EVALUATION OF DIFFERENT GENOTYPES OF POTATO 
(*Solanum tuberosum* L.) FOR THEIR SUITABILITY IN 
HASSAN REGION OF KARNATAKA 

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ABSTRACT 

Productivity of potato in southern transitional zone of Karnataka is mere 10 t ha$^{-1}$, whereas in the other States of India it is more than 20 t ha$^{-1}$ and some of the progressive farmers in the State are harvesting 25-30 t ha$^{-1}$. Keeping this in view, the field experiments under the study entitled “EVALUATION OF DIFFERENT GENOTYPES OF POTATO (*Solanum tuberosum* L.) FOR THEIR SUITABILITY IN HASSAN REGION OF KARNATAKA” were carried out at Agricultural Research Station, Madenur, Hassan during the years, 2007 and 2008. In the present study, eighteen genotypes of early maturing, eight genotypes of medium maturing and ten processing genotypes of recently developed/released potato (*Solanum tuberosum* L.) were evaluated for growth, yield, storage behaviour, response to pests and diseases and processing characters. In addition, experiments were conducted to understand the effect of phosphate solubilising bacteria – *Pseudomonas striata* on growth, tuber yield and economics of potato cv. KufriJyoti and the effect of PHYTON – T, a seaweed extract on growth, yield, economics and incidence of late and early blight diseases in potato cv. KufriJyoti. The results revealed that the two advanced genotypes J/97-243 and J/96-171 and two released genotypes Kufri Surya and KufriPukhray have shown good adaptability and they are suitable as early maturing genotypes. Among medium maturing genotypes three advanced genotypes DSP-7, MS/0-3740 and MS/99-1871 and two released genotypes KufriPukhray and KufriPushkar are found promising to this zone. The processing genotypes Kufri Surya, MP/99-322 and Atlantic are found most suitable to Southern transitional zone of Karnataka. The study has revealed that the application of bio fertilizer i.e., PSB (*Pseudomonas striata*) with 25 per cent reduced quantity of recommended phosphatic mineral fertiliser along with recommended dose of N and K and farm yard manure reduced the cost of production and increased the profitability of potato cultivation. The foliar spray of PHYTON-T @ 0.4 per cent along with mancozeb (0.3%) at 25$^{th}$, 35$^{th}$ and 45$^{th}$ days after planting is found to increase the productivity.