

# PULA IMVULA

>> GROWING FOOD >> GROWING PEOPLE >> GROWING PROSPERITY >>

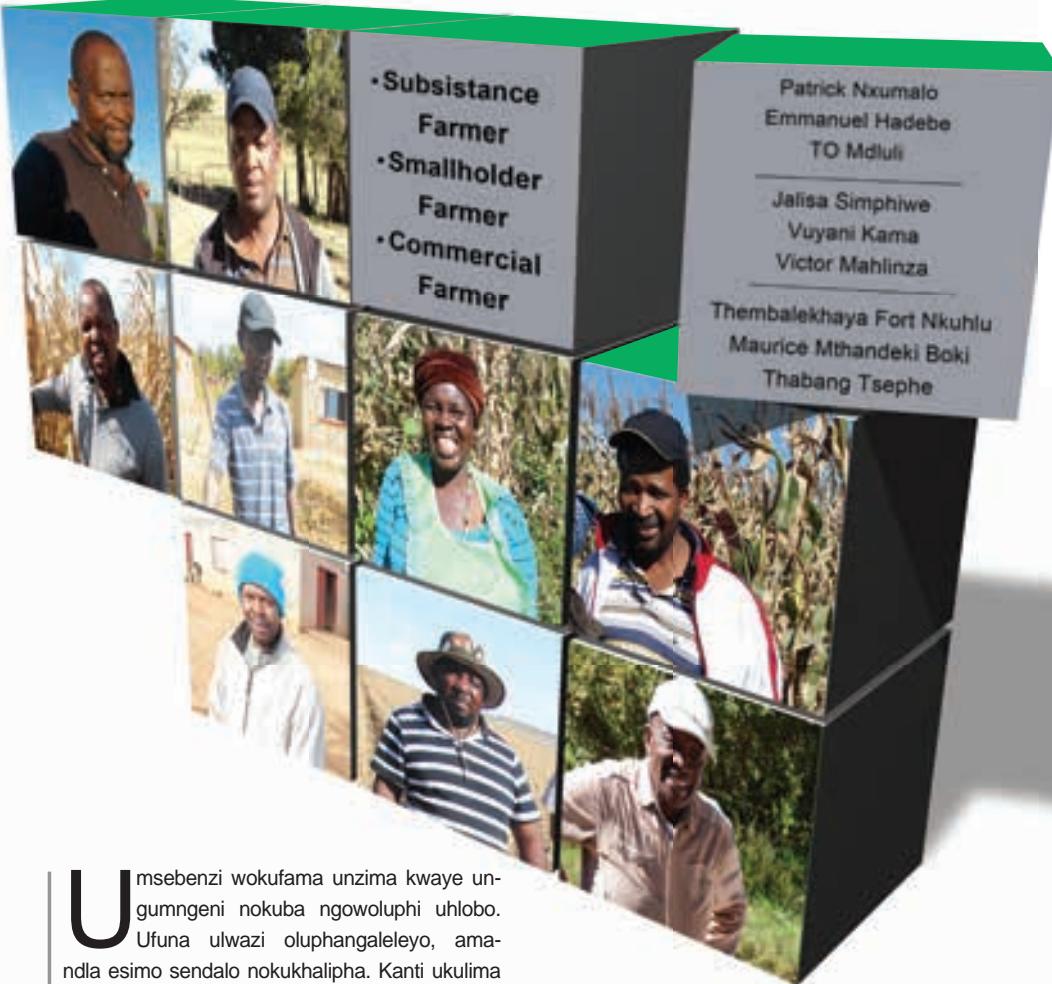


EYEDWARHA  
2013

## Lifikile ixesha lamabhaso **ETHU LOMLIMI WONYAKA**

Imazini yakwa Grain SA  
yophuhliso lwabavelisi

Bala Moteng:



**U**msebenzi wokufama unzima kwaye ungumngeni nokuba ngowoluphi uhlobo. Ufuna ulwazi oluphangaleleyo, amandla esimo sendalo nokukhalipha. Kanti ukulima izityalo eziziinkozo kunzima ngakumbi njengoko usebenza phandle (hayi phantsi kophahla), uneendleko eziphezulu zamalungiselelo, kwaye usemngciphekweni weembalela, izikhukula, imililo, izichotho, kanti ekugqibeleni akufumanzi nzuzo engako.

Njengomlimi osaphuhlayo uzifumana usesiche-  
geni sayo yonke le mingcipheko ngaphezulu – abali-  
mi abarhwebayo banako ukuzuza ulwazi kumava

ezizukulwana ezingaphambili malunga nentsimi ethile kodwa abalimi 'abatsha' kufuneka bakwazi ukuyilawula yonke imeko ngokwabo bekhuphisana nalo lonke ihlabathi ukuze izityalo zabo zithengi-seke ngamaxabiso afumaneka ehlabantini.

Thina njengeGrain SA, sinenkubo yoPhuh-  
liso IwamaFama enobizo "olukukuPhuhlisa  
abalimi abamnyama abanesakhono sokurhweba

- 03** | Linkqonkqoza emnyango ixesha lokulima: Lunga, yima kakuhle...Baleka!
- 04** | Ukulinywa nexabiso leembotyi zesoya njengomthombo wokutya
- 12** | Iziseko ngezitshizi – umgangatho wamanzi nemilomo





## UMAKHULU UJANE UTHI...

nyanga kaOktoba ingayenye yeenyanga ezintle kakhulu (xa inile imvula yentlakohlaza), kodwa ikhlosa ukuba yenze yeenyanga ezinobunzima obukhulu ngenxa yokondla imfuyo emva kobusika. Nokuba inile imvula, ingca iya kuba ingakhulanga ngokwaneleyo ukuze imfuyo yondleke kakuhle ize igqibile ngokubhitya – eli lixesha lokuba umlimi athathe uxanduva aqinisekise ukuba impahla itya ngokwaneleyo.

Manini amalungiselelo okulima isityalo ekufuneka enziwe kuseithuba phambi kokulinwywa kwaso. Amasimi kufuneka akrazulwe (kususwe umaleko ogangathekileyo), ukuze emva koko usetyenzwe ngesixhobo esinamazinyo ukuqhekeza amagade. Oku kukholisa ukulandela ngumsebenzi owenziwa phezelu wokulungiselela umandalalo wezithole ukuze ukhululeke, ube manzi kwaye ungabi nalukhula.

Omnye umbandela ongumceli-mngeni wokulima izityalo kukulima isityalo ngexesha elifanelekileyo.

### Imihla yokutyalu

Ngezzantsi kukho itheyibhile yemihla yokutyalu ebonisa imihla yokutyalu efanelekileyo nemihla yokuqoshelisa umsebenzi. Kubalulekile ukuba sigqale ukutyalu ngethuba elifanelekileyo kunokuzama ukutyalu phambi kwemihla yokuqoshelisa umsbenzi. Iliqela imisebenzi efanele ukwenziwa phambi kokutyalu (ukuphethula umhlaba okusentoko okuquka ukuwukrazula, uku-erha nokulungiselela umandalalo wezithole). Okulindeleke kwisivuno kuba phezelu kakhulu xa bekusetyenziswe iintsku zokutyalu ezifanelekileyo.

Ukuba unethemba lokuvuna isityalo esihle, nceda gqalisela kwixesha elifanelekileyo lokutyalu – oku kungenza umahluko omkhulu kwisivuno osilindeleyo.

Isity- alo	Umhla ofanelekileyo wokutyalu				Umhla wokuqoshelisa ukutyalu	
Umb- ona	EMPuma- langa	EMbin- dini	ENksho- nalanga	EMPuma- langa	Embin- dini	ENksho- nalanga
Akucety- iswa	15 Oct - 15 Nov	15 Oct - 15 Nov	1 Nov - 16 Dec	30 Nov	20 Dec	25 Dec
Oojong- langa	15 Nov - 25 Dec	15 Nov - 31 Dec	Akucety- iswa	15 Jan	25 Jan	

## Lifikile ixesha lamabhaso ethu IoMlimi woNyaka

ngezityalo eziziinkozo, ukuze babe negalelo ekutyeni okwaneleyo kwekhaya nokwesizwe, ngokusebenzisa ubutyebi bendalo kangangoko kunokwenzeka. Sikholelwa ukuba njengoko amanani abantu behlabathi esanda, kufuneka sihlale silindele inguquko malunga nayo yonke imiba yobomi banamhla. Kananjalo kufuneka siqonde ukuba asinguye wonke ubani onako ukufikelela kwifama enkulu yokurhweba (kuba awanelanga umhlaba osehlabathini).

Kwinkubo yethu, siyazama ukunceda nawuphi umntu onqwenela ukuphucula iindlela zakhe zokufama ukuze kufumaneku okuthe chatha emhlabenxi xa kuthelekiswa nomhlaba abanawo. Sisebenza nabalimi abakwaziyo ukufikelela kumhlaba omncinane kangangehetare e-1, ngokunjalo nabo balimi barhwebayo abanomhlaba ongaphezulu kwihihtare eziyi-1 000. Ukuba sifanele ukondla isizwe, ngoko ke kufuneka indawana nganye yomhlaba ilinywe.

Njengoko sekuchaziwe, umsebenzi wokufama unzima kwaye sifumanise ukuba kufuneka sibakhuthaze abantu ukuba bangathyafi basoloko bezama. Ngokunjalo kufuneka silubonise ulutsha Iwanamhla ukuba umsebenzi wokufama asingomsebenzi onzima ngaphandle kwenzuso. Ukuze ubonise amalinge empumelelo kananjalo ukhuthaze abo sebewuqualile umsebenzi wokufama, sinokhutshiswano IoMlimi woNyaka kumanqanaba amathathu ahluka-hlukileyo – abo balima emhlabenxi ongaphantsi kwihihtare ezilishumi (abaziphilisayo), kubekho abo baneehetare ezilishumi ukuya kwittoni eziyi-250 zeeneko ngonyaka ngamnye (osondele kwabarhwebayo), kuze kubekho ababonwa njengabalimi abarhwebayo. Funda banzi ngabalingwa kule Pula/Imvula. Kulo nyaka, siza kuba nosuku lwethu lokubhiyoza ngomhla we-17 kuOktoba eBloemfontein.

Sibathulela ummqwazi abo basebenze nziema kangangokuba bokwazi ukuzoyisa zonke izithintelo ebezisendleli yabo. Aba balingwa bokhutshiswano benze umzamo omkhulu ukuze abantu baseMzantsi Afrika babe nokutya okwaneleyo kokutya yonke imihla. Sinqwenela ukuvuyisana nabo aba balimi ngokunjalo nokubabulela ngemizamo yabo – ngaphandle kwenu, besingekhe sibe nokutya! Sineqhayiya ngani kuba nisigcina sigqalisele kwinqongo yethu yokupuhlisa abalimi.

**Inqaku linikelwe nguJane McPherson,  
uMphathi weNkqubo yaseGrain SA  
yoPhuhliso IwamaFama ngolwazi  
olungaphaya, thumela i-imeyili apha:  
jane@grainsa.co.za.**



# Linkqonkqoza emnyango ixesha lokulima: Lunga, yima kakuhle...Baleka!

sitshixo somsebenzi wokufama onempumelelo sikwisicwangciso. Kubalulekile ukwenza amalungiselelo nokuba nesicwangciso samanyathelo, ngoko ke cinga ngazo zonke iinkqubo zexesa elitsa engqondweni yakho ngokunjalo ulungise imibuzo oza kuyiba omnye weengcaphephe zolimo zendawo yakho ukuze kungabikho zindleko zexabiso eliphezulu ezenzekayo ezichitha imali nexesha elibalulekileyo lokulima. Cinga ngemibandela efana nenyano yokuba umbona udinga phakathi kwe-450 mm ukuya kwi-600 mm yamanzi ngexesa ngalinye lonyaka kwaye xa sowiuvuthwa isityalo ngasinye siya kuba sifunxe malunga ne-250 ml okanye ikomity enye ezele amanzi, kanti ephelele afumaneka ekufumeni komhlaba. Kufumaneka malunga ne-15 kg yeenkozo ngemillimitha nganye yamanzi kanti uthi uuvuthwa indawo yamaggabi iphelele inganako ukuba ngaphezulu kwimitha epheleleyo esisikwere ngesityalo ngasinye.

## HSazi njani ukuba imbewu yethu kufuneka siyiyale nzulu kangakanani?

Ubunzulu bembewu yinto esinako ukuyilawula ngoko ke kubaulekile ukuba imbewu yombona ifakwe ngendlela eyinika ukudibana okuhle nomhlaba. Imbewu ifuna ukunyhanyathelwa emhlabeni ofumileyo ukuze ifunxe kude kuge yi-30% yobunzima bayo emanzini njengoko oku kusenza ukuba inkubo yokuntshula yenzeke kwangoko.

Kwakhona, xa ifakwe kakuhle, imbewu iyakwazi ukupuhluhla iinkqubo zeengcambu ezinamaghquhuva ngoko ke kubaulekile ukuba ubunzulu bembewu bufane kuwo wonke umandlalo. Olu phuhliso lweengcambu zamaqhuquhuva lufanele ukualisa malunga ne-2 cm ezantsi komgca womhlaba. Inkubo yeengcambu zamaqhuquhuva inika inkxaso kwsityalo sombona kwaye yiyo efunxa awona manzi maninzi nezondlo ezidingwa sisityalo sombona kubo bonke ubomi bawo. Ngoko ke ukusekwa kwangoko kwenqubo elungileyo yeengcambu zamaqhuquhuva yimfihlelo yokunciphisa ukuxinga kwiingcambu ekuqaleni kwexesa lokulima kwaye kuya kusinceda isityalo sombona ukuba simelane phucukileyo neemeko zembalela xa zinokuba khona.

“

*Qala ngokwenza isicwangciso wandule ukwenza amalungiselelo – emva koko lima. Qiniseka ngamanyathelo esicwangciso sakho kwaye zilungiselele ukuqala ngokutyalia isityalo sakho esitsa kanye zakuba iimeko ezizezona zifanelekileyo ziqalile.*

Ukutyalia imbewu yombona kubunzulu be- 4 cm ukuya kwi-5 cm kuya kuqinisekisa ukuba inkubo yeengcambu zamaqhuquhuva iyaqalisu ukukhula ngezantsi komgca womhlaba. Ukuba imbewu ayitaywanga nzulu, nangona kunjalo, inokwenza ukuba iingcambu zamaqhuquhuva ziqale ukupuhluhla kumgca womhlaba okanye nangaphezelu. Abanye abalimi banempazamo yokukholelwu ekubeni imbewu yombona etyalelwu phezulu iya kukhawuleza ihlume kodwa iingcali zenzululwazi ziqhube uphando olubonise ukuba akunjalo kanti iimvavanyo zibonakalise ukuba imbewu etyalwe kubunzulu be-4 cm iyakwazi ukuhluma ngokukhawuleza ngaphezu kwetyalwe kubunzulu be 2 cm. Umahluko kewisanta sokuhluma unokunxulunyanisa nokudibana kwembewu nomhlaba kubunzulu be-5 cm aphi ukufuma komhlaba kukuimeko ezinzileyo. Elinye ifuthe livela kubushushu bomhlaba obukhulisa ukuthi chatha ngokufudumala kubunzulu be-5 cm njengemeko engaqhelekanga kuba “iyafudunyezw” (umhlaba uba ngathi yingubo) – ngakumbi kwixesa lonyaka langoko xa ilanga belingeabi shushu kakhulu.

## Lelipi elona xesha lichanekileyo lokutyalia umbona?

Izityalo zombona zikusebenzia ngendlela encomeka kakhulu ukukhanya kwelanga kwaye abalasele ngokuguqula amandla. Zifunxa amandla avela elangeni ukuze ziguquke zibe ziinkozo. I- ARC-Grain Crops Institute's, uJ du Plessis (jonga isalathiso) unika ingxelo ethi kwinqanaba lokuvuthwa, amandla apheleleyo asetyenziswa sisi-

tyalo esinye alingana naweeeglowubhu zombane kangangeewati eziyi-8 293 x 15 ngeyure enye.

Umbona sisityalo semvula yasehlotyen kwaye awulinwy kwiindawo aphi ubushushu bosuku obusiqhelo bungaphantsi ku-19°C ubuncinane. Elona qondo liphantsi aphi imbewu yombona intshula khona ngu-10°C kodwa obona bushushu bufanelekileyo ngu-16°C ukuya ku-18°C. Umbona uyavivela iqabaka kwaye ufuna iintsuku eziyi-120 ezingenaqbaka kwaphela – ukuya kweziyi-140 ngoko ke ixesha lesi sityalo kufuneka lithathelwe ingqalelo ukuze nesoyikiso seeqabaka eziza mva zingawuchaphazeli. Kuxa indawo ekwenzeka kuyo ukukhula isengaphantsi komhlaba aphi iqabaka ingenakwenza khona umonakalo emaggabini amatscha. Ukuba isityalo sakho siyalwe emva kwexesa iqabaka yasemva kwehlobo inako ukubangela umonakalo ngakumbi kwibanga lokuzalisa ngoko ke isivuno siyancipha.

Imihlanganisela eyahlka-hlukileyo yembewu inamatubha ahlukahlukileyo okukhula kwaye oku kusisixhobo esiluncedo kubalimi. Umzekelo, ukuba ixesha lokutyalia libambezelekle lize libe lifutshane ixesha lonyaka, abalimi banako ukusebenzia imbewu evuthwa kwangoko ukuze ivuthwe phambi kokuqalisa kweeqabaka.

Kubaluleke kakhulu ukwenza isicwangciso samalungiselelo nesemveliso ukuze uphumelele umsebenzi wakho wokufama. Abalimi abangayilawuli ngokwabo imozulu babe bengenlawulo lungako kummandla wentengiso okanye kumaxabiso banako ukusinda xa beyilawula ngobuchule inkcitho yabo yamalungiselelo kwaye belawula nesityalo kakuhle nangendlela encomekayo.

## Isalathiso

Du Plessis, J. 2003. Maize Production. Directorate Agricultural Information Services with ARC-Grain Crops Institute, Dept Agriculture, Pretoria, South Africa. ●

**Inqaku linikelwe ngu Jenny Mathews,  
umbhalu kwiPula/Imvula. Ngolwazi oluthe  
vetshe, thumela i-meyleli apha:  
jenjonmat@gmail.com.**

# Ukulinywa nexabiso leembotyi zesoya njengomthombo wokutya

I sitalo seembotyi zesoya sihlewa phantsi kwendalo yezityalo 'njengeGlycine max' kwaye sikholis ukuibizwa njengesitalo esingummangaliso. Ukulinywa kwembewu yesityalo seembotyi zesoya yeyona mbewu yeoyile ebaluleke kakhulu ngaphezu kwenye imbewu ehlabathini.

## Imveliso yembewu yeoyile ehlabathini

linkukacha zemveliso yehlabathi zonyaka ka-2011 zibonisa ukuggwesa ngokupheleleyo kweembotyi zesoya kwimveliso yembewu yeoyile ye-56% okanye yeetoni zemetrik zezigidi eziyi-251,5 (MMT) zemveliso epheleleyo yemveliso epheleleyo yehlabathi eqikelelwa kwiitonu zemetric zezigidi eziyi-452,5. Ukuze kucace gca eli nani ziitoni zemetrik eziyi-452, 500, 000.

Ezinye izityalo zembewu yeoyile ezi-negalelo kule mveliso kwi-MMT zezi: Yimbewu yesityalo seFula neOli kuqukwia i-canola 60,80 kangange13%, imbewu yomqaphu 46,60 kangange10%, imbewu kajongilanga 38,90 kangange 9%, amandongomane 35,50 kangange 8%, iinkozo ze-palm 13,40 kangange 3% kunye nembewu ye-copra 5,80 kangange 1%.

## Ukulinywa kweembotyi zesoya ehlabathini

linkukacha zonyaka ka-2011 zibonisa ukuba imveliso yeembotyi zesoya epheleleyo yehlabathi ye 251,50 MMT ngokwamazwe yile: eUSA 83,2 kangange 33%, eBrazil 72,0 kangange

29%, eArgentina 48,0 kangange19%, eChina 13,5 kangange 5%, elndiya 11,0 kangange 4%, eParaguay 6,4 kangange 3%, eCanada 4,2 kangange 2% amanyi 13,1 kangange 5%.

## Ukusetyenziswa kweoyile yezityalo ehlabathini

linkukacha zonyaka ka-2011 zibonisa ukuba ukusetyenziswa kweoyile yezityalo ehlabathini kwiMMT yile: loyile ye-palm 49,6 kangange 33%, iimbotyi zesoya 42,6 kangange 28%, imbewu yefula yeoyile 23,2 kangange15%, ujongilanga 12,9 kangange 9%, imbewu yomqaphu 5,2 kangange 3%, amandongomane 5,2 kangange 3%, neenkozo ze-palm 5,1 kangange 3%, ikhonath 3,9 kangange 3%, neoyile ye-olive 3,0 kangange 2%.

## Imveliso yaseMzantsi Afrika

Amanani emveliso angasentla anceda ngokucacisa izixa zemveliso yeembotyi zesoya yaseMzantsi Afrika. UMzantsi Afrikangomnye wamazwe ayi-50 alima iimbotyi zesoya.

UMzantsi Afrika ulime malunga neetoni eziyi-800,000 kwixesha lonyaka elidlulileyo okanye ngamanye amazwi iitoni zemetrik eziyi-8 000. Esi sixa sincinane ngenene xa kuthelekiswa nemveliso yehlabathi. Ngexabiso le-R4 700 ngetoni nganye oku kulingana nengeniso yabalimi abamalungu nezigidi eziyi-R3 760 okanye iirandi eziziibhiliyon i eziyi-R3,76. Ngokubhekiselele kweli lizwe eli

Kuxhomekeke kumlimi wa-seMzantsi Afrika ukwenza uphando olufanelekileyo nge-endlela zokulinywa kweembotyi zesoya ukuze kwandiswe izivuno zesizwe eziqhelekileyo. Ngokwenza njalo, abalimi bethu baya kukwazi ukuqhoba ngokunikela ngesi sityal sibalulekileyo njengenxenyen yobukho bokutya okwaneleyo kweli lizwe kwixesha elizayo.

“

ligalelo elibalulekileyo kwicandelo lezolimo na-kwilizwe liphelele.

## Ikeyiki zeoyile ezithengwa kwamanye amazwe

Imveliso yeembotyi zesoya yangoku eMzantsi Afrika ayikho phezulu ngokwaneleyo ngokokude ikwazi ukwanelisa iimfuneko zaseMzantsi Afrika ngokuphathelele kwikeyiki yeoyile yesoya, eyimveliso elinxusa leshishini lembewu yeembotyi zesoya. Ikeyiki yeoyile yesoya yinxalenye ebalulekileyo nexabiseke kakhulu yeshishini lezondlo zemfuyo kanti ikwangumthombo weprotheyini kwizondlo zeehagu, iinkuku, iinkomo zobisi nakwishishini lezondlo zeenkommo. Imithamo yesiqhelo inesidlo sentlanzi. Esi sondlo asandi kakhulu



## UKULINYWA KWEEMBOTYI ZESOYA

kwaye sesingumthombo oduru kakhulu weprotheyini yemfuyo oxabisa malunga ne-R11 900 ngetoni nganye.

Ikeyiki yeoile ethengwa nguMzantsi Afrika ngonyaka kwamanye amazwe imalunga neeton i zemetrik ze-900,000 kanti ixabiso elipheleleyo lokuthenga ngaphandle ziibhiliyon zeerandi ezi-4. Ukuba liyehla ixabiso lerandi xa kuthelekisa nezinye iintloblo zemali mhlawumbi ngaphezu kweR10,00 kwidollar yaseUS iya kuyuka nangaphezulu imali yotshintshiselwano ngemali yangaphandle. Ngoko ke, abalimi beemboty zesoya bangazuza imali ephucukileyo. Kodwa isakhono sokuhluza kwembewu yeemboty zesoya asanelanga njengoko iiplanti nemizi-mveliso yanambla zingakhelwanga le njongo ngqo. limbotti zesoya zinokuhluza ngorwaneleyo kuphela ngokusebenzisa inkubo yokusebenzisa isinyibilikisi ukuze kutsalwe isixa esesona siphezulu seoyile kwiimboty zesoya zoqobo.

### limbotyi zesoya – ixabiso lesondlo sazo neminye imisebenzi

Imbewu yeemboty zesoya ineoyile yeemboty zesoya neprotheyini, ezenza i-60% yobunzima beemboty zesoya ezomileyo. Isiquatho seoyile yembewu eyomileyo simalunga ne 18% ukuya kwi 20% ukuze isiquatho seprotheyini sifikelele kwi 36% ukuya kwi-40%. Intsalela yi 35% yesitatshi kunye ne 5% yothuthu okanye isiquatho seetyuwa. Kukho uluhlu olubanzi nolunoncedo kakhulu lwee-amino aside ezenza isiquatho seprotheyini ngokunjalo neevithamini kwizintlu ze-B, C, E ne-K ngokunjalo neetyuwa ezifana ne-calcium, i-iron, i-magnesium, i-manganese, i-phosphorus, i-potassium, i-sodium ne-zinc.

Njengoko kubonakala imbewu yeemboty zesoya ixabiseke kakhulu ngenxa yesondlo sayo esisemgangathweni ophezulu ofanele abantu nemfuyo. Izilwanyana ezetyisayo ezifana neegusha kunye neenkomo ziyawkazi ukutya imbewu engasetyenzwanga emadlewleni emva kokuvunwa kwsityalo seemboty zesoya. Izilwanyana ezinesisu esinye njengeehagu neenkuku nangona kunjalo zifuna iprotheyini ukuze ziqhutyelwe phambili phambi kokusetyenziswa. Isiquatho setrypsin naso asibalungelanga abantu.

Isityalo seemboty zesoya xa silinya kwiimeko zokunkencleshwa nezomhlaba owomileyo nakubudlelane namaquhuqhuva eengcambu aneebhaktiriya, i-nitrogen iyafunxwa emoyeni. Le nitrogen inika i65% yenitrogen edingwayo ukuze kuvele imbewu. Inyaniso kukuba sisityalo 'esingummangaliso'.

### Ukusetyenziswa kwazo ngabantu

Iprotheyini yesoya izinzile xa kuthelekisa nezinye izito ngoko ke iyakwazi ukumelana namaqondo aphezulu obushushu bokupheka, ukuze phakathi kwezinye izito zeprotheyini ephezulu ibe nexabiso njengetshizi ethambileyo,

ubisi lwesoya, olwensiwe ngembewu epheleleyo ecoliweyo, yaggithisa emanzini, yaza yatshiswa ngomphunga, nevakala njengeprotheyini yezityalo. Imveliso zeprotheyini yezityalo ziyafumaneka koobhazabhabza beevenkile eMzantsi Afrika kwaye zixabisekile ngenxa yeprotheyini yazo enokudityaniswa kwizidlo zabantu.

Imveliso yobisi lwesoya iqukanisele isitatshi neoprotheyini kwaye iyelele kakhulu kwisiqlatho sobisi. Ubisi lwesoya lunokwenziwa iyogathi engenaziqhamo okanye idityanisne nezinongo zendalo luthengiswe njengemveliso ephantse yangamanzi ekuthiwa yi-yogi-sip. Zonke ezi mveliso zinokulungiswe ngezitya zokupheka ezi-qhelekileyo nakweliphi ikhitshi losapho okanye kwishishini elikhulu elinezixhobo zesinyithi esingambatshiyi.

Iprotheyini yeemboty zesoya isemgangathweni wenyama, amaqaanda ne-casein ezifanele ukukhula nempilo yomntu.

limbotyi zesoya zaqala ukulinywa e-Eshiya eseMpuma kudala kungekabhalwa nto phantsi zaze zakukutya kwezityalo okuphambili eChina, eJapan naseKorea njengakwamanye amazwe ehlabathi. Uninzi lwala mazwe ayilungisile indlela yokuvelisa nokuthengisa iimbotyi zesoya ezibiliswe ngokudidiyela ezifana neemveliso ezenziwe ngazo njengesosi yesoya nezinye iintloblo zezinongo zokutya. libhaktiriya ezilunceo eziisetenziswa ngexesa lokudidiyela zinceda ngokuqhekaza iprotheyini ukuze ibe zii-amino asidi ezicoleka lula emzimbeni.

Imihlanganisela evela kula mazwe ikhethwe ngononophelo kwiminyaka edlulileyo eyi-2 000 ukwenzela ukulima. Le mihlanganisela inabele ngakulo lonke elaseNtshona ukuze kufumanekimihlanganisela emfuza yendalo neyenziwe ngumntu eyahlukileyo yanambla.

Uphuhliso Iwemihlanganisela yemfuza eyenziwe ngumntu luquka iziseko zofuzo ukuze izityalo zeemboty zesoya zimelane nemichiza ye-glyosphate esetyenziselwa ukutshabalalisa ukhula kwimveliso yanambla yeemboty zesoya zokurhweba.

### Isishwankathelo

limbotyi zesoya zingumthombo obalulekileyo wokutya kwihiabathi elandayo, kuqukwamaannani abantu baseMzantsi Afrika nemfuyo. Ku-xomekeke kumlimi waseMzantsi Afrika ukuba azingele indlela zokulima iimbotyi zesoya phantsi kweemeko zomhlaba owomileyo nokunkencleshwa ukuze kwande izivuno zesizwe. Nogkwenza njalo, abalimi bethu bayu kulkwazi ukuba negalelo kwesi sityalo sibalulekileyo njengenxene yobukho bokutya okwaneleyo kweli lizwe kwixesha elizayo.

**Inqaku linikelwe ngumlimi othathe umhlala-phantsi.**

# Abalingwa bonyaka ka-2013

## KUMLIMI OZIPHILISAYO

### ngaba...



UPatrick Nxumalo

**U**Emmanuel Hadebe wazalwa ngomhla we-16 kuSeptembera ngo-1971 kwindawo ebizwa ngokuba yiThokoza kufuphi e-Estcourt. Ngowesine kubantwana abasibhozo bakowabo.

Waqlala izifundo zakhe zamabanga aphantsi ngo-1979 eThemba Primary School. UKususela ngo-1982 ukuya ngo-1984 wayesalusa iinkomo zikatatomkhulu wakhe kodwa ngo-1989 waya eAmahlubi High School aphiaphumelele khona ibanga lematriki ngo-1994. Emva koko waya eGoli ngenjongo yokufuna ingqesho kodwa elo phupha zange liphumelele. Ekuhambeni kwexesa we-nza iziqqibo zokwenza izifundo zokhuselo aphi afumene khona iSatifikethi soKhuselo seBangal-C. Phakathi ku-1996 wafumana umsebenzi kwenvye yekhontraktha aphiasebenze khona njengoMlindi wezoKhuselo. Ngelo xesha waye-sebenza ngalo wakwazi ukwenza izifundo ezifana noLawulo IweeProjekthi kunye noLawulo IwabaSebenzi kwiYunesithi yakwaZulu-Natal.

Ngo-1999 wabuyela ekhaya aphi aqalise khona njengoMlindi wezoKhuselo eTatazela High School. Ngo-2006 waqlala umsebenzi wokufuma elima iitapile (waza wayeka ngo-2009). Emva koko waqlala ngehektare e-1 ukulima umbona.

**U**Patrick Nxumalo wazalelwaa Emangweni kufuphi eWinterton aphi wakhulela khona. Uqale isikolo Emangweni Primary school waza waya eSizathina High school aphi agqibe khona ibanga le-10.

Uqale ukusebenza eWelkom ngo-1979 nje-ngomsebenzi wasefektri kwada kwaba ngo-1983. Emva koko usebenze kwiqumrhu elenza iplastikhiki eGoli kwada kwango-1989. Ngenxa yokukhangela elinye ithuba uqalise ukusebenza e-Estcourt esebebenzela iMasonite, kwade kwasekupheleni kuka-2000. UKususela ngo-2001 uqale wasebenza kwishishini lokubhaka lendawo yakhe. Emva kokusweleka kwenkosikazi yakhe ngesiquphe ngo-2006, uPatrick wanyanzeleka ukuba ayeke ukusebenza ukuze agcine abantwana bakhe.

Unabantwana abahlanu. UNkanyiso wazalwa ngo-1986 waza waphumelela ibanga le-12 ngo-2009. Ungumlawuli we-hyster. UNomalungelo wazalwa ngo-1990 kwaye uliphumelele ibanga le-12. UNqobile umfumene ngo-1992, yena uphumelele ibanga le-12 ngo-2011 kwaye ngoku usaqhuba

ngokufunda eMnambithi FET College. UPhiwe ngoka-1995 ngoku ukwibanga le-11 kanti uNtombizethu (ozelwe ngo-1999) ukwibanga le-9.

Uqale ukuba lilungu le-Emangweni Study Group ngo-2009. Uye kwizifundo ezithathu ezahluka-hlukileyo: Intshayelelo ngoMbona, Intshayelelo ngeeMbotyi zeSoya kunye noLawulo IweFama. Umhlaba awusebenzisayo ngumhlaba odityane-Iweyo ophantsi kwe-Tribal Authority. Unehektare enye yomhlaba olimekayo kunye neehektare eziyi-100 zedlelo ekwabelwana ngalo. Uneenkomo eziyi-15. Kwihektare yakhe enye yomhlaba, ulime umbona otyeli odingwa kakulu. Amabelwane bakhe babalimi, abafuye iinkukhu, bathenga kuye ukuze enye imveliso yakhe bayisebenzisele ukondla iinkomo zakhe.

UPatrick unomnqweno wokwandisa umsebenzi wakhe kodwa unezhithintelo zemali njengesithintelo sakhe. Akanatrektara eyiyeyakhe kwixesha langoku kwaye udinga izixhobo zokusebenza ezifanelekileyo. Unolwazi nothando lokuba ngumlumi orhwebayo ngenye imini, utsho.



UEmmanuel Hadebe

## UMLIMI WONYAKA



UTO Mdluli

**U**TO Mdluli wazalwa kwisiphaluka setrasti yase-Mhlozeni phezulu kwiiNtaba zeDrakensberg malunga neekhilomitha ezingamashumi amathandathu ukusuka eWinterton KwaZulu-Natal. Abazali bakhe babe nabantwana abalishumi elinesixhenxe kodwa abaphilayo kubo babesixhenxe kuphela. Yena ngowesihlanu kwaye unabantwakwabo abane nodadewabo ababini.

Zange waya esikolweni kodwa uggibele ngokuya kwizifundo zasekutshoneni kwelanga ukuze afunde ukufunda nokubhala. Watshata ngonyaka ka-1992 kwaye unabantwana abahlalu, intombazana enye namakhwenkwe amane. Umntwana wakhe wokuqala wazalwa ngo-1985, uSenzile, ofunda kwifET College eGoli. Ngo-1989 kwazalwa uSakhile ogqibileyo esikolweni nosebenza kwifama ekufuphi. Ngo-1995 bafumana uSimcayi, okwibanga le-11 ngoku. UBuyisane bamfumana ngo-1997 kanti yena ukwibanga lesibhozo ukuze untondo wabo, uMafanelo abe ngoka-2000. Unebhongo elikhulu ngeneto yokuba abantwana bakhe bekwazi ukuya esikolweni kwaye uzimisele ngokubanika imfundu eyiyo.

Umyeni kaNksk Mdluli, uNdaba Mbhele wayesebenza eGoli kwiqumrhu elithengisa inyama. Intlekele yaba kuku-sweleka komyen i wakhe ngo-2002. Ukususela ngoko uzikhlisela abantwana bakhe yedwa.

Uqhube ngokuphila ngomhlaba kwaye leyo yaba yindlela ekuphela kwayo akhulisa abantwana bakhe ngayo. Ingeniso yakhe uyifumana ngokulima umhlaba kwaye ulima iitapile, iimboty ezmileyo kanye nombona. Wonke umsebenzi wenziwa ngesandla. Uphinda alungise impahla yokunxiba athungele abahlali bendawo yakhe ilokhwe ukuze ongeze ingeniso yakhe. Akukho mbane kule ndawo.

Usebenzisa umhlaba odityanelweyo ophantsi kwe-Tribal Authority. Uneehektare ezimbini zomhlaba olimekayo kanye neehektare eziyi-50 zamadlelo. Uneenkomko ezintathu.

Kwihekture enye yomhlaba olimekayo balima umbona. Umhlaba uwulima ngesandla aze ahlakule ngegaba. Emva koko utyala imbewu aze azame ukuwagcinha ecocekile amasimi ngesandla. Wayefudula elima "umbona wamaZulu" wakudala (umhlanganisela oqheleki-leyo novulekileyo kumvumvuzelo), imbewu ayidityaniswa

nombona wayo emva kokuvuna. Omnye umbona bawutya usemtsha size esinye isivuno silungiselelwu umgubo wombona. Ukvuna kwensiwa ngesandla ukuze ukuze izikhwebu zombona zichutywe ngesandla. "Kwimbewu yamaZulu" badinga iingxowa ezimbini zezikhwебу ukuze bafumane ibhakethi yeelitha eziyi-20 ezele umbona. Babephila nzima kuba bafanele ukuba nesivuno esanele ukuba baphile iinyanga ezili-12.

Ngo-2011 wadibana noJurie Mentz, uMququzelelo woPhuhliso waseGrain SA weNkqubo yoPhuhliso IwamaFama, kwaZulu-Natal (eVryheid). UJurie waseka i-Emmaus Study Group esiThilini eso waze uTo waya kwezo ntlanganiso. Enyanisweni ngoku ngusihlalo we-Emmaus Study Group.

Ngo-2012 uzithengele isixhobo esincinane sokutyla asisebenzisa ngempumelelo enkulu. Unazo nezitshizi ezikhulu ezithathu ze-knapsack azisebenzisela ukutshiza ukhula nokutshabalalisa izinambuzane. Ngenxa yokuba akanazihobo zokusebenza akawuphethuli umhlaba. Emva kokungena kwakhe kwiGrain SA, uqalise ukulima imihlanganisela yombona esisityalo esixubileyo ngokwemfuza waza waphumelela. Ngoku udinga iingxowa ezimbalwa kakhulu zezikhwебу zokuzalisa ibhakethi yeelitha eziyi-20 ngeenkozo zombona.

*Inqaku linikelwe nguJane McPherson,  
uMphathi weNkqubo yaseGrain SA  
yoPhuhliso IwamaFama ngolwazi  
olungaphaya, thumela i-imeyili apha:  
jane@grainsa.co.za.*



# UJalisa, uVuyani noVictor bakrozele ibhaso

## LOMLIMI OSONDELE KWABARHWEBAYO



**UJalisa Simphiwe**

**U**Jalisa Simphiwe wazalwa ngomhla we-15 kuSeptember ngo-1958. Ukhulele eManzimda kufuphi eNgcobo. Utata wakhe wayfama emhlabeni odityanelweyo, kuhlobo lokufama ekuthiwa loluxubileyo, ngemvume yokuwusebenzisa loo mhlabo. USimphiwe ufunde eCentu Primary School kufuphi kuTsolo waze waya eSt Cuthberts apha aphumelele khona ibanga lematriki ngo-1981. UJalisa utshate noNonene ngo-1991 ngokomtshato wobunini obungadibenanga kwaye banabantwana bomtshato abathathu. UJalisa usebenze njengomlindi wezokhuselko eWestonaria kwade kwaba ngo-1997. Ngo-1998 ungene kwishishini leeteksi waze wahlala apha kwade kwaba ngo-2006.

Ngo-2008 uJalisa wazama umsebenzi wokufuma apha athe wakwazi ukufumana ifama e-Elliott ngenkqubo ye-LRAD.

Inye kuphela into eyamnceda ukuba abone urhwebo kwezolimo, kukufumana umhlabo "on-

gowakhe". Kude kufike elo xesha wayesazi ngo-kwenza umsebenzi wokufama wokuziphilisa.

Akuba engene kwiQela loFundonzulu lase-Grain SA waqala ukutya rhoqo ezintlanganisweni, uye kwifundo zoqequesho ezimvulele umnyango wokungena kwilizwe elitsha. Ezinye zezifundo azigqibileyo zezi: Ukugcinwa kweeNgxelo kune nokuGcinwa kweeNcwadi ngokunjalo neziFundu zokuLungiswa kweTrektara neziXhobo zoku-Sebenza. Wafunda okokuqala ebomini bakhe ngokuhlalutywa komhlaba nangokubaluleka kokugcina iingxelo zakhe zemvula.

UJalisa uyazama ukwenza akufundu kwiintlanganiso zamaqela ofundo-nzulu nakwizifundo zoqequesho. Ukhuthazwa yinjongo yakhe yokuba lilungu leKlabhu yeeToni eziyi-250. UJalisa usazinikele ekuphuculeni imisebenzi yakhe yokufama. Isivuno sakhe sifanele ukuba malunga neeton ezi-3/ngehektare nganye kodwa kulo nyaka unenjongo yeetoni eziyi 4,5 ngehektare nganye.

UVuyani Kama wazalwa eUgie kwaye uneminyaka eyi-43 ubudala. Ukhuliswe ngumama wakhe owamthumela esikolweni eUgie apha aphumelele khona iBanga le-12. Kwixesha elininki lobomi bakhe usebenze kwiSebe lamaHlathi nokuLoba. Kulapha kanye apha umdla wakhe wezolimo uvuselele khona. Akubone kwififama zorhwebo kwisiThili saseUgie kwenza umahluko ebomini bakhe nakwindlela azibona ngayo ezolimo. Wakhula umdla wakhe kwelo xesha kodwa esona sithintelo kuye sibe kukufikelela emhlabeni ngendlela ethile.

Ngo-2006 zaguquka izinto akuba ekwazile ukuthenga ifama yeehektare eziyi-450 apha alime khona umbona neetapile kwinkqubo yokujikelezwisa kwezityalo. UVuyane usenayo ifama yase-Elliott apha aqhuba khona umsebenzi wokufama ngeegusha nombona.

Ngo-2009 uzibandakanye neGrain SA waza walilungu lofundo-nzulu kwiNkqubo yoPhuhliso IwabaLimi. UVuyani uye kwizifundo zoqequesho ezahluka-hlukileyo ezifana nezi: Intshayelelo ngeMveliso yoMbona, iziFundu ngeeKhontraktha neziFundu ngoLondolozo IweTrektara. Oko wangena kwiGrain SA, inkxaso, izakhono zobuchule nolwazi alufumeneyo, zizinto ezimncedileyo ukuba aphucule imveliso yesivuno sakhe sombona. Isivuno kwindawo yakhe sinyuke ukusuka kwisihelo seetoni eziyi-3,5/ngehektare ukuya kwiton ezi-5 ngehektare kwisiThili saseElliot. Isityalo sakhe esiqikelelwaa kwicala elinie lamasimi akhe kwisiphaluka saseUgie, zitoni eziyi-7,5 ngehektare.

UVuyani unovuyo olukhulu ngecamva lokulima kwaye unqwenela ukuqhubeka ngokuphucula izakhono zobuchule bakhe kunye nolwazi.



**UVuyani Kama**

## UMLIMI WONYAKA



UVictor Mahlinza

**U**Victor Mahlinza wazalelw e-Escourt, KwaZulu-Natal ngomhla we-14 kuJulayi ngo-1961. Ukhulele khona e-Escourt, ngaseNtabamhlophe. Uqale esikolweni samabanga aphantsi eCornfield Primary School ngo-1968. Ngo-1976 uye eMtshezi High School apha aphumelele khona ibanga le-11 ngo-1982.

Ngo-1983 uVictor wenza isigqibo sokuya eGoli apha asebenze njengonobhala kwenye yeeofisi zee-khontraktha zokwakha kunyaka omnye. Ngo-1984 usebenze njengomgcini wempahla yequmrhu lemichiza eGoli kwada kwango-1986. Phakathi konyaka ka-1987 no-1988 usebenze eM&L Distributors njengomqhube wesigadla ethutha ukutya okusezinkonkxeni. Ngo-1989 uqalise ukusebenza njengekhontraktha engazimelanga ne-AMCA Construction kwade kwango-1995.

Ngo-1996 ubuyele ekhaya apha enze isigqibo sokuba ngumlimi. Kuthe xa kulapho wayesasebenzia iinkabi xa elima amasimi akhe, wade wafumana itrek-tara yakhe ngo-2003.

Utshate noLinah kwaye basikelelw ngabantwana abahlau; amantombazana amathathu kune noon-yana ababini. UFikile, (27) oshiye isikolo ekwibanga le-11 unabantwana ababini. USizwe (20) uphumelele ibanga le-12 eZakhe Agricultural College ePietermaritzburg. Ukuphuma kwesikolo uye eDelmas apha abe nenxaxheba kwiziFundo ngeMifuno eBuhle College. Ngoku usebenza notate wakhe efama. UZandile (16) ukwibanga le-11 eAbantungwa High School. UMcebisi (14) ukwibanga lesi-8 eMathamo Primary School aze uMpumelelo (12) iabe kwibanga lesi-6 eMathamo Primary School.

UVictor ukwathembise uNorah ngomtshato kwaye banabantwana abathathu.

UVictor uneetrekta ezizezi: iMassey Ferguson 440 4x4, iMassey Ferguson 5465, iMassey Ferguson 399 neLandini 7500. Unphinda abe neemoto ezimbini: iColt 2.8 neMitsubishi. Uneenkomu eziyi-78 ezityisa kwihek-tare eziyi-250 zomhlaba odityanelwayo kune neehek-tare eziyi-83 zomhlaba wabucala oqeshiswayo. UVic-

tor akasebenzisi mbolekisi-mali kodwa zonke izityalo uzihlawulela ngokwakhe. Oku akwenzeki lula njengoko esebeenzisa iihektare eziyi-40 zomhlaba odityanelweyo aphinde aqeshe iihektare eziyi-42 zomhlaba owongezelweyo kum-limi orhwebayo.

UVictor akaxhomekekanga kwizityalo kuphela, kodwa ufuye iihagu, iibhokhwe neenkukhu. Ubona ukungajongi into enye njengento ebaluleke kakhulu ukuze azinzise umsebenzi wakhe wokulima izityalo. Isicwang-ciso-cebo sakhe sokukwazi ukuziphilisa kulo nyaka sisekujonga izinto ezinanzi njengoko

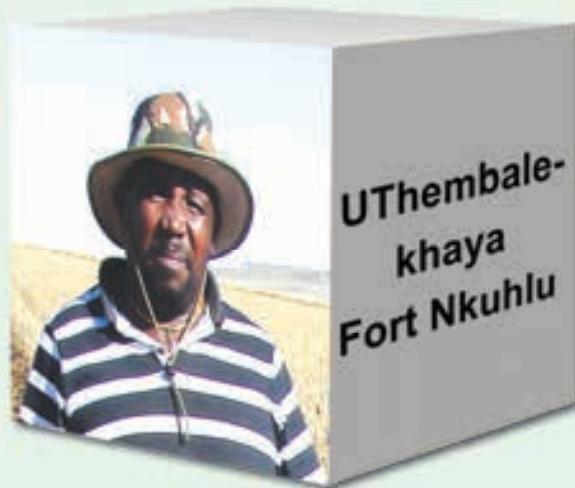
elima umbona, iimbotyi ezomileyo, imifuno netshikori phantsi kwekhontrakhi yaseNestlé.

UVictor ngusihlalo woMbutho wamaFama esiTibili sendawo yakhe neMtshezi Study Group kwaye unothando olunzulu ngomsebenzi wokufama. Ukwangusihlalo weQela lokuSebenza kwiNkqubo yaseGrain SA yo-Phuhliso IwabaLimi.

*Inqaku linikelwe nguJane McPherson,  
uMphathi weNkqubo yaseGrain SA  
yoPhuhliso IwamaFama ngolwazi  
olungaphaya, thumela i-imeyili apha:  
jane@grainsa.co.za.*



# Dibana nabagqwesileyo kulo **NYAKA WOMLIMI ORHWEBAYO**



**U**Maurice Mthandeki Boki wazalwelwa eMatatiele. Wafunda eSt Columbus Primary School waze emva koko waya eMariezell High School eMatatiele. Waphuma kwesikolo kwiBanga le-10 waya eSt Anthony's Mission apho waphumelela ibanga lakhe lematriki.

Ufudukele eGoli wasebenza kuMasipala waseGermiston iminyaka emithathu. Akuuba emshiyle umasipala, uqalise ukusebenza eTwins Pharmaceuticals (i-Adcock Ingrams) iminyaka elishumi elinesibini. Ulishiye elo qumrhu ngo-1977 waze watengna ivenkile esekhona nangoku eMatatiele.

Ngo-1995, ngoncedo IweLand Bank, uthenge iHorncroft farm, ephakathi kwe-Cedarville neTaylorville, kwaye uhleli apho ukusesela ngoko kude kube ngoku.

UMaurice ukhule enothando lokulima asenalo nangoku. Uqhube umsebenzi wokufama eyedwa ukususela ngo-1995 kungeko ncedo alufumana nakowuphi umbutho.

UMaurice watshata uKholiswa ngo-1977 kwaye banabantwana abane. Uyile kwizifundo zeMveliso yeziTyalo, iMveliso yeNyama yeNkomo, uLondolozo Iwee-Ngxelo zeFama nezoLawulo IweShishini leFama eCedara.

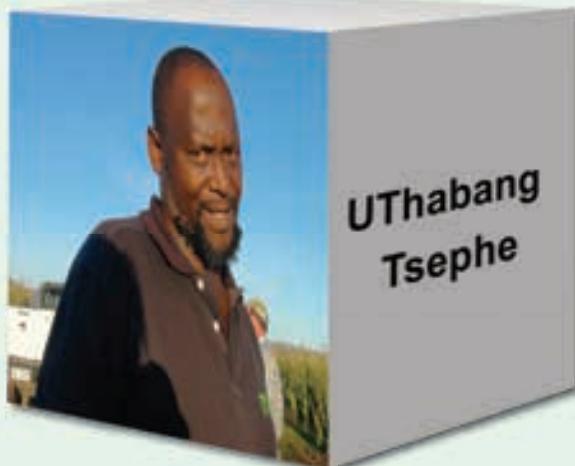
**U**Thembalekhaya Fort Nkuhlu ukholelwa kumashishini ahluka-hlkileyo. Ulima umbona, iimbotyi zesoya, ufuye iihagu, iinkukhu kwaye uneshishini lemfuyo elikhulu kwifama yakhe, eDenemark, kwisiThili saseVrede. Ukhulele eMpuma-Koloni, apho utatomkhulu wakhe, owayeligosa lesolulo kwisiThili saseCalala, wamfundisa khona imithetho-siseko engundoqo ekulinyweni kwezityalo.

UFort waphumelela kwimfundu yakhe kwisiKolo samaBanga aPhezulu saseNgangelizwe. Emva koko ufunde uluhlu Iwezfundo zonyaka zoLawulo IweeNtengiso eBoston City Campus,

waze walandelisa ngezifundo zoLawulo IweOfisi eDamelin College waphinda wafunda izifundo zeBookkeeping eVarsity College.

Ukholelwa ekubeni xa usenza umsebenzi wokufama, ukufunda yino esoloko isenzeka kwaye ayiyeki. Umdla wakhe emsebenzini wokufama waqala xa utata wakhe wayethenga ifama kufuphi eVrede ngowe-1999.

UFort unqwenela ukukhokelela ifama yakhe kwingqalelo yenengiso ethembekileyo yazo zonke iimveliso zefama rhoqo kwaye ufunu ukudala iqonga lokufundisa isizukulwana esitsha sabalimi kunye nabafundi bezolimo ukuze abanike ithuba lokuziqhelanisa nabakufundayo.



**U**Thabang Tsephe ukhulele eMatatiele. Ufunde eMehloloaleng Junior School apho aphumelele khona iBanga lesi-7.

Ukuphuma kwesikolo, usebenze efama kwixesha elifutshane waze waya kusebenza emigodini iminyaka elishumi.

Ubuyele ekhaya ngo-1986, waba ngunovenkile Wade waqalisa umsebenzi wokufama ngo-1999. UThabang utshate noMatau kwaye banoonyana ababini abancedisa utata wabo kwiifama.

UThabang usebenza kwifama ezimbini apho alima khona umbona, iowuthsi nokuya kwempahla. Ngaphezu kokulima imveliso yeziyaloo, uqhuba ishishini lobisi, uneenkomu zenyama kunye neegusha ukuze angajongi nto enye.

*Inqaku linikelwe nguLandi Kruger,  
umbhali kwiPula/Imvula. Ngolwazi  
oluthe vetshe, thumela i-imeyili apha:  
landi@grainsa.co.za.*

# I-Maize Trust

## Idlelane kupuhhliso



Grain SA inephupha lecandelo lezolimo elima-nyeneyo neliqhabela phambili kwaye iyaqonda ukuba kufuneka kuhlangatyezwe isidingo sobukho bokutya okwaneleyo. Kwi-Grain SA, imiba ebaluleke kakhulu kukufumaneka kwengeniso yabo bonke abantu abanofikelelo em-hlabeni, ukhuselo lwezinto ezisetyenziswayo eziyindalo kunye nokudalwa kwamathuba emisebenzi.

Ukuze iliphumeze eli phupha, iGrain SA idinga amadlelane. Elinye idlelane elinjalo nelibaluleke kakhulu yi-MaizeTrust. Eyona njongo ingundoqo nephambili ye-trust kukunika inkxaso-mali kwishishini lombona kwiRiphablikhi yaseMzantsi Afrika kanti okubaleke kakhulu kuyo kukuqinisekisa ubukho benkxaso-mali kumacandelo angala:

- Uphando ngombona ngokwenzululwazi kunye/okanye ngobuchule malunga nentengiso- kunye nokulima;
- Ukufumana, ukusebenzisa nokusasa-zwa kweenkcukacha ngokuthengisa umbona malunga neshishini lombona (iARC – iSummer Grain Centre, iCandelo IoPhando ngoMbona IoMbutho wabaLimi beeNkozo, okanye nawuphi umbutho on-gomnye unako ukufaka isicelo seengxowa-mali ezilolo hlobo);
- Ufikelelo kummandla wentengiso malunga nombona eMzantsi Afrika (phakathi kwezinye izinto ngokunkielka ngeziseko zezibonelelo zokuthengisa, uqequesho nokuncediswa kwiziphaluka eziempahndleni aphoke ngoko sikhoyo khona isidingo);
- Okubaleke kakhulu kwiGrain SA, ziingxowa-mali zoqequesho nophuhliso lwabalimi abasahlumayo.

I-Maize Trust ilawulwa yibhodi yabathenja abathandathu: Umthenjwa omnye evela kubalimi bombona oMhlophe, abalimi bombona oTyheli, omnye kubalimi bombona ngokubanzi

baze abameli abathathu bavele kwiNkonzo ye-zoLimo, amaHlathi nokuLoba. Aba bathenja baqinisekisa ukuba imali yeMaize Trust ichithwa ngobulumko nangendlela efanelekilyo.

Ukuze ikwazi ukuqequesha nokupuhhlisa abalimi abasahlumayo bezityalo eziziinkozo, iGrain SA idinga iingxowa-mali kanti koku, iMaize Trust ilidlelane elibaluleke kakhulu. INkubo yaseGrain SA yoPhuhliso IwabaLimi (i-FDP yaseGrain SA) ifaka isicelo senkxasomali kwiMaize Trust sonyaka ngamnye. Le nkqubo iquka ingxelo ecoselelwego yoqequesho nophuhliso oluxhaswa ngemali yakwa-Maize Trust kunye nesicelo esineenkukacha ezinengcombolo ngezicwangciso zeeNkqubo zoPhuhliso zaseGrain SA zonyaka olandelayo.

Ngaphandle kwenkxaso yee-trust ezahlukahluhileyo zezityalo eziziinkozo nemirhumo yobulu-nugu babalimi, ngeyingekho iGrain SA. Uze ufunde imagazini elandelayo ngolwazi oluthe vetshe ngamadlelane eGrain SA ukuze kuqinisekiswe ezolimo ezimanyenyo nezinenkqubela eMzantsi.

*Inqaku linikelwe ngu Susan Engelbrecht,  
uMnixibelelanisi noMnxulumanisi  
kuSasazo IweGrain SA. Ngolwazi  
oluthe vetshe, thumela i-imayilli apha;  
susan.engelbrecht@grainsa.co.za.*



*Ngaphandle kwenkxaso yobubele ye-Maize Trust, ngowungafundi le magazine. Siyabulela Maize Trust.*

# PULA IMVULA

Iqela labahleli

## GRAIN SA: BLOEMFONTEIN

Suite 3, Private Bag X11, Brandhof, 9324  
7 Collins Street, Arboretum  
Bloemfontein  
► 08600 47246 ◀  
► Fax: 051 430 7574 ◀ [www.grainsa.co.za](http://www.grainsa.co.za)

## UMHELEI OYINTLOKO

Jane McPherson  
► 082 854 7171 ◀ [jane@grainsa.co.za](mailto:jane@grainsa.co.za)

## UKUMISELWA KWABAHLELI

Liana Stroebel  
► 084 264 1422 ◀ [liana@grainsa.co.za](mailto:liana@grainsa.co.za)

## UYILO, UBUME NOSHICILELO

Infoworks  
► 018 468 2716 ◀ [www.infoworks.biz](http://www.infoworks.biz)



## IPULA IMVULA IFUMANEKA NGEELWIMI EZILANDELAYO:

isiXhosa,  
iSisulu, iSibhulu, iSeTswana,  
iSesotho, iSesotho sa Leboa nesi IsiZulu.

## INkqubo yeGrain SA yoPhuhliso IwabaLimi

ABAQUQUZELELI BOPHULISO  
Danie van den Berg  
Free State (Bloemfontein)  
► 071 675 5497 ◀ [danie@grainsa.co.za](mailto:danie@grainsa.co.za)

Johan Kriel  
Free State (Ladybrand)  
► 079 497 4294 ◀ [johank@grainsa.co.za](mailto:johank@grainsa.co.za)  
► e-Ofisini: 051 924 1099 ◀ Dimakatsi Nyambose

Jerry Mthombothi  
Mpumalanga (Nelspruit)  
► 084 604 0549 ◀ [jerry@grainsa.co.za](mailto:jerry@grainsa.co.za)  
► e-Ofisini: 013 755 4575 ◀ Nonhlanhla Sithole

Naas Gouws  
Mpumalanga (Belfast)  
► 072 736 7219 ◀ [naas@grainsa.co.za](mailto:naas@grainsa.co.za)

Jurie Mentz  
KwaZulu-Natal (Vryheid)  
► 082 354 5749 ◀ [jurie@grainsa.co.za](mailto:jurie@grainsa.co.za)  
► e-Ofisini: 034 980 1455 ◀ Sydwell Nkosi

Ian Househam  
EMpuma-Koloni (Kokstad)  
► 078 791 1004 ◀ [ian@grainsa.co.za](mailto:ian@grainsa.co.za)  
► e-Ofisini: 039 727 5749 ◀ Jenilee Bunting

Lawrence Luthango  
EMpuma-Koloni (Mthatha)  
► 076 674 0915 ◀ [lawrence@grainsa.co.za](mailto:lawrence@grainsa.co.za)  
► e-Ofisini: 047 531 0619 ◀ Cwayita Mpotsi

Toit Wessels  
ENtshona-Koloni (Paarl)  
► 082 658 6552 ◀ [toit@grainsa.co.za](mailto:toit@grainsa.co.za)

## UKWENZIWA KWAMAQONDO EMILINGANISELO EZITSHIZI

# Iziseko ngezitshizi – umgangatho wamanzi nemilomo

**N**genxa yokuba ukusetyenziswa okubanzi kwemichiza etshabalalisa izinambuzane ezonakalisa izityalo kufanelekile kwaye kuncombeka sekusisixhobo esibalulekileyo eku-tshatalalisweni kokhula nezinambuzane kwishishini lolimo.

Nangona kunjalo oku kukhokelele kwiinkhalabo kuba kwayona le michiza enesakhono sokusombulula ingxaki, inganako ukuba yingxaki nayo ngelinye ixesa, umzekelo, ingangolisa amanzu emhlabeni okanye ibe neziphumo 'zokushenxa' xa unokusuka ufile aphi unokuba yingozi khona kwezinye izityalo okanye kwezinye iindawo. Abalimi nabaphathi banoxanduva lokuqinisekisa ukuba ukusetyenziswa kwemichiza kwensiwa ngezixhobo eziungileyo, negiyeri enokhuseleko oluyimfuneko kunye nolwazi oluchanekileyo malunga nendlela yokufakwa kwayo.

### Umgangatho wamanzi

Ukuxuba imichiza kubalulekile. Esona sithuthi semichiza etshabalalisa ukhula ngamanzi kude kubekho umxube ongange-99% ngoko ke asiyonto emangalisayo ukunonophela umgangatho wamanzi asetyenziswayo ubalulekileyo. Amanzi kufuneka acocke kwaye ahlengeke xa esetyenziswa ekufakweni kwemichiza yokutshabalalisa izinambuzane ezonakalisa izityalo. Xa kuxutywa umchiza ofana neRoundup okanye iGramoxone amanzu afanele ukucocka kwaphela kwaye angabi nazo naziphi izinto ezikuwo ezifana nesanti okanye umhlaba okanye iiitsalela yezinto ebeziphila, njengoko zikuchaphazela ukusebenza kwayo. Amanzi asemhlabeni anamanqanaba aphezulu e-calcium, e-magnesium, e-sodium okanye e-iron, logama i-pH yealkali ithetha ukuba amanqanaba e-carbonate ne-bicarbonate emanzini aphezulu. Umlimi olungileyo wenza ukuba ahlalutywe amanzu akhe aze athathe inyathelo lokulungisa ngokusebenza umxube osisilungelelanisi. Imixube esisilungelelanisi isetyenziswa njengendlela yokugcina amanqanaba e-pH elungelelene.

### Ukukhetha umlomo

Inyathelo lokuqala ekwenzeni amaqondo emilinganisele kukuba nohlobo oluchanekileyo lolwazi

lokusebenza imichiza ekhethiweyo nobukhulu bomlomo ukuze uqikelele isantya somququelo.

- Imilomo emcabia isetyenziselwa ukutshiza okubanzi ngeyona michiza mininzi yokutshabalalisa ukhula nezinambuzane aphi kunqweneleka khona amaqa baza obukhulu obuphakathi;
- Uhlobo lwezantyala-ntyala nolwemilomo yobubanzi bekhowuni epeheleyo esetyenziswa kwimichiza yaphambi kokutyalala lwenza amaqa baza amelana nokushenza ngoko ke kufuneka kufuneka kusetyenziswe umlomo wezithuba ezibanzi;
- Imilomo yekhowuni egobongqo ikhupha amaqa baza amancinane noko kwaye isetyenziselwa ukufaka imichiza yokutshabalalisa izinambuzane ekufuneka efanele ukungenelela kwisigubungelo samaggabi.

Kubaluleke kakhulu ukuyiqwalasela imeko yemilomo ukuba ayikhuthukanga na njengoko imilomo eyonakelayo ikwazi ukuba nesiphumo semichiza engachanekanga. Intu owenzive ngayo umlomo inefuthe kwithuba lobomi nakwisakhono somlomo sokuba luncedo kanti izinto zokwenza imilomo ezifana ne-tungsten, i-carbide, i-ceramic nesinyithi esingarusiyo, ziyayincreda imilomo ngokugcina isantya esinganqumamiyo somququelo kumathuba amade okuyisebenza. Kwelinje icala imilomo eyenziwe ngeplastikhi nebrasi ayomelelanga kangako kanti nezantya zomququelo ziyanda emva kwethuba elifutshane lokutshiza. Abalimi bacinga ukuba bonga imali xa bethenga imilomo yexabiso eliphantsi kodwa enyansweni bagqibela ngokuhlawula ngaphezulu ngemichiza ngenxxa yokwanda kwasantya somququelo.

Kubalulekile ukwazi ukuba uxanduva lwequmrhu elikuthengisela imichiza kukuqinisekisa ukuba uayazi indlela yokusebenza loo michiza kwaye kuqhelekile ukuba iiarhente zemichiza ziye kunceda kwiifama ngamalungiselelo okutshiza nawokwenza amaqondo emilinganisele. KwiPula/Imvula yangoNovemba siza kuggalisela kwiziSeko zeziTshizi – Ukwenza amaqondo emilinganisele nouqwalasela amasimi. ●

Inqaku linikelwe nguJenny Mathews,  
umbhali kwiPula/Imvula. Ngolwazi  
oluthe vetshe, thumela i-imeyili apha:  
[jenjonmat@gmail.com](mailto:jenjonmat@gmail.com).



Ulwazi oluchanekileyo, izixhobo zokusebenza eziungileyo kunye negiyeri yokhuselo iyafuneka ukuqinisekisa ukuba imichiza isetyenziswa ngokuchanekileyo.

THIS PUBLICATION IS  
MADE POSSIBLE BY THE  
CONTRIBUTION OF  
THE MAIZE TRUST

