Economics of Production of Weaner Rabbits Fed Graded Levels of two Varieties of Composite Sweetpotato *(Ipomoea batatas*[L.] Lam) Meal in A Palm Kernel Based Diet

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Ibikunle Olaleru[1], Ahmed Abu[2]

1 National Root Crops Research Institute, Umudike, Abia State, Nigeria, Farming Systems Research Program, Nigeria
2University of Ibadan, Ibadan Oyo State, Animal Science Department

Introduction: Whole sweetpotato (*Ipomoea batatas*[L.] Lam) plant plays a significant role in crop-livestock farming systems in Africa.
Rabbit farmers across south western Nigeria are increasingly incorporating the sweet potato plant product as replacement for the conventional feed-stuffs towards achieving increase economic gains for sustainable rabbit production.

Objective: To determine the effect of feeding levels of two varieties of composite sweetpotato (*Ipomoea batatas*) meal on the profitability of rabbit production.

Material and methods: Two varieties of sweet potato root, leaf and vines were collected from National root crops research Institute, Umudike, Nigeria and processed.
Eighty-four young doe weighing between 550–600g of mixed breeds aged between 6-8 weeks were allocated to one of seven dietary treatments (n=12 per treatments) containing CSPM of the two varieties.

Table 1. Experimental Layout

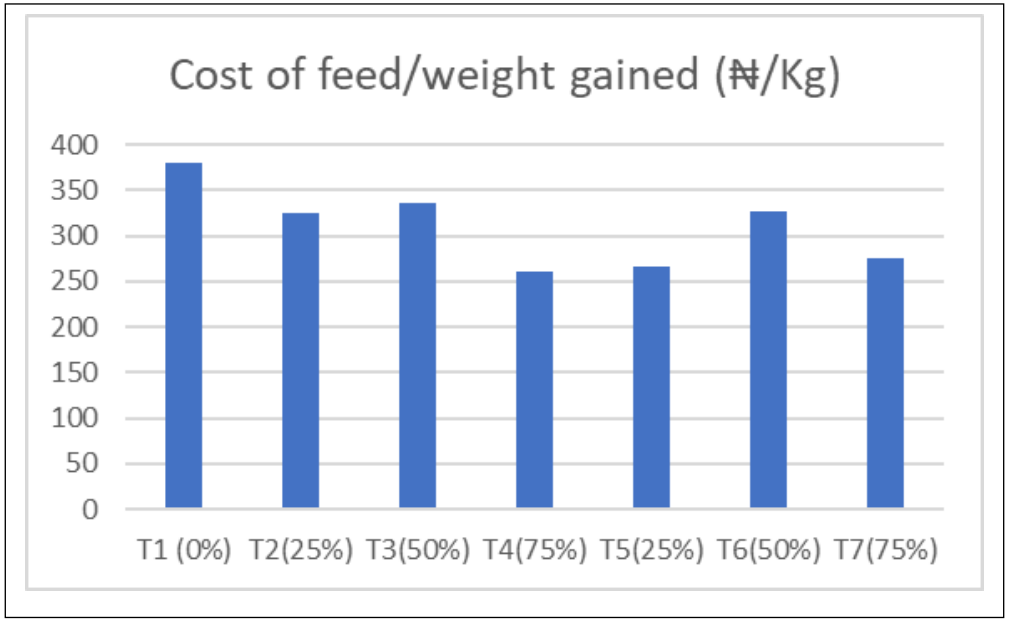
Control Diet	CIP440293			TIS 87/0087		
0	25 %	50%	75%	25 %	50%	75%

Results: This research findings shows that both varieties of CSPM can serve as a substitute for maize in female rabbits diets up to 75% and would the help save as much as 20% cost of production, hence positively affects the economics of production parameters.

Table 2. The reproductive performance of rabbits fed diets containing varying levels of composite sweet potato meal

	T1	T2	T3	T4	T5	T6	T7
Initial Body weight	557.25	590.67	551.56	560.89	569.21	563.17	580.11
Final Body weight	1741.19	1706	1531.44	1492.28	1770.19	1585.28	1577.06
weight gained	1183.94	1115.33	979.88	931.39	1200.98	1022.11	996.95
Cost of feed/intake/rabbit/9weeks(₦/g)	450.49	364.17	329.55	242.25	320.8	334.33	275.68
Cost of feed/weight gained (₦/Kg)	380.5007	326.5132	336.3167	260.0951	267.1152	327.0979	276.5234
X	50.05^{a}	40.46^{b}	36.62^{bc}	26.92^{d}	35.64^{bc}	37.15^{bc}	30.63^{cd}

a,b,cMeans with different superscripts on the same row are significantly different (P<0.05)



Conclusion: The comparable economic performance of dietary levels of CSPM from the two varieties indicate the potential of the CSPM as a feed ingredient. The usage of the sweet potato composite meal will help to reduce cost, scarcity of rabbit feeds and also reduce dependency on conventional feed ingredients such as grains that bring competition between man and animals.