Encroacher bush; a vital source of livestock feed during drought

WINDHOEK – The agricultural industry is finding the going very tough and all sectors are expected to decline further this year due to the devastating drought.

The only sector that recorded a growth in income value (year-on-year) during 2018 is the charcoal industry which recorded a dramatic increase of 66 percent in the production value, according to a study by the Namibia Agricultural Union (NAU) on the state of Namibian agriculture,.

This phenomenal growth is the result of increased de-bushing and the harvesting of one of Namibian rangelands' biggest enemies: encroacher bush.

With the drought expected to deplete most of Namibia's rangeland by August, the focus has now shifted to the vital role encroacher bush can play in feeding starving livestock.

A recent study by the Support to De-bushing Project on the viability of encroacher bush as main component of livestock feed revealed that Namibia is affected by bush encroachment on a massive scale.

"The phenomenon currently affects some 30 million hectares of farmland in nine of the country's 14 regions. That amounts to roughly 30 per cent of Namibia's land area. Bush encroachment has lowered the country's rangeland production capacity by up to two thirds. It has further resulted in reduced biodiversity and limits the recharge of groundwater," the study says.

The study and feeding trials with cattle were carried out at the commercial farm Langbeen near Dordabis and at Omatjene Research Station near Otjiwarongo Further feeding was conducted in an extensive feeding environment on communal farmland at Okondjatu near Okakarara.

The study was a bilateral cooperation between the agriculture ministry and the German Federal Ministry for Economic Cooperation and Development (BMZ). It is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

"Despite the negative impacts, the encroacher bush is a huge biomass resource, estimated at about 200 to 300 million tonnes. Measures used to combat bush encroachment create positive opportunities for the Namibian economy, such as the use of the resource for electricity generation and value chain development in other sectors. De-bushing therefore offers the potential to increase agricultural productivity, economic growth, employment and energy security; without competing with food production," the study found.

The Support to De-bushing Project aims to strengthen the restoration of productive rangeland in Namibia and promote domestic value addition for local resources.

Bush encroachment hampers agricultural productivity and threatens the livelihoods of many Namibians. The shortage of grass for livestock is a direct consequence and it is further intensified during drought, such as the current one which could turn into the worst drought in some 90 years.

The dire shortage of animal fodder is reflected in Namibian trade statistics. Animal fodder ranks as the eighth largest import good, with total fodder imports valuing close to N$4 billion, equivalent to the gross value addition of the entire agricultural sector. If the bush itself can be used for animal feed production, a win-win situation

is created. Fodder availability improves and the rangeland benefits from bush thinning.

Various farmers report that the production of bush-based fodder has saved their herds during recent periods of drought.

The bush-based diets tested and provided is published in a manual ‘Animal Feed from Encroacher Bush’. It advises that farmers need to modify the maintenance and production mixtures according to available resources and nutrient requirements of the animals.

“Such diets can then also contain natural supplements like camelthorn pod meal, bush-based fibres, prickly pear, and/or commercial supplements. The priority should be to harvest on-farm natural supplements where possible and then augment the feed with the necessary commercial supplements.

“Consider to take a sample of your feed mixtures for laboratory analysis to confirm its nutritional value,” the study recommends.

The agricultural ministry’s laboratory can be of assistance in first testing the available biomass from your farm and then help to formulate a diet suitable for the animals to be fed.

For the trials, the diets were meant to meet the following types of nutritional needs in livestock: growth of young animals, maintain the body condition during the dry or winter season, and/or a period of drought, and maintain the body condition in pregnant animals.

There is a distinct difference in daily feed intake among cattle, depending on their age and related factors. More fodder needs to be produced during the period of growth and production of a young cattle herd.

Sheep prefer to eat grass. Their affinity for bush-based fodder is very low. However, they can be taught to eat bush-based feed.

Most often natural supplements are readily available on the farms. Especially farms in southern Namibia grow prickly pear and many river beds have camelthorn trees.

Bush-based animal feed is not a commodity product yet. Thus, anyone wishing to commercialise production should endeavour to obtain licences from the ministry to do so.

The enforcement agencies are the agriculture ministry, represented by the Directorate of Veterinary Services as well as the Registrar of Registration of Fertilisers, Farm Feeds, Sterilising Plants and Agricultural Remedies.