

« What does  
**enhance** »  
mean to you? ... »



# Irrigation Management

Getting the Balance Right

*The detrimental impact of steep electricity tariff increases on businesses is a topical issue. It is therefore a good time to explore the implications of some cost-saving strategies.*

### OVER IRRIGATION

It is generally believed that a lack of irrigation scheduling results in over-irrigation of the sugarcane crop. If this is indeed the case, now is the perfect time to reduce over-irrigation by making use of the many scheduling tools available. Over-irrigation results in high electricity and water costs, leaching of expensive nutrients, soil loss through erosion and yield loss from poor soil conditions. Every effort should therefore be made to avoid over-irrigation.

### UNDER-IRRIGATION

Due to rising electricity tariffs, efforts to reduce electricity costs may be directed at reducing irrigation even further, which could result in even greater yield losses. The temptation may be to switch over to the Ruraflex or Nightsave option and reduce or stop irrigation during expensive peak periods. Intuitively these options appear logical and may reduce the electricity bill substantially. However, growers should be cautious when deciding on the best plan of action. The truth at the end of the day is that "Yield is King". The cost of yield losses from water stress will be much greater than any saving arising from under-irrigation.

Let's explore this by way of an example. The current electricity cost of irrigating one hectare is approximately between R3000 and R4000. Even if a farmer takes the extreme step of applying only half the usual irrigation (which is almost unthinkable), the electricity cost savings will be around R 2000 per hectare. This really is false economy because this R 2000 saving will lead to a loss in yield amounting to several thousand rand per hectare.

It should now be clear that any strategy to reduce irrigation during peak electricity periods must be evaluated very carefully to determine the impact on cane yields and profitability before being implemented. The only time that a farmer could possibly consider under-irrigating is when the water saved is used to increase the cropped area.

... to intensify, increase, or improve the quality and value of ...  
or simply to make something better?

To Kynoch it means developing products that provide our producers with innovative technologies that enhance fertilizer and crop performance.

We call this "enhanced efficiency innovation" and it is at the core of everything we do.

We do this so that you can enjoy the rewards of excellent yields and enhanced profits. This will allow you to focus on the things that enhance your quality of life.

**Kynoch – enhanced efficiency innovation**



Ashiel Jumman  
Agricultural Engineer  
South African Sugarcane  
Research Institute  
South African Sugar Association