

PULA IMVULA

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2020

– unyaka wokungcolisa iinyawo

ABALIMI BAFANELE UKUZAMA UKUBA SENTSIMINI NGEXESHA LOKUKHULA KWEZITYALO. MAXA WAMBI SIKUBEKELA ECALENI OKU NGENXA YEZINYE IZINTO EZISIFUNAYO. KODWA INYANISO YEYOKUBA UKUCHONGWA KWANGOKO KWEZIFO NEZINAMBUZANE EZONAKALISAYO KUNGABANGELA UMAHLUKO PHAKATHI KWELAHLEKO EPHELELEYO NOKUBA NONYAKA WEMPUMELELO.

Ukungcolisa iinyawo zakho emasimini akho ngamaxsha athile kuxabiseke ngokumangalisayo kanti kusenokukusindisa kwintlekele eyenzeka ingangxamanga yokonakala kwamagqabi ombona wakho. Konke okukhu-

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layo kuzisisulu sezinambuzane ezonakalisayo nezifo. Kudinga kuphela iimeko ezifanelekileyo zemozulu ukuze kuqalise ukonakalisa isityalo sakho.

Okuphambili malunga nonobangela wezifo ziimeko zemozulu ezimbi ezifana nezantyalantyalala zemvula, ubushushu nokufuma. Ukufuma



AMAZWI AVELA... kuJane McPherson

NGUNYAKA OMTSHA! MHLAWUMBI OKU KUKU-VUYISA KAKHULU, OKANYE KUNGENZEKA UKUBA UZIVA UTYHAFISWA KUKUCINGA NGAYO YONKE IMINGENI ONOKUQUBISANA NAYO KUNYAKA OMTSHA. NOKUBA KUNJANI, SIYA PHAMBILI KWITHTUBA ELITSHA ESILINIKWE NJENGE-SIPHO – ESONA SIPHO SIKHULU KUZO ZONKE, UBOMI NGOKWABO.

Kwezi ntsuku, uninzi lwethu lumangaliswa ngokupheleleyo zizo zonke iinkcukacha, iindaba, izilumkiso kunye neengxelo kwaye asiqinisekanga ukuba senze ntoni ngazo zonke. Malunga nenguquko yemozulu nokunyuka kwamaqondo obushushu ehlabathini. Ezinye iingcaphephe zithi oku kuyinene, kodwa abanye bathi asiyonyani leyo. Andiqinisekanga ukuba oku kuyinyaniso na okanye akunjalo. Inyaniso yile, nokuba kutheni, sibe namava eembalela nobushushu esingazange sibe nabo ngaphambili. Ingaba sifanele ukulahla ithemba? Andikholwa. Sifanele ukwenza esikwaziyo ukukwenza – sinciphise amanzi esiwasebenzisayo, sinciphise inkunkuma esiyikhuphayo, siwenze ngobulumko umsebenzi wokufama, siphile ngokuqaphela – ngokunjalo sibe ngabakhathaleli bomhlaba abalungileyo. Ingulowo kuthi angenza okuncinane, kodwa onke loo masuntswana Mancinane enza umahluko omkhulu kwaye ukuba balingene abo bethu benza okuncinane, sinakho.

Ilizwe lethu belonakaliswe bubusela norhwapihilizo baze abaninzi baziva bephelelwa lithemba ngenxa yale meko. Kwakhona, ingulowo kuthi unoxanduva lokuba ngummi waseMzantsi Afrika olungileyo noziphethe kakuhle. Ukuba ingulowo kuthi uthobela umthetho, udala izinto ezintsha, sinakho ukuphinda silakhe ilizwe lethu kwakhona. Sifanele ukuba nenkathalo ngobomi bethu nangekamva lethu – singakwenza oko, kancinane nakancinane!

Njegomlimi, unegalelo elikhulu ebomini babantu abaninzi – abantu baseMzantsi Afrika banokutya ngenxa yakho. Nokuba yintoni oyilimayo iyancedisa ekwenzeni ukuba ilizwe lethu libe yindawo efanelekileyo yokuphila.

Masiwamkele unyaka ka-2020 siwenze ube ngunyaka omhle. Khawufunde iNtsikelelo yamalrish engezantsi:

IRISH BLESSING

*Yanga indlela ibinokuhlangabezana nohambo lwakho,
Wanga umoya ungasoloko usemva kwakho,
Langa ilanga lingakhanya lize lifudumeze
ubuso bakho,
limvula mazine zithe chu phezu kwamasimi akho.
Side siphinde sibonane kwakhona,
Wanga uYehova angakugcina ngci esandleni sakhe. ■*

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okugqithisileyo akusoloko kuyinto entle; kungakhokelela kwiinyhikityha yemingundo nebhaktiriya emagqabini nasezikhondweni zesityalo ukuze oko kukhokelele ekucuthekeni kwemveliso. Ngethamsanqa, kukho iimveliso ezikwiindawo zentengiso ezinokuphucula ukomelela kwezityalo zakho futhi zizikhusele kwizifo.

Ngoko ke, kubalulekile ukusoloko uqwalasela iimpawu ezizibonakalisa kwangoko ukuze uthathe amanyathelo. Izifo zomngundo nezebhaktiriya zithande ukuxhaphaka kodwa zinakho ukulawuleka xa zinyangwa ngendlela echanekileyo. Kwakhona iivayirasi zikhe zihlasele kwaye zininzi, ngoko ke kulungile ukuyazi into oyiqwalaselayo xa uhlole amasimi akho. Siza kuxoxa ngokufutshane ngezifo ezimbalwa ezahluka-hlukileyo malunga nonobangelela ngamnye kwabalandelayo nangeempawu zazo nangonyango lwazo.

IZIFO ZOMNGUNDO

Ukurusa kombona

Esi sifo sifumaneka ehlabathini ngokubanzi kodwa sixhaphake kwiindawo ezifume kakhulu nakwimozulu engekho bukhali. Irusi ibonakala lula kakhulu xa isityalo sifikelela kwibanga lokuphuma kwamagqabi, noko kunjalo zibakho iimpawu ezinokuchongeka kuselithuba ezifana namabala amancinane asabuorenji ntsundu nathande ukuthi phuhlu kancinane emagqabini nasuka avele ngakumbi njengoko siya ngokukhula isityalo. Esi sisifo esixhaphakileyo kanti sinokunyangwa ngeemveliso eziliqela, enye yeekhemikhali ethande ukuba ntsha ethandwayo nesetyenziswayo yi- *Abacus*.

Amachokoza angwevu emagqabini

Esi sifo naso sixhaphake ezantsi kwetropika nakwiindawo zemozulu engekho bukhali ezinokufuma komoya okuphezulu. Kubakho imisikeko engwevu sabuntsundu ngebala. Phakathi kule misikeko kukho amabala amancinane. Esi sifo siya kubangela ilahleko yamagqabi ukuze ethubeni iinkozo zingahloleki kakuhle.

Ukubola kwezikhondo

Ukubola kwezikhondo kuphuhla kwiindawo ezinobushushu obuphezulu, ezifumileyo, ngakumbi xa ezi meko zitsale kwithuba elide. Izityalo zombona ezinesi sifo zoma phambi kwexesha ukuze izikhondo ziqhekeke zivuleke. Kwakhona uya kuqaphela ukutshintsha kwebala kumabanga asezantsi esikhondo. Kubalulekile ukusombulula ingxaki msinyane kangangoko kunokwenzeka ukuze kuthintelwe ilahleko yeenkosi ngenxa yokoma kwesityalo kwangoko.

IZIFO EZIBANGELWA ZIBHAKTIRIYA

Ukubola okubangelwa zibhaktiriya ezikhondweni

Lo ngunobangela weebhaktiriya ofumaneka kwiindawo ezinamaqondo aphezulu obushushu nawokufuma athande ukuba phezulu. Esi sifo sinwena ngokukhawuleza kwesityalo size sisibulale. Izityalo ezisuleleke ngale ntsholongwane ziya kuba nebala elisabumnyama ezantsi esikhondweni; oku kufana kakhulu njengokubola kwesikhondo ngenxa yomngundo kanti isityalo sikhonisa ukufa msinyane emva kokubumbeka kwamagqabi.

Ukubona ngokweStewarts

Kukholelwa ekubeni le ntsholongwane ithuthwa ngamabhungane eentakumba zombona, ngoko ke qinisekisa ukuba usebenzisa isitshabalalisi sezinambuzane esifanelekileyo ukuze uthintele isifo kwizityalo zakho. Sakuba sisulelekile isityalo uya kuqaphela imisikeko esabutyheli kubude bamagqabi. Usuleleko luya kunwenwela esikhondweni ukuze ekugqibeleni kubangele ukunqaphela kwesityalo, kulandele ukubona, sandule ukufa isityalo.

IIVAYIRASI

Zininzi iivayirasi ezinokuhlasela izityalo zethu zombona; owona mgaqo ubalaseleyo wokuzitshabalalisa kukulindela into enokwenzeka nokulima imbewu eyaziwa ngokulunga kwayo nevela kwindawo eyazivayo. Oku kuya kunciphisa umngcipheko wokuza nembewu evela kumazwe angaphandle ekunokwenzeka ukuba inesiphaku ngokwemfuzo okanye mhlawumbi nevayirasi. Iivayirasi ezininzi zikhohisa ukuba nemiqondiso efana kakhulu neyezifo zomngundo kunye neyeebhaktiriya, ngoko ke kubalulekile ukufumana uluvo lwengcaphephe xa ubona into engaqhelekanga nengafane ibe khona. Ezinye iivayirasi ezingafane zifumaneka emazweni athile aseAfrika kuquka uMzantsi Afrika, ivayirasi yeMosaic, ivayirasi yeStreak, ivayirasi enqaphelisa uMbona kunye nevayirasi yeStripe.

Owona mgaqo ubalaseleyo malunga nolawulo wezifo emboneni luqwalaselo nokubek' iliso. Ukuba isifo asibhaqwanga sinakho kwaye siya kubangela umonakalo omkhulu. Qwalasela iimeko zemozulu. Ukuba izityalo zakho zinyanzeleka ukuba zinyamezele iimeko ezinzima zokusingqongileyo, ngoko ke, zisenokubangela esinye isifo esiya kudinga uqwalaselo lwakho olukhawulezileyo. Ukuba ufumanisa umsikeko okanye isifo kwamanye amagqabi entsimini yakho kodwa akuqinisekanga ukuba ziluhlobo luni na, inyathelo lokuqala malibe kukuzidibanisa nommeli wakho weekhemikhali oya kukucebisa futhi akunike nokhokelo ngento omawuyenze ukusombulula ingxaki. Bhala amanqaku ngemeko ukuze uphinde ubuyele kuwo xa unokuphinda ube nengxaki kuba kubalulekile ukuba sibe nento esiyifundayo ngeemeko ezinje. Kwixesha elizayo uqubisana nengxaki efana naleyo emboneni wakho uya kukhawuleza uyazi into omawuyenze. Gcina iinyawo zakho zingcolile. ■



Hlola nayiphi into ekhangeleka ingaqhelekanga.



Qaphela naziphi iimpawu zesifo.

Ukuthengisa *kungalakha* okanye *kulichithe* ishishini lakho

UKUTHENGISA, NANGONA KUBALULEKE KANGAKO KUSEYINKALO EBATSALISA NZIMA ABALIMI ABANINZI UKUYILAWULA. KUMAXA ALIQELA SITSHILO UKUBA ULAWULO LWEFAMA LUNZIMA NGENXA YAYO YONKE IMINGCIPHEKO EBANDAKANYE-KAYO. ULAWULO LOKUTHENGISA LUCHAPHAZELA IZIPHUMO ZASEKUGQIBELENI ZEMALI YESHISHINI LAKHO, NGENXA YAMAXABISO APHUNYEZELWE IIMVELISO ZAKHO. KUNGAYAKHA OKANYE KUYICHITHE IMPUMELELO YESHISHINI LAKHO.

Kwiintsuku zokuthengisa ebezilawulwa, abalimi beebonwa njengabalimi beemveliso kuphela. Abalimi bethu banamhla bangena kukhutshiswano kwinkqubo yokuthengisa ngokukhululekileyo. Abalimi bakhuthazwa yimveliso, baze nabo bazigwebe kwangaloo ndlela, kodwa ngoku bafanele ukuphinda baqwalasele intengiso yeemveliso zabo. Ngoko ke, uxanduva lokuthengisa seyiluxanduva lomlimi ngokwakhe ngoku. Ngokunjalo, ukuze ube ngumlawuli wentengiso ufanele ukuba nolwazi malunga nokuthengisa iimveliso zakho.

Abalimi bethu banamhla bafanele ukuqonda ukuba umthengi wanamhla uyakutshintsha-tshintsha akuthandayo xa ethenga iimveliso. Abathengi abaninzi banamhla bafuna imveliso yokutya elinywe ngokweenqobo ezifanelekileyo ngenxa yeenkxalabo ngokusingqongileyo. Bafuna ukwazi ukuba ukutya kwabo kuvela phi, ingaba umlimi ukulime ngokusebenzisa imigaqo ekuphatha kakuhle na okusingqongileyo, ingaba abasebenzi bafumana umvuzo obaphilisayo na, ingaba kukho inkathalo na ngokuqinisekisa ubukho bokutya okwaneleyo na malunga nodidi kunye nokufikeleleka ngokwemali. Ukulandela umkhondo ukusuka efama-ukuya-efolokhweni kuza kuba yimfuneko, ngelishwa iseyinto engekabikho leyo eMzantsi Afrika, xa kuthelekiswa namanye amazwe amaninzi.

UPHANDO

Uyakwazi okutyiwa ngabathengi banamhla? Uphando lwaseMelika lubonakalise iinguquko malunga nezinto ezityiwayo kwaye singaqiniseka ukuba ezo zimbo ziza kufika eMzantsi Afrika. Malunga nenyama kwehlile ukusetyenziswa kwenyama yenkomo neyegusha kwaze kwanyuka okwenkukhu nekarakuni. Kunyukile ukusetyenziswa kweavakhado nokweemengo. Ubisi olungajikwanga alusetyenziswa kakhulu kodwa kunyukile okweyogathi. Iimeko zempilo zibonakala ngathi zingumbandela onegalelo elikhulu kwezi nguquko. Abathengi bafuna ukutya okuyinika ngakumbi impilo entle. Kukwayinyaniso nokuba umthengi uthenga iziqhamo okanye imifuno ngokwendlela ezibukeka ngayo. Abathengi bakubona kunzima kakhulu ukuhlenga-hlengisa okufunekayo kokuthenga ama-apile ambalwa amabi, kodwa atyeka ngokuncomekayo, xa sisenza umzekelo.

Inkalo yokuphathekayo yokuthengisa nayo iyatshintsha ngoko ke njengomthengisi udinga ukuziqaphela ezi nkalo. Inkalo ebaluleke kakhulu kukungatshintsha-tshintshi. Abathengisi nabaxumi bafuna inkxaso esoloko ikhona kwindawo yentengiso, kumaxesha alungileyo nangalunganga. Inkxaso esoloko ikhona ingundoqo ekuthengisweni kwayo nayiphi imveliso.

Abathengi banamhla bafuna iimveliso ezicocekileyo, ezintsha, zobukhulu obufanelekileyo, ezinombala ofanayo, imilo nobukhulu, ezinencindi eyaneleyo nezingenamabala-bala. Ukuvuna ngexesha elichanekileyo yenye yeendlela zokuqinisekisa imbonakalo yeemveliso.



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Iimveliso ezibukeka kakuhle zibiza amaxabiso aphezulu. Kufuneka inkathalo kangangoko xa kusetyenzwa ngemveliso kuwo onke amabanga okuvuna, ukuhlela, ukubekela nothutho.

IZIMBO EZINTSHA

Isimbo esitsha esiphuhla phakathi kwabathengi kukufuna imibekelo engemikhulwanga yeemveliso ukuze zipatheke lula futhi zigcineke lula. Ngokufakela ixabiso nangokuxhamla kwesi simbo unakho ukomeleza intengiso yakho. Thatha ipakethi yeeorenji enobunzima be-7 kg ufake ixabiso, mhlawumbi le-R20 kwintengiso. Yahlula iziquletho zepakethi zibe ziipakethana ezisixhenxe ezinomtsalane, qwalasela iipakethi zobunzima be-1 kg mhlawumbi uzibonise zinelogo yakho. Thengisa iyileyo ngeR9,99. Kukho ingeniso ye-R69,93 xa kuthelekiswa neye-R20. Akukhalisi oko.

Yintoni eza kutsala iliso lomthengi? Zibuze – ingaba ubekelelo lwam luyawatsala amehlo kodwa lube luyikhusela imveliso engaphakathi? Ingaba uqinisekisa ukuba iqondo ngalinye lokuvuthwa libekelelwe lodwa? Ingaba kukhona okunamatheliswe kwipakethi nganye ukuze uphakamise uhlobo lwakho lwemveliso?

UDIDI

Abalimi basoloko beqala ngokuvelisa ukutya ngoko ke isakhono malunga nemveliso siya kusoloko sisalathisi esisentloko sokwenza inzuzo. Wena njengomlimi unolawulo olukhulu lwale meko. Nangona kunjalo, ukuthengisa kuya kwalatha ixabiso olifumana ngemveliso yakho kwaye ufanele ukuyilawula intengiso yakho ngesakhono esiphuzulu. Ukuvelisa iimveliso zodidi oluphezulu kuya kuwenza ube lula noko umsebenzi wakho.

Umthetho-siseko obanzi ofanele ukusetyenziswa malunga nemveliso kunye nokuthengisa – khumbula ukuba ungaze, ulime nasiphi isixa semveliso phambi kokuqinisekisa indlela eza kuthengiswa ngayo imveliso. Kubaluleke kakhulu kangangoko ukuba nendlela yokuthengisa imveliso yakho xa seyilungele ukuthengiswa. Iimveliso ezininzi azinathuba lide lokuthengiswa.

Ukuba ufuna ukufunda ngokuthengisa iimveliso zakho, tyelela iindawo zokuthengisa ezifana nesisele sefula, iifandesi zemfuyo, iimakethi zokutya okutsha, iindawo ekuxhelelwa kuzo, njalo njalo. Kubalulekile ukuziqhelanisa nendlela esebenza ngayo le mijelo yokuthengisa. Wakhe wachitha imini nomthengisi omthengisela imifuno?

Elokugqibela, qokelela iinkcukacha ezininzi kangangoko malunga nokuthengisa iimveliso zakho. Funda, yiya kwiintsuku zabalimi ngokunjalo tyelela abanye abalimi.

Sithethe ngeenkalo zokuthengisa ngokubanzi. Khumbula ukuba imveliso nganye ineemfuneko zayo kuphela malunga nokuthengisa ezifanele ukuchongwa nokusetyenziswa. ■

Icebo **ELITSHA** ngomaleko wangaphezulu

ESI SITHETHO 'UMALEKO WANGAPHEZULU OKANYE UMALIKO OSECALENI' SIBHEKISELELE KUMGAQO WOKUFAMA OWAMKELWE NGOKUBANZI WOKUFAKWA KWESICHUMISO ESONGEZELELWAYO KWISITYALO ESISEMASIMINI EMVA KOKUHLUMA. ISONDLO ESISENTLOKO ESONGEZELELWA KWISICHUMISO EBESESIKHONA PHAMBI OKANYE XA KUTYALWA SIYA KUBA YI-NITROGEN. YI-NITROGEN KUPHELA OKANYE NGUMXUBE WE-NITROGEN NEZINYE IZONDLO EZINOKUFUKWA NJENGOMALEKO OSECALENI PHEZU KOMHLABA OKANYE NGAMAZINYO ESIXHOBO EMHLABENI PHAKATHI KWEMIQOLO.

Esi songezo sikhulisa ukwenziwa kanye kuphela emva kokutyala nasemva kokuhluma emboneni olinywe emhlabeni owomileyo nakwezinye izityalo ezilinywe ngemiqolo. Kuqheleke ukuba kumaxa aliqela initrogen, enjengeyuriya enyityilikisiweyo, igalelwe kwizityalo zombona zezivuno eziphezulu phantsi kwenkqubo yonkencchesho olujikeleziswa esizikhithini nezinye iinkqubo zonkencchesho.

Xa siside kakhulu isityalo apho isichumiso singenakufakwa ngetrektara khona, kuya kufuneka 'umaleko wangaphezulu' ofanelekileyo xa kukho iinkxalabo zokhukuliseko lwenitrogen olwenziwe zizantyalantyalala zemvula okanye zonkencchesho. Ukuqaliswa kweetrektara noomatshini banamhla abanesakhono esiphezulu kuvumele abalimi ukuba bafake isichumiso kumabanga okukhula ethuba lamva xa kufuneka oko.

Nangona eli nqaku lijoliswe ekulinyweni kombona, ukufakwa kwezondlo kusenokwenziwa kuzo zonke ezinye izityalo zeenozo ezilinywe ngemiqolo xa kufuneka oko. Izondlo zinokufakwa ngokwamahlalutyana okanye ngokolwelo kanti zisenokuba yinxenye yomgodlo wezondlo ezifakwa emhlabeni nanjengesitshizi esifakwa emagqabini esityalo ukuze kufakelwe izondlo ezincinanana ezinqongopheleyo. Oku kufanele ukwenziwa njengesigqibo sasemva kokuthathwa kweesampulu zamagqabi kumabanga athile okukhula.

UKUCHUNYISWA KOMBONA NGOKUBANZI

Kucingeleka ukuba ulwenze kakuhle uvavanyo lwemihlaba yakho kwaye ucaphule kwimihlaba eyahluka-hlukileyo kuwo onke amasimi aza kulinywa umbona. Ukuba uphuhlise ubudlelwane phakathi kwakho nomthengisi othembekileyo wezichumiso unakho ukusebenzisana naye malunga nezityalo eziliqela ukuze ucoselele ukufakwa ngokwaneleyo kwezondlo ezisentloko nezincinanana ukuze kufikelelwe kwimigqaliselo yezivuno efikelekelayo eyalathwa bubunzulu bomhlaba, ukuchuma osekhona komhlaba, umhla wokutyala, ukukhethwa komhlanganisela nemozulu ngokunjalo nemikhwa yokuna kwemvula efumaneka kwifama yakho.

Kubalulekile ukusifaka ngokwaneleyo isichumiso emasimini ngokwesakhono sawo njengoko iindleko zokulima xa zithelekiswa nengeniso zisiya ngokucutheka.

Unakho ukwenza uhlahlo-mali ngokhuselo lwesixa senitrogen se-25 kg iphelele ngetoni yombona ephuma kwihektare nganye. Oku kuvumela ukwanda ngokuziphinda-iphinda futhi kufuneka nokuhlolhele kweenkoko ukuze kufumaneki isivuno ekujoliswe kuso. Ngoko ke, umgqaliselo wesivuno seetoni ezi-3 ngehektare uthetha ukufakwa kwenitrogen engama-75 kg obona buncinane ngethuba lokutyala okanye ukwahlula phakathi kokutyala nomaleko osecaleni okanye wangaphezulu. Isityalo seetoni ezi-4 ngehektare singafuna i-100 kg yenitrogen ngehektare. Ekugqibeleni, umgqaliselo wesivuno seetoni ezisi-8 ngehektare ungafuna ama-200 kg enitrogen ngehektare. Xa ezi zixa zinokufakwa zonke ngethuba lokutyala zingabangela umonakalo xa kuhluma izithole kwaye azinakufakelwa kufutshane kakhulu



1 Izikhokelo zokutyala.

Isondlo	iNitrogen	iPhosphate	iPotassium
linkozo zodwa ikg/ngehektare	15	3	3,5
Isityalo sipehelele ikg/ngehektare	27	4,5	20

kwiinkozo zembewu elinywayo. Kucetyiswa ukuba makwenziwe umaleko osecaleni okanye wangaphezulu kwezi meko. Khumbula ukuba kule ngxoxo ingasentla, siqwalasela kuphela initrogen efuneka ngokwekhilogram ngehektare, ingenguwo umxube uphelele.

Nceda zidibanise nomthengisi wakho wezichumiso okanye umcebisi malunga nokulima ngokuphathelele ekufakweni jikelele kwemixube yezichumiso, nokuba ingamahlalutyana okanye ilulwelo efuneka ngokomgqaliselo wesivuno esifunekayo. Mininzi imixube yezichumiso, eminye ikwaquka i-sulphur nekalika (ukuze kuncitshiswe iasidi), kwiindawo zentengiso.

Obona buncinane ukufakwa kwenitrogen, iphosphate nepotassium ngokwekg/ngetoni yembewu/ngehektare obuboniswa ngezantsi mabufakwe xa kutyalwa okanye kufakwa umaleko osecaleni ngokusebenzisa izikhokelo ezikwi**Theyibhile 1**.

Amava exesha elidlulileyo abonise ukuba izityalo ezininzi ezibonisa unqongophalo lwe-nitrogen enyanisweni zinonqongophalo lwe-sulphur. Oku kungabonwa ngokuqwalasela uhlahlutyalo lwamagqabi.

Ucetyiswa kakhulu umaleko osecaleni weyuriya kuphela okanye iUAS engumxube weyuriya neammonium sulphate.

Abanye abalimi sebeqalisile ngomgaqo wokufaka zonke izichumiso ezifakwa banzi emasimini phambi kokutyala. Oku kunokudityaniswa nokufakwa kwesixa esisecaleni esongezelelwayo okanye esicwangciselweyo senitrogen ethubeni. Lo mgaqo uthintela okunokwenzeka kokungafakwa komaleko osecaleni obalulekileyo kwiminyaka enemvula exhaphakileyo.

UKUBAMBA IXESHA LOKUFUKWA KOMALEKO OSECALENI OKANYE WANGAPHEZULU

Umbona uthatha malunga nesiqingatha senitrogen yawo esemhlabeni phakathi kwamabanga okukhula ngokuziphinda-iphinda ukususela kwiV8 ukuya kwiVT. La mabanga anokwenzeka phakathi kweentsuku ezingama-32 nezingama-56 emva kokuhluma kwezithole. Nceda fumanisa okanye jonga itshati yamabanga okukhula ukuba ayikho owakhe wayibona. Ithuba elifaneleke ncam lokufaka umaleko osecaleni wenitrogen ngoko ke lithutyana leentsuku phantse ezingama-24 ukuya kwezingama-30. Ukuba kuna imvula enkulu phezu kwezityalo emva kokuhluma kungafuneka ukuba kufakwe initrogen ethe kratya kunaleyo ibicwangciselwe msinyane kangangoko iitrektara noomatshini benokusebenza emasimini.

ISIPHETHO

Kufuneka wenze ucwangciselelo ngokuqaphela ukwenzela ukufakwa kwesichumiso ngeyona ngendlela ifaneleke kangangoko nangakumbi iifuneko zenitrogen zesityalo sakho phambi kwexesha lokulima. Okuza kwalatha eyona ndlela ibalaseleyo ekhokelela empumelelweni, kukusetyenziswa ngokuchanekileyo kweetrektara noomatshini osele unabo bomaleko osecaleni. ■

ICANOLA

Imingeni ekuhlangenwe nayo nokuya phambili

IMVULA EZIZE KWANGOKO EKAPA ESEMZANTSI NAKWI-OVERBERG ZENZE UKUBA ABALIMI BASEBENZISE UMGGAO ONCOMEKAYO WOKUTSHABALALISA UKHULA NOKHOKELELE KWISISEKO ESOMELELEYO SEZITYALO KUYO YONKE INGINGQI. KWEZINYE IZIGANEKO, UKUSHINYANA KWESITYALO BEKUPHEZULU KANGANGOKUBA BADE ABALIMI BABE NAMASIKIZI OKUBA NEZITYALO EZIQITHISILEYO NGEMITHA ENYE ESISIKWERE.

Ngelishwa, ezi meko zifanelekileyo zilandelwe bubushushu obugqithisileyo nokoma ngoJulayi nangoAgasti. Uninzi lwecanola beseludubule ngokupheleleyo ngoAgasti kwaze oko kwawufinyeza kanobom umjikelo wokulima ngokunjalo kwakhokelela ekubeni zitshe iintyatyambo zide zibune (**ifoto 1**). Iimeko zokoma nokufudumala ziqatsele kwade kwafika ibanga lokuhloleka kwembewu kwaze oko kwalicima ibhongo lokufumana isivuno secanola esibalaseleyo kwiKapa eseMzantsi nakwi-Overberg.

I-Swartland ibingenathamsanqa njengeOverberg neKapa eseMzantsi malunga nemvula ekuqaleni kwexesha lokulima. Bezinzima iimeko ngethuba lokumila kwezithole kodwa ngethamsanqa kutshintshe ixesha leziganeko zemvula ukususela ngowama-20 kuJuni nto leyo ephucule iziza zezityalo kangangokuba kude kulindeleke ukuba iSwartland iya kwaphula irekhodi yonyaka kwakhona. Ngelishwa, irekhodi ebelindeleke kwisivuno itshatyalaliswe yimisinga yobushushu ($>35^{\circ}\text{C}$) ethwaxe eyona ndawo inkulu kwaze oko kwakhokelela ekubuneni kweentyatyambo nge 5% ukuya kwi 8%. Ngaphaya koko, amaqondo obushushu ebengaphezu komyinge wesiqhelo ngoSeptemba, meko leyo ekuthobe kakhulu okulindeleke kwisivuno kule ndawo.

Nangona iimeko bezingancomeki ekupheleni kwexesha lokulima, abalimi becanola bakwazi ukumangalisa abaninzi ngokufumana izivuno ezingaphezu kwesiqhelo kulo nyaka. Imiyinge eqhelekileyo yesivuno $>1,8$ yeetoni ngehektare ifumanekile kwiindawo ezithile zeNtshona Koloni xa bekukhethwe umhlanganisela ochanekileyo nangokuqhuba ngemigaqo yokugcinwa kozinzo.

IMIGAQO ESENTLOKO YOLAWULO

Okushwankathelweyo yimigaqo esentloko yolawulo ecetyiswa ngabalimi bethu abaphambili kwiimeko zembalela:

- Bambelela kwimilinganiselo efanelekileyo yokufakwa kwembewu (2 kg/ngehektare ukuya kwi-2,5 kg/ngehektare malunga nemihlanganisela yesiqhelo neyeClearfield ne-3 kg/ngehektare ukuya kwi-3,5 kg/ngehektare ngemihlanganisela ye-TT).
- Lima imbewu eqinisekisiweyo kuphela.
- Qiniseka ukuba imbewu inyangwe ngamachiza okubulala izinambuzane nomngundo (inkoliso yembewu eqinisekisiweyo sukuba inyangiwe).
- Khetha imihlanganisela enomjikelo omfutshane wokukhula.
- Qhelanisa inkqubo yokutshabalalisa ukhula neemeko ezigqubayo (umzekelo: Xa kulindeleke iimeko zokubalela – faka i-clethodim phakathi kwebanga lesi-2 ukuya kwelesi-6 lamagqabi (kungabi semva kwebanga lamagqabi lesi-6).
- Qhelanisa inkqubo yokutshabalalisa izinambuzane neemeko ezigqubayo (umzekelo: ii-Pyrethroids ziphelelwa sisakhono kwiimeko zobu bushushu $>25^{\circ}\text{C}$).
- Bopha kwibanga elichanekileyo lokujika kwebala lembewu. Iilahleko zezivuno ziba phezulu kakhulu xa ukubopha kwenziwe kwangoko kakhulu kunaxa kwenziwe selihambile ixesha (isakhono sokumelana



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nokutyumzeka kwemidumba yemihlanganisela emitsha yecanola kuphuculwe kakhulu). Isixa esipheleleyo secanola elinywe ngo-2019 besiqikelelwe kwiitoni ezimalunga nama-100 000 xa kuthelekiswa nama-109 707 eetoni ngo-2018. Okwangoku, zizivuno eziqhelekileyo kwimimandla emithathu elinywa eNtshona Koloni kanti imimandla ekude nolwandle elinywayo ingange-1,35 yeetoni/ngehektare (eOverberg), ukuze ibe ngange-1,28 yeetoni/ngehektare (kwiKapa



Ukubuna kweentyatyambo ngenxa yamaqondo obushushu aphezulu ($>28^{\circ}\text{C}$).



2

Icanola kwiOverberg.



3

Icanola kwiSwartland.

eseMzantsi), iphinde ibe ngange-1,51 yeetoni/ngehektare (eSwartland) ne-2,64 yeetoni/ngehektare (kude nolwandle) ngokulandelelana kwazo. Isivuno esingumyinge sayo yonke icanola ethunyelwa eSoill ngoku siyi-1,37 yeetoni/ngehektare, engumyinge obalaseleyo wesivuno xa kuthathelwa ingqalelo iimeko ezibaxekileyo zemozulu zexesha lokulima elidlulileyo.

IMINGENI NENDLELA EYA PHAMBILI

Imozulu ibiphinde yangowona mngeni mkhulu kwizityalo zecanola kulo nyaka. Isakhono secanola sokunyamezela iimeko zembalela sibonakalise esi sityalo njengenxenye enokuthenjwa kwinkqubo yokujikeleziswa kwezityalo neziziinkozo.

Ukunyuka kobushushu ehlabathini nesi-phumo sako kwiimeko zemozulu akunakubethwa ngoyaba. Kubalulekile kubalimi ukuhlanganisa imigaqo yolawulo enozinzo ukuze kuncitshiswe umngcipheko xa kunokubakho imbalela. Ngoko ke, ukulima ngolondolozo makube yinxenye ebalulekileyo kwinkqubo yomlimi ngamnye yolawulo lwecanola. Ngokunjalo, ngokukhetha umhlanganisela ochanekileyo wecanola unakho ukuqhuba ngokunqanda izohlwayo kwizivuno ezibangelwa yimbalela. Ubuchwepheshe malunga nembewu bubonakale buhambelana neemeko zangoku kwaye buyaqhuba ngokukhupha imihlanganisela yesivuno esiphezulu nekhula ingangxamanga kungako izivuno ziqhube ngokuba ngaphezu kwezisiqhelo nangona iimvula bezinganelanga futhi namaqondo obushushu ephezulu. ■

OOJONGILANGA

– ithuba elisabugolide



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OOJONGILANGA ABAHLE ABASABUGOLIDE NABAPEYINTA IINDAWO EZITHILE ZASEMAPHANDLENI ASEMZANTSI AFRIKA NGOBUTYHELI OBUSABUGOLIDE KWIINYANGA ZEHLOBO, BANIKELA NGETHUBA ELISABUGOLIDE KUBALIMI ABABAQUKA KWIZICWANGCISO ZABO ZEMVELISO. ESI SITYALO SAMAGQABI AMAKHULU SIZIQHELANISA LULA KWAYE SINESAKHONO SENZUZO.

Ixabiso eliphambili loojongilanga likwisiqulatho sabo esiphezulu seoyile. Imbewu iyacudiswa ukuze kuphume ioyile kanti enye imveliso eyenziwa

IMINGCIPHEKO ENXULUNYANISWA NOKUKHULA KOOJONGILANGA

- Oojongilanga badinga isiza esifanelekileyo (amanani esityalo) ukuze bakhuphe izivuno ezilungileyo eziphakathi kweetoni ezi-1,5 ngehektare ukuya kwiitoni ezi-2 ngehektare kwiingingqi ezisentshona zezityalo zasehlotyeni. Kufuneka kuqatshelwe ukuba izityalo zihluma ngempumelelo. Usapho lwam lwabalimi lwalusa amasimi alo oojongilanga ngendlela umama alusa ngayo usana lwakhe asandul' ukulufumana!
- Oojongilanga ababonwabeli ubushushu obugqithisileyo xa behluma. Imbewu ayiqali ngokukhupha izithole ezisemandleni. Kanti nesikhoko esisemhlabeni ongaphezulu sinakho ukunqanda ukuhluma, ngakumbi xa kusina iimvula ezinkulu emva kokulima naphambi kokuhluma. Ukuba kubakho isikhoko kufuneka kuqatshelwe xa kuphethulwa umhlaba ukuze kukhululeke isikhoko ngaphandle kokwenzakalisa izithole.
- Ngenxa yokuba ujojongilanga eneengcambu ezinde, kuyimfuneko ukugqala ukuba isityalo sisenokusebenzisa kakuhle ithontsi ngalinye elikhoyo lokufuma (yinto entle leyo), kodwa oko kungawomisa umhlaba. Le meko ifuna ukusoloko ikhunjulwa xa kusenziwa ucwangciselelo lwesityalo esiza-kulandeliswa kuloo ntsimi.
- Ukufunxwa kwamanzi ngendlela encomekayo zizityalo zoojongilanga kuthetha ukuba xa kusina iimvula zasekwindla emva kwexesha, kubaluleke ngakumbi ukugcina loo masimi engenakhula kuzo zonke iinyanga zasebusika ukuze kulondolozeke ukufuma kwasemva kwexesha kakhulu kangangoko kunokwenzeka ngenjongo yokuthintela ifuthe lokoma okubangelwa sisityalo sikajongilanga.

IZALATHISI EZITHILE ZASEKUGQIBELENI

- Oojongilanga mabangalinywa kwintsimi enye ngaphezu kwakanye qho kwiminyaka emi-3 ukuya kwemi-4.
- Isityalo soojongilanga asishiyi ntsalela entsimini emva kokuvuna – yinto efanele ukukhunjulwa xa umntu ezama ukuthintela ukhukuliseko lomhlaba.
- Oojongilanga bakhula ngokubalasele kwimihlaba engenamanzi angafunekiyo kodwa bayakwazi ukunyamezela imihlaba yovunduvundu sabudongwe ukuya kwimihlaba eluvunduvundu sabusanti.
- Okunye okuluncedo malunga nesityalo sikajongilanga, kukuba sikhula kakuhle kakhulu kwaye izityalo namagqabi ziyomelela zibe zikhulu. Oku kuthetha ukuba ukhuphisana kakuhle neentlobo ezininzi zokhula, kodwa kubalulekile ukululawula kwangoko ukhula, ukuze lungakwazi ukongamela oojongilanga.

ngayo yikeyiki yeoyile exabisekileyo eneprotheyini neoyile ephezulu ize idityaniswe kwenziwe izidlo zeenkomo. Izidlo ezininzi zeenkukhu nembewu yeentaka zixutywa nembewu kajongilanga nazo. Imbewu kajongilanga isetyenziswa ngokuthe kratya ekutyeni okunika impilo, kanti nanjengama-shwamshwam okanye isasazwe kwiisaladi.

Imozulu efudumeleyo nebafeleyo yaziwa njengeyona ifanelekileyo ekulinyweni kukajongilanga ngoko ke ujojongilanga selesisityalo esibaluleke kakhulu kwiingingqi ezisembindini nezisentshona zeli lizwe. Iimeko ezipholileyo nezifumileyo kwibanga lokuvuthwa kwesityalo azilunganga, njengoko kunokwenzeka ukurusa nokubola kwentloko, kanti iimeko ezinobushushu obugqithisileyo zisenokubangela ukubola okufana nelahle lomthi. Ufuna ixesha elifutshane lokukhula kanti uyinyamezela kakhulu ingqele ngokunjalo neemeko zeqabaka xa kuthelekiswa nezinye izityalo. Usisityalo esiziqhelanisa lula kakhulu. Unokulinywa xa sekuza kudlula ihlobo – emva kwexesha kangangeveki yokuqala kuFebruwari ukuba zifike emva kwexesha iimvula, meko leyo ibiseyiqheleke kwiminyaka embalwa edlulileyo.

Olunye uncedo ngokulima oojongilanga ziindleko zokulima njengoko ziphantsi kakhulu kuba zibalasele ngokusebenzisa izondlo ezikwintsalela eshiyeke kwizityalo zexesha elingaphambili emihlabeni. Oku kwenziwa kukuba oojongilanga baneengcambu ezinde ezifikelela ezantsi kude apho zifumana khona ukufuma nezondlo ezisezantsi apho zingafikeleli khona ezinye izityalo ezininzi. Ngenxa yesi sizathu, isityalo sikajongilanga sesona sityalo sinokusetyenziswa kwinkqubo yojikeleziso lwezityalo kunye nezinye izityalo ezifana nombona kunye neembotyi okanye ezinye izityalo zemidumba.

OOJONGILANGA BANGUMLINGANE WOMXHENTSO OGQIBELELEYO WOMBONA

Ukulima oojongilanga emva kombona kuyanceda ngokuthomalalisa iingxaki ezifunyanwa entsimini. Ezinye zezinto eziluncedo ngokufaka oojongilanga kujikeleziso lwakho lwezityalo zezi:

Kuncinane ukufuma okufunekayo

Umxokomelwano weengcambu ezinde zikajongilanga unokufikelela kubunzulu bomhlaba be-1 m ukuya kwi-1,5 m. Oku kuthetha ukuba baxhobe ngaphezu kwezinye izityalo ezininzi kwiimeko zembalela kanti ziyakwazi ukukhupha isivuno esiphezulu naxa kunganelanga ukufuma. Isityalo esifana nombona asinamxokomelwano weengcambu ufana nowoojongilanga, yiloo nto ungakwazi ukufikelela kwizondlo nasekufumeni kobo bunzulu.

Banceda ngokuthintela umjikelo wezifo

Oku sekusaziwa 'njengesiphumo sojikeleziso' yinto eyenzeka xa kutshintshwa isityalo esilinywe entsimini ukuze kunciphe ukudlulela phambili kwezifo nokomelela kwezinzambuzane. Xa utshintsha isityalo, iintshologwane zezifo ziyafa, ngokunjalo umjikelo wobomi bazo uyaphazamiseka. Umzekelo oojongilanga abafanelanga kulinywa kwintsimi enye ngaphezu kwakanye qho kwiminyaka emithathu ukuya kwemine kuba oojongilanga bazizisulu ezikhulu ze-Sclerotinia ebolisa intloko futhi kunjalo nangeembotyi zesoya ezizisulu zemibungu ebhityileyo ebangela amaqhuma amanzi. Ujikeleziso lwezityalo lunciphisa ukukhula kokhula. ■

Inkcazo ngembewu yeoyile yexesha lokulima elitsha

NGEXESHA LOKULIMA IIMBOTYI ZESOYA NOO-JONGILANGA LANGO-2020. ELI NQAKU LIYA KUNIKA INKCAZO EMFUTSHANE NGEENJONGO ZOKULIMA.

INKCAZO NGEEMBOTYI ZESOYA

Ngokwengxelo yeKomiti yeeNgqikelelo zeziTyalo (CEC), iinjongo zokulima iimbotyi zesoya ngo-2020 zibonisa ukunyuka nge 2,05% okanye ngama-15 000 eehektare xa kuthelekiswa nexesha lokulima elidlulileyo – ukususela kuma-730 500 eehektare ukuya kuma-745 500 eehektare.

Ngaphezu kweshumi leminyaka elidlulileyo, ukulinywa kweembotyi zesoya kusoloko kusanda kwaye phakathi kwezityalo zasehlotyeni; zitshintshisana kakuhle nombona njengoko zisabufana nawo malunga nesakhono senzuzo; ngakumbi kwiindawo ezixhatshazwa yimbalela eMntla Ntshona neendawo ezithile eFree State. Nangona ummandla weembotyi zesoya ubusakhula ngokubanzi, izivuno zisephantsi. Ukuze ziphucuke izivuno, kucingeleka ukuba kufuneka iimvula ezintle ngokunjalo kuphuculwe nemihlanganisela.

Kulindeleke ukuba imali echithwa ngokwandisa nangobuchwepheshe obenzelwa iimbotyi zesoya iya kuzixhesha iinzuzo zezivuno kwixesha elizayo. Ukukhetha ukulima iimbotyi zesoya ngokuthe kratya kwixesha lokulima elizayo nako kungabubungqina botshintsho lwexabiso ukususela kumanqanaba olungelelwaniso okuthengisa ngaphandle ukuya kumanqanaba olungelelwaniso okuthenga emazweni angaphandle. (Igrafu 1). Nangona kunjalo, imozulu iya kuba ngumba osisalathiso. Elona thuba lifanelekileyo lokulima liqalisa phakathi kuNovemba; abanye abalimi sukuba sebeyifumene intwana yemvula, logama abanye behleli ethembeni lokuba nabo baza kufumana eyaneleyo ukuze balime ngethuba lokulima. Ngokoqikelelo lweMozulu lwaseMzantsi Afrika, kukho ithemba leemvula ezintle kwinyanga ezimbini zokugqibela zango-2019 kude kube kuJanyuware ngo-2020; ngokuqinisekileyo izinto zilungile malunga nokuphunyezwa kwentengo yeli lizwe.

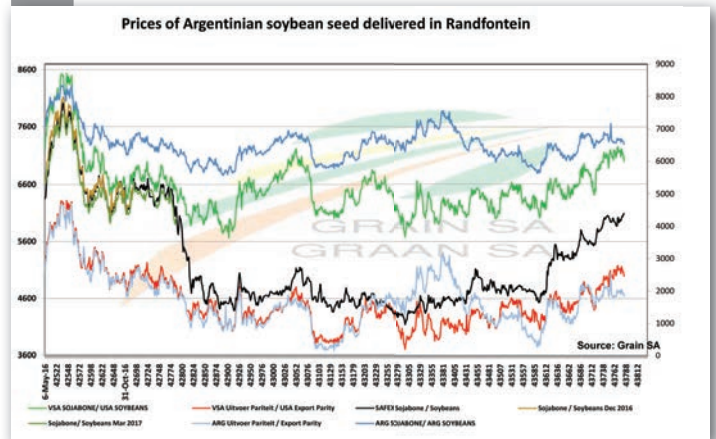
INKCAZO NGOJONGILANGA

Malunga nembewu kajongilanga, indawo ekulindeleke ukuba ilinywe ngo-2020 iqikelelwa kwiihektare ezingama-538 500, zona zimalunga ne 4,49% okanye ihektare ezingama-23 150 ngaphezu kweehektare ezingama-515 350 ezilinywe kwixesha lokulima elidlulileyo. Amaxabiso kajongilanga asondele kumanqanaba olungelelwaniso okuthengisa ngaphandle xa kuthelekiswa nalo eli xesha kunyaka ophelileyo. (Igrafu 2). Oku kuza kuba ngomnye wemibandela esisalathisi sokuba ingaba abalimi bayamlima na ujongilanga okanye akunjalo. ■



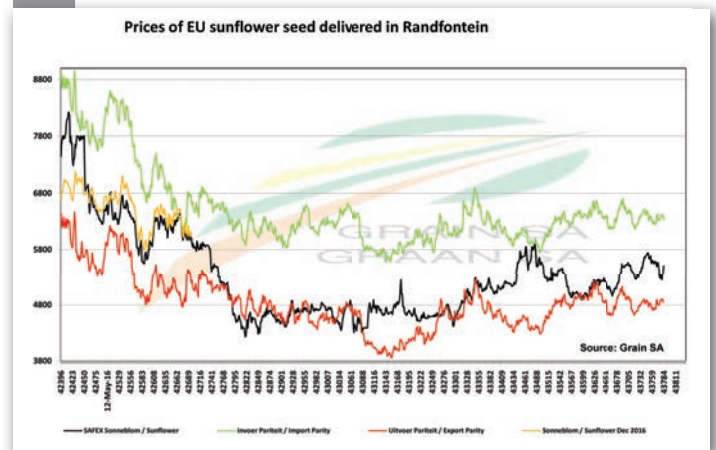
Ingageng Maluleke, Ingcali yezoqoqosho kwinqanaba elisezantsi, eGrain SA. Thumela i-imeyili apha Ikageng@grainsa.co.za

1 Amaxabiso olungelelwaniso eembotyi zesoya.



Umthombo weenkukacha: yiGrain SA, 2019

2 Amaxabiso olungelelwaniso kajongilanga.



Umthombo weenkukacha: yiGrain SA, 2019

Unganakho ukungalusebenzisi UJIKELIZISO LWEZITYALO?

UKULIMA ISITYALO ESIFANAYO KUNYAKA NONYAKA KUBIZWA NGOKUBA KUKULIMA ISITYALO-ESINYE. UJIKELIZISO LWEZITYALO NGUMGAQO OCWANGCISELWAYO, OYINKQUBO APHO IZITYALO EZAHLUKA-HLUKILEYO ZILINYWA KULANDELELWANO OLUGUQUKA KUNYAKA NONYAKA NAKWIXESHA LOKULIMA UKUYA KWELINYE. KWAKHA KWABA SISIQHELO UKUBA ABALIMI BALIME ISITYALO ESIFANAYO KUNYAKA NGAMNYE. ENYE INKUTHAZO IBIBANGELWA YINTENGISO ELULA OKANYE KUKUNGABIKHO KOOMATSHINI ABAFANELEKILEYO BOKWENZA IYANTLUKWANO.

Kubekho ukushenxa okukhulu ekulimeni isityalo-esinye njengoko abalimi sebephuhle inkathalo ethe kratya ngempilo yomhlaba nangokunciphisa uxhemekeko lwabo kwiinkqubo ezineendleko eziphezulu zezichumiso neekhemikhali zokutshabalalisa ukhula, izinambuzane nezifo. I-Grain SA ilukhuthaza ngokuququzela ujikeleziso lwezityalo kwiinkqubo yoPhuhliso yayo.

Iinkqubo zojikeleziso lwezityalo zingahluka ukususela kwiminyaka emibini ukuya kwemine okanye nangaphezulu. Isiqabu eside phakathi kojikeleziso lwezityalo sinamandla ngaphezu kwesaxesha elifutshane. Kanti ukulandela ujikeleziso olufana ncam kunyaka nonyaka akunancedo nako ethubeni elide, oko kukuthi ukulima umbona – ojongilanga – umbona – ojongilanga ... asilojikeleziso lwezityalo olo. Iyantlukwano ligama lalo mdlalo kwaye ufanele ukudlalwa kunyaka nonyaka okanye nkqu kwixesha lokulima ukuya kwelinye kunyaka omnye (oko kukuthi, kukulima izityalo ngambini).

Ujikeleziso lwezityalo alulungiselelo lwento enye elingana konke. Umlimi ngamnye ufanele ukuqwalasela izidingo neemeko akuzo ezizezakhe kuphela – imali yeemveliso zamalungiselelo, ubukhulu befama, oomatshini abakhoyo, iimeko zokusingqongileyo namathuba okuthengisa. Isicwangciso sojikeleziso sifanele ukuba negalelo emsebenzini wokufama okunozinzo.



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IZINTO EZILUNCEDO NGOJIKELIZISO LWEZITYALO

Ukuchuma komhlaba okwandileyo

Isityalo ngasinye esahlukileyo sinentsebenziswano yezondlo eyahlukileyo yomhlaba apho sikhula khona kanti iseso neso sikhupha siphinde sifunxe izondlo ezahluka-hlukileyo. Ukulima isityalo esifanayo kwithuba elide kunyaka nonyaka kukhokelela kunqongophalo lwezondlo ezithile emhlabeni kuba eso sityalo siqhuba ngokufunxa kwazona ezo zondlo emhlabeni. Ujikeleziso lwezityalo luhlangabezana neemeko zonqongophalo okanye zokugqithisa kwezondlo emhlabeni kwaye lunegalelo ekwandiseni ukuchuma komhlaba. Izityalo ezahluka-hlukileyo zinegalelo ekomelezeni izondlo ezithe zanjongophala logama kufunxwa ezinye izondlo ezixhaphakileyo.

Isivuno sezityalo esandileyo

Imihlaba enempilo ineyantlukwano yezondlo ezifumaneka lula kwizityalo nezikhuthaza ukukhula. Ukuba umhlaba ubonakala ukhupha iimveliso ezinganeno kwezo ubuzivelisa ngaphambili, abalimi bacetyiswa ukubeka iliso kwimpilo yomhlaba ngokunjalo baqalise ngenkqubo yojikeleziso lwezityalo.

Ukunyuswa kwamanqanaba ezondlo emhlabeni

Imihlaba idinga ukunikwa ubutsha nokuhlaziywa kanti iinkqubo ezinzulu zokuchumisa aziyondlela ibalaseleyo. Sifunde ukuba imihlaba inesakhono



Ujikeleziso lwezityalo lungalaxha ulwaxhiwo lomhlaba lunciphise ukhukuliseko lomhlaba.

sokuzilungisa ngokwawo. Oku kuphunyezwa ngokusebenzisa ujikeleziso lwezityalo kanti nangomgaqo wokwenza ifusi, ukuba umlimi unakho ukuyiphumza intsimi yakhe kwixesha elinye lokulima. Le asiyondlela ifumaneka kwabaninzi, ngoko ke abalimi bafanele ukukuthakazelela ukuba neyantlukwano emisebenzini yabo yokufama ukwenzela impilo yomhlaba.

Ngokulima isityalo esifana nemidumba, umzekelo, amandongomane, izityalo zeembotyi ezahluka-hlukileyo, iityisi zemidumba emide okanye iilentile, yinto enokwenzeka ukwandisa initrogen (N) emhlabeni. Umdumba waziwa njengesityalo esihlanganisela initrogen, oko kuthetha ukuba unesakhono sokufunxa i-N emoyeni osingqongileyo uze uyise kumaqhuquhuva eengcambu ukuze wona ahlanganisele (atofe) le nitrogen emhlabeni. Iimbotyi zesoya ziyakwazi ukuhlanganisela ama-200 kg e-nitrogen ngehektare ngonyaka omnye. Abalimi bafanele ukufunda ukuba loluphi uhlobo lwesityalo abanokusilima ngokunjalo nenzuzo yokusilima, ukuze baqhube ngokuqinisekisa ukuba amanqanaba okuchuma ayandiswa ekuhambeni kwethuba.

Ngokutshintshisa izityalo phakathi kwezityalo ezineengcambu ezifikelela enzulwini ezinamagqabi amakhulu, umzekelo imidumba, ojongilanga kunye neentlobo ezineengcambu ezingayi nzulu ezisabungca, umzekelo, umbona, amazimba, ngelinge 'lokwenza' izondlo kunye nokufuma kwimigangatho eyahluka-hlukileyo yobunzulu.

Ulwakhiwo lomhlaba oluphuculweyo

Ulwakhiwo lomhlaba olunempilo lubalulekile kuphuhliso lwezityalo njengoko luchaphazela ukuntshula kwembewu nendlela ezikhula ngayo iingcambu, ngokunjalo nokuthi amanzi, umoya nezondlo zenziwa njani ukuba zifumaneke kwizityalo. Ujikeleziso lwezityalo lunganceda ngokuphuculwa kolwakhiwo lomhlaba, kodwa oko kuxhomekeka kuhlobo lwezityalo ezijikeleziswayo, ngoko ke ufanele ufunde ukuba zeziphi izityalo ezineengcambu ezisidibi nezinzulu uze uzijikelezise ngendlela efanelekileyo. Oku kunefuthe ekukhuleni umhlaba ongaphantsi kongaphezulu kwaye oko kuphucula ulwakhiwo lomhlaba ngokuwunika isiqukatho esikhulu sezondlo ezivela kwindalo ephilayo nokunika indawo yokuhlala kwizidalwa ezahluka-hluke ngakumbi.

Kwakhona, buyanda ubukho bomoya, ukugcinakala kwamanzi nokutsalwa kwamanzi angafunekiyo. Imihlaba enolwakhiwo olulungileyo ibangela ukufunxeka okukhawulezayo nokuncomekayo kokufunxeka kwamanzi ukuze ukufuma kungalahleki ngenxa yokuqukuqela okanye ukuqhumama komphunga. Amanye amanzi afunxwa ngokuphanga zizityalo kodwa intsalela igcinwa nzulu emhlabeni, njengenkqubo yequla lamanzi asemhlabeni, agcinelwa amathuba okunqaba kwamanzi xa izityalo zidinga ukuya nzulu ezantsi emhlabeni.

Ukhukuliseko lomhlaba luyancipha

Ukhukuliseko lomhlaba yingxaki ebanzi. Lwenzeka xa umhlaba ongaphezulu utshayelwa ngumoya okanye xa uhamba namanzi esichotho esibukhali. Izityalo ezahluka-hlukileyo zinemixokomelwano yeengcambu eyahluka-hlukileyo, iimfuneko zamanzi, izithuba ezahluka-hlukileyo phakathi kwazo kanti zikhula ngemithunzi eyahluka-hlukileyo yazo. Ngokulima uhlobo olunye

ngokuluphinda-phinda, umhlaba uya kukhukuliseka kwiindawo apho izityalo ziwushiye ungagqumekanga khona. Xa umphezulu womhlaba ugqunywe zizityalo okanye ngezinto ezomileyo, le ngxaki iyancipha. Izityalo ezahluka-hlukileyo zishiya amanqanaba ahluka-hlukileyo entsalela yezityalo, umzekelo amagqabi ombona ashiya okuninzi kwaye oko kulungile ukuba kungahlanganiselwa emhlabeni njengoko izizinto ebeziphila ngaphambili ukuze ziphucule ulwakhiwo lomhlaba ngokunjalo zikhuthaze ukusebenza kwezidalwanana ezincinanana ezizisa umhlaba empilweni entle. Intsalela yezityalo ikwabaluleke ngenxa yokunciphisa uqweqwe nokuqukuqela kwamanzi.

Ukuncipha kwamanqanaba ezinambuzane nezifo

Izityalo zosapho olunye ziba neengxaki ezifanayo zezifo nezezinzambuzane. Ngamanye amazwi, uhlobo ngalunye olwahlukileyo lwesityalo ludala indawo yokuhlala egcina iintlobo ezifanayo zeentsholongwane okanye zezinambuzane eziziqukanisela ecaleni lazo ngokuphinda-phindeka. Ngokusoloko silima eso sityalo sisikhethileyo sidala iimeko ezilungele ezo zinambuzane zifanayo ngawo onke amaxesha kufana nokuthi siyazimema ukuba zize kutya! Kanti xa sizitshintsha iintlobo zezityalo entsimini, olunye uhlobo lukhuthaza ukulawuleka kwezinzambuzane nezifo ngokwaphula umjikelo wobomi wezinambuzane zohlobo oluthile ezithanda loo ndawo yazo. Ujikeleziso lwezityalo lubonwa njengolunye lweentlobo ezibalulekileyo zoLawulo oluManyanisiweyo lweziNambuzane olungumgaqo ovana ngakumbi nokusingqongileyo wokutshabalalisa izinambuzane ngenjongo yokunciphisa ukusetyenziswa okubanzi kweekhemikhali zolimo.

Ukulawulwa kokhula okuphuculweyo

Ujikeleziso lwezityalo lungumgaqo owaziwayo wakudala wokulawulwa kokhula. Izityalo ezahluka-hlukileyo ziqubisana namanani okhula ngokuziminxanisela lude luzikhuphele ngaphandle kwentsimi ngokukhuphisana nazo ngezondlo nangeminye imithombo yoncedo. Umlimi uya kusoloko efanele ukulawula ukhula entsimini, kodwa ujikeleziso lwezityalo lunefuthe ekuthotyweni kwamanani okhula.

AMAZWI ESILUMKISO

Iimeko ezingenaluncedo zimbalwa kunezo ziluncedo malunga nokujikeleziswa kwezityalo. Nangona kunjalo, **kubalulekile ukwenza isicwangciso senkqubo yeekhemikhali**. Iikhemikhali ezahluka-hlukileyo zinezendo ezahluka-hlukileyo kwizityalo ezahluka-hlukileyo, umzekelo izitshizi ezisetyenziswa kwizityalo zamagqabi abanzi ziya kuba nefuthe elingafunekiyo kwizityalo zohlobo lwengca olufana nombona. Iikhemikhali zineziphumo ezahluka-hlukileyo zentsalela entsimini – ezinye iikhemikhali zihlala ziququzela emhlabeni kwaye ziba nefuthe kwizityalo esilandeliswayo. Ngenxa yesi sizathu, inkqubo yojikeleziso lwezityalo icwangciselwa ithuba elide; kanti iikhemikhali ezisetyenziswa kunyaka nonyaka zicwangciselwa ngoncedo lweengcaphophe. Ngokuqinisekileyo, zikhona iimveliso ezinokusetyenziswa ngokhuselo kwiinkqubo ezicwangciselweyo zojikeleziso lwezityalo. ■



Don't say you don't have enough time. You have exactly the same number of hours per day that were given to Helen Keller, Pasteur, Michaelangelo, Mother Teresa, Leonardo Da Vinci, Thomas Jefferson, and Albert Einstein.

~ H. JACKSON BROWN JR



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IPULA IMVULA IFUMANEKA NGEELWIMI EZILANDELAYO:

isiXhosa,
IsiNgesi, IsiBhulu, iSeTswana,
iSesotho, iSesotho sa Leboa nesi IsiZulu.

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

Imbonakalo ngeentengiso

KWELI NOAKU SINIKA IMBONAKALO YENTENGISO NENTENGO YOMBONA EHLABATHINI NAKWELI LIZWE NGO-2019/2020 XA KUTHELEKISWA NEXESHA LOKULIMA ELIDLULILEYO.

IMBONAKALO YEHLABATHI NGO-2019

Uqikelelo lwango-2019 lwemveliso yombona ehlabathini lwehlile ngenxa yobuyelelo olusungise ezantsi eMexico. Nangona kunjalo, imveliso yehlabathi isamiselwe ukufikelela kwinqanaba lesibini elilelona liphezulu elirekhodiweyo. Ukusetyenziswa kwawo ngexesha lokulima lika-2019/2020 kusalingana apho intengo yokutya iphezulu khona kodwa intengo yesondlo ibe isihla ngakumbi eUSA.

Urhwebo lwango-2019/2020 lubonakalise ukuncipha phofu okungephi (-1,5%) xa kuthelekiswa nesixa esikwirekhodi sexesha lokulima elidlulileyo. Impahla egcinwe ekugqibeleni ehlabathini ilindeleke ukuba inciphe phantse nge 1,8% okuphambili ngenxa yokuphungulwa kwempahla egcinwe ekugqibeleni eUSA.

IMBONAKALO YELI LIZWE NGO-2019

NgokweKomiti yeeNgqikelelo zeziTyalo (CEC), uqikelelo lwemveliso yombona lwango-2019 lumalunga neetoni ezingama-11,186 zezigidi, phantse nganeno nge 14% kwelexesha lokulima langaphambili leetoni ezingama-12,510

Ikageng Maluleke, Ingcali yezoqoqosho kwinqanaba elisezantsi, eGrain SA. Thumela i-imeyili apha ikageng@grainsa.co.za



zezigidi (**Ittheyibhile 2**); kanti indawo iqikelelwa kwiitoni ezingama-2,301 zezigidi kunye nesivuno esilindelekileyo seetoni ezi-4,86 ngehektare. Ngokungqalileyo, umbona omhlophe usaqikelelwa kwiitoni ezingama-5,538 zezigidi nesivuno seetoni ezi-4,27 ngehektare, logama umbona otyheli uqikelelwa ukuba uza kuba phezulu nge 1,9% ngeetoni ezingama-5,648 zezigidi apho kunokulindeleka khona iitoni ezi-5,64 ngehektare.

Intengo yeli lizwe kulindeleke ukuba yande xa kuthelekiswa neyexesha lokulima langaphambili, unobangela ophambili luqikelelo olunyukileyo lombona otyheli wesondlo sezilwanyana. Urhwebo ngokuphathelele kwimpahla ethengiswa ngaphandle kulindeleke ukuba lunciphe nge 48,7% xa kuthelekiswa nexesha lokulima elidlulileyo, ngenxa yokuncipha okukhulu kombona otyheli othengiswa ngaphandle. Impahla egcinwa ekugqibeleni iqikelelwa njengeza kuncipha nge 36%, kanti impahla esendleni yokugcinwa ilindeleke ukuba iqhube ngaphezulu kancinane kwinyanga enye enesiqingatha. ■

1 Intengiso nentengo yombona ehlabathini.

	2018/2019 Uqikelelo (izigidi zeetoni)	2019/2020 Uqikelelo (7 Nov) (izigidi zeetoni)
Imveliso	1 118,1	1 122,6
Intengiso	1 486,5	1 479,0
Okusetyenziswayo	1 141,6	1 141,5
Urhwebo	165,9	161,5
Impahla egcinwe ekugqibeleni	356,4	331,0

Urhwebo weenkukacha: USDA, 2019

2 Intengiso nentengo yombona kweli lizwe.

	2018/2019 Ezokugqibela (iitoni)	2019/2020 Uqikelelo (31 ngo-Oktobha) (iitoni)
Imveliso (CEC)	12 510 000	10 779 107
Intengiso	15 867 123	13 936 193
Intengo yeli lizwe	10 919 979	11 064 500
Urhwebo (ukuthengisa ngaphandle)	2 284 058	1 170 000
Impahla egcinwe ekugqibeleni	2 663 086	1 701 693

Urhwebo weenkukacha: NAMC, 2019