

Performance of Tswana Pigs with Traditional Management in SE-Botswana

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Abstract

The performance of Tswana pigs was studied under traditional management systems. Tswana pigs performed poorer than other indigenous African pigs in reproduction and growth traits except in survival rate. In general, indigenous pigs in Botswana are raised as scavengers with little supplementary feeding, no sheltering and poor veterinary care. The survival of these pigs is dependent on their natural adaptation to the local conditions.

1 Introduction

The indigenous pig breed of Botswana is the Tswana, the origin of which is not known (HOLNESS, 1991). The Tswana pig is generally hardy, unimproved with a small body and a large head, well developed forequarters and light hindquarters which render them more mobile and better able to forage and root for themselves. There is an estimated 18,000 pigs in Botswana, 30% of which are the indigenous Tswana which is found mainly in the eastern part of the country and the rest are of exotic origin (MINISTRY OF AGRICULTURE BOTSWANA, 1995). The population of Tswana pigs is however declining. Pig management systems in Botswana are either traditional or commercial. The traditional management entails poor husbandry where pigs scavenge for food with some supplementation with sorghum bran. The commercial system involves some confinement with proper feeding and good husbandry practices.

The Tswana pig is an ideal animal for resource poor farmers who for low inputs can obtain meat and cash income from the sale of pig meat and lard for soap making. Data on performance of indigenous pigs in Botswana is not available. The purpose of this study therefore, was to study the performance of Tswana pigs raised under traditional management systems.

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2 Materials and methods

Thirteen farmers who raise Tswana pigs traditionally in Ramotswa village participated in the study from May to August 1998 (winter) and September to December 1998 (summer). A total of 70 pigs were involved in the study. A questionnaire was administered to the selected farmers to determine pig husbandry practices, herd composition and gender data. Data on pig performance were recorded to determine litter size at birth (LSB), litter size at weaning (LSW), litter weight at birth (LWB), litter weight at weaning (LWW), growth rate of piglets up to weaning (ADG) and piglet mortality up to weaning (PMW).

3 Results

Herd management and composition

Out of the 13 farmers who raised pigs, 92% of them were women and only 8% were men. All pigs sustained by scavenging with occasional supplementation with either traditional brewers- spent grain (BSG) or wheat bran (WB) obtained from a local milling company. Sixty nine percent of the households supplemented the pigs with BSG while 31% used WB. No housing was provided for the pigs except for open kraals with stone walls. All farmers practiced no veterinary care such as de-worming and dipping to control external parasites. Piglets were weaned at about six weeks of age. The herd composition per household on the average was two boars, three sows and three piglets.

Pig performance

The average LSB for Tswana pigs in the present study was 4.5 piglets per sow farrowing. Litter size at weaning averaged about 4.2 piglets. Results for LWB, LWW and ADG were 4.6 kg, 25.9 kg and 0.4 kg/day, respectively. Mortality rate was recorded from birth to weaning. During this period, the mortality rate of unknown causes was about four percent.

Table 1: Tswana pig performance under traditional management systems

Source of variation	Performance
Litter size at birth	4.5
Litter size at weaning	4.2
Litter weight at birth (kg)	4.6
Litter weight at weaning (kg)	25.9
Piglet mortality before weaning (%)	4.2
Piglet ADG up to weaning (kg/day)	0.4

4 Discussion

These results for LSB in Tswana pigs are lower than those reported by Holness (1991) in indigenous pigs of some African countries. Litter size at birth in Nigeria, Zimbabwe, South Africa and Ghana were 6.5, 7.9, 7.2 and 6.3 piglets, respectively. Similarly LSW was lower than that reported in the literature in indigenous pigs of Nigeria and Zimbabwe which were: 5.5 and 7.5 piglets, respectively. Results for LSB and LSW for Tswana pigs were lower due to poor management and nutritional stress.

Holness, (1991), reported that the average weaning mass of indigenous pigs in Zimbabwe and Ghana were 60 and 44 kg, respectively. These figures are higher than those reported in the present study. This may be due to the differences in environments and management practices. In addition, nutritional stress on both the sows and their litters could have contributed to the poor performance in Tswana pigs. In general, mortality rate at weaning in pigs could range from 17 to 23 % as reported by Elliot (1971). Tswana pigs seemed to have a higher survival rate on account of their genetic adaptation to the local environment.

The present results on the performance of Tswana pigs under traditional management are preliminary. Further research on a larger scale is necessary in order to obtain data, which can be conclusive. Indigenous pigs are potentially valuable genetic material for future exploitation of their genes for survivability. The conservation of these pigs by farmers, therefore, should be encouraged.

5 Acknowledgements

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6 References

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