

Home-mixing of feed: Is it worth it?

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It is not surprising that feed costs often comprise the biggest portion of the production costs of a modern livestock farming system. This is especially true when farming practices start to intensify; so much so that feed costs can account for up to 75% of all expenses incurred in fully intensive livestock farming enterprises.

Raw material costs have also risen sharply, especially the past 12 months. This is putting enormous pressure on the cost of feed inputs and the profitability of livestock farms.

The home-mixing industry

Home-mixing of livestock feed is commonplace in South Africa, making the home-mixing industry a large and important component of the country's feed industry. Home-mixing has been successfully and widely applied for decades, with various role-players contributing inputs.

Ruminant feed in particular is normally mixed at farm level, with rations that are based mostly on self-produced forage and grains. Various commercial products have therefore been developed over the years, including high-protein concentrates (HPCs), specialised macro-premixes, mineral concentrates, as well as standard micro-premixes and other feed additives.

There are numerous viewpoints regarding home-mixing versus buying of ready-mixed feed, not to mention the different opinions and disagreements either supporting or discouraging the two approaches. However, there is nothing simple nor obvious about the choice between the aforesaid options and their economic implications.

Advantages of home-mixing

There are a few obvious advantages to home-mixing. It affords producers more control over the composition and quality of home-mixed feed and licks, mainly because they have control over the quality and type of raw materials utilised. It is also more flexible, and mixes are easy

to modify in order to meet production goals or accommodate changes in market conditions or environmental factors.

Home-mixing is becoming more important on farms where precision farming practices are followed and where cost savings are central to sustainability. Sub-optimal nutrition also leads to wastage due to inefficient utilisation of nutrients, which will strain profitability.

On the other hand, it gives producers of roughage, grain and protein seeds the opportunity to utilise their self-produced raw materials such as middlings, or for others to purchase them locally at a good price. Other cost advantages are that it eliminates the additional profit margin on raw materials, as well as the need to transport products to and from feed manufacturers. Smaller quantities of raw materials can be purchased and mixed, in some instances aiding cashflow management.

It is sometimes impossible to transport high-moisture raw materials such as silage or wet feed byproducts over long distances or to store it, making their use in home-mixing systems the only viable option. Locally available byproducts from food processing and other industries are also easier to use in home-mixed feed than at the commercial factory level.

Everything has its challenges

Like all things in life there are downsides and challenges. For on-farm mixing this includes intensive management, more time and labour inputs. Capital investment in the correct infrastructure and equipment for feed processing, mixing and storage is crucial, especially on larger farms that utilise sizable volumes of feed. The space available to store raw materials and mixed feed must also be factored in.

Quality control and precision mixing, as well as buying the correct raw materials, are the producer's responsibility and must be meticulously managed. This includes the procurement and sometimes forward contracting of grain, roughage and oilcake, at an economical price. Depending on the



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complexity of the farming system utilised and type of animals farmed, as well as the type of premix or HPC used, feed mixtures can vary in their complexity and a degree of precision is therefore essential.

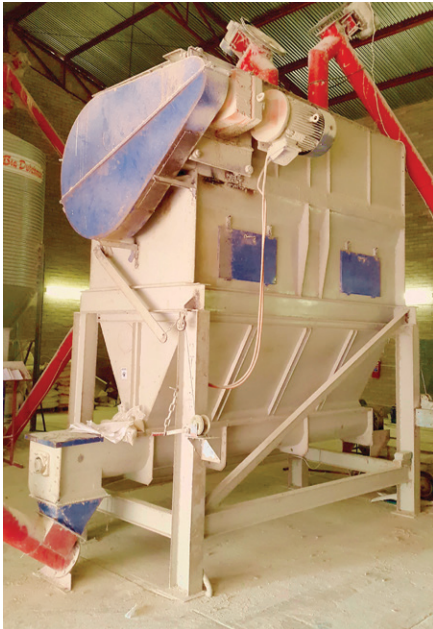
Requirements for success

Choosing the correct raw materials and purchasing them in a timely manner at the best possible price are key to profitability. Well-planned systems and meticulous management will eliminate most errors. Likewise, the correct type of equipment and infrastructure must be acquired and set up according to the size and complexity of the farming business.

Choosing products that suit the system is vital. For example, on-farm mixing of small quantities of individual chemical ingredients such as some minerals, vitamins and feed additives, of which grams or milligrams per ton of feed are often included, is not recommended as there is some risk to including the incorrect amounts. Scientifically balanced feed formulations, or feed mixes, are also central to successful home-mixing.

The nutritionist's role

Combining an assortment of raw materials is easy but animal nutrition, and especially mineral nutrition, is an extremely complex field with many interactions and nuances. A well-trained, experienced and



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professional animal nutritionist can, with the help of supporting technology such as computer formulation and modulation programs, formulate feed that is both cost-effective and scientifically balanced. This will promote efficient feed utilisation and profitability.

An animal nutritionist can also assist in evaluating raw materials, making the necessary modifications, and giving advice on important management practices. An accessible, practically oriented animal nutritionist is invaluable to the farming business. To build trust and foster a good work relationship, producers should choose a well-trained animal nutritionist with integrity.

Make informed decisions

Ultimately, the choice between home-mixing at farm level and using ready-mixed feed boils down to the specific situation on the farm, the available resources, objectives and level of precision, as well as the external circumstances in which the

farming enterprise operates. During the decision-making process, various factors and future goals should be considered.

Investing in infrastructure and equipment might be the solution to current limitations and challenges, and offers future advantages. Especially those farming businesses that are expanding will benefit from this forward-thinking approach, as it will help them to strategically align themselves so they can reach their goals.

The advantages of home-mixing become more pronounced as economies of scale start counting in the enterprise's favour. This means that larger farms, including commercial feedlots, eventually start mixing their own feed, or vertically integrate and invest in mixing units.

The home-mixing of feed is no doubt a highly profitable practice that can be applied successfully, now and in future, provided it is undertaken correctly and is supported by proper professional technical assistance. **SF**

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