EFFECT OF PRIMERS ON GROWTH AND BIOCHEMICAL PARAMETERS OF RAINFED RICE

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Abstract: An experiment to study the effect of primers on growth and biochemical parameters of rice (Var. NDR-118) was conducted at Department of Crop Physiology, N.D. University of Agriculture & Technology, Kumarganj, Faizabad (U.P.). Seed priming was done by soaking the seeds for 16 hours in distilled water, GA$_3$ 50 ppm, GA$_3$ 100 ppm, GA$_3$ 150 ppm, K$_2$HPO$_4$ 300 ppm, K$_2$HPO$_4$ 400 ppm and K$_2$HPO$_4$ 500 ppm. Application of primers brought a considerable increase in growth parameters like root length, root and shoot dry weight. The biochemical parameters viz., total chlorophyll content, total soluble carbohydrate and nitrate reductase activity showed a significant increase due to seed priming. Among different treatments, GA$_3$ 100 ppm was the best treatment in increasing these parameters being at par with GA$_3$ 50 ppm and significantly higher than rest of the treatments.

Keywords: GA$_3$, primers, rice, soluble carbohydrate, nitrate reductase

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