



# INGEDE

Lishicilelwe yi - SOUTH AFRICAN SUGAR ASSOCIATION EXPERIMENT STATION

April 2001, Vol. 4, No.1



## UKUDLISA IZINKOMO AMATHOPHISI

Izinkomo zingadliswa amathophisi ensimini ngenkathi kuhlahlwa kusuka ku Eprili kuya KuDisemba, futhi uma sizipha nezakha-mzimba zingakhuluphala.

UDr Ardington wasesifundeni sase Mandeni ubethola ngalokhu edayisa iminyaka eminingi.

Indlela yokudlisa izinkomo emasimini omoba emva-nje kokuhlahlala nokuzi khumisa izakha-mzimba kuhle uma kunendawo eyanele yomphakathi yokudlela izinkomo ehlobo ngenkathi ungekho umoba ohlahlwayo.

### Gcina-njalo lamaphuzu emqondweni:

- Amatani ayizi-10 000 ahlahlwe ukugaywa anganikeza amathophisi nomkhuso wezinkomo eziyishumi kusosonke isigaba sokuhlala.
- Ungakwenzi lokhu uma ungekho umkhumiso wezakhamzimba.
- Njalo nikeza noma uvumele izinkomo ukuphuza amanzi usuku lonke.
- Izinkomo kumele zibe sendaweni okungenani amahora angu-48 ukwehlisa ukulimala kwezimpande zomoba.
- Izinkomo ezizele zidinga ukudla okunga phezulu angeke zasutha ngamathophisi nomkhumiso wezakha-mzimba kuphela.
- Amadlelo amahle kumele abekhona e-hlobo (Disemba no Epreli) futhi kungakuhle angasetshenziswa aze adingeke.
- Amathole awanayo imilomo enamandla ukudla amathophisi enele, kungenzeka azace.



Ondla izinkomo zakho ngamathophisi.



Imfuyo eyondlekile iyimali eshisiwe.

## TOPICAL TIPS

### MARCH TO JUNE

- Xoxisanani ngemisembenzi yonyaka nababambe iqhaza
- Yenza uhlelo lwakho njengokuvumelana
- Imisebenzi nezinhlelo kumele ziphathwe abalimi kulekelela bonke ababambe iqhaza
- Qasha abahlali abethembekile kuphela
- Xoxisanani ngentengo yokuhlala nokuthutha
- Lungisela ukuhlala umoba okhishwayo nalowo osaliile kuqala
- Yakha imigomo yokuhlala njengokushayela phansi nokususa amathophisi
- Hlela ukulandelana kokuhlala nokuhanjiswa komoba kwansuku zonke
- Bheka lokhu emobeni ohanjiswa:
  - umoba ohlankile – ayikho inhlabathi nezimpande
  - umoba omusha – hayi umoba omdala (esigayweni nga-pha mbi kwezinsuku ezi-2)
  - umoba ovuthiwe – hayi umoba omncane kakhulu
- Qalisa ukuthatha inhlabathi
- Xoxisana ngemiphumela yenhlabathi kanye nomanyolo nomeluleki wakho
- Yenza izivikela-mlilo ukakezelele amasimu akho



# UKUVUTHISWA

## Kuvuthisweleni?

- Khulisa inzuzo yakho ngokuchela ngezivuthwisi.
- Ngaphansi kwezimo ezinhle zokukhula kuya kumatani ama-3 ngaphezulu angatholwa usebenzisa izivuthwisi.
- Ukuvuthiswa kunika inzuzo esheshayo.
- Ngokusebenza kahle imiphumela emihle ingatholakala ngokuvuthiswa.
- Ukuvuthiswa ngeke kukhulise iqophela lomoba.

## Ukwenzeka nezimo ezidingekayo:

- Ukuvuthiswa kwenzeka uma umkhijizo wokwenzeka kokudla kwesitshalo (ushukela) kugcinwe ogoqweni kunokuba kusetshenziswe ekwakhiweni kwezakhi ezintsha zama qabunga, zezingoqo kanye nezimpande.
- Ukukhula ngokushesha kukhuthazwa ukutholakala ngokwanele kokudla, amanzi, ilanga kungabibikho ukugcinwa kukashukela. Ukuphazamisa ukukhula ngokusebenzisa izivuthwisi eziyimithi kungaguquka ukwenzeka kokudla kwesitshalo kwenze kubenokudla okugcinelwa ushukela.
- Izimo ezidingekayo ukuchela izivuthwisi:
  - ukukhula ngokushesha – kuzwela kahle
  - Uma ugoqo selunama hlamvu ayisi-8 noma ngaphezulu
  - amalunga amade ngenhla
  - uma zingekho izinkomba zezifo nokusha
  - uma ulingana – ungawile
  - uma ungaqhakazile
  - uma kunomswakama omningi
  - uma komisile (kudingeka amasonto ayisi-5 omswa kama enhlabathini uma ingekho imvula)
  - inkasa ikhulisa ukuzwela ekuvuthisweni

## Imithi esetshenziswayo:

Imithi esetshenziswayo iEthepon ne Fusilade Super.

## iFusilade Super

- iphazamisa isicongo sokukhula (ikhobakhoba)
- isebenza kahle emobeni ovuthiwe
- idinga umswakama izinsuku ezingu-35 emua kokuchela
- zonke izinhlobo zomoba ziyezwela
- umoba ovuthisiwe ungesetshenziswe njengembewu
- ubungako bokuchela, isigubhu nebhanoyi u330 ml nge ha
- iN14 idinga umuthi omningi (isigubhu 400 ml nge ha no 440 ml nge ha ngebhanoyi).

## iEthepon:

- iEthepon isi phazamisi kukhula
- inciphisa ubungako bamacembe amasha, ibhashise ukukhula kwamalunga amabili akhulayo, isheshise ukugcinwa kukashukela
- ayifakwe emobeni ongakavuthwa obumnandi obungaphansi kuka 75%
- ifakwa kuphela emobeni oniselwayo nonganiselwa lapho kunomswakamo omningi ngaphambi kokuhlala ekupheleni kukajulayi
- izinhlobo iN14, CP66/1043 ne N22 akufanele zivuthiswe nge Ethepon
- zonke ezinye izinhlobo ezitshalelwa ukudayisa, ezihloliwe ziyazwela
- umoba ovuthisiwe kungcono ungasetshenziswa njenjembewu
- ungasetshenziswa ulakanyane ne Fusilade Super
- isinqumo sokuchela singu 1,5 l nge ha.

## Ukwzela kwezinhlobo:

- Bukuzwela kwezinhlobo kuhluka ngokufakwa kweziuthwisi (bhaka umboniso ngezansi)

## Ukuchela:

- Izivuthwisi zingafakwa ngebhanoyi, ngo gandaganda, noma ngesandla
- Ukuqala ukuchela kuncike ekuvulweni kwesigayo
- Uhlalo lokuchela nokuhlala alugcinwe
- Qikelela ukuthi izimpahla zigcinwa kahle futhi zikalwe ngokuyikho
- Sebenzisa amandzela okuchela ayiwo (TK 1)
- Ubungako bamaconsi nokulingana kokuchela kubalulekile
- Isimo somoya; 0 kuya ku 8 km nge hora kufanele ufuthe
- 8 kuya ku 15 km nge hora – nciphisa ukuphakama kwesicheli/isifutho
- 15 km nge hora nangaphezulu – ima ukuchela

## Okujwayelekile:

- Funda izazisi ngokucophelela
- Gqoka izingubo zokuvikela
- Funda amapheshana okwazisa akwa SASEX 12.1; 12.2; 12.3 no 12.4
- Funda ushicilelo lweLink Usomqulu 4 yoku 1; Usomqulu 6 ye2 no somqulu 8 yesi-3
- Olunye ulwazi ungaluthola kumeluleki wezolimo wangakini

Variety Inhlobo	Ethepon (Ethrel)		Fusilade Super		Combination/Inhlanganisela Ethrel & Fusilade Super	
NCo376	Yes	Yebo	Yes	Yebo	Yes	Yebo
N12	Yes	Yebo	Yes	Yebo	Possibly yes	Kungenzeka
N14	No	Cha	Yes	Yebo	No	Cha
N17	Yes	Yebo	Yes	Yebo	Not tested	Ayihloliwe
N19	Yes	Yebo	Yes	Yebo	Yes	Yebo
CP66/1043	No	Cha	Yes	Yebo	uncertain	Akuqondakali
N22	No	Cha	Yes	Yebo	Yes	Yebo
N21	Not tested	ayihloliwe	Yes	Yebo	Not tested	ayihloliwe

# UHLELO LOKUKHOKHELA UMLIMI NGOKUXHUMANISA ISIKHATHI

## 1. Kungani sidinga loluhlobo lwenkokhelo?

- Kunezi nhlobo-ntlobo zomoba ezitshaliweyo ezinye zazo zilungiselelwe ukuvunwa ekuqaleni kwesikhathi sokuhlala kanti ezinye zilungiselelwe ukuhlala ekuyeni ngasekupheleni kwesikhathi sokuhlala. Ngenxa yokuba umshini udinga umoba ngaso sonke isikhathi uvuliwe kuyanyanzeleka ukuba umoba uhlahlwe nokuba besingekafiki esona sikhathi ekusiso saloyo-naloyo moba.
- Ubude besikhathi sokuvulwa komshini sifuna kuqinisekiswa ukuba umoba uhlala ukhona njalo ukuze umshini usebenze kakuhle. Lokho kuyanyanzelisa ukuba umoba uhlahlwe nokuba kungasiphi isikhathi onyakeni.
- Ngenxa yezinkinga ezihambisana nokusha ngengozi kwezimoba, yizifo kanye nezilwane kanye neqhwa, umoba uye uhlahlwe ngesinye isikhathi ube ungelalungeli ukuhlala. Lonto yenza izimoba ezinjalo zingabinangeniso eyiyo.
- Zininzi izinto ezonakalayo ngesikhathi kuhlala umoba ezifana nokuhlala umoba emasimini, ukudonswa komoba emasimini, ukulayishwa emalolini kanye namaloli athuthele emshinini. Ukuze izinto zihambe ngendlela efanele kubalulekile ukhulahlaliswa komsebenzi ingakumbi lapho loluhlelo lokuhlala luphethwe ngabantu abahlukahlukeneyo.

Ukuze konke lokhu esikhuluma ngakho kwenzeka ngendlela efaneleyo kudingeka ukuba lulandelwe uhla ngokuzinikezela ukuze umshini ungabinasikhathi lapho uphelelwa ngumoba ungangayi.

OLUHLOBO LWENKOKHELO LUSEBENZISANA NOMLIMI EKUNCIPHISENI ISISINDO SALEZI ZIDINGO ZOMSHINI.

## 2. Lusebenza kanjani loluhlobo lwenkokhelo?

Umlimi ukhokhela nge RV% engezilelele ukuba umoba wakhe ubewuthumela zikhathi zonke lapho i RV% ilungiselelwanise nesikhathi sokugaya komshini. Umboniso ubonisa lokhu

- Ubude besikhathi sokugaya
- Ukushintsha-shintsha kwe RV% ngokwesikhathi sonyaka.

### UKULINYWA NOMA UKUKHQIZWA KOMOBA

SIYIDINGELANI I-RELATIVE PAYMENT ( inkokhelo ngokomshini ) ?



Umlimi uthola izeluleko kuMehluleki weZolimo

- Ukuthumela umoba ekuqaleni noma ekupheleni kwesizini akwenzi mahluko.
- Ukuqikelela ukuthunyelwa komoba ngendlela efanele emshinini noma esigayweni (constant cane supply).
- Ukuqikelela ukuthunyelwa komoba ngendlela efanele ngabalimi noma ngezinhlangozabalimi.
- Umoba olwethwe ngokwesimo esiphuthumayo ngokuvumelana nomshini noma isigayo awuphazamiseki (not disadvantaged).
- Ukulelela ekwenzeni izinhlobo zokuvuna nokuthwala umoba.

# UKUTSHALWA KWEZIHHLAHLA ZEMVELO/ZENDABUKO EZIKOLENI

Loluhele olujabulisayo luxhaswe abakwa Sugar Industry Trust Fund for Education. Luzoqala ukusebenza ezikoleni eziwu 8 esifundeni saseNdwedwe. Loluhlelo lwathulwa eMbonisweni Primary School ngomhlaka 13 October 2000. Loluhlelo luhlose ukwenza ngcono ulimi lwesingisi nokuqwashisa ngezemvelo, nokuhlobisa indawo.

Indawo yaseNdwedwe iyisifunda sesithathu ukungena kuluhlelo. Ngonyaka ka 1999 loluhlelo lwakhuthazwa ezindaweni ezimbili (South Coast and Midlands). Kuzozonke lezifunda, abafundi abangu 52 bezikole bazotshala izihlahla zemvelo ezingaphezu kuka 10 000, izihlahla zemvelo abazitshali ezindaweni zezikole kuphela kodwa nakwezinye izizinda zomphakathi. Izihlahla lezi ziyasetshenziswa ukufundisa abafundi ngezemilando, nezemvelo ngezinhlobonhlobo zezihlahla zemvelo, nokukhangisa ngemvelo yezihlahla nemithi yokwelapha ngezemvelo, nendlela yokuphatha ngesikhathi sokuvuna.

Izikole nomphakathi waseNdwedwe bayocelwa bahlangane babone izimpande zabo zemvelo, nokusebenza ndawonye ukwenza ngcono izikole nezizinda zomphakathi, ukubulala izinhlaseli nokugcina izihlahla zemvelo kuleyondawo ngokuthi kubizwe ilima lizobakelela.

## Abasunguli abakuluhlelo ilaba:

Abaxhasi

- Abakwa Sugar Industry Trust Fund for Education eyasungulwa eminyakeni engu 35 eyadlula.
- Abakwa English Language Education Trust okuyibona abaphethe loluhlelo, futhi inhlango ebhekele ukufundiswa nokufundwa kolimi lwesingisi emazingeni ahlukehukene ezemfundo, ukukhuliswa nokuqala imibono ngendikimba yohlelo olwakhelwe ukutshalwa kwezihlahla.
- Abakwa Wildlife and Environment Society abanikezeli ngezihlahla-nje kuphela kodwa babuye bafundise ukuthi zitshalwa, zikhuliswe futhi zigcinwe kanjani.
- Abakwa Department of Education basize ngokuthi bakhethe izikole ezizothatha indawo kuluhlelo, babuye bakhuthaze ngokuthi kukhethwe isihloko futhi basize ukubheka ukuthi luya phambili.

NamaWorkshops maduze nje azobanjelwa ezikoleni ukufundisa oThishanhloko nabafundisi kanye nabamele izinhloko zokuphathwa kwezikole (Governing bodies). Le workshop izonikeza umhlahlandlela ibuye ikhombise abafundi ukuthi izihlahla zitshalwa, zinakekelwe kanjani ezikoleni zabo nasemphakathini.

## Uma udinga olunye ulwazi ungathintana no:

Joy Mills-Hackman kwa Sugar Association (031) 508-2028

Cecil Finn kwa Elet (031) 306-8577

Deenadayalan Moodliar (031) 360-6174



Usuku lokutshalwa kwezihlahla zendabuko eMbonisweni H.P. School - Ndwedwe.

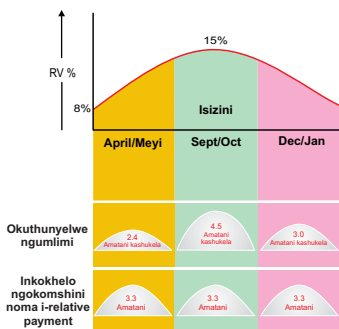


Siyaphemba H.P. School - south coast.

## I-RELATIVE PAYMENT (inkokhelo ngokomshini)

### NGABE ISEBENZA KANJANI I-RELATIVE PAYMENT (inkokhelo ngokomshini)?

Inkokhelo ngokomshini noma I-Relative payment = I-RV % yomlimi - I-avareji RV % yomshini yesonto + I-avareji yomshini yesizini



UMOBA OMUHLE UNENZUZO NGASOSONKE ISIKHATHI

- I RV% iphansi ekuqalekeni kwesikhathi sonyaka ngo April/May
  - Ifice izinga eliphezulu ngo Sept/Oct iye isehla kuze
  - Kube ngu Dec/Jan
  - Imibala-bala ikhombisa izikhathi ezahlukeneyo zonyaka kanye nezinga lomkhqizo kashukela ngokwe RV% umlimi ayitholile.
  - Ekuqaleni kwesikhathi sokuhlala umlimi ukhokhelwa ngoshukela awakhile ongamatani awu 2.4
  - Phakathi nesikhathi sonyaka wokuhlala umlimi wenza amatani awu 4.5
  - Ekuyeni ngasekupheleni konyaka wokuhlala umlimi wenza ushukela ongamatani awu 3.0
  - Izinga lesibini kulomboniso libonisa iintaba zoshukela ezilinganayo ngenxa yokulandela loluhlelo lokulungiselelanisa kwe RV%
  - Lonto yenza intaba kashukela ngesikhathi ngasinye ibengamatani awu 3.3
  - Loluhlelo lwenkokhelo lulinganisa inkokhelo ngokwesikhathi sobude bonyaka wokuhlala ukuze umlimi angaholi ngokwehlukene uma ubedilive ngesikhathi thize onyakeni wokuhlala.
- YINGAKHO SITHI UMOBA OMUHLE WENZA INZUZO ENGCONO NGAZIKHATHI ZONKE.
- Bona umahluko kwintaba zoshukela umlimi azenzile ngezikhathi ezahlukeneyo zonyaka wokuhlala zenza akhokelele ngokwahlukaleneyo.

# OKUMELE UKWENZE NGESITSHA EBESIKADE SIPHETHE UPHOYIZENI UMA USUWUSEBENZISILE ,NGAPHAMBI KOKUTHI SILAHLWE...

( Ukuphathwa kwemithi-chemicals-kusaqhubeka: kusuka ephepheni lango-Novemba 2000, Vol.3, No.3)

## YAKAZA KATHATHU


Kubaluleke ngani ukuyakaza kathathu?

Ukuyakaza kathathu kunciphisa noma kuvikela ingozi engavela: empilweni yomuntu, yesilwane kanye nokunokubezeka kwemvelo .


Lokho nalokho kuyakaza kunciphisa amandla obuthi bukaphoyizeni obusele esitsheni sawo njengoba kukhonjisiwe kulesibonelo esilandelayo.(a-1).

Thululela uphoyizeni esigujini sokufutha ulinde imizuzu engamashumi amathathu uma umuthi usuconsa.Hlambulula isigubhu somuthi ngokushesha ngamanzi ,lamanzi ohlambulula ngawo athele esigujini sokufutha .Amanzi ohlambulula ngawo awangeqi emthameni wesigubhu ebeseiphethe umuthi .


Qikelela ukuthi umuthi awuchaphazeki.


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Thela amanzi sengathi ayagcwala




Vala bese uyaxukuza





Thela amanzi obuhlambulula ngawo esigujini sokufutha **ubuthi bulinganiselwa ku-4000 ppm emanzini okuhlambulula**
- 

Thela amanzi sengathi ayagcwala




Vala bese uyaxukuza





Thela amanzi obuhlambulula ngawo esigujini sokufutha **ubuthi bulinganiselwa ku-40 ppm emanzini okuhlambulula**
- 

Thela amanzi sengathi ayagcwala



Vala bese uyaxukuza



Thela amanzi obuhlambulula ngawo esigujini sokufutha **ubuthi abusabonakali emanzini**
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**Izigubhu ebeseikade siphethe umuthi, ngemuva kokusihlambulula kathathu kumele sibhotshozwe izimbobo ukuze singasebenziseki.**

## INDLELA YOKULAHLA IZIGUBHU ZOMUTHI ESEZISITSHENZISIWE

Ungathululeli noma ufake umuthi emabhodloleni noma ezitsheni zokudla



Musa ukulahla izigubhu zomuthi isinoma kanjani



Izinto eziphatha umuthi akumele zisetshenziswe njengezinto ezizophatha ukudla noma amanzi: kungaba: -okwabantu noma okwezilwane.



Izigubhu eziphatha umuthi mazihlanjuliswe kathathu bese zibhotshozwa ukuze zingasebenziseki



Amaphepha kanye nama plastic abepethe umuthi kungashiswa emlilweni, kodwa hhayi I-PVC. Ayiphazamisi umphakathi.



Izigubhu eziphatha umuthi kumele zenziwe zingasebenziseki bese ziyancishiswa ngaphambi kokuthi zigqitshwe. Gqiba kude nomphakathi, bese uyayibiya indawo leyo.

### Thulula,uhlambulule kathathu bese ugqiba izigubhu ezingenalutho

Lokhu okulandelayo kumelwe kuqikelelwe

- umgodi wokugqiba kumele ube sendaweni ephakeme eqondile
- umgodi okungenani kumele uqhele ngo-50 mithasi endaweni enamanzi (umfula,umthombo,isigayo noma umsele wamanzi), hhayi lapho kuma khona amanzi uma izulu lina. Umgodi okungenani kumele ube ngu-2 mithasi ngaphezu kwendawo enamanzi emhlabathini.
- Gwema izindawo eziyisihlabathi ngoba azikwazi ukubamba amanzi lokhu kungenza ukuthi kunokubezeka amanzi angaphansi komhlaba
- Umgodi kumele ube sabheseni: ububanzi 2-3 amamitha kanti ukuya phansi ungaba u 1-1.5 amamitha
- Umgodi kumele ufakwe umcaka emacaleni naphansi ongaba ngu 3-5 amasentimitha
- Izinto ebeziphethe umuthi ezipacaziwe mazifakwe emgodini zingeqi u 10-15 amasentimitha ukuya phansi.Lowo nalowo 10-15 wamasentimitha mawuvalwe ukuze kuvikelwe ingozi yobuthi.
- Umgodi mawuvalwe ngendlela yokuthi amanzi emvula engakwazi ukungena
- Uma umgodi usugcwaliswe indawo engango 50 sentimithasi kusuka phezulu,mawugqitshwe ngomhlabathi igqitshwe bese kuthi lena engaphezulu yenziwe ngendlela ezokwenza amanzi emvula egobhoze.
- Biya indawo okulahlwa kuyo,ukuze umphakathi nemfuyo kungangeni.
- Beka uphawu oluxwayisa ngengozi yokuthi kulahlwa umuthi.