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Pre-sowing seed treatments with different chemicals and growth regulator on seed germination and growth of passion fruit

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ABSTRACT : Passion fruit is getting popularity and its cultivation is gradually increasing in India. Very few works had been carried out regarding cultivation of this fruit. For large production and easy procurement of planting material, propagation from seeds may be done. Hence, there is need to improve germinations and vigour of seedlings. Keeping the above points in view, the present investigation was carried out. In this experiment, pre-sowing seed treatments were done with different chemicals (50% HCl, 5% H₂SO₄, 1% thiourea, 1% KNO₃, 2% sucrose, 2% urea, 2% bleaching powder) and growth regulator (100ppm GA₃) on seed germination of passion fruit. The objective of this experiment was to standardize the effect of pre-sowing seed treatment which consisted of 9 treatments and one control. The experiment was laid out during 2009-10 and 2010-11 in experimental polyhouse in the Department of Horticulture, Birsa Agricultural University, Kanke, Ranchi (Jharkhand) and was conducted in the statistical design, CRD. All the treatments exhibited better results over untreated control, but (S₈) seeds treated with 2 per cent bleaching powder in 24 hrs treatment emerged as the best regarding germination, growth of the seedlings followed by (S₉) seeds treated with 100ppm GA₃ for 30 min.

KEY WORDS : Pre-sowing, Seed treatments, Chemicals, Growth regulator, Germination, Growth, passion fruit

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