

# PULA IMVULA

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## *Uguquko aluvinjwa – ukukhula kuyakhethwa*

**M**HLAMBE NGABE SIKHONA ISIMO, UMSEBENZI NOMA UMKHUBA EMPILWENI YAKHO OKUNGADINGEKA SIGUQLWE? FUTHI UTHINI NGEMIKHUBA YAKHO YEBHIZINISI NEZINDLELA ZAKHO ZOKULIMA – KUNGAEA NAZO ZIDINGA UKUVUSEZELWA, UKUHLEHLISWA UKU-KHUNJUZWA UKUZE UGCINEKE USESIMENI ESIFANELE NESI FINYELELE EMAGOLINI AKHO?

Ngesikhathi ubaba wami oneminyaka engama-86 ubudala ephenduka umfelwa eminyakeni emithathu edlule, wakhungathwa usizi olukhulu waphelelwa yithemba kakhulu waphelelwa amandla njengoba

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wayesecabanga ukuthi ayisekho into ayiphilelayo. Ngolunye usuku ngathi, 'Uyazi Baba, uMama ubengenakho ukuba akhethe ukuphila, kodwa wena ... unakho ukukhetha ukuphila ngendlela yokuhlonipha izimpilo zenu nobabili ngokuthi uphile impilo yakho kahle!'



## IZWI LIKA... Jannie de Villiers

**E**NINGIZIMU AFRIKA BEKUWUNYAKA OMUHLE KWEZOLIMO KULE SIZINI EDLULE. IZILIMO BEZIZINHLE, NGAPHANDLE NJE KE KOKUTHI IMVULA IFIKE EMVA KWESIKHATHI. ISIBIKE-ZELO SESIZINI ENTSHA OKWAMANJE NASO SIBUKEKA SISIHLÉ. INDAWO LAPHO ABALIMI ABASHA ABEBAHEKENE NESOMISO KUYO YIZIMALI ZOKUXHASA IZILIMO. UBUNGOZI BOKUNATHANDI KWAMABHANGE OMNOTHO UKUXHASA IZILIMO ZETHU KUYADUMAZA. UMA LUNGEKHO UGUQUKO, NGEKE SIKUBONE UKUKHULA KULO MKHAKHA.

Mhlawumbe sekuyisikhathi sokuba kubhekisiswe uMthetho weZikweleту ozovulela ithuba elikhulu lemigomo ezolawula ukukhiqizwa kokudla. Sinesomiso futhi ohlangothini lwamaphrojekthi kahulumeni. Ikhona imali eyanele, kodwa kungani kufanele ifike emva kwesikhathi yonke iminyaka kuze kube manje asiyitholi impendulo. Isimo sokuba umnikazi wezinto kodwa zingadedelwa kweBhange loMhlabi i-Land Bank nakho akusizi. Lesi yisikhungo sikahulumeni okufanele senze kahle uma intuthuko kungumsebenzi waso. Ngikuthola kunzima ukukholwa ukuthi uhulumeni ucabanga ukukhipha i-SAA ekuhluphekeni kwayo, kodwa hhayi i-Land Bank.

Kodwa, ngaphandle kwazo zonke lezi zinkinga zokungaxhaswa kwabalimi ngemali yezilimo, amathani akhiqizwayo ayakhula. Uku-bekezelə okwenza umhlaba wabalimi baseNingizimu Afrika waziwe nakho sekukhona kubalimi abasebasha. I-'n Boer maak 'n plan', yi-DNA yabalimi bonke, kungakhathalekile ngosayizi. Iphrogramu eThuthukisa abaLimi i-Grain SA isayne isivumelwano esisha nabaxhasi abazosiza abalimi bethu ngezimali. Ezinye zalezi zivumelwano zifinyelela nangaphezulu kweminyaka emine. Lokhu kuyakhuthaza kakhulu. Abalimi abakula maphrogremu alawulwa yi-Grain SA benze kahle nabaxhasi bakhuthazekile ngemiphumela.

Ekugcineni, iGrain SA yenye utshalo olusha lokuthuthukisa ezokulima. Sithole inkampani entsha: iPahama Grain Phakama. Le nkampani izogxila kuphela ekuthuthukiseni abalimi bokusahlamvu futhi izoholwa abaholi beGrain SA iphindie iphathe yisitafu seGrain SA.

Nginifisela ukuvuna okuhla kuka-2021. UNkulunkulu asiphe izimvula ezinhle, njengoba Asithumelela iNdodana Yakhe eYodwa ukuba isinikeze ithuba lokukhula nokuthela izithelo ezinhle ekubuyenii Kwayo ngelinje ilanga. Nibe noKhisimus omuhle nonyaka omusha onempumelelo ongenayo i-COVID. ■

## Uguquko aluvinjwa...

Ubaba wami wathula, kodwa ngosuku olulandelayo wenza iphoyinti lokuyohlolwa izindlebe zakhe, futhi wazibhukela ukuba ayohlolwa abezempilo. Wanquma futhi ukuthi esikhundleni sokulindela ukuthi abantu bamfonele, ukhona azomfonela yena osipesheli njalo ngo-suku bavuselelane baxoxe izindaba zabo zakamuva ... futhi wakwenza lokho!

Ngosuku olulandelayo wathatha ifenisha endala waqala ukuyihwaya kwathi ngamahora ambalwa yabe isiguqukile isibukeka iyintsha ceke – kanganokuba zonke izingane zamcela ukuba aziphe yona. Lokhu kwaqalisa uchungechunge lokwensiwa kwemisebenzi. Waqala ukuhambela izindali ethenga ifenisha yokhuni endala futhi eyivuse ibe yinhle bese eyipha abantu. Masinyane izinsuku zakhe zaba matasa zagcwala injabulo. Ngesikhathi enesizungu futhi ehlezi yedwa bezingekho izindali futhi engekho nakhulumia naye, ngakho esikhundleni sokwentuleka komsebenzi wezinkuni, waqala ukwenza amathoyizi amahle okhuni. Eneminyaka engama-86 usafunda amakhono amasha zonke izinsuku. Ukuzithembä kwakhe kukhula zonke izinsuku. Ubaba wami ushintoshile. Kumnandi ukuhlala naye futhi usabalalisa izinhlobo zakhe ezehlukile zothando nokunakekela. Usamkhumbula uMama zonke izinsuku – kodwa uphila impilo enhle futhi ufakelana ugqozi futhi nabazukulwana bakhe bayathanda ukndlala ngezimoto zabo namathraki awakhandayo! Ayikho inqubekelaphambili engenzeka ngaphandle koguquko; nalabo abangaziguqli izingqondo zabo akukho abangakuguqla!

Zonke izinhlangano zabantu nemathiriyali  
yezinsiza kufanele zisetshenziswe kahle  
ngendlela efanele nangesikhathi esifanele  
ukusungula imikhiqizo eyikhwalithi  
ephezulu ngentengo eyiminimamu.

### 'KODWA BESIHLALE SIKWENZA NJALO NGALE NDLELA!'

Lo ngomunye wemishwana eyingozi kakhulu. Ezinye izindlela ezindala zinhle kodwa kuyadinga ukuba uyhlole i-value yokwenza izinto ngendlela obekuhlezi kwenziwa ngayo izinto futhi kubuzakale ukuthi ngabe zikhona yini izindlela ezintsha, ezehlukile zokwenza. Ukuhintsha umuntu nomamaplane omuntu kuyinselelo, kodwa ukuvuma ukujwayeza nokuguquka kusho ukuthi uzimisele ukwenza nomam yini ukuze ukhande izinto ezi-ntsha zekusasa elingcono. Ushintsho luyadinge ka futhi ngezinye izikhathi kudingeka sike sime sizibheke izimpilo zethu, amabhizinisi, amagoli ethu nesikuhsilosile. Kudingeka sizibuze ukuthi yini okufanele sicabange ukuyishintsha. U-Winston Churchill wake wathi: 'Ukuba ngcono ukushintsha; ukuba kahle kakhulu ukushintsha njalo!'

### UMSEBENZI WOKUKHIQIZA

Isisekelo somgomo wokupathwa kwebhizinisi uthi: 'Zonke izinhlangano zabantu nemathiriyali yezinsiza kufanele zisetshenziswe kahle ngendlela efanele nangesikhathi esifanele ukusungula imikhiqizo eyikhwalithi ephezulu ngentengo eyiminimamu'. Lokhu kusho ukuthi ukuhlala esikhathini samanje nokwenza izinguquko ngezikhathi zonke, isibonelo kudingeka senze ibhange lokudla elingcono ukuze sinciphise ingcindezi nezindleko ezedalwe ukondla imfuyo yethu ngezinyanga



ezinesomiso ngakho sifuna ukutshala amadlelo amanangi otshani kanye nezilimo eziyisembozo.

Umsebenzi wokukhiqiza wanoma yiliphi ibhizinisi unghahlaziwa ngokubuza imibuzo enje:

- Impumelelo yomsebenzi – ngifinyelela kanjani egolini lebhizinisi lami?
- Impumelelo yekhono – yiziphi izindleko ongene kuzo endleleni yokuphumelelisa igoli lakho?

Imenenja umuntu oplanayo, ohlelayo, oqondisayo nolawula ukwabelwa kwabantu, impahla phecelezi *material*, izimali kanye nolwazi Iwezinsiza zokulandela amagoli ebhizinisi futhi uma unguumlimi kusho ukuthi WENA! Ngabe ucophelela kangananani nokuhlaziya uma uplana imisebenzi yakho yokulima? Ngabe uqoqa ulwazi, ukubheka indawo yezolimo, ukulinganisa umsebenzi wezithukuthuku zakho, izimoto zakho namasamplimenti, amasimu akho? Ngabe ukucabanga kwakho ngokujulile kungananani okuletha ekulimeni kwakho?

#### **Ukuphazamisa amaphethini amadala ajwayelekile emkhakheni wezolimo**

Kwesinye isikhathi ushintsho luthambile nangokuzikhethela kwakho, isibonelo, mhlawumbe kudingeka silethe isilimo sesithathu kusistimu yethu yokushintshanisa izilimo noma mhlawumbe kudingeka siqashe enye insimu ukuze sikhawi ukuthi kube kughubeka ukushintshanisa; kodwa kunezikhathi eziningi lapho kufika khona isidingo sokushintshanisa siba sikhulu kakhulu ‘ebusweni bakho’ kuze kungakhululeki futhi kube yinselelo enku. Akekho kithina owabiza isomiso noma ukuguquka kwesimo sezulu ezimpilweni zethu kodwa siqinisile ngokubhekana nezinkinga futhi sijwayeze amasistimu okulima ukuze simelane kangcono nalezi zinselelo.

#### **Kulula kabi ukuthi cha oguqukweni kodwa akukhona ukuhlakanipha**

Qinisekisa ukuthi izizathu zakho akuzona izaba nje nemizamo yokuhlala entweni ejwayelekile: Anginaso isikhathi esanele; ayikho imali eyanele; sengimdala kakhulu ukuba ngingashintsha; Angazi ukuthi

ningashintsha kanjani; ngizokwazi kanjani ukuthi kuzoba usizo ... uguquko ludinga isibindi.

#### **Kukangakhi singabhekani nemiqondo emisha emkhakheni wezolimo?**

Eminyangeni engama-40 sisekulimeni senze izinguquko eziningi, ubuchwepheshe obusha, izinguquko kumadimandi abathengi, amasistimu angcono, ingcindezi ngemisebenzi ekuncipheni kwenzuso; izinguquko zamaplane omshwalensi kanye namathuba oxhaso Iwezemzimali. Ngakho sezwa:

- ‘Okukhulu kungcono’ – ngabe lokhu kusho ukuthi umsebenzi wami wokulima mncane noma awuqinile?
- ‘Ithileji emiminamu’, ‘ino – thileji’, ‘i-conservation tillage’ – igama elisha elidumile elithi ulusungulwa kabusha kokulima phecelezi ‘regenerative farming’; – yiliphi elilungele mina? Yiliphi engingalikhona?
- ‘I-Climate smart farming’ – Ngingumlimi omncane phecelezi i-small-scale; ngingashintshela kanjani ku-climate smart farming? Ngubani owaziyo ukuthi yini engcono esifundeni sami? Ubani okufanele ngimlalele?

#### **ISIPHETHO**

Qina isibindi futhi uyivume leyo ngcindezi yoguquko luhlale lukhona. Akuyona yonke into okufanele iguqulwe. Kodwa kudingeka ukuthi sinnethiwekhe, asizifundiseni thina, sixhume embonweni yochwepheshe futhi silubone lolo guquko ngezinhlolo eziningi kubalulekile empilweni nasemsebenzini womlimi. Abalimi abaphumelelayo nabaguqukayo babalulekile ekwakheni izwe lethu. Ukuthuthuka ngamunye nasekulimeni koyedwa akuguquki futhi kungamandla adingekayo. Ukuthanda ukulalela, ukufunda nokuguquka ukuqala kwempumelelo. Umgondo wokugcina futhi: ‘Izolo bengihlakaniphile ngakho ke bengifuna ukuguqula umhlaba. Namuhla nginobuhlakan ngakho ke ngiziguqukela mina!’ ■

# QaphEla izifo

## ZAMAQABUNGA emmbileni

**N**GALESI SIKHATHI SONYAKA AMA-INPUT OKUKHI-QIZA UMMBILA KUFANELE NGABE SEKWENZIWE EZINGXENYENI EZISEMPUMALANGA YEZWE. UKU-APLAYWA KWAMA-*HERBICIDE* NE-TOP DRESS ISENGENZIWA EZINDAWENI ZOKUKHIGQIZA EZI-SENKABENI NJENGASEFREYSTATA NASENYAKATHO NE-NTSHONALANGA. KUBALULEKILE FUTHI UKUBA UQAPHELE I-STEM BORERS YOMMBILA.

Kunezinambuzane ezahlukene kule sigaba ngakho xhumana nabakumele ukuze wenze isiqiniseko sokuthi uthola amakhemikhali afanele a-aplaywa ngokulungile.

Ukucela usizo akulona uphawu lokuba buthaka kodwa ukuba namandlal. Kunjalo ke nasezifeni zamaqabunga ommbila. Ukufakwa kwamakhemikhali ngendlela engalungile ngeke kusilawule isifo, isivuno sizolahlekam namakhamikhali kusazodingeka ukuba akhokhelwe. Ukushaywa ngemfe iphindwe.

Umonakalo odalwa yi-grey leaf spot, i-bacterial streak, ne-sunburn kwesinye isikhathi kudidaniswa ne-untrained eye. Ukulawulwa kwalezi zinkinga kuhluke kakhulu, futhi kwezinye izimo akwenzeki. I-Pannar Seed's free smartphone app, i-Sprout ngumthombo wolwazi okahle kakhulu. Uyafingqa futhi unikeze incazele emfushane yezifo ezibalulekile ezitholakala emmbileni eNingizimu Afrika. Lokhu kwenza ukuba umlimi ngokuhlanganyela nalima nabo endaweni noma abadayisi bamakhemikhali ukuba bamenenje izifo eziqondene ngokufanele.

Ngaphambi kokuba kwenzeke, okubaluleke kakhulu isifo samaqabunga sommbila sinezidingo ezahlukile ngokwezimo zendawo okuhlalwa kuyo. Okunye futhi, ukuhula ngokhwesigaba somzimba wesitshalo yikho okushoyo ukuthi izifo ezithile zizovela nini.

Isifo samaqabunga ommbila esibaluleke kakhulu okufanele umlimi asiqaphele zihlanganiswe **kuThebula 1**.

### I-NORTHERN CORN LEAF BLIGHT

Isifo samaqabunga esivamile esenzeka ezindaweni eziningi ezikhqiqa ummbila eNingizimu Afrika yi-northern corn leaf blight (i-white rust)

**Isithombe 1.** Izimo zenhlalo yendawo ezipromotha isifo yizimo zamazinga okushisa akahle (18°C - 27°C), izimo ezinomswakama namazolo esikhathi



1 -Northern corn leaf blight



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eside. Ama-fungus aphila ngezinsalela zamaqabunga ommbila, kanye neminye imithelela eminingi ekhula isizini yonke ngenxa yokuba khona komonakalo.

Ngokuvamile omonakalo ubonakala kuqala emaqabungeni angaphansi, futhi njengoba ama-spores akhululwa ngaphansi kwezimo eziwavunayo kulawo monakalo, amahlamvu angaphezulu anomthelela futhi kungathi isifo sikhuphuka nesitshalo.

### I-COMMON RUST

**I-Common rust (Isithombe 2)** ngokuvamile ibonakala kokuqala ngesizini ezitshalweni eziencane zommbila. Izimo zenhlalo yendawo ezipromotha isifo amazinga akahle (16°C - 25°C) nezimo ezinomswakama (>95% umswakama). Umthelela i-Common rust ipromothwa yizimo zamazolo/inkungi – ikhakhulukazi ebusuku ngenkathi ama-spores akusafesi yeqabungeni eqhuma ebhoboza iqabunga aze ayofika kustomatha.

Izimpawu zokuqala zomthelela i-rust zibonakala mhlambe ezinsukwini eziyisihlanu emva komthelela wokuqala njengamakhifkhifi amancane emaqabungeni, kanye namaqhuhuva e-rust yangempela (izinsuku eziyishumi kuya kweziyi-14) (**Isithombe 2**) bese iyakhula futhi ikhulule izinhlavu ezincane phecelezi spores. Uma ziphuma izinhlavu zingasabalaliswa umoya zigcwale indawo enkulu. Lezi zinhlavana zingaze zibe nomthelela kuso lesositshalo futhi ngayo isizini efanayo.

### I-GREY LEAF SPOT

Esinye isifo seqabunga lommbila esibalulekile yi-grey leaf spot (**Isithombe 3**). Izimo zenhlalo yendawo ezipromotha isifo amazing akahle okushisa kuye kwaphetzulu kanye nomswakama omningi (>95%).

Izimpawu zesifo ziqala ukubonakala ngesikhathi sokuqhakaza – nakuba zingashasha ukubonakala ngaphansi kwezimo zengcindezi ephezulu yezifo.



2 -Common rust.

Izifo zamaqbunga/zimpawu	Uhlobo	Izigaba zokukhula	Izimo	I-Fungicide	Ukulawula
I-Common rust (Isithombe 2)	I-Fungus	Izigaba zakamuva i-V (V8+)	Amazinga okushisa akahle (16°C - 25°C).	Yebo	Ukukhethwa kwama-Fungicides ne-hybrid.
I-Northern corn leaf blight (Isithombe 1)	I-Fungus	Izigaba i-V6 kuya ku-R	Amazinga okushisa akahle (18°C - 27°C); Amazolo esikhathi eside/umswakama omningi.	Yebo	Ukukhethwa kwama-Fungicides hybrid, ukushintshaniswa kwezilimo nokutshala ezimvithini zeztshalo.
I-Grey leaf spot (Isithombe 3)	I-Fungus	I-Fungus uma kuqhakaza (VT - R1+)	Amazinga okushisa akahle kuya kwashisayo (22°C - 30°C); amazolo esikhathi eside/umswakama omningi (>95%).	Yebo	Ukukhethwa kwama-Fungicides hybrid, ukushintshaniswa kwezilimo nokutshala ezimvithini zeztshalo.
Isifo semikhwa-zzi yommbila (Izithombe 6)	Ivariysi	Izigaba i-V	Izindawo zeThrophikha lapho zihlala khona unyaka wonke, kanye nezimo ezikhulisa i-vector activity (ikakhulukazi ezindaweni eziniselwayo ezishisayo).	Cha	Ukulawula i-leaf hoppers (isistimu yokwelapha imbewu nokufafaza nokulawula ukhula).
I-Bacterial streak (Isithombe 5)	I-Bacterium	Ukusuka ekuqhakazeni (VT - R1+)	Izindawo ezifudumele, eziniselwayo.	Cha	Ukushintshanisa izilimo, amasimu angalinyiwe nokubulala izinsalela zeztshalo ezinezimbuzane.
I-Sunburn (Isithombe 4)	Inhlalo yendawo	Izigaba zonke	Ukushisa/ukuvimbela ilanga.	Cha	Ukukhethwa kwe-Hybrid nokuphathwa komswakama.
I-Phaeosphaeria leaf spot	I-Fungus futhi mhlambe nebhaktheriyamu ephicyayo	I-R3+	Izindawo ezinomswakama omningi namazinga okushisa apholile ebusuku.	Ukusebenza okuphansi	Okungavamile ukudingeka, Kodwa ukukhethwa kwe-hybrid kubulala izinsalela zeztshalo ezinezimbuzane nokuhlehliswa kwezinsuku zokutshala kungasiza.
I-Downy mildew	I-Fungus	Izigaba zokuqala ze-V	Izindawo ezifudumele neziswakeme, (ezindaweni ze-Throphikha), ikakhulukazi emasimini lapho kwabonakala khona izifo esikhathini esiphambili. Amazinga okushisa enhlabathi angaphezelu kuka- 20°C aphromotha umthelela.	Yebo	Ukwelashwa kwenhlabathi nge-metalaxy, izinsuku zokuqala zokutshala amasimu ahlaselwe yizinambuzane, imbewu eyikhwalihi enhle futhi ukugweme ukushintshanisa izilimo ngamabele.
I-Diplodia leaf streak	I-Fungus	Zonke izigaba	Izindawo ezifudumele, ezino-mswakama nethileji eminimamu.	Yebo	Ukushintshanisa izilimo nge-agl enhle ngokutshala ezimvithini.
I-Eyespot	I-Fungus	I-R3+	Izimo ezipholile nezinomswakama, oyiminimamu thileji, izilokazana eziyizinambuzane ezifana nama-thrips ne-aphids kungaphromotha ukugcwala kwezilokazana.	Yebo	Ukushintshanisa izilimo, ukutshala phezu kwezimvithi nokulawuluwa kwezinambuzane.
I-Polysora rust	I-Fungus	I-R3+	Izindawo zeThrophika, ukufudumala (24°C - 28°C), isimo sezulu esiswakeme.	Yebo	Ama-Fungicides and earlier.

Lesi yisifo samaqbunga esenzeka kakhulu KwaZulu-Natal naseNkangala engasempumalanga, lapho kuheleza khona inkungu na/noma umswakama omningi namazinga aphezelu okushisa.

Ukhona umcabango oyiphutha wokuthi ama-spores e-fungus ahamba ngomoya kuphela futhi asabalaliswa wumoya nemvula. Ama-spores nge-mpela angasabalaliswa umoya, kodwa kukhona ama-secondary spores angasabalala asuke kwesinye isitshalo aye kwesinye ngasekupheleni kwe-sizini – futhi ngokuvamile kuba ngamabanga amafushane.

Empeleni umsuka walesi sifo kuba yizinsalela zeztshalo zangesizini edlule lapho i-fungus ihlala khona, futhi masinyane ngenkathi izimo ziyivuna ngesizini entsha, ama-spores ayakhululwa lokho kungaba nomthelela emaqabungeni angaphasi zeztshalo.

Lo monakalo ukhiquza ama-spores amasha, kangangokuba njengoba iqhubeka isizini yokukhula, ayakhululwa futhi asabala-

liswe amathonsi emvula nomoya aye emaqabungeni amasha aphezelu esitshalweni. I-grey leaf spot ivamise ukudidaniswa ne-sunburn/drought inhibition (Isithombe 4). Ayisaphathwa ke, eyomonakalo wesomiso ongalawuleki kanye nomsebenzi ongadingekile yezi-mbangela ze-fungicide njengembambezela ephindiwe kumlimi. Azi-kho izifo ze-fungal ezibalulwe ngenhla ezishiwo eziyi-seed-borne.

### I-BACTERIAL LEAF STREAK

I-Bacterial leaf streak (Isithombe 5) isifo esenzeka ezindaweni ezikhiquzayo ezsentshonalanga nazo futhi le zimpawu zididaniswa nalezo ze-grey leaf spot. Isifo se-bacterial ngeke silawuleke ngama-fungicides kanye nokufuthwa kwayo kungaba yiphutha elibizayo – ngaphandle kwemiphumela.

## Qaphela izifo zamaqabunga...



3

I-Grey leaf spot.



5

I-Bacterial leaf streak.

### ISIFO SEMIKHWAZI EMMBILENI

Isifo semikhwazi emmbileni (**Isithombe 6**) sidalwa yivariyasi yemikhwazi emmbileni. Yisifo esiphicayo, lapho ivariyasi idluliswa yi-leafhopper. Izimo zezendawo zithinta isigameko, sokuphila nokusabalalisa okwenziwa yi-leafhopper – okunquma ngesigameko namandla esifo.

Ivariysi yemikhwazi yommbila ngeke ilawulwe yi-fungicide. Ukulawula ivariysi yemikhwazi kubandakanya inhlanganiselala yezinyathelo zokunciphisa noma ukwehlisa ubungozi besifo. Nakuba izibulala zinambuzane phecelezi *insecticides* zisebenza njengokwelapha imbewu futhi kuvimbele ama-leafhopper engazidli izitshalo evisencane nokungadlulisi ivariyasi, ayikho igaranti noma isixazululo esisheshayo sesifo.

### ISIPHETHO

Zikhona ezinye izinhlobonhlobo zezifo zamaqabunga angabalulwanga kule athikhili ngenxa yokuthi azivamile noma zithukela ziba khona. Kodwa lokhu akusho ukuthi ngeke ziwidale umonakalo omkhulu esivunweni ngaphansi kwezimo ezelungile. Ukuze unyakaze ngaso sonke isikhathi, kuhle ukuba uqhubeke nokubuza emithonjeni emihle noma kochwepeshe uma kukhona izimpawu evisolisayo ezibonwayo. ■



4

I-Sunburn/drought evimbela izimpawu emaqabungeni ommbila.



6

Isifo semikhwazi emmbileni.

# Ukusebenzela ukuba nabasebenzi abazinikele nabankamunkamu

**A**BALIMI BANGAPHANSI KWENKULU INGCINDEZI YEZINDLEKO EZIDALWA UKWENYUKA OKUBONAKALAYO KWAMANANI AMA-INPUT OKUBALWA KUWO I-MINIMUM WAGES. INDLELA YOKUNQOBA INGCINDEZI UKUKHULISA UMKHIQIZO. KUMA ATHIKHILI APHAMBILINI SIXOXILE NGEZINYE IZINDLELA EZINGASETSHENZISWA UKUZE KWENYUSWE IMALI ENGENAYONA/NOMA UKWEHLISA IZINDLEKO ZOKUNAKEKELA IPHROFITHI IHLALE IKHONA.

Empeleni, abalimi kufanele bezame ukutshala kakhulu na/noma kangcono ukuze bagcine iphrofithi ihlale iba khona. Ngakho ke kuyadingeka ukusebenzia umzamo wokugcina iphrofithi ngezindlela zonke ezahlukene.

Kule athikhili sizogxila kubasebenzi bebhizini nobudlelwano babo nomqashi wabo okwaziwa ngokuthi ezabasebenzi. Ingcindezi yezezimali iphoqa abanikazi/izimenjeni zebhizini ukuba zibheke abasebenzi bazo ngendlela ehlukile. Izindleko zabasebenzi zikhuphuke kakhulu futhi kelezi zinsuku zingezinye sezindleko eziphuzelu ebhizinisini.

Ukukhiqiza epulazini kuhambelana nabasebenzi abaningi abenza umsebenzi, isikhathi esithathwayo ukwenza umsebenzi kanye nemiphumela yomzamo womsebenzi. Uma abasebenzi bekhiqiza kakhulu, bonga isikhathi na/noma basebenzisa izinsiza ngokugculisayo nemiphumela engcono. Imiphumela kuba ukuncipha kwezindleko na/noma ukwanda kwemali engenayo.

## NGABE NGINGAWENZA KANJI UMKHIQIZO KANGONO?

Ukuze kwensiwe umsebenzi kubandakanyeka abantu nabo basebenzisa eziyne izinsiza (amatulusi nemphala yokusebenza) Ngakho ke **umsebenzi = abantu x izinsiza**. Ngakho ke abantu bangumgogodla ekubeni umsebenzi wenzeke kanti nomqondo wabo ubalulekile. Imigomo okufanele kuxoxwe ngayo iyasebenza noma unomsebenzi oyedwa noma ngaphezulu.

Esikhathini esiphambili abaqashi bebengazi ukuthi isimo somqondo wabasebenzi sibalulekile ekukhiqizeni. Umqondo ojwayelekile bekuba ukuthi abantu abafuni ukusebenza, kudingeka baphoqwe futhi babehlukunyeza ukuze ubenze ukuba basebenze. Umphumela walokho kwabe kuvukungabikho kobudlelwano nabasebenzi. Izinto zaba zimbi kakhulu kwaze kwaze kwangenelela uhulumeni ngomezamo wokulawula ubudlelwano ngokomthetho. ENingizimu Afrika sinendathane yemithetho yezabasebenzi okubalwa kuyo Umtetho wezabasebenzi phecelezi *i-Labour Relationship Act*. Ngokugcina umithetho evuniyi, abaqashi sebevelo benza isisombululo sobudlelwano obungcono. Kodwa, kuningi okukhona ekwakhiwi nobudlelwano obuhle kunezindaba nje ezishiwo ngumthetho.

Kubekwe kakhulu ukuthi isimo somqondo wabasebenzi sinomthelela omkhulu ekukhiqizeni. Ubudlelwano phakathi komqashi nomsebenzi bu-wukhiye enjabulweni endaweni yokusebenza nokuxhumana nesisebenzi. Ukungaphathwa kahle kwabasebenzi, umphumela walokho kuba yisimo mqondo esingasihle kubasebenzi, kanjalo nakumqashi. Abasebenzi abanesimo mqondo esingasihle basebenza kancane banwabuluke, umsebenzi bawenza ngokunganaki, bayawephula amathuluzi nezinje izinsiza, benza umsebenzi ongagcwlisi, bafika emva kwsikhathi emsebenzini, bathatha izinsuku bethi beyagula isidingo singekho, nukonye okuningi. Lezi yizo zonke izinkinga ezidala ukwehla komkhiqizo ube phansi.

Uma abasebenzi bekhuthazekile futhi bephethwe ngendlela efanele, bazoba nomqondo ovumayo futhi bazozinikela ekwenzeni umsebenzi ngokufanelekile bazophinde babe abasebenzi abathembekile. Imiphumela – umkhiqizo uba ngcono. Inselelo kubaqashi kuba ukuthi kufanele baphatthe kanjani abasebenzi ukuze bagqugquzeleke ukutheni benze

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*Ukuba nobudlelwano obuhle nabasebenzi bakho kuzokhulisa umkhiqizo kanye nenzozo yakho.*

umsebenzi ngokugculisayo. Ukusebenza nabantu kungaba nzima ngenxa yokuziphatha ngezindlela ezingafani, ukuphakama kwemimoya, imicabango, ukuziphatha nangezenzo.

Kafushane, kufanele uphathe abasebenzi bakho njengabantu futhi na-njengoba ungathanda ukuba imenenja ikuphathe ngayo. Phatha abasebenzi bakho ngesizotha, ngenhoniph, ungenzeleli ngaphansi kwazo zonke izimo, ubone umfutho wabo, ubanikeze umsebenzi bazibophezele, baqequeshe futhi ubanike umvuso ngokufanelekile. Khulumu nabasebenzi bakho njalo mayelana nombono wakho nokuhlosile nezinjongo zebhizini nendima yabo ukuze ukufezekise lokhu. Ungakhohlwa ukukhuluma nabasebenzi bakho ngendlela abasebenza ngayo futhi ubancome futhi ubabonge uma isidingo sikhona ngokwenza kwabo umsebenzi omuhle. Ungabakhulumi kabi abasebenzi bakho. Kodwa futhi, uqinise futhi uqine ngalokho okulindele kubona. Uma umsebenzi ephambukile, thatha izinyathelo ezifanele ngokwenqubo yakho nangendlela yokumqondisa izigwegwe nangokuziphatha. Ngaleyondlela baphatthe ngokungenzeleli nangokuba nomthetho oqinile.

Uma welulekwa ngokuthi kufanele abasebenzi bakho ubaphatthe njengabantu, asisho ukuthi kufanele ubaphatthe 'njengabangani bakho' kukude kakhulu kunalokho.

Ukuze uthole umkhiqizo omningi uphinde uqinisekise ukuthi ibhizini lihamba phambili, kufanele lokho ukuthole kubasebenzi bakho. Udinga abasebenzi abazinikele nabankamunkamu. Ukuze uphumelele kulokhu, kufanele futhi ucabange indlela oqasha ngayo abantu. Qinisekisa ukuthi yimaphi amakhwalithi owafunayo. Ngabe ukutholile ukuhlaziwa komsebenzi ngokulungile? Ngabe uyabaqeqesha emsebenzini abawenzayo? Ngabe uyawazi amandla nobuthakathaka bomsebenzi ngamunye futhi ukusebenzisa ngendlela lokho? Iqiniso nanti, Ungabaphatha kanjani abasebenzi bakho uma ungabazi bonke ngamunye? Ukuze ube umuntu okhiqizayo kufanele ukhuthazeke futhi ube nomqondo omuhle namandla namakhono adingekayo.

Abasebenzi bakhe ubaphatthe ngobuhlakan ukuze ukhulise ukukhiqiza futhi ukhulise nephrofithi yakho. Umkhiqizo ophezulu ungadala ukuncipha kwezindleko na/noma ukhulise imali engenayo, lokho kuzoletha iphrofithi engcono ezoholmulisa bonke ababandakanyeka ebhizinisini – umqashi nabasebenzi. ■

# Okungenzeka emakethe yommbila ngesizini ezayo

**K**ULE ATHIKHILI SIZONIKEZA INCAZELO JIKELELE YESIZINI YOKUMAKETHA KA-2020/2021, NGO-KWEMIGOMO YESAPLAYI NEDIMANDI KANYE NAMANANI ENTENGO.



## IZIMO ZEZIMAKETHE ZAMAZWE

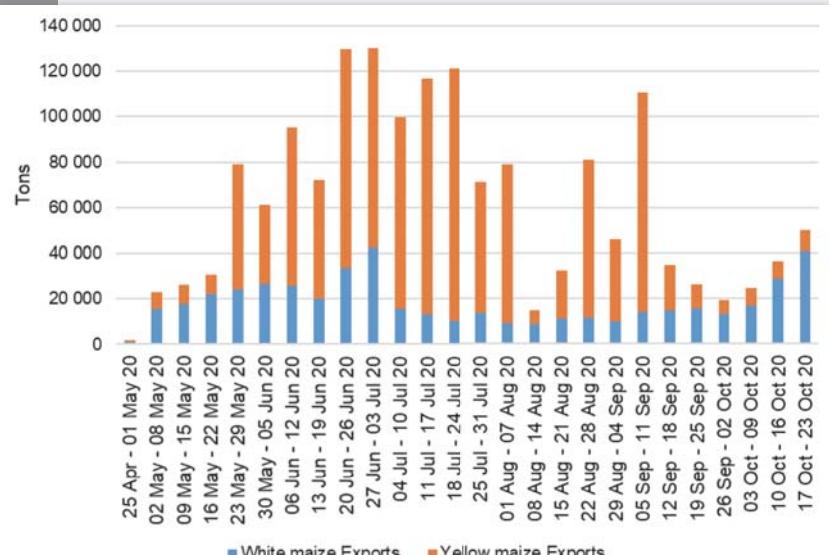
Kubukeka kuzokwenzeka okuhle ngesizini entsha yommbila emhlabeni jikelele, nomkhqizo olindelekile ozokwedlula wangesizini edlule ngo-2,8%. Kodwa, izimo ezinhle zezulu ziphansi kwezinye izingxeny zamazwe akhiqiza kakhulu kubambezela ukuvuna kanye nokutshala, lokhu kuhambisana nedimandi enamandla, ikakhulukazi esuka e-China. Umthelela ubonakala ngokwenyuka kwamanani entengo kubakhqizi abakhulu abafana ne-USA, i-Ukraine, i-Brazil ne-Argentina; ngenxa yalokho, sibone amanani entengo ekhuphuka nase Ningizimu Afrika, ngenxa yomthelela wesimo sokukhiqiza kanye ne-axchange rate yalawo mazwe anakho ezimakethe zethu zasekhaya.

## IZIMO ZEZIMAKETHE ZAKULELI

Ngokwama figa akamuva e-SAGIS, amadilivari omkhiqizi wommbila ngasekupheleni kuka-Okthoba isamba sawo sibe ku-13,8 wezigidi zamathani, u-7,9 wezigidi zamathani kube ummbila omhlophe kanti u-5,9 wezigidi zamathani kwaba ummbila ophuzi, kwafinyelela ku-93,6% ngokombiko wokhiqizo okhishwe yi-Crop Estimates Committee (CEC) (Ithebula 1).

1

Ummiba wakuleli omhlophe nophuzi othunyelwa emazweni ngeviki.



Umthombo: SAGIS

1

Isaplayi yakuleli nedimandi.

	2019/2020	2020/2021
<b>Isaplayi</b>	<b>Amathani</b>	<b>Amathani</b>
Isitoko sokuvula	2 663 086	1 000 601
Okudilivwa ngumkhiqizi	10 887 053	14 750 220
Okuthengwa emazweni	509 684	0
Amadilivari okuqala	15 057	-1 241
Okusele	22 336	28 000
<b>Isamba sesaplayi</b>	<b>14 082 159</b>	<b>15 777 580</b>
<b>Idimandi</b>		
Idimandi yakuleli	11 106 412	11 269 000
Ochwepheshe	1 745 000	2 560 000
• Imikhiqizo	360 812	300 000
• I-Whole maize	1 448 761	2 150 000
<b>Isamba sedimandi</b>	<b>13 081 558</b>	<b>13 890 500</b>
Izitoko zokuvala (30 Ephreli)	1 00 601	1 887 080

Akumangalisi ukuthi asinawo ummbila esiwuthenga emazweni angaphandle, ngenxa yesilimo esikhulu sale sizini. Isitoko sokuvala esilindelekile sokuphela kwsizini (30 Ephreli 2021) silinganisela kuba ku- 1,887 wezigidi zamathani ngenyanga. Uma siphrosesa cishe u-939 083 wamathani ngenyanga ngokwe-avareji, lokhu kusho ukuthi sizoba nesitoko esisemazingeni anele esizosiqhuba izinyanga ezimbili noma izinsuku ezingama-61 ekupheleni kwsizini, ngaphambili kokuba kufike amadilivali amasha noma sizothenga kwamanye zamazwe.

Idomestiki dimandi yommbila isasesimeni esihle U-5,6 wezigidi zamathani ommbila, waphroseselwa ukudliwa abantu, ukudla kwezilwane kanye ne-gristing, lokhu kwaba ukukhula ngo-4,5% uma kuqhathaniswa ngesikhathi esifanayo ngonyaka odlule. U ma sibheka uThebula 2, ukuphroseswa kommbila omhlophe kukhule ngo-25%, ngokudla kwemfuyo okuthatha ummbila omniniqhuba omhlophe. Kube khona ukwehla jikele ngo-14% kommbila ophuzi uma kuqhathaniswa ngesikhathi esifanayo ngonyaka odlule, nokwehla kakhulu kwe-gristing.

2

## *Umbila ophroseselwa ukudayiswa kuleli.*

	2019*	2020*	y/y % ushintsho	2019*	2020*	y/y % ushintsho
<b>Uphroseselwe izimakethe zakuleli</b>	<b>Ummbila omhlophe</b>	<b>Ummbila omhlophe</b>		<b>Ummbila ophuzi</b>	<b>Ummbila ophuzi</b>	
abantu	2 322 589	2 655 545	14,34	312 310	311 126	-0,38
Izilwane	206 218	519 948	152,14	2 562 390	2 159 822	-15,71
I-Gristing	5 325	5 664	6,37	5 539	3 224	-41,79
<b>Isamba</b>	<b>2 534 132</b>	<b>3 181 157</b>	<b>25,53</b>	<b>2 880 239</b>	<b>2 474 172</b>	<b>-14,10</b>

Umthombo: SAGIS

\*Ephreli - Septhemba

Ngokwezinganiso zesaplayi nedimandi, ikhwantithi yommbila okulindeleke uthunyelwa emazweni u-2,150 wezigidi zamathani ngesizini ka-2020/2021 kanye no-1,613 wezigidi zamathani osewuvele. Ummbila omhlophe olinganiselwa ku-475 915 wamathani wathunyelwa emazweni angomakhelwane nokuthe kamuva wayiswa e-Italy. Ummbila ophuzi wathunyelwa e-Vietnam, e-Taiwan, e-Japan, e-Korea nasemazweni angomakhelwane bethu (**uFig 1**). Futhi kuhona ummbila ophroesiwe ongu-300 000 wamathani omkhiqizo wommbila ophroesiwe okulinganiselwa ukuthi uzothunyelwe emazweni ngesizini yokumaketha ka-2020/2021 kanti u-148 927 wamathani asusevele uthunyelwe.

## **UKUNYAKAZA KWAMANANI ENTENG**

Amanani entengo abekhuphuka ezinyangeni ezimbalwa ezedlule; into eyenza lokho kube ukwenyuka kwamanani enteno emazweni kanye nobuthakathaka *be-exchange rate*. Kusukela ngoJuni 2020, uDisemba amanani ommbila omhlophe nangokuzayo asekhuphuke ngo-37,8%

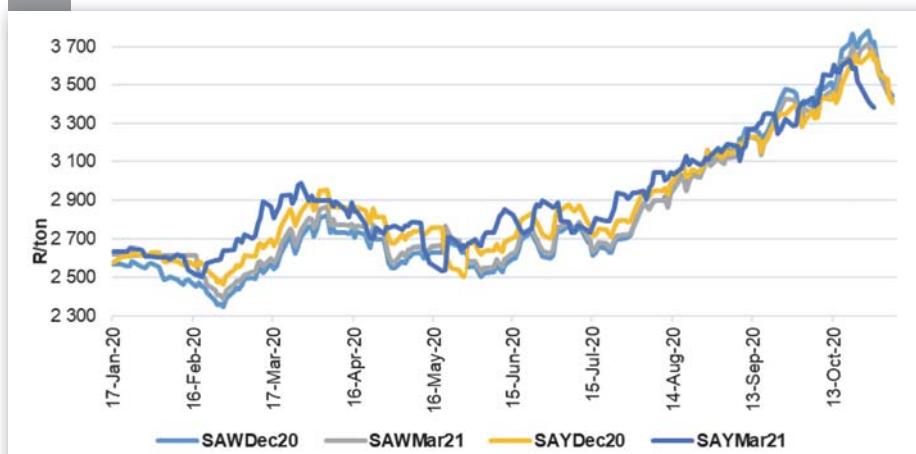
nommbila ophuzi ngoDisemba amanani entengo nanokuzayo akhuphuke ngo-29,5% (**uFig 2**).

Isibikezelo sesizini entsha ngokwemigomo yezinhlelo zokukhiqiza ibukeka kahle, ngakho ke, kulindeleke ukuthi umkhiqizo wakuleli ube muhle ngesizini ka-2020/2021. Ngokombiko wakamuva we-CEC, kuhloswe ukutshalwa u-2,746 wezigidi zama-ha ommbila ka-2021 okungu-135 200 ha ngaphezulu uma kuqhathaniswa nangesizini edlule. Ngesikhathi soku-bhala le athikhili, bekusazotshalwa kakhulu nokho ke busebuningi ubungozi bokukhiqiza, ngakho ke isimo sezulu sisazodlala indima enkulu ezinyaneni ezimbalwa ezizayo.

*Idomestiki dimandi yommbila isasesimeni esihle U-5,6 wezigidi zamathani ommbila, waphroseselwa ukudliwa abantu, ukudla kwezilwane kanye ne-gristing, lokhu kwabukukhula ngo-4,5% uma kuqhathaniswa ngesikhathi esifanayo ngonyaka odlule.*

2

## *Ukunyakaza kwamanani entengo yommbila omhlophe nophuzi angomuso.*



Umthombo: i-Grain SA

Uma sibheka umnyakazo wamanani entengo, uma kutholakale isilimo esihle, amanani entengo kungenzeka asondele emazingeni *e-export parity*, kodwa amanye amafektha angenza izinqumo kungaba *yi-exchange rate* namanani entengo akwamanye amazwe. Uma imanani entengo yakwamanye amazwe azohlala ephezulu *ne-exchane rate* ihlale iphansi njenamazina emali, singabona amanani entengo aphakathi kuka-R2 800 no-R3 400 ngesizini ka-2020/2021.

Uma amanani amazwe ehla ngaleso sikhathi kuthi *i-exchange rate* iqine, amanani akuleli ange-hla abe ngaphansi kuka-R2 500. Ngokwesamari, amanani entengo angasuka phakathi kwangaphansi kuka-R2 500/thani anyuke ayofika ku-4 500/thani. Okungenzeka empeleni nokwezimakethe njengamanje. ■



# IMIPHUMELA yokungayifaki i-lime inhlabathini yakho ene-esidi

**S**IKE SABHEKA UKUVUNDA KWENHLABATHI, UKUPHATHA IZILIMO ZAKHO KANYE NOKUSHINTSHNISA IZILIMO KUSISTIMU YOMKHIQIZO UKUKHANDA I-HUMUS, AMANYUTHRIYENTI ESITSHALO ABALULEKILE ABANJWE YI-SAND CLAY NE-LOAM COLLOID NOKUKHULISA UKUPHITHANA KWAMA-MICROBES ENHLABATHI NGOKUHLANGANYELA NAMA-APLIKHESHINI KAMANYOLO KWAMANYE AMA-ATHIKHILI ADLULILE EPULA IMVULA. NGICELA UKUBA URIFELE KULOKHU UZIKHUMBUBE FUTHI WENZE NGCONO ISISEKELO SOLWAZI LWAKHO.

Isibonakalo esibalulekile sokulima izilimo ezingenisa inzudo enhlabathini yakho ukwazi nokuqondiswa izinga le-pH noma izinga le-esidi yenhabathi, ezinhlotsheni ezahlukene zenhabathi, okwenzeka epulazini lakkho ngokuwalinganisa ngesikhathi uhlola inhlabathi yakho noma esikhathini esingaphambili koku-plana iprogramu eqinile yokufaka i-lime. Uma kunesimuncwana/esidi noma i-alkaline eningi kakhulu inhlabathi 'ingalungiswa' ngoku-aplaya ama-compounds ahlukene okubalwa kuwo i-calcitic noma i-dolomitic lime ngokwe-phrogramu ye-aplikhehini ehlelwe ngokucophelela yesikhathi esifushane nesiphakathi emhlabathini ngamunye.

## 1 Isivuno sesilimo siqhataniswa ne-pH.

Isilimo	I-pH yenhabathi				
	4,7	5	5,7	6,8	7,5
Okuqondene nesivuno (U-100 muhle kakhulu kodwa u-0 mubi kabi) ireyisho efanele					
Ummiba	34	73	83	100	85
Ukolo	68	78	89	100	99
Ubhontshisi isoya	65	79	80	100	93
I-Oats	77	93	99	98	100
Ulusene	2	9	42	100	100
Utshani	31	47	66	100	95

U-Richard McPherson, umbhalu wePula Imvula. Thumela i-imeyili  
ku-richard@agrimetrix.co.za



Uma amandla akho aphezulu nokujula kwenhabathi kune-esidi kungenzeka ukuthi uyaphuthelwa ekutholeni isivuno esikhulu sesilimo eminyakeni enemvula eningi. Ukungeza ithani noma isivuno esikhulu sommbila ngonyaka eminyakeni eminingi kungafinyelela enanini eliphezulu kokungenayo futhi bese kuba khona ukuqina komnotho isikhathi eside eminyakeni ezayo. Enanini elingu-R2 500 ithani elilodwa eminyakeni eyisihlanu lokhu kuzokuba u-R12 500.

Ukuhlehlisa ukuhlaziya kwamandla enkinga yesimuncwana kanye noku-implimentwa kwephrogramu ye-lime efanele kungabiza kakhulu ikakhulukazi uma izilimo ezingenisa inzudo zidimanda izivuno ezinkulu. Izindleko ngqo zommbila zincike kuthagethi yommbila noma emandleni enhlabathi ebhekekile kungakhava kusukela ku-R7 000 kuya ku-R10 000

ihektha ngalinye emkhiqizweni wenhabathi eyomile. Lokhu kusho ukuthi isivuno sika-2,8 t/ha kuya ku-4 t/h siyadingeka ukukhave izindleko ngqo ihektha ngalinye. Njengoba izivuno zalokhu zizokhkhela izindleko ezinqunyiwe ezifana noku-khkhela ibhondi, zikhokhele umhlabo oqashiwe, irenti, ugesi njengokuchaza izindlela ze-akhawunti namaphrogramu. Kubalulekile ukuhlola amandla esivuno sakho emininingwaneni yamarekhodi epulazi. Ingingi labalimi lenza isilinganiso esiyhaba ngesivuno sabo sesikhathi eside ngenkathi benza i-gross margin analysis.

## UKUQONDISA I-PH

I-pH ingalinganiswa ngokwe-midium yamanzi noma ngokwe-chemical buffer yamanzi

nange-*calcium chloride*. Qinisekisa ukuthi iyiphi oyisebenzisayo. Uhla lwe-*pH* kanye nokukhula kwestishalo okufanele ne-*pH* ( $\text{CaCl}_2$ ) kubonisiwe ku-**Figa 1**.

**Ithebula 1:** Inikeza uphawu lvesivuno esinamandla ku-*pH reading* yenhlabathi efanele. Isibonelo, uma utshala ummbila enhlabathini ene-*pH* ka-4,7 uma kuqhathaniswa ne-*pH* ka-6,8 kungenza ubone ukuthi u-34% kuphela wesivuno esikhulu esingatholakala kuloyo mhlaba. Enhlabathini ejulile kodwa ene-esidi eningi kakhulu izivuno za-KwaZulu-Natal zinyukile zisuka ku-2,5 t/ha ukuye ngaphezulu kuka-8 t/ha ngokulungisa i-*pH* yenhlabathi ngephrogremu yesikhathi eside yokufaka i-*lime*. Lokhu kungathatha ama-aplikheshini amanangi angafinyelela phakathi kwamathani ayishlanu nayisikhombisa e-*calcitic* ne-*dolomitic lime* ekhethiwe. I-*dolomitic lime* equkethe i-magneziyamu iyakhethwa uma ikhalsiyamu kumagneziyamu reyisho enhlabathini nayo idinga ukulungiswa.

Lokhu ukubheka nje okukhombisa isimo jikelele. Umlimi ngamunye uba nawo umuzwa wokuthi yini okufanele i-aplaywe kanye nomphumela we-aplikheshini ye-*lime* emhlabeni wakhe eminyakeni eminingi. Umthetho ongangasoze waphikiswa ukuthi uku-aplaywa okuthile kwe-soil colloid complex okuthile esikhathini esingapezulu kwamasizini amathathu kuhazamisa uhlelo lokushintsha i-*pH* edingekayo. Uhloko lwamasizini emhlabeni wakho luzkhombisa inqubekela phambili eyenziwayo efanele ye-*pH* ka-6,8. Ukwenyuka kwesivuno sesilimo esitholakele nakho kuzokhombisa ukusebenza kwephrogremu yamanje ye-*lime*.

Uma ucabanga ngesamba se-cation exchange capacity (CEC) uhlolo lwakho lungabuya lukhombie i-esidi saturation ka-30% kuya ku-40% nokuwumhlabathi onesimuncwana esiningi. Ngokwemigomo elula lokhu kusho ukuthi lo-30% kuya ku-40% wezikhala, ku-soil colloid medium ukubamba amanyuthriyenti amakhulu afana ne-photheziyamu, salfa, ne-khalsiyamu athathwa ngama-hydrogen ions. Ngakho ke inhlabathi ekwaziyo ukubamba noma ukugcina amanyuthriyenti adingekayo ukwenza izilimo zikhule zikhipe isivuno esikhulu kakhulu. I-*lime* izokwenza ngcono amandla enhlabathi ukuze kubambeke amanyuthriyenti angatholwa yizitshalo angaba ne-aksesi ngezitshalo kanye nokukhandeka kwezihlamvu.

## UHLELO LOKULUNGISA UMHLABA NOMA ICEBO

Isamba secebo lokulungisa singafaka phakathi uku-aplaywa kwe-*calcitic* noma i-*dolomitic lime* ukwenza ngcono i-*pH*, i-gypsum ukubhalansisa isalfa, i-MAP yokwenza ngcono isimo sefosfeythi ne-KCL ukulungisa isimo sephotheziyamu. Uma i-aplaywe wosonkontileka le-resiphi



Ukwenza iplane – ukwendla i-*lime* nge-fertiliser spreader.

Isithombe: NguJenny Mathews

## 1 I-pH yenhlabathi ka-5,2 kuya ku-8,0 inikeza izimo eziphezulu sezilimo eziningi ezingenisa inzuso kwezolimo.

Acidity pH	Increasingly acid from pH of 6 to 1						Neutral 7	Increasingly alkaline from pH 8 to 14						
	Soil No plant growth possible below 3,7							ALKALINE						
	ACID						Slightly acid		Ideal pH range for plant growth			Slightly alkaline		

ingabiza phakathi kuka-R1 850 no-R2 500 ihektha ngalinye. Lokhu kungaba yibhuloho eliya kude kwabanye abalimi kanye nenhlabathi efanele okungenani ingakhandwa eminyakeni eminingi.

Ukucabanga nge-*lime* yodwa, izindleko zihambisana nebanga lepulazi kusukela emthonjeni we-*lime* zingaba phakathi kokudiliva umkhiziso kusuka ku-R600 kuya ku-R700 ithani elilodwa kanye nezindleko ze-aplikheshini zika-R200/ha kubalimi abasebenzisa osonkontileka. Abalimi baKwaZulu-Natal ngokuvamile ba-aplaya i-*lime* ngempahla yabo yokusebenza.

Bala izindleko zakho zephrogremu ye-*lime*, ngokuhlanganyela ne-agronomist oyithandayo, uphinde uqhathanise izindleko nezimali okubikezelwa ukuthi uzozizuza kusuka esivunweni esandile kumasizini amanangi. Qala ngenhlabathi esinamandla aphezulu bese uyahlela ukulungisa umhlabwa ngamunye epulazini ngokunjalo eminyakeni eminingi usabalalise izindleko zeziali nobungozi ebhizinisini lokulima.

## ISIPHETHO

Abalimi abanolwazi, i-agronomists, abadayisi bakamanyolo, abe-luleki, nabaye ochwepheshe kulo mkhakha banombono wokuthi 'i-*lime* iyasebenza'. Kodwa cabanga ngemithelela yemali nobungozi ngaphambi kokungena ku-phrogremu egcwale ye-*lime*. Kwenze ngokwesistimu emhlabeni wonke onamandla epulazini lakho. Labo balimi abane-aksesi emalini yezibonelelo kufanele basebenzise ithuba olinikiwe, masinyane uma kwenzeka ukuba, ufake i-*lime* njengesiqalo sokusungula inhlabathi efanele ezoqinisekisa isivuno esikhulu esikhathini esizayo. ■



Ukundalwa kwe-*lime*. Isithombe: NguJenny Mathews

# Ngabe uchazani u-CEC EKUHLO-LWENI KWENHLABATHI yakho?

**U**HLU OLULODWA LOMBIKO WOKUHLOLWA KWENHLABATHI OLUNGAPHANSI KWESIHLO-KO ESITHI *CATION EXCHANGE CAPACITY (CEC)* NGOKUVAMILE AYINAKWA NOMA AYI-QONDISISWA. LENA YINGXENYE EBALULEKE KAKHULU YENHLABATHI OKUFANELE UYIQAPHELE UKUZE UBHEKE UKUVUNDA KWENHLABATHI, UMPHUMELA WE-APLIKHESHINI YE-LIME EMINYAKENI EMITHATHU NOMA NGAPHEZULU, IBHALANSI YAMAMINERALI ASE-NHLABATHINI KANYE NOMANYOLO OKHONA OFAKIWE NGOKUNJALO NAMAZINGA OKUVUNDA KWENHLABATHI JIKELELE.

## INHLABATHI

Inhlabathi yakhwiwe ngemikhakha exubene emine eyisisekelo – ngamaminerali, umoya, amanzi kanye ne-*organic matter*. Inhlabathi ejwayelekile ingakhiwa ngo-45% wamaminerali, u-25% wamanzi u-25% womoya ne-*organic matter* esukela ku-2% kuye ku-5%. Ingxenye yeminerali iqukethe izinhlobo ezintathu zezinhlayiya ezingosayizi abangahlukaniswa njengesihlabathi, i-silt noma ibumba. Ingxenye emele lokhu isetshenziswa ukuhlukanisa inhlabathi njengesihlabathi, i-loamy sand, i-sandy loam, i-fine sandy loam, i-loam, i-silty loam, i-silt, i-silky clay loam, i-clay loam nebumba.

## AMA-ORGANISMS ENHLABATHI

Ngaphakathi kohlaka oluphithene olukhonjiswe ngenhla inhlabathi ihlanguyela nama-organisms amanangi ahlukene okubalwa kuwo ibhaktheriya, i-actinomycetes, i-moulds, i-algae, iprotozoa, i-nematodes, izinambuzane, izibungu, kanye nezimpande zezitshalo. Isisindo sawo onke la ma-organisms singaphezulu kuka-175 milimitha e-top-soil engalinganiselwa ku-7 000 kg/ha. Ngakho ke inhlabathi yindawo yokuhlala eguqukayo lapho sitshala khona izilimo zethu kanye nomanyolo abangamakhemikhali.

## I-ORGANIC MATTER NENHLABATHI EYENZIWE NGAMAQABUNGA ABOLILE I-HUMUS

I-*organic matter* ingxenye encane yenhlabathi eyakhiwe ngakho kokubili ama-organisms ngenhla kanye nezinsalela zezilimo zaphambilini ezake zaphila esikhathini esedlule noma i-grass ley ezisezigabenii ezahlukane zokubola. Inhlabathi eyenziwe ngamaqabunga abolile phecelezi i-humus uchungechunge olude Iwamamolikhuli aphicayo engacubungulwa ngaphansi kwsibonisikhulu phecelezi i-microscope okwakhiwa ne-*organic matter* esesigabenii sokugcina sokubola. Inhlabathi yamaqabunga abolile i-humus ingakhiwa ngezingxenye ezinsundu noma ezimpunga futhi ingabonakala enhlabathini emva kwe-minimamu thileji noma kwezindlela ze-conservation thileji.

Bheka inhlabathi ehlukunyezwe kakhulu nge-disc tillage enge-nazo izinsalela zezitshalo kanti futhi ine-*organic matter* encane kakhulu bese uyayiqathanisa, uma kungenzeka, nekamakhelwane noma ngenhlabathi ewumakhelwa engaphansi kwe-conservation tillage. Qhathanisa lokhu okubili ngokugubha imigodi yamaphrofayile. Imikhakha ye-humus ingabonakala. Ingakoholwa kuthatha iminyaka eminingi yokwenza i-conservation tillage ukuze uphumelele ukuba

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ne-humus engapheli. Inhlabathi equkethe u-4% we-*organic matter* kanye ne-humus kungasaplaya isikhuthazi/inayithrojini efineylela ku-200 kg esilimeni. Inamandla okonga izindleko zikamanyolo wena-yithrojini (N).

Uma ungaphenya amaphepha ka-Dr William Albrecht amayela-nenhlabathi kungakukhanyela futhi kube yinzozo nosizo olwazini Iwakho ngendlela yokwenza ngcono inhlabathi epulazini lakho. Inhlabathi nokuphathwa kwenhlabathi ngempela yisihloko esiyindida.



## NGABE YINI AMA-CATIONS?

Amanyuthriyenti esitshalo ahlala ku-soil sand, i-clay naku-silt ephithene noma ku-colloid. Emhlabathini obhalanse kahle i-colloid complex ingabamba ama-elementi abalulekile nezinye izinsalela zihlale endaweni. Izitshalo zingawasebenzisa la manyuthriyenti uma kudingeka ngesikhathi sezimila ezahlukene nasesigaben Sokukhula sokuhluma kwezinhlavu.

Ama-Cations ngamakhemikhali a-positively charged atholakala njalo ngokuxhumana namanye amakhemikhali noma i-soil colloid. Ubunye obahlukene phecelezi entities buhlale buhamba njalo, kuyaguquguquku kusuka kwenye inhlanganisela kuye kuso isisekelo sokuguquka kwe-soil colloid structure kanye nokuphithana kwe-microorganism life cycles.

Inhlabathi ihlolelwia iKhalsiyamu (Ca), iMaganeziyamu (Mg), iPhotheziyamu (K), iSodiyamu (N), i-amoniyyamu nayithrojini, amanye ama-cations nezinye izinsalelo eziningi zamaminerali. La manyuthriyenti a-positively (+) charged ngokuvamile abizwa ngokuthi izisekelo phecelezi bases. Bangaba



neyodwa noma amabili ama-positive charges. Ubunye obu-Negatively (-) charged entities aziwa njengama-anions.

Uma uxoxa nozibuthe (magnets) ezimbili esisodwa sine-north ne-south pole – uma usondeza ndawonye ama-north poles nama-south poles lokhu kokubili kuhlukaniswa yi-magnetic force. I-north ne-south pole ehlanganiswe ndawonye azoba yokusondelana futhi abambane ankonkoshelane ndawonye. Kanjalo, kalula nje, amanyuthriyenti ezitshalo a-positively charged noma ama-cations azodonseleka kusafesi e-negatively charged.

Amasafesi a-negatively charged atholakala ku-soil colloid kanye nezingxenyen ezipesheli ze-soil humus. I-cation molekhuli zihlukana ngosayizi nange-charge. Ingxube noma amaphesenti ngalinye kuwo onke ama cation anamathele ku-soil colloid complex kwaziwa njenge base saturation. Noma kalula nje ukuthi angakanani amanyuthriyenti adingwa yisitshalo kuncike enhlabathini ethile.

Ibhaliensi ephelele ngokusho kuka-Dr Albrecht nabanye abacwanningi kukanje:

IKhalsiyamu 60% kuya ku-70%, imagneziyamu 10% kuya ku-20%, iphotheziyamu 2% kuya ku-5%, isodiyamu 0,5% kuya ku-3%, amanye ama-cations noma izisekelo phecelezi bases 5%.

Amazinga esimuncwana noma e-pH yenhlabathi kanye nephrogramu yokufaka i-lime kakhulukazi izonquma kahle ngaphezulu kwe-bhalansi yamanyuthriyenti kuphemelele. La mabhalansi angenhla manje asekhonjiswa kuma-lebh uamaningi noma kungeze kwabala ngokwamanai ahlukene akhonjiswa embikweni womhlaba ohloliwe. Qhathanisa inhlabathi yakho ehloliwe kulokhu okungenhla. Amanani ngokuvamile kubonakala ngokwama miligramu ngenyuthriyenti ngalinye ikhilogremu le nhlabathi.

I-CEC yisilinganiso esibonisa ubuhle benhlabathi yakho ekubambeni amanyuthriyenti abalulekile esitshalo. Amanye amalebh uakhombisa lokhu njenge-Total Exchange Capacity (TEC). I-sandy soil yangempela ene-organic matter noma i-humus encane kakhulu noma engekho izokhombisa i-CEC ephansi kakhulu kanye ne-organic soil evunde kakhulu kuzoba ne-CEC ephezulu noma i-TEC.

## ISIPHETHO

Bheka imiphumela yenhlabathi yakho iphinde ubheke ukuthi inhlabathi yakho ihambelana kanjani nalokhu. Emva kwalokho usungazenza izinguquku ekulimeni kwakho kanye nasekusebenziseni umanyolo ukwenza ngcono inhlabathi yakho ukuze isebenze kahle isikhathi eside. ■

# BHEKANA NEZINKINGA ZEZEZIMALI eNingizimu Afrika

**T**UKUGQUGQUZELEKA KWALE ATHIKHILI KWA-FAKELWA UGQOZI YI-ATHIKHILI EYABHALWA NGU- ANDRIES WIESE – ‘IZINKINGA ZEZEZIMALI ENINGIZIMU AFRIKA ZILI-AFEKTHA KANJANI IBHIZINISI LAKHO,’ EYASHICILELWA KU-FARMER’S WEEKLY NGOMHLA KA-29 NOVEMBA 2019. IZINKINGA OKWAKUXOXWA NGAZO KWABA UKWEHLA KWAMANDLA EMALI YANGENISWA KUVOBE, UKUBIZA KAKHULU KOKUBOLEKWA IMALI NGENXA YOKUNGENA KUVOBE, ITHEMBA LABATSHALI ZIMALI KANYE NE-CAPITAL OUT-FLOWS. OMUNYE ANGAPHINDA ENGEZE NANGEZINGA LOKUKHULA KANCANE NOMA I-GDP NJENGENKINGA.

Kusewunyaka owodwa nje vo, kodwa obekubikezelwa kule-athikhili sekufezekile. Izinga lerandi lehlile okusho ukuthi amandla erandi aphansi nokwenza amanani entengo yemikhiqizo ethengwa emazweni angaphandle akhula, njengama-*input* ethu amaningi ezokulima. iNingizimu Afrika ifakwe esigabeni sikavobe. Lokhu kusho ukuthi abatshalimali emhlabeni wonke jikelele babheka iNingizimu Afrika njengenobungozi ekutshaleni izimali. Lokhu ku-afektha ithembala labatshali zimali, abakuleli nabakwamanye amazwe, eNingizimu Afrika kubi ngoba abatshali zimali abanaso isiqiniseko sokuthi bazoyithola imbuyiselo enhle kwabakutshalile nokuthi kazi bayo-buyiselwa imali yabo yini.

Ngasekuqaleni konyaka kwaphinda kwenziwa isimemelzo sokuthi iNingizimu Afrika isesigabeni sikavobe ngenxa yokuthi *i-Gross Domestic Product* isesimeni esibi. Uma kuqhathaniswa nebhizinisi lokhu kusho ukuthi izwe aliyenzi inzupo – imali engenayo incane kunaleyo ephumayo. Ngakho ke, iningi imali okudingeka ibolekwe okuze kukhokhelwe zonke izindleko zikhulumeni ezifana namaholo. Ngokwebhizinisi lokhu kuwuphawu lokwehluka ukuphatha ngokufanelekile.

Ngaphezulu kwalokho, sesiphinde sahlaselwa yilolu bhubhane *lwe-corona* variyasi kanye nomphumela *we-lockdown*. Ngaphandle kwezinselela ezidalwe umvalelandlini *i-lockdown*, njengoba kubaluliwe ku-athikhili yaphambilini (*Pula Imvula Septhemba 2020*) kanye nezinkinga ezibalulwe endimeni engenhla, isithombe esimfiliba kakhulu sokukhwabanisa izimali zokusiza mayelana negciwane *le-corona* zindlaleka. Ukukhwabanisa ku-afektha umbono weNingizimu Afrika evele isibukeka kabi mayelana nokutshalwa kwezimali.

Lawa amabholo amagwini ambalwa aphonselwa abalimi bethu abambalwa, amakhulu nom amancane. Mayelana nokuphathwa kwebhizinisi lokhu lokulima ubhekana nawo nom aubhekane nala mabhola nom ukugwinja. Inselelo ukuthi onke la mabhola agwinjile angale kokulawuleka kwanoma yimuphi umlimi, angamatfektha engaphandle.

Ngokuphathekayo, umthelela walezi zinkinga epulazini kamaflushane nje awukuthi ama-*input* athengwa emazweni angaphandle afana nophethiloli, amakhemikhali, omanyolo nemishini sekubiza kakhulu, izimali ezibolekiwe zibiza kakhulu futhi, nezimali okufanele izitshalwe ebhizinisini lokho ziyanqoza. Ngakolunye uhlangothi, kuyiqiniso futhi ukuthi ukwehla kwamandla erandi kuveza ithuba lokuthumela impahlia kwamanye amazwe uma kungenzeka.

Asethembe nokho futhi sizilungiselele ukubhekana nala mabhola agwinjile sibheke inhlanhla eza nalokhu. Omunye angalivikela iwikhethi lokho esikhundleni *se-bowled out*. Asikwazi ukungabunaki ubungozi obubandakanyekayo uma ubhekene nobunjalo, kodwa



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kungaba yinto engasiphaphamisa. Kungaba yinto ewusizo ukubhekana nalamabholo abaziwe ukuze uhlale ungumlimi wesikhathi eside. Abantu kufanele badle.

## QINISEKISA UKUTHI IZINYATHETO ZIMI NGOMUMO

Ukubhekana nalezi zingqinamba faka amagilavu nomakalabha bese uthatha *i-bat* yakho:

- Qinisekisa ukuthi **unesistimu efanele yokugcina amarekhodi** ukuze ukwazi ukuhlolola izimo zezimali zepulazi lakho ngokufanelekile. Ukusebenzisa umthetho wokucophelela wokulima kuzokusiza ukuinisekisa amarekhodi nokunikea ulwazi olungcono.
- Phatha *i-cash-flow* yakho ngokukhuthala ngokusebenzisa **ibhajethi ye-cash-flow** ikakhulukazi mayelana nokuthengwayo. Qaphelisa ngokuthenga *e-spur* sangalesi sikhathi ikakhulukazi uma kuza ezimpahleni ezibizayo (Imishini, ama-implimenti). Isipesheli akosana isipesheli njalo. Ngaphandle **kwe-cash-flow statement** efanele ngeke ukwazi ukulawula *i-cash-flow* ngokufanele.
- Lawula izindleko zakho zangasese nomia izindleko zasekhaya – kuyasi-za kakhulu futhi uyacebiswa ukuthi ube nebhajethi yakho ehlukile eqondene nalezo zindleko. Ungaphili impilo engale kwemali ongaba nayo.
- Lawula izindleko zakho nama-*input* ngokweplane lebhizinisi lepulazi futhi uthathe izinyathelo zokunciphisa izindleko. Ngokwe-**proper income statement**, ungakwenza. Qinisekisa ukuthi isebebenzisa ikhwantithi efanele yama-*input* njengoba uyalive/noma kuhleliwe.
- Hlola isimo sezimali zebhizinisi lokho lezolimo ngendlela. Sebenzisa **i-balance sheet** futhi ubhekisise kahle nezikweletu zakho. Isikweletu asiyena umngani wakho futhi izikweletu eziningi zibawisile abalimi abaningi. Njengamanje amazinga enzalo aphansi ngenxa yalolu bhubhane, kodwa ungakubheki lokhu njengethube lokuboleka imali eningi. Amareythi azophinda akhuphuke esikhathini esizayo. Uma kwenze ka uba naso ngempela isidingo sokweboleka imali, xoxisana ngokukhokha inzalo ephansi kakhulu.
- Hlola izindlela zakho zokukhizisa. Lima ngemvelo futhi wenze ngcono impilo yenhabathi yakho. Aplaya imigomo yokulima ngokongga phecelezi *conservation farming*, lokhu kuzokusiza ekunciphiseni izindleko zakho zokukhizisa.
- Okubaluleke kakhulu – ngabe unayo **i-business plan elungle?**

## ISIPHETHO

Ezinye izinyathelo ezibaluliwe kuxoxiwe ngazo kuma-athikhili aphambilini ngokwama-engela ahlukene kodwa ukuphindaphinda kugcizelela ukabaluleka kwalezi zinyathelo. Ungakhohlwa ukuthi usizo lokuhlolola ibhizinisi lokho kabusha lukhona. Sebenzisa ubuchwephe-she obutholakalayo ebhizinisini lezolimo nasezikhungweni ezifana ne-Grain SA. ■

# Yazi ama-threshold ahambelana nesizini yakho yokutshala

UMA SIKHULUMA NGOKWEMVELO I-THRESHOLD YIPHANSI ESEMNYANGO WOKUNGENA EBHILIDI-NI NOMA EKAMELWENI – UMA UMUNTU ENGENA KULEYO NDAWO, UJOMBA I-THRESHOLD. INGA-PHINDE ISHO ISIKHATHI ESITHILE, ISIBONELO USUKU OLWANDULELA USUKU LOMCIMBI OTHILE PHECELE-ZI-EVE EMINYAKENI YAKUDALA NGO-12H00 SISUKE SIMI KWI-THRESHOLD YONYAKA OMUSHA, FUTHI UMA UMAKOTI ESEGQOKE INGUBO YAKHE YOMSHADO ESELUNGELE UKUSHADA USUKE EMI KWI-THRESHOLD YEMPILO ENTSHA NOMYENI WAKHE.

Ngendlela efanayo singabheka ikuhalenda labalimi futhi sibone ukuthi zikhona izikhathi ezimbawla ngesizini eziyizikhathi ze-threshold. Umlimi onolwazi uzozazela nje ukuthi ama-threshold, kodwa umlimi osemusha noma osathuthuka kufanele afunde ngama-threshold kwezokulima futhi ikakhulukazi, kufanele afunde ukuba imibuzo mayelana nama-threshold athize ngesifunda alima kuso ngokuthatha imibono yabalimi abadala nakochwepheshe bezolimo abanolwazi. Ukwazi izinsuku zama-threshold esilimo ngasinye inhlamu ebalulekile ebhokisini lamathulusi omli!

Ngakho-ke ngabe yimaphi ama-threshold umlimi okudingeka azi ngawo? Kukhona ama-threshold amahle kakhulu okutshala, ukulawa ukhula nokulawula izinambuzane nawokuvuna. Kule athikhili sizobheka ama-threshold okutshala.

Lapho kudingeka kube nohlelo olungenza engqondweni yomlimi ngamunye njengokuthi ozokulungisa kanjani lokho kuguquguquka kubuyele esimeni esivamile.

## IZINSUKU EZILUNGELE UKUTSHALA

Insele ibhekene nabalimi abasafufusa ukuthola imithombo yezimali yokuthenga ama-input ezilimo zabo ngesikhathi esifanele. Abalimi kudingeka baqale ukusebenza kusaqala bahlanganise uhlelo olugculisayo lwepulane

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lebhizinisi futhi bayethule kubabolekisi zimali. Futhi ziningi izigigaba esizibonile lapho abalimi beqokwa njengabazohlomula ngephroekthi enhle – kodwa ngaleso sikhathi mhlambe izimali zikhululwe emva kwasikhathi, noma ama-input adilivwe emva kwesikhathi lokhu kuvimbela umlimi ekutheni aqale ukusebenza emasimini ngesikhathi esifanele futhi angeke esakwazi ukulisebenzisa ithuba elihle lezinsuku zokutshala.

Lokhu kudala ukukhathazaka okukhulu ngoba isilimo vele sesidlule-lwe yisikhathi ngaphambi kokuba siphume esigabeni sokuqala nesivuno sizophazamiseka. Enye yezinto esizithathe njengezinto ezibalulekile njengethimba eLokuthuthukisa Abalimi beGrain SA ukuthatha iqembu labalimi balifundise ngokubaluleka kwe-threshold noma ngezinsuku ezi-fanele zokutshala ukuze isilimo siphumelele.

## Izinyanga ezifudumele

Ngasohlangothile oluphathekayo siyazi ukuthi ummbila yisilimo sesimo sezulu esifudumele. Ummiba udinga inani elithile lamayunithi ashisayo ayigarantiwe ukuze uzokwazi ukukhula uphumelele. Amazinga okushisa alindelekile aphakathi kuka-10°C k uya ku-15°C okutshala ummbila wakho. Ngakho akusizi ukufaka isilimo sakho enhlabathini masinyane futhi.

Imfiho ukuba ulinde isizini ukuba ifinyelele esimeni esizinzile ne-singaguquguquki samazinga okushisa njengoba lokhu kuqinisekisa ukuqhuma okufanayo kwezitshalo ezsencane. Uma izimvula zamava zikuphoqa ukuba utshala muva kunangesikhathi esifanele, ngakho ke kubalulekile ukwazi ukuthi kufanele ushintshe futhi mhlambe ubheke ukutshale ama-cultivars ommbila akhula masinyane noma okungenani ungabe usawutshala ummbila futhi ubheke esinye isilimo esikhula ngesikhathi esifushane. Amaviki okuqala amathathu emva kokutshala abaluleke kakhulu ukubeni isilimo sibe yimpumelelo kanye nezimo ezi-khona lapho zizoba nawo umthelela emandleni esilimo.



*Success isn't always about greatness.  
It's about consistency. Consistent hard work  
leads to success. Greatness will come.*

~ DWAYNE "THE ROCK" JOHNSON



# PULA IMVULA

## Ithimba labahleli

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### IPULA IMVULA IYATHOLAKALA FUTHI NANGALEZI ZILIMI EZLANDELAYO:

IsiZulu, IsiNgisi, IsiTswana, IsiSuthu, nesiXhosa.

Articles written by independent writers are the views of the writers and not that of Grain SA.

## Yazi ama-threshold ahambelana...

Qinisekisa ukuthi uyasazi isikhathi esifanele se-threshold yokutshala kanye ne-threshold ethi 'isikhathi sesihambe kakhulu ukuba ungtatshala'.

### Izinyanga zamakhaza

Ngeke sikhohlwe ukuthi okunye ukwesabala isilimo kufika ngasekupheleni komjikelezo wokukhula ngokuqala kokungena kwezinyanga ezibandayo. Isilimo sommbila sidinga phakathi kuka-120 kuye ku-140 wezinsuku ezingenaso esithwathwa nokho kuya nge-cultivar. Ngenxa yalesi sizathu awukwazi ukungena engozini ngokutshala imbewu yommbila sekwendule isikhathi ngoba isithwathwa singadala okhulu umonakalo esitshalweni sommbila osengakavuthwa lokho kungadala ukulahlekelwa kakhulu yisivuno.

Kukhona futhi i-threshold efanele isikhathi sokuvuna – ngaleso sikhathi izitshalo eziningi zisuke sezivuthwe ngokuphelele. Siyabazi abalimi abasathuthuka abafakelwa ingcindezi abanikazi bemfuyo ukuba bavune izilimo zabo emasimini ukuze abalii befuyo bezodedela izinkomo zabo zidedelwa ziyokudla emasimini ommbila. Ngaso sonke isikhathi lokhu kudala izinkinga. Isikhwebu sommbila esivunwe sinomswaka omningi siyashwabana phecelezishrivel, sehlelw yisisindo futhi lokho kuletha okukhulu ukukhathazeka, kungenzenka wonakale noma kube nezifo. Isivuno

ngeke siphumelele uma isikhathi sikuvuna singanakwa.

### Izinsuku ezithile zesifunda

Sikhulumu ngefasitela lamathuba kodwa futhi kubalulekile ukukhumbula lezo zinsuku zakutshala eziqondene ngqo naleso sifunda. Isikhathi esihle sokutshala ummbila eMpumalanga sahlukile esikhathi esihle sokutshala ummbila eNyakatho neNtshonalanga. Kokubili amazinga omswakama enhlabathini kanye namazinga okushisa kudingeka cube semazingeni afanele e-threshold ukuze imbewu iphumelele.

Uma uyazi i-threshold yakho efanele futhi ungagxila phakathi kwalezo zinsuku, izilimo zizoba nethuba elihle lokukhiqiza izivuno ezinkulu ngoba yingaleso sikhathi lapho isitshalo sikhawile ukuthola ithuba lokuhluma/khula sifinyelele esigabeni sokukhula nokuvuthwa ngokuphelele ngaphansi kwezimo zeklayimethi ezivumelayo mhlambe nasezimvulen ezinhle, ilanga elanele namayunithi okushisa anamazinga okushisa akahle ebusuku.

### KWAZI ONGAKUKHETHA

Abalimi kudingeka bazi futhi baqaphele. Lapho kudingeka cube nohlelo olungenziwa engqondweni yomlimi ngamunye njengokuthi ozokulungisa kanjani lokho kuguquguquka kubuyele esimeni esivamile. ■



*Khona manje ukwazi ukuqedela I-topdressing.  
Isithombe: NguJenny Mathews*