

PULA IMVULA

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IMAGAZINI YAKWAGRIN SA YOPHUHLISO LWABAVELISI



Ifoto: Eric Storbeck

Kubalulekile ukuvuna **NGEXESHA elilungileyo**

UKUVUNA NGEXESHA ELILUNGILEYO KUQINISE-KISA ISIVUNO ESISESONA SIPHEZULU ESINO-KUFUMANEKA KANTI NENGENISO YEZITYALO INOKUFUNYANISWA NGOKUPHELELEYO KAM-SINYA KANGANGOKO EMVA KOKUFIKELELA KWESITYALO KWIBANGA LOKUKHULA OKUPHELELEYO.

Ukuvunwa kombona, oojongilanga neembotyi zesoya kubandakanya uqwälaselö lweminye imiba efana naleyo ixaphake kwisityalo ngasinye.

- Ucwangciselö olufanelekileyo lokugcinwa okanye lokuthuthwa kwesityalo lubaluleke njengelona xesha lichanekileyo lokuvuna.
- Kufanele kuncitshiswe iilahleko zembewu ezinokwenzeka xa kuvunwa selidlule kakhulu ixesha elifanelekileyo.
- Naziphi iimeko zemozulu ezingafanelekanga ezifana nemvula

egqithisileyo, umoya okanye umonakalo wezichotho kwisityalo esikhule ngokupheleleyo zinefuthe elikhulu kwisivuno.

- limeko ezisoloko zikhona zokusibekela zingakhuthaza umngundo, iaflatoxin nezinye iintlobo zohlaselo kwintloko zembewu.
- Zama ukunciphisa umonakalo obangelwa zizonakalisi zezityalo, izinambuzane, iintaka nezilwanyana.
- Ukunciphisa umngcipheko womonakalo womlilo kwisityalo sakho.
- Mva nje ukubiwa okunokwenzeka kwesityalo sakho osisebenzele nzima nako sekungumbandela ongumngcipheko ophezulu eMzantsi Afrika.

IINGQALELO NGOMBONA

Isityalo siphelele kune namabanga okukhula kwamaggabi ahluka-hluki-leyo konke kungachazwa ukususela ekusityalení ukuya ekubunjweni kwamanquma okanye kwemibungu yesilika. Inani leentsuku kwibakala



AMAZWI AVELA... kuJurie Mentz

UKUBA KUKHO ISIFUNDO ESINYE ENDISIFUNDE KWEZOLIMO (ESINOKUSETYENZISWA NASEBOMINI NGOKUBANZI) KUKUBA XA UTHETHA KUPHELA NGENTO ETHILE, SUKUBA USINGISE KWICALA ELINGALUNGANGA, KODWA XA UYENZA LOO NTO OKO KUTHETHA UKUBA ULANDELA INDLLELA ELUNGILEYO.

Ukufama okunempumelelo kuthetha ukukhutshelwa ngaphandle kwemengcipheko. Ufanele ukusoloko uzama ukuyihambela phambili ingxaki ungasukumi kuphela xa seyikhona ingxaki – njengomlimi osuka aqhube isithuthi sakhe ajikeleze amasimi akhe. Ukuba uphakama ngenxa yengxaki, uggibela ngokuleqana nengxaki.

Enye inyaniso kukuba kuya kusoloko kukho iingxaki ezintsha umlimi afanele ukufunda ngazo ukuze iimpazamo zakhe angaziphinda-phindi kabini. Umlimi akanakwenza into enye ngonyaka ngamnye kodwa aliendele isiphumo esahlukileyo.

Ukuba unesixa esincinane semali ekhoyo kuphela, bubulumko ukulima indawo encinane kunokuzama ukusebenzisa loo mali ekulimeni indawo enkulu. Eso sisigu esibi esinokungaphumeleli ukuba akuqapheli. Vuna kangangoko kwisiqwengana somhlaba phambi kokuzama ukufumana okuhulu kodwa ube ungenamali eyaneleyo.

Kukho intetho yesiZulu ethi *Indlela ibuzwa kwabaphambil*. Le ntetho inokuguqulelwa ngokuthi ufanele ukuba abo sebephambili kuwe ngendlelwa oyihambayo. Nantsi imizekelo embalwa yale ntetho:

- Abamelwana abayaziyo imozulu, iintlobo zemihlabo neemeko zokugu-quguqua kwemozulu zendawo ethile.
- Ababoneleli beemveliso zamalungiselelo abahluka-hlukeneyo bonke bakulangazelela kakhulu ukukunceda ukuba ufilele kumgqaliselo wakho.
- Imithombo yoncedo ifumaneka lula ngokusebenzisa i-intanethi.
- Yiya nakweziphi izifundo, usuku lwabalimi neentlanganiso zamaqela ofundonzulu ozaziyo.

Xa sitetha ngokufama, indlela engahanjwa rhoqo ayenzi mahluko; umahluko wenziwa lulwazi ngento enokulindeleka nothakazelelo lokwenza okuthile ngayo. ■

Kubalulekile ukuvuna...

ngalinye lahluka ngomhlanganisa ngamnye. Amabakala okwanda kwezityalo aqua inkqubo yomvumvuzelo, ukupuhlu kwembewu okanye kweenkozo, ukuhlohleka kweenkozo njengoko izondlo zithuthelwa ezikhwebini kube kusenzeka nokuvuthwa okupheleleyo kwsityalo ngokunjalo njengoko ukukhula kwesityalo kufikelela esiphelwani side sibe kobona bukhulu buphezulu nobunzima bembewu nganye. Eli baka linokuthatha iintsuku ezingama-63 kwiintsuku ezili-119 ziphelele ukususela ekuhlumeni kwezithole ukuya ekukhuleni okupheleleyo.

Ukukhula okupheleleyo kuchazwa njengethuba aphi isityalo nembezu zingenakuphinda zikhule khona okanye ubunzima baso bungasandi. Isityalo esikhule ngokupheleleyo nembezu ngokunjalo siya kuqala some kude kufike ixesha lokuvuna. Ithuba lexesha lixhomekeke kwimihlanganisa etyaliweyo, ekukhuleni okanye kwimilinganiselo yobushushu esiyifumeneyo, nakwiimeko zemozulu jikelele kuquka ukuna kwemvula, ukuqalisa kweeqabaka zokuqala nokufuma komoya ngeli thuba.

Isalathisi sesityalo malunga nokukhula okupheleleyo sifunyanisa ngokuhlolra imbewu ukuze kubonwe ukubumbeka komaleko omnyama weenkozo kwisiseko seenkozo. Oku kungabonwa ngokuqhekeza imbewu ukususela phezulu ukuya ezantsi ngemela ebukhali ukuze kukhangelwe ukubumbeka komgca omnyama.

Kubalulekile ukuhamba-hamba emasimini onke uqaphele ukuba eli bangia kufikelelw nini kulo. Isiquulatho esiyipesenti % yokufuma kweimbewu sinokulandelwa ngokuthatha iisampulu zezikhwbu, ngokuchuba iinkozo ukuze zivavanywe kwisisele sendawo yakho okanye ungasebenzisa isixhobo sakho sokuvavanya. Iqondo lelahleko yokufuma kweenkozo linokulinganisa ukuze ke ngoko lilandelwe ngoqwalaselio njengoko lisehla ukususela malunga nama 35% ukuya kwi 14% kwithuba elilandelayo leentsuku ezingama-40 okanye ngaphezulu.

Umhla wocwangciselio lokuvuna kubhulwa unokuqikelelw ukuze kuqinisekiswe ukuba isixhobo sakho sokuvuna sibhula siwulungele umsebenzi wokuvuna, okanye uyazisile ikhontraktha malunga neendawo nangemihla enokukhethwa yokuqaliswa kokuvuna.

Ukuba ufama kwindawo enokufuma okuphezulu, makwenziwe ucwangciselio ukuba ufunu ukuba isityalo somiswe efama (ukuba une-sithuba esaneleyo emgangathweni), okanye kwiindawo zorhwebo xa usisa kwisisele esibhalisiweyo.

Kungenjalo, ukuvuna kubhulwa makubanjezelwe kude ukufuma kwsityalo kubengaphantsi kwi 14%. Kunokuthatha ezinye iiveki ezintathu nangaphezulu ukwehla kwako ukususela kwi 18% ukuya ngaphantsi kwi 14%. Ezinye izisele ziya kuyomisa imbewu ide ifikelele kwi 14% ukuba amaqondo obushushu aya kudlula kwi 30°C kwithuba eliqikelwelayo lokugcinwa kwaso.

Ukuba unemikhumbi efanelekileyo okanye ezinye izibonelelo zingavunwa izikhwebu xa zinokufuma kwe 18% zize zigcinelwe ukuzisila nokusetyenziswa ethuben. Nangona kunjalo, ukuba umoya awanelanga phakathi kwezikhwbu kuyo yonke indawo ezicinwe kuyo kwiindawo zokufuma okuphezulu, ingozi yosulelo lweafatoxin kwizikhwebu iya kwanda kakhulu.

IINGQALELO NGOJONGILANGA

Amabakala okwanda kwsityalo ngokuziphinda-phinda, aphi inani lamaggabi abumbekileyo asisikhokelo, angenzeka kwiintsuku ezingama-35 nangaphezulu emva kokutyalwa. Oku kuquka ukuntshula, ukumilisela kwembewu kune nokupuhlu kwamaggabi phambi kwexesha. Amaggabi aya kuquba ngokukhula nangokupuhlu. Ngendlela engafaniyo nombona, ukubumbeka kwamaquva kwenzeka kwangoko ngokunjalo



Kubalulekile ukuvuna okwensiwa ngexesha elilungileyo ukuze kuthintelwe iilahleko futhi oko kuya kunceda ngokuqinisekisa isivuno seenkozo esisesona siphezulu.

nesityalo siphelele kubekho isikhondo, amaggabi kune nentloko yentatyambo edubulayo. Amany amabakala ngaphandle kwalawo achaziweyo kukudubula kweentyatyambo kune nokupuhlu kwembewu.

Ukukhula okupheleleyo kufikelelwxa intloko ijika kumbala oluhlaza isiba tyheli ide ibe ntsundu. Kuqheleke ukuba kufuneke iintsku ezimalunga nezili-155 ukususela ekutyaleni ukuya ekukhuleni okupheleleyo. Ukuhula okupheleleyo kuchongeka xa ekudibani kvesikhondo namaggabi okungqonge intloko kajongilanga umbala ujika usiba ntsundu ize nopesenti yokufuma ibe isemalunga nama 30% ukuya kuma 40 %.

Elona xesha lifanelekileyo lokuqalisa ngokuvuna liphambi kokuba iintloko zome khonkqo xa ukufuma kwembewu kumalunga ne 9% ukuya kwi 10%. Xa ukufuma kuyi 7% iilahleko ezimbi kakhulu zisenokuba phezulu. Ipesenti yokufuma kwembewu ifanele ukuqvalaselelw kufutshane ukuze isityalo sivunwe kamsinya kangangoko kunokwenzeka.

Imbewu engacocekanga nesandul' ukuvunwa nokubhulwa inako ukuba nomngundo ophuhla kwiiyure ezingama-24 ukuba ukufuma kwembewu kungaphezu kwe 9% naxa imbewu evuniweyo isothulwnejemgangathweni weshedi.

IINGQALELO NGEEMBOTYI ZESOYA

Amabakala okukhula eembotyi zesoya adlula ekuhlumeni ukuya kwibanga lesihlanu lokuvuleka kwamaggabi. Ibakala lokuzandisa kwestiyalo ngokusebenza kwezini liqala ngokumbuka kwemidumba lize liphele ngokoma kwezityalo, imidumba nembezu. Ekukhuleni okupheleleyo ama 95% emidumba sukuba etshintshe aba tyheli obusabuntsundu, aphinde abe mthubi sabubomvu okanye le midumba ibe mpofu.

Kuphinda kufuneke ezinye iintsku ezintlanu ukuya kwezilshumi zemozulu eyomisayo emva kokukhula okupheleleyo ukwenzela amando okufuma asisqhelo ukuze abe ngaphantsi kwe 15% ezimbottyini. Ukuvuna nokugcina izityalo kungaqliswa xa imbewu inokufuma okufanelekileyo kwe 13%.

limbotyi zesoya zinokuba neziqhelo zokukhula okunqumama ngexesha elithile okanye okuqhubea kwixesha elide. Izityalo zokukhula okunqumamayo nokudubula kweentyatyambo ngokunjalo ziyayeka ukukhula xakunciphe ubude obuthile bokukhanya kwelanga. Ngoko ke izityalo zifikelela kubukhulu obubobona buphezulu bemedumba ekhula kwithuba elifutshane.

Imihlanganisela yeembotyi zesoya ekhula kwixesha elide, ziyadubula iintatyambo zayo zipuhle imidumba kude kufike ixesa lokunqumama kwako elixhomekeke kufuzo xa ubude bokukhanya kwelanga buncipha.

Zingafikelela kuma 75% iintatyambo ezikhoyo ziphelele ezingafikelele ekuvuthweni phambi kokuba kuqalise ukumilisela kwemidumba.

Izityalo zisenokuba noluhlu lweentsuku ukususela kwiintsku ezingama-43 ukuya kwezingama-65 zokudubula kweentyatyambo ngoluhlu lweentsuku ezili-127 ukuya kwezili-143 ukuze kufikelelw ekuvuthweni okufanele isivuno. Imihlanganisela yamaxhesa amade okulima etyalwe ngoSeptemba okanye ngo-Oktobha ingathatha iintsku ezilishumi ukuya kwezili-14 okanye ngaphezulu ukuhluma ukuba kungakho ingqe. Amava abonise ukuba iimbotyi zesoya 'zinokubambezeleka' kwithuba lembalela ngethuba lokudubula kweentyatyambo.

Kubalulekile ukusoloko kulandelwa ngoqwalaselo ipesenti yokufuma ukususela kwixesha lokuba imbewu ifikelele kobona buncinane bububo ize ikhawuleze iqalise ukulahlukufuma. Isixhobo esivuna sibhula sifanele ukufumaneka ngeveki nganye ubuncinane phambi kokufikelela ekufumeni obububo bokuvuna be 13%. Ukuba imidumba yome kakhulu ngaphezu kwe 15% ukuya kuma 20% yesityalo inokulahleka ngenxa yokwaphuka okwenzeka phambi kokuba kuvunwe kubhulwe naxa sekufikelelw kwinkqubo yokuvuna ngokwayo.

ISIPHELO

Xa usenza isiggibo ngemihlanganisela yombona, oo jingilanga okanye ngeembotyi zesoya qiniseka ngenani eliqikelelwayo leentsuku zamathuba okuzandisa kwamanani ezityalo ngokuziphinda-phinda nangokusebenza kwezini zezityalo. Ukuvuthwa kwezityalo kune nopesenti zokufuma ezifaneleke ngexesha lokuvuna nako kungalandewa ngoqwalaselo olunzulu. ■



**RICHARD MCPHERSON,
UMCEBISI NGOLAWULO LOSHI-
SHINO LOLIMO NEEPROJEKTHI**

AMADIZA OMBONA *ayimveliso exabisekileyo*

NGOKUXABISA AMADIZA KANGANGOKO, ENYANISWENI UMLIMI WANDISA IZINTO EZILUNCEDO NESAKHONO SENZUZO SOMJIKELO WAKHE WOKULIMA UMBONA. NJENGOKO IMIDA YENZUZO IPHANTSI KOXINZELELO, UMLIMI NGAMNYE UDINGA UKWENZA ISIGQIBO NGEYONA NDLELA IFANELEKE KUYE YOKUSEBENZISA AMADIZA ASHIYEKE ENTSIMINI.

Amadiza ombona anamaggabi, izikhondo kune nezikhwedu zeziyalo zombona ezishiyeke entsimini emva kokuvuna. Ayimveliso exabisekileyo kanti abalimi bombona bafanele ukusoloko besenza izicwangciso zokusebenzisa amadiza ngendlela ethile, okanye barhwebe ngawo.

Abanye abanini bemihlaba abaqeshisa ngemihlaba yabo kwabanye abalimi basenokuthi bafuna ufikelelo entsimini leyo emva kokuvuna ukuze babe nento abayifumana emadizeni asentsimini. Oko kuthetha ukuba umlimi oqeshise ngentsimi kufuneka akuqonde ukuxabiseka kwamadiza kwaye kufanele abe nesaphulelo sorhwebe kwisivumelwano serenti yentsimi.

UKUSEBENZISA AMADIZA

Imigaqo eyahluka-hlukileyo yokusebenzisa amadiza ngeyona ndlela enenzuzo kukutyisa impahla entsimini okanye kukuwasusa onke entsimini.

Eyona ndlela enoqoqoshu yokusebenzisa amadiza kukuvumela imfuyo yakho ukuba iwayte emasimini amadiza. Angatyiwa ngendlela encomekayo ziinkomo neugusha kodwa kuya kubakho ukumosheka okuthile kuba iinkomo zitya ziwaxusha amadiza entsimini. Ngokwase-malini inzuzo kukuba akukho zindleko zothutho okanye zabasebenzi abasusa nawaphi amadiza entsimini. Okungeloncedo ngokuqhubela iinkomo entsimini kukuba ziza kufuna ukuya ixesha elide emasimini. Xa kunjalo, umlimi ufanele ukuyazi into ekufuneka eyenzile kuba oko kumthintela ekusebenzeni emasimini ukuze alungise umhlaba msinya kangangoko kunokwenzeka ukwenzela ixesha lokulima elizayo – ukusebenza entsimini ebusika kuba luncedo kakhulu kwisityalo esilandelayo.

Amadiza ombona angumthombo ogqibeleyo wesondlo futhi ayindlela yokukhulisa imfuyo yakho ngeenyanga zasebusika. Ngokuinisekileyo izilwanyana ziyondleka futhi zikhule kakuhle xa zisitya amadiza xa kuthele-kiswa naxa zisitya emadlelweni omileyo ngenxa yobusika. Abanye abalimi bade benze izicwangciseloo zokuthenga izilwanyana ukuba zize kutya amadiza ombona baze bazithengise futhi emva kweenyanga ezimbawla ngenxa yokwanda kobunzima bazo kuba bezisitya amadiza ombona.

Xa umnini wentsimi engenanto yimbi anokuyenza kwithuba elolulieweo lexesha lokusebenza intsimi emva kokuvuna, yinto enokwenzeka ukubopha ibheyile zamadiza ombona aze asuswe entsimini. Oku kubandakanya iindleko zoomatshini njengoko amadiza kufuneka ecandiwe, aharikwe aze abekwe ngokweebheyile. Umliimi ufanele ukuqaphela – xa emaninzi amadiza ashiyeke emasimini inkubo ifanele ukuba njalo. Inzuzo kukuba malunga nalo mgaqo, ezona toni zinini zifumanekayo zinokususwa emasimini. Zingathengiswa okanye zidityaniswe nemilinganiseloo yezonddo zemfuyo – okanye yondliwe ngayo injo ngokuba injalo, zize izilwanyana zitye iibheyile kwindawo efanelekileyo. Ukuvunwa kwamadiza ombona makwenziwe msinya kangangoko kunokwenziwa emva kokuvunwa kweenkozo. Kuya kubakho ukwetha komgangatho wezondlo ezigcinwewyo xa inokuyekwa ibe semasimini kwithuba elide njengoko isiqulatho seswekile neseprotheyini sisehla kuze kwande iintsinga.

Nangona kunjalo, zikhona iimeko ezingeloncedo malunga nokubekelela amadiza ngokweebheyile, ngoko ke, umlimi kufuneka



Imifanekiso: Igela leGrain SA



Amadiza ombona akholisa ukuba yimveliso engasetyenziswa kakhulu naxa engumthombo wezondlo obalulekileyo kwaye efanele ukubonwa njengesongeze esixabisekileyo kwinkqubo yokondla.

aqwala selese iindleko zakhe nezinye izinto anokuhetha kuzo. Ngokuwasusa onke amadiza emasimini, umhlaba usala usesichengeni sokukhukuliswa ngumoya ize imihlaba engaphezulu iphaphatheke. Ngenxa yesi sizathu, abanye abalimi bakhetha ukulinda ade amadiza aqobeke aze aphuke entsimini, bawayeke ngolo hlolo, ukuze ongeze kwisigcina-kufuma somhlaba oko bekuphila ngaphambili. Lo ngumgaqo anokuthanda ukuwulandela umlimi ongawuphethuliyo umhlaba okanye owuphethula kancinane, njengoko injongo ikukuba nesigcina-kufuma nokwakhela obekuphila ngaphambili emhlabeni. Ngokuinisekileyo, kule meko akukho mfuyo efanele ukuya emasimini. Ngelishwa, oku ngumgeni omkhulu njengoko abalimi bombona kulindeleke ukuba bavumele nayiphi imfuyo yaselalini ukuba itye emasimini kwiinyanga zasebusika.

Umlimi ngamnye makazinike ixesha lokugqala okona kufanelekileyo kuye aze enze isiggibo ngendlela yokusebenza ngexabiso elifumaneka ngamadiza ombona. Asinakukwazi ukungayisebenzisi ngemfezeko le mveliso, singaba siyamosha. ■



**JENNY MATHEWS,
INGCALI NOMHLOHLI
WOLAWULO NOPHUHLISO**

Masiqwala sele iziqhelo zeentengiso zalapha zikajongilanga

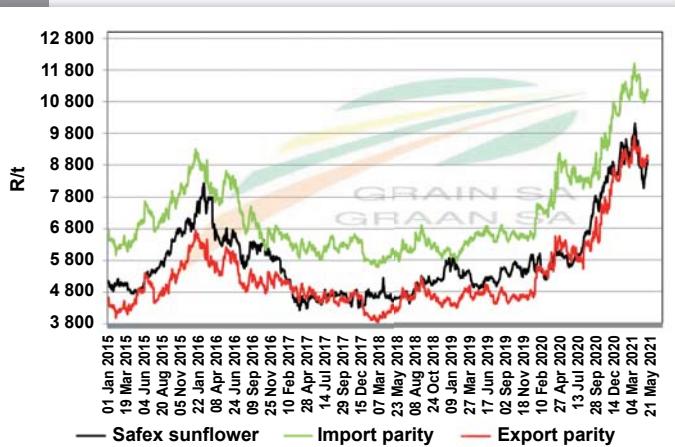
KWIMINYAKA EDLULILEYO UJONGILANGA UZUZE IGAMA ELIHLE LESITYALO SENENE ESILINYWA NAPHANTSISI KWEMEKO YEEMVELISO ZAMALUNGISELELO EZINGANELANGA NAKWIIMEKO ZOKULIMA EZINGUMNGCIPHEKO, KODWA IZIVUNO AZITSHINTSHI NAKANJANI. NAXA KUNJALO, KWIINGINGQI EZILIMA OOJONGILANGA, BASISIPHEPHETO SOKUGQIBELA, KULINDWA KUDE KUFIKE USUKU LOKUGQIBELA LOKULIMA.

Kwiminyaka engamashumi amabini adlulileyo, ukulinywa kujajongilanga elMzantsi Afrika kubonise ukuma endaweni enye, kodwa kubonakele ngokucacileyo kwindawo ebilinywe kwixesha elingaphezu kweminyaka emihlanu edlulileyo (**Igrafu 1**). Kwithuba eliphantsi kophengululo, uMzantsi Afrika uvune izityalo zikajongilanga ezincomekayo, oko kuquka iincochoyi eziisixhenxe ngaphezu kophawu lweetoni ezingama-800 000.

Ngokwesiqhelo, xa amaxabiso enyuka esondela kumaqondo olungelelwaniso lokuthenga kumazwe angaphandle, kubakho ukwanda, kodwa oku kuqhele ukubangela isilungiso kwintengiso ngokunjalo amaxabiso ehle ukusondela kumaqondo olungelelwaniso lokuthengisa ngaphandle. Isipumo kukuba isakhono senzuso siyehla baze abalimi baqale benciphise indawo yoojongilanga. Ngokwe-Komiti yeeNgqikelelo zeziTyalo (CEC), ingqikelelo yemveliso yesithathu malunga nembewu yoojongilanga yango-2021 ibonwe njengehla kanganje 9% ukuya kwiitoni ezingama-696 290 xa kutivelekswa nengqikelelo yasekugqibeleni eziitoni ezingama-788 500 ngo-2020. Indawo eqikelelwayo malunga nembewu kajongilanga zihekture ezingama-477 800, malunga ne 4,5% eganeno kweyexesa lokulima langaphambili, logama isivuno esilidelekileyo siziitoni eziyi-1,46 ngehektare.

Isixa esikhulu sembewu kajongilanga sicudiselwa iioyle eziityiwayo nezisetyenzisa ngabantu, ukuze isixa esincinane sibe sesezondlo zezilwanyana. Ngenxa yesivuno esiphezelu seoyile yembewu kajongilanga, ubukhulu becali isetyenziswa ngabantu. Umgubo kajongilanga, imveliso eluguqulo olufumaneka ngenxa yenqubo yokuhluza kweoyile, uthengisewa oosomashishini balapha bezondlo zezilwanyana, njengoko ibonwa ngokubanzi njengemveliso yodidi oluphantsi engenakuthelekswa nciam nesidlo seembotyi zesoya malunga nomgangatho wezondlo kunye nesiquatho seentsinga.

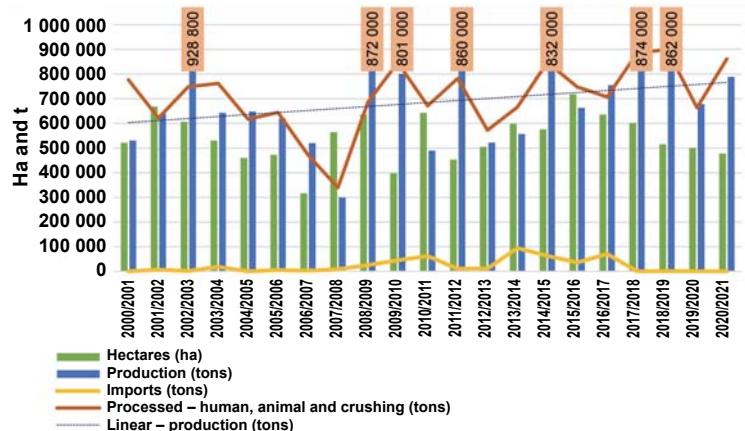
2 Amaxabiso embewu kajongilanga e-EU esiwa eRandfontein.



Umthombo weenkukacha: Grain SA

1

lihектare zoojongilanga, ukubalima nokubathenga ngaphandle.



Umthombo weenkukacha: SAGIS

Ukuguqu-guqulwa kukajongilanga bekusoloko kusihla kunyuka kwiminyaka eliqela, kodwa kukholisa ukwanda (**Igrafu 1**). Incinane intengiso kajongilanga kwamanye amazwe. Kwiminyaka emihlanu edlulileyo, iintengo zikajongilanga kwamanye amazwe zinciphe kakhulu kwaye oku kunokunxulunyaniswa nokwanda kwasakhono sokucumza salapha kunye nokusetyenziswa kukajongilanga owenziwe apha. Kwiminyaka yokulinwyu kukajongilanga okunganelanga, imisebenzi yokucudisa izityalo iyancipha kanti amashishini okucokisa ayithenga ngakumbi ioyle ekrwada kwamanye amazwe, njengoko oko kuneendleko eziphantsi kunokuthenga imbewu kajongilanga emazweni angaphandle.

Amaxabiso alapha embewu kajongilanga ebessoloko erhweba ngokwamaqondo olungelelwaniso lokuthengisa emazweni angaphandle ukusuela ngo-2020. (**Igrafu 2**), ukuze oko kuluthobe uxinzelelo kwindawo elinyiweyo. Amaxabiso embewu kajongilanga axhaswa ngamaqondo anyukileyo amaxabiso olungelelwaniso lokuthengisa emazweni angaphandle, ubukhulu becali aqhutywa ngamaxabiso aphezelu ehlabathini embewu yeoyile kajongilanga xa kuthelekswa neqondo leli lizwe lotshintshiselwano oluthande ukuba buthathaka. Isipumo soko kukuba amaxabiso embewu kajongilanga ngoku arhweba ngokratya wama 42% kunakunyaka odlulileyo ukususela kumyinge wama-R6 000 ngetoni kuApreli ngo-2020, ukuya kowama-R8 500 ngetoni kuApreli ngo-2021.

Ukuba amaxabiso ayaqhube ngokunyuka, kunokulindeleka ukuba isiqheilo sikajongilanga singabuya umva kubekho ukwanda kwixesha lokuthengisa ngo-2021/2022. Ngokuqhube kwexesha lokulima, kulindeleke ukuba amaxabiso embewu kajongilanga aya kuqhuba ngokurhweba kumaqondo olungelelwaniso lokuthengisa kumazwe angaphandle, ngokwefuthe lexabiso lehlabathi lembewu yeoyile, elifikelele kumanqanaba aphezelu amatsha kubekho nokunyuka okukhula kwamaxabiso eoyle kajongilanga kodwa ibe seyingasathengwa kakhulu. Iqondo lotshintshiselwano laseMzantsi Afrika eliguqu-guquka lula, nalo lidinga ukuqatshelwa. ■



IKAGENG MALULEKE,
INGCALI YOQQOSHO
KWEZOLIMO EGRAIN SA



PHUCULA izakhono zakho zobunkokeli

SI XHESWA NGABOSASAZO LWEENDABA NGEENGXELO ZOMGANGATHO OLAMBATHAYO WOKUSEBENZA KWIQELA LAMAZIKO AHLUKAHLUKILEYO KWILIZWE LETHU KWIINYANGA EZIMBALWA EZIDLULILEYO. UNQONGOPHALO LOBUNKOKELI LUKHANKANYWE NJENGONOBANGELA WOMGANGATHO OLAMBATHAYO WOKUSEBENZA. KANTI YINTONI UBUNKOKELI KWAYE BUNGAPHUCULWA NJANI?

Umuntu uba yinkokeli njani? Inkokeli inganyulwa okanye ityunjwe. Okanye ungaba yinkokeli xa usenza isigqibo sokuseka ishishini lokufama elilelakho. Ukuba yinkokeli kunika umuntu amandla negunya lokukhokela nokulawula.

Kwangexesa umnini/umphathi eqwalasela imisebenzi yolawulo enjengocwangcisel, ulungiselelo, impumezo nonxulumaniso lweshishini lakhe, ukwayinkokeli. Njengenkokeli ufanele ukwenza izigqibo, unxibelelane, unikele umsebenzi kwabanye, unxulumanise amacandelo, ukhuthaze abantu bakho ngokunjalo uqwala sele nokuziphatha kakuhle kwabantu emsebenzini. Ukukhokela ngowona msebenzi wolawulo ubalulekileyo. Umgangatho wokusebenza walo naliphi ishishini, elincinane nokuba likhulu, kuxulumene ngqo nodidi lobunkokeli balo. Eyona ngxaki inkulu kukuba abaphathi abalungileyo basenokungabi ziinkokeli ezilungileyo.

Ubunkokeli sisakhono sokuthundeza, ukuphembelela nokukhuthaza abanye ukuze kwensiwe umsebenzi/amanyathelo/imisebenzi/iziqhelo zemisebenzi ngothakazelelo nangomoya woxolo ngelinge lokuphumeza iinjongo ezithile. Ngoko ke, inkokeli ngumntu ophembelela abanye abantu ukuba benze okufanele ukwenziwa ukuze kuphunyezw iinjongo zeshishini elithile. Njengenkokeli engumnni/umphathi ufanele ukumisela imisebenzi ethile ekufuneka yensiwe ngakumbi malunga nempumezo yeziwangciso. Kwishishini lakho nguwe ofanele ukuba nefuthe kubasebenzi bakho ukuze bakwenze ngothakazelelo nangomoya woxolo okufanele ukwenziwa ukuze kuphunyezw iinjongo zeshishini.

Xa unokuqwasela iintsilelo ezelwayo zamaziko, kaninzi uya kuchonga isizathu sokungaphunyeza kweziwangciso ngendlela efanelekileyo. Oku kubangelwa bubunkokeli obungaphumeleliyo ekuphembeleleni abo banoxanduva lokuphumeza izicwangciso zezikongendlela efanelekileyo.

INKOKELI ELUNGILEYO

Kungani iinkokeli zisenokungabaphembeleli abantu ukuze basebenze? Cinga okulandelayo ukuze ufumanise isizathu sokulambatha kobunkokeli.

Inkokeli elungileyo ineempawu ezelandelayo:

- **Ingqiqo:** Olu lolona phawu lubalulekileyo lwenkokeli elungileyo. Ziphathe ngendlela esesikweni. Thembeke futhi uyiphile into oyifundisayo. Lilandele ilizwi lakho kwaye uzalisekise izithembiso zakho.
- **Intumekelelo nokuhlala ethembeni:** Akukho mntu ofuna ukulandela inkokeli engenantumekelelo okanye umdla kwinto eyenzayo. Ufanele ukubonisa ukuba unomdla ophilileyo emsebenzini wakho, xa usenza njalo nabanye baya kwenza njalo.

- **Isakhono sokusebenza nzima.** Kufuneka ubonise uthakazelelo lokuhlawula ixabiso lempumelelo: iifyure ezininzi nokusebenza nzima.
- **Izakhono zobudlelwane babantu ezilungileyo.** Unomdla kwizidingo neengxaki zabasebenzi bakho kwaye wenza amalinge enene okuphucula iimeko abakuzo.
- **Umoya wenkathalo.** Uyazivuma iimpazamo zakho akuzami kutyhola abanye abantu.
- **Ukuzithemba xa usenza izigqibo.** Unako ukuthelekisa iinyaniso, wenze isigqibo, unqiyame ngaso, futhi uqinisekise impumezo yaso.
- **Izakhono zobuchule bokunxibelelana.** Uyakwazi ukudlulisa umyalezo kwaye uqinisekise ukuba ukotolikwa kwawo ngendlela engachane-kanga kune neempazamo kukhutshelwa ngaphandle.
- **Ukuhlionela abanye abantu.** Oku kubonakala ngendlela onxibelelana ngayo nosebenzisana ngayo nabanye. ‘linduku namatyte ziyawazi ukwaphula amathambo, kodwa amazwi aya kuzaphula iintliziyo.’ Musa ukumjongela phantsi umphangeli.

YIBA YINKOKELI EZIPHUCULAYO

Ukuphucula ubunkokeli bakho, khumbula ukuba njengenkokeli, ngamanye amaxesha kuya kufuneka ukuba wenze izigqibo eziya kwenza ukuba ungathandwa. Akunakwazi ukwanelisa wonke umuntu ngawo onke amaxesha. Yenza izigqibo, futhi yima ungagungqi kwizigqibo zabo, ngokwenza njalo uya kuhlonelwa ngabanye.

Zinqande ekuphakamiseni iwonga lakho ngokuxelela abalandeli bakho ukuba kuperthe wena kwaye bona bafanele ukwenza okuthethwa nguwe.

Bonisa inkuthazo nenzondelelo. Sukurhoxiswa yinkathazo nalungqu-zulwano kodwa yima kwisiggibo sakho uzithembe iinkolelo zakho.

Phatha abantu ngokufanayo futhi uyiqoshelise imibandela. Bonke abasebenzi bakho baphathe ngokufanayo ngakumbi xa ugcina ucwangco lokulandelwa kwemithetho. Ukuba nekhetho yindlela eqinisekileyo ekhokelela enkathazweni nasekutshabalalen komoya wemvisiswano weqela elisebenza kune. Phatha abantu ngendlela obunokuthanda ukuba bakuphathe ngayo wena.

Nyaniseka. Ukuba akuyazi impendulo malunga nengxaki, kuvume oko. Kodwa qiniseka ukuba impendulo uyifumana msinya kangangoko kunokwenzeka. Ukuza ukuba ngumazi-wako-konke kuya kukwahlukanisa kubasebenzi bakho, kanti ukucela izimvo zabo kuya kuphucula ubudlelwane babantu futhi mhlawumbi kuphucule izisombululo.



MARIUS GREYLING,
UMCEBISI OZIMELEYO
NGOLAWULO KWEZOLIMO

Icebiso elilungileyo ngokukhethwa kwesichumiso

UDIDI NESIVUNO SESITYALO SOMBONA SINXULUMENE NGQO NEMOZULU, UMHLABA NOKUFAKWA KWEZICHUMISO. IZIPHUMO ZEEMVAVANYO ZOMHLABA ZIYAFUNEKA UKUZE KUFUNYANISWE IIMFUNEKO ZEZONDLO NOKUFAKWA KWAZO OKUCHANEKILEYO.

OKUDINGWA NGUMBONA UKUZE UKHULE KAKUHLE

Ukuze isivuno sibe sihle kangangoko, kubalulekile ukuba isityalo sombona sikhule ngokukhawuleza kwakuba kugqibekile ukuntshula. Ukuze ukukhula kwenzeke ngokukhawuleza, izixa ezifunekayo zezondlo mazifumaneke. Umbona udinga introgen (N), iphosphorus (P) nepotassium (K) ukuze ukhule kakuhle futhi nesivuno sincomeke. Ezi zondlo zibalulekile ekulinwyeni kweenkozo kwaye azikholisi kufumaneka ngezixa ezaneleyo emhlabeni.

- I-nitrogen sesona sondlo sibaluleke kakhulu nesingumlali-ndima ekukhuleni, kvisivuno nakudidi lwezityalo zombona. Isichumiso senitrogen sibaluleke ekukhuleni okuncomekayo kwamaggabi.
- Iphosphorus iluncedo olukhulu ekuphuhleni kweengambu nokukhula kwsityalo sombona, njengoko inefuthe kwiincam zokukhula kwsityalo.
- Ipotassium izalisekisa iindima eziliqela kwizityalo zombona oko kuquka ukulawula isiqulatho samanzi (kubaluleke kakhulu oko ngamaxhesha embalela), uthutho lwswekile ukusuka emaggabini nokugcina ukomelela kwsityalo.

UKUKHETHA ISICHUMISO

Kwiimeko aphi zingekhoyo khona iziphumo zeemvavanyo zemihlaba futhi ube ungenayo ingcaphephe yezichumiso enokukucebisa UMbutho weziChumiso weAfrika eseMantsi (FERTASA) uwapapasha rhoqo amanani okurhoxiswa kwesichumiso ngesityalo ngasinye. Jonga iTheybile 1 malunga namanani ombona okurhoxiswa kwezondlo zesityalo. Le theyibile isisikhokelo esibanzo kwaye asiyithatheli ngqalelo imiba efana nokurhoxiswa kwenitrogen kunye nokunamathelewa kweephosphate. Asiyondlela igqibeleleyo yokufumanisa inkubo yezichumiso, sisikhokelo nje kuphela. Unako ukuzidibanisa nengcaphephe yenqubo efezekileyo yokufakwa kwezichumiso. Kukho iintlobo ezahluka-hlukileyo eziliqela zechumiso, umzekelo 13:7:10(30), 15:8:4(27), 20:7:3(30) iyuriya (46:0:0)

nangapezulu. Umbuzo uthi ingaba yeyiphi eza kulungela imfuno yakho.

Kubalulekile ukuyiqonda intsingiselo yamanani asengxoweni yesichumiso. Umzekelo masiqwalasele la 13:7:10(30). Amanani amathathu okuqala asoloko elulwalamano oluphakathi kwe-N:P:K ngolo landelelwano. Inani elibiyelweyo lixela amandla esithako esisengxoweni. Oku kuthetha ukuba yi 30% kuphela esengxoweni esisichumiso. Okune sisihlohlwa esidibanisa izithako. **Itheyibile 2** yinkazo yeenkcukacha zeli nani 13:7:10(30) njengomzekelo.

Kwisisqibo sokuba sesiphi isichumiso esifanele ukufakwa, kubalulekile ukubala ulwalamano lwe-P:K edingekeyo kanye nolwalamano lwe-P:K yesichumiso. Kwitheyibile 1 malunga neenkukacha ngesivuno seetonu ezi-4, ama-60:12:16 anolwalamano lwe-P:K olungama 75% (12 ÷ 16) kanti ulwalamano lwsichumiso se-13:7:10(30) lunolwalamano olungama 70% (7 ÷ 10). Ulwalamano lwe-P:K lwe-15:8:4(27) ngama 200% (8/4). Ukuba ezi zichumiso zibini ziyafumaneka, ese-13:7:10(30) siya kuba sesona sibalaseleyo.

Malunga nesiqqibo sokuba singakanani isichumiso esifanele ukufakwa siyazi ukuba sidinga i-16 kg yepotassium. Sisonke esidingekayo yi-160 kg 13:7:10(30). Ukubala olu lwalamano senza kanje 16 ÷ Amandla ÷ K akwsichumiso. Xa kunjalo kudingeka isichumiso esingange-16 ÷ 30% ÷ 33.3% = 160 kg ngehektare.

Xa kufakwa isichumiso se-160 kg 13:7:10(30) kuya kufakwe initrogen engama-20,78 kg, iphosphorus engange-11,18 kg nepotassium engange-16 kg. Kucacile ukuba kukho intsielo yama-39,22 kg yeN. Lenstilelo yenitrogen inokulungiswa ngokufakwa komaleko ongaphezulu okunokwenziwa ngokufaka ama-85 kg eyuriya. Ngokwenza ngale ndlela isichumiso esidingekayo sinako ukubalwa.



PIETMAN BOTHA,
UMCEBISI OZIMELEYO KWEZOLIMO

1 Amanani okurhoxiswa kwezondlo zezityalo emboneni kwizivuno ezahlukileyo ukwenzela ucwangcisel.

Izondlo zezityalo	Ngetoni	Ngeetoni ezi-4	Ngeetoni ezi-6
Nitrogen (N)	15 kg	60 kg	90 kg
Phosphorus (P)	3 kg	12 kg	18 kg
Potassium (K)	4 kg	16 kg	24 kg

2 Inkazo ngeenkukacha zechumiso se-13:7:10(30).

	N	P	K	Isixa esiphakathi
Ulwalamano lweN:P:K	13	7	10	30%
Ulwalamano lweN:P:K	$13 \div (13 + 7 + 10) = 43,3\%$	$7 \div (13 + 7 + 10) = 23,3\%$	$10 \div (13 + 7 + 10) = 33,3\%$	$100 \times 30\% = 300 \text{ kg yesichumiso}$
Isixa seNPK kwi-1 000 kg yesichumiso	$300 \times 0,433 = 130 \text{ kg}$	$300 \times 0,233 = 70 \text{ kg}$	$300 \times 0,333 = 100 \text{ kg}$	$700 \text{ kg yesihlohlwa}$

Qinisekisa ukuba **ISCLEROTINIA** aisonakalisi **ISITYALO SAKHO**

UKUBOLA KWESIKHONDO NGENXA YE-SCLEROTINIA KUBANGELA UMONAKALO OMKHULU KWIZI-TYALO, NGAKUMBI KWIIMBOTYI ZESOYA NAKUJONGILANGA, KWA-YE KUNGABANGELA IIHLALEKO EZINKULU ZEZIVUNO. UMNGUNDU WESCLEROTINIA/SCLEROTIORUM UBANGELA ISIFO EMZANTSİ AFRIKA, EZONA ZITYALO ZIBALULEKILEYO EZI-CHATSHAZELWA SESI SIFO NGUJONGILANGA, IIMBOTYI ZESOYA NECANOLA.

ABAMKELI

Izifo ze*Sclerotinia* zizaphazela iintlobo zeziyaloz ezingaphezu kwama-500. Zona ziquka iziyalo zembewu yeoyile necanola), iziyalo zemifuno (ikhaphetshu, ikholiflawa, ibhathanathi, ihubbard sikhawhi, iipepile, iitumato, iierityisi) ngokunjalo nemidumba (iimbotyi ezomisiwego). Kubaluleke kakhulu ukwazi ukuba ukhula, olufana ne*Tall khakibos*, icosmos eqhelekileyo nomhlabangubo oqhele-kileyo nazo ngabamkeli be*Sclerotinia*.

IIMPAWU

Impawu ezibonakalayo zixhomekeke kwibanga lokukhula lukamamke-li. Izithole zisenokubuna, nangona isikhondo se*Sclerotinia* nokubola kquentloko kukholisa ukupuhla kumabanga okudubula kweentyatyambo nowemidumba. Izilonda ezimdaka emanzini ezimdaka ngeempawu zokuqala ezigqunyiwego ezigutuyungelwe yi-mycelium emhlophe yomqhaphu (oku kukukhula kokungunda okuqwelaselwayo) kwiintloko zi-kajongilanga (**Ifoto 1a**) kune neembotyi zesoya kune nakwiziq zombinizikajongilanga kune neembotyi zesoya (**Ifoto 1b**).

Ingxam yomngundo emhlophe ngaphambili koojongilanga ekuggi-beleni iphuha ibe si-*sclerotia* esimnyama, indawo enamandla okuphila kwaye igama lesifo livela kuyo. Ngokuya sivuthwa isifo, kuvela umbono wokukrazuka, size *isclerotia* sibonakale phakathi kweentsinga zesiyalo ngakumbi kujongilanga. Lo mngundo ukwanako ukusulela uchochoyi olungaphantsi komhlaba kuze kubumbeke isclerotia kwisiseko esise-zantsi sesikhondo sikajongilanga neseembotyi zesoya.

NDINGASOYISA ESI SIFO?

Ukulawula izifo ze*Sclerotinia* kunzima kakhulu. Umngundo wenza izihlo-melo ezilukhuni ezomeleleyo ezikwaziyo ukuphila (zaziswe ekuqaleni njengesclerotia) ezikwaziyo ukuphila emhlabeni kude kuphele iminyaka elishumi elinesibini ukuba iimeko eziwungqongileyo ziwlunglele.

Ngenxa yokuba zininzi kakhulu iziyalo ezahluka-hlukileyo ezi-sulelw*a* si*Sclerotinia*, kunzima ukulawula esi sifo kujikeleziso lwezi-tyalo. Isiyalo esinye esingasulelw*a* si*Sclerotinia* ngumbona. Ngenxa yokuba *isclerotia* sinako ukuphila emhlabeni kwixesha elide, ulande-lewaniso kwimijikelo yojikeleziso lweziyaloxa kungekho abamkeli, ifanele ukuthatha ixesha elide kunonyaka omnye kuhela okanye emibini njengelinge lokunciphisa isiganeko nenzondelelo kanobange-la wesifo emhlabeni.

Zimbalwa kakhulu iikhemikhali zokubulala umngundo ezifumaneka eMzantsi Afrika, kwaye zifanele ukufakwa ngexesa elilungileyo. Imihlanganisa yaseMzantsi Afrika yeembotyi zesoya nojongilanga zonke zizisulu ze*Sclerotinia*, kodwa ubuzaza besifo bahluka ngokwemihlanganisa.



Ifoto 1: Ingxam yomngundo ngasemva kwentloko kajongilanga (a), nakwisikhondo seembotyi zesoya (b).

Ekupheleni kosuku, ayikho indlela yokulawula i*Sclerotinia*. Ukususela ngoku ukuya phambili, ufanele ukulawula intsholongwane ekhoyo ukunisekisa ukuba eso siganeko sihlala singenzenki kakhulu. Ukusitshabalalisa esi sifo kuya kuthatha iminyaka emininki, ukuba yinto enokwenzenka ukutshabalalisa yonke imithombo yale ntsholongwane.

OFANELE UKUKWENZA XA UFUMANA I-SCLEROTINIA ENTSIMINI YAKHO

- Khumbula ukuba kukwawaphi amasimi okanye iinxalenye zentsimi aphi besifumanekha i*Sclerotinia* uze ulime isiyalo esingengomamkeli waso kunya ozayo.
- Susa naluphi ukhula kuloo ndawo elinokuba line*Sclerotinia*.
- Thenga imbewu enesiqinisekiso sokulunga.
 - I-*sclerotia* sisenokuthuthwa yimbewu. I-SANSOR- inembewu eyamkelekileyo nethintela ukusasazeka kwesclerotia, ngokuvumela inani elincinane kuhela lesclerotia phakathi kwembewu.
- Ibalulekile imihla yokutyla. Kungazinceda iziyalo ukutyla ixesha lokulima lisaqala ukuze zifikelele ekuvuthweni phambi kokuba kuqale iimeko ezivumelana ne*Sclerotinia*. Nangona kunjalo, oku kuxhomekeke kumhlanganisa ukuba ingaba ukhula kwixesha elifutshane lokucutheka kokukhanya kwelanga na okanye ukhula kwixesha elide njengawiimbotyi zesoya.
- Nciphisa ukushinyana namanani aphezelu eziyalo.
 - Isigqumathelo esenziwa ziziyalo ezifana neembotyi zesoya kucingeleka ukuba zizama ukudla imozulu ethile ngaphantsi kwa-maggabi kuze oko kuhuthaze ukupuhla kwesifo. Isigqumathelo esishinyeneyo siphinda senze kubenzima ukulawula umngundo ngokusebenzisa iikhemikhali.

Akhona amanye amanqaku afumaneka kule webhusayithi <http://sclerotinia.co.za/>. Abalimi basenokuzidibanisa noGq Lisa Rothmann (CoetzeLA@ufs.ac.za) okanye uGq Miekie Human (012 943 8207) ukuba baneminye imibuzo. ■

**INQAKU LIBHALWE LUTHUNGELWANO LOPHANDO
LWASEMZANTSİ AFRIKA NGESCLEROTINIA**

Ukulungiselela intsimi yakho ixesha ELITSHA LOKULIMA GAWULA GAWULA

INTSALELA ZEZITYALO ZIKHUSELA UMPHEZULU WO-MHLABA ELANGENI, EMOYENI NAKWIZANDYONDYO ZEEMVULA EKUNOKULINDELEKA UKUBA ZIKHUKULISE IMIHLABA ENGAPHEZULU EBALULEKILEYO. ABALIMI ABANINZI BAYISEBENZISA NGEZINYE IINDLELA INTSALALA, MHLAWUMBI NJENGEZONDLO OKANYE IZINTO ZOKUTYEBISA IMIHLABA.

Umlimi makenze isiggibo ngokuqaphela apho athelekisa khona izinto ezi-luncedo ngokutysa impahla izondlo kunokuyeka okusele koko bekuphila ngaphambili ngenjongo yokwandisa uzinzo lomhlaba nokuphucula amaqondo okungelela kwamanzi. Nangona kunjalo, xa izikhondwana zezityalo ezifana nojongilanga kune nomqhaphu zizikhulu kwaye zityebile oko kunokubangela iingxaki ngexesa lemisebenzi yokuphethula umhlaba naxa kutyalwa. Izikhondo kune nezikhondwana zezityalo ezinjaloo azikhawulezi ukwaphuka kwaye zisenokuxinga koomatshini zonakalise namathayara. Ngoko ke kubhetele ukuzigawula izikhondwana zikajongilanga ezishiyeke emasimini xa kulungiselelwia ixesha elizayo lokulima.

Idiza likajongilanga lingumthombo wesondlo ojongelwa phantsi. Nangona izikhondwana zezityalo zinexabiso elingephi lesondlo, kusoloko kukho iintloko ezithile zikajongilanga ezisalayo emva kwenkqubo yokuvuna kubhulwa. Ezi ntloko zinesiqulatho esiphezulu seprotheyini kwaye zingumthombo omangalisayo wesondlo sezilwanyana ezizityayo. Abalimi abaninzi, ke ngoko bakhetha ukutysa imfuyo emasimini kwithuba lexesha zide ziphantse ukuphela iintloko phambi kokugawula intsalela yesityalo sika jongilanga eseleyo.

UKUGAWULA IZIKHONDWANA ZIKAJONGILANGA

Abalimi bathanda ukugawula ngesixhobo esenzelwe ukugawula izikhondwana msinyane emva kokuvuna kukhutshwe isityalo entsimini. Xa izikhondwana zomile, zaphuka bhetele zicumke. Nangona kunjalo, ukuba izikhondwana zisemanzana ngexesa lokuvunwa kwsityalo, kucetyiswa ukuba ziyekwe izikhondwana kwiiveki ezimbalwa zide zome. Oku kuya kuzenzekela ngokwendalo ngokuhawuleza kwakuba kuvuniwe nezityalo zicumzeke kwinkqubo yokuvunwa zibhulwa.

Abanye abalimi bayayiqakatha inkqubo yokugawula endaweni yayobakrazule amasimi nge-erhe yokukrazula enobunzima obuphezulu. Naxa kunjalo, oku akuzigawuli kakuhle izikhondwana kwaye aziphekeki zibe ngamaqhekeza amancinane ngokwaneleyo. Oku kunokuthintela iinkqubo eziphambili zaphambi kokutyalwa. Ukuba izikhondwana ezide zikajongilanga zishiywa emasimini, zisenokuxinanisa oomatshini abafana nabangcangcazelisa umhlaba okanye abawukrazulayo isiphumo sibe zizithintelo ezingeyomfuneko. Lindulana zezikhondwana eenza iimfumba entsimini ziba yingxaki kumlimi ozama ukwenza umandlalo wembewu.

Ukuba izikhondwana ezide zikajongilanga zishiywa emasimini, zisenokuxinanisa oomatshini.

*Emva kokuvuna isityalo sika jongilanga, kunokutyswa impahla emasimini phambi koku-gawulwa kwezikhondo ukuze kuge lula ukulungiselela intsimi ixesha elitsha lokulima.
Foto: Jenny Mathews*

JENNY MATHEWS,
INGCALI NOMHLOHLI
WOLAWULO NOPHUHLISO



Fumana kangangoko EMHLABENI WAKHO

UKUTHATHWA KWEESAMPULU SISISEKO SAZO ZONKE IINGCEBISO NGEZICHUMISO NEKALIKA EFANELEKILEYO. INJONGO EPHAMBILI YENKQUBO YOKUFAKWA KWEKALIKA OKANYE IZICHUMISO KUKULUNGISA UKULAMBATHA KWEEKHEMIKHALI ZOMHLABA NGOLONA QOQOSHO LUNCOMEKAYO UKUZE KUFUMANEKE ESONA SIVUNO SIKHULU.

Xa umhlaba unesakhono esincomekayo, futhi kuhlalutywa iisampulu zemihlaba elabhoratri ukuze kuqwalaselwe iziphumo zezondlo, oko kwenza ukuba kufumaniseke eyona nkubo ifanelekileyo yokufakwa kwekalika nezichumiso. Ukuba ukuthathwa kweesampulu akwensiwa ngokuchanekileyo iziphumo zako azisayi kubonisa isimo somhlaba ukuze kuhokelele ekubeni kungafikelelwu kwisivuno esisesona siphezulu.

Ngenxa yokufakwa kwsichumiso ngokwemizila nangenxa yokuba iinkubo zokulima zingasihlanganisi kakuhle isichumiso kuwo wonke umhlaba, izondlo zezityalo zisoloko zingasasazeki ngokulungelela kuwo wonke umhlaba. Ngoko ke kubalulekile ukuqononondisa ukuba iisampulu zemhlaba zithathwe ngokuchanekileyo.

Kusetyenziswa ngaphezu komgaqo omnye xa kuthathwa iisampulu zemihlaba kwaye kubalulekile ukuxoxa nomthengisi wesichumiso phambi kokuthatha iisampulu.

Umqaqo 1 ucetyiswa apho ukusasazeka kwezondlo eziyintsalela nobuasidi bomhlaba bufana, umzekelo emihlabeni engalinywanga okanye apho imizila yeentsalela isuswe ngokuphethula umhlaba kungekuko ukulima. Okuqhelekileyo kukuba lo mqaqo awunakusetyenziswa.

Kwindawo enganeno kwihekta ezingama-50 kudingeka iisampulu ezingacwangciselwayo ezingama-20 ukuya kuma-40 zomhlaba ongaphezulu (0 - 150 mm). Sebenzisa isixhobo sokubhola sedayamitha yama-75 mm. Isampulu ezintlanu zomhlaba osezantsi noko (kwi-150 mm - 300 mm, nakuma-300 mm - 600 mm) ezithathwa ngendlela engacwangciselwanga kwindawo enye, zanele. Ukuba kufuneka uhlalutyo Iwenitrogen, kuthathwa iisampulu ezahlukanisiweyo futhi ezihamba zodwa ukususela kwi-0 ukuya kuma-600 mm ubunzulu.

IMIGAQO YOKUTHATHA IISAMPULU ZOMHLABA

Incwadana yeeNkcukacha ngezichumiso inika izikhokelo ezibalaseleyo malunga nemigaqo ngokuthathwa kweesampulu zemihlaba. Kukho imiba ebalulekileyo ekhanyiswa apha:

1 Ukuthembeka kohlalutyo lomhlaba kuxhomekeke ekubeni iisampulu zemihlaba zilumelo olungakanani lwentsimi yakho.

2 Ukuba intsimi ineentlobo zemihlaba ezingaphezu kohlobo olunye, makuthathwe isampulu yomhlaba kuhlobo ngalunye kuba isakhono sesivuno singahluka ngokweentlobo zomhlaba.

3 Kufanele kuthathwe iisampulu zomhlaba ongaphezulu nezmhlaba osezantsi. Isampulu zomhlaba ongaphezulu zithathwa kubunzulu be-0 ukuya kwi-150 mm kanti iisampulu zomhlaba osezantsi mazithathwe kubunzulu be-150 ukuya kuma-600 mm.

4 Isampulu enye emele ububanzi ngabunye beehekta ezingama-50 ifanele ukulingana, kodwa kungahetele xa zingaphezu koko.

5 Isampulu nganye mayibe neesampulu zomhlaba osezantsi ezingama-20 ubuncinane ezithathwa ngaphandle kwsicwangciseloo kuyo yonke intsimi okanye kuhlobo oluthile lomhlaba.

6 Isampulu zomhlaba osezantsi mazixutywe kakuhle phambi kokuba kuthathwe isampulu emele umhlaba.

7 Akuyomfuneko ukuthatha ngaphezu kweesampulu ezintlanu zomhlaba ongaphantsi ngentsimi nganye xa kuthathwa iisampulu zomhlaba osezantsi.

8 Kwimeko yokufama okungqalisiweyo, iisampulu zithathwa ngokocwangciseloo olulungiselelwe kwangaphambili, malunga nemihlaba engaxubekanga isampulu enye kwihekta ezi-5 ilingene, kodwa kuqheleke ukuba kufuneke isampulu enye ngehekta enye nokuba zimbini.

9 Kuthathwa kweesampulu ngobulumko yinkubo apho kuchongwa khona iindawo ezithile ekuthathwa kuzo iisampulu zemihlaba ukuze kuhlolwe ingxaki ethile. Imifuzelo ethathwa mgama, iinkukacha zoqwalaselwelo lwezivuno kunye neermavavano zoxilongo zisetyenziselwa ukuchonga iindawo ekuthathwa kuzo iisampulu.



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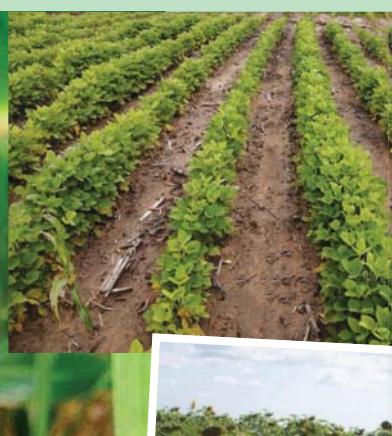
Ingxelo

Izifundo ZOKUXHOBISA abalimi bethu

UQEQESHO ngumba obalulekileyo womsebenzi esiwenzayo. Bekusoloko kungumngeni ukuphumeza inkqubo yethu yoqequesho ngokwezicwangcisel ezenziweyo, kodwa siyiphumeze ngokunciphisa amanani nangokuthobela imimiselo echanekileyo kwiindawo zeendibano. Uku kulungelelaniswe izifundo ezibhaliweyo nezamava afunyanwa ngokusebenza, izifundo ziqhutywa phakathi kwezakhwi naphandle. Ngokwesiqhelo isifundo siqhutywa kwithuba elingaphezu kweentsuku ezintlanu size siqunkeljwe ngovavanyo. Abafundi abaphumeleleyo bafumana isatifikethi.

Ezi fundo zisibhozo ziqhutywe kwinyanga kaApreli – kwaye zonke zixhaswe yiMaize Trust:

- Uku fuma ngenjongo yeenzuzo, umqequeshi nguAgnes Mndawe: abafundi ngama-25
- Ulawulo ngokusetyenziswa koomatshini, umqequeshi nguNeil Kirk: abafundi bali-17
- Ulawulo ngokusetyenziswa koomatshini, umqequeshi nguElias Dladla: abafundi ngama-26
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- Ulondolozo lweetrektara noomatshini bokufama, umqequeshi nguEric Wiggill: abafundi ngama-21
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- linqobo zokuziphatha kushishino, umqequeshi nguChris de Jager: abafundi basi-7



Siza kuvela sinovuyo, siphethe izithungu

IQELA elisebenza kunye laseGrain SA lithathe iifoto ngamathuba alo angama-80 otyelelo kwiifama ukubonisa wonke umntu obandakanyeka kwiNkqubo yoPhuhliso Iwabali – ukususela kumphathi ukuya kubalimi – okunokufumaneka kwilinge leqela elisebenza kunye. Sibonisa imifanekiso ethile apha. ■

