

# PULA IMVUILA

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UJUNI  
2017

## UKULIMA NGOKUCOPHELELA – ngabe yigama elibhuzayo noma cha?

Incwadi yeGrain SA  
yabalimi abasakhulayo

Funda ngaphakathi:



**S**ifunda kakhulu ngokulima ngokucophelela noma njengoba kuchaziwe futhi ku-*High Technology Farming (HTF)* kumaphephabhu ku ezolimo kulezi zinsuku. Lokhu kukunikeza umqondo le referensi uya ento ethuthukile. Ukulima ngokucophelela kusho imishini yobuchwepheshe ethuthukile (njengoba kuchaziwe ku-athikhili edlule) kuhlanganiswe ne-eletronikhi noma ubuchwepheshe bedijithali kanye ne-*global positioning systems (i-GPS)* ukunikeza amarekhodi asethuthukile.

Igama elithi *Precision* lisuselwa egameni elithi nqo elichaza ukushaya emhlolweni futhi ubeke ngeminingwane. Endaweni yethu yokulima kufuneka lokhu ukufanise nalokho esikwenza epulazini. Ukukwenza nqo nangemininingwane nangendlela elunge ngempela. Ungasikhohlwa isitatimende – ukulawula kufanele ulinganise. Ukwenza isinqumo udinga ulwazi oluthola njengase kugcineni amarekhodi. Uma ulwazi lwakho lungenaphutha, lokho kusho ukuthi uzokwenza izinqumo ezingcono, futhi uzophatha kangcono.

Njengoba kuchaziwe ku-athikhili yabalimi edlule abalimi eNingizimu Afrika babhekene ne-nkinga enku eyodwa Ningizimu Afrika – ukwenza inuzu yesikhathi eside emva kwasikhathi eside. Lokhu kwensiwa, ukuthi okukodwa lokhu okubizwa ngengcindezi yelali yokuthenga. Ukwenza ihaba lalesi simo, abalimi bethu baphinde babhekane bezinselelo ukunikeza ukudla okwanele ngentengo engambi eqolo enanini labantu elikhulayo. Ngakho, yimpi eqhubekayo ukugcina imali ephumayo iphanzi ngaphansi kokulawula nokukhulisa imali enge-nayo nokukhqiqa kakhulu.

Ukulima ngokucophelela akulona nje igama elibhuzayo, yiqiniso. Ubuchwepheshe besimanje obukhandiwe ngokwesibonelo yimpahla yokucophelela, izindlela ezenziwe ngcono kanye nokuphrosesa idatha, i-*global positioning systems (i-GPS)*,

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## UGOGO JANE UTHI...

**N**galenyanga siyethemba ukuthi nonke nizobe nivuna isilimo. Kungumvuzo ukukwazi ukuthola isivuno esihle – njalo ngonyaka usebenza kanzima futhi wenze konke okusemandleni, kodwa awuklonyeliswa ngo-kwanele unyaka ngamunye. Kufanele sikhumbule ukuthi silima ngaphandle futhi ngeke siyilawule imvula. Singenza konke okusemandleni ethu ngayo yonke indlela, kodwa sihlala sincike emvuleneni ukuze sibe nesilimo esihle.

Njengabalimi, sinomsebenzi omkhulu wokondla isi-zwe sethu – okokuqala, kufanele sizonde thina. Umlimi ngamunye omnace ongakwazi ukondla umndeni wakhe, wenza umsebenzi omkhulu- ngo-ba uzinakekela wena, akekho omunye okufanele enze lokho. Kulabo benu abakwaziyo ukwenza okungaphezulu kokondla iminden yenu – lokho kuhle kakhulu ngoba usizile wanikeza abantu abahlala emadolobheni ukudla. Sidinga lonke isaka lokusahlamu, amasiriyeli kanye nezinhlamu zikawoyela ozikhqizayo – wondla izwe lakho, ufaka isandla emnothweni ngobubanzi, udala amathuba omsebenzi futhi unikeza ukudla oluahlaza okuqala lonke isheyini lokudla eNingizimu Afrika.

Ngicela uthathe le sikhathi ubungaze impumelelo yakho – iNingizimu Afrika iyaziqhenya ngeqhaza olibamble futhi njengeGrain SA, sizothanda ukukubonga.

Seyisikhathi sokuqala ukuhlelela isizini elandelayo – *iJobs Fund farmers*, ngicela ukhumbule ukuthi kufanele ufakele amahekthazi akho imali ngasekupheleni kukaJulayi. Ngeke sikhazi ukuhlehlisa usuku njengoba lokhu kuzobambezela ama-*inputs* ethu. Thatha enye yemali esivunweni samanje futhi uyitshale esivunweni esilandelayo – siyethemba ukuthi nizoklonyeliswa kahle futhi.

Ngithanda ukufunda amagama kaKalil Gibran uMphrefethi – ‘Futhi ngaphambi kokushiya indawo yemakethe, bona ukuthi akekho ohambe indlela yakhe elambatha. Ngenxa ye-master spirit yomhlab-a ngeke alale ngokuthula phezu komoya kuze kube izidiso zenu nonke zinelisekile’. Sonke asisizwe lesi seluleko futhi sisebenzise umhlab-a namakhono ethu ukuqinisekisa ukuthi isidiso (sokudla) kwa-bantu bonke eNingizimu Afrika siyahlangabeza – ngamunye wethu angenza ingxene yakhe ukuphonsa esivivaneni. Nivune kahle!

## UKULIMA NGOKUCOPHELELA – ngabe yigama elibhuzayo noma cha?

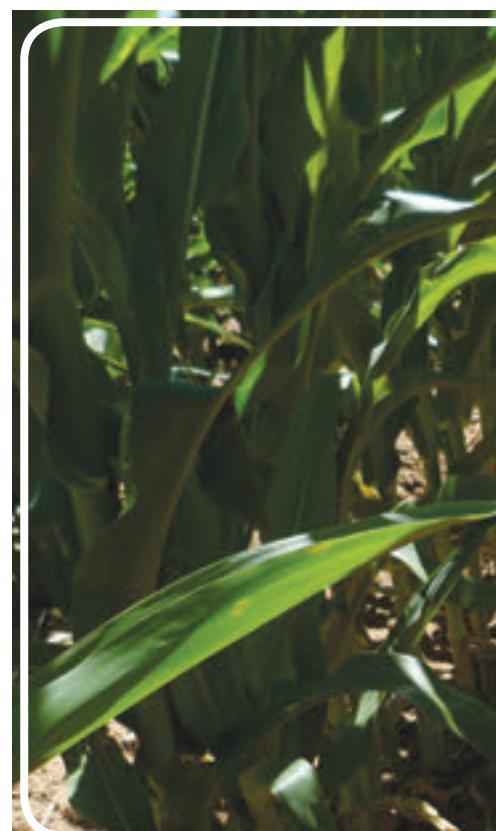


*Inani elihle lezitshalo (izisekelo kufanele zenziwe kahle zingaguquki).* Isithombe sithwetshulwe u-Johan Kriel

Kanye ne-Radio Frequency identification (RFID). Ukukwazi ukuphila njengomlimi, omkhulu nobancane, uzogcina ukwazi uku-aplaya nokusebenzisa bonke ubuchwepheshes obukhona ukukhulisa umkhiqizo iyunithi ngayinye yokukhqiqa, okuphinde kubizwe ngokunwebeka okuya phezulu. Kodwa zikhona ezinye izindleko ezibanda-kanyekayo uma u-aplaya ubuchwepheshes obuthuthukile futhi ngakho ke kubucayi ukusebenzisa ubuchwepheshes besimanje ngokuphelele ukuvuna amathuba abo.

Amathuba oku-aplaya ukulima ngokucophelela mhlawumbe ngokwesibonelo:

- Ukusebenzisa zonke izinsiza (inhlabathi, amanzi, amadlelo) okuhle;
- Ukuqinisekisa imikhqizo elandelelkayo, izinto abathengi abaphushela zona;
- Ukugcina imikhondo yezindleko zama-*input*, futhi ngalokhu ukukwazi ukwahlulela uma imali yebhizini idlula inkokhelo yenzozo ngokwesikhathi eside;
- Ukuvumela umnyakazo osheshayo ekuguquleni izimo; no
- Kusebenzisa iyunithi yomkhiqizo ngamunye, ngabe isitshalo noma isilwane noma yi-hektha momhlab-a noma yidlelo elihle yedlelo.



*Ukulawulwa okuphambili kokhula akuboniswana ngakho futhi kuzothikameza isivuno sakho.* Isithombe sithwetshulwe u-Johan Kriel

Inhloso yokulima ngokucophelela ukusiza wena uthole imininingwane eminingi, eqondile, enge-nalo iphutha nenolwazi olusheshayo njalo (ukulinganisa) kusukela kumifanekiso ye-sethelaythi, kanye namadivaysi e-elektronikhi (ngisho uma-

khalekhukhwini wakho) ngokwezimo ezivamile kunamarekhodi amanyuwalı. Lokhu kuzokwenza ukwazi ukulawula ukwenza isibonelo umanyolo, izilimo amaphrogamu empilo, izidingo zamanzi, nokuvunwa kwezilimo zakho ngokwamazinga asethuthuke kakhulu (ukuphatha). Lokhu kubeka njengomlimi onamatuba okwenza ngcono ukusebenza komkhiqizo weyunithi yonke yokukhiqiza epulazini lakho.

Kodwa, igama lokwexwayisa. Ungazami uku-aplaya ukulima ngokucophelela uma unga-zensi izisekelo ngendlela eyiyo. Ukwenza isibonelo, ukhona ute – ungawufaki umanyolo, faka nje umanyolo. Kufanele ufa ke umanyalo ngokwesidingo sesitshalo nalokho okunike-zwa umhlaba. Esikhathini esedlule, amaresiphi ayisisekelo ayesetshenziselwa ukuvundisa, kwabe sekufika isikhathi sokuthatha amasampuli enhlabathi ukunquma ngesidingo sokuthi yimuphi umanyolo okufanele uwusebenzise futhi ube kangakanani. Lokhu kusasele kuyisisekelo soku-aplaya umamnyolo. Uma ungazisebenzisi lezi zinyathelo ezyisisekelo, ukulima ngokucophelela ngeke kusebenze. Amaqhinga okucophelela okwenza ngcono ‘iresiphi’ kamanyolo kusaqala ngokusebenzia amasampula enhlabathi yakho kamanyolo okuhlanganiswe nolwazi olwengeziwe ukwenza ngcono iresiphi yakho ukukhulisa umkhiqizo. Ngokwesibeno, i-sathelaythi iveza izithombe ezindaweni

ezinezinkinga emhlabeni othile ingabonakala futhi umanyolo (iresiphi) waleyo ndawo ethile phakathi enhlabathini, ushintshwe bese u-aplaywa kusetshenziswa i-GPS ngokwemishini yama-applicator.

Mayelana nokugcinwa kwamarekhodi, lokho kuya aplaywa. Kokuqala kufanele ukulawule isisekelo samarekhodi amanyuwalı nokuwasebenzisa futhi uma uthatha isinqumo ngaphambi kokuqalisa ukulima ngokucophelela. Ngokwezimo zokulima ngokucophelela iningi futhi liyiqondile idatha onikezwa yona eshintshwa elektronikhali ibe ulwazi oluzose-tshenziswa uma uthatha izinqubo. Uma kwe-nzeka ungasebenzisi amarekhodi amanyuwalı ngendlela efanele. Pho uzowasebenzisa kanjani onke amarekhodi owanikwe ukulima ngokucophelela?

Uma ufisa ukuphila njengomlimi, omkhulu noma omncane, kuzodingeka wenze wonke umsebenzi ngokufanele bese udlulela ekulimeni ngokucophelela okwenza ubungcono ukusebenza ngcono ukusebenza iminyaka yonke. Ukwethula ukulima ngokucophelela kuzothatha ikhathi futhi kudingeka kwensiwe isinyathelo ngesinyathelo kodwa ithuluzi eli-balulekile ozoba nalo uku-aplaya masinyane nangokuhamba kwesikhathi – kungcono ukwenza masinyane. ⚪



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# I-Mycotoxins nempilo yomuntu

**M**anje njengoba sesiyalazi iqiniso lokuthi i-mycotoxins ikhqiqizwa ama-fungi aphuma ekudleni lokho kungadala umthelela kuzinhlobo eziningi zezilimo ezilinywayo, umbuzo okudingeka siwubuze uthi kungani ebalulekile kithina njengabantu?

I-Mycotoxins ingena ekusheyini yokudla kabantu ngezindlela ezintathu i) ngqo ngedayethi ebandakanya ukudla amasiriyeli, afana nommbila; ii) ngokungaqondile ngqo ngokudliwa kweminye imikhqizo yokudla okulungiswa ngezilimo ezinukubezwe yi-fungal; futhi- iii) ukudliwa kwemikhqizo yezilwane ezifuyiwe ezidla ukudla okunukubezwe yi-mycotoxin.

Ngokomqondo wezolimo, imikhqizo eminingi yokudla ungaqukatha amazinga aphansi e-mycotoxins ngenxa yemikhuba emihle yezolimo, ukukhetha ukuzalanisa, izindlela ezintsha ze-biotechnology, ukwenza ngcono izindawo zokugcina ukudla, ukulungisa ukudla nokukugaya. Kodwa, uma idayethi yakho inciphile futhi udla uhlolo olulodwa lokudla njalo lokho kwenza kube lula ukunukubezwa yi-mycotoxin, ngaleso sikhathi impilo yakho ingaba sengozini.

Kwezinye izindawo eNingizimu Afrika abantu abaningu basadla ummbila olinywe ekhaya njengengxenyi yesiko labo futhi badla ummbila omningi ngosuku. Empeleni eNingizimu Afrika balinganiselwa ku-67% no-83% abandla ummbila noma umkhqizo wommbila zonke izinsuku. Ngenxa yenhoso yale-athikhili sizogxila kuphela kumthelela wempilo walokho okubizwa nge "big five" i-mycotoxins ebandakanya i-fuminisin B (FB), i-deoxynivalenol (DON), i-zearalenone (ZEA), i-chratoxin A na-iflatoxin B (AFB). ENingizimu Afrika sikhathetheke kakhulu nge-



Ummiba olinywa emakhaya eMpumalanga Kapa.

FB, DON ne-ZEA eyaziwa ngokunukubeza ummbila, i-AFB enganukubeza amantongomane (amantongomane njii) nokuncipha kakhulu kwe-OTA.

abantu (nezilwane) izifo ezidalwa yi-mycotoxins esidalwa yi-mycotoxins sibizwa nge-mycotoxicoses futhi ziqoqelwe ndawonye ngaphansi "kwesimo se-toxicological noma ifakwa ubuthi ngokwendalo" lokhu mhlampe kungaba kuhle (ukungenziwa ubuthi obobonakalayo ngokushesha) noma ophila nakho (ngokujwayelekile ukufakwa kancane kancane isikhathi eside kugcine ngesimo sesifo).

**Kuthebula 1** imithelela emikhulu yama-mycotoxins ayisithupha empilweni yomuntu afiqqiwe. Lo mqondo "**I-Provisional maximum tolerable daily intake**" (I-PMTD) ngama-values abalulekile asethwe yiziphathimandla zezempiro zamazwe ezifana ne-*World Health Organisation* (i-WHO) kanye neNhlango yoKudla neZolimo (i-FAO) yaKwamhlaba Uhangene. Le zinhlangano

ngokuhlangana kwazo yizo ezibhekene noku-hlela imihlangano phakathi kochwepheshe osos-yensi emhlabeni wonke emkhakheni wokuphepha kokukudla, ukubumba ikomidi elesipesheli elibizwa nge-Joint FAO/WHO Expert Committee on Food Additives (JECFA).

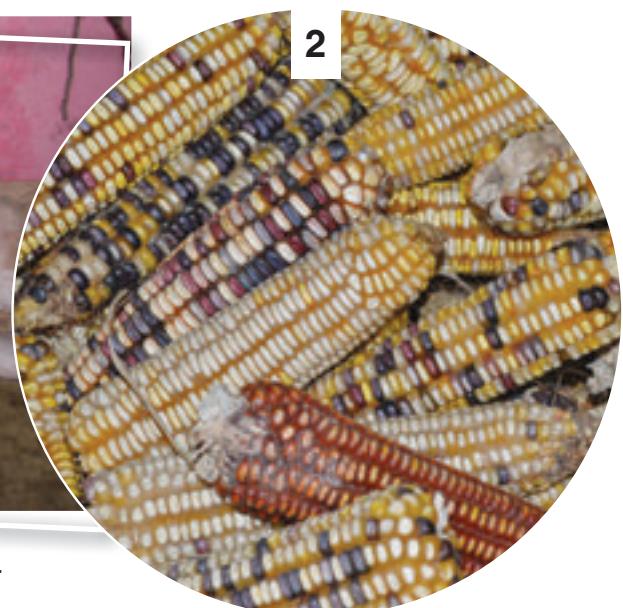
Le komidi yamazwe nezimele beyilokhu ibamba imihlangano kusukela ngo-1956 futhi yiyo ehlola ubungozi bamakhemikhali ekudleni ukuze kuvikelele izimpilo zabantu, futhi kuqhakambiswe ukuvikela okufanele nezindlela zokulawula. Kusukela esizindeni esithile se-biological nnezintwana zemakhemikhali, ama-threshold values ansukuzonke noma izigaba eziethiwe zokuvikela abantu. Ngalesosikhathi, kusekelwe kumazinga amazwe okunukubezeka ekudleni okuthile, I-JECFA kungagqamisa izigodi ezeivelele lapho izinkinga zezempiro zingatholakala khona. Uma ikhemikhali iyingozi kakhulu empilweni yomuntu, i-PMTD isuke iphansi kakhulu yaleyo khemikhali.

1



Isithombe 1: Owesimame ugaya ummbila olinywe ekhaya uwenza impuphu.  
Isithombe 2: Amapulazi ommbila olinywa emakhaya emapulazini aseMpumalanga Kapa.

2



## UKULAWULA IZIFO

Emuva kuThebula 1, ikholomu enesihloko esithi “**I-Classification ngokwe-International Agency for Research on Cancer**”. Ku-*International Agency ye-Research ku-Cancer* (i-IARC) nge-nye i-WHO-inhlango ehambisana nobungoti bomdlavuza futhi nokunye wemisebenzi yayo ukulela amakhemikhali ethile njengama-substance engadala noma engeke idale umdlavuza kubantu. Ukwenza isibonelo, amakhemikhali angahlukaniswa njengo-*Group 1* (edala umdlavuza kubantu), u-*Group 2A* noma u-*2B* (kunge-nzeka udale umdlavuza), u-*Group 3 no-Group 4* (ayiwudali umdlavuza). Mayelana ne-mycotoxins, i-AFB iyengozi kakhulu (i-*Group 1*), kanti i-FB ingadala umdlavuza kubantu (i-*Group 2B*).

Singakulinganisa kanjani ukuvelela komuntu ku-*mycotoxins* futhi siluchaza kanjani lolo lwazi sisebenzisa i-PMTDI? Ziningi izindlela zokuhola ukuvelela kodwa indlela eyisisekelo kakhulu ukwenza isilinganiso mhlawumbe umuntu engayithatha ngosuku noma i-PDI. Kule sibalo sidinga ukwazi i-*mycotoxin ye-interest*, efana ne-FB, no-kuthi isiphi isilimo noma iseriyeli (isib. ummbila) inukubezekile. Ngaleso sikhathi sesizokwenza isilinganiso samazinga e-*mycotoxin* kuleso sili-

mo, inani lesiriyeli edliwe umuntu ngalolo suku kanye nesisindo somuntu.

Ukwenza isibonelo, ake sithi indishi yephalishi lommbila eliphekiwe linukubezekile ngo-FB ezingeni lika-500 micrograms/kg. Umuntu one-sisindo somzimba ongama-75 kg udra u-500 g (2 amakomishi) iphalishi lommbila ngelantshi ngaleso sikhathi ukuba sengcupheni kwakhe noma i-PDI ye-FB izoba u-3,3 microgram/isisindo somzimba/ngosuku nokungaphezulu kwe-PMTDI ye-FB (bona iThebula 1) yama-microgram awu-2/ isisindo somzimba/ngosuku. Uma umuntu edla leli nani lommbila zonke izinsuku lapho impilo yakhe isizoba sengozini. Amazinga ka-*Fumonisn B* ka-500 micrograms nangaphezulu isibonakele emmbileni osezindaweni ezisemakhaya isifundazweni saseMpumalanga Kapa eNingizimu Afrika lapha bezilimela khona ummbila wabo baphinde bedle ingxene enku lu yommbila zonke izinsuku. Amazinga aphansi ama ingi, cishe angmancane ngokuphindwe nge-100 ubuncane kubikiwe eNingizimu Afrika kumikhiqizo edayi-swayo nethengwa ezitolo.

Mayelana nommbila olinyelwa ukungenisa imali sivikeleke kakhulu kuma-*mycotoxin* ayi-swayo nethengwa ezitolo.



**Umbila odayiswayo (u-sweetcorn)  
nempuphu yommbila.**

ngazi, kodwa njengoba kushiwo ngenhla uma udra kakhulu ummbila olinyelwa ukudayiswa, futhi ngobuningi zonke izinsuku, nalapho usasengozini yomthelela we-*mycotoxins* eyingozi. Ku athikhili yethu yokugcina yochunge-chunge lwethu sizobhala mayelana nezindlela zokunciphisa ukuba sengcupheni ngokwedayethi kuma-*macotoxin* ayingozi.

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**Ithebula 1: Isamari “ye-big five” i-mycotoxins kanye nemithelela yayo eyaziwayo empilweni yabantu.**

I-Mycotoxin	Okuhambelana nezifo zabantu	Izinga eliphezelu obekelwe Iona – elamu kelekile zonke izinsuku	Ukwehukanisa ngokwe-International Agency for Research on Cancer (IARC)
I-Fumonisn B (FB)	Indima okungayidlala ku: <ul style="list-style-type: none"> <li>Kudala isici eshubhini lemizwa</li> <li>Kuthikameza ukuthuthuka nokukhula kwengane</li> <li>Umdlavuza wesibindi nomphimbo (umminzo)</li> </ul>	u-2 micrograms/kg isisindo somzimba /ngosuku	U-Group 2B carcinogen
I-Deoxynivalenol (DON)	<ul style="list-style-type: none"> <li>Izinkinga zesisu namathumbu</li> <li>Ukungathandi ukudla</li> <li>Ukwehla kwesisindo</li> <li>Ukuphalaza nesicanucanu</li> <li>Ubuhlungu bekhandha</li> <li>Ukugodola ukuphathwa yikhanda kancane, isithuthwane</li> </ul>	i-1 micrograms/kg isisindo somzimba /usuku	U-Group 3 carcinogen
I-Zearalenone (ZEA)	<ul style="list-style-type: none"> <li>Ukushesha kwamantombazane ukuthomba</li> <li>Kunganciphisa inzalo</li> </ul>	u-0,5 micrograms/kg isisindo somzimba/usuku	U-Group 3 non-classifiable carcinogen (limited evidence in animals)
I-Ochratoxin A (OTA)	<ul style="list-style-type: none"> <li>Kuxhunyanisa nokulimala kwezinso</li> </ul>	u-0,1 microgram/kg isisindo somzimba/iviki, noma u- ± 14 nanogram/kg isisindo somzimba /usuku	U-Group 2B carcinogen
I-Aflatoxin (AF)	<ul style="list-style-type: none"> <li>Ukuvuvuka kwesibindi</li> <li>Umdlavuza wesibindi</li> <li>Kuthikameza ukuthuthuka nokukhula kwengane</li> <li>Kuba nomthelela we-immune system yomzimba</li> </ul>	Akukho Ama-AF ayingozi kulibofuzo (i-DNA) futhi ingadala umonakalo oqonde ngqo. Ngakho ke ayinayo i-threshold level. Ukulawula okusethwe ngu-Mnyango wezeMpilo eNingizimu Afrika wama-AFs: Konke ukudla okulungele ukudliwa abantu akufanele kuqukathe ngaphezulu kuka-5 micrograms/kg ka-AFB1 ne-10 amicrograms/kg esamba sama-AFs	U-Group 1 carcinogen

# Ukulawula ukolo wakho emva kokumila

**U**kolo wakho utshaliwe futhi isimeme kahle. Yini okudingeka ugxile kuyo ngalesikhathi usuka ekutshaleni isilimo sakho kuze kuba iziqu siqala ukweluleka zibe zinde? Lesi yisikhathi sokulima lapho wena njengomlimi ungadlala ingabamba elikhulu iqhaza empumelelweni yesilimo sikakolo.

Nakuba uhlubo lwasizini oyibonayo izodlala indima enku kuzinqumo zakho zokuphatha, inhoso nalapho kuseyikho ukuqinisekisa ukuthi kunukudla okwanele kwesitshalo esikhulayo, ukuthi akukho ukuntisana kakhula nokuthi uzmisele ukuvikela isitshalo ezifeni.

Izinsuku zokuqala ezingama-40 empilweni yesitshalo sikakolo ibaluleke kakhulu. Yingaso le sikhathi lapho amandla esivuno sesilimo engakhula khona. Sisho ukuthini ngalokho? Yingaso lesi sikhathi lapho izimbali zamathila zikhandeka khona kwi-*spikelet* ngasinye (amathila amanangi = amadlebe amanangi), Inombolo yama-*spikelet* indlebe ngayinye kanye nenombolo yezimbali nge-*spikelet* iyaqala (inombolo yama-*spikelet* indlebe ngayinye nenombolo yezimbali i-*spikelet* ngasinye esiqaliwe) (ama-*spikelets* amanangi nezimbali i-*spikelet* ngayinye = amanye ama-kernels amanangi anamandla). Sizama ukuthola amandla aphezelu kakhulu, ngoba uma sesiwatholile amandla ngeke ikhule, kodwa inganciphisa njalo, okungaholela esivunweni esiphansi.

Ngakho, isinyathelo sokuqala ukuqinisekisa ukuthi isitshalo sinokudla okwanele. Esinye isamba sikamanyolo wesizini owufake kanye nembewu (uma une-planter) noma yasakazwa ngaphambi kokuhlwanyela (isitayela sakudala). Lokhu kusebenza njengesiqalo sokwenza isilimo sikhule uma sesimilile. Ekuqaleni isitshalo sikakolo sidinga inani eliphansi kakhulu lenayithrojini ukuze ikhule, kodwa njengoba

isizini iqhubeka amahlamu eya ngokuya ehluma, isidingo siyakhula. Ngalokho ke kuyadingeka ukufaka i-topdressing yokuqala ezi-nusukwini zokuqala ezingama-40. Ukusweleka kwenayithrojini eyanele kunganciphisa ukwakheka kwesivuno esanele. Kuya ngesistimu yokukhiqiza (noma ku-conventional noma ku-conservative agriculture) inhlabathi yakhko ingakwazi ukudiliva inayithrojini esitshalweni sikakolo esikhulayo nento enganciphisa isidingo esiphezulu senani likamanyolo omnini (kungenzeka kakhulu lokho uma emjikelezweni wezilimo zakho kungaba khona nezilimo ezithela imidumba), kodwa uboqaphela njalo ukuthi yini ekhona nokuthi kungakanani ongakudinga.

Amasampuli enhlabathi angathunyelwa kumalebhu athile enhlabathi ukunquma inani lenayithrojini ekhona enhlabathini ekuqaleni kwesizini, lokho kungasiza ekuhleleni isamba senani likamanyolo okufanele ufakwe ngesizini. Kukhona futhi amatesti ezebhayoloi akhona ukunquma inani lenayithrojini ekhona esitshalweni.

Ngale kwe-Post emergence ukulawula ukhula nalapho kubaluleke kakhulu ngale sikhathi ngoba ukhula luncintisana ngamandla lufuna ukukhanya, umswakama namanyuthri-yenti. Ukhula lwasizamu abanzi kulula ukulawula kusilimo sikakolo kanye nezinhlobo eziningi zama-herbicides akhona okulawula. Ukulawula ukhula oluwutshani akulula ngokungako nama-herbicides akhethekile ayadingeka ukulawula lolu khula. Kubalulekile futhi ukushintsanisa ukusebenza kwama-herbicides akho ukuvimbela ama-herbicide anenkani. Izinga loka-wa-aplaya liphezulu kakhulu noma liphansi kakhulu kungaphinda futhi kusheshise ukwenza kwama-herbicides anenkani. Qinisekisa noma ufunde ilebula ngokuphatheni isilimo sikakolo.

Izifo futhi zingakhinyabeza isivuno esinamandla. Kukhona okokwelapha imbewu okuzovikela izitshalo ezisheshe zatshalwa ezifeni ezithile zama-fungal kanye nokuqagula izinambuzane ezingahlasela.

Uma esetholakele amandla esilimo kudingeka sivikele isilimo ukuqinisekisa ukuthi sifinyelela esivunweni esikhulu esingatholakala. Isikhathi esibaluleke kakhulu soku-aplaywa kwama-fungicide kumaseriyali kusukela ekuqaleni kokweluleka kwesiqu kuye ekuhlumeni kwendlebe. Le sikhathi singqubuzana nokumila kwamahlamvu amane abaluleke kakhulu kule silimo kanye nendlebe. La mahlamvu ngama-factories alambele imisebe yelanga ne- CO<sub>2</sub> kube yisivuno, ngakho noma yisiphi isifo esinciphisa noma inombolo yamahlamvu noma sinciphisa indawo ekhona ye-photosynthesis izonciphisa amandla esivuno. Kubalulekile futhi ukukhumbula ukuthi amahlamu azobe engakahlumi ngesikhathi se-aplikheshini ngeke avikeleke ngokufanele futhi kuzodingeka ukuba kwenziwe i-aplikheshini yesibili.

Inhoso yethu ukugcina isitshalo sine-mpilo ngayoyonke indlela ukuqinisekisa ukuthi amandla esivuno kanye nokugcina leso sivuno esinamandla. Qinisekisa ukuthi uyavama ukuhamba maphakathi nesilimo ukuze usheshe ubone ungenzi ngoba usubona ekuphatheni isilimo sikakolo. ♦

**I-athikili ibhalwe u-Dr Johann Strauss,  
i-Directorate Plant Sciences, Research and  
Technology Development Services, kuMnyango  
weZolimo eNtshonalanga Kapa. Uma ufuna  
imininingwane egcweli, thumela i-imeyili  
ku- johannst@elsenburg.com.**

# Kungani kubalulekile ukuqondisisa amanani entengo kakolo yamazwe angaphandle

**U**mkhiqizo kakolo ngomunye yezilimo ezibalulekile eNingizimu Afrika. Ukolomningi okhiqizwa eNingizimu Afrika useshenziswa ukudliwa abantu bese kuthi omncane kakhulu useshenziswe ukondla izilwane. Nogkwejwayelekile, ukolo okhiqizwa kuleli unciphile kuneminye iminyaka. Kepha ngo-2016/2017 isizini yokumaketha, ukukhiqizwa kukakolo kuhuphuke ngo-30, 2%.

**Iavareji yonyaka** isamba sikakolo odingekayo kwezohwebo sifinylele ku-R3 million thani, kanti iavareji yomkhiqizo u-R1,7 million thani; kusobala ke, ukuthi umkhiqizo wakuleli uqedwa ukudliwa kwakuleli. Ngakho ke iNingizimu Afrika ithembale ekuthengeni kwamnye amazwe ukuze ihlangabezane namadimandi ngokuphelele.

**Olkamanje**, idimandi yeNingizimu Afrika yokuthenga emazweni angaphandle ngesizini ka-

2016/2017 ilinganiselwa ku-1,2 million thani kanti othunyelwa kwamnye amazwe ulunganiselwa ku-110 000 thani. Ngakho ke lelizwe lithenga ukolo kwamnye amazwe ngokuphelele.

## Uhlaka Iwemakethe kakolo

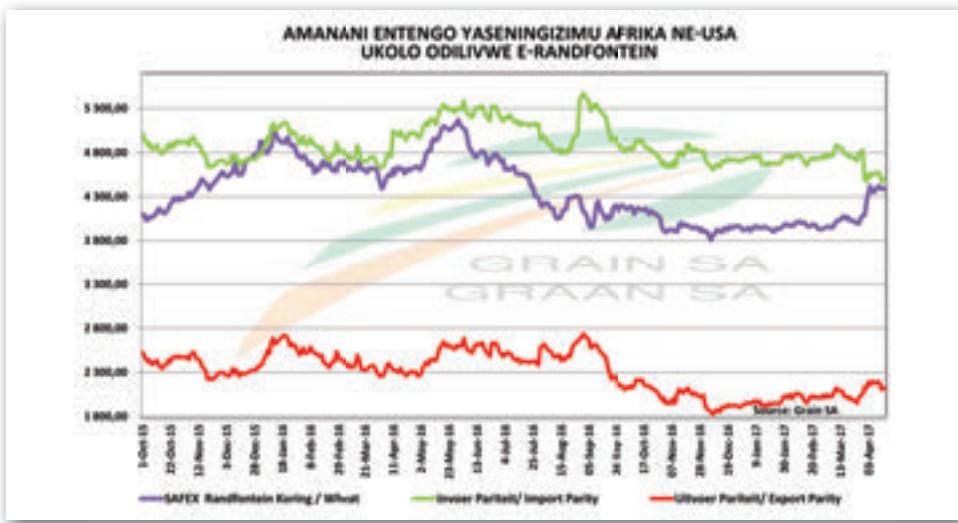
Njengoba iNingizimu Afrika iyinethi yomthengi kakolo kwamnye amazwe, amanani entengo yakuleli kufanele ancintisane namanani entengo yakwamnye amazwe phecelizi **i-parity import ne-export**. Intengo yokuthenga kwamnye amazwe intengo ezobiza lelizwe elithenga kwamnye amazwe ukuba lithenge umkhiqizo futhi yenze kudilivwe endaweni ethile okufanele idilivwe kuyo. Lokhu kuvamise ukwenzenka uma kunokuntuleka komkhiqizo, njengawo ukolo eNingizimu Afrika. Intengo yokuthumela kwamnye amazwe ngakolunye uhlangothi yiyo le ntengo ezotholwa yizwe uma lithumela umkhiqizo walo kwamnye amazwe. Ngenxa yesimo seNingizimu

Afrika njengenethi yokuthenga kwamnye amazwe kanye nokuntuleka njalo kukakolo, iNingizimu Afrika ngakho uhweba ngokuyela ekuthengeni kwamnye amazwe i-import parity band (**bona Ugrafu 1**).

Njengoba amanani entengo yakuleli okuhweba amayelana *ne-import parity*, kusobala ukuthi amanani entengo kankolo aqhutshwa kakhulu yimaketha yamazwe. Izinga lokushintshisana nalo linomthelela kumanani entengo *ye-parity* nokuphinde kube nomthelela kumanani entengo kakolo. Ubuthakathaka bamandla erandi uma liqhataniswa nezimali zakwamnye amazwe, lisekela intengo kakolo, kanti irandi elianamandla, libeka ingcindezi kumanani entengo.

Njengomlimi kakolo, ngakho ke kubalulekile ukuqondisisa amafektha ezimakethe zamazwe kanye nokunyakaza kwekharenti yakuleli njengoba la mafektha omabili anomthelela kumanani entengo kakolo. ⚪

Igrafi 1: Intengo yaseNingizimu Afrika kanye nokolo wase-USA odilivwe eRandfontein. Umthombo: yi-Grain SA



I-athikhili ibhalwe ngu-Michelle Mokone, oyi-Agricultural Economist: yakwa-Grain SA. Uma ufuna iminingwane egcwele, thumela i-imayili ku-Michelle@grainsa.co.za.



## Pula Imvula's Quote of the Month

*Keep away from people who try to belittle your ambitions. Small people always do that, but the really great makes you feel that you, too, can become great.*

~ Mark Twain

# I-RATEL – i-cultivar kakolo ethembekile

## eNingizimu naseNtshonalanga Kapa

**-RateL** yi-ARC-Small Grains' yi-cultivar ethembekile kakhulu kule sifunda. Ngokwedatha yeminyaka emine edlule, i-RateL iphakathi kwahamba phambili eNingizimu naseNtshonalanga Kapa. I-cultivar yenzelwa ikakhulukazi le ndawo.

I-cultivar yakhiwa nge-Kariega isuselwa kumlando wekhwalithi enhle yokubhaka. Le cultivar izimelela kuphela ekugqwala kwesiqu. Abalimi kufanele bazi ukuthi le cultivar isheshe itheleleke ku-powdery mildew, nokungaholela esivunweni esiphansi. Abalimi kufanele baqaphe izilimo zabo, ikakhulukazi uma kuwunya ka unemvula.

### Imininingwane ye-Agronomic

I-RateL inesikhathi sokukhula esimaphakathi ne-avareji yobude buka-80 cm kuya ku-100 cm. I-cultivar futhi inamandla othi kanti inokubekezelza okusezingeni ekumileni okwendulela ukuvuna. I-cultivar's shatterproof tolerance nayo inhle.

Nakuba i-RateL iwuhlobo lwentwasahlolo enganazo izidingo zokubanda, abalimi kumele bakhumbule ukuthi lesi yisitshalo se-C3, engazwani ne-transpiration ne-respiration. Ngakho ke ukubanda emva kwesizini kuzoholela esivunweni esiphezulu, njengoba ama-kernels egcwala kangcono.

Ukuphumelela kwamandla esivuno se-RateL ngokugcwele, i-cultivar kufanele isheshe itshalwe ngokwanele. Nakuba le cultivar



I-RateL iphakathi kokwenza kahle kakhulu eNingizimu naseNtshonalanga yeKapa.

Ithebulu 1: I-RateL itheste phozithivu ku-molecular level ekuthombeni kwesiQ ujini yesibili (i-Sr<sub>2</sub>).

Olayini	Amajini azimelelayo	
	i-Sr <sub>2</sub>	i-Lr34
I-Kariega	0	1
I-RateL	1	0

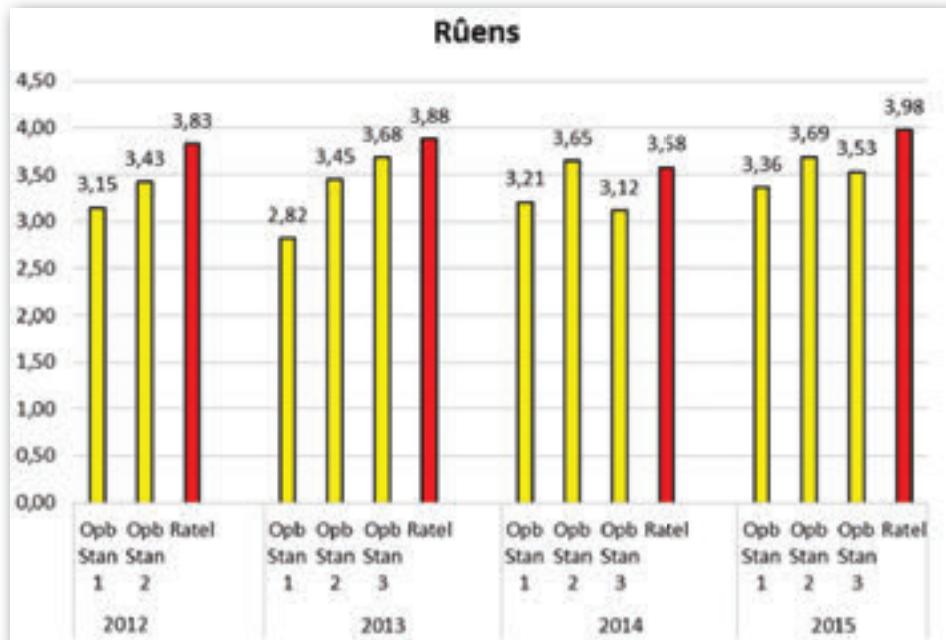
Ukuvuma: I-WC Botes – eStellenbosch University Plant Breeding Laboratory

Ithebulu 2: I-Agronomic ne-physiological datha ye-RateL.

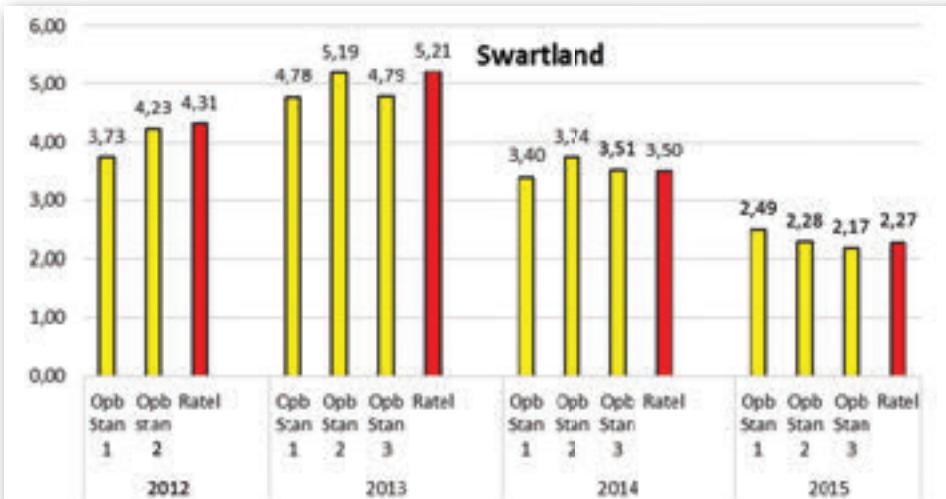
I-Cultivar	Isikhathi sokukhula	Izinsuku zokuqhaka-za kwezimbali	Ama-Spikes – shatterproof	Amandla e-Straw	Ukubekezelela ukuhluma okwendulela ukuvuna
I-Kariega	Ephakathi nendawo	100 - 108	Inhle	Inhle	Inhle
I-RateL	Ephakathi nendawo	98 - 107	Inhle	Inhle	Inhle

## I-CULTIVAR KAKOLO

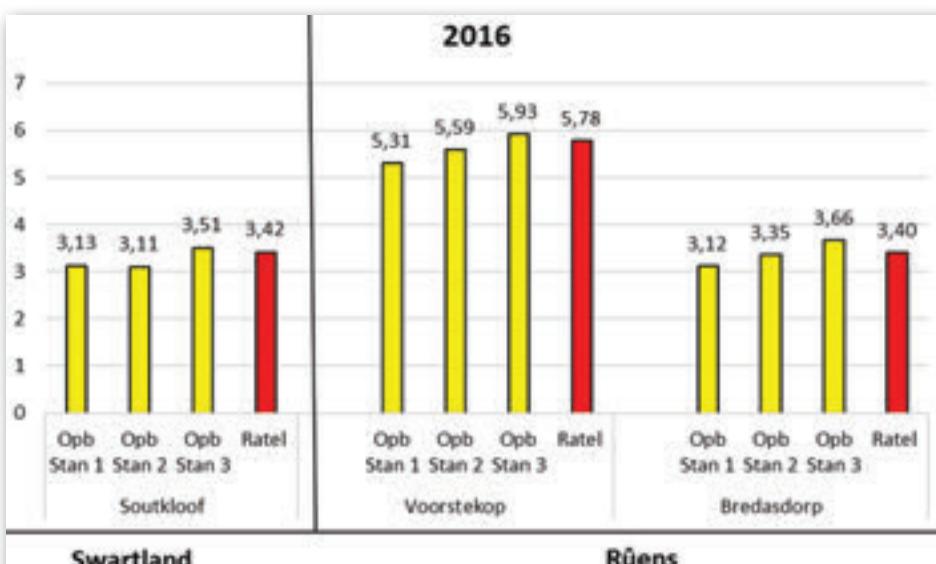
*Ufiga 1: Isivuno esiyi-avareji ku-t/ha ye-Ratel ku-Rüens Elite Trayal ka-2012-2015 kuqhathaniswa namazinga esivuno sesifunda.*



*Ufiga 2: I-avareji yesivuno ngokwe-t/ha ye-Ratel eSwartland Elite Trials ka-2012-2015 iqhathiswa nemigomo yesivuno sesifunda.*



*Ufiga 3: I-Avareji yesivuno ku-t/ha se-Ratel ku- Rüens naseSwartland kuma-Elite Trials amathathu esizini edlule yokukhiqiza.*



ingatshalwa kuze kube sekupheleni kukaMeyi ibe nesivuno esihle, ukutshala ngaphambi komhla ka 10 Meyi kuniyeza le *cultivar* ithuba elingcono lokukhula namandla esivuno esipele. Kodwa kufanele kuqaphelwe ukuthi ukushesha utshale kungenzeka kuphela uma kunomswakama owanele enhlabathini.

**Ku-Thebula 2** i-agronomic nokunquma ngobungozi imininingwane ye-Ratel inikezive. Lolu ulwazi olubalulekile umkhiqizo okufanele engalukhohlwa uma ekhetha *i-cultivar* yendawo yakhe ethile yokukhiqiza.

Idatha yesivuno ekhona ye-Ratel esuka kumatravely ama-*Elite* e-ARC eqhathaniswa namazinga ezindawo ezahlukene.

### Idatha yesikhathi eside

Kule minyaka emine i-avareji yedatha yesivuno se-Ratel kule ndawo ikhombise ukuthi *i-cultivar* ingancintisana kahle nerenti yesivuno sokuqala noma sesibili ngokwemibandela yamazinga esivuno ebandakanyekayo yokukhetha kahle ngesivuno.

Kuleminyaka emine i-avareji yedatha yesivuno se-Ratel kule ndawo sikhombisile ukuthi *i-cultivar* ingancintisana kahle nerenti yesivuno noma ngane eyokuqala noma eyesibili ngokwemibandela yamazinga esivuno ebandakanyekayo ukukhetha kahle ngesivuno.

Ngesizini edlule, i-Ratel iqhudelane kahle namazinga esivuno, ebandakanyeka ku-ARC *Elite Trials*. E-Swartland (iyodwa indawo) ne- *Rüens* (amabili asendaweni), i-Ratel yaphuma isibili ngesivuno esiphezulu kakhulu, ilinganisa namazinga esivuno esibandakanyekayo kuma-trials.

**Loluphenyo  
Iwenziwa ngoxhaso-  
mali yi-Winter  
Cereal Trust kanye  
ne-ARC.**

*I-athikhili ibhalwe ngu-Rorisang Patose, u-André Malan no-Ian Heyns bakwa-ARC-Small Grain, e-Bethlehem. Uma ufuna imininingwane egcwele noma iseluleko thintana no-Dr R Patose ku-058 307 3430 noma u-Dr A Malan ku-058 307 3446.*

# I-Grain SA i-intavye... u-Organ Gasetswela Serema



masinyane futhi ngiyakwazi ukumelana namona yiziphi izinselelo engingahlangabezana nazo.

**Ubuthakathaka:** Angikwazi ukuhlala nje ngingenzi lutho.

## Ngabe sasingakanani isivuno sesilimo sakho ngenkathi uqala ukulima? Ngabe singakanani isivuno sakho manje?

Ngenkathi ngiqala ukulima, ngavuna okulinganisela ku-0,5 t/ha ujikanelanga no-2 t/ha ummbila. Lapha yingesikhathi ngisasebenzisa izindlela zakudala zokulima.

Njengamanje izivuno zami silinganisela ku-1,5 t/ha no-2.5 t/ha njikananelanga, kuya ngesizini. Ummiba wami u-3 t/ha kuya ku-5 t/h, kodwa sekunesikhathi ngayeka ukutshala, ngenxa yokweba endaweni yethu.

## Ucabanga ukuthi yini umthelela omkhulu wenqubekelaphambili nempumelelo yakho?

Ngikhola ukuthi I-Grain SA ibe nomthelela kunqubekelaphambili nempumelelo yami njenqoba kuyibo abanginike ingqequeso futhi yangivula amehlo okubona izindlela ezintsha zokulima. Baphinde bangifundisa izindlela ezintsha ezinkulu zokulima futhi ngifunde kakhulu kule study group meeting engayethamela nge-Grain SA. Ukusekelwa okwenziwa epulazini engakuthola kumxumanisi wethu wesifundazwe, u-Du Toit van der Westhuizen kuyamngaza.

Ubaba wami ongasekho, uPetrus Serema, naye wadlala enku indima emsebenzini wezolimo njengoba kunguye owangethula kwezolimo futhi wangiqequesha kusukela ngisemcane kakhulu. Ngaqala ukulima ngo-2001, ngisebenza ngokulingana naye futhi wangifundisa ukuthi ngizaziphilisa ngolimo, nokuthi ngingaphumelela kunoma yini uma ngibeka umqondo wami kukho.

## Ngabe iyiphi ingqequeso osuyitholile namuhla futhi iyiphi ingqequeso osathanda ukuyenza?

Ingqequeso engayithola kuze kube manje imbandakanya: I-Basic Engin epairs, I-Introduct-

tion for sorghum Production, iisifund se-Setting of Implants-Practical Skills, i-Farming for Profit, i-Introduction to Sunflower Production and Tractor and Farm Implements Maintenance.

Ingqequeso engisafisa ukuyenza imbandakanya: I-Introduction to Soybeans, I-Introduction to Graoundnuts, I-Business Ethics, I-Advanced Sunflower Production and Marketing kanye ne-Advanced Maize Production and Marketing.

## Uzibona ukuphi eminyakeni emihlanu? Ngabe yini ongathanda ukuphumelela kukho?

Ngingathanda ukuzibona ngingaphezelu komlimi ofaka inzuso kodwa abe ngumkhiqizi-njengokuhiqiza nokuphakheja imikhiqizo yami njengowoyela ovela epulazini, impuphu yommbila evela emmbileni engiwulimayo, amabele njll.

Ngingathanda ukuba nepulazi lami futhi ngingaqashi emnyangweni – kodwa libe ele-yami. Ngifuna ukuba netayitela yepulazi lami engizithengele lona.

## Yisiphi iseluleko ongasibhekisa kubalimi abasebancane?

Abalimi abancane kufanele bengayeki ukuba namaphupho amakhulu, bengayeki ukusebenza kanzima, kufanele bazimisele futhi bangayeki ukufunda.

Ngiyakhola ukuthi zonke izinsuku kuhlale kunento entsha ongayifunda. Kufanele bafunde ukuzimelela bengadumali, kufanele bagxile kulkho abathanda ukuphumelela kukho. Ngake ngadumazwa abantu engisondelene nabo, bathe ngeke ngiphumelele ekulimeni, kodwa ngafunda ukubeka emva kwami konke ukungabaza kodwa ngagxila enhlosweni yami.

Kwesinye isikhathi angizange ngikhola ukuthi ngelinye ilanga ngingahlala epulazini futhi kube yimi olimayo, kodwa angizange ngyeke ukwethemba nokuphupha futhi nakhu lapha ngikhona namhla ngenza lokho kanye. Ukusebenza kanzima kungathatha indlela eyodwa ende. ☺

I-athikhili ibhalwe nguLebo Mogatanyane, oyi-Office Assistant and Du Toit van der Westhuizen, I-Development Co-ordinator of the Grain SA Farmer Development Programme, eSifundazweni seNyakatho Ntshonalanga. Uma ufuna imin-ingwane egcwele, thumela i-imeyili ku-lebo@grainsa.co.za noma ku-dutoit@grainsa.co.za.

**U**kusebenza kanzima, ukuzinikela nokuzimisela ngamakhwalithi enza u-Organ Gasetswela Serema umlimi ophumelelalo njengoba enguye. U-Organ ukholwa ukuthi uma ubeka inqondo yakho entweni, ngokwesimo sakhe, ukusebenza nokuhlala epulazini, ungaphumelela.

## Ulima kuphi futhi mangakhi amahetha owalimayo? Ngabe yini oyilimayo?

Ngihlala ebangeni elingu-25 km ngaphandle kwe-Lichtenburg ePulazini eBethlehem, engiliqashe kuMnyango wezokuThuthukiswa kweZindawo eziSemakhaya neZinguquko Kwezomhlabo. Ngine eksesi ka-270 ha womhlaba wokulimano nepulazi elinojikanelanga nommbila.

## Yini ekugqugqzelayo /ekufakela ugqozi?

Ngikhuthazwa ukuthi ngiphinde ngixhase ekuvikeleni ukudla ezweni lethu. Nami ngibonile ukuthi, ngokulima, ngiyingxenyen yesheyini elondla isizwe.

## Chaza amandla nobuthakathaka bakho

**Amandla:** Ngisebenza kanzima, ngiyabekela, ngingumxazululi wezinkinga, ngicabanga

# Ngingancintisana kanjani NABALIMI ABAKHULU? (Ingxenye 2)



**Nakekela kahle amathuluzi akho uqinisekise ukuthi akukho okumoshekayo noma izindleko zokwephukile.** Isithombe sithwetshulwe u-Johan Kriel

**U**kandela le-athikhili edlule (kaMeyi) kufanele manje uhlole izinsiza, lungisa umbono wakho womsebenzi wokulima "okuncane" futhi uphophule ukuqhathanisa i-gross margins yezilimo zokusanhlamu ukuthi uyakwazi ukulima ungenise inzuso epulazini lakho.

## Ukuqhathaniswa kwemali engenayo kusukela esikhathini sokukhiqiza sika-2016/2017

Izilimo zenu eziningi zokusanhlamu mhawumbe sezivuniwe manje futhi ukuhlaziwa kwesivuno nemali engenile okwenziwe kuzophothulwa. Njengesilinganiso nokusebenza ngokulinganisa okwenziwe yi-Crop Estimates

Committe (i-CEC) ngokwesivuno esi-avareji imali isiyonke engenile ihektha ngalinye izoba njengoba ikhonjisiwe ku-Thebula 1.

Qhathanisa imiphumela nama-avareji ezweni lonke bese uhlola isimo sakho sezezimali njengamanje. Uma isivuno sakho singcono kusho ukuthi ukwazile ukuncintisana ne-avareji yabaliyi abangenisa inzuso abaphakathi nabakhulu kakhulu. Uma ukwazile ngicela uzihalalisele!

Okumele kucabange kakhulu ukuba unqueme uma imali yakho engenile isiyonke emva kwezindleko ngqo ikwazile ukubhadala zonke izindleko ezinqunyiwe noma izindleko ezinkulu okubalwa kuzo impahla yokusebenza esigugile nezimali ezithathile noma iholo. Uzeshesha

ubone uma wenza inqubekelaphambili futhi uphila "njengomlimi omncane".

## Ukungeza i-velu empahleni

Uma isivuno sakho sibe phezulu ngokwanele ngokwamandla enhlabathi yakho nokuvunda ungakwazi ukudayisa isilimo sakho sonke ku-silo noma i-co-operative futhi ulungele ukuncintisana emakethe ngesizini elandelayo. Uma isivuno sombila sisincane kungaba kuhle ukugcina okusanhlamu kwakho uma uJulai wonyaka ozayo izimakethe zangomuso ziphezulu 'kunalezi' intengo noma ungeze i-value emmbileni ogcinwe epulazini. Noma ungangeza i-value kwezinye izingxenye ngokukhiqiza ubisi no/noma ushizi, ngokuqedu ukulumula amankonyane ebeleni,

**Ithebula 1: Imali engenayo isiyonke ekhandwe yihektha ngalinye.**

Isilimo	I-avareji yamathani esivuno/ha	I-Safex noma amanye ama-value thani ngokwama-Randi	Umehluko wezithuthi ezilinganisiwe	I-Nett value	I-Gross income/ha
Ummiba ophuzi	5,90	R2 010,00	R200,00	R1 810,00	R10 679,00
Ujikanelanga	1,40	R4 618,00	R200,00	R4 418,00	R6 185,20
Ubhontshisi iSoya	2,00	R4 925,00		R4 925,00	R9 850,00
Ubhontshi	1,45	R14 000,00	R800,00	R13 200,00	R19 140,00

## Ithimba labahleli

### GRAIN SA: BLOEMFONTEIN

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## Ngingancintisana kanjani nabalimi abakhulu? (Ingxene 2)



Ukubajetha neqhinga elihlelekile kubalulekile. Isithombe sithwetshulwe u-John Kriel

beka amaqanda ezalelw izikhukhukazi ezizalelayo noma ukhqiize amachwane uzowadayisa ezimakethe zendawo njengezibonelo.

Imali engena ngokulima ubhontsisi phecelezi ama-speckled sugar beans nomunye ubhontshisi kungaba yisiphakamiso njengomlimi omncane futhi kuzokwenza ukwazi ukuqhela ekuncintisaneni nezimpahla eziyisisekelo ekhqiizwa imisebenzi ephakathi, emikhulu nemikhulu kakhulu yokulima. Kungaba kuhle, njengomlimi omncane, ngisho noma ukhqiiza okusanhlamvu usabalalise kube amabhizinisi amanangi angeza i-value ukukuqinisa uqhubekele phambili uzimelele njengomlimi. Uzoqinisekisa ukuthi uzhohlala uzisebenza futhi ngalendlela ngale ndlela uxhasa umndeni wakho, emphakathini wendawo nezwe.

### Ukuhlola iqhingq lakho lokukhiqiza ngesizini ezayo

Bheka imiphumela yesizini edlule ubone onke amafektha angadala noma angathikameza umkhijizo. Imishini noma abasebenzi kufanele bakwazi ukutshala isilimo ngasinye ngesikhathi esifanele sokukhiqiza ngesikhathi kanye nangenani elifanele lezitshalo futhi balawule ukhula nezinambuzane. Lesi yisikhathi sokuzifundisa wena ngokusebenzia ama-cultivar ezilimo nezindleka zokukhiqiza. Lokhu kungasho ugandaganda omusha noma ukufuna iplanta engenalo iphutha ne-rig yokufafaza ukwenza isibonelo.

Bheka intengo yomshini ngamunye ku-zindleko eziqonde ngqo nezindleko zebhajethi ezinqunyi ubone ukuthi ikuphi lapho ku-

ngensiwa khona ngcono intengo noma ikhono lokusebenza lingatholakala khona. Kungasiza futhi uma ama-input akho okukhiqiza engahlanganiswa futhi athengwe emaketha ngebuningi beso ehlukaniselwa umlimi ngamunye umlimi ohlanganyelayo.

Njengomlimi omncane, ungasopha ukwenza 'okuningi ngokuncane' kodwa usebenze ngohlelo lokukhiqiza oluqinile. Yenza ngcono amakhono akho ngesisekelo esiqhubekayo futhi uxoxisane nabalimi bendawo ngokwabelana ngezinsiza ukutshala nokuvuna izilimo kanye nokwabelana ngamaphrojekthi nangokuthenga impahla efanele ezokwazi ukwenza imikhijizo ezodayisa ezimakethe zendawo ukungeza izinga kusisekelo sama-commodity okusanhlamvu okulinywayo.

### Isiphetho

Cabangisa ngokujulile ukuthi ngabe okusanhlamvu noma ubhaskidi wokusanhlamvu okukhiqizwayo ekusebenzeni kwakho kuzokwenza ukukwenza 'uncintisana' futhi uphile endaweni yemaketha enobungozi. Ngamandla cabanga ngokukhetha ukwenza uphenyo ibhizinizi elizokwengeza izinga elifanele lokukhiqiza umkhijizo ofanele wokudayisa emphakathini wakho. ☺

*I-athikhili ibhalwe ngumlimi osathatha umhlalaphansi. I-athikhili ibhalwe ngumlimi osathatha umhlalaphansi.*



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