



## agriculture & environmental affairs

Department:  
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### REVITALIZATION AND PRESERVATION OF THE INDIGENOUS ZULU SHEEP (IMVU) IN KWAZULU-NATAL

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#### Objectives of the indigenous Zulu sheep (Imvu) programme

The objectives are to compile an extensive literature review of relevant information on the breed, the development of a database of Imvu farmers, gene conservation of the breed, the development of a policy for distribution of rams to Imvu farmers and research to characterize the production and adaptability traits of the breed.

#### Achievements to date

A review on all relevant literature is in the process of peer reviewing. A summary of Imvu production data is presented in Table 1. The development of a database, based on a survey and supported by information from a questionnaire, includes localities of owners, sheep numbers and farm practises is in an advanced phase. Flocks for gene conservation and the evaluation of the production characteristics of the breed have been established on the Dundee and Makhathini Research Stations. A proposed policy for rams to be distributed to Imvu breeders has been developed.

**Table 1.** General information on Imvu production figures

Lambing %	Year old surviving rate (%)	Ave. Birth mass lambs (kg)		Ave. mass (kg) 100 days	Ewe mass pre-lambing (kg)
		Male	Female		
136	69	3.1	2.9	14.7	30.2

The majority of farmers that participated in the survey mentioned the mortality of lambs between 4 to 12 months of age, which is supported by the literature review (Table 1 – 31% mortality).

### Research conducted at Dundee Research Station, winter 2013

A pilot trial to determine the growth rates in Imvu (Indigenous Zulu sheep) and Merino lactating ewes and their lambs on poor (poor veld supplemented by *ad lib* hay) and better (grazing maize) feeding conditions during winter was conducted.

### Materials and methods

Ewes with single lambs from both breeds were blocked for weight and allocated to either the *Eragrostis* hay on veld treatment or the grazing maize treatment, both with lick. Grazing commenced on 3 July 2013 and continued for 76 days until mid-September, when the lambs were weaned.

### Results

The growth rates of the sheep over the trial period are summarized in Table 2.

**Table 2.** The average daily gain (ADG) of Merino and Imvu lactating ewes and their lambs over the trial period of 76 days

Treatment	ADG: Ewes (g ewe <sup>-1</sup> day <sup>-1</sup> )		ADG: Lambs (g lamb <sup>-1</sup> day <sup>-1</sup> )	
	Hay	G. maize	Hay	Grazing maize
Merino	-47.2	86.6	60.3	220.4
Imvu	-15	30.7	45.6	132.9

## **Discussion and Conclusions**

The results show that grazing maize can be considered as an overwintering strategy for Imvu sheep, where improved performance is needed. Lambs weaned at 19.5 kg on grazing maize, compared to the 14.7 kg for lambs under natural conditions (Table1). Lambs fed hay, supplementary to veld in winter, had weaning weights of 15.9 kg. Where feeding circumstances are poor, the Imvu could be considered as the hardier, probably more adapted breed between the two breeds.

## **Way Forward**

The trial will be repeated in winter 2014 to confirm findings statistically and to comment on the financial viability of the system.