



Potassium nitrate outperformed other priming agents on seed vigour of hot pepper (*Capsicum annuum*)

The influence of seed priming using different priming agents on seed vigour of hot pepper (

Capsicum annuum)

cv. 'Hot Queen' was examined. The seeds were surface sterilized by dipping in sodium hypochlorite (5%) solution for five minutes and dried on filter paper. These sterilized seeds were primed in distilled water (dH₂O), NaCl (1%), salicylic acid (SA, 50 ppm), acetyl salicylic acid (ASA, 50 ppm), ascorbic acid (AsA, 50 ppm), PEG-8000 (PEG, -1,25 MPa) and KNO₃ (3%) in darkness for 48 hours. All priming treatments significantly improved final germination percentage (FGP) of pepper seeds over the control. Seeds primed in KNO₃, AsA, SA and ASA showed maximum value of FGP i.e. 100% in each. KNO₃ primed seeds outperformed all other priming agents in terms of decreased time taken to 50% germination, increased root and shoot length and seedling fresh weight (Figure 1).

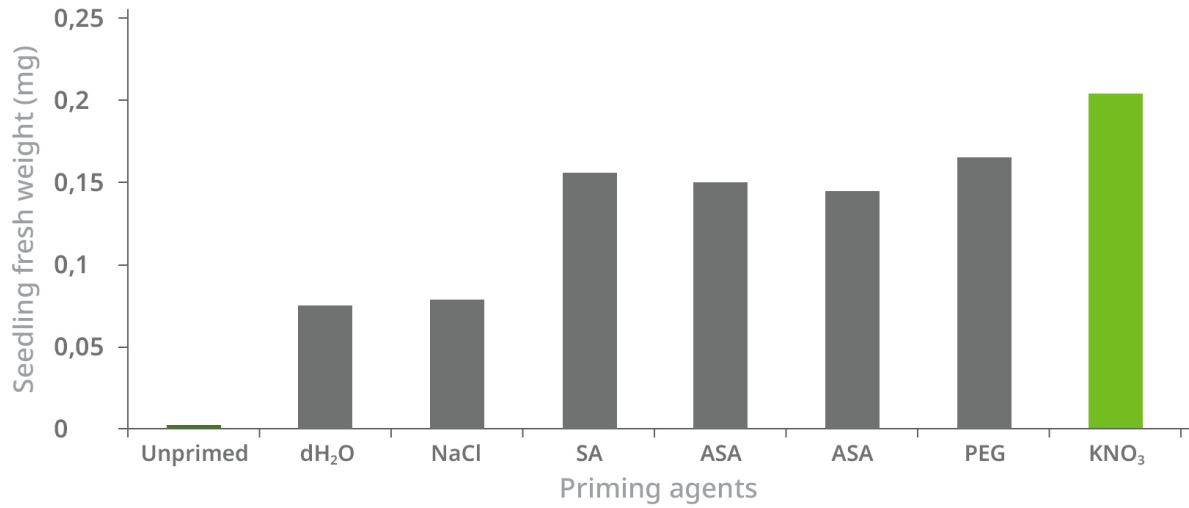


Figure 1. Effect of priming on fresh weight of pepper seedlings. Priming agents: distilled water (dH₂O), NaCl (1%), salicylic acid (SA, 50 ppm), acetyl salicylic acid (ASA, 50 ppm), ascorbic acid (AsA, 50 ppm), PEG-8000 (PEG, -1,25 MPa) and KNO₃ (3%).