

Use of Humic Acid in Promoting Growth of Young Coffee Robusta Seedlings in Nigeria

C. R. OBATOLU

Cocoa Research Institute of Nigeria, Soils and Plant Nutrition Group,
P.M.B. 5244, Ibadan-Nigeria

ABSTRACT

Coffee seedlings grows very slowly on the field, and this has been found to be responsible for over 60% of the cases of fail establishment on the field, since the plants are too feeble to withstand the first dry season following transplantation to the field. In Nigeria, coffee is usually transplanted in June, and the dry season set in around October the same year. Establishment rates are been put at 40% without irrigation with irrigation.

Humic acid is known to have growth promoting properties, being an organic substance is less hazardous to handle the mineral fertilizer. Besides humic acid are used in very small dosages [part per million (ppm)] and comes less expensive than mineral fertilizers in Nigeria.

Five levels of humic acid 8000 ppm 4000 ppm, 2000 ppm, 1000 ppm and 500 ppm were compared with the control 0 ppm in a green house experiment. The coffee seedlings were one year old as at the time of transplantation and the soil is an Alfisol belonging to the Olorunda series.

Results show significantly better growth of seedlings treated with humic acid over the control. It was also observed, that concentration of humic acid higher than 4000ppm did not cause any significant plant treated with humic acid were able to withstand the dry season better than the control when no water was supplied.

The result encourages use of humic acid treatment for good establishment of coffee.