

## EFFECTS OF COMPOST ON THE PRODUCTIVITY OF THREE LEGUMINOUS (SOYA BEAN, COWPEA AND COMMON BEAN) UNDER TWO AGROECOLOGICAL ZONES OF CAMEROON

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### **ABSTRACT**

*The effect of compost on the productivity of three seeds vegetables (soya bean, cowpea and common bean), is studied in a field under Bertoua and Ngaoundere Cameroon in 2015 and 2016. In order to promote the plants in Cameroon while preserved food safety, the experimental set-up used is a full randomized block with 6 treatments ; 4 control (soya bean, cow- bean and common bean) 4 dosed with organic manure (fertilizer- soya bean, fertilizer-cowpea and fertilizer-common bean) repeated three times in each study zone. The rate of seed emergence, plant growth, and production parameters are evaluated. The results obtained show that in each of the two study zones, the productivity of the plants studied is higher in 2015 than in 2016, the organic fertilizer significantly increases ( $p < 0.05$ ) the productivity of leguminous compared to control. The percentage of increase in average seed yield in the fertilizer-soya bean, fertilizer-cowpeas and fertilizer-common beans systems during the years of study compared to the control was respectively; 89.81, 76.57 and 83.74 % under Ngaoundéré climate and 77, 21, 85.01 and 90.30 % in the Bertouazone of Cameroon. These results show that; the zone of Ngaoundéré is more favourable for the cultivation of leguminous than the Ngaoundere Cameroon zone. In addition, the organic manure is beneficial for the cultivation of soya bean, cowpea and common bean.*

**KEYWORDS:** Legumes Common Bean, Soya Bean, Cowpea, Organic Fertilizer, Bertoua, Ngaoundéré, Cameroon