

PULA IMVULA

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INCWADI YEGRAIN SA YABALIMI ABASAKHULAYO



IHHOYI yilinki EBALULEKILE ekukhiqizeni kwemfuyo

Ngabe kubalulekile ukulinganisa umswakama wehhoyi, bese uyayisonga uyenze ibhele masinyane.

UKWENZA IHHOYI KUYABIZA, NGAKHO KE ABA-LIMI KUFANELE BAQALE NGOKUTHATHA ISINQUMO SOKUTHI KUNGANI KUFANELE BAYENZE. UMA IHHOYI IDINGEKA KU-FODDER FLOW, KUFANELE YENZIWE. KODWA UKUDLISA EMADLELWENI KUNGCONO LOKHO NJENGOBA IHHOYI AYINAWO UMSOCO NJENGEFOLISHI ELIFRESHI ELIDLIWA YIMFUYO.

Ukwengeza lapho, ihhoyi iyavunwa bese iyagcinwa, lokho kudinga ukusetshenzwa ngezandla kanye nomshini. Kodwa ukusebenzisa ifolishi elisele emadlelweni ngesikhathi sokulima ukuba lisetshenziswe njengokudla ebusika ubuhlakanuma ifolishi livunwe ngendlela futhi lalondolozwa ngokufanele.

Isinqumo sokuthi kufanele uyenze nini ihhoyi yisinqumo esibucayi futhi kufanele sisekelwe ukuqondiswa ukukhula kwesitshalo. Ukuvuna kufanele kwensiwe uma kubonakala ukuthi kungahle kube nezinsuku eziningi zesimo sezulu esihle sokukhanda ihhoyi. ‘Ukukhanda ihhoyi kusakhanya’ umshwana oweiwayelekile, kodwa kuningi okufanele ukucabange ngokunquma ngesimo sezulu sokukhanda ihhoyi kungabi ukubalela kwelanga nje kuphela. Ukuqondiswa lomqondo olandelayo kuzokwenza ukuthi loyo okhanda ihhoyi asisebenzise isimo sezulu ukuze akhiqize ngempumelelo ihhoyi eyikhwalithi elisezeni eliphezulu.

Inhloso yokwenza ihhoyi kungaba ukukhiqiza ukudla kwemfuyo okufanele nokunomsoco okusezingeni, okunokulahlekelwa kancane yizinto ezomile kanye nezindleko ezincane. Inqu bomgom ibanda-kanyekayo ekwenzeni ihhoyi enhle ukunciphisa amanzi aqukethwe utshani noma yihhoyi masinyane abe u-15% kuye ku-20% womsakama, ukuze igcineke ngokuphephile ingaboli noma iqale uku-sha. Lokhu kufanele kwensiwe ngendlela ayokuthi ihhoyi inganethwa yimvula kugezeke amaminerali futhi namahlamvu awalahlek kakhulu agcineka ekhona.

Ihhoyi eyikhwalithi ephezulu kufanele ibe namahlamvu. Ngokuvamile amahlamvu awukudla okunomsoco ngwekezinga uma kuqhathaniswa nezinye izingxeneze zesisitshalo. Amahlamvu ngokuvamile anama-phrotheni amanangi, amavithamini namaminerali. Uku-lahleka kwamahlamvu kungamosha izinga lokondla komkhiqizo wonke.

Isikhathi sibaluleke kakhulu. Isilimo sivune sisasesigabeni saso sokuba sezingeni lokuba nomsoco nesivuno. Izilimo zefolishi zikh-iqiza isivuno esikhulu ngesikhathi sivuthwa, kodwa izinga laso lomsoco liyancipha nokunambitheka kuyehla emva kokuqhakaza kwako kokuqala noma uma sekuya esigabeni se-heading phecelezi (*anthesis stage*). Ihhoyi ekahle kufanele ivunwe ukulinganisa ikhwantithi enhle nekhwalithi. Kuba kuhle njalo ukunquma ukuthi kundawo nakuphi nefoda lapho uzoyisebenzisa khona ihhoyi. Imfuyo esazala kufanele inikeze ihhoyi eyikhwalithi ephezulu, kodwa eyomile noma eyemithi ingasebenzisa ihhoyi eyikhwalithi ephansi.



IZWI LIKA...

*Dr Sandile
Ngcamphalala*

KALULA NJE, IZIBIKEZELO ZE-EL NIÑO EZEN-ZIWE NGESIZINI YASEHLOBO KA-2023/2024 SIQAGULA UKUTHI KUNGENZEKA IMVUMA IBE NGAPHANSI KWEYEJWAYELEKILE. LE-ZI ZIMO ZEZULU ZIJWAYELEKILE KUBALIMI BASENINGIZIMU AFRIKA, UMA KUQHATHANISWA NEZIMVULA EZINKULU NGOKUNGAVAMILE ESIKE SA-ZITHOLA EMINYAKENI EMINE EDLULE.

Ukuqagula kwakamuva ukuthi i-El Niño kulindeleke ukuthi ibelesele kuzo zonke izinyanga zasehlobo. Kodwa, ulwazi lukhombisa ukuthi izimo ezinje zisho isizini enhle kakhulu kubalimi abasezfundeni ezingasempumalanga. Ngakolunye uhlangothi, kulindeleke ukuba izimo zibe nzima ezifundeni ezsentshonalanga. Izibikezelo zesimo sezulu ziya ngokungaqqondisiseki nakakhulu ngenxa yokungaqqondakali kwesimo sezulu. Kodwa kukho konke ukungaqqondakali, labo abanesibindi ngokwanele sokuphikelela ezivunguvungwini zeklayimethi ngokuvamile bayaphumelela ngakolunye uhlangothi. Ngakho ke ngikhuthaza bonke abalimi ukuba benze lokho abadume ngakho – ukutshala balawule izilimo zabo ngendlela efanele, futhi uNkulunkulu uyoyibusisa imisebnzi yenu.

Labo abanesibindi ngokwanele sokuphikelela ezivunguvungwini zeklayimethi ngokuvamile bayaphumelela ngakolunye uhlangothi.

Njengoba siqala unyaka omusha, thina kwaPhahama Grain Phakama NPC (PGP) sinentokoza enkulu ngendlela esibukeka ngayo isikhathi esizayo. Siyaqhube ka nokujwayela isimo senhlalo nokwenza ngcono njengoba sifunda futhi siya ngokuhlakanipha kancane. Kodwa, ukukhula okudlondlobele ngeke kuze kalula.

Njengoba sizwa ukuqaqamba kwezinhlungu zokukhula, kusazoba nezimo eziningi ezinzima ezizodinga isibindi esikhulu ngokunjalo nezinquoqomo ezinzima ngezikhathi zonke. Iqiniso ngeke siqhubeke nokwenza izinto ezifanayo bese silindela imiphumela eyahlukile. Baningi abalimi nophathina abahlangene abazibophezele kulo mgommo, futhi labo sizobahlonipha kakhulu ngesenzo sabo sokweseka abalimi bokusahlamvu abasathuthuka.

– Dr Sandile Ngcamphalala ngumphathi we-PGP. ■

Ihhoyi yilinki ebalulekile...

UKUSIKA IHHOYI

Sika ihhoyi ukuze kuthi kome nebhele likhandwe kahle kubekunakek-Iwa ikhwalithi. Lokhu kusho ukuthi ingakwazi ukukhanda amabhele kumahektha angama-20 ngosuku, usike amahektha angama-20 ngosuku. Umshini wokusika utshani phecelezi i-hay-mower ngokuvamile isika futhi indlale ihhoyi ku-windows ukuze isize ukomisa ihhoyi.

Mayelana nesikhathi, izilimo kufanele zivunwe masinyane ekuse-ni ngoba ngaleso sikhathi amazolo asuke esomile. Utshani kufanele busikwe ngesikhathi esingaphambi kokuhakaza izimbali.

Yomisa umswakama wehoyi ifike ku-15% kuya ku-20%. Ifolishi kufanele libe nomswakama ofinyelela ku-90%, ngakho ke kufanele komiswe kakhulu. Ifolishi eliku-windows ingaba nomswakama ongu-25% ezinsukwini ezimbala emazingeni amahle okushisa nomswakama. I-Windows kufanele iklanywe ngendlela yokuthi ihhoyi yoma masinyane, ngokulinganayo nangokuphelele. Ukwendlala endaweni ende kusiza ukuba amahlamvu neziqo ukuba kome ngesikhathi esisodwa.

Ukomisa okusizwa ukuphendula i-windows. Ukuphendula ihhoyi njenge-tumble-weed kuholela ekutheni kulahleke amahlamvu futhi akukhuthazwa.

Ukushisa ngokweqile, nesimo sezulu esomile kungadala ukuba amahlamvu efolishi ome ngokweqile ngaphambi kokuba kome iziqu, okudala ukuba amahlamvu afohlozeke. Ukufohlozeka kudala ukwe-phuka nokulahleka kwemetha yamahlamvu, lokho kwehlisa ikhwali-thi yehhoyi.

Ihhoyi ekahle kufanele ivunwe ukulinganisa
ikhwantithi enhle nekhwalithi.

YOMA NINI IHHOYI NGOKUPHELE?

Zimbili izindlela eziyiqiniso ezisetshenziswa abalimi ukubona ukuthi ngabe ihhoyi seyome ngokwanele ukuba uyogcinwa:

- **Indlela yokuphatha** yensiwa *yi-twist a wisp* yehhoyi ezandleni. Uma iziqu zifohloka kancane futhi abukho ubufakazi bomswakama eziqwini ezsontekile, ingabekwa ngokuphophile.
- **Indlela yokuhwaya** yensiwa ngendlela yokuhwaya isiqu ngaphandle ngozipho lomunwe noma ngozipho lvesithupha. Uma isikhumba singahlubeka esiqwini, ngokuvamile ihhoyi isuke seyome ngokwanele ukuba ipakishwe noma ibekwe emiggeni yokwenza amabhele.

UKUBOPHA IBHELE

Ilanga futhi lingawushintsha umbala wefolishi elisikiwe, okuyikhona okuguqula umbala kanye nokususa amavithamini. Gcina umbala oluhlaza, lokho kuwuphawu olunamandla lokuthi ifolishi ligcine izinga lalo lokudla. Ngakho ke, kubalulekile ukuqala masinyane ubophe amabhele. Eningizimu Afrika ungakwazi ukuthola utshani obufana ne-oulandsgras ne-teff yome ngokwanele ukunze yensiwe ibhele ngo-suku olulodwa. Amanye ama-species afana ne-Smutsvinger grass, i-Rhodes ne-white buffalo grass kudingeka ukuthi bundlalwe elangeni izinsuku ezintathu ukuze bome ngaphambi kokuba bulungele ukwenziwa ibhele. Kubalulekile ukukala umswakama nokuwenza ibhele masinyane uma sekufanele.

NGENJANI IHHOYI EYIKHWALITHI ENHLE?

- Ihhoyi enhle kufanele ibe luhlaza ngokombala kodwa ingafani nothi ngokombala. Amahlamvu aluhlaza awuphawu lwenani le-carotene, okuyisanduleli sikavithamini A.

AMASU OKULWA NE *maize ear rots*

NHLOSO YALE ATHIKILE UKUNIKEZA ABALIMI ULWAZI OLUBALULEKE KAKHULU LWE-*MAIZE EAR ROTS* NO-KUTHI INGANCISHISWA KANJANI EKUTHI INGAHLASELI NGOKUSEBENZISA IZINDLELA EZIFANELE ZOKULAWULA. KUZOGLILWA KUMA-EAR ROT AMATHATHU ABA-LULEKILE: I- *STENOCARPELLA MAYDIS* (I-DIPLODIA), I-*FUSARIUM VERTICILLIOIDES* AND *FUSARIUM GRAMINEARUM* (I-GIBBERELLA).

Le zifo zibonakala njengezingka ezhlasela njalo ezindaweni ezikhiquiza ummbila. I-*maize rots* idala ukwehla kwekhwalithi yokusahlamvu, ukulahlekelwa yisivuno, imfuyo nezinkinga zokunukubezeka kabantu ngoshev. I-*Diplodia*, I-*Fusarium* ne-Gibberella zingabonakala njengezifo ezhamba ngazodwana, njengoba izimo zeklayimethi ne/noma zenhlalo yesimo sendawo ezikhula kuyo Zahlukene. Ngakho ke, lezi zifo kuzoxoxwa ngazo ngokwehlukana.

I-DIPLODIA EAR ROT

I-*Diplodia ear rot* idalwa yi-fungus *Stenocarpella maydis* futhi ngokuvamile iyaqaphelka endaweni ngamasizini asheshayo ukuhlaselwa yisomiso, kulandele ezithola imvula eningi neqhubeke njalo izifinyele esigaben sokuvuthwa kwesilimo sommbila.

Ukuhlukenisa nokusabalalisa: Isomiso ngasekuqaleni kwe-sizini, kulandele imvula ngasekupheleni kwesizini, kungaholela eku-bhedukeni kwe-*Diplodia ear rot*, ikakhulukazi lapho kukhona khona imithombo ephezulu ye-*inoculum* ezimvithini ezisenhlabathini engapezulu kusafesi. Le *fungus* ikhiqiza ama-spore-producing structures angaphila ezinhlangeni zommbila ubusika bonke, ngesikhathi ekhiqiza ama-spores entwasahlobo. La ma-spores abese esulela izitshalo ngomthelela isizini yonke elandelayo yokulima.

Izimpawu: Emva kwemvula noma ngesikhathi kunomswakama

omningi, la ma-structures aphilayo abese ekhulula ama-spores emoyeni, abese ewela ezitshaleni zommbila ebese esulela isisekelo sendlebe/negatsha lehlamvu bese ikhuphuka njalo iyofika endlebeni phecelezi ku-ear. Indlebe yonke ihlaselwa yisimila i-white mycelia growth (**Isithombe 1 ikhasi 4**).

Uma kunganyulwa phakathi indlebe phecelezi cross-section enomthelela, kungabonakala ama-spore akhiqizayo phecelezi spore-producing survival structures amnyama esisekelweni se-kernel (**Isithombe 2 ikhasi 4**). Kungaba khona ukuhlaseleka ngasekupheleni kwenzini ngesikhathi umswakama we-kernel uphansi, kodwa lezi zimpawu ezikho obala. Imithelela ekhombisa izimpawo ezincane noma engaboni izimpawu kuleli zibizwa ngokuthi yi-skelm Diplodia'.

I-*Diplodia ear rot* ingaphinda ihlasele ezindaweni ezithile futhi ihlasele okusahlamvu bese ivunwa nokusahlamvu nokusahlamvu okuphilayo, lapho ke sekwehlisa ikhwalithi yokusahlamvu. Okusahlamvu okunekhwalithi embi kuba nomthelela omubi ezimalini, njengoba lokho kunciphisa inani lentengo etholwa ngumkhiqizi ngokusahlamvu kwakhe.

IZINDLELA ZOKULAWULA

Ukunciphisa izimvithi/ukuzigcina: Ukuhluwlwa kwe-*Diplodia ear rot* kubandakanya ukuncishiswa kwezimvithi kusafesi ngokuthi zidliwe (imfuyo), zishiswe, kwensiwe amabhele nokuthi zilinywe inhlanga zommbila ezikusafesi. Njengalokhu i-fungus (*S. maydis*) ikwazi ukuphila ezinhlangeni zommbila kodwa ingahlali kahle enhlabathini, noma yikuphi ukulawulwa okwenziwayo lokho kuyawanciphisa amasinga okutheleleka kwezinhlanga ezikusafesi kuzonciphisa i-*inoculum* yokuqala eningi ensimini.

Ukususwa kwezinhlanga zesizini eyodwa bese kubuyelwa esenzweni sokuhlela kokugcinwa kwezimvithi kunciphisa kuphela I-*Diplodia ear rot* kwaleyo sizini ethili. Lapho kukhona khona izi-

- Ihhoi kufanele infozele nepetekayo.
 - Ifanele ihlungeke ingabi nazo izintuli nesikhutha.
 - Kufanele ingabi nalo ukhula, ikakhulukazi lolu oluzoba nezinhlangvu ezbibalayo.
 - Ihhoi kufanele ibe nephunga elihle elinezimpawu zesilimo.
 - Iphesenteji lomswakama akufanele lidlule ku-15%.
- Ngokusika nokubopha ibhele ngesikhathi esifanele, kungenzeka ukuthi wenze ikhwalithi enhle ye-hhoi. Kodwa udinga iprogramu ehamba phambili kamanyolo ukuze ukhiqize ihhoi enhle kakhulu.

Kubalulekile ukuhlaziya inhlabathi nokufaka umanyolo ngo-kwezidingo zenhlabathi. Njengoba iqiniso elimile, utshani buzodin-ga phakathi kuka-0,2 kg kuya ku-0,25 kg nayithrojini (N) kamayolo ku-1 mm yemvula. Ngamanye amagama, u-100 kg N ihektha kuding-eka ku-500 mm wemvula endaweni. Ngokwejwayelekile ifosiferasi (P) ifakwa ngokwereshiyo ka-10:1 N no-P, ngenkathi iphotheziyamu (K) ifakwa ngereshiyo ka-10:2 N no-K uma utshani busikwe, benziwa ibhele futhi bathuthwa.

Iphrogremu enhle kamanyolo kanye nesikhathi esihle sokusika, ubuthiswe kwensiwe ibhele, abalimi bangaba nesiqiniseko ukuthi

bazokwenza ihhoi eyikhwalithi ephuma phambili.

- Qinisekisa ukuthi ihhoi yondla izinkomo ngendlela esebenzayo nefanele.
- Qinisekisa ukuthi ikhwalithi ephezulu yehhoi kondliwa ngayo imfuyo ezalayo bese kuthi enekhwalithi ephansi yondla ezomile noma imfuyo emithi. Ngokwenza lokhu, imiphumela emihle yowkwabiwa kwemali kuzoba yinzuzo.
- Sebenzisa amaringi okudlela ihhoi noma amareki okudlela futhi usike ukudla kwehle ngo-4%- uma uqhathanisa no-24% ngaphandle kwamarangi okondla. ■

U-PIETMAN BOTHA,
UMELULEKI OZIMELE
KWEZOLIMO



nhlanga zesizini elandelayo, ubungozi be-*Diplodia ear rot* buzokhula bufinyelele ezingeni layo lokuqala uma izimo zezulu zivuma.

Ukuncishiswa kwengcindezi: Gwema ukutshala inani lesilimo esikhulu ngokwehaba ku-*marginal soil* nasezindaweni lapho khona emaningi amathuba esomiso, amahlamvu nom aushintshanise izimo zezifo ze-*stalk rot*. Qinisekisa ukuthi umsoco wesilimo wanele futhi ubhlanisce namandla esilimo enhlabathini nom a endaweni ezotshalwa.

Ukujikleziswa kwesilimo: Ukujikeleziswa kwesilimo kunciphisa i-*Diplodia ear rots* ngokunciphisa amazinga e-*inoculum* ngezindlela ezimbili. Okokuqala, i-*non-host ye-fungus* ngeke ivumele i-*fungus* ibelesele ngesizini lapho ummbila ungtatshaliwe khona. Okwesibili, isikhathi esihle (isizini nom a amabili) phakathi kwesilimo sommbila kuvumela ukucubuzeka kwezinhlanga zombila, ngokwemvelo, okuphinde futhi kunciphise impilo kwe-*fungus*.

Izilimo ezithela imidumba nom a *Leguminous crops*, ezifana nobhontshisi isoya, ubhontshisi owomile, amantongomane ne-*cowpeas*, yizilimo ezinhle ukuba ushintshanise ngazo. Ezinye izilimo ongashintshanisa ngazo ukunciphisa i-*Diplodia ear rot*, ukolo ne-oats. Obhekilanga abayinciphisi i-*ear rots* ngokungako ngaphansi kwezimo zokwenza isibonelo, yize nakuba isizathu sesengakatholakali.

Ukushesha uvune kunciphisa i-*Diplodia ear rots* njengoba kuya-sinciphisa isikhathi se-*fungus* sokuthi ikhule endlebeni phecelezi *ear*. Izimvula zakamuva nom a zasebusika zigcina izindlebe zimanzi futhi zikhulisa amathuba okukhula kwe-*fungal*.

I-Hybrid resistance: Ukukhethwa kwama-*cultivar* kubaluleke kakhulu. Ngokwejwayelekile, i-*resistant hybrid* izohlala ine-*Diplodia ear rot* encane enomthelela we-*hybrids* ehambisana nesimo sezulu esivunguzayo.

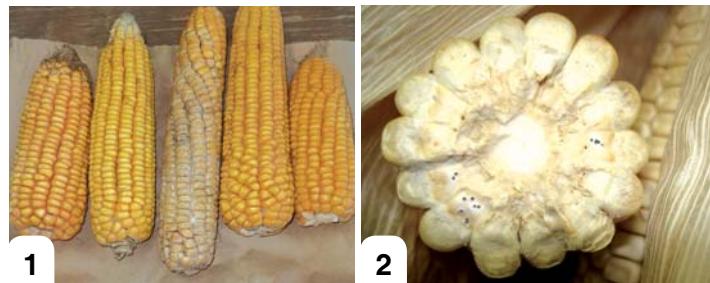
I-FUSARIUM MAIZE EAR ROT

I-*F. verticillioides* ingatholakala nom a ikuphi lapho kulinywa khona ummbila futhi ingaholela ekulahlekelweni yimali ngenxa yokwehla kwekhwalithi yokusahlamvu nokuncipha kwesivuno. Ngesinye isikhathi okusahlamvu kungasuleleka nge-*fungus* ngaphandle kokubonisa imithelela. Ngakho ke kubaluleke kakhulu ukubandakanya uhla lwenhlanganisela yamasu okulawula kuyo yonke isizini yokulima ummbila.

Ukuhukanisa nokusabalalisa: I-*F. verticillioides* iyathanda ezindaweni ezomile, nezifudumele ezinamazinga okushisa angaphe-zulu kuka-28°C. Amafektha engcindezi afana nokushisa kanye nezinambuzane nezinyoni kubhebhethekisa umonakalo we-*fungus*. Isitshalo sommbila singatheleleka nom a yingasiphi isikhathi esigabeni sokuhula futhi ngokuvamile i-*fungus* singatholakala ezinhlamvini. Umthelela we-*seedborne* ingakhula ngokwesistimu kanye nesitshalo iefinyelele kwi-*ear*.

Le fungus nayo iyi-soilborne, okusho ukuthi ingaphila enhlabathini nom a ezimvithini zesitshalo kusukela kusizini yokulima kuye kwe-nye – lapho ukusuleleka kommbila osengcupheni ngesikhathi izimo zezulu zivumelana nesimo. Imvula nomoya nakho futhi kungayifaza ekhanda lommbila i-*fungal spores*, lapho izosulela futhi isabalalelele kuma-kernels.

Izimpawu ze-*F. verticillioides* umthelela wendlebe yisimila esikhulayo esimhoshana kuya kophinki okhanyayo phecelezi light-pink cottony (**Isithombe 3**) kuma-kernel ommbila. Lokhu kungasabalala ngasendlebeni yommbila phecelezi maize ear nom a kungatholakala ohlangeni lo mmbila phecelezi stalk borer feeding channel.



1: *Isimila esimhlopho i-mycelial ku-ear kernels yommbila esidalwya yi-Stenocarpella maydis* (i-*Diplodia*).

2: *Amachashaza 'amnyama' aqukethe ama-spores angabonakala emsukeni yama-kernel ommbila*.

Imbe-wu ingakhombisa umbala ongaggamile o-light pink nemikhwazi emhlopho.

Ngesinye isikhathi kungaba khona ukutheleleka, kodwa zingabi khona izimpawu ezbionakalayo, futhi ke lapho kuba nzima ukunquma ukuthi ngabe ikhona i-mycotoxins ezinhlamvini nom a cha. Bekwaziwa ukuthi amasampuli okusahlamvu aziwa ngokuhlanzeka u (u-first grade) amasampuli okusahlamvu ukungabi nazo izimpawu zomthelela kuze kufinyelele ku-90%.

Izinyathelo zokulawula: Ngenxa yokuvamisa kwezechlo zala ma-fungi emvelweni, ukusetshenziswa kwemikhuba yenhanzeko ayi-zange iphumelele ekunciphiseni izifo. Ngokusetshenziswa kwemodeli yeklayimethi, izibikezelo ze-*Fusarium ear rot* ne-fumonisins zinge-nzelwa izindawo ezinezimo zeklayimethi ezithokozisayo. La mamodeli nawo asadinga ukuqinisekiswa nokucwaningwa kabanzi ngaphambi kokuba asetshenziswe.

Uphenyo lwakamuva lukhombisa ukuthi ukulawula i-*stalk borers*, esebebenisa isibulala zinambuzane nom a i-Bt maize, kusiza ukunciphisa umthelela i-*F. verticillioides ear rot* ne-fumonisins. Ama-hybrid akuleli ngakho ke kudingeka ahlaziwe ngaphambi kokuba kukhethwe i-*hybrid* kuzoba neqhaza ekulawulen i-*Fusarium ear rot* namazinga e-fumonisins.

I-GIBBERELLA MAIZE EAR ROT

I-*Graminearum ear rot* iyanda ezindaweni ezikhqiza ummbila eNingizimu Afrika futhi ingaba yingozi enkulu embonini yommbila.

Uphenyo lwakamuva lukhombisa ukukhula kokusabalala nobucayi balesi sifo, kanye ne-*stalk rots* okudalwa yi-*Fusarium graminearum species complex*. Kwezinye izimo, kubonakale ukuncipha kwesivuno nokwehla kwekhwalithi.

Omunye umthelela omubi we-mycotoxins okukhona emfuyweni kubandakanya ukusebenza ama-hormon (ukuncipha kwenzalo) nokunqaba ukudla. Ukunqaba ukudla ngumphumela wokungathandi ukudla futhi kungadala ukuzaca kanye nokudodobalisa ireythi yokukhula. Imfuyo edla okusanhlavu okuncane okunomthelela ingaphalaza.

Izimpawu: Izimpawu zesifo umbala ophophile obomvu ngokuhonyile emmbileni wonke nom a ingxene ye-*maize ear* (**Isithombe 4**). Imithelela esaqla idalwa ukubola kwendlebe yonke phecelezi i-*ear rotting*, amahlube asondele kakhulu ku-*ear*. I-*Gibberella ear rot* ngokuvamila iyaqhube ka isihlokweni se-*ear* yehle njalo kushone phansi. Ngokuvamile okusahlamvu kuba nombala ongaggamile nekhwalithi ephansi (**Isithombe 5**), lokho kudala ukwehla kwezinga lezihlamvu.

IZINYATHELO ZOKULAWULA

Ukujikelezisa izilimo: Ukujikeleziswa kommbila nezilimo ezi-*non-graminaceous* kunciphisa ezechlakalo zezifo.

Ukususwa kwezinhlanga: Njengoba i-fungus eseziinhlangeni zommbila ebusika ibuyela kusafesi yenhlabathini, ukususwa kwezinhlanga zommbila kuzonciphisa izehlakalo zesifo esilimeni sesizini elandelayo. Amandla ama-species aka-*Fusarium graminearum species complex* aphila ngokunye ukudla kwe-organic matter nezinye izinsalela zamanye ama-species lokho futhi kuzoba nomthelela endimeni ezodlalwa ukususwa kwezinhlanga zommbila ekunciphiseni imithombo ye-inoculum yalesi sifo.

Ukukhethwa kwe-cultivar: Imibiko yokubhaliwe ikhombisa uku-thi ama-hybrid ahlukana ngokuthatheleka kwayo ezifeni. Nakuba ama-hybrid akuleli ekhona kule nqubo yokucwaningelwa ukuba nenkani kwale sifo, kodwa isengetho imiphumela etholakele. Imikhakha ebhe-kiwe ifinylelele ekukhetheni i-hybrid ebucayi kakhulu.

ISIPHETHO

Kubalulekile ukubona isifo esiyiso ngaphambi kokuba wenze isinqumo ngeqhingga lokusilawula. Kwezinye izimo, isilimo sommbila singasuleleka ngezifo ezahlukene, okungadinga izindlela ezahlukene zokusilawula.

Ukulawula kwesifo yinqubo engapheli. Ngenxa yokuthi le-fungi eshiwo engenhla ingaba khona ohlamvini, kubalulekile ukusebenzisa imbewu okuqinisekisiwe ukuthi ayinaso isifo. Ngokuvamile izinkampani zelapha imbewu ngempushana equkethe isibulala zinambuzane, ne-maticide ne-fungicide. Lokhu kungavikela izithombo ezisencane ukuya emavikini amane.

Abalimi kufanele bagweme amafektha adala ingcindezi yesitshalo, efana nokulinyazwa yimishini, ilinyazwe yizinambuzane nezinyoni, ukungabi nomanyolo owanele, isomiso nezikhukhula, ukusho okumbalwa. Onke la mafektha adala ubuthakathaka bamasosha esitshalo futhi kungagxilanga kuphela kwi-ear rots kodwa nakwezinye izifo futhi.

Qaphela ukuthi ukusetshenziswa kwamakhemikhali ukulawula i-maize ear rots ngeke ivikelwe ngokomnotho. I-fungicide inganciphisa



3

Isimila esimhlophe kuya kophinki ngokuphaphathekile kuma-kernel ommbila okudalwa yi-*Fusarium verticillioides*.



4

Umbala obomvu ngokujiyile kwengxenyenye yendlebe yommbila phecelezi maize ear edalwa yi- *Fusarium graminearum* (*Gibberella*).



5

Ukuphupha kombala kanye nokwehla kwekhwalithi yokusahlamvu okudalwa yi- *Fusarium graminearum* (*Gibberella*).

i-fungal spores kunhlalo yendawo, kodwa ngeke kufinylelele endaweni ethagethiwe, okuyi-fungus eku-maize ear (ivikelwe amahlamvu e-ear sheath). Kufanele kulandelwe indlela ebumbene egxile ku-cultivar ekhethiwe, umkhuba wenhlanzeko kanye nokushintshisana ngezilimo.

Uma ufuna imininigwane, xhumana no-Drs Belinda Janse van Rensburg no-Bradley Flett ku-018 299 6100. ■

U-DR BELINDA JANSE
VAN RENSBURG NO-
DR BRADLEY FLETT,
KWA-ARC-GRAIN CROPS



UNGAYIBONA KANJI

-SCLEROTINIA INGATHATHWA NJENGESINYE SEZIFO EZI-BULALA IZILIMO ZE-OILSEED (IKHANOLA, ISOYA NO-BHEKILANGA) ENINGIZIMU AFRIKA. IKLABISHI, ILETHISI, NOKHULA NGEZINYE FUTHI IZILIMO EZINGA-AFEKTHWA YI-PATHOGEN, SCLEROTINIA SCLEROTIORUM.

Ukubheka izifo ezidalwa yi-*S. sclerotiorum* kungensiwa ngokuphenya amasimu akho **ubheke izimpawu zesifo i-pathogen** Ukuqondisa impilo ye-pathogen kanye nokusebenza kwayo nesitshalo ekusona nesimo senhlalo kuzokusiza uzbine kalula izimpawu ze-*S. sclerotiorum* nezimpawu ze-sclerotinia ukubola kwekhanda nesiqu.

Izimpawu yi-pathogen structure ebonakala esitshalweni esiyikhaya noma kwinhlalo yendawo, lapho izimpawu ziukwenza kwesthalo esiyikhaya lesifo esidalwa yi-pathogen. Isifo esiyikhaya esine-viable virulent pathogen enhlalweni yendawo esekela ukukhula kwsifo, okwenza kube nezimpawu isizini yonke yokukhula.

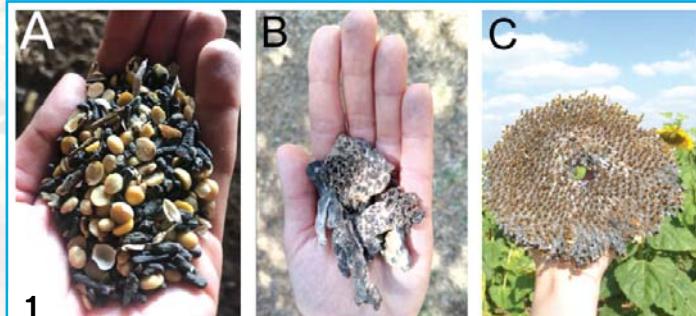
IZIMPAWU

I-Sclerotia

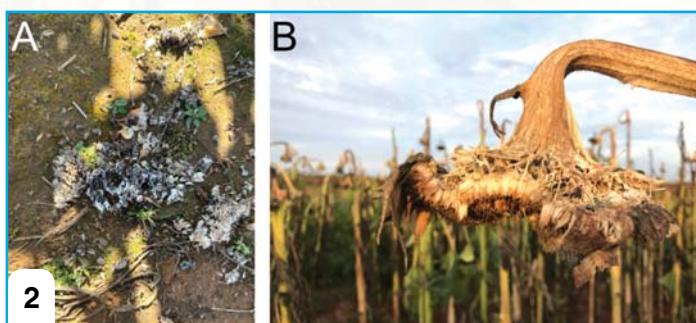
I-Sclerotia ama-structures aphilayo aqinile amnyama, ngokuvamile atholakala ne/noma eziqwini zikabkhontshisi isoya enomthelela, emakhanda kabhekilanga noma eziqwini zikabhekilanga. I-Sclerotia ingabonakala incane kwangathi 'yindle yamagundane' (**ufiga 1A**) kuboshwe ngekilampu (**ufiga 1B**) noma kumise okwekhake lezinyosi (**ufiga 1C**). Isimo sakheka ngokwesitho sekhaya okwakheka kulo i-pathogen.

Ngaphansi kwezimo lapho kuholasela khona i-sunflower head rot, i-sclerotia iwela phansi (**ufiga 2A**) emva kokuvithika kwekhanda lonke likabhekilanga (**ufiga 2B**). I-Sclerotia eqoqwe emasimini ethrayeli kabhekilanga aphakathi kuka-8 cm no-18 cm idayametha ngaphansi kwengcindezi yesifo.

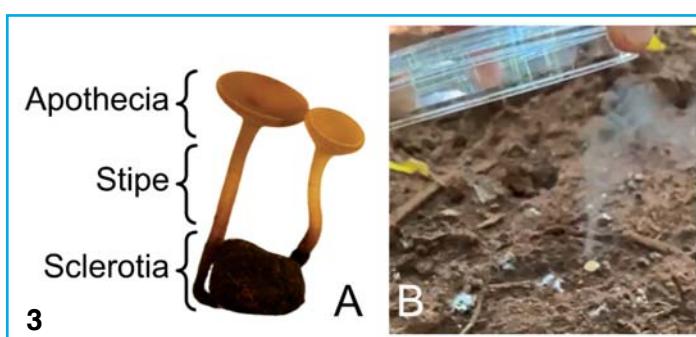
Ngesikhathi sokuvuna, ukubheduka okukhulu kwe-sclerotia kuqobeka cube yizicucu ezincane futhi kusabalale nensimu yonke. Ngaphambi kokuqala kwsizini yokutshala, bheka insimu yakho ubheke i-survival structure ye-*S. sclerotiorum*. Lokhu kukhombisa ukuthi lapho kuhona ubungozi bokuvela kwezifo ze-Sclerotinia, njengoba kunamandla okuthi kumile i-inoculum.



Ufiga 1A, B no-C: Izimpawu ze-sclerotia.



Ufiga 2A no- B: Izimpawu zikabhekilanga ongaphansi kwengcindezi yesifo.



Ufiga 3A: I-Apothecia.

Ufiga 3B: Njengoba i-apothecia iqhuma, ikhulula ama-ascospores.

amagagasi omoya (**Ufiga 3B**), iwela kuthishu ezwelayo kumthelela wesitshalo esiyikhaya okuze kuqale umthelela. Ama-Spores bese eyaqhuma, okuwenza angene ekhaya ngembotshana zemvelo eziukile (imbali yesitshalo) noma amanxebeni futhi imile kuthishu yekhaya.

I-sclerotia nayo ingaqhuma yesulele izimpande nge-mycelia, lokho yi-white cottony filament ye-fungus. Uma ubheka i-apothecia, zama ukugwema ukudidanisa i-apothecia ne-non-plant-pathogenic fungi njengoba ivela esidlekeni esisodwa se-fungus (**Ufiga 4**). Ukwengeza ekubhekeni izifo ensimini yakho okwejwayelekile, imifanekiso ye-drone noma i-satellite ngesizini kungasiza njengokubuka insimu yonke.

Uma izimpawu sezikhona ensimini,
kufanele kwensiwe imephu yamarekhodi
ezindawo ezinomthelela noma 'izibhadu' oku-
fanele zinakekelwe.

I-Apothecia

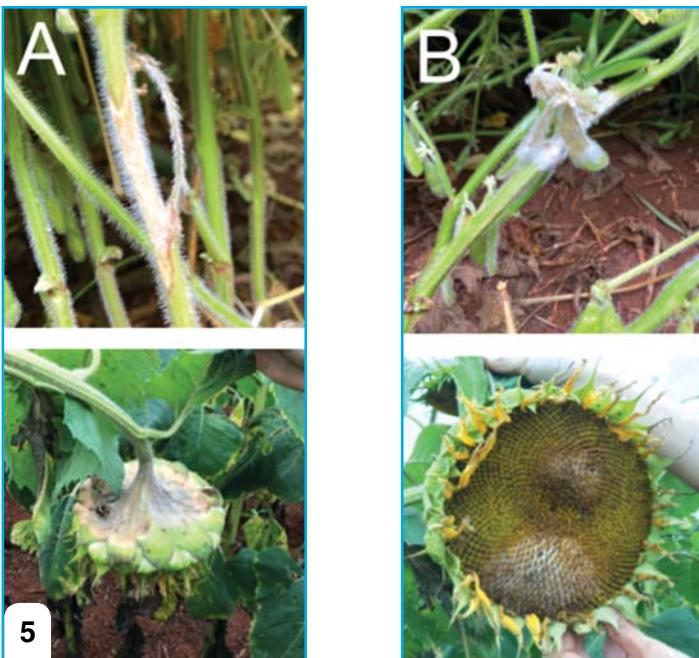
I-apothecia iyisimo secilongo phecelezi trumpet-like structures (**Ufiga 3A**) lokho kungaqhuma kwi-sclerotia phansi ngesikhathi lapho izimo zenhlalo yendawo lo ziyavumelana nesimo senhlalo yesifo (ukubanda, isimo somswakama ophezelu nalapho ingekho khona umswakama).

Njengoba iqhuma i-apothecia, ikhulula i-ascospores asabalalisa

I-SCLEROTINIA SCLEROTIORUM



Ufiga 4: I-apothecia ingadidaniswa ne-fungi njengoba zonke zingaphansi kweze-fungus.



Ufiga 5A: I-Water-soaked lesions.

Ufiga 5B: I-White fluffy masses ikhombisa ithishu eyikhaya lesifo ebulawe yi-fungus.

Ukubuna nokulimala okudalwa ukucwila emanzini (water-soaked lesions)

Ukubuna ukuqala kwezimpawu ezihambisana nokuqala komthelela njengoba i-pathogen isihlasela imatheriyali yesitshalo, ibulala kakhulu ithishu yesitshalo. Ukuphumelela kwasipo ukuzinza kubonakala nge-water-soaked lesions (**Ufiga 5A**) eziqwini nasemakhanda okudalwa yi-cell-wall-ama-enzymes ecekela phansi akhiqizwa yi-*S. sclerotiorum*.

I-White fluffy mycelia

Izimpawu zesifo esesidlondlobele ifaniswa ne-white fluffy masses,



Uma izimpawu sezikhona ensimini,
kufanele kwensiwe imephu yamarekhodi
ezindawo ezinomthelela noma 'izibhadu'
okufanele zinakekelwe.



lapho kubulawa khona izifo ze-fungus ezihlala kuthishu (**Ufiga 5B**). Uma izimpawu sezikhona ensimini, kufanele kwensiwe imephu yamarekhodi ezindawo ezinomthelela noma 'izibhadu' okufanele zinakekelwe, ukudedela umkhqizi ukuba athagethe i-apothecia elandelayo, njengoba i-sclerotia izokhula njengoba isifo sithuthuka noma isizini ipheha.

Ukulawulwa kwesipo i-sclerotinia

Ayikho indlela ethile yokungenela esifeni i-sclerotinia – kodwa ukulawulwa ngokuhlanganyela kwezinambuzane phecelezi i-(IPM), okubandakanya amasu e-agronomic, i-biological namakhemikhalii, kwandisa amathuba okulawula izifo ngempumelelo. Qoka futhi uhlanganise amaqhingga ahambelana nesistimu yomkhiqizo – lezi eziphromotha impilo yesitshalo, ukunciphisa amandla okungena kwe-pathogen aphinde anciphise izimo ezivumelana nokukhula kwale sifo.

I-Sclerotinia ingaqedwa ensimini ngokushintshisana izilimo ezingalona ikhaya kuphinde kusetsheenziswe izibulala khula. Ukukhishwa inyumbazana kwe- *S. sclerotiorum* kungaphumeleliwa ngembewu eqinisekisiwe, ukuhlanza ama-implements nama-harvester ukunciphisa ukuthi kungenzeki ukuba i-sclerotia ingene emasimini akho okhiqiza kuwo.

Ukugcinwa kwama rekhodi kubaluleke kakhulu, ukuze wazi lapho kufanele ubheke ngakhona ngamasizini azayo kuzokusiza ukwazi ukuthi ubungozi obukhulu kakhulu bokusuleleka bungenzeka ngakuphi. Bheka i-apothecia emavikini amabili ngaphambi kokuqhakaza, hlola amasimu njalo futhi uma ubona i-apothecia, qaphela ukuthi amaspores azoba khona. Uma kusazodingeka ukuba kuqhakaze izimbali, izitshalo zisengozini yokuhlaselwa izifo. Ngeshwa, mancane amafungicide atholakalayo angasetshenziswa kubhontshisi isoya akhona ukuze assetshenziswe kusoya, nakukhanola, futhi azikho ezithako ezingasetshenziswa kubhekilanga.

Emva kokuqhakaza kwezimbali, uma zimbalwa kuphela izitshalo ezikhombisa izimpawu zesifo ngokucacile zisuse lezozitshalo ezinomthelela we-*Sclerotinia* futhi uzishise lezo ukuze uvikele ukwakhele kwe-pathogen ensimini. ■



**U-DR LISA ROTHMAN,
UMFUNDISI E-UNIVERSITY OF THE FREE STATE,
NO-DR GODFREY KGATLE,
UMXHUMANISI KWEZOCWANINGO
KWA-GRAIN SA**

VUNA MASINYANE UGWEME

UMA UFUNA UKUKHUPHULA INZUZO YAKHO FUTHI UNCIPHISE UBUNGOZI, CABANGA NGOKUSHE-SHA UWUVUNE UBHONTSHISI ISOYA NO-BHEKILANGA UKUVIKELA UKUFOHLOKA KANYE NOMONAKALO ODALWA YIZINYONI. UKULAHLE-KELWA NGENXA YOKUFOHLOKA OKUDALWA UKUFAHLA-KA KWEMIDUMBA KUYAKHULA NGENXA YAMAZINGA OMSWAKAMA WEMIDUMBA NOKUSAHLAMVU KUYEHLA. NGENXA YALESO SIZATHU, KUFANELE USIGCINE ISIKHATHI SOKUVUNA UBHONTSHISI.

Inqubo yokuvuna ubhontshisi isoya nobhekilanga yingxene yebalulekile ekukhiquzeni isilimo ngenzozo. Uma kuhkhona into engahambi kahle enqubeni yokuvuna, ukuLahlekela yisilimo akugwemeki.

Umsindo wokufloholzeka kukabhortshisi isoya *i-harvester* ingekho ensimini, noma umhlambi wamajuba ensimini kabhekilanga owo-mile, kungasho ukulahleka kwengxenye enkulu yemali.

Awulahlekelwa kuphela ngenxa nokufahlaka kwemidumba, kodwa ukukhula kwestishalo nakho kungaba nomthelela ekulahlekelweni.

Ezinye izitshalo sikabhontshisi isoya nama-*cultivar* esoya aziwa ukuthi athela imidumba ehula phansi enhlabathini. Uma ithebulu *i-harvester* lingakwazi ukwehla ngokwanele livune phansi, emuva kusala inqwaba kabhortshisi isoya. Ngakho ke, kubalulekile ukusebenzisa *i-harvester header* efanele nokuthi utshale *i-cultivar* efanele.

Amahektha angavunwa *yi-harvester* kunganqunywa ububanzi *be-header*, isivinini egijima ngaso kanye namahora ngosuku engavunwa *yi-harvester*. Ukuqagula kwelilodwa lalawa mafektha kuzogcina ngo-kuthi ingxene enkulu yesilimo isale ingavuniwe.

Ukvuna uhambela phansi ngokwanele kulula ukusho njalo kunkuba ukwenze. Amasimu angahlelenjiwe awalingani namatshe amakhulu angadala umonakalo obizayo *kwi-harvester*. Qinisekisa ukuthi *i-harvester* yakho inawo umshwalense wokulinyazwa amatshe.

AMA-HEADERS

I-flex header noma *i-flexi draper* iyadingeka ukuze ivune imidumba ekhula ngaphansi nemidumba yesoya engaphansi. *I-flexi header* izokwazi ukulandela inqume nenhabathi. Amanye *ama-header* ayanntanta, *i-header* enamasekshini amaniningi agobekayo enamasonjwa-

1

Izindleko nemithamo yensimu ye-harvester engu- 240 kW.

Inani le-harvester nge-hora	I-Harvester (yommbila)	I-Harvester (kabhortshisi isoya)	I-Harvester (kabhekilanga)
Isamba samanani angaguquki	R3 376,67	R3 376,67	R3 376,67
Amanani okukhanda nokunakekela	R800	R800	R800
Amanani kaphethiloli @ -R25/ l	R1 080	R1 080	R1 080
Isamba samanani aguqukayo	R1 880	R1 880	R1 880
Isamba	R5 256,67	R5 256,67	R5 256,67
Inani le-Harvester header ngehora	i-header yommbila	i-flex header kaKolo/ ubhontshisi isoya	I-header kaBhekilanga
I-Header esebeenzile	8 row 0,91 m	9 m	8,1 m
i-avareji yenani le-header entsha	R1 600 000	R1 300 000	R879 000
Isamba sezindleko ezingaguquki	R675,33	R548,71	R371,01
Izindleko zokukhanda nokunakekela	R160	R130	R87,90
Isamba	R835,33	R678,71	R458,91
Isamba: I-Harvester nezindleko ze-header ngehora	R6 092	R5 935,38	R5 715,58
Isivinini sokusebenza (km/ha)	6	6	6
Ububanzi bokusebenza (m)	7,2	9	8,1
Ikhono lensimu	0,75	0,75	0,75
Ihektha evunwayo ngosuku (amahora ayi-10)	32,4	40,5	36,45
Amahora adingekayo ehektha elilodwa ngosuku	0,309	0,247	0,274
ISAMBA SEZINDELKO IHEKTHA NGALINYE	R1 880,24	R1 465,52	R1 568,05
Ilitha (udizili/ha)	13,33	10,67	11,85
Irandi udizili/ha)	333,33	266,67	296,30
Irandi (ukukhanda nokunakekela/ha)	296,30	229,63	243,59

UKULAHLEKELWA YISILIMO



Umthamo we-harvester oseleyo uyasiza ekwenyuseni inzuzo.

na ahlukene. Lokhu kuvumela i-header frame, i-cutter bar nesondo phecelezi reel ukuba ilandele ukunquma komhlaba njenge-yunithi.

I-flexi draper header isebeenzisa i-draper 'amabhande' athatha isilimo asihambise kwi-feeder house. Lokhu kufida ngokulolongekile futhi kuvumela umlimi ukuba avune ebusuku ngenxa ye-fidingi elinganayo. Leli bhande liyaziwa ngokuthi linciphisa ukulahlekelwa ubhontshisi isoya ngenxa yokuthi isitshalo sikabhontshisi isoya siphathetha kahle.

Ukuba nesivuno esikhulu esilo, kusho imali eningi nenozo yesilimo engcono. Uma abalimi kufanele bathathe isinqumo ngokuthi kufanele bathenge i-header, kufanene baqhathanise ukulahlekelwa yisilimo nentengo ye-header ukuze bathathe isinqumo. Ukunciphisa ukulahlekelwa, kusho i-header engcono.



Izitshalo zikabhontshisi isoya zimunca umswakama wamazolo, emva kwalokho ziyanamathela futhi zingabe zisafohlozeka. Izitshalo zikabhontshisi isoya ezimanzi azivuneki kalula.



UBHONTSHISI ISOYA: YISILIMO ESIVUNEKA KANZIMA

Ukuvuna ingxene enku lu yomthamo we-harvester ngosuku, abalimi kufanele basheshe baqale. Izitshalo zikabhontshisi isoya zimunca umswakama wamazolo, emva kwalokho ziyanamathela futhi zingabe zisafohlozeka. Izitshalo zikabhontshisi isoya ezimanzi azivuneki kalula. Ngokoqobo, ama-harvester angaphuka i-cutter bar noma izitshalo zinganamathela edramini lokuvuna. Lokhu kuzoba nomthelela enanini lamahektha angavunwa ngosuku.

Iqiniso elingephikiswe lithi i-harvester ene-header engu-9 mitha kanangi ivuna phakathi kuka-20 hektha no-42 hektha ngosuku, hhayi ngaphezulu. Ukuvuna ngesikhathi, umlimi udinga ama-harvester angu-1½ eight-row ukuhambisana ne-one eight-rowplanter. Kubalulekile ukuthi ukupondisise ukuthi umthamo we-surplus ukumba ubungonzi. Lokhu kuzokusiza ekukhupheleni inzuzo kabhontshisi isoya.

Ukuvuna isilimo umsebenzi obizayo. KuThebula 1 ikukhonjiswe izindleko zokuvuna ummbila, ubhontshisi isoya nobhekilanga, ukusebenzia u-240 kW harvester okubiza izindleko ezilinganiselwa ku-R8 wezigidi futhi ungawuvuna ummbila. Ngesivinini sika-6 km/h, u-32 wamahektha ommbila, 40 wamahektha kakolo noma kabhontshisi isoya kanye no-36 amahektha kabhekilanga angavunwa ngosuku. Masinyane uma kuncipha amahora ngosuku, amahektha nawo aba mancane. Ohlangothini lukabhontshisi isoya, kunzima ukuvuna amahora ayishumi ngosuku. Ngakho bala ngendlela efanele.

Ukuze ukwazi ukuvuna amahora ayishumi ngosuku, ukukhanda nokunakekela kanye nokusevisa kufanele kwensiwe ngokulandela imiyalo yomkhiqizi. Funda amanyuwale futhi ulandele yona. Uma kukhona okwephukayo, kufanele kube khona izipele. Ukuvikela kungcono kunokulahlekelwa yisikhathi, ikakhulukazi ekuvunweni kubabhontshisi isoya. Sevisa impahlia yokusebenza ngaphambi kokuba kuqale ukuvuna – lokhu kuzokongela isikhathi.

Khumbula, ngokuvamile i-combine harvester usebenza nenqola engalayishi phecelezi unloading wagon. Usayizi wenqola ukalwa yi-harvester. Le nqola yokwehlisa idinga omunye ugandaganda nodizili owengeziwe. I-harvester ewu-240 kW, udizili odingekayo wenqola yokwehlisa ungalanganiselwa ku-10 litha ihektha ngalinye. Khumbula ukungeza lezi zindleko ezibalweni zakho.

Qinisekisa ukuthi ama-harvester akhona ngesikhathi nokuthi futhi ukulahlekelwa ngenxa yokuchitheka kwsikhathi kuyancishiswa ngokunakekela kahle ama-harvesters. ■

U-PIETMAN BOTHA,
UMELULEKI OZIMELE
KWEZOLIMO



Ukuvikela okusahlamvu kungonga izindleko

NJENGOBA ISIZINI YEMAKETHE IZOQALA MASI-NYANE, KUBALULEKILE UKUQALA UCABANGE NGOKUMAKETHA OKUSAHLAMVU KWAKHO NOKUTHI KWENZIWA KANJANI. NGAKHO KE, LOLU CHUNGECHUNGE LWE-ATHIKILE LUZO-QALA NGOKUNIKEZA UMLANDO WOKUVIKELA AMANANI ENTENGO NOKUTHI KUNGANI KUFANELE WAZI NGAKHO.

NGABE YINI UKUVIKELA AMANANI ENTENGO (HEDGING)?

Ukuchaza *i-hedging*, kudingeka ukuthi uqale uqondisise ubungozi obubandakanyeckayo ekubeni umlimi wokusahlamvu. Ubungozi bokumaketha iqoqo lobungozi obuhambisana nokudayisa okusahlamvu nokubandakanya ubungozi benani kanye nobungozi bokudiliva/umkhiqizo.

Ubungozi bamanani entengo bubaluleke kakhulu uma ucabanga ngokuvikela amanani entengo. Umqondo womlimi, ubungozi bamanani entengo bubandakanya ukuthi intengo yempahla emakethe ofuna ukuyidayisa izokwehla – ukudayisa ngentengo ephansi nokumaketha ngenzupo ephansi, noma kwezinye izimo, uyalahlekelwa.

Hedging yitemu elisetshenziswayo uma uhangabezana nobungozi bokushintsha kwamanani entengo ngokwanze izinkonteleka noma izivumelwano zesikhathi esiphambili nokukhetha. Lemiqondo izochazwa ngemva kwasikhathi kule athikile.

IMIHLOMULO

Eminyakeni embalwa edlule, izindleko zama-*input* zakhuphuka. Nakuba izindleko ezifana nomanyolo ziphansi kunangonyaka odlule, zi-sakhula kancane kancane futhi esigabenzi esiphezulu, okwenza kubenzima nakakhulu ukuba cube nenzozo futhi okubaluleke nakakhulu ukuzivikela wena ebungozini bamanani.

Umvuzo wokuvikela amanani ibandakanya:

- Ukusetha intengo esikhathini esizayo engaphezulu kwamanani ama-*input* ukugaranta inzupo.
- Ukusetha inani le ntengo ngesikhathi esizayo ukuqinisekisa ukuthi ungalahlekelwa kodwa ukugcina ukukhetha kwakho kuvuleleke intengo ephezulu.
- Ukuguduza obunye bobungozi buye komunye umkhakha.
- Ukulawula *i-cashflow*.

Owodwa wale mivuzo uxhumene nama-elementi okuvikela amanani entengo, namanye ama-elementi asebenzisa okuvikela amanani entengo namanye amaelementi asebenzisa imivuzo enomunye wemihlomulo namanye ama-elementi asebenzisa umhlomulo ongaphezulu kwenzozo eyodwa.

AMA-ELEMENTI OKUBIYELA AMANANI ENTENGO.

Njengoba sekushiwo ngenhla, ukuvikela amanani entengo kubandakanya ama-elementi ahlukile lapho ngalinye linenhloso yalo futhi kuzochazwa ngenhla. La ma-elementi azochazwa kabanzi kuma athikile esikhathi esizayo.

Okuphathekayo/ ikhesi makethe

Izimkethe eziphathekayo, ingenkathi uthatha okusahlamvu osekuvele kuvuniwe futhi ukudayise ngqo emakethe ngentengo yethani ngalinye emakethe.

Isibonelo salokhu uku: Uma umlimi esevune isivuno sakhe namuhla, uzobe esesifaka ezithuthini akuhambise eSilo eseduzane,

lapho kuzofike kuhlaiziywe khona izinga lokusahlamvu futhi kudayiswe kusilo ngenani lentengo yaleso sikhathi.

Izinkonteleka zaphambili

Inkontileka yesikhathi esizayo yisivumelwano esiphakathi komthengi (umlimi) nomdayisi (isilo noma ikoporayisi) ukuthenga inani elithile lokusahlamvu okunekhwalithi ethile, ezodiliva ngosuku oluthile esikhathini esizayo futhi idayiswe nangenani elithile elinqunyiwe.

Isibonelo ukuthi umlimi uya kumakhelwane wakhe ofuna ukuthenga okusahlamvu ngasekuqaleni kukaMashi. Benze isivumelwano sokuthi uzomdayisela amathani angama -50 ka-grade 1 wommbila obomvu ngentengo ka- R3500/t, okufanele kudilivwe ngasekupheleni kukaJulayi.

Izivumelwano zesikhathi esizayo.

Isivumelwano sangomuso yisivumelwano esenenqubomgomo sokuthi mangakhi ammathani okufanele adayiswe (100 thani) ngenani lentengo elithile futhi eliyikhwalithi ethile, okufanele lidilive ngosuku oluthile. I- *Johannesburg Stock Exchange (JSE)* ilawula *i-transaction*, ngakho ke unelungelo nesibophezelo sokudayisa okusahlamvu kwakho.

Isibonelo yilesi uya kumdayisi ngasekuqaleni kukaJuni ufile uthenge isivumelwano i-1 Julai *future contract* yommbila omhlophe (100 thani) okufanele ube u-grade 1 ummbila omhlophe futhi kufanele udilive ekupheleni kukaJulayi obiza u-R3 700/t.

Okuzikhethela

Isivumelwano sokukhetha sinikeza umnikazi okhethayo (umlimi) ilungelo, kodwa hhayi isibophezelo, lokusebenzisa ukuzikhethela. Inqubomgomo ehambisana nokuzikhethela ukuthi unquma inani lentengo yokusahlamvu lesikhathi esizayo lenani elithile, elizodiliva ngosuku oluthile, lekhwalithi ethile. Ngalokhu kukhetha kuneprymay okufanele uyikhokhe ukuze ukwazi ukuzikhethela.

Uma imakethe iphansi kunenani elibekiwe ngesikhathi sokudiliva, ungakwazi ukusebenzisa ukuzikhethela kwakho futhi uthola inani lentengo oyikhethile. Uma imakethe inenani lentengo ephezulu kunenani le ntengo langesikhathi sokudiliva, ungakuyeka okukhethile kwedlulelwie yisikhathi bese ummbila wakho uwudayisa ngentengo ephezulu.

ISIPHETHO

Kulezi zikhathi zokungaondakali kwezomnotho abalimi abakuzona manje, kubaluleke kakhulu ukusebenzisa ukuvikela amanani ukuze bavikele ubungozi bokulahlekelwa yimali futhi uziwikile kumanani angehla uthole inzupo encane noma ulahlekelwe. ■

I-athikile yesibili izokhava ukukhetha, eyesithathu imakethe uqobo bese kuthi eyesine kube izimakethe zesikhathi esizayo phecelezi *future markets*.

U-JOHAN TEESSEN,
USOMNOTHO OYIINTERN,
WE- GRAIN SA



NQOBA UMTHWALO

wentela ngempumelelo

UKULIMA UTHOLE INZUZO AKUYONA INTO ELULA NGENXA YEKLAYIMETHI, UKUGUQU-GUQUKA KWAMANANI ENTENG YAMA-*INPUT* NAMA-*OUTPUT* KANYE NAMANYE AMA-FE-KTHA ANGENZA UMONAKALO. UMQOQI WENTELA UYAKUQONDISA LOKHU FUTHI ZININGI IZINDLELA EZISEMTHETHWENI ZOKUKHIPHA INTEL A ESIKHATHINI ESIZAYO.

Ukukhokha intel a lapho sekuthathwe khona konke ngokusemthethweni, yinhlanhla – ikakhulukazi uma ungu limi, ngoba lokhu kusho ukuthi usuke wenze inzuzo enhle.

Wonke umlimi uzoqalisa iqhinga lokunciphisa izindleko zokukhiquza. Isibonelo, izinguquko zokulima zingawunciphisa udizili odingeka ekutshaleni, kodwa abalimi nabo kufanele nabo basebenzise amanye amasu okunciphisa umthwalo wentela ebhizinisi. Ziningi izindlela ezisemthethweni zokwenza lokho, kodwa umlimi ngokuhlanganya nomcwangingi mabhuku wakhe kufanele bathole iqhinga elisemthethweni lokuthi lokukhokha intel encane.

Kubalulekile ukubala inzuzo oyilindele nokuthi izoba ngakanani intel ozyikhokha. Lokhu kwensiwa ngokususa zonke izindleko zonyaka wezimali emalini oyitholile yonyaka wonke wezimali. Ukwehla kwezinga lezimpahla okulidelekile okuyingxene ye khephithali okufana nogandaganda nakho kufanele kususwe uma kubalwa inzuzo noma ukulahlekile. Lezi zibalo kufanele okungenani zenziwe kusasele izinyangeni ezimbili ngaphambi kokuphela konyaka wezimali ukuse sibe khona isikhathi sokusebenzisa la masu.

Abalimi bangazidalela bona izinkinga ekuthengeni ngokuhlukana, ngakho ke sebenzisani ongoti banisize ekuthatheni izinqumo ngalokho okufanele kuthengwe.

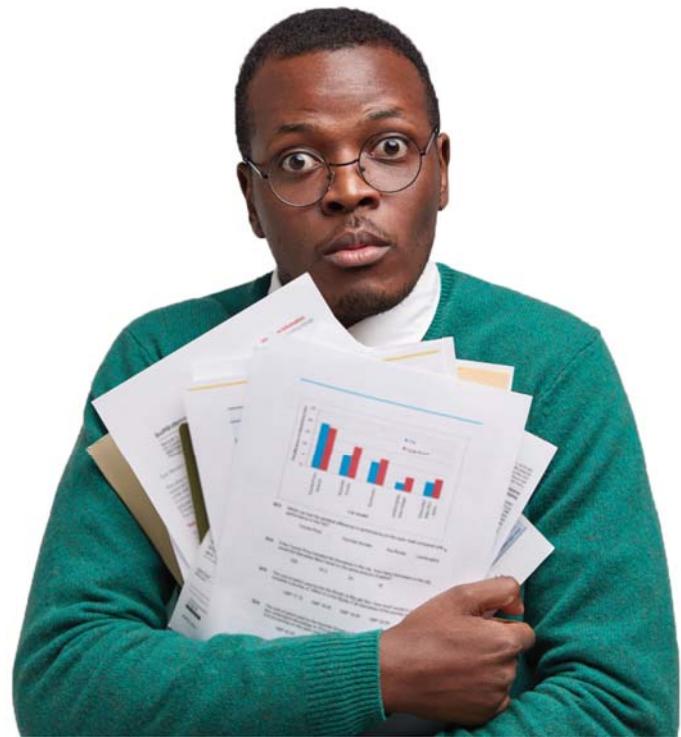
ULAWULE UMTHWALO WENTELA

Ungayilibali *i-cash-flow* uma wenza isinqumo sento ongayenza ukunciphisa umthwalo wentela. Uma *i-cash flow* ibophekile, qinisekisa ukuthi iplane iyakucabanga lokho.

Umlimi unezindlela eziningi zokulawula umthwalo wentela. Into yokuqala ukuyikhetha ukukhokha intel. Okwesibili ongakukhetha ukuthenga impahla eziyikhephithali ezifana nogandaganda kanye nokususa osekudlekile. Abalimi bangalikhulisa ibhizinisi labo ukube basuse intel. Lokho kusho ukuthi kuzodingeka ama-*input* amanangi, kodwa lokho kuzoholela ekukhokheni intel eningi ngonyaka olandelayo. Amanye amaqhinga ongawasebenzisa kungaba ukuthenga ama-*input*, okusahlamu nemfuyo edayisekayo.

Nquma ukuthi yikuphi ukukhetha okuqondile, njengoba akukho ukukhetha okusezingeni okuzohambisana nomuntu wonke. Uma *i-cash-flow* iyinkinga, ukuthengwa kokusahlamu nemfuyo kungaba ukukhetha okufanele ngoba kungadaya iswa ngonyaka olandelayo ukuze kusize nge-*cash-flow*. Khumbula ukuthi, uma kunezinkomo lapho kufanele kube nokudla.

Uma ipulazi lakho linesitoko esigcwele, phinda futhi ucabange ngesu lakho, cabanga kabusha ngesu lakho. Khumbula ukuthi uMqoqi Ntela uzohlala njalo elibhekisa ngokujulile ibhizinisi lakho futhi kwezinye izimo, kungashiya ngaphandle ezinye izinkokhelo futhi ungaqhubeka nokukhokha intel.



Uma kuthengwa ama-*input*, ikheshe uzovalaleka kuma *input* futhi kuzobese kutha izinyanga eziyi-18 ukukhulula leyo mali. Khumbula ukuthi udinga ukuwalondoloza ama-*input* futhi naloko kungaba ukuthetha kabi, qinisekisa ukuthi yimaphi ama-*input* ozowathenga.

Uma ukhulisa ibhizinisi lakho lokulima njalo ngonyaka, kungaba yisu elihle. Kodwa khumbula ukuthi ukukhulisa ibhizinisi kuhambisana nezinye izinkinga ezifana nokuphatha, ukudingeka kwemali yebhizinisi eyengeziwe nezinye izimpahla zokusebenza.

Ukuthenga impahla yokusebenza, ukulawula umthwalo wentela, kungasiza kuphela kufinyele esigabeni esithile. Ngokusho kuka-50:30:20 umthetho wokwehla kwezinga lempahla u-50% kuphela wempahla ye khephithali ethengiwe engasuswa njengokuphele-lwa amandla ngonyaka wokuqala. Lokhu kusho ukuthi uzosebenzisa ekhephithali, kodwa ngeke uthola isamba somhlomulo usizakale ekunciphiseni umthwalo wentela.

Onke amaqhinga anobubi bawo, ngakho ke xoxisana nomcwani-nji mabhuku wakho ngezinkinga futhi nikhetha ngokuhlanyela indlela ezohambisana nebhizinisi lakho. ■



U-PIETMAN BOTHA,
UMELULEKI OZIMELE
KWEZOLIMO

Ulondolozo lomatshini LUNGAYIGCINA IMALI YAKHO

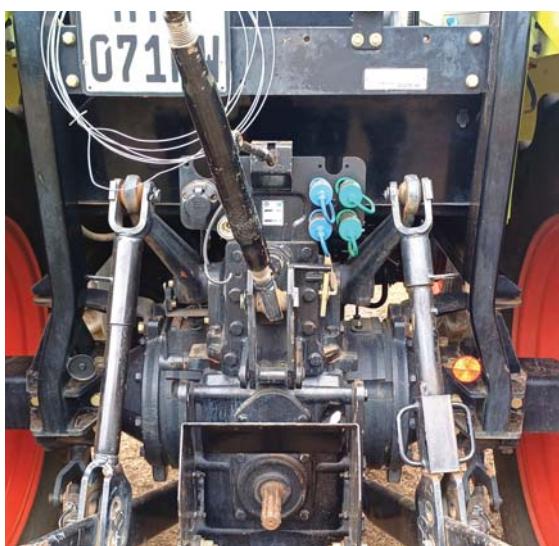
UKWAPHUKA KOOMATSHINI BEFAMA KUNGATHI-NTELWA NGOKUKHUPHA IINDAWO EZONAKA-LAYO KUFAKWE EZINTSHA ITHUBA LISELIHLE NANGOKWENZA IMISEBENZI YOLONDOLOZO RHOQO. ULONDOLOZO MALWENZIWE YONKE IMIHLA PHAMBI KOKUBA OOMATSHINI BAQALISE UKUSE-BENZA NGOKUNJALO NANGAMAXESHA AMISELWE NGO-KWENCWADI YOMNINI YOQEQUESHO LOKUBASEBENZISA.

Kubaluleke kakhulu ukuba umnini ayifundisise indlela yokusebenzisa umatshini kwincwadi yoqequesho. Ukuba akunayo incwadi yomnini yoqequesho yokuwusebenzisa, yiya kumthengisi wendawo uthethe negcisa lokwakhiwa kwawo kwindawo asebenzela kuyo malunga nokulondolozwa kukamatshini lowo.

Oomatshini bokufama nezixhobo zako ziduru, kanti iindleko zokuthenga abatsha zinyuka ngonyaka ngamnye. Oomatshini abaphuka ngexesha lokubasebenzisa bayo kulinyusa inqanaba locindeze-leko lomlimi.

Ulondolozo loomatshini befama olwenziwa ithuba liselihle, luya kunceda ekunyuseni umgangatho nokuqhube imisebenzi efanele ukwensiwa ngexesha elifanelekileyo. Ukuba itrektrata yaphuka ngexesha lokutyalala, oko yintlekele njengoko ukutyalala kufanele ukwensiwa ngexesha elichanekileyo. Ukuba unesixhobo esinye kuphela, ixesa lokulima lingaqlala ngentsilelo likhatshwe ziilahleko ezinkulu zemali. Yiloo nto abalimi banamhla besenza utyalomali ngezinto ezisetyenzi-swayo ezie the kratya kulondolozo loomatshini bolimo.

Abalimi abalandela imigaqo yolondolozo eyenziwa rhoqo, bahlola oomatshini babo yonke imihiha ngokunjalo bagcine iingxelo zicwangcise kakuhle ukuze bakwazi ukulandela intstilelo yezixhobo zabo. Bayakwazi ukuhlala bekulungele ukutshintsha iinxalenye ezonakeleyo ngokufaka ezintsha engekafiki amaxesha okwaphuka kwa-zo ngokwenza njalo bathintel a maxesha okubeka phantsi izixhobo obekungacwangciselwanga.



Qinisekisa ukuba iziqhagamsheli zolwelo olunika ux-inzelelo zicocekile kwaye zigcinwa zingenaluthuli.

ULONDOLOZO OLUSISISEKO LOOMATSHINI BEFAMA

Imisebenzi yolondolozo olusisiseko loomatshini befama lugqalisela ekunikweni kweenkonzo zamaxesha athile nasekubagcineni kwindawo efanelekileyo ukuze bagcineke bekwimeko elungileyo kwithuba elide kangangoko kunokwenzeka. Nanga amanye amacebiso asentlokoaya kukunceda uqonde okudingekayo kulondolozo lwezixhobo noomatshini befama:

Uqequesho nolawulo

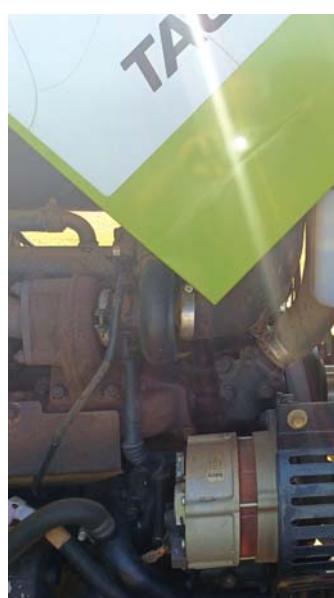
- Ulondolozo luqalisa ngoqequesho lwa-basebenzisi boomatshini. Njengomlimi, ufanele ukuba nempatho engqongqo malunga nolondolozo lwemihla ngemihla loomatshini nezixhobo. Qinisekisa ukuba abaqhubi bazigrisile iitrektrata emva kokuzisebenzisa.
- Ulondolozo olufanelekileyo lweetrektrata, oomatshini bokuvuna bebhula, abosasazo lwezichumiso kune nabanye oomatshini luqala ekusetyen-zisweni kwabo ngobuchule. Umntu olandela incwadi yoqequesho lomnini noyiqondayo imingcipheko esentloko xa ebasesbenzisa, akasayi kumsebenzisa ngendlela engamkelekanga umatshini futhi akasayi kuwandisa ngakumbi umonakalo osele ukhona.



Funda incwadi yoqequesho ukuze ufumanise ukuba toyile yetrektrata, isihluzi sedizili kune nezihluzi zomoya zifanele ukutshintsha nini.

Ukulandela amaxesha olondolozo

Xa benesicwangciso esicacileyo samanya-thelo, abalimi banako ukumisela amathuba afanelekileyo olondolozo olwenziwa rhoqo. Okuqhelekileyo nokufanelekileyo kukuba abekho phambi kokuba kuqaliswe ngomsebenzi omkhulu nasemva kokuqosheliswa kwavo. Isantya sokunkwa kweenkonzo simiselwa kwincwadi yoqequesho yomnini, kodwa iimeko zemozulu, imozulu yendawo neminye imibandela inako ukukhokelela ekwandenit kokungcola nomonakalo othe kratya koomatshini abathile. Kungenziwa rhoqo ngakumbi ukulandela umkhondo wemisebenzi yolondolozo kune nemeko yeenxalenye zoomatshini, amaxesha okunika iinkonzo acwangciselweyo nokukhuselwa kweenxa-lyene ezinobuntununtunu ngakumbi.



Ukwenza inkonzo yowlwo nokuthambisa

- Oomatshini abenza umsebenzi onzima bafumana ukukhuhleka okuninzi okubangela umonakalo kwiinxalenye zabo. Gcina iindawo ezijkelezayo,

Qinisekisa ukuba inqanaba lamanzi kwiradi-yetha lilungile.

- iijoyinti, iibheringi nezinye iindawo ezineentshukumo zithanjisiwe.
- Eminye imisebenzi yokwenza inkonzo yowlelo iquka ukulandela umkhondo wotshintsho lweoyile, ukufakela okusetyenzisiweyo nokufaka iinxalenye ezintsha.

Ulondolozo Iwenkqubo yowlelo olunika uxinzelelo

Inkqubo yowlelo olunika uxinzelelo inoxanduva lomsebenzi owensiwa ngoomatshini abanezixhobo ezinzima. Landela la manyathelo mathathu abalulekileyo:

1. Ukuzigcina ngononophelo iinxalenye, qala ngokucoca indawo ezi-bambelela kuyo kwaye ukhusele ezo nxalenye eluthulini.
2. Abasebenzi mabahlole iisilinda, imiquu yentsimbi ehla inyuka kuye nezinye iinxalenye ezinokonakala ngokunjalo nezinokuvuza, uze uqinisekise ukuba zonke iinxalenye zithanjiswe ngokufanelekileyo.
3. Nangona iinxalenye zenkqubo zonke zingaphakathi, amagcisa aneziqinisekiso zobuchule bazo afanele ukuyihlola nokuyivavanya inkqubo rhoqo kuba iindawo ezinomonakalo omkhulu zingakhokelela ekubeweni phantsi kwezixhobo zokusebenza kungacwangciselwanga oko.

Ukucocwa koomatshini

Ukucocwa koomatshini kubalulekile ekuthi-nitelweni kokukrweleka nokonakala koomatshini neenxalenye zabo. Coca umatshini wakho ukuze kusuke ukungcola okuqokelelano, faka izihluzi zomoya nezeoyile ezitsa endaweni yezindala, ngokunjalo yenza utshintsho lweoyile rhoqo ukuze ususe naziphi izinto ezingcolisayo. Oomatshini abathile bangasebenza ngokucothisisa okanye basebenzise amafutha okubasela athe kratya ngakumbi xa iinxalenye ezingaphakathi zisoloko zingcoliswa zizingcolisi.

OKUNYE MALUNGA NOLONDOLOZO

Oomatshini abadala kulula ukabalondolozza kodwa ukuchonga iindawo ezonakalayo phambi kokwaphuka kwazo kunzima ngakumbi. litrektra ezintsha, oomatshini abavuna bebhula nabanye oomatshini ba-neendawo ezichonga utshintsho kunye nezinye iinxalenye zombane ezikwaziyo uknnciphisa isidingo sokukhanda.

Ezona mpawu ziqhelekileyo ezibonisa ukuba umatshini wokufama udinga ukunika inkonzo yolondolozo ngumonakalo obonakalayo kumphandle wawo, iingxolo ezingaqhelekanga nezilumkiso ezikwindawo yolawulo lwakhe. Nangona kunjalo, iindawo ezichonga utshintsho azisoloko ziyichana ingxaki kanti nokusebenza kwazo kungaphambuka endleleni ngenxa yokuqokelelana kothuli okanye ukungcola. Kwiimeko ezilolu hloba, ikhalenda yolondolozo olwenziwa rhoqo iquinisekisa ukuba zonke inxalenye zikamatshini zifumana uqwalaselio ngamathuba athile acwangciselweyo.

Ulondolozo obelubonakele kwangaphambili luquka ufundonzulu ngokonakala okulindelekileyo koomatshini bokufama ukuze kuthintelwe ukudana okumangalisayo. Oku kuquka iingxelo ngeenkqubo zokunkwika koomatshini iinkonzo ezicwangciselweyo



Qwalasel a inqanaba leoyile yenjini, kunge nelolwelo olunika uxinzelelo.



Etsa bonnete ba hore ho na le dizele ka hara tanka. Haeba e hlokeha, hlwekisa bokantle ba tanka pele o e tlatsa.



Gcina iindawo zokujikelezisa, iijoyinti, iibheringi nezinye iindawo ezineentshukumo zithanjisiwe.

Ulondolozo lomatshini...



Matshwao a tlwaelehileng ka ho fetisisa ao motjhini wa temo o ka hlokomelwang ka ona hore o batla ho hlabolwa ke ho senyeha ha bokantle ba ona, lerata le sa tlwaelehang le ditlhokomediso tsa taolo ya motjhini.



nangokuqwalasela ukuba inxalenye ethile iqhuba umyinge wexesha elingakanani isebeziseka. Izicwangcisocebo zolondolozo ezicingeleka kwangaphambili zижолиса kвиинxаленye eзineentshukumo nasekugcineni iингxело eзilungisiwego ukube kuqinisekiswe ukuba iinxalenye eзilindeingozi zikulungele ukusebenza phambi kokuba kwenzeke iingozi.

INKQUBOSIKHOKELO YOLONDOLOZO LOOMATSHINI BEFAMA

Ukuze ugcine oomatshini bakho bokufama bekwimeko eyiyona ifanelekileyo, landela iingcebiso zikamenzi wabo uezuhlanganisele amaxesha olondolozo olungqongqo. Nangu umzekelo wenkqubosikhokelo esisiseko solondolozo nesinokuguquguqlwa esiquka izidingo ezingundoqo koomatshini abaninzi bokufama:

Ulondolozo Iwemihla ngemihla

- Ukonikwa kweenkonzo kwemihla ngemihla kuqalisa ngohlolo olwenziva ngamehlo lwsixhobo esithile. Umsebenzisi waso okanye igcisa elifanelekileyo lifanele ukuqwalasela umatshini malunga neempawu eziponakalayo zomonakalo kunye neenxalenye ezizihambela zodwa.
- Okulandelayo kukunikwa kweenkonzo kulwelo nakokuthanjiswayo. Qwalasela amanzi, ioyile yenjini, ulwelo olunika uxinzelelo kunye nokufawa kwegrishi kwindawo nganye kumatshini.
- Okokugqibela, kodwa ngokuqinisekileyo okubalulekileyo nako: Coca umatshini phambi kwayo nayiphi intshukumo. Qinisekisa ukuba izikhanyisi eznika izilumkiso ebhodini engaphambili ziyasebenza nokuthi igeyiji yoxinzelelo lweoyile nezinye iigejiji nazo ziyasebenza. Konke oko kunceda kakhulu ekuthinteleni ukwaphuka kukamatshini ngexeshalokusebenza.

Ulondolozo Iweveki nganye

- linkqubo zolondolozo Iweveki nganye zижолиса ekucoceni okunzulu, ukufakwa kwezihluzi eztsha endaweni yezindala, ukuhlola inkqu-bo yowlelo olunika uxinzelelo kunye namanganaba oxinzelelo Iwamathayara.



Yihole ngazo zonke iintsuku inkqubo yokusebenziseka kombane. Qinisekisa ukuba ukuqina kwebhanti lomoya kuchanekile nokuthi ibhetri icokekile.



Mncome umqhubi wetrektara ngomsebenzi omhle kangako awenzayo, kodwa makayalwe ngesilumkiso ukuba uyawumosha umatshini.

- Umsebenzisi kamatshini uhlola inkqubo yombane aqwalaesele iimpawu zomonakalo okanye ukungasebenzi kakuhle aze axelele amagcisa ezombane ukuba kukho lsidingo soncedo lohlobo olulodwa.

Ulondolozo Iwamaxhesha athile

Ukonikwa kweenkonzo kwamaxhesha athile kuquka ukucoca okwandsawayo nokunikwa kwenkonzo kulwelo kwiinyanga zasebusika okanye ngamanye amathuba xa iimeko ezingqonge oomatshini zibangela ukonakala okuthe kratya koomatshini befama. Qho emva kweenyanga ezimbawla, amagcisa aneqiqinisekiso ezifanelekileyo afanele ukufaka izihlusi eztsha endaweni yezindala aze enze iimvavanyo ezcoselelwayo ekusetyenzisweni kwamafutha okubasela ngumatshini, ukuphathwa kwawo nokhuselo.

Ulondolozo Ionyaka ngamnye

Umkhandi makenze uhlola olucoselelwayo lwenjini kunye novavanyo oluqukaniselweyo lwenkqubo yowlelo olunika uxinzelelo ngonyaka ngamnye. Zonke iinguquko, izinto ezicingeleke kwangaphambili malunga nokukhanda kunye nendlela yokusebenza engalindelekanga zibhalla kwiingxelo. Ukuba ifama isebezisa inkqubo yekhompyutha yefama, iingcali zelT zifanele ukuhlola iindawo ezhichonga utshintsho, bafakele izihlaziyi kwaye bavuselele nayo nayiphi eminye imbandela.

ISIPHELO

Ziphantsi ngakumbi iindleko zokukhanda nokulondoloza umatshini kunothengena umatshini omtsha. Ukwaphuka kukamatshini ngexesa likaxakeka lokusebenza kungayithoba ingeniso yakho kanti enyanisweni akukho mntu unokumelana nemeko enjalo.

Ngeenkukacha eztthe kratya, zidibanise nabathengisi boomatshini bendawo yakho kananjalo namagcisa oomatshini awuqequeselweyo umsebenzi wawo. ■



PIETMAN BOTHA,
UMCEBISI OZIMELEYO
KWEZOLIMO

UNGANIKEZELI

ONGENA OKOKUQALA KUKHUTSHISWANO LWASEGRAIN SA LWESIVUNO SOKUKHULA KWINDYEBO, UJOB DUBE, UWONGWE NJE-NGOGQWESE EKULINYWENI KOMBONA KWA-ZULU-NATAL. ISIVUNO SIKADUBE SEETONI EZILI16,78 NGEHEKTARE SIMBEKE KWINDAWO YOKUQALA KUKHUTSHISWANO LONYAKA.

Iphupha likaDube lokuphuhlisa umsebenzi wokufama ngombona onempumelelo nozinzo noya kunika usapho Iwakhe ingeniso enozinzo, seliyinyani ekhoyo. Ngokvuna ama500 eekhilogram ngehetkare ngaphezu kwalowo akhuphisana naye omlandelayo, ufilelele kwindawo yakhe eyiyona iphezulu eqongeni.

Ungumlawuli weprojekthi ngokobungcali bakhe kanti waqala ukufama ngowama2010. Ifama yakhe, iSandspuit kufuphi neUtrecht, ithathe iihektare ezili1 000 apho kukho khona ama330 eehekta zo-mhlaba olimekayo. lifama zakwaDube ziphantsi kweshishini ekuthiwa yiEkuphileni elithetha ukuthi 'ebomini'.

UDube ulima umbona, iimbotyi zesoya kunye nengqolowa. Izityalo zakhe zasehlotyeni zilinywa kwinkqubo yojikeleziso ngokomlinganise-lo wama75% wombona nama25% eembotyi zesoya. Ulime iihekta ezingama75 zomhlanganisela ogqwesileyo weP1197R. Ngokokutsho kwakhe, akukho nto yohlobo olulodwa okanye eyahlukileyo ayenze kule ndima, ngaphandle nje kokulandela imigaqo yakhe yokusebe-nza yesiqhelo.

Uhlobo lomhlaba efama ludongwe olumtyubululu. Ulandela imigaqo yesiqhelo yokulima kwaye ulime umbona kwiveki yokuqala kuNovemba wama2023 ngokusebeniza umatshini wokutyala iM-nosem. Amanani esityalo ebengama70 000 kububanzi bemiqolo obungama76 cm. Uvune ngoJuni.

Emasimini akhe onke alinywe umbona onyamezela iglyphosate, ulandela inkqubo yesiqhelo yokutshabalala ukhula njengoko ece-tiswe yiarhente yeAECI kwisiphaluka eso.

Ugalele umxube weziqalelo zezixa ezikhulu zenitrogen (N), iposphorus (P), nepotassium (K) ngokomlinganiselo we11,6% ingulowo okanye i1:1:1(35), uhlanganiswe ne0,5% yezinc (Zn), ne5% yesulphur (S). Oku ukulandelise ngomxube ongange5:0:1 weNPK apho kongezelwe khona i6% yeS.

UDube ufumene umyinge wama920 mm emvula kwixesha lokulima, kodwa waphinda wafakela nonkenccesho oluvela kumlambo iBuffalo nasemadaminu alungiselelw oko. Ngokubona kwakhe uku-nkinkishwa kombane kube neengxaki ezinkulu, kungekuko malunga nonkenccesho kuphela, kodwa kuwo wonke umsebenzi wakhe. Omnye umngeni omkhulu aqubisene nawo kwixesha lokulima elidulileyo ube ziimeko ezimanzi kakhulu ezikhokelele ekuben angasoloko ekwazi ukulandela imisebenzi yakhe yesiqhelo. 'Bendingakwazi ukungena emasimini ukuze ndenze izinto ezifanele ukwenziwa ngexesha elifanelekileyo.'

UKULUNGELELANISA ISIVUNO NESAKHONO SENZUZO

Ukholelw ekubeni kubalulekile ukulungelelanisa izivuno eziphezulu nesakhono senzuzo. Uukuphumeza oku, uhlanganisela uhlahlo-mali Iwaphambi kwexesha lokulima, akhangele uqikelelo Iwemozulu



Oggwese kuluhlu lokulinywa kombona KwaZulu-Natal ibinguJob Dube waseUtrecht wePioneer hybrid, iP1197R, kunye nesivuno seetoni ezili16,78 ngehektare. Kwifoto ukususa ekhohlo nguRoseline Nkosi (umncedisi womlawuli wefama), uJob Dube noDerek Mathews (usi-halo, weGrain SA).

Iwexesha lokulima aze enze izicwangciso ngokomyinge wesivuno wethuba elide kwisiphaluka eso. Uphinda alimele ezakhe iimvavanyo efama ukuze athelekise imihlanganisela emitsha andule ukubona ukuba yeyiphi eza kumsebenzela ngokubalaseleyo kwifama yakhe xa esebebenza imigaqo yakhe yokufama.

Ukfama kubaluleke kakulu kuDube – kungekuko kuphela kuye nakusapho Iwakhe, kodwa nakwisiphaluka sakhe njengoko enegalelo kwimpilontle yezinye iintsapho ngokudala amathuba emisebenzi kwindawo yakhe.

'Ndikholelw ekubeni umcebisi ngomnye wezinto ezixabiseke ngokugqithisileyo kuye nawuphi umlimi osaphuhlayo njengoko igalelo lobugcisa abalinikelayo libalulekile kwimpumelelo yeprojekthi yokuqalisu ukufama. Ukukwazi ukufikelela kulwazi kwenza umahluko omkhulu kumbono wam malunga nokufama. Andikuthandabuzi ukuba ngaphandle kwegalelo lomcebisi, nawuphi umlimi osaphuhlayo uya kuhlala kuloo mgangatho akuwo ngonaphakade.'

Icibiso lakhe kwabanye abalimi abatsha kwicandelo lolimo kubaba mabasoloko bezama kwaye basebenze kangangoko banako. Oko kokunye kwezinto ezibalulekileyo azifumana kwinkqubo yeengcebiso awayezibandakanye kuzo: 'Qinisekisa ukuba ufumana umcebisi olungileyo. Sebenzisa imigaqo yokufama eyiyona ibalulekileyo kangangoko unako. Musa ukunikezeli.' ■

Eli nqaku liqale ukupapashwa kwiSA Graan/Grain kaDisemba 2023/Janyuwari 2024.



MAGDA DU TOIT,
UMBHALI OZISEBENZAYO

INKOMFA YEGRAIN SA

iphambili kwikhalaenda

BEKUBANJWE IINTLANGANISO ZEENGINGQI KWINYANGA KAJANYUWARI NEKAFeBRUWARI UKUZE KUXOXWE NGEMIBA YOGQALISELO LOMBUTHO YONYAKA ESIWUPHETHEYO. EZI ZIHLOKO NAZO ZIZA KUTHIWA THACA ETAFILENI KWINKOMFA YEGRAIN SA YAMA2024 NGOMHLA WE13 NOWE14 KUMATSHI. ELI THEKO LINIKA ITHUBA ELINGUMMANGALISO KUMALUNGU, KUMAGOSA ASEBURHULUMENTENI, KUBENZIZINDIMA, KWIINGCALI ZEMFUNDU, KUBAHLULELANE KUNYE NABABELANA NGOMDLA UKUBA BABAMBISANE ENAMPO PARK NGASEBOTHAVILLE EFREE STATE.

YINTONI INKOMFA?

INkomfa yeGrain SA yintlanganiso gabalala yonyaka ngamnye yamalungu kwaye ilugunyaziso olulolona lusentloko eGrain SA. Le nkomfa ihlangana kanye ngonyaka ngomhla nakwindawo evumelene ngayo iBhodi.

Umsebenzi weNkomfa yingqalelo, ingxoxo nolwamkelo lweengcaciso zemali zonyaka ngamnye, ingxelo yomphicothizincwadi kanye nengxelo yeBhodi yeGrain SA. Kwezi ntlanganiso kukhethwa usihlalo, oosekelasihlalo ababini kanye neBhodi. IBhodi lolona gunyaziso lusentloko xa ingeloxesha lokuhlangana kweNkomfa, kwaye iphantsi kolawulo ngomgaqonkqubo gabalala wenkomfa.

YINTONI UMSEBENZI WENKOMFA?

- Ingqalelo, ingxoxo kanye nolwamkelo lweengcaciso zemali zonyaka, ingxelo yomphicothizincwadi kanye nengxelo yeBhodi yeGrain SA.
- Ukukhethwa kukasihlalo noosekelasihlalo ababini.
- Ukukhethwa kweBhodi.
- Ukyulwa komphicothizincwadi kanye nolwamkelo lweentlawu-lo zakhe.
- Ukupathwa kweminye imibandela yohlobo olulodwa kuyaxoxwa ngako.



Amanye amathuba ohlobo olulodwa achongwe kwiNkomfa yeGrain SA yama2023.

BAKHETHWA NJANI ABATHUNYWA ABAYA KWINKOMFA?

Nangona abantu baninzi bekholelwu ekubeni isigqeba esilawulayo sesizwe kune nekomiti yolawulo balolona gunyaziso lusentloko eGrain SA, enyanisweni yiNkomfa. Kungenxa yoko kubalulekile ukuba amalungu akuggale ngokuqaphela ukuba akhetha oobani abaza kuba ngabathunywa kwiningqi yawo kwaye ingoobani abaza kumela imidla yabalimi ngeyona ndlela ibalaseleyo kwiNkomfa.

Amalungu ahlawula 'iintlawulo zobulungu', nabizwa ngokuba 'yimirhumu' ukuze afikelele kwiinyhweba nakwiinzuso eziveliswa ngumbutho. Azuza ilungelo lokuba neempembelelo kwiziqqibo zombutho ekufikelelwu kuzo ngenkqubo esekwe kwimigaqosiseko nolawulo ngentando yoninzi.

Kwiintlanganiso zeengingqi phambi kweNkomfa, abathunywa beengingqi baza kuyulelwu ukuzimasa itheko. Umthunywa makabe ngumlimi onyanisekileyo olimela ummandla weentengiso iinkozo - umntu oyaziyo imibandela yokufama kwiningqi yakhe, okwaziyo ukuliqonda ishishini lombutho nokwaziyo ukuthetha malunga nezinto abanomdla kuzo abalimi.

Abathunywa banoxanduva lokuvowuta malunga nemibandela ebaluleke kakhulu neneputhe kwimisebenzi yombutho ngokubheki-selele emsebenzini owenziwayo, ubunkokeli ngokunjalo neenguquko ezenziwe kumgaqosiseko. Xa bekhethiwe, abathunywa bayazisa ngamalungelo abo nangoxanduva lwabo bakuba bekhethelwe ukumela amaqela abo oluntu olufamayo.

Umlimi ozimasa inkomfa njengomthunywa ufanele ukuba yinkokeli phakathi koluntu lwakhe, umntu oya kuba lilizwi lenu kwintlanganiso gabalala yomntu wonke ngokunjalo akwazi ukubuyela ekhaya aze anike ingxelo kubalimi bengingqi yakhe ngezinto ekuxoxwe ngazo kuyo nangezigqibo ezenziweyo.

IMIRHUMO IFANELE UKUHLAWULWA NINI?

Intlawulo zobulungu kune nemirhumo yeemveliso (ukuba kufanele-kile oko) zensiwa ngonyaka ngamnye kwithuba elisusela kumhla woku1 kuMatshi ukuya ekupheleni kukaFebruwari xa kuphela unyakamali weentlawulo zobulungu nemirhumo ngokunjalo. Iwonga lobulungu lixhomekeke kwiintlawulo ezifunyenweyo kwade kwasekupheleni kukaFebruwari owandulela iNkomfa.

Ngamalungu ahlawule ngokupheleleyo anako ukuya kwiNkomfa yeGrain SA njengabathunywa abavowutayo, kananjalo banemfanelo yokungena simahla kuSuku IweziVuno IweNAMPO yeGrain SA.

NGAWAPHI AMATHUBA OKWAHLULWA?

Bonke abalimi bafanele ukuya kumathuba okwahlulwa, apho imibandela eyahlukahlukeneyo malunga neemveliso ezahlukileyo - umbona, iisirielyi zasebusika, ujongilanga/amazimba, iimbocyi zesoya namandongomane - kuxoxwa ngazo khona. Eli lithuba elibalulekileyo apho ugqaliselo lukwimibandela enxulumene nezityalo ezithile. ■

LOUISE KUNZ,
UMNCEDISIMHLELI



Abalimi bancedakala kwiingcaciso

EZIKWIINDAWO EZAHLUKILEYO

CANDELO LEZOLIMO LIKHOLISA UKUBA NEMINGENI YEMIBANDELA EYAHLUKAHLUKENEYO EFANA NOTSHINTSHO LWEMOZULU, UHLASELO LWEZINAMBU-ZANE NEZIFO. UKUVINGCA ISITHUBA NOKOMELEZA UPHUHLISO LOLIMO, I-GRAIN SA IMISELE ICANDELO LEZIKO LOPHANDO NEMIGAQONKQUBO, ELINENDIMA YOKUNXULUMANISA UPHANDO NGEENKOZO OLUQUHUTYWA ZIZIDINGO NOLWENZELWA ABALIMI.

Ngenxa yeenguquko ezeloloko zikhona kwezolimo, yonke imihla abalimi babona kuvela izinto ezintsha ezinokwenzeka nemingcipheko. Injongo yophando IwaseGrain SA, obeluququzelelwa luthungelwano lophando Iwayo Iwesizwe, kukomeleza uzinzo nesakhono senzuso. Oku kuphunyezwa ngokuhlaluty iipateni (ezifana nokutshintshatshintsha kwemozulu, uhlaselokhula nezifo) nangokudala imithombo exhibisa ngowlazi.

I-Grain SA ibizimase uthotho Iweengcaciso ezikwiindawo ezahlukileyo ebezixhaswe yiAbsa and John Deere Financial eMpumalanga, eFree State eMntla Ntshona kwikota yokugqibela yama2023. Ababelana ngomdla abahlukahlukeneyo abavela kushishino Iwezolimo babenexaxheba kula matheko.

Umxholo weengcaciso ezikwiindawo ezahlukileyo ('Imozulu, ufundonzulu ngomhlaba kunye nempilo yezityalo') ubusekwe kwmumba yophando yeGrain SA nakwimiba yosungulo lophando Iwangoku, ngokunjalo nemingeni abaqqubisana nayo abalimi.

Injongo ephambili yezi ngcaciso ezikwiindawo ezahlukileyo ibiyile:

- Ncokola nabalimi malunga nemibandela ebalulekileyo.
- Dala ingqiqo ngezigqiblo zothungelwano lophando Iwamaqela.
- Chaza imiba yosungulo lophando olunxulunyaniswa yiGrain SA. Igalelo elivela kubalimi lisetyenziselwe ukuqinisekisa ukuba uphando belubalulekile. Ezi nkukacha ezihlanganiselwe ngenzululwazi kwa-belwene ngazo nabalimi ukuze bancedakale xa besenza izigqiblo.

KUTHENI ABALIMI BEFANELE UKUYA KWIINGCACISO EZIKWIINDAWO EZAHLUKILEYO

- Kulimo Iwanamhla, iingcaciso ezikwiindawo ezahlukileyo zipuhliswe njengeqonga elibalulekileyo lokuxhobisa abalimi, ukuphucula izimvo ezintsha nokuhuthaza imigaqo yokufama enozinzo.
- Ngokunikela ngenkonzo yokuba ngumjelo wokudlulisela ulwazi phambili, ukuqhubela phambili ubuchwepheshe nokwakha uluntu, ezi ngcaciso ezikwiindawo ezahlukileyo zisisixhobo sokubumba imo enyamezela ngakumbi kanye nekamva elinozinzo ukwenzela icandelo lezolimo lehlabathi.

Njengoko iGrain SA iqhuba ngokuhuthaza amandla otshintsho kula maqonga enguqunguquko, uhambo olusingisa kwimpumezo yezolimo encomeka ngakumbi nenozinzo luya ngokufikeleka ngokuthe kratya. █



UNjing Willem Landman unika isifundo ngoqikelelo kwemozulu.



DR GODFREY KGATILE,
UMNXULUMANISI WOPHANDO
NOLEHLEHONOLO
BAKWA, UMQEQQESHLWA
KWEZONXIBELELWANO

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PICTURED:
Farmers: Jed van Niekerk with two of the Brookside Farm beneficiaries – Zuko and his mother Cecelia Qokela
Farm: Brookside Farming, Harry Gwala Agri
Area: Kokstad, KwaZulu-Natal
Pannar Rep: Andrew du Plessis

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KULINDELEKE IZIVUNO ZEZITYALO

eziphezulu emva kwemvula entle

IMEKO ZEMVULA KWINXALENYE ESEKUQALENI YEXESA LOKULIMA LOWAMA2023/2024 ZIBUKEKA ZAHLUKILE XA KUTHELEKISWA NEENGQIKELELO ZANGAPHAMBILI. IMVULA INE KAKHULU EKUPHELENI KONYAKA WAMA2023 NASEKUQALENI KOWAMA2024 PHANTSE KUZO ZONKE IINGINGQI EZIFUMANA IIMVULA EHLOTYENI EMZANTSİ AFRIKA. LINYE KUPHELAIPHONDO ELINGAFUMENANGA MVULA YANELEYO, NGUMNTLA NTSHONA.

Xa kuqwalaselwa iimeko-eziphezulu kunebeziindelekele, abalimi bangalima izityalo zabo zesiqhelo kumaphondo afana neFree State, iMpuma Koloni, iKwaZulu-Natal, iMpumalanga neLimpopo. Kodwa, uMntla Ntshona uqubisene nokubambezeleka ekulimeni kwawo ngenxa yemvula efike kade xa kuthelekiswa namanye amaphondo. linginqi ezinkcenkeshayo, ezifana noMntla Kapa, nazo zityale ngexesha, kwaye zincedekile ngenxa yamadama abenamanzi amanzi nokuncipha kokunkinkishwa kombane ngethuba leeholide zasehlotyeni ukue iimeko zezityalo zifumane inkxaso.

IZIVUNO EZINGAPHEZU KWEZESIQHELO EZILINDELEKILEYO

Uphando lwakutshanje olwenziwe yiGrain SA lubonakalise iimeko ezintle zezityalo zamaphondo akhawuleze ayifumana imvula, kanti imisebenzi yokulima kwabalimi yezityalo ezininzi zasehlotyeni kungenzeka ukuba ifikelele kwindawo ebekujoliswe kuyo ekuqaleni kwexe-sha lokulima.

Abalimi kwamanye ala maphondo babonise ukuba balindele izivuno ezingaphezu kwezesiqhelo. Umngcipheko omkhulu elundini lwale meko luloyiko lweziphangozinokwenzeka, ngakumbi kwiindawo ezifana neMpuma Free State enokuba sisilu seziphangoz. Naxa kunjalo, esiphakathini sikaJanyuwari, iziphango bezingekonalisi kakhulu kwezi ndawo kanti izityalo bezikwimeko encomekayo.

Abanye abalimi kwezi ndawo bebenalo noloyiko lwembalela yaphakathi ehlotyeni ebiza kuba nefuthe elibi kwizityalo, ngakumbi

izityalo ezilinywe mva. Nangona kunjalo, njengoko abeNkonzo yeMozulu eMzantsi Afrika (South African Weather Service - SAWS) belindele ukuqhuba kwemvula kude kuge kwyanya kaMatshi 2024, kukho ithembu lokuba imbalela ayisayi kuba ngumngeni.

Izityalo ziya kudinga imvula entle apha kuFebruaru, ngakumbi ngexesha lomvumvuzelo. Ngaphaya komvumvuzelo, kukholelwu ekubeni izityalo ziya kuqhuba ngokuba kwimeko elungileyo nokuba imvula ingancipha. Naxa kunjalo, oku akunakufane kwenzeke kwinginqi esembindini neyasempuma. Usekhona wona umngcipheko wokoma kwiindawo zelizwe ezsentshonalanga, ngakumbi eMntla Ntshona, eseyinengxaki yokungafumanu mvula entle njengakwamayne amaphondo.



Ezi meko zokulima zincomekayo zikwaxhassa amadlelo okutyisa imfuyo, ukulinywa kwemifuno, ukulinywa kweziqhamo neminye imisebenzi yezolimo.



IMBALELA ENOKUBAKHO ENTSHONALANGA

Kwingxelo yeNgqalelo yeMozulu yeXesha lokuLima eyenziwe yiSAWS ngomhla we19 Disemba 2023, igxinise lo mba onokwenzeka wobukho bembalela kwiinginqi ezingasentshonalanga, yaxela nokuba uqikelelo lwemvula lomfuziselo ombaxa lwalatha ubukhulu becalo, imvula enganeno-kweyesiqhelo kwiindawo ezininzi zelizwe kwinyanya kaJanyuwari ukuya kwekaMeyi, ngaphandle kweendawo ezsembindini neziselunxwemeni lwasempuma, oko kubonisa ukuba kungenzeka kubekho imvula engaphezu-kweyesiqhelo apho.'

Ngokubhekiselele kokungasentla, okwenzeka ngenene kuzibonakalise kulandeleka ngaphezu kweentelekelelo zeSAWS njengoko



kubonakala imvula entle eqhubeka kulo lonke ilizwe ukususela ekuqaleni kwale nyanga, kwaye ayiphelelanga kwiinginqi eziselunxwemeni kuphela. Ukuba ezi mvula zingaqhuba ngokuba zintle kude kuphele le nyanga ukuya ekupheleni kukaFebruwari kulo lonke ilizwe, kungalinde-leka enye indyebo yesivuno kwezolimo.

IIMEKO ZOKULIMA EZINCOMEKAYO

Ekuqaleni kwexesha lokulima lezityalo zasehlotyen iowama2023/2024, abalimi bebenenjongo yokulima izigidi zeehektare zomhlaba ezi4,5, sixa eso siphezulu nge2% xa kuthelekiwa nesexesha lokulima elidlulileyo. Emva kokufumana ingxelo yophando evela eGrain SA, kuholeleka ekubeni abalimi bafikelele kwinqanaba lokulima ebebelilindele kumaphondo amaninzi. Ukuba kuya kubakho nakuphi ukunciph, oko kuya kwenzeka kwiinginqi zaseMntla Ntshona zombona omhlopho.

Ezi meko zokulima zincomekayo zikwaxhasa amadlelo okutyisa imfuyo, ukulinywa kwemifuno, ukulinywa kweziqhamo neminye imisebenzi yezolimo. Umbono wokulumkisa wokuba ixesha lokulima iowama2023/2024 aliqalanga kakuhle kangako uza kubonakala ungumbono olambatha ngethemb, kuba uMzantsi Afrika kungenzeka ube nelinye ixesha lokulima elincommekayo. Kuninzi okuza kutyhileka kwiinyanga ezizayo, kodwa ngoku kukho izizathu ezisibeka ethembeni malunga neemeko zokulima.

IINGQALELO ZEMIGAQONKQUBO

Iimeko ezincommekayo zingavumela ixesha elithe chatha ukuba linikelwe kuqwalaselo lemibandela yemigaqonkqubo yethuba elide ekusafanele ukuba icandelo liyisombulule. Imibandela ebalulekileyo efanele ukuhlala iseizingxoxweni zemigaqonkqubo kulo nyaka iquka isidingo sokuqubisana neengxaki eziphathelele ekuthintelekeni kthesakhono sokuhula kolimo eMzantsi Afrika. Ezi ngxaki zezobuthathaka boomasipala, ukwetha komgangatho weendlela, ulwaphulomthetho olwdayo, izicwangciso zamalungiselelo ezilambathayo, izifo zeziwanyana, ukungabikh kwenqubela ekubhalisweni kweekhemikhali zolimo nembewu, ukucothisisa ekundululeni iArhente yeNguqu yoLawulo lweMihlaba kunye nokunkwia kweendlalifa omnye umhlabo karhulumente ngokunjalo nokunkinkishwa kombane okuzingileyo.

Urhulumente necandelo labucala bafanele ukubambisana ngomsebenzi wokusombulula ezi zithintelo ukuze kubekho umtsalane wotyalomali nokuphuculwa kokukhula kwecandelo lolimo kwithuba elide. Icandelo lifanele ukujolisa kule miba ngokuthe kratya ude uye ekuphele-ni unyaka wama2024. ■

* Eli nqaku lipapashwe kwiNcwadana yeeNdaba yeAgbiz yomhla we 18 Janyuvari 2024.

**WANDILE SIHLOBO,
INGCALI EYINTLOKO
KWEZOQOQOSHO, AGBIZ**



Ithimba labahleli

PHAHAMA GRAIN PHAKAMA: PRETORIA
PO Box 74087
Lynnwood Ridge
0040
■ 086 004 7246
■ www.grainsa.co.za

UMHLELI OPHETHE

u-Dr Sandile Ngcamphalala
■ 082 862 1991 ■ Ihovisi: 012 943 8296
■ sandile@grainsa.co.za

UMHLELI UKWABA

Liana Stroebel
■ 084 264 1422 ■ Ihovisi: 012 943 8285
■ liana@grainsa.co.za

UPHATHINA WOKUSHICILELA

INFOWORKS MEDIA PUBLISHING
Isekela mhleli – U Louise Kunz
■ louise@infoworks.biz

Umholi wethimba – U Johan Smit
■ 082 553 7806 ■ Ihovisi: 018 468 2716
■ johan@infoworks.biz

Ukushicilela – U Elizma Myburgh, Jesseme Ross



Uhlelo IwePGP LokuThuthukisa amaFama

ABAQONDISI BENTUTHUKO

Jacques Roux
Empumalanga neFreystata (e-Bethlehem)
■ 082 377 9529 ■ Jacques.rouxjr11@gmail.com

Johan Kriel
ENtshonalanga neFreystata (e-Bloemfontein)
■ 079 497 4294 ■ johank@grainsa.co.za

Jerry Mthombothi
Mpumalanga (Mbombela)
■ 084 604 0549 ■ jerry@grainsa.co.za
■ Office: 012 943 8289 ■ Smangaliso Zimbili

Mpumalanga/KwaZulu-Natal (Louwsburg)
■ Office: 012 943 8218

Graeme Engelbrecht
KwaZulu-Natal (Dundee)
■ 082 650 9315 ■ graeme@grainsa.co.za
■ Office: 012 943 8287 ■ Nkosinathi Mazibuko

Phumzile Ngcobo (Umsizi ehhovi: Dundee)
■ 060 477 7940 ■ phumzile@grainsa.co.za
■ Office: 012 943 8287 ■ Nkosinathi Mazibuko

MJ Swart
iNtshona-Koloni (Paarl)
■ 072 090 7997 ■ mj@grainsa.co.za
■ Office: 012 943 8285 ■ Hailey Ehrenreich

Du Toit van der Westhuizen
North West (Lichtenburg)
■ 082 877 6749 ■ dutoit@grainsa.co.za
■ Office: 012 943 8290 ■ Lebo Mogatanyane

Eastern Cape (Kokstad & Mthatha)
UCwayita Mpotyi (Umsizi ehhovi: Mthatha)
■ 078 187 2752 ■ umthatha@grainsa.co.za
■ Office: 012 943 8277

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Iphrogrammu eguqula izimpilo



Izihlathi zivakashela izindlebe kwabaphumelele

NGOMHLA ka-27 Okthoba, i-*John Deere Financial* yabamba iqhaza eli-balulekile ekukhuphuleni umphakathi e-Lichtenburg, eNyakatho neNtshonala, ngokuniweza u-William Raphoto ugandaganda omusha ceke i-*John Deere 5075E MFWD*, kowe-2023 *Grain SA/Absa/ John Deere Financial New Era Commercial Farmer* yoNyaka.

Umcimbi wokudlulisela wahambisana namazwi okubonga kaWilliam, egcizeliza ukuthi ugandaganda uwuphawu lokunqoba nokusebenza kanzima. Ku-yena, umele isiphetho sokubekezela, ukuzinikela kanye nokuphikelela engahlehlili.

I-Grain SA yabungaza umcimbi omuhle wokukhiqizwa kokusahlamvu emcimbini waminyaka yonke wokwabelana ngemihlomulo, owabanjwa ngo-mhla ka-20 Okthoba 2023. Abalimi abaphumelele abamenyezelwa ngoSuku lombungazo ngoSeptemba nabo bahlonishwa kulo mcimbi oseqophelweni eliphezulu. Lapha bonke baswenke bayanconsa.



U-William Raphoto wamukela okhiye kagandaganda omusha ceke.



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1. U-Jurie Mentz no-Portia Msibi, i-Subsistence Farmer yoNyaka.
2. U-Graeme Engelbrecht (Dundee) noNkosinathi Hadebe, i-Small-holder Farmer yoNyaka.
3. Omunye owinile esifundeni sika Graeme, uPhilani Khoza, i-Potential Commercial Farmer yoNyaka, noDerek Mathews, usihlalo we-Grain SA.
4. U-Du Toit van der Westhuizen (eLichtenburg) no-William Raphoto.

Umbukiso onika ABALIMI AMANDLA

NGO-SEPTHEMBA no-Okthoba 2023, ithimba lo-Mnyango wezoCwaningo neSikhungo seNqubomgomu se-Grain SA sasingatha imibukiso eMpumalanga, eFreystata naseNyakatho neNtshonalanga. Inhloso yalemibukiso kwabe kuwuxhumana nabakhqizi ngezihloko zanamuha ezingeni lokulima, ukuze babaqaphelise mayelana nemiphumela yenethiwekhi yophenyo Iwabo nokubabonisa ngocwaningo abalwenzile. Lo mcimbi waxhaswa u-Absa no-*John Deere*.

Kwabelwana nolwazi lwezesayensi ukusiza abalimi bathathe izinqumo nokuthola ama-input ukuqinisekisa ukuthi uphenyo luyahambelana. Ama-stakeholders ahlukene aphuma embonini yezolimo nawo alibamba iqhaza kulo mcimbi. Ig-qikithi yemibukiso – iKlayimethi, i-Agronomy neMpilo yesiTshalo phecelezi *Plant Health* – bekusekelwe yithimba labaphenyi kwa-Grain SA nophenyo Iwakamuva, kanye nezinselelo zanamuha abakhqizi ababhekana nazo.



Ababethamele i-Reaserch Roadshow e-Lichtenburg.



Ithimba le-Syngenta Seedcare libukisa ngokwelashwa kwembewu.