SECURING GROWER SUCCESS BY USE OF CERTIFIED SEEDCANE

Introduction

As we look ahead to the Spring 2025 planting season, all growers are reminded of the critical importance of starting right by using certified, disease-free seedcane. Proper seedcane management is the first and most effective line of defense against pests, diseases, and unnecessary replanting.

Seedcane quality is non-negotiable

The industry's seedcane scheme ensures the produc- • tion and distribution of healthy, high-quality seedcane, starting from a dedicated Highveld quarantine • nursery through to certified secondary nurseries.

Only seedcane from registered, approved and certified nurseries may be used for planting commercial

fields. Cane planted from uncertified sources (e.g., commercial fields) is strictly prohibited and attracts plough-out orders. Figure 2 shows seedcane being cut from a registered nursery.

Spring 2025 Secondary nurseries applications.

All growers intending to establish secondary nurseries for Spring 2025 are reminded to submit applica-

tions to ESATS by close of business on 18 June 2025 before the start of the planting season.

As per the Pest and Disease Control Regulations, applications must be submitted at least 3 months before the intended planting date to allow for proper inspection of the proposed field to ensure the following:

- That a minimum fallow period of 3 months has been respected, and
- The absence of volunteer sugarcane stools, which, if infected, could compromise the value of an otherwise healthy seedcane.

Failure to comply risks disqualifying the nursery site and undermining industry-wide pest and disease control efforts.

Re-registration in exceptional cases

While new nursery registrations are encouraged, reregistration of existing nurseries is allowed only under clearly justifiable circumstances. These may include the following:

1. Production-Related Constraints

- High pest & disease pressure resulting in unplanned plough-outs
- Irrigation or drainage issues requiring field reconfiguration
- Inadequate supply from the Highveld Seedcane Scheme (HVSCS)
- Financial delays, e.g., late access to planting finance
 - Need to bulk newly released varieties (especially by largescale growers)
 - · Gapping (to a limited extent)

2. Environmental Setbacks

- Drought
- Flood damage
- Hailstorms or frost
- Livestock or wildlife damage
- 3. Expansion of Planting Area

• This involves planting in

newly developed zones such as LUSIP II.

However, generic reasons such as "ensuring adequate seedcane" are not sufficient justification. The goal remains to prioritize use of seedcane from the Highveld Seedcane Scheme, which guarantees healthy seed through its rigorous heat-treatment process.

Conclusion

The sustainability of Eswatini's sugarcane industry relies on each grower playing their part. Certified seedcane supports higher yields, reduced pest and disease spread, and long-term cost savings. Let's uphold the standard.



Mphumelelo Ndlovu (Crop Protection & Extension Officer)



top yield limiting factors in sugarcane production. It is defined as the process whereby soil particles are squeezed or **3** pressed together thereby reducing the

Number

pore space between them and increasing the soil's bulk density. Soil compaction reduces water infiltration and restricts root growth which eventually leads to reduced water and nutrients

available for crop use. In compacted soils, the sugarcane can symptoms of water

even when the soil been ciently

The new electricity clock

Cane field compacted by

harvesting machinery

Soil compaction

In sugarcane production,

soil compaction results

largely from infield

traffic...

With effective from 01 April 2025, EEC adjusted the hours that define peak, off-peak, and standard electricity use

Certified seedcane

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tion results largely from infield traffic tion operations prior to planting may

crop show stress

has Figure 1: Water ponding on wheel tracks in a sugarsuffi- cane field due to soil compaction re-

plenished with water. The reduced water penetration into the soil leads to increased surface water runoff and erosion.

Causes of soil compaction

associated with harvesting, fertilizing, crop spraying and related operations (Figure 1). In addition, land prepara-



other grower night-





Figure 2: Seedcane cut from a nursery field

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ESWATINI SUGAR ASSOCIATION TECHNICAL SERVICES

EXTENSION NEWSLETTER

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SOIL COMPACTION: ANOTHER GROWER'S NIGHTMARE

Soil compaction is rated amongst the

development of plough pans. Worth noting is that wet soils are more susceptible to compaction compared to dry soils. Recent studies on sugarcane ratooning indicated that ratoon yield decline is more pronounced on fields harvested early and late in the milling season compared to mid season harvests. This is largely attributed to that harvesting during these seasons occurs on rainy months. Growers are there-



fore strongly encouraged to make everv effort to reinfield strict traffic under wet conditions.

Diagnosis and corrective measures

Effective diag-

In sugarcane production, soil compaccontribute to soil compaction through nosis and correction/prevention of soil compaction problems involves the following steps:

Open pits. In the problematic areas, representative pits of 1.0 to 1.5 metres should be opened to identify the compacted layer. This is done by chipping down the exposed face of the pit with a pocket knife or similar object observing the resistance encountered. Compacted layers will feel

Continued in the next page

SOIL COMPACTION... continues

more resistant to the knife. Alternatively, a hand -held *penetrometer* (compaction meter) may also be used for this purpose. A reading of over 2 MPa is regarded as too hard for crop roots to penetrate. In dry soils, the compaction reading increases, so it is important to conduct compaction measurements when the soil is at approximately field capacity.

Depth of compacted layer. The depth (location within the soil profile) of the compacted layer must be accurately established.

Ripping. Ripping to a depth that extends to a little below the compacted layer should then be carried out. For example, if compaction is in the 20 to 40 cm layer, ripping would be carried out to a depth of about 50 cm. Ripping to deeper than this would be of no benefit and would simply imply unnecessary resource use and cost. Importantly, ripping should not be undertaken if the soil is very wet or very dry. In wet soils, the only effect is on the immediate rip-line, while in very dry soils large clods are generated which

compromise subsequent tillage and planting operations.

Controlled infield traffic. The most effective method of limiting compaction is the use of controlled traffic lanes. This involves restricting infield traffic movement to the same lanes, thereby preventing compaction in all other areas. Thus, the major benefit of controlled traffic is the lack of compaction for most part of the field, while only the narrow traffic lanes receive all the compaction. Adoption of controlled traffic has expanded in recent years with the availability of satellite navigation systems and auto-steer technology, and growers are strongly encouraged to adopt it.

If left uncorrected, compacted sugarcane fields will give yields far below potential. Where unsure, growers are strongly encouraged to liaise with their respective Extension Officers.



THE NEW ENERGY CLOCK: WHAT SUGARCANE GROWERS NEED TO KNOW

Introduction

Sugarcane growers are impacted double on electricity costs this season. Electricity tariffs have increased by 8% for 2025/26 and 7% for 2026/27 following the approval by the Energy Regulator, Eswatini Energy Regulation Authority (ESERA) early this year. At the same time, the local energy utility, Eswatini Electricity Company (EEC) also announced a shift in the Time-of-Use (ToU) electricity billing structure, changing the hours that define the peak, off-peak, and standard periods within a 24 hour segment. While these changes are separate, their combined effect could significantly impact on the annual irrigation pumping costs and farm profitability.

hours that define peak, off-peak, and standard electricity use, in line with the directive issued by ESKOM, their primary electricity supplier. The changes are shown in Table 1 and summarized as follows:

- Peak period: The morning peak period has been reduced from three to two hours, while the evening peak period has extended from two to three hours.
- Standard period: A new standard period has been introduced on Sunday evenings for two hours, where previously all of Sunday was offpeak.

What has changed?

With effective from 01 April 2025, EEC adjusted the

Continued in the next page

THE NEW ENERGY CLOCK... continues

Off-peak period: The introduction of standard How can growers respond? hours on Sundays has reduced the total off-1. Check the new energy clock: Review the updatepeak hours available, particularly affecting ed ToU periods and compare them with your weekend irrigation schedules. current irrigation schedule.

Why matters for the growers?

Electricity is the second major input cost in irrigated sugarcane farming. These changes therefore mean that:

- The new Sunday standard period reduces the off-peak window, and therefore potentially 3. affecting weekend irrigation schedules.
- Irrigation during the newly defined evening peak will not change the cost of irrigation because the total peak hours per day have not increased. However, it will require a new irrigation adaptation strategy from growers.
- Use energy tools: Tools like the energy costs es-• The 8% tariff will increase the overall electricity timator or similar platforms can help model pumping costs, even if growers maintain their your energy use and identify savings potential. current irrigation schedule due to the rate in-Also, growers should consider converting to solar crease.

power. For further assistance in understanding the new schedule or optimizing your irrigation plan,

Table 1: Electricity time of use structure before and after 01 April 2025





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- 2. Adjust irrigation timing: Avoid irrigating during the peak hours especially during the winter months where irrigation demands are low, and shift irrigation to the off-peak hours, as far as possible, to minimize costs.
 - Automate where you can: Consider irrigation controllers or smart irrigation systems to help align operations with the most cost-effective periods. Irrigation controllers are devices that automatically turn irrigation systems on and off based on a set schedule to help avoid irrigating during peak electricity tariff periods.

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