EFFECTS OF DIFFERENT CONCENTRATION OF POTASSIUM NITRATE ON BREAKING DORMANCY OF BLACK GRAM (VIGNA MUNGO L.)

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ABSTRACT

Black gram (Vigna mungo L.) is an important pulse crop grown in many parts of India. The demand for its seed is found throughout the year but it also undergoes dormancy which makes it difficult to cultivate as and when required. In this view, the experiment was conducted with different concentration of KNO\(_3\) to find out effective treatment for dormancy breaking in black gram. Seeds were treated with different concentration of KNO\(_3\) viz., 0.5, 1.0, 1.5, 2.0 and 2.5% along with a control. The results revealed that black gram seeds treated with 1.0% KNO\(_3\) show the highest germination percent (90%), maximum root length of 9.5 cm along with comparatively high shoot length. Vigour index was also high in treating with 1.0% KNO\(_3\). Therefore, it can be concluded that black gram seeds with 1.0% KNO\(_3\) found to be the most effective method for breaking the seed dormancy of black gram.

KEYWORDS: Black gram, dormancy, hard seeds, potassium nitrate, seed germination