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Studies on Fertilization of Yam (Dioscorea spp.) and Yam Tuber Storage in Cameroon

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ABSTRACT

Nitrogen-based and potassium-based fertilizers significantly increased yam yields. Nitrogen at 160 units per hectare caused 18%, 25%, and 21% yield increases for Batibo (D. cayenensis), Jakiri (D. dumetorum), and Oshie (D. rotundata), respectively. Potash at 120 and 240 units gave 13.4% and 22.5% increases, respectively, with the Oshie cultivar. There was positive correlation between fertilizer application during the peak growing season (June to July) and economic responses to fertilizers with return/cost ratios varying between 4.8 and 7.6

Yam stored under ambient conditions in slatted wooden trays caused 46.7%, 32%, and 28.7% losses in D. cayenensis, D. dumetorum, and D. rotundata, respectively, after two months' storage. Tubers obtained from fertilized and unfertilized plots showed little difference in storability. Tuber maturity was an important factor in storage. Rapid hardening occurred in D. dumetorum, which rendered the tuber inedible a few days after harvesting. Darkness induced by black polyethylene delayed hardening of this variety by three weeks.