

Farmers offered water and fertiliser guidelines

Dairy farmers are generally over- fertilising pasturage and not watering it optimally, according to a five-year study the Water Research Commission (WRC) is using to promote a better water and fertiliser management policy in SA.

Farmers are under pressure to reduce their fertiliser and water usage - but they face demand for food from a growing and increasingly wealthy population.

The WRC study, published last week, was being used to develop new pasture production guidelines for SA's major pasture growing areas, the KwaZulu-Natal midlands and the Eastern Cape, said WRC spokeswoman Hlengiwe Cele.

The methods could be adopted by any farmer who used irrigation equipment, said Colin Everson, of the University of KwaZulu-Natal's School of Bioresources Engineering and Environmental Hydrology. The study was freely available on the internet and involved the careful calculation of soil water content and fertiliser loads, before more of either was applied. Nitrogen works best when applied with water.

AgriSA senior economist Dawie Maree said while international urea (nitrogen) trends had shown a long-term price increase of 165.6% between April 2006 and April this year, the price had declined 59% between April last year and this year.

Dairy production had increased 2% between last year and this year, while consumption was up 5%, he said.

The shortfall was imported, mostly in the form of milk powder, cheese and longlife milk.

While unemployment and poverty are still of major concern in SA, the South African Institute of Race Relations reported last month that the proportion of adults with the lowest "living standards" fell from 11% in 2001 to 1% last year.

WRC research manager Andrew Sanewe said SA's variable climate, general water scarcity, and often marginal soils meant it was not unusual for dairy farmers to supplement their herd's feed with irrigated pastures, mostly rye grass and kikuyu. It was estimated that the total area utilised for irrigated pasture production was about 16% of the total area under irrigation in SA.

Research by the World Wide Fund for Nature SA put the extent of irrigation in SA at 1.5% of SA's total land mass (about 1.2-million square kilometres). The organisation said irrigation was already by far the biggest water user in SA, responsible for 63% of water use.

SA has already allocated 98% of available water resources. It is projected that the country could run out of water by 2025, and its economic heartland, Gauteng, as early as 2015.

Prof Everson said the overuse of nitrogen could ultimately be "almost toxic" to animals, and resulted in run-off into rivers and other bodies of water, contributing to eutrophication.

Eutrophication is caused by excessive nutrient loads in rivers and dams that in turn cause algal blooms that deplete the water's dissolved oxygen and produce toxins that kill aquatic life. Water expert Anthony Turton said excessive nutrient loads had compromised the water quality in a third of SA's total storage capacity of 38-billion cubic metres.

Prof Everson said while the study did not consider organic farming methods, it was "not always that simple" to just switch to organic farming in large-scale farming operations because without pesticides a farmer stood to lose an entire crop to a pest such as blight.

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Source: Business Day

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