

# PULA IMVULA

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GRAIN SA  
GRAAN SA

UOKTHOBA  
2013

## Sesifikile leso sikhathi somklomelo

### WOMFAMA WONYAKA

Incwadi yeGrain SA  
yabalimi abasakhulayo

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**U**kulima, kungakhathalekile ukuthi hlobo luni, kunzima ngempela. Kudinga ube nolwazi oluningi, ukuzethemba kanye nesibindi. Ukuba wumlimi wezinhlamvu kunezinselelo eziningi kakhulu, ngoba usebenza ngaphandle (hhayi ngaphansi kophahla), unezindleko eziphezulu, ubhekene nezinselelo zesomiso, izikhukhula, imililo kanye nesichotho, ekugcineni kwakho konke akunanzuzo etheni.

Uma ungumfama osathuthusa ubhekana nazo zonke lezi zinselelo nezinye ezingaphezulu. Kanti-ke amafama enzuzo wona ayakwazi ukusebenzisa ulwazi lweminyaka asebenalo kulelo

pulazi. Ngeshwa amafama 'amasha' wona kumele aziphathela konke ngaphandle kokuthola usizo, baqhudlane nezwekazi lonke ukuze izilimo zabo zithengiswe ngamanani ezimakethe zezwe.

SingabakwaGrain SA, sinoHlelo lokuThuthukisa amaFama onhlosongqangi yalo "Kungukuthuthukisa amafama omdabu anekhono alima izinhlamvu, futhi sifake nesandla ekuvikelekeni





## Sesifikile leso sikhathi somklomelo woMfama woNyaka

### UGOGO JANE UTHI...

nyanga ka-Okthoba ingaba ngenye yezinyanga ezinhle onyakeni (uma nje kube nezimvula zasentwasahlobo), kepha ngeshwa ivame ukuba ngenye yezinyanga ezinzima kakhulu uma kumele kondliwe imfuyo emvakokudlula kwamakhaza asebusika. Ngisho noma ngabe imvula ibe khona, kodwa-ke utshani busuke bungakakhuli ngokwanele ukuze imfuyo ikwazi ukudla. Utshani basemadlweni busazacile. Yiso-ke lesi sikhathi lapho umfana kumele ame ngazo zombili abone ukuthi imfuyo yakhe inokudla okwanele.

Kuningi okumele kwenziwe ngaphambi kokutshalwa kwesilimo. Umhlaba kumele uqhahqwe (kususwe ileyi eligqishelene lomhlabathi), bese usetshenzwa ngedisc noma ityne implement ukuze kuphulwe amagabade. Lesi sinyathelo sivame ukulandelwa yishallow tyne operation ukuze kulungiselelwe umbhede wembewu eqaqene, emanzi futhi engenalo ukhula.

Enye yezinselelo zokulinywa kwesilimo ukutshala isilimo ngesikhathi esifanele (optimal time).

#### Izinsuku zokutshala

Lapha ngezansi yithebula elikhombisa izinsuku zokutshala, ezilungele ukutshala kanye nezinsuku okumele kugcinwe/kuphezwe ngazo ukutshala. Kubalulekile ukuba sizijwayeze ukutshala ngezikhathi ezilungele ukutshala kunokuba sizame ukutshala zonke izilimo lapho sekusondele isikhathi sokupheza ukulima. Kunezinto ezimbalwa okumele zenziwe ngaphambi kokutshala (ukuthila okusezingeni eliphansi kubandakanya iripping, idiscing kanye nokulungiswa kombhede wembewu). Isivuno esilindelwe siba siningi uma kulandelwe ngononinco izinsuku lezi ezilungele ukutshala.

Uma unethemba lokuvuna isilimo esihle, uyacelwa ukuba ubheke isikhathi esifanele sokutshala – lokhu kungenza umehluko omkhulu kakhulu esivunweni ongasilindela.

Isilimo	Usuku olulungele ukutshala			Usuku lokupheza ukutshala		
	Mpumalanga	Ma-phakathini	Ntshonalanga	Mpumalanga	Ma-phakathini	Ntshonalanga
Umbila	15 Okth - 15 Nov	15 Okth - 15 Nov	1 Nov - 16 Dis	30 Nov	20 Dis	25 Dis
Ubhekilanga	Akucetshiswa	15 Nov - 25 Dis	15 Nov - 31 Dis	Akucetshiswa	15 Jan	25 Jan

kokudla ezweni ngokusebenzisa ngendlela eyongayo zonke izinsiza zemvelo umfama ngamunye anazo". Sikholwa ukuthi njengoba inani labantu emhlabeni landa, kumele sihlale njalo sivule amehlo sazi izinguquko zayo yonke imikhakha yempilo yesimanjemanje. Kumele futhi sizwisise ukuthi akusiwo wonke umuntu ongakwazi ukuba nepulazi elikhulu elingenisa inzuzo (ngoba umhlaba kwawona awumkhulu ngokwanele).

Ohlelweni lwethu, siyazama ukusiza noma ngubani ofuna ukuthuthukisa izindlela zakhe zokulima ukuze akwazi ukukhiqiza kangconywana emhlabeni lowo anawo. Sisebenza namafama anomhlaba obuncane bawo bungangehektha eli-1, kanye nalawo mafama anomhlaba obukhulu bawo bungamahektha eqile ku-1 000. Uma sizokwazi ukondla isizwe, isiqephu nesiqephu somhlaba kumele sisetshenziswe futhi sithele.

Njengoba sekushiwo ngenhla, umsebenzi wempulazi unzima ngakho-ke sesibonile ukuthi kubalulekile ukuqhubeka njalo ngokugququzele abantu ukuthi ukuhlale njalo bezama bangadangali. Kumele futhi sikhombise nentsha ukuthi ukulima akusiwo umsebenzi onzima nje kuphela kepha uyayingenisi nzuzo yize unzima. Ukuze sikhombise isasasa futhi sigququzele labo abangosomapulazi, sinomncintiswano woMfama woNyaka emazingeni amathathu ahlukene – yilabo abakhiqiza amahektha angaphansi kwayishumi (subsistence), labo abakhiqiza izinhlamvu emahlektheni ayishumi kufikela kumathani ayi-250 unyaka nonyaka (smallholder), nalabo abathathwa njengamafama enzuzo. Funda kabanzi ngabathathi ngxenye kuPula/Imvula yale nyanga. Kulo nyaka sizoba nosuku lwethu lokugubha ngomhla ka-17 Okthoba eMangaung.

Sethulela isigqoko abasebenze kanzima ukumelana nezinqinamba abaye babhekene nazo endleleni yabo. Laba bathathi ngxenye bomncintiswano benze imizamo emikhulu ukuqinisekisa ukuthi abantu baseNingizimu Afrika banokudla okwanele nsuku zonke. Asibancomi nje kuphela, kepha siyababonga futhi ngenxa yemizamo yabo – ngaphandle kwenu ngabe asinakudla! Siyaziqhenya ngani ngoba nisigcina siphokophelele phambili njengamafama asafufusa.

**I-athikhili ibhalwe nguJane McPherson, uMphathi woHlelo lweGrain SA lokuThuthukiswa kwamaFama. Uma ufuna imininingwane egcwele thumela i-imeyili ku-jane@grainsa.co.za.**





# Isizini yokutshala isifikile: Masishone khona!

**O**kuyiyona mfihlo yokulima okuyimpumelelo ukuhlela. Kubalulekile ukuhleleka futhi ube nesu elicacile ngalokhu ozokwenza. Ngakho-ke cabangisa kahle ngezinhlelo zesizini entsha uphinde ucabange nemibuzo ozoyibuza ongcweti basekhaya bezolimo ukuze ugweme amaphutha angakudla izindodla zezimali futhi achithe nesikhathi esibalulekile sokutshala.

Khumbula ukuthi ummbila udinga amanzi aphakathi kuka-450 kuya ku-600 wamamilimitha isizini ngayinye. Kuzothi lapho usukhulile khona isitshalo ngasinye sizobe simunce amanzi angango-250 wamamilimitha noma inkomishi eyodwa egcwele. Wonke lawa manzi awumswakama otholakala emhlabathini. Imilimitha ngalinye lamanzi likhiqiza u-15 kg wenhlamvu kanti lapho sesikhulile icembe eliphelele lingadlula *isquare meter* sesitshalo ngasinye.

## Sazi kanjani ukuthi imbewu kumele itshalwe ngokujule kangakanani na?

Uma sitshala imbewu siyakwazi ukuqinisekisa ukujula kwayo, ngakho-ke kubalulekile ukuqinisekisa ukuthi imbewu yombila itshalwa ngendlela eqinisekisa ukuthi ithintana nomhlabathi ngokwanele. Izimbewu kumele zicindezelwe phakathi emhlabathini ukuqinisekisa ukuthi zimunca u-30% wesisindo sazo emanzini ngoba lokhu kwenza isitshalo sikhule masinya.

Futhi-ke uma zitshalwe kahle, izimbewu zikwazi ukumila izimpando ezingamanodi ezinqinile. Ngakho-ke kubalulekile ukuqinisekisa ukujula kwembewu kuyafana embhedeni wonke wembewu. Lokhu kukhula kwezimpande zamanodi kumele ngokujwayelekile kuqale ku-2 cm ngaphansi kolayini womhlabathi. Izimpande zamanodi zisebenza ukweseka isitshalo sommbila, kanti futhi yizona ezisiza ukumunca iningi lamanzi kanye namanyuthriyenti azodingwa isitshalo sommbila impilo yaso yonke. Ngakho-ke ukumila kwezimpande zenodi ezinhle esigabeni sokuqala yiyona mfihlo yokunciphisa i-*early root lodging*, kanti kuzosiza nesitshalo sommbila ukumelana nengcindezi yesomiso.

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*Qala ngokuhlela bese uyalingiselela – usungatshala. Qiniseka ngezinyathelo ohlele ukuzithatha futhi ulungele ukuqhubekela phambili ngokutshala isilimo sakho esisha masisha lapho isikhathi kanye nezimo ezinhle zokulima zivela.*

Ukutshala imbewu yombila ekujuleni okufanelekile buka-4 cm kuya ku-5 cm kuzoqinisekisa ukuthi izimpande zamanodi ziqala ukumila ngaphansi kolayini womhlabathi. Uma imbewu itshalwe yangajula imbewu, ingaholela ekumileni kwezimpande zamanodi kuwo ulayini womhlabathi noma nje ngaphezulu kwawo. Amanye amafama anokwenza iphutha lokucabanga ukuthi imbewu yombila etshalwe yangajula izoqhuma masinya. Ososayensi bona benze ucwaningo olukhombisa ukuthi le nkolelo ayilona iqiniso. Ucwaningo lwabo luveze ukuthi imbewu etshalwe ekujuleni kuka-4 cm iqhume yavela masinya ukudlula leyo etshalwe ku-2 cm wokujula. Umehluko kusivini sokuqhuma yingenxa yokuhlangana nomhlabathi okungcono ekujuleni kuka-5 cm lapho amazinga omswakama womhlabathi asimeme. Omunye umthelela yizinga lokushisa lomhlabathi okumangazayo ukuthi lithe ukuba phezudlwana ekujuleni kuka-5 cm ngoba 'ivalelekile' (umhlabathi ufana nengubo) – ikakhulukazi ekuqaleni kwesizini ngenkathi ilanga lingashisi kakhulu.

## Ngabe ngesiphi isikhathi esifanele ukutshala ummbila?

Izilimo zombila zisebenzisa ukukhanya kwelanga ngokonga, kanti futhi zidla ubhedu ekuguquleni amandla elanga. Zidonsa amandla elanga ziwaguqule abe yizinhlamvu. UJ du Plessis we-ARC Grain Crops Institute uthi lapho sezikhulile, amandla asetshenziswa yisitshalo esisodwa silingana no-8 293 x 15 watts wamalambu kagesi ngehora elilodwa.

Umbila yisilimo sezimvula zasehlobo kanti asivunwa ezindaweni lapho amazinga okushisa ansuku zonke angaphansi kuka-19°C. Izinga eliphansi imbewu yombila engamila ngaphansi kwalo u-10°C kepha amazinga okushisa afanelekile u-16°C kuya ku-18°C. Ummbila uyazwela kakhulu yisithwathwa kanti udinga indawo engenasithwathwa izinsuku ezibalelwa kwezi-120 kuya ku-140, ngakho-ke isikhathi sokutshala kumele sicutshangiswe kubhekwe nobungozi besithwathwa esiza kamuva sibe sesidlulile. Ngesikhathi lapho imbewu isamila ngaphansi komhlabathi isithwathwa asivamile ukuba nobungozi esitshalweni ngoba amacembe amasha asengamila. Uma isilimo sitshalwe emvakwesikhathi, isithwathwa sakuqala lapho sekusondele ihlobo singenza ubungozi obukhulu futhi sibe nomthelela omubi esigabeni sokugcwala kohlamvu okunciphisa isivuno kakhulu.

Izinhlobo ezihlukile zama-*hybrid* ezimbewu zinezikhathi ezihlukile zokukhula kanti lokhu kuba yithuluzi elihle lamafama. Uma isizini yokutshala ibambezelekile okuholela kusizini emfushane, amafama anganquma ukushintshela embewini efinyelela ekukhuleni ngokwesiqu masinya ukuze isitshalo sikhule ngaphambi kokuqala kwesithwathwa.

Ukuhlela isigaba sama-*input* kanye nomkhqiizo kubaluleke kakhulu uma uhlelo lwakho lokulima luzoba nesasasa. Amafama awanamandla phezu kwamazinga okushisa kanti futhi awanamandla phezu kwezimakethe namanani, kepha bananamandla ekutheni bawasebenzisa kanjani ama-*inputs* nokuthi isilimo siphathwa kahle kanjani.

## Irefrensi

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# Ukukhqizwa kanye nenzuzo yesoya njengomthombo wokudla

Isitshalo sesoya siwela ngaphansi kwe 'Gycine max' embusweni wezitshalo kanti sivame ukubizwa njengesilimo somhlola. Ukukhqizwa kwesitshalo sembewu yesoya kuseyiwona mkhqizo wembewu kawoyela okubaluleke kakhulu lapha emhlabeni.

## Umkhqizo kwazwelonke wembewu kawoyela

Idatha yomkHQizo kazwelonke yonyaka ka-2011 ikhombisa ukuthi isoya yongamela ngo-56% ekukhqizweni kwembewu kawoyela amametric tons ayi-452,5 izigidi. Ukuyicacisa kahle le ndaba inombolo lena ithi u-452 500 000 wamametric tons.

Ezinye zezilimo zembewu kawoyela ezinomthelela kulo mkHQizo ku-MMT zinjena: irapeseed efaka kuyo icanola 60,80 ku-13%, imbewu kakovini 46,60 ku-10%, imbewu kabhekilanga 38,90 ku-9%, amakinati 35,50 ku-8%, ipalm kernel 13,40 ku-3% nembewu yecopra 5,80 ku-1%.

## Umkhqizo kwazwelonke wesoya

Idatha yonyaka ka-2011 ikhombisa ukuthi isamba sokukhqizwa kwesoya umhlaba wonke jikelele esiwu-251,50 MMT ngezwe ngalinye sinjena: iMelika u83,2 ku33%, IBhrazili u-72,0 ku-29%, iAjenthina u-48,0 ku-19%, iChina u13,5 ku-5%, iNdiya u11,0 ku-4%,

iParaguay u-6,4 ku-3%, iKhanada u-4,2 ku-2% nezinye u-13,1 ku-5%.

## Ukusetshenziswa kwezwelonke kukawoyela wemifino

Idatha yonyaka ka-2011 ikhombisa ukuthi ukusetshenziswa kukawoyela wemifino ku-MMT kuhamba kanjena: iPalm oil u-49,6 ku-33%, isoya u-42,6 ku-28%, irapeseed u-23,2 ku-15%, ubhekilanga u-12,9 ku-9%, imbewu kakovini u-5,2 ku-3%, amakinati u-5,2 ku-3% napalm kernel engu-5,1 ku-3%, ikhokhonathi u-3,9 ku-3% kanye ne-olive oil u-3,0 ku-2%.

## Umkhqizo waseNingizimu Afrika

Lezi zinombolo ezingenhla zomkHQizo zisiza ukubeka umkHQiza waseNingizimu Afrika wesoya endaweni efanele. INingizimu Afrika ngenye yamazwe angama-5- akHQiza isoya.

Ngesizini edlule iNingizimu Afrika ikHQize amathani angama-800,000 noma ngamanye amagama ikHQize u-800 wamametric tons. Lesi yisibalo esincane uma siqhathaniswa nomkHQizo kazwelonke. Enanini lika-R4 700 ithani ngalinye lokhu kusho inzuzo ka-R3 760 wezigidi noma u-R3,76 wamabhiliyoni amarandi. Ngokwelizwekazi lethu wumnikelo othe xaxa kwezolimo kanye nasezwekazi lethu lonke.

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*Kusemahlombe omfama waseNingizimu Afrika ukuba enze ucwaningo olunzulu ngezindlela ezisetshenzi-swayoukukHQiza isoya ukuze kukhushulwe isivuno sikazwelonke. Ngokwenzenjalo amafama ethu azokwazi ukukhubeka ngokufaka isandla ngalesi silimo esibalulekile kulelizwekazi lethu njengokunye kokudla okuzosiza ekuvikelekeni kokudla ngoku zayo.*

## Ukuhweba ngamaqebelengwane kawoyela

UmkHQizo wamanje wesoya waseNingizimu Afrika awukho mningi ngokwanele ukumelana nezidingo zeNingizimu Afrika zeqebelengwane likawoyela wesoya, okuyiby-product ebaluleke kakhulu yemboni ekhama imbewu yesoya. Iqebelengwane likawoyela wesoya yingxeny ebalulekile futhi ebucayi yokudla kwemfuyo embonini yemfuyo. Kanti futhi iwumthombo omuhle wephrotheni ekudleni kwezingulube, izinkukhu, izinkomazi zobisi kanye nezinkomo. Amareshini esiko aqukethe ukudla kwezinhlanzi.





## UKUKHQIZWA KWESOYA

Lo mkhizizo usesimeni esibucayi kanti futhi usubiza kakhulu njengomthombo wephrotheni wamareshini emfuyo abiza u- R11 900 00 ithani ngalinye.

I-Ningizimu Afrika ihweba ngo-900,00 wama-*metric tons* eqebelengwane likawoyela ngonyaka esambeni senani lokuhweba elingamarandi ayi-4 amabhiliyoni. Uma kwenzeka irandi lehla lifika ku-R10,00 uma liqhathaniswa nedola lase-Melika kusho ukuthi imali yamazwe angaphandle edingekayo izoqhubekela phambili ikhuphuke njalo. Ngakho-ke amafama asengakwazi ukukhiziza inani elengeziwe lesoya. Kepha-ke noma kunjalo akunamandla anele okukhama imbewu yesoya ezimbonini zesimanje ezenzelwe wona lo msebenzi. Uwoyela wesoya ungakhanywa ngokufanle nje kuphela uma kusetshenziswa *irecoverable solvent process* ukuze kukhanywe inani eliphhezulu likawoyela kumbewu leyo yesoya.

### Isoya – inzuzo yokudla kanye nabanye abasebenzisi

Imbewu yesoya yenziwe ngowoyela wesoya kanye namaphrotheni, enza u-60% wesoya elomile ngesisindo. Isilinganiso sikawoyela kumbewu eyomile u-18% kuya ku-20%, bese kuthi amaphrotheni wona abe ngu-36% kuya ku-40%. Lokhu okusalayo kuba ngu-35% wamakhabohaydrihi no-5% womlotha noma amaminerali. Iningi lama-*amino acid* abalulekile lenza isilinganiso samaphrotheni kanye namavithamini B, C, E no-K kanye namaminerali afana nekhalsiyamu, i-iron, imagneziyamu, ifosforasi, iphotheziyamu, isodiyamu kanye nezinc.

Njengoba sibona imbewu yesoya ibaluleke kakhulu njengomthombo wokudla okunomsoco okudingwa ngabantu kanye nemfuyo. Izilwane ezetshisayo ezifana nezimvu kanye nezinkomo zingadla imbewu eluhlaza emadlweni emva-kokuvunwa kwesilimo sesoya. Kanti izilwane ezinesisu esisodwa ezifana nezingulube kanye nezinkukhu zona zidinga kuphela amaphrotheni agayiwe ngaphambi kokuba zikwazi ukuyidla. I-*trypsin* yona-ke ingushevu okungamele udlile ngabantu.

Isitshalo sesoya uma sivunwe ezimweni zokuniselwa kanye nezomhlaba owomile kanye nesimbiyosisi *nerhizbium bacterial root nodules*, silungisa inaythrojini esemoyeni. Le naythrojini inika u-65% wenaythrojini edingekayo ukukhiziza imbewu. Ngempela lesi yisitshalo sezimanga.

### Okusetshenziswa/okudliwa ngabantu

Iphrotheni yesoya izinzile kanti futhi ingaphekeka emazingeni aphezulu okushisa ukwenza ngaphakathi kokunye ithofu, okuwukudla okuthambhe sashizi okunamaphrotheni amaningi, ubisi lwesoya olwenziwe ngembewu ephelele egaywe yacwiliswa emanzini yase ifudunyezwa umusi, kanye namaphrotheni emifino angekho bushelelezi. Imikhizizo yamaphrotheni emifino angekho

bushelelezi ingatholakala ezimakethe eziningi lapha e-Ningizimu Afrika kanti iyimithombo emihle yamaphrotheni angafakwa ekudleni kwabantu kwansuku zonke.

Umkhizizo wobisi lwesoya yinhlanguanisela yamakhabohaydrihi kanye namaphrotheni efana ngqo nalokho okutholakala obisini olu-jwayelekile. Ubisi lwesoya lungenziwa iyogathi enganandisiwe noma ixutshwe neziningo zemvelo bese imakethwa njengoketshezi olwaziwa njengeyogi sip. Yonke le mkhizizo ingaphekwa emakhishini asemakhaya noma ezimbonini ezinkulu kusetshenziswa imishini emikhulu.

Amaphrotheni atholakala kusoya alingana nalawo atholakala enyameni, emaqandeni kanye nakucasein okusiza ukukhula kanye nempilo enhle yabantu.

Mandulo, ngaphambi kokuba yaziwe futhi iqoshwe phansi, isoya yayilinywa eMpumalanga ne-Asia mandulo ngaphambi kanti nanamuhla iseyisilimo esiwukudla okubaluleke kakhulu eChina, Japan kanye naseKorea njengakwezinye izingxenyane zezwe. Iningi lalawa mazwe asephucule izinga lokukhizizwa kanye nokudayiswa kwemikhizizo yesoya ebilisiwe efana nesoy sauce, itempeh, inatto nemiso. Ibhaktheriya ebalulekile evela ngenkathi kubiliwa isiza ukuphula iphrotheni ukuze ibe ngama-*amino acid* agayeka kalula esiswini.

Amacultivars avela kula mazwe akhethwe ngokucophelela okukhulu eminyakeni angama-2 000 edlulile kwenzelwa umkhizizo wezolimo. Lamacultivar asalalala eNyakatho yonke enze isisekelo *segenetic cultivar* eyenza amacultivar emvelo kanye nalawo *atrans-genetically altered* kulezi zinsuku.

Ukuphuculwa kwamatrans-genetic cultivar kufakelele amagene ukuze izitshalo zesoya zimelane nechemical glyphosate ese tshenziselwa ukulawula ukhula ekukhizizweni kwesoya kwesimanjemanje.

### Isiphetho

Isoya ukudla okubalulekile, ikakhulukazi emhlabeni oqhubekela njalo wanda, kubalwa lapho abantu base-Ningizimu Afrika kanye nemfuyo. Kusemahlombe omfama wase-Ningizimu Afrika ukwenza ucwaningo ngezindlela ezifanele zokukhizizwa kwesoya ngaphansi kwezimo zomhlaba owomile noma lowo oniselwayo ukuze kukhushulwe izinga lesivuno sikazwelonke. Ngokwenzenjalo, amafama ethu azokwazi ukuqhubeka njalo afake isandla ekwenzeni lesi simila esibalulekile njengengxenyane ebalulekile yokuqinisekisa ikusasa lokuvikeleka kokudla kulelizwekazi lethu. 🍓

**I-athikhili ibhalwe ngumfama osethathu umhlalaphansi.**

# Abaqokiwe ku-2013

## SUBSISTENCE FARMER NGABO...



**UPatrick Nxumalo**

**U**Patrick Nxumalo wazalelwa endaweni yasEmangweni eduze naseWinter-ton lapho aphinde wakhulela khona. Waqala imfundo yamabanga aphansi Eman-gwaneni *Primary School* bese waseqhubekela esikoleni samabanga aphakeme iSizathina *High School* lapho aqeda khona ibanga le-10. Waqala ukusebenza eWelkom ngonyaka ka-1979 efekhri kufikela ngonyaka ka-1983. Emva-kwalokho wasebenza embonini ekhiqiza iplastiki eGoli kufikela ngonyaka ka-1989. Efuna amanye amathuba wasedlulela e-Estcourt lapho ase-benzela khona inkampani iMasonite kufikela ekupheleni konyaka ka-2000. Kusukela ngonyaka ka-2001 waqala ukusebenzela ibhizinisi leBhe-khari lasendaweni yangakubo. Emvakokushona okungalindelekile kukankosikazi wakhe ngonyaka ka-2006, uPatrick waphoqekeka ukuba ayeke uku-sebenza ukuze anakekele izingane zakhe.

Unezingane ezinhlanu. UNkanyiso owazalwa ngonyaka ka-1986 waphothula izifundo zakhe zebanga le-12 ngonyaka ka-1999. Usebenza njenge*hyster operator*. UNomalungelo owazalwa ngonyaka ka-1990 naye waphothula izifundo zakhe zebanga le-12. UNqobile yena owazalwa ngonyaka ka-1992, waphothula izifundo zakhe zebanga le-12

ngonyaka ka-2011 kanti manje uqhubekela phambili ngemfundo ephakeme eMnambithi FET College. U-Aphiwe yena wazalwa ngonyaka ka-1995 kanti ufunda ibanga le-11 bese kuthu uthunjana ongu-Ntombizethu (owazalwa ngonyaka ka-1999) yena ufunda ibanga le-9.

Uyilunga iEmangwaneni Study Group kusu-kela ngonyaka ka-2009. Useqede izifundo ezintathu okubalwa kuzo: *Introduction to Maize*, *Introduction to Soybeans* kanye ne*Farm Management*. Umhlaba awusebenzisayo ukulima ngowomphakathi ngaphansi kwenkosi yendawo. Unehktha elilodwa lomhlaba ovundile namahektha ayi-100 amadlelo ahlanganyelwe. Unezinkomo eziyi-15. Kule hektha lakhe elilodwa lomhlaba utshale umbila ophu-zi ofunwa kakhulu. Amafama angomakhelwane bakhe, abangamafama ezinkukhu athenga ku-yena bese kuthi loyo umbila osele ewusebenzisa ukondla izinkomo zakhe.

UPatrick angathanda ukukhulisa ipulazi lakhe kepha ubona ukweswela imali kumvimbela ukwe-nze njalo. Akanawo ugandaganda wakhe kanti udi-nga ama-*implements* afanele ukwenza umsebenzi wakhe ngokufanele. Unolwazi kanye nothando lokukhula abe ngumfama omkhulu ngelinye lama-linga, usho njalo.

**U**Emmanuel Hadebe wazalwa mhla ka-16 enyangeni kaSeptemba ngonyaka ka-1971 endaweni yaseThokoza maduzane ne-Estcourt. Ungowesine ezi-nganeni eziyishiyagalombili.

Uqale izifundo zakhe zamabanga aphansi ngonyaka ka-1979 esikoleni iThemba. Kusukela ngonyaka ka-1982 kuya ku-1984 walusa izinkomo zikayisemkhulu wakhe. Kwathi ngonyaka ka-1989 wadlulela eya esikoleni samabanga aphezulu i-Amahlubi lapho aqhubekela khona izifundo zakhe zikaMati-kuletsheni ngonyaka ka-1994. Waya eGoli ngenhloso yokuyofuna umsebenzi, kepha lelo phupho alifezekanga. Ngokuhamba kwesikhathi wanquma ukuthatha izifundo zokuba ngunogada wakwazi ukuthola iGrade C Security Certificate. Phakathi nonyaka ngo-1996 wakwazi ukuthola umsebenzi wasebenza njengonogada. Ngenkathi esebenza wakwazi ukwenza izifundo ezimfushane ezifana no*Project Management* kanye ne*Human Resource Management* neNyuvesi yaKwaZulu-Natali.

Ngonyaka ka-1999 wabuyela ekhaya lapho asebenza khona njengonogada esikoleni samabanga aphakeme iTatazela. Ngonyaka ka-2006 waqala ukulima amazambane (awayeka

ngonyaka ka-2009). Waqala eke manje eqala ukulima umbila kuhektha eli-1. Kusukela ngonyaka ka-2001 kuze kube yinamuhla uyilunga le*Non-Governmental Organisation* (uBhekuzulu *Self-sufficient Project*) esiza futhi yeseke izingane eziyizintandane. Washada noPhilisiwe ngonyaka ka-1997 kanti babusiswe ngezizingane eziyisikhombisa, izinsizwa ezimbili namadodakazi amahlanu.

Uneminyaka emine eyilunga elizimisele le-Emangweni *Study Group*. Usephothule nge-mpumelelo izifundo zokuqeqesha ezilandelayo: *Maize Production*, *iFarm Management* ne-*Introduction to Soybeans*. Unezinkomo eziyisishiyagalolunye. Usebenzisa umhlaba womphakathi ngaphansi kwenkosi. Okwamanje akanayo itraki yokulima amasimu akhe. U-Emmanuel uqale emhlabeni on-gamahektha ayi-1,8 omhlaba womphakathi kepha wase enza isinqumo sokutshala amahlektha ayi-9,5 ombila o*Roundup Ready*. Unethemba kakhulu kanti usecabanga nokuthola amasimu amanye futhi okutshala kule sizini ezayo. Angathanda-ke ukuzithengela itraki kanye nemishini yokusebenza ngokuzayo. Njengoba aqala ukusebenzisa ulwazi alutholile usenze ngaphezu kwalokho abekucabangile.



**UEmmanuel Hadebe**



## UMFAMA WONYAKA



UTO Mdluli

**U**TO Mdluli wazalelwa endaweni yase-Nhlozeni eziNtabezi zoKhahlamba, okungaba ngamakhilomitha angamashumi ayisithupha ngaphandle kweWinterton esifundeni saKwaZulu-Natali. Abazali bakhe babenezingane eziyishumi nesikhombisa kanti ziyisikhombisa kuphela ezaphila. Uyingane yesihlanu kanti unabafiwabo abane nodadewabo ababili.

Akazange angene isikole esijwayelekile kepha wangena isikole santambama ukuze azokwazi ukufunda nokubhala. Washada ngonyaka ka-1992 kanti unezingane ezinhlanu, indodakazi eyodwa neziznsizwa ezine. Izibulo lakhe lazalwa ngonyaka ka-1985, uSenzile ofunda esikoleni samabanga aphakame eGoli. Ngo-1989 kwazalwa uSakhile oseqedile isikole kanti usebenza epulazini elingekho kude nje nasekhaya. Ngo-1995 kwazalwa uSimcayi ofunda ibanga le-11. Ngonyaka ka-1997 kwase kuzalwa uBuyisane osebangeni le-8, kanti uthunjana yena uMafanelo wazalwa ngonyaka ka-2000. Uyaziqhenya ngelokuthi izingane zakhe ziyakwazi ukuya esikoleni kanti uzimisele ukuba zithole imfundo okuyiyona efanele.

Umyeni kaNkk. Mdluli, uNdlala Mbhele wayesebenza eGoli esebenzela inkampani edayisa inyama. Ngeshwa umyeni wakhe wabashiya ngonyaka ka-2002. Kusukela lapho kwase kumele athwale ijoko lokukhulisa izingane zakhe yedwa engenamsizi.

Wakhula ephila ngomhlaba, ngakho-ke kwaba yiyona ndlela yokuphila nokunakekela izingane zakhe. Inzuzo yakhe uyithola esiqeshaneni somhlaba lapho etshala khona amazambane, ubhontshisi owomile kanye nommbila. Wonke umsebenzi wokulima wenziwa ngezandla. Uphinde alungise izimpahla ezidabukile, athungele nomphakathi izingubo zokugqoka ukuze angenise inzuzo eyengeziwe. Akunagesi endaweni abahlala kuyona.

Umhlaba awusebenzisayo owomphakathi kanti ungaphansi kwenkosi yendawo. Unamahektha amabili omhlaba ovundile namahektha angama-50 ongamadlelo ahlanganyelwe. Unezinkomo ezintathu.

Kuhektha eyodwa yomhlaba ovundile batshala ummbila. Ubehlakula umhlabathi ngesandla esebenzisa ijeja. Uma eseqedile bese etshala imbewu azame nokugci-

na umhlaba uhlanzekile ngesandla. Wayetshala 'ummbila wesiZulu' omdala (*traditional open cultivar*), imbewu ayibeke ngenkathi eqeda ukuvuna. Ingxenye yommbila bayidla njengommbila oluhlaza (*green mealies*) bese lowo osele bewuvunela ukwenza impuphu. Bavuna ngesandla kanti namakhoba nawo ahlutshwa ngesandla. Kuleyo 'mbewu yesiZulu' badinga izikhwama ezimbili zamakhoba ukuze bagcwalise ibhakede elingamalitha ayi-20 ezinhlamvu. Kwakungelula ukuphila ngoba kumele bavune okwanele ukuze bakwazi ukuphila izinyanga eziyi-12.

Ngonyaka ka-2011 wahlangana noJurie Mentz, uMqondisi wezeNtuthuko oHlelweni lakwaGrain SA lokuThuthukiswa kwama-Fama, KwaZulu-Natali (Vryheid). UJurie Mentz wasungula i-Emmaus Study Group endaweni. UNkk. Mdluli wahamba imihlangano leyo. Ma-

nje usengushlalo we-Emmaus Study Group. Ngonyaka ka-2012 uye wazithengela ihandplanter encanyana ayisebenzisa ngempumelelo enkulu. Unamaknapsack sprayer amathathu awasebenzisa ukuchelela amakhemikhali ukuze abulale ukhula kanye nokulawula izinambuzane. Ngoba-ke akanama-implements usebenzisa ino-till. Soloko ebe yingxenye yakwaGrain SA useqale ukutshala amacultivar ommbila ohybrid kanti usethole imiphumela emihle kakhulu. Manje sesinciphile isibalo sezikhwama zamakhoba azidingayo ukugcwalisa ibhakede lommbila ngezinhlamvu. 🌱

**UJane McPherson, umphathi wephrogramu leGrain SA Lokuthuthukisa Abalimi Abakhiqizayo Nalabo Abasakhulayo. Uma ufuna imininingwane egcwele ungathumela i-imeyili ku-jane@grainsa.co.za.**



# UJalisa, uVuyani noVictor basethubeni lokuzuza ISMALLHOLDER FARMER AWARD



**UJalisa Simphiwe**

**U**Jalisa Simphiwe wazalwa mhla ka-15 Septhemba ngonyaka ka-1958. Wakhulela eManzimdaka eduze naseNgcobo. Ubaba wakhe wayelima emhlabeni womphakathi, exubile ekulimeni kwakhe ngemvume yokuwusebenzisa umhlaba. USimphiwe wangena isikole samabanga aphansi saseCentu esiseduze neTsolo wase edlulela esikoleni samabanga aphezulu iCuthberts lapho apothula khona izifundo zakhe zikaMatikuletsheni ngonyaka ka-1981. UJalisa washada uNonene ngonyaka ka-1991. Banezingane ezintathu emshadweni wabo. UJalisa wasebenza njengonogada eWestonaria kufika ngonyaka ka-1997. Ngonyaka ka-1998 wangena embonini yamathekisi lapho ahlala khona kufike-la ngonyaka ka-2006.

Ngonyaka ka-2008 uJalisa wathenga ipulazi endaweni yase-Elliot ehlinzekwa wuhlelo lwe-LRAD, waqala kanjalo-ke ukulima.

Wathola ulwazi ngezolimo zenzuzo lapho esethole umhlaba othi yena. Ngaphambi kwalokho wayazi nje ngesubsistence farming.

Uthe lapho eba yingxenywe yethimba lokufunda lakwa-Grain SA futhi ehamba nemihlangano njalo waqala nokuhamba izifundo zokuqeqesha ezamvulela amathuba amasha. Ezinye zezifundo aziphothula sibala kuzo iRecord and Bookkeeping kanye neTractor and Implement Maintenance Course. Okokuqala nqa empilweni yakhe wabuyele wafunda ngokusampula imihlabathi kanye nokubaluleka kokugcina amarekhodi akhe emvula enayo.

UJalisa uzama ngakho konke okusemandleni akhe ukulusebenzisa lonke ulazi lwalokho akufundile emihlanganweni yamaqembu kanye nasezifundweni zokuqeqesha. Ukhuthazekile kanti futhi ufisa ukubayilunga le-250 Ton Club. UJalisa uzimisele ukuphucula izindlela zakhe zokulima. Isivuno sakhe besihambela kumathani ama-3 ihlektha ngalinye kepha kulo nyaka ubheke amathani ama-4,5 ihlektha ngalinye.

**U**Vuyani Kama wazalelwa endaweni yase-Ugie kanti uneminyaka engama-43. Ukhuliswe ngumama wakhe owamthumela esikoleni e-Ugie waze waphothula izifundo zakhe zeBanga le-12.

Usebenze kakhulu eMnyangweni weZolimo, weZamahlathi neZokudoba. Yilapho-ke uthando lwakhe lokulima lwaqala khona. Lokho akubona emapulazini enzuzo e-Ugie nakho kwenza omkhulu umehluko empilweni yakhe kwamgugquzela ukuba abheke ngakwezolimo. Uthando lwakhe lwakhula ngokuhamba kwesikhathi, kepha inselelo enkulu abhekana nayo kwakungukuthola umhlaba.

Izinto zashintsha ngonyaka ka-2006 ngenkathi ekwazi ukuthenga amahlektha angama-450 omhlaba lapho ekhiqiza khona ummbila kanye namazambane ngohlelo lomjikeleziso wezilimo. UVuyane unepulazi futhi e-Elliot lapho elima khona ngezimvu nommbila.

Ngonyaka ka-2009 waba yingxenywe yeqembu lokufunda lakwaGrain SA ngaphansi koHlelo lokuthuthukiswa kwaMafama. UVuyisa waphothula izinhlelo ezimbalwa zezifundo zokuqeqeshwa ezifana ne-: *Introduction to Maize Production, Contractors Course* kanye ne*Tractor Maintenance Course*. Soloko aba yingxenywe yakwaGrain SA ukwesekwa, amakhono kanye nolwazi aselutholile selumsize ukuphucula umkhiziqo wesivuno sakhe sommbila. Isivuno epulazini lakhe sesikhuphuke kusukela kumathani ayi-3,5 ihlektha ngalinye kuya kumathani ayi-5 ihlektha ngalinye endaweni yase-Elliot. Isivuno sakhe engxenyeni eyodwa yomhlaba wakhe endaweni yase-Ugie sibalelwa kumathani ayi-7,5 ihlektha ngalinye.

UVuyani unethemba elikhulu ngekusasa lezolimo kanti futhi ufisa ukuqhubeka ngokuphucula amakhono akhe okulima kanye nolwazi analo.



**UVuyani Kama**





## UMFAMA WONYAKA



**UVictor Mahlinza**

**U**Victor Mahlinza wazalelwa endaweni yase-Estcourt, KwaZulu-Natali ngomhla ka-14 enyangeni kaJulayi ngonyaka ka-1961. Wakhulela e-Estcourt eduze neNtabamhlophe. Waqala izifundo zakhe zamabanga aphantsi ngonyaka ka-1968 eCornfiel Primary School. Ngonyaka ka-1976 waya esikoleni samabanga aphezulu iMtshezi lapho aphothula khona izifundo zakhe ze-Banga le-11 ngonyaka ka-1982.

Ngonyaka ka-1983 uVictor wanquma ukuya eGoli lapho asebenza khona unyaka owodwa njengomabhalane ehhovisi lenkampani yokwakha. Ngonyaka ka-1984 waya kosebenza njengestoreman enkampanini yamakhemikhali khona eGoli kwaze kwaba ngonyaka ka-1986. Phakathi kuka-1987 no-1988 uVictor wasebenzela i-M&L Distributors njengomshayeli wamaloli ediliva ukudla okusemathinini. Kwathi – ke ngonyaka ka-1989 wase eziqalela inkontileka yokudiliva ne-AMCA Construction kufikela ngonyaka ka-1995.

Ngonyaka ka-1996 wabuyela ekhaya lapho anquma khona ukuba ngumfama. Ngaleso sikhathi wayesasebenzisa izinkabi ukulima kufikela ngonyaka ka-2003 lapho athenga khona itraki.

Ushade noLinah kanti babusiswe ngezingane ezihlanu; amadodakazi amathathu kanye nezinsizwa ezimbili. uFikile (ona-27) owashiya isikole ebangeni lesi-11 kanti unezingane ezimbili. USizwe (ona-20) owaphothula izifundo zebanga le-12 eZakhe Agricultural College eMgungundlovu. Uthe eqeda lapho wadlulela eBuhle College lapho enza izifundo zemifino (*Vegetable Course*). Usebenza noyise epulazini. UZandile (ona-16) ufunda ibanga le-11 esikoleni samabanga apha keme i-Abantungwa. UMcebisi (ona-14) ufunda ibanga le-8 esikoleni samabanga aphantsi iMathamo kanti uMpumelelo (ona-12) yena ufunda ibanga le-6 naye esikoleni samabanga aphantsi iMathamo.

UVictor uthembisene noNorah ngomshado kanti banezingane ezintathu.

UVictor unamatraki amane: iMassey Ferguson 440 4x4, iMassey Ferguson 5465, iMassey Ferguson 399 kanye neLandini 7500. Unezimoto futhi ezimbili: iColt 2.8 kanye neMitsubishi. Unezinkomo ezi-78 ezisemadlelweni anga-

mahektha angama-250 omhlaba womphakathi namahektha angama-83 omhlaba oqashiwe. UVictor akatholi sizo lwazimali kepha zonke izilimo zakhe uzibhekela yena qobo ngemali yakhe. Akulula nokho-ke ngoba usebenzisa amahektha angama-40 omhlaba womphakathi bese eqasha amahektha omunye ongamahektha angama-42 omhlaba ovundile kumfama ozimele.

UVictor akancikanga nje kuphela kuzilimo, kepha unezingulube, izimbuzi kanye nezinkukhu. Ubona ukusabalala kuyindlela ebalulekile yokusimamisa isilimo sakhe. Isu lakhe lokuphumelela kulo nyaka kusewuku-

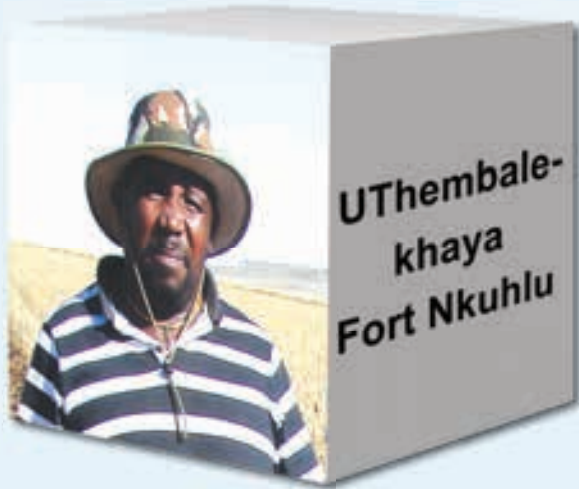
sabalala ngoba nakhu utshala ummbila, ubhontshisi owomile, imifino kanye nechicory njengoba nakhu unenkontileka nabakwaNestlé.

UVictor wusihlalo weDistrict Farmers Association yendawo kanye neMtshezi Study Group kanti uyazifela ngokulima. Ubuye abe ngusihlalo weWorking Group oHlelweni lwakwaGrain SA lokuThuthukisa amaFama. 🍷

**UJane McPherson, umphathi wephogramu leGrain SA Lokuthuthukisa Abalimi Abakhizayo Nalabo Abasakhulayo. Uma ufuna iminingwane egcwele ungathumela i-imeyili ku-jane@grainsa.co.za.**



# Yazana nalabo abafinyelele kumanqamu alo nyaka **OMFAMA WENZUZO**



**U**Thembalekhaya Fort Nkuhlu ukholelwa ekungafanini kwezinto. Ukhiqiza ummbila, isoya, futhi unezingulube, izinkukhu kanye nemfuyo eningi epulazini lakhe lase-Denmark, endaweni yaseVrede.

Ukhulele eMpumalanga Kapa lapho umkhulu wakhe owayengumfama endaweni yaseCala, wamfundisa izindlela nemigomo ebalulekile yokukhiqiza izilimo.

UFort uphuthule izifundo zakhe zamabanga aphezulu eNgangelizwe Junior Secondary School. Ekuqedeni kwakhe isikole wenza ikhosi emfushane yeMarketing Management yonyaka eBoston City Campus eyalandelwa yikhosi ye-

Office Administration eDamelin College kanye nekhosi yeBookkeeping eVarsity College.

Ukholelwa ukuthi uma ulima, uhlala njalo ufunda, awuphezi. Uthando lwakhe lokulima lwaqala mhla ubaba wakhe ethenga ipulazi eliseduze neVrede ngonyaka ka-1999.

UFort ufisa ukuzibona enemakethe ethembekile yemikhiqizo yonke yepulazi lakhe. Ufisa nokudala ipulatifomu lapho amafama amasha kanye nabafundi bezolimo bezofunda khona bese bethola namathuba okusebenzisa ulwazi lolo abalufundile.

**U**Maurice Mthandeki Boki wazalwa eMatatiele. Wangena isikole samabanga aphansi saseSt Columbus bese kwathi emvakwalokho wadlulela esikoleni samabanga aphezulu iMariezell endaweni yaseMatatiele. Wasuka lapho ebangeni le-10 wayofunda eSt Anthony's Mission lapho aphothula khona izifundo zakhe zikaMatikuletsheni.

Wafudukela eGoli wasebenza kuMasipala waseGermiston iminyaka emithathu. Uthe lapho eqeda ukushiya umasipala waqala ukusebenzela iTwins Pharmaceuticals (Adcock Ingrams) lapho asebenza khona iminyaka eyishumi nambili. Washiya le nkampani

ngonyaka ka-1977 wathenga isiteshi sokuhweba eMatatiele, nanamuhla sisekhona.

Ngonyaka ka-1995, ngosizo lweLand Bank, wakwazi ukuthenga ipulazi lakhe laseHorncroft. Yilapho ehlala khona.

UMaurice ukhule nalo lolu thando lwezolimo. Uselime ngokwakhe kusukela ngonyaka ka-1995 ngaphandle kosizo oluvela ngaphandle.

UMaurice ushade noKholiswa ngonyaka ka-1977. Uthole izifundo ekuKhiqizweni kweZilimo, ukuKhiqizwa kweNyama eBomvu, Ukugcina Amarekhodi Epulazi kanye nokuPhathwa kweBhizinisi lwePulazi eCedara.



**U**Thabang Tsephe ukhulele eMatatiele. Waphothula izifundo zakhe zamabanga aphansi eMehloaleng Junior School lapho aqeda khona iBanga lesi-7.

Emvakwesikole usebenze epulazini isikhathi esifushane wase eyosebenza emamayini iminyaka eyishumi.

Ubuyele ekhaya ngonyaka ka-1986, waba nesitolo kuze kube yilapho eqala ukulima ngonyaka ka-1999. UThabanga ushade noMatau,

banamadodana amabili asiza uyise emapulazini.

UThabang usebenza emapulazini amabili lapho etshala khona ummbila, i-oats kanye namadlelo. Ngaphezu kokukhiqiza izilimo unesitolo somkhiqizo wobisi, unezinkomo zenyama kanye nezinhlobo zezimvu.

**I-athikhili ibhalwe nguLandi Kruger, umbhali wePula/Imvula. Uma ufuna imininingwane egcwele ungathumela i-imeyili ku-landi@grainsa.co.za.**

# IMaize Trust

## Umlingani kwezentuthuko



**A** bakwaGrain SA banephupho lemboni yezolimo ebumbene nenothile, futhi neyaziyo ukuthi kumele kukubonelelwe izidingo zokuvikeleka kokudla. Ezinye zezinto ezibaluleke kakhulu kwabakwaGrain SA ukutholakala kwenzuzo kubo bonke abanomhlaba, ukuvikeleka kwengcebo yemvelo kanye nokudaleka kwamathuba omsebenzi.

Ukuze sikwazi ukufezakaza leli phupho, uGrain SA udinga abalingani. Umlingani obalulekile esinaye yiMaize Trust. Inhlolongqangi yeMaize Trust ukubonelela ngezizimali embonini yezombila lapha eNingizimu Afrika, kanti kakhulu kubhekwe ukwesekwa ngokwezimali kulokhu okulandelayo:

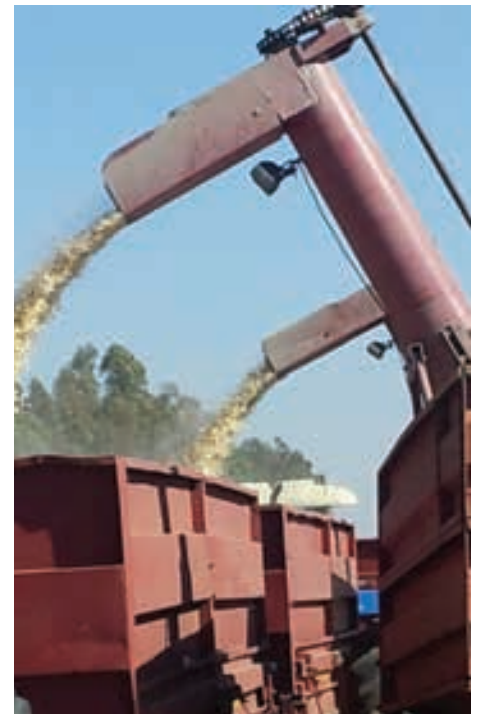
- Ucwango lwesayensi noma lobuchwepheshe oluhambisana nezimakethe noma ukukhiqizwa kommbila;
- Ukutholwa, ukucutshungulwa kanye nokusatshaliswa kolwazi ngommbila nganezimakethe zommbila (i-ARC – iSummer Grain Centre, Uphiko lwezocwaningo lommbila lweGrain Producers' Organisation, kanti nanoma ngeyiphi inhlango ingafaka isicelo sezezimali);
- Ukungenelela kommbila waseNingizimu Afrika ezimakethe (ngokubonelela ngezimiso zokumaketha, ukuqeqeshwa kanye nosizo ezindaweni zasemaphandleni lapho isidingo sisikhulu khona);
- Nokubaluleke kakhulu kwabakwaGrain SA, okuyizimali zokuqeqesha nokuphucula amafama asathuthusa.

IMaize Trust ingaphansi kobuholi bebhodi yabagcinimafa abayisithupha: Umgcinimafa ngamunye uvela kulabo abakhiqiza umbila omhlophe, omunye kulabo abakhiqiza umbila ophuzi, omunye avele kulabo abakhiqizi bommbila bonkana, bese kuthi abathathu kube ngamanxusa avela eMnyango wezoLimo, ezaMahlathi kanye nezoKudoba. La bagcinimafa aqinisekisa ukuthi izimali zeMaize Trust zisetshenziswa ngendlela efanele nangukuhlakanipha.

Ukuze sikwazi ukuqeqesha nokuphucula abakhiqizi bezinhlamvu, iGrain SA idinga izimali kanti-ke yilapho-ke iTrust ibaluleke khona njengomlingani. UHlelo lwakwaGrain SA lokuThuthukiswa kwamaFama (i-HTF yakwaGrain SA) lufaka isicelo sezimali minyaka yonke kwabakwaMaize Trust. Lolu hlelo lubandakanya umbiko opehelele lwenqeqesho kanye nempucuko ebonelelwa yizimali ezivela kwaMaize Trust kumafama, kanye nesicelo esinika imininingwane egcwele ngezinhloso zoHlelo lwakwaGrain SA lokuThuthukiswa kwamaFama onyakeni ozayo.

Ngaphandle kokwesekwa esikuthola kumasiso ahlukeni ezinhlamvu kanye nezimali zobulunga bamafama, ngabe ayikho iGrain SA. Bekani iso kokulandelayo lapho sizobe zikhuluma kabanzi ngabaxhasi bakaGrain SA ekuqinisekiseni ezolimo ezibumbene nezinothile lapha eNingizimu Afrika.

**I-athikhili ibhalwe nguSusan Engelbrecht, UMqondisi wezokuXhumana noMthombo wabeZindaba kwaGrain SA. Uma ufuna imininingwane egcwele thumela i-imeyili ku-susan.engelbrecht@grainsa.co.za.**



**Ngaphandle kokwesekwa ngabakwaMaize Trust, ubungeke uyifunde le magazini. Siyabonga Maize Trust.**

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# Okubaluleke kakhulu ngezicheleli

## – izinga lamanzi kanye namanozili

**N**goba kulula futhi kuyasebenza, ukuse-tshenziswa kwamapesticide angamakhemikhali sekusetshenziswa kakhulu kanti kuyithuluzi elibalulekile ekulaweni kokhula kanye nezinzambuzane embonini yezolimo.

Noma kunjalo-ke, la makhemikhali ayisisombululo esiwusizo yiwona futhi angabuyi abe nobungozi ngokuba angcolise amanzi asemhlabathini noma athwaleke aye kobulala ezinye izilimo noma eminye imiphakathi. Amafama kanye nabaphathi kumele baqinisekise ukuthi ukusetshenziswa kwamakhemikhali kwenziwa kusetshenziswa impahla efanele yokusebenza, impahla ephiphile nefanele egqokwayo kanye nolwazi olushaya umhlola lwesilinganiso okumele sichelelwe.

### Ikhwalithi yamanzi

Ukuxutshwa kwamakhemikhali kubalulekile. Amanzi yiwona athwala amaherbicide applications kanti avame ukwenza u-99% wengxube, ngakho-ke akuwona umhlola ukuthi ikhwalithi yamanzi asetshenziswayo nayo ibalulekile. Amanzi kumele ahlanzeke futhi angabi nezinsalela zamapesticides. Ukuze kuxutshwe ikhemikhali elifana neRoundup noma iGramoxone amanzi kumele ahlanzeke ngokuphelele futhi angabi namasuspended solids afananama-organic matter esihlabathi noma umhlabathi, ngoba lokhu kubulala amandla engxube. Amanzi aqinile avame ukuba namazinga aphezulu ekhalsiyamu, imagneziyamu, isodiyamu noma i-iron. Lapho i-alkhalinithi isho ukuthi kunamazinga aphezulu ekhaboneythi nebhaykhaboneythi emanzi. Umfama oqotho uzohambisa amanzi akhe ukuba ayohlolwa bese ethatha izinyathelo ezifanele ngokusebenzisa ibuffer solution. Amabuffer solution asetshenziswa ukugcina amazinga epH ezimelele.

### Ukukhetha inozili

Isinyathelo sokuqala esilinganisweni sesicheleli ukuba nolwazi olufanele ngokusetshenziswa kwamakhemikhali akhethiwe kanye nosayizi wenoziili ukuze ukwazi ukuthola ireyithi yokugeleza kwekhemikhali.

- Amafat-fan nozzle asetshenziselwa ukuche-

lela iningi lamaherbicide kanye namanye ama-insecticide lapho kudingeka iconsi eliphakathi nendawo;

- Amaflooding kanye namafull cone nozzle asetshenziselwa amaherbicide amaningi achelelwa ngaphambi kokutshala ngoba akhiqiza amaconsi amakhulu angagijimi kanti kungasetshenziswa newide nozzle spacing;
- Amahollow cone nozzle akhiqiza amaconsi amancane kanti asetshenziselwa ukuchelela ama-insecticide namaherbicide adinga ukungenelela emacembeni andlalekile.

Kubalulekile kakhulu ukuhlolisisa isimo senozili ukuthi ayidabukanga ngoba amanozili aphelele angaholela ekucheleleni amanani okungewona engxube. Imetheriyali esetshenziswayo ukwenza amanozili yiyona eba nomthelela eminyakeni yokuphila kwenozili kanye nendlela esetshenziswa ngayo. Amametheriyali afana netungsten, icarbide, iceramic kanye nestainless steel esiqinisiwe asiza amanozili ukugcina ukugeleza okusimeme isikhathi eside. Kanti-ke amanozili enziwe ngeplastiki kanye nebrass awaqinanga ngokwanele okwenza izinga lokugeleza likhuphuke ngokuhamba kwesikhathi. Amafama amaningi avame ukuzikhohlisa ngokuthi onga imali lapho ethenga amanozili ashibhile kanti iqiniso ukuthi bagcina bekhokhe ngaphezulu emalini yamakhemikhali ngenxa yokukhuphuka kwezinga lokugeleza.

Kubalulekile ukwazi ukuthi kulindelekile ukuthi inkampani edayisa amakhemikhali ikuqwashise ngendlela efanalekile yokusebenzisa amakhemikhali lawo ekudayisela wona. Kuyimvamisa futhi ukuthi abadayisi bamakhemikhali beze epulazini lakho bezokusiza ngokulungiselela ispray rig kanye necalibration. KwiPula/Imvula yangoNovemba sizobheka amaSprayer Fundamentals – Calibration okuhlolwa kwensimu.

**I-athikhili ibhalwe nguJenny Mathews, umbhali wePula/Imvula. Uma ufuna imininingane egcwele thumela i-imeyili ku-jenjonmat@gmail.com.**



Ulwazi olushaya emhloveni, impahla yokusebenza efanele kanye nempahla edingekayo yokuphepha yikona konke okudingekayo ukuqinisekisa ukuthi amakhemikhali achelelwa ngendlela efanele.