

Systems for growing out Boer goat replacement ewes

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One of the most crucial aspects of a stud or commercial livestock farming enterprise is its female breeding animals (and especially young replacement animals). This is because the next generation of breeding animals is expected to perform even better than the existing breeding stock. Boer goats are no exception.

However, there is often some uncertainty as to how to best grow out these valuable animals in a productive and economical way. In this regard, three basic systems can be considered, namely extensive, intensive and semi-intensive. Finally, to determine which system will best suit the particular farm, each system's productivity and economy must be evaluated.

Nutrition, genetics and the environment in which animals are farmed are three important factors that influence the growth of replacement ewes. Nutrition is the most flexible facet and is therefore the focus of this article.

Important principles of growth

Utilising a scientifically balanced creep feed is essential to optimally stimulate young ewes' rumen development and thus support the transition from milk to a roughage-containing ration. The newly weaned young ewe that has been given creep feed also typically weighs more, paving the way for optimal post-wean growth.

A weaned young ewe has very specific nutritional requirements and experiences elevated stress levels shortly after weaning. Her rumen must also adapt fully to roughage-based feeds to boost weight gain and development. Bodyweight is one of the best indicators of sexual maturity. A young Boer goat ewe is only ready to go to the ram at 38 to 42kg (60 to 65% of mature weight).

Young ewes need enough energy, natural protein and top-quality roughage to achieve these goals as quickly and



Meticulous selection will ensure top-quality replacement ewes that will promote genetic progress in your flock. The correct nutrition and system for growing out young ewes will ensure they reach their full potential as soon and as economically as possible.

as economically as possible. Another aspect requiring attention is macro- and micromineral supplementation and its effect on fertility and health should not be underestimated.

Systems for growth

The choice of growth system is influenced mainly by the quantity and quality of available grazing/roughage. This decision is also influenced by secondary factors such as available time, associated costs and the efficiency of production parameters. The more intensive the system, the more bought-in feed is required and the more expensive the price tag; however, the feeding period is shorter, and production can be improved (Table 1).

Ewes in extensive growth systems obtain their nutrients mainly from the veld and the focus here is mainly on seasonal licks to supplement deficiencies. Dry winter veld, for example, typically has lower levels of available nutrients such as energy and protein, and a higher level of

supplementation is therefore needed to maintain daily growth rates.

In semi-intensive systems, more feed is supplemented for quicker results or to supplement low-quality or sparse grazing. In intensive systems there is no grazing or roughage available, and roughage must be self-produced or purchased. In intensive systems, ewes receive a complete feed ration that meets all their nutritional requirements. In this regard, balanced nutrition and animal health (due to the higher population density in a smaller area) play a key role.

Consider the whole picture

Before deciding on a system, it is important to look at the whole picture. The levels of each system's management and expenses differ.

The risk of mortality in extensive systems is greater due to predation, veld-based diseases and livestock theft. Although the ewe has a lower growth rate, the system requires less management input and money. Intensive systems have a

Table 1: Comparison of different systems for growing out young Boer goat ewes.

	Extensive	Semi-intensive	Intensive
Age at lambing	14 to 16 months	11 to 13 months	8 to 10 months
ADG (birth to mating)	50 to 70g/day	80 to 100g/day	140 to 160g/day
Mortality (post weaning)	5%	2%	1%
Nutritional requirements (daily per ewe)	Grazing (summer or winter lick at 0,35% of BW)	Grazing/roughage (supplementation at 1,25% of BW)	<i>Ad lib</i> complete feed (3 to 3,5% of BW)
Potential lambing percentage	90%	120%	180%

* Bodyweight = BW. Average daily gain = ADG.

Assumptions: Birthweight = $\pm 3,5\text{kg}$; weaning weight = $\pm 20\text{kg}$ at three months; ewes placed with ram at $\pm 40\text{kg}$ live weight.

high input cost and level of management, but can be more profitable due to higher productivity. However, there is no room for shortcuts in intensive systems.

The data contained in *Table 1* puts this into perspective. Ewes in intensive systems are expected to gain weight and reach mating readiness sooner, thus reaching their potential in a shorter time. They have a greater chance of conceiving and carrying more lambs, and mortality is also reduced. Selecting for top-quality ewes and selling cull ewes can also occur sooner as ewes are already grown out. However, there are some disadvantages such as

high input costs and the possibility of ewes becoming less hardy.

Although the aforementioned production expectations decrease systematically in semi-intensive and extensive systems, the financial pressure is also lower and, if managed well and if the correct supplements are fed, the results will be much closer to those achieved in intensive systems.

What you put in ...

Remember, genetic progress and the correct nutrition make a huge difference in the quality of your replacement ewe

crop. The old saying that 'what you put in is what you'll get out' is very apt in this case and will be clearly visible in the growth of your replacement ewes. Boer goat producers must therefore strive to produce more productive ewes, which will ultimately lead to long-term financial success. **SF**

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