

**THE AGE OF TRANSPLANTING SPROUTSWITH PGPR
CONCENTRATION (*Plant Growth Promoting
Rhizobacteria*) AKAR KAKAO AGAINST
SEED GROWTH COCOA
(*Theobroma cacao L.*)**

Ir. Triono Bambang Irawan, MP (Supervised)

Ayank Sakti Kurniawan

Study Program of Cultivation Plantation Crop
Majoring of Agricultural Production

ABSTRACT

Cocoa (*Theobroma cacao L.*) since 1930 can be said to be one of the plantation commodities which has an important role in the Indonesian economy. Indonesia with dry bean production reaching 550,000 tons after Ivory Coast (1,242,000 tons) and Ghana with a production of 662,000 tons (Rubiyo, 2012). The study titled "The Effect of Age of Transplanting Sprouts with PGPR Concentration (*Plant Growth Promoting Rhizobacteria*) on The Growth of Cocoa Seeds (*Theobroma cacao L.*)" has a problem formula for how PGPR concentration influences the best for the life of transplanting sprouts. The purpose of this study is to find out the impact of PGPR on the growth of cocoa plant seedlings. This research uses methods using Analysis Of Variance (ANOVA). If there is a significant influence then further tests are carried out using the honest real difference test (BNJ) at a rate of 5% with two factors. The first factor of age of transplanting sprouts T1 = 8 days, T2 = 12 days, T3 = 16 days and the second factor of PGPR application concentration of cocoa root origin is P1= control, P2 = 50 ml/l, P3 = 100 ml/l, and P4 = 150 ml/l. The observed parameters are plant height, stem diameter, number of leaves, wet weight of roots, dry weight of roots, root length, root volume, number of bacteria, and bacterial density. Based on the results and discussion of the research can be found that the lifespan of transplanting sprouts has a very noticeable effect on the parameters of the height of the plant, the diameter of the stem and the number of leaves. Age of sprouts had no significant effect on root wet weight, root dry weight, root volume, root length, and number of roots of cocoa seedlings. In the treatment of PGPR concentration of 50 ml/l cocoa root has a noticeable effect on the number of leaves. PGPR concentration of 50 ml/l cocoa root had no significant effect on plant height, stem diameter, root wet weight, root dry weight, root volume, root length, and number of roots of cocoa seedlings. As for the interaction of the age treatment of transplanting sprouts with PGPR concentration has a noticeable effect on the height of the plant, the diameter of the stem funds the number of leaves.

Keywords : Cocoa, Age of Transplanting Sprouts, PGPR Concentration