

# PULA IMVULA

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## Cofa IKINOBHO LOKURIFRESHA isistimu yesilimo sakho

ZIFO ZEZITSHALO ZINAMANDLA OKUBULALA ISIVUNO SONKE SEZILIMO EZAHLUKAHLUKENE ENSIMINI. INALA YE-INFECTIOUS PLANT PATHOGENS (GERMS) NGENYE YAMAFEKTHA ADALA UMONAKALO OMKHULU WEZITSHALO ENZIWA YILAMA-PHATHOGENS. UBUNINGI BALAMA-PHATHOGENS OKUNGADALWA UKULIMA ISILIMO ESISODWA ENSIMINI EYODWA NJALO IMINYAKA EMININGI NGOKULANDELANA. ABALIMI BAYAKHUTHAZWA UKUBA BENZE UMJIKELEZISO WEZILIMO NJENGOBA KUNEMI-HLOMULO EMININGI OKUBALWA KUKHO UKUVUSELELA UKUBUYISELWA KWAMANYUTHRIYENTI ENHLABATHINI NOKUNCIPHISA INANI LAMA-PATHOGENS ENSIMINI.

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Inani labantu eNingizimu Afrika likhula zonke izinsuku ngereyithi ka-1,2% njalo ngonyaka; nakuba inhlabathi yokulima ihlezi izinzile kodwa impilo yenhlabathi iyonakala. Emhlabeni wangempela, sinethemba lokuthi yonke imbewu etshaliwe (isib. ummbila) ikhula ngokuphelele ibe yisitshalo



## IZWI LIKA...

*Dr Dirk Strydom*

**U**BUNZIMA OBUBHEKENE NEZWU LETHU NO-KUTHI SIZOKWENDLULA KANJANI KULOKHUU KUNGABAZA, KUNGABA LULA UKUHOLELA KUMTHELELA ONGAMUHLE. OLUNYE ULWA-ZI LWAPHAMBILINI LUNGENZA NGICABANGE NGALOKHU.

Into yokuqala engiyikhumbulayo, yingenkathi ngivakashele ePoland, nokuyizwe elihle kodwa elinomlando wokuhlaselwa yimpi. Lapho ngabuza umlimi oyisizukulwane sesi-5th: ‘Ngabe umndeni wakho wa-kwazi kanjani ukuhlala epulazini kuzo zonke lezi zikhathi zokuhlupheka, futhi okwedlula konke ukwakha ipulazi lomhlaba nebhizinisi?’ wap-hendula wathi: ‘Sir, umndeni wami ukholelw ekusekeleni abaholi esibakhonzile kodwa hhayi osopolitiki. Uma kusihambele kahle, siphinde sitshale emphakathini wethu, kodwa okubaluleke kakhulu ukuthi sonke sigxila kulokho esikwenza kahle, okuwukulima.’ Amagama anjalo okuhlananipa, ngoba asikwazi ukulawula izinto eziningi.

Olunye uceu lwenhlakanipho ngalufumana kumlimi wasemakhaya, lapho ngaphathwa kahle kakhulu, uthando olukhulu lukaNkulunkulu, kanye nokubongwa kakhulu kwaphinde kwabongwa. ‘Lo mphakathi ubukeka ungenakho okuningi kodwa bayabonga kakhulu ... kungani kunje?’ ngazibauba. Ngaleso sikhathi lo mlimi wangichazelukuthi uzikh-iqiza kanjani izilimo zakhe, ngabe yimphi imiqondo emisha anayo nokuthi izisingatha kanjani izindlela ezintsha zokukhiqiza ezifana ne-nothili esiqeshini sakhe esincane somhlabathi ongemuva kwendlu yakhe.

Uhlanga oludala lommbila owawuvunwe ngesandla lwalusele lumile ensimini. Kuchaza umlimi: ‘Ngolunye usuku ngasibukela eduze le sitshalo futhi ngabona ukuthi uma usibuka kusukela phezulu, amahlamvu aso ashwilekele ohlangeni akha okusafanelayamanzi, agelezela phansi. Lapho izimpande ziyawashanelamanzi angene phansi eduze nesitshalo siwasebenzise ezimpandenizaso.’ Lo mlimi wathatha isikhathi wasibhekisisa le sitshalo ukube aqondisise ukusebenza kwaso nokuthi abone ukuthi yikuphi angakwenza ukube abone okungenziwa ngcono kule nqubo yokukhiqiza. Ukuthatha isikhathi ugibile ezintweni ezincane ezijabulisayo, ukubonga nenqubekelaphambili, kodwa uma uya ubamatasa, kuyancipha ukugxila, okuholela ekutheni ulahlekew amathuba.

Kwesinye isikhathi impendulo yenjabulo nenqubekela-phambili ilele othatndweni lwento ethile, ezintweni ezincane nasempilweni elula, okuniqeza ukugxila kakhulu ezintweni ezibalulekile.

Bangani bami, gcinani lesi sifundo njalo njengengxenyeyempilo yakhlo. Yenza isikhathi sokujabula, gxila futhi uncome izinto ezincane. Qinisekisa ukuthi uyazilawula izinto ezilawulekayo. Gicna uthando lwakho lwezelimo kungakhathalekile ukuthi likhulu noma lincane kangakanani ipulazi lakho. Ngisakholelwa ukuthi kwezelimo izinhliziyo ziyaguquka nokuthi ezolimo ziwumuthi wokwelapha izinselelo zezwe lethu. ■

## Cofa ikinobho lokurifresha...

esivuthiwe esikhqiiza isivuno esikhulu ukuze siqinisekise ukuvikeleka kokudla kwenani labantu esikhula njalo.

Kodwa, lokhu akwenzeki ngenxa yomthelela ofana nokhula, izifo zeztishalo kanye nezibulala zinambuzane. Phambilini kubikwe ukuthi izifo zeztishalo zibulala isivuno sonke sezilimo ezahlukene ensimini (isib. *i-Sclerotinia head rot* kajikenelanga (**Isithombe 1a**).



*Enye yezimbangela eholela ekwandenikwala ma-pathogens ensimini ukungazijikelezisi izilimo noma ukutshala isilimo esifanayo ensimini eyodwa amasizini amanangi alandelanayo.*



Amanye amafektha anomthelela womonakalo omkhulu wezifo zeztishalo wezilimo kubandakanya (i) isilimo esiyikhaya esingakwazi ukuzilwela, (ii) izitshalo ezinomthelela (izitshalo ezinamagciwane), (iii) nenhlalo yendawo elungele ukukhula kwezifo zeztishalo. Isilimo esibuthakatha esiyikhaya lezifo singathathwa njenge-cultivar yesilimo esingakwazi ukuzimela ngokwamajini ukuya kuma-pathogens (amagciwane) noma leyo elinyazwe yizinhlayiya zenhlabathi ephephethwa umoya lokho kwenza umthelela we-pathogen ube lula. *I-infectious pathogen* ngokwejwayelekile idala umonakalo omkhulu wesilimo uma iyiningi ensimini. Enye yezimbangela eholela ekwandenikwala ma-pathogens ensimini ukungazijikelezisi izilimo noma ukutshala isilimo esifanayo ensimini eyodwa amasizini amanangi alandelanayo.



1a

*Ezinyezifoezi-afekthaubhekilanga; i-Sclerotinia head rot (Isithombe 1a), i-Alternaria leaf blight (Isithombe 1b), kanye ne-Phoma black stem (Isithombe 1c).*



1b



1c

## UMJIKELEZISO WESILIMO

Ukungajikeleziswa kwezilimo emva kwesikhathi kunga-afektha isivuno sesilimo njengoba ama-*pathogens* amanangi engakwazi ukuphila enhlabathini nasezimvithini zesitshalo emva kokuvunwa kwezilimo. I-University of Pretoria yenze ucwaningo iphenya ukuthi i-*Alternaria leaf blight* i-(ALB), **Isithombe 1b** ne-*Phoma black stem* i-(PBS), **Isithombe 1c**, zikwazile uku-phila ezimvithini zikajikanelanga ezinomthelela epulazini elingenisa inzuko. I-PBS ibikwazi ukuphila izinyanga eziyisishiyagalombili kanti i-ALB ingakwazi ukuphila isikhathi esingaphezulu kwezinyanga esingaphezulu konyaka ezimvithini zesitshalo. Ezinye izinto ezhambelana nokulima uhlo-bo olulodwa lwezilimo ensimini eyodwa unyaka nonyaka kungafaka phakathi ukuphela kwamanyuthriyenti. Ukujikelezisa izilimo kungafaniswa nekinobho loku-rifresha kusistimu yokulima izlimo. Ngaleso sikhathi ukujikelezisa isilimo kunganciphisa izinga lezifo enhlabathini; futhi ingenza ngcono umswakama wenhlabathi, i-soil carbon, i-macro-fauna, ukukhi-qizwa kwezilimo futhi ikahle kakhulu ekongeni. Ukukhetha ukuthi yisiphi isilimo okufanele sijikeleziswe kuyoncika kwinhlalo yendawo, inhlabathi

nakuklayimethi. Isitshalo kusafanele sibe nemihlomulo yezezimali kumlimi noma kufanele kube nezinzuko yezomnotho (ukudla kwezinkomo).

Ukujikeleziswa kwezilimo kwensiwa ngokulima izitshalo ezinezinhlobo ezahlukene zezilimo ngokulandelana. Ukwenza isibonelo, uma umlimi etshala insimu yommbila ngesizini yokulima ka-2019/2020; kungensiwa isiphakamiso sokuthi atshale ubhontshisi ngo-2020/2021 ngesizini yokutshala. Lokhu kwensiwa ukuthi ummbila usebenzisa kakhulu inayithrojini futhi ubhontshisi iphindisela inayithrojini enhlabathini.

## UKUQAPHELA

Unyaka ka-2020 ubalulwe njenge-*International Year of Plant Health (IYPH)*. I-IYPH ihlose ukusungula ukuqapha ngokubaluleka kwempilo yesitshalo. Impilo yesitshalo ibalulekile ukukhulisa namasu oku-implimenta amasu ukulawula nokuvikela izinambuzane, ukhula nezifo. Ngakho ke impilo yesihlahla idlala indima enkulu ekuqedeni indlala, ukuvikela i-biodiversity noku-qinisa intuthuko yomnotho. Ngakho ke ukuqinisekisa ukugcina izitshalo zethu zinempielo. ■



There is a powerful driving force inside every human being that, once unleashed, can make any vision, dream, or desire a reality.

~ ANTHONY ROBBINS





# Amazwibela eNhlango ngeqhaza labalimi

MHLANGANWENI WONYAKA WE-GRAIN SA OWA-BA NGOMASHI, IZITHUNYWA ZAVUKELWA UGQOZI NGEZIKHULUMI EZIFANA NENHLOKO YAMAJAJI UMO-GOENG MOGOENG KANYE NOCHWEPHESHE WO-MNOTHO WEZOLIMO ODUMILE U-DR FERDI MEYER WE-BFAP (THE BUREAU FOR FOOD AND AGRICULTURAL POLICY). IZITHUNYWA ZAPHINDE ZANIKEZWA UMSEBENZI WOKUKHE-THA UBUHOLI OBUSA ENHLANGANWENI.

## UBUHOLI OBUSA BE-GRAIN SA

Osanda ukuba uSihlalo uJaco Minhaar useqhubekele phambili nokusebenzela lo mkhakha kumaplatifomu ahlukene lokho kusho uku-thi iNhlango kufanele ikhethe ubuholi obusa obuphezulu. U-Derek Mathews, ongumlimi oseduze kwase-Lichtenburg kanye noSekela Sihlalo wesikhathi esedlule wavotelwa njengoSihlalo we-*Grain SA* kanti u-Richard Krige, owayeyilungu leSigungu seKomiti nomlimi waseNtshonalanga neKapa wakhethwa ngaphandle kokuphikisa njengoSekela Sihlalo wakwa-*Grain SA*.

Izithunywa zaphinde zavotela u-Ramodisa Monaisa ukuba aqhubeke nokusebenza njengoSekela Sihlalo elinye ihlandla ehhovisi. Ungumlimi wokusanhlamu nowemfuyo esigodini sase-Lichtenburg. UJeremia Mathebula olima eduze kwase-Ermelo osevele eyilungu naye uqokwe yiNhlango ukuba asebenze eSigungwini seKomiti.

## INHLOKO YAMAJAJI UMOGOENG MOGOENG

Inhloko yamaJaji uMogoeng utshele iNhlango: 'iNingizimu Afrika eyabo bonke – hhayi nje abathile – abahlala kuyol!' Iqiniso ukubumba iNhloko yamaJaji uMogoeng wacela iNhlango ukuba ithandaze kanye naye ngaphambi kokuba ethule inkulomo yakhe. Wabe esebeka umizwa yakhe mayelana nomphakathi olimayo: 'Ngiyabonga, ngiyabonga, ngiyabonga! Utte abalimi badlala indima ebalulekile ngokulandela ubizo lokukhiqiza ukudla okuyikhwalithi kokondla abantu. Waphinda washo futhi ukuthi bangaki abalimi ababhakene nezikhathi eziyinselele nabo wababonga 'ngobusosha babo'. Inhloko yamaJaji uMogoeng uyabaqondisa abalimi uthi uyakuqondisa ukuthi ukudideka ukwenzwiwa abanye baseNingizimu Afrika kubashiya bonke abalimi bezizwa bedikibe.

## Izindaba

Ezinye izinto azishilo yilezi:

- **'Amasela omhlaba'** – ngaphandle kokubiza amagama nomuzwa omubi, iNhloko yamaJaji uMogoeng uyakuhlonipha ukuthi abalimi bakho bakhetha ukulandela umsebenzi wabo abawukhethile futhi sizoqhube-ka nokufaka isandla ekuqiniseni umnotho eNingizimu Afrika.
- **Ukuxhasa abalimi ngezimali** – iNhloko yamaJaji uMogoeng uyabazi ubungozi babalimi abaqhubekeyo nokusebenzisa ngokugcweli umhla-ba wabo njengenhlanganisela yokuxhasa ngemali lapho ingekho itayi-tela kwabanye nethuba elifufusayo lokuthathwa komhlaba ngaphandle kwasinxephezelo kwabanye.
- **Ukuthuthukiswa kwabalimi** – iNhloko yamaJaji uMogoeng uthi ku-dala eyazi nge-*Grain SA Farmer Development* kanye nendima ebucayi eyidlalayo ekwazini ukuthi bonke abaseNingizimu Afrika, abamnyama nabamhlophe, kufanele bakwazi ukukhulula amandla abo njengabalimi. Ubonga i-*Grain SA* ngokuba nothando lokwelula isandla ukusiza noku-fundisa abanye abalimi.

U-Jenny Mathews, umbhalu wePula Imvula. Thumela i-imyili ku-jennymathews@grainsa.co.za



## Ukukhanya kugqondiswe kuMthethosisekelo wethu

INhloko yamaJaji uMogoeng wasikuqula ukukhanya wakuqondisa kumthethosisekelo wethu. Thina, bantu baseNingizimu Afrika ... akuqondi-sanga kuhlanga oluthile, isiko noma okhokho – 'thina' kusho ukuthi wonke umuntu. Ikhumbula ukungalingani kwenikhathi esedlule futhi wamukela ukuthi iNingizimu Afrika eyabo bonke abahlala kuyo, sihlangene ngo-kwehlukana kwethu futhi ucabanga ukuthi umthethosisekelo kuyithuluzi lokuphilisa. Utte kufanele sikubambe kanye namaqiniso omlando njengo-ba kungeke kube khona isixazululo sesikhathi esiyisiphetho kulo mkhakha uma singakabi naso isibindi ngokwanele, umthetho ngowanele futhi sibe nizwela olwanele sokubhekana nokukhalela ukuhlanganisa, ukuhlanganyela ngokuzakalayo kanye nokuba ne-aksesi emhlabathini. Sinomsebenzi wokukhetha izixazululo ngezindlela ezakhaya kunalezo ezihlukanisayo, oku-qinisekisa ukuthi 'alikho ibhola ibekwe ezandleni zosomathuba abangab-dali bezopolitiki' lokho kuzoqhubeka nokusehlukanisa.

Ningabaniki osopolitiki ithuba lokusihlukanisa – singumndeni! Izwe lethu lidina ukwelashwa ekwephukeni, izinsolo, ubandulululo, ukuzondana, ubuzwe nokunethembani. Sithanda noma singathandi singumndeni futhi singababandawonye! Inhloko yamaJaji uMogoeng ukholelwa ekutheni kukhona ubunye phakathi kwabaseNingizimu Afrika bakhombisile ngoba sithola ukujabula uma sisonke. Utte uyalufisa lolol suku lapho umkhakha ozimele, ulimo oluhlelekile kanye nohulumeni kusebenza ngokuhlanganyela ndawonye kunakuqala.

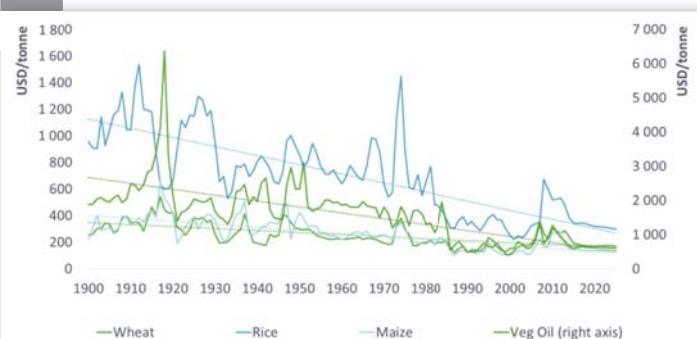
## Ukwabiwa kabusha komhlaba

Ezikhathini ezedlule ukwabiwa kabusha komhlaba akubanga impumelelo.

- Kudingeka sisebenze ngokuhlanganyela ukwedululisela umhlaba.

1

Ukwehla kwamanani qho i-real prices.



I-Source: FAPRI, 2018



- Umhlaba kufanele ubekwe ezandleni zabantu abafanele ukuba babe nenhliziyo yokulima futhi abanamandla okulima.
- Kufanele sikuqinisekise ukwelulekwa okungaguuki.
- Kudingeka ukusekwa ngokuhlanganisiwe kuhulumeni.

#### **Kudingeka sixoxe ngezindaba zethu**

'Size sithole indlela yokuxhumana ziyoohlala zikhona izindaba ezingelona iqiniso emnyango!' Inhloko yamaJaji uMogoeng ukhuthaze ukuxhumana ngamandla komkhakha obalulekile nezikulumo eziphusile kwabezindaba zokwenziwa komsebenzi omuhle. Kubalulekile futhi ukuthi imibiko ayiyo-na eyokuhlobisa nje kodwa iyisibonelo sangempela kwa-*Grain SA* isimo seze-politiki.

'Ukudela nokuzehlisa kuzodingeka kithina sonke, omnyama nomhlophe!' Inhloko yamaJaji uMogoeng uthi angabafakazela abalimi ngokuzinikela kwabo nangomoya wobubele babo futhi ukholelwya ekutheni abalimi baletsha uzinzo kulo makhakha.

#### **Kudingeka sazi**

Inhloko yamaJaji uMogoeng ukhuthaza abalimi ukuba bafune ngodli izisombululo ngokushesha zodaba lomhlaba. Uvumile ukuthi sidinga inqu-bomgomgo edizayinelwe ukuqinisekisa ukukhiqiza okubonakalayo kanye nomathuba okulima isikhathi eside futhi, kule phrosesi, ugcizelela isidingo sabalimi bamanje' ulwazi kanye nomqondo ohlangene kakhulu. 'Ngeke ngithande ukubona abalimi bevala izitolo ngoba bengawazi ukulima ngempumelelo eNingizimu Afrika. Iningizimu Afrika inekusasa eliqhakazile futhi uwena nami kuphela, nokuzimisela okuqinile, esingaqinisekisa leli zwe elihle ukuthi alimoseki.

#### **U-DR FERDI MEYER**

U-Dr Meyer ukhulume neNhlangano ngezinto ezinomthelela emnothweni wokusanhlamvu. Uthi uma kuzoba khona ukukhula kwekusasa, kudingeka sibheke u: 1) Ukubambisana, 2) lokho esigxila kukho, 3) yiziphi izinto esizibeka phezulu eqhulwini, 4) sixhumana kanjani ku-value chain no-5 siyithatha kanjani inqubomgomgo. Akukhona okungabaluleki ukuthi i-*Grain SA ne-BFAP* beyihlanganyela ukuqoqa idatha nokubheka izindlela ezinekhono zokuqhuma imibiko yamasu kubabumbi benqubomgomgo, ibhizinisi nama-foramu enza izinqumo.

#### **Goba ijika**

Usho ukuthini uma ethi: 'Kufanele ugobe ijika?' Izibalo zikhombisa ukwe-hla kwamazinga okwenza inzuso emkhakheni wezolimo. Bonke abakhqizi bokusanhlamvu bangaphansi kwenkulu ingcindezi futhi babhekana nezi-nselelo eziningi. Umugqa wegrifu yenani langempela likhombisa umkhuba oshona phansi – okusho ukuthi incane inzuso yabalimi, ubungozi buphe-zulu nokwesabela ukuqhubeke phambili ngokulima. Kufanele sithole izindlela zokugoba ijika ukuze likhombe phezulu futhi ishenxise ukulima kube sesimeni esiphumelelayo nesizinzile.

Bheka **Igrafu 1** okulandela ukwehla kwamanani entengo etholwe abalimi ngomkhiqizo wabo. Ukwehla kuyakhathaza. Kufanele sithole izindlela 'zokugoba ijika' ukwenyuka ukuze ukulima kuhehe kakhulu, kuphumelele futhi kuqhubeke isikhathi eside. Njengabaliyi kudingeka sikwazi ukondla imindeniyethu futhi sikhlise ibhizinisi lethu. Njengoba kukhona okwehla okungaka, ngeke sikwazi.

#### **Ngabe yini ezoguqukla izinto nokuzosiza ukugoba ijiko?**

Kudingeka sithole isixazululo futhi sekhulume kakhulu nabakhandi bemigomo nohulumeni ukuze baqondisise ukuthi umkhakha we-zolimo ubuthaka futhi ubucayi kangakanani nokuthi yini edingekayo ukulungisa lokho!

#### **Imisebenzi, ukukhula noHlelo IokuThuthukiswa kweZwe i-(NDP)**

U-Dr Meyer uthi zikhona izindawo ezinomhlaba ongasetshenziswa ngokuphelele nabalimi abalima kancane phecelezi *smallholder* lapho kufanele kube namathuba emisebenzi emikhulu kodwa esikhundleni salokho izinombolo zehlile zisuka ku-3 izigidi ngo-2011 ziya cishe ku-1,2 wezigidi njengamanje. Kodwa imikhakha yemisebenzi ethu-mela emazweni angaphandle ezingeni lepulazi yandile ne-agro-processing kanye ne-integrated value chain kubonakale ukukhula okukhuthazekile.

#### **I-value yommbila ukulehla kokuguquka kwezwe**

U-Dr Meyer uziqqamisile izinto ezinomthelela wesikhathi eside. Kudingeka senze imibiko ezogobisa ijika.

- Ukungenelela komkhakha ozimele kuzodluliselva amakhono, kodwa sidinga imixhaso eqonde ngqo yabalimi abancane phecelezi *smallholders*.

- Imiqomo yokubuyiselwa komhlaba nokwabiwa kabusha komhlaba kudinga ukunchazelko kubo bonke.
- Abalimi badinga uxhaso Iwezimali zokukhiqiza olwethembekile nemshwalensi wezilimo ofinyelelekayo.
- Kudingeka kwakhiwe ingqalasizinda futhi inakelelwye isib. imigwa-qo, ugesi nokusalbaliswa kwamanzi.

#### **Amandla**

'Sinamandla amakhulu okugoba ijika futhi sakhe ne-value chain eshona phansi emnothweni.'

- Imboni kabhontshisi isoya ikhule kakhulu.
- Izimakethe zezinkukhu nokusankukhu – nciphisa okuthengwa emazweni angaphandle bese wakha izimboni zasekhaya zisebenze kakhulu futhi usungule amathuba omsebenzi.
- Abakhqizi baseNingizimu Afrika banezinselele ngokwezindleko zokukhiqiza. Abalimi abasezindaweni ezomile kuzodingeka babe namasu oguquko futhi bafake umkhakha omkhulu wemfuyo.

#### **Imibono obuyela nayo ekhaya**

- Abalimi badinga inhlango eqoqa idatha eqonde ngqo elinganisa umthelela wabaqhube abanigi abehlukene ekukhiqizeni nabaphrosesayo.
- Umsebenzi we-*Grain SA ne-BFAP* ekuqoqeni nasekwabelaneni ne-dathaa kubalulekile.
- Imibiko yokwazisa ngalo lwazi kufanele yedluliselwe ngokusobala kubabumbi benqubomgomgo nakwabanye ababambe iqhaza.
- I-*Grain SA Farmer Development* ayenzi umehluko kuphela ngab-luleki kodwa iphinde isize ekuqoqeni ulwazi olubarulekile lokuxoxa indaba esikhundleni sabalimi. ■

# UKULINGANISA UKWAZI

## – ukubaluleka kokwenza isilinganiso sesilimo

**U**KWENZA ISILINGANISO NGESILIMO YINDELA YOKULINGANISA NOKUBIKEZELA LAPHO ABA-HLAZIYI NOMA ABALIMI BEQAGULA AMANDLA NETHONEJI ESILIMO ESITHILE. LOKHU KUNGA-BA OKWENSIMU ETHILE NOMA OKWEPULAZI NOMA OKWEZWE LONKE. NGAKHO KE, SINGAHLUKANISA ISILINGANISO ESINGABA IMIKHAKHA EMIBILI; ISILINGANISO SESILIMO EZWENI LONKE KANYE NESILINGANISO SESILIMO ESENZIWA UMUNTU.

Isilinganiso sesilimo ezweni lonke ukuqagula ngesivuno esilindelekile ezweni lonke. Lokhu kwenziwa yithimba labahlaziyi abazinikele nosomnotho abenza inhlanganisela yezindlela ukunquma ngefiga yethoneji ebekiwe. Le figa izoguquka isizini yonke njengoba izimo zishintsha.

Izilinganiso zizokwenziwa ezigabeni ezahlukene isizini yonke ukuzama futhi nokuba baqonde ngqo. Izindlela ezesetshenziswa ukwenza izilinganiso zesilimo kuncike elwazini ulukhona isizini yonke. Okokuqala, ikomidi lizobheka ama-*input* ayethengwe ngaphambili kwesizini. Ingakanani imbewu abalimi abafisa ukuyifaka phansi? Ngokusobala, yonke imbewu ezothengwa ngeke itshalwe njengoba izimo zeklayimethi zizoguququka ezweni lonke. Ukunquma ukuthi mangakhi amahktha atshaliwe ngempela ngokwezilinganiso zekomiti ezizohamba izwe lonke lihlole isimo kanye nokusebenzia *i-geographical information systems i-(GIS)* kanye nobuxhakaxhaka bokusensa ukuzeufike empendulweni enembayo.

Njengoba isizini iqhubeka ithimba lizokwenza izilungiso eziqhube-kayo ngokwezfunda ezweni lonke. Uma uthola izimvula ezinhle, lokhu akusho ukuthi kunjalo ezweni lonke. Isivuno sommbila esi-avareji eNingizimu Afrika siyashiyana njengoba izimo zeklayimethi ziguqu-guka unyaka nonyaka. Isivuno sommbila esi-avareji wesikhathi eside eNingizimu Afrika kulinganiselwa cishe kuzigidi eziwu-8 zamathani. Kodwa, ngokuvamile siphumelela ngokungaphezulu kwamathani ayizigidika eziyi-10. Ngo-2017 eNingizimu Afrika iphumelele isivuno esibe yingqophamlando esingaphezulu kuka-16 wezigidi zamathani futhi zonke izimpawu zikhombisa ukuthi ngo-2020 impumelelo izofana uma kungazokuba ngaphezulu.

### NGABE SISIQAGULELANI ISILINGANISO SESIVUNO?

Ukwenza isilinganiso sesilimo ngumkhuba obalulekile ngoba ummbila ukudla okubalulekile ezweni lethu kanye nase-Afrika. Cishe u-200 wezigidi zama-Afrika eziphezulu nsuku zonke. Ukwazi ukuthi ungakanani ummbila ezimakethe yikho okuzonquma ukuthi wena nami kuzodingeka sikhokhe kangakanani esuphamakethe. Ngakho ke, isilinganiso sesivuno kunomthelela endleleni okuhlelwa ngayo amanani entengo emakethe.

Miningi eminye imikhqizo amanani ayo anqunywa ngokungaqondile ummbila afana nemfuyo. Ukwazi ukuthi ummbila uzoba ngakanani uzotholakala ngesikhathi sokuvuna nalokho kuzokwenza sikhazi ukumeneja nokubajetha ngendlela. Mhlawumbe ngesizini engahambanga kahle sizoshesha sikuhoxise ukuthumela emazweni angaphandle kodwa sibekelamazwe ethu. Ngonyaka omusha singaba nempumelelo yokuphusha okuthunyelwa emazweni noma

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mhlawumbe iphesenti elikhulu silifake ekudleni kwezilwane. Lezi yizo zonke izinqumo esisizwa ukuqagula kwezilimo ukuze sizenze.

Iningi ilezi zizathu zokwenza isilinganiso sezilimo ziyanfaa kumlimi ngamunye. Abalimi bazokwenza isilinganiso ukuze babhajethe futhi baplanele isizini elandelayo. Amathani olindele ukuwavuna anomthelela ngqo emandleni enzuso yakho. Abalimi abaqhuba imisebenzi exubile lapho imfuyo iyingxene yohlaka lwemfuyo uzokwazi ukuhlela nokwenza amaqhingga enzuso enkulu ngokunquma ukuthi ikuphi lapho okusanhlamvu okuzoba nomthelela omningi khona. Iningi labalimi lidayisa umbila odlia yizinkomo futhi benze isilinganiso sommbila kuzobavumela ukuba bamakethe ukudla kwezinkomo zabo ngokwesilinganiso sokusanhlamvu. Ukwenza isilinganiso ensimini ngayinye ngumkhuba omuhle njengoba kuyakuvumela ukuba ucubungule ukusebenza kwakho ngesizini yonke yokutshala. Nakho futhi kuyakusiza ekuhlaziyi iphrogremu yakho kamanyolo.

*Ekulimeni njalo kudingeka sicabangele phambili futhi sihlelelo ezimo ezahlukene esingahlangabezana nazo endleleni yethu.*



Abalimi ngokuvamile basebenzia izibalo eziilula ukubala izilinganiso zesi-vuno sabo. Lokhu kwenziwa ngokulinganisa nomkhakha wemigqa nokubala inani lezitshalo kuloyo mkhakha. Umlimi ke yena uzobala izinombolo zezikhwебу esitshalweni ngasinye futhi ubale inombolo yama-*kernel* esikhwebini ngasinye. Ngokukala isampuli yama-*kernel*, umlimi ke engabala amakhiloren azovunwa emkhakheni ngamunye. Ngokuphindaphinda uzokwazi ukwenza isilinganiso samathani ihektha ngalinye bese egcina ngethani lensimu. Ukuphumelela isilinganiso esiqonde ngqo umlimi uzkwenza lokhu izikhathi eziningi emikhakheni yonke eyahlukene ensimini.

Isisho sesiBhunu sithi: ‘*Om te meet is om te weet*’ ‘ukulinganisa ukwazi’ Sisebenzia izilinganiso zesi-vuno ukuze sazi ukuthi kumanndla angakanani ukuzohanjiswa kumasilo ngesizini. Lokhu kuyasivumela ukuba sihlelelo isizini elandelayo. Ekulimeni njalo kudingeka sicabangele phambili futhi sihlelelo ezimo ezahlukene esingahlangabezana nazo endleleni yethu. Senza ibhizinisi kunhlalo yendawo yingakho kufanele siqhubeke njalo nokuhlelela umphumela oyiqiniso kanye nokwazi ukuthi isivuno sethu singaba njani kungakusiza lokho ukwenza lokhu nempumelelo. ■

# UKWENZA AMASAMPULI ukhiye wesilimo esiyimpulelelo

**U**KWENZA ISAMPULI YENHLABAH, UKUKWENZA NGOKUFANELE, YISINYATHELO ESIBALULEKILE EKULAWULENI UKUVUNDA KWENHLABATHI KWE-CASH CROP NGAYINYE KUSISTIMU YOKU-JIKELEZISA IZILIMO NOMA KWAMADLELO ASE-TSHENZISWA UKUKHIQIZA IMIKHIQIZO EYIMFUYO.

Kubalulekile ukugcina amarekhodi amasampuli onke athathiwe kanye nemiphumela yenhlabath ehloliwe oyitholile namasampuli emihlabathini eminingi ethunyelwa kuwe ngqo ukuze eyohlolwa ema-labhorethri noma kubadysi embonini kamanyolo. Ukunconya kokusethenziswa kukamanyolo omningi obekelwe isilimo noma inhlabath kuzonquma ngesivuno sesilimo sakho kanye nangempumelelo yesikhathi eside somsebenzi *we-cash cropping*.

Izivuno zesilimo ezitholakala ngqo zingaqhathaniswa nokuhlolwa kwenhlabath, ulwazi lwamazinga namareshiyo enhlabath ephilayo nezinhlaka zokuvunda nekhwantithi yama-elementi kamanyolo wenayi-throjini (N), i-phosphate (P), i-potassium (K), i-calcium, i-magnesium, i-zinc, i-boron nezinye izinsalela zamanye ama-elementi afakiwe.

Ukuhlola inhlabath kuba yi-benchmark yokukhuthaza umlimi ukuba akhulise ukuvunda kwenhlabath nesivuno sama-cash crop alinywe emnyakeni eminingi.



Umgodi wephrofayili ukhombisa iphrofayile yenhlabath kanye nomsebenzi wokudepha kwezimpande.

Ibhalwe ngumlimi  
osathatha umhlalaphansi



## KUDINGEKA ULWAZI OLWENGEZIWE

Uma uthatha amasapuli enhlabath kubalulekile ukwazi nokubona amaphrofayile enhlabath uqobo, incazelo negama elifanele inhlabath, ukujula kwezimpande nedatha yemvula ukuze ube nokubikezela okuqondile kwamandla esivuno sakho ebhlokhi ethile yohlobo lwenhlabath noma imihlab aethile yebhizini lokulima. Ukvunda ngakunye nomanyolo okufanele ufakwe kufanele 'ukhalibhrethwe' kumabhentshimakhi ukuhlolwa kwenhlabath kanye nesivuno uqobo ngamasizini amanangi okuhiqiza.

Ezinye izinsiza ezibalulekile okufanele uzifunde nokufanele ube nawo esandleni sakho ngenkathi ubheka ukuhlolwa kwenhlabath nemiphumela yokuphuma yiMikhakha yeNhlabath phecelezi *Soil Classification i-taxonomic system* yaseNingizimu Afrika (*ISBN 0-621-10784-0*) kanye nencwadi yakamuva kamanyolo i-Fertilizer Handbook (*ISBN 0-909071-86-1*). Incwadi kamanyolo utholakele uma ukhalibhretha inhlabath, umanyolo onconyiwe wamazinga ehlukene ezivuno zesilimo kanye nezivuno ezitholakele ngenkathi ulima epulazini lakho.

Okumangazayo komunye abanye nabalimi bezilimo abanolwazi lweminyaka engaphezulu kwengama-20 abakaze bawugubhe umgodi wephrofayile yenhlabath futhi ngalokho ke abalazi iqiniso lamandla enhlabath. Kubalulekile ukuthola isivuno esikhulu enhlabath anamandla aphezulu. Ngamunye kufanele abe nohlelo oluthile lwephrofayile yokuvunda olwenzelwe isivuno esiphezulu. Inhlabath engeyona eyomnotho wama-cash crop kufanele kubekwe emuva emadlelweni atshaliwe.



Ukuthatha amasampuli enhlabath.

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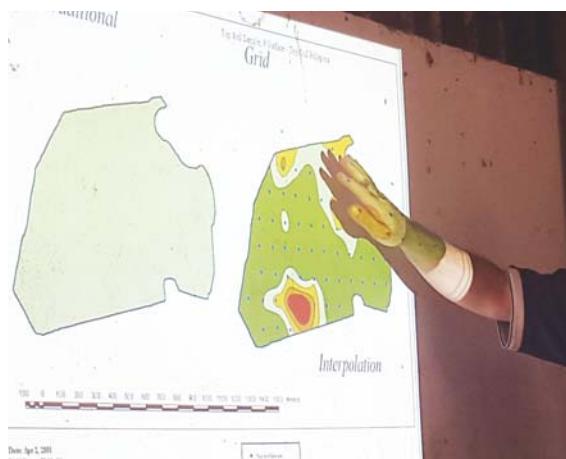
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IsiZulu, IsiNgisi, IsiTswana, IsiSuthu, nesiXhosa.

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

## Ukwenza amasampuli ukhiye...



### Ukwenza amasampuli enhlabathi kuzokukhombisa ukuthi yikuphi okushodayo enhlabathini.

### IZINCOMO NOKUFANELE KUCATSHANGWE

Kubalulekile ukuthatha amasampuli enhlabathi esikhathini esingama-2 kuya ku-4 wamaviki ngaphambi kokugala kwesizini yokukhiqiza ukudedela ukuhlola nokuchaza imiphumela ngaphambi koku-oda umanyolo ofanele. Inhlabathi iqala ukufuduma emva kobusika ngakho ke u-Agasti kuya kuSepthemba yisikhathi esihle. Uma ungasheshe ungene uzothola imiphumela evela elabhorethri ngaphambi kokuba kuqala isikhathi esimatasa sokuhlola amasampuli ayizinkulungwane.

I-ARC-Small Grain Institute ngokwesibonelo izinze eBethlehem, ikunikeze isevisi enhle nemiphumela ethembekile eminyakeni eminingi. Imihahlandlela jikelele yokwenza amasampuli ukuthatha amasampuli ngesikhathi esifananyo sesigaba esisodwa sephrgpremu yokulima, uhambe emasimini ngephethini ye-zig-zag ngethulazi lokwenza amasampuli esikhwameni esinamathele kanye nokuthatha amasampuli noma ikanjani, ngokulinganayo phakathi nangesikhathi semigqa yesilimo esedlule.

Thatha inhlabathi engaphezelu phecelezi i-top-soil uyihlaziye kusukela ekujulen kuka-0 mm kuya ku-200 mm esigaben esibalulekile sezimpande kanye naku-subsoil/ kusuka ku-200 mm kuya ku-600 mm. Uma uhlaziya inhlabathi yomhlaba ongaziwa uylelulekwa ukuba ukuthathe kokubili ukuze kugcinwe irekhodi eliqonde ngqo lokuvunda okwenzive ngcono. Uma uthenga noma uqashe ipulazi elisha, cela umnikazi waphambilini ukuba akunikeze amarekhodi aphambilini ukuze uqhathanise nokuhlolwa kwamanje.

Oqukethe izinto ezifanayo noma umhlabi onenhlabathi ewuhlobo olufanayo nokudepha okungaphansi kuka-50 ha kufanele kwenziwe amasampuli futhi kumakwe ngokwehlukene. Kufanele kuthathwe amasampuli angama-20 kuya kwangama-40

endaweni yonke yeyunithi yendawo yonke eukethwe. Amasampula ka-20 kuya ku-40 kufanele ehlanganiswe ngokufanele, kanye nesampuli yokugcina ka-0,5 kg kuya ku-1,0 kg kufakwe esikhwameni esivaliwe futhi kuthu-nyelwe noma kudilivwe elabhorathri.

Kunconywa kakhulu ukuthi amabhokisi amasampuli asaplaywe ngama-labhorethri ahlikene kuhanjiswa esayithini futhi uku-xutshwa nokulebulwa kwesampuli ngayinje ngokukhulu ukuzinikela kwensiwa emhabeni ngamunye ukugwema noma konke ukudideka kwalapho ingxube yamasampula ukuthi okwamuphi umhlabi.

### ISIPHETHO

Thatha amasampula enhlabathi yakho enamandla amakhulu kuqala uma izinsiza nesikhathi kukuncane futhi ugcwaliwe ngokucophelela isaveyi nokuhlaziya izinga lokuvunda kweminye imihlaba ngamunye eminyakeni ezayo embalwa. Kuwukhiye wempumelelo yokulima i-cash crop. ■



Isampuli yenhlabathi ethathwe e-Bergville.



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