**Key Words :** Rice, Seed hardening, CaCl<sub>2</sub>, Seed quality, Seed yield

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### MEMBERS OF THE RESEARCH FORUM

**Author to be contacted :**

**P. Satheesh Kumar**, Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Annamalainagar, Chidambaram (T.N.) India

**Email :** [psnsathishkumar@gmail.com](mailto:psnsathishkumar@gmail.com)

**Address of the Co-authors:**

**T. Prabhu, K. Saravanan and A. Kamaraj**, Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Annamalainagar, Chidambaram (T.N.) India