

## **Effect of biofertilizers and organic manures on initial establishment and plant vigour of different litchi (*Litchi chinensis*) cultivars**

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**ABSTRACT** : Litchi [*Litchi chinensis* (Gaertn.) Sonn.] is most liked and relished fruit of India. It is an important sub-tropical evergreen fruit crop belongs to family Sapindaceae. A field experiment was conducted on China and Trikolia variety of litchi plants with different treatment combinations having components viz. Vermicompost, Azotobacter and FYM, to study the effect of biofertilizers and organic manures on initial establishment and plant vigour of litchi. The experiment was laid out in factorial RBD with 8 treatments and 3 replications. The treatment combination taken was Vermicompost @500 gm/plant + Azotobacter @100 gm/plant, Vermicompost @500 gm/plant, FYM @ 1.50 kg/plant + Azotobacter @100 gm/plant and FYM @ 1.50 kg/plant. The best result was seen in treatment combination, FYM @1.50 kg/plant + Azotobacter @ 100gm/plant showing maximum plant height (48.97cm), plant girth (8.68cm), no. of leaves/plant (28.06), no. of branches/plant (3.95) and survival (100%) in China. Thus, the application of FYM @1.50 kg/plant and Azotobacter @ 100 g/plant of each were found to be most effective as compared to other treatments for enhancing the plant growth as well as vigour.

**Key Words:** *Litchi chinensis*, organic manures, biofertilizers, establishment and plant vigour.