

Effects of Microbial Inoculant (EM-Bokashi) on Germination, Seedling Growth and Nodulation of *Albizia procera* (Roxb) in the Nursery

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Abstract : *The study was aimed to evaluate the effects of microbial inoculant (EM-Bokashi) on germination, seedling growth and nodulation of *Albizia procera* in the nursery. EM-Bokashi was prepared in both aerobic and anaerobic conditions and incorporated at the rate of 1%, 5% and 10% with forest sandy soil collected from Chittagong University Campus. The mixtures were kept in separate polybags (25 cm X 10 cm). Altogether there were five treatments including the control (Anaerobic Bokashi with EM, Anaerobic Bokashi without EM, Aerobic Bokashi with EM, Aerobic Bokashi without EM and Control). Sterilized seeds of *A. procera* were sown and seed germination was recorded every 24 hours up to the final germination. After 4 weeks of germination, seedling height, collar diameter, root length, shoot and root fresh and dry weight and nodule number were recorded. Germination value, germination energy, quality index and vigor index value were calculated. Seedling growth parameters were considerably promising in the Bokashi added treatments than control. Maximum germination (76.66%) was found in Aerobic Bokashi without EM and the lowest (56.66%) was found in Anaerobic Bokashi with EM. Seeds in Anaerobic Bokashi without EM possessed highest germination energy followed by aerobic Bokashi with EM, aerobic Bokashi without EM, anaerobic Bokashi with EM, and control treatments respectively. Nodule number was maximum (42.6) in anaerobic Bokashi with EM followed by anaerobic Bokashi without EM, aerobic Bokashi without EM, aerobic Bokashi with EM and the minimum (8.17) was recorded in the control. The findings indicate that EM-Bokashi mixed with soil has beneficial influences on the growth and nodulation of the *Albizia procera* seedlings in the nursery.*
