

Quantity of EM-4 which may be Applied to a Soil with 3% of Organic Matter

Ana Primavesi

Fazenda Ecologica, CP36, 18730-000, Itai, SP, Brazil

***Abstract :** A previous experiment showed that when very small quantities of EM-4 were applied to soil, all remaining weed seeds came up at once and soil was kept clean during vegetative period of upland rice and plant health improved. Seed and leaf treatments were also very effective on plant health of field beans and maize. Seeds inoculated with EM-4 and planted on soils that received green manure, the health and yield of onion and field beans increased considerably. It is interesting to know how much EM-4 can be applied to soil with 3% of organic matter which normally is reached by amending 40t/ha of compost to a soil with originally had 0.5% of organic matter. The experiment was repeated three times and each treatment had 4 repetitions. The experiment was set on the field and in the green house. On the field each plot of 4m² received 16 kg of compost and in the green house each pot with 4kg of soil received 0.10 kg of compost. An equivalent of 0.0, 1.0, 10.0, 20.0, 30.0 and 40.0 liters of EM-4/ha was applied to the soil. Maize and beans were used as test plants. Three weeks after germination, roots were measured. The longest and most abundant roots were observed in treatment with 1.0 L/ha EM-4. Without irrigation, the soils with 20.0, 30.0 and 40.0 l/ha EM-4 were very dry and compacted. It may be concluded that EM treatment is very favorable to yield increase and plant health specially when applied to seed and leaves, but it must be used carefully to the soil if organic matter content is low.*
