

PULA IMVUILA

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UOKTHOBA
2016



Ubhekilanga owethembisayo ungenalo ukhula. (Isithombe sithwetshulwe ngu-Johan Kriel)

Nqoba empini yokulwa nokhula

Ngokwejwayelekile 'ukhula' luthathwa njengesitshalo esingafuneki, yize ngokwaso, singaba yisilimo.

Ukhula luhielasela luncintisané ngamarisosi ambalwa amanyuthriyenti emvelo atholakala enhlabathini, – umanyolo ofakwayo namanzi. Ukhula futhi lungavimbela isilimo esitshaliwe ukuthola ukukhanya kwelanga okudingwa yisilimo esitshaliwe – ikakhulukazi ezigabenzi zokuqala zokukhula. Ukwengeza, olunye ukhula lufana nabavakashelwa kwezinye izinambuzane noma zikhisiqiza izinhlamvu ezinobuthi eziyingozi ezi-lwaneni nakabantu.

Uma silima izitshalo zethu sisabalala kakhulu ukuthola noku-aplaya inani elifanele nohlolo lukamanyolo oludingekayo ukuze sithole isivuno esihle. Sikhalibhretha ama-planter ethu ngokucophelela ukuze sivule

izikhala zembewu ikhule kahle – sivumele isistimu yezipande zesitshalo ngasinye zikhule ngokufanele, ngaphandle kokuncintisana ne-zinye. Kusobala, ukuthi noma yisiphi esinye isitshalo esingafuneki esimilayo nesikhula phakathi kwale zilimo ezhlelelwe ngokucophelela, zizomunca amanyuthriyenti amanangi namanzi afanele ukusetshenziswa yisitshalo, futhi lokho kuzoba normthelela omubi kumphumela (wesivuno) esilindelekile.

Ukulima izitshalo eNingizimu Afrika kuveza izinselelo eziningi ezingalawuleki – njengoba isimo sezulu singaqondakali, ukuguquguquka kwezimakethe, kanye nobunzima bokuthola imishwalense ebanzi engabizi. Iyodwa vo into esingayilawula imikhuba yethu yokulima nokuzithiba. **Ukhula iuyinkinga kodwa Iungalawuleka.** Zonke izinkontileka zomshwala-lense ezibanzi, izimali mboleko zokukhiqiza

Incwadi yeGrain SA
yabalimi abasakhulayo

Funda Ngaphakathi:

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UGOGO JANE UTHI...

Si yathokoza ukunazisa ukuthi i-Maize Trust imvumila ukuxhasa iPula Imvula kulezinya nanganya eezizayo eziyishumi nambili. Sincike kakhu kwi-Maize Trust ukuthola uxhaso olukhulu IwePula futhi siyabonga kubona ngokuvuma ushiclelo Iwezinyanga eziyishumi nambili zalo nyaka ozayo. Sithanda ukubonga futhi nakwabanye abaxhasi bePula Imvula – i-Winter Cereals Trust, i-Oil and Protein Seed Development Trust. Siyabonga futhi nakuma commercial donors (ikakhulukazi iMonsanto) ababhakene nezindleko zoshiclelo Iwe-Singisi olukhulisiwe.

NgoSepthemba sabamba umgubho i-Day of Celebration eBloemfontein. Lona umkhosi esiwuthokozela njalo lapho sisuke sigubha impumelelo nenqubeke-laphambili. Siyabahalalisela abawine ikhathagori ngayinye futhi siyabonga nakubaxhasi abenze lomcimbi waba yimpumelelo. Owine umncintiswana we-New Era Commercial Farmer of the Year uzome-nyezelwa eGoli ngomhla ka-14 Okthoba – siyakholwa ukuthi indoda ebadlule bonke izowina!

I-Jobs Fund phrokethi yethu ikhule kahle kakhulu kule sizini ezayo. Sedlule konke besikulindele futhi sayishaya saphumela ngale ithagethi kule phrokethi phrophozali. Siyethemba ukuthi ngempela kule sizini sizokwenza abalimi bavune izithelo zokusebenza kwabo – ngonyaka odlule bekunzima ngenxa yesomiso. Sifisa ukwedulisa amazwi okubonga kophathina kule phrokethi – i-Jobs Fund ye-National Treasury, i-Sasol Trust, i-Department of Rural Development, i-Mosonto, i-Syngenta, i-Kynoch ne-SA Lime ne-Gypsum. Siyabonga futhi nakubasebenzi bale phrogramu abavumayo ukwenza umsebenzi omningi njalo ngonyaka ukuze abalimi bakwazi ukusizakala. Kusetshenziwe futhi siyabonga kinina nonke.

Ngasekupheleni kukaSepthemba, u-Danie van den Berg uthathe umhlalaphansi kuloluhlelo. U-Danie wethula isifundo sethu sokuqala eBothaville ngomhla ka- 20 Juni 2005. U-Danie ubeselokhu enathi kusukela lapho futhi likhulu igalelo lakhe kule phrogramu yethu yonke. Ngenhlanhla u-Danie usa-zoqhubeka nokusiza ngezfundo ngezikhathi zonke. Siyabonga Danie ngeqhaza lakho kwiphrogramu yethu – uthinte izimpilo zabalimi abanangi iNgingizimu Afrika yonkana.

Nqoba empini yokulwa nokhula



Uzama ukuhlakula ukhula. (Isithombe sithwetshulwe ngu-Johan Kriel)

nezibonelelo zinohlalu Iwamazwi adinga ukubhekisiswa ukuze ukhula lulawuleke ngemfanelo.

UNGAKHOHLISWA ‘ubude nomu usayizi wokhula, uqhathanisi nobude nomu usayizi sesilimo esitshaliwe. Usitshalo esincane sommbila singabukeka siphilile futhi sime sibe side uma siphathaniswa nokhula olusizungezile, kodwa uma kufanele ziphangelane ekudleni, ukukhula kuzoba bucayi.

I-analoji elula: umsebenzi wokukhula izinkukhu – inani elithile lokudla namanzi kufakelwa izinkukhu zonke izinsuku, ukuze zithole isisindo esidingekayo emva kwamaviki ayisithupha. Kepha, ubusuku ngabunye, ekudleni amagundana adla ireshini eningi. Ku-sobala ukuthi la matshwele awakudli konke lokhu kudla futhi ngeke afinyelele esisindweni esidingekayo (isivuno).

Izindlela ukhula olu-afektha ngayo isivuno nenzuko yakho

Zikhona ezinye izindlela ukhula olunga-ba nomthelela ngazo kusivuno nenzuko. Izibonelo ezimbalwa yilezi:

- Isitshalo sommbila naso singabonakala njengokhula enhlabathini okulinywe kuyo ummbila, uma kune-‘opslag’ – ukuzimilela kwezinhlamu zombila owachitheka ngesikhathi kuvunwa ngokwediule. Isidina esikhulu kakhulu ukuthi le sitshalo sivamisa ukuvakashelwa yithimba lokuqala lezivemvane (i-stalk borer) zizalele ama-qanda azo. Uma ungasusiwe udala inkinga ngokuhamba kwesizini, ngenkathi kuchamusela isizukulwane sesibili sezivemvane futhi zihlasela isilimo esisha esitshaliwe.

Ukuhlasela kwezibungu kulimaza izilimo kanye sesikhwebu. Lokhu akwehlisi nje isivuno kuphela, kodwa kuphinde kubeke izikhwebu zommiba engcupheni yoku-nengwa amavariyasi afana ‘ne-diplodia’ adala umonakalo, ukunukubezeka kwe-hlise i-grade yohlamvu.

- Le *uintje* kwangathi ayinabo ubongozi, isitshalo esizacile. Incintisana kakhulu futhi iyabulala. Izimpande zayo zikhapha ubuthi obuvimbela kakhulu ukukhula kwezitshalo zesilimo. U-Olieboom ingumncintisi omkhulu wamanzi nama-nyuthriyenti. Izinhlamvu ziwshevlu omubi ezilwaneni nabantu futhi zigcina ngokungena kusilimo esivuniwe, lokho kugcina ngokuba uhlawuliswe kanzima kwi-silo. I-Jongosgras ukhula lotshani oluvame kakhulu emasimini alinyiwe. Le zimpande eziningi nezinesistimu eminyene zinomthelela wokufuthanisa izimpande zezilimo. Ingabulala nomu yi-siphi isilimo sesitshalo esilapho.

Ingxabano enku idalwa umona womuntu, kanye nokusilela kwamarisosi ahiale ekhona atholakala enhlabathini okuphila. Kuyafana nezilimo, ukhula namarisosi atholakala enhlabathini. Le yiyona yodwa impi okufanele uzibandakanye kuyo. Siza izilimo zakho ngokuzithiba okuhle, ama-impliments... namakhemikhali. Kule mpi kufanele kubekhona onqobayo njalo – UWENA.

I-athikhili ibhalwe ngu-Raymond Boardman, Umlimi nomQeqeshi eBuckingham, eVenters-dorp, eSifundazweni saseNyakatho neNitshonalanga. Uma ufuna imininingwane egcwele, thumela i-meyili ku-rhboardman@gmail.com.

I-TWO-IN-ONE: Umpetha womkhi-qizi nomphathi wezimali ekhaliphile

Ibhizinisi lokuba umlimi lingachazwa njengo "kuqashwa okulingene noma inhlanganisela yayo onke amarisosi, abantu namandla, ukuze uphumelelise izinhloso zebhizinisi lezokulima". Ngokwangempela lokhu kusho ukuphatha ibhizinisi lakho ngokufanele.

Uma ucabanga ngezinhloso zebhizinisi lezokulima, omunye angathi sekukonke noma inhloso ebalulekile ukwenza inzuko eyohlala yenzeka. Uyacelwa yazi ukuthi asisho inzuko enkulu. Yebo, kungaba nezinhloso ezengeziwe njengokwenza ngcono izinga lempilo yakho, ukuba na-basebenzi abajabulile, nokunye. Kepha, zonke izinhloso ezingeziwe zingaphumelela ekugcineni uma inzuko yenziwe.

Ukuze enze inzuko umlimi wanamuhla kufanele akhiqize umkhiqizo owamukelekile kubathengi ngekhwantithi, ikhwalithi, ukunambitheka, ukubukeka, impilo, inkambo, intengo nalokho ukudingwa abathengi. Ngalkho, umlimi ophumelelalo namuhla kufanele abe uchwepheshes wokhiqizi.

Akuwona umsebenzi olula kumphathi wepulazi uma ucabanga ngamafektha onke angaphezu kwamandla akhe, anomthelela ebhizinisisi. Kodwa ukquhubeka nokuphila njengomlimi kuyadingeka ukuba uhlale uphumelela njalo ezimalini. Ngakho ke kudingeka wenze ngcono ibhizinisi lakho njalo unyaka nonyaka.

Ngaphambi kuka-1994 ngaphansi kohlelo Iwezimakethe ezilawulwayo kwakucizelewa ukuba umlimi wayeba umkhiqizi kuphela nje uma nemali ebhange kwakulgile. Emva kuka-1994 izinto zashintsha mawala kubalimi. Izimakethe ezilawulwayo zavalwa futhi zaguqulwa izimakethe ezikhululekile. Ngokushesa umlimi kwadingeka abe *yi-marketing manager* ngokwelungelo lakhe. Ngaleylo ndlela ukuba nemali ebhange nje kuphela kwakungaseyona into eyanele. Manje kwasekugcizelewa ekwenzeni iphrofithi njalo. Lokhu kwaphonsa inselele futhi kwakhusulwa ukugcizelela kokuphathwa kwezimali ngendlela ezwakalayo.

Kwinqubo yesisekelo sokukhiqiza abalimi abemukeli bentengo kukho kokubili emalini abayemukelayo (intengo) nabayicithayo. Kokubili imali eyamukelwayo nechithwayo iyakhuphuka ngokuhamba kwsikhathi, kepha ngokwamazinga ahlukene. Imbangela yalokhu okubizwa nge-cost-price squeeze. Ukuze ukwazi ukukhiqiza uthole inzuko kanye nokunqoba i-cost-price squeeze umlimi kufanele akhulisa imali engenayo/noma anciphise noma okungenani alawule yonke imali ephumayo. Ukukhulisa imali engenayo kudingeka ukhiqize kakhulu ngoku-(ngokulima kakhulu ngokuthi uthenge umhlabla omkhulu) okuyinto engenzeki njalo futhi/noma wandise ngokuya phezulu (khiqiza kakhulu iyunithi ethile yokukhiqiza – nombila omningi ihektha ngalinye).

Equinisweni enye indlela yokukhulisa okunqumile ukuze uzibandakanye ekungezeni ivelu emkhiqizweni oyisisekelo. Ngamanye amaga-ma kungcono ukuba uzibandakanye kwinqubo yokuprosesa mkhiqizo wakho kunokukhiqiza kakhulu i-basic product. Nokucabangisia ngokucophelela ngezimali kuyadingeka ukuze ucubungule ubuhle nobubi bale sinyathelo. Abalimi bakuthola lokhu kunenzuso futhi okungenani bandisa amabhizinisi abo ngokunquma phecelezi horizontally kunokuya phezulu. Ngaleylo ndlela manje umlimi wesimanje useba ngumphathi webhizinisi.

Ukkukhulma ngazo zonke le zinselelo manje sekubalulekile ukunaka kakhulu ukuthi kuzoba namthelela muni ezimalini ukuxazulula lezi zinselelo. Ukuthatha isinqumo ukuthi uzophumelela ukukhuphula imali oyamuke-layo ngendlela okungenze ka ngayo kanye nokuphatha imali ephumayo, udinga ulwazi oluzwakalayo Iwezezimali. Awukwazi ukuthatha le sinqumo ngokucabanga ngezindaba zokukhiqiza kuphela. Kufanele wazi ukuthi ukwandisa noma uguquko Iuzobiza malini? Ngabe unayo imali eyanele (i-capital) yokukhokhela izinhlelo zakho ezintsha? Uma ingekho ngingayithola kuphi imali yokukhokhela amapulane ami? Ngaleylo ndlela izindaba ze-

zimali zamabhizinisi ezokulima zidlala indima enkulu kunangesikhathi esedlule.

Khumbula imisebenzi emine yokuphatha izimali okokuqala kunakho konke ukuqoqa nokuphinda usebenze lonke ulwazi Iwezimali ukuhlanganisa ama-financial statements adinge-kayo. Lokhu kuzokwenza ukuthi ukwazi ukubona umphumela wezezimali (inzuko/ukulahlekelwa), isimo sezimali (unawo namandla okukhokha izi-kweleti noma awunawo amandla okukhokha izi-kweleti) kanye nesimo se-cash flow yebhizinisi.

Okwesibili, ukuhla ziama-financial statements ukuze ubone inqubekelaphambili yebhizinisi lakho.

Okwesithathu, ukuqaphela izinqumo zokutshala izimali. Ngabe inzuko izosetshenziselwa ekwenzani? Ukwenza ngcono futhi/noma ukukhulisa ibhizinisi lakho? Noma ukufaka ibhizinisi elisha noma uqhubeke ngokwengeza i-velu.

Okokugcina, ukuqaphela izinqumo ezi-qondene nezimali – uzowakhokhela kanjani amapulane akho esikhathi esizayo. Ngabe uzosebenzisa izimali zakho (inzuko) noma uzokweboleka imali?

Ibhizinisi lezokulima liguqukile futhi lisazoghubeke nokushintsha ngokuzayo libe nezinselelo ezintsha Impumelelo yezimali kwezokulima namuhla akusancikile kakhulu ekutheni uwuphethe kahle umkhiqizo, kodwa usuncike kakhulu ekutheni ukwazi kangakani ukuphatha kanye nokuphatha izimali.

Ukubhekana nezinselelo zesimo esiguquka njalo sebhizinisi sabalimi besimanje, abakhulu noma abancane kufanele abe nguchwepheshes womkhiqizi kodwa futhi abe ngumphathi okhaliphile wezimali – ngakho ke umphani webhizinisi onekhono. Kufanele uziphe isikhathi sokufunda ngezimali, kubaluleke kakhulu.

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Yini i-GMO?

Izakhamizi zaseNingizimu Afrika zivezelwe imibiko yeminyaka engama-20, ezingxo xo nezimpikiswano ngama-GMO. Eminye yayo imayelana nesayensi, eminye imayelana nobungozi kanye neminingi ngama-*pro* nama-*con-ezimpikiswano*; asewonke, kaningi adala ukushisa okukhulu nokudideka kunokuletha ukuqondisa okucacile. Ngaphandle kwalokhu, uku-adopthwa kwama-GMO kuyaqhube ka no-kwanda, lapha nasemhlabenji jikelele.

Kafushane, kule sihloko yilapho kuhlangene khona isayensi, imvelo, abathengi, abakhqizi, nezimakethi. Ukusetha inkundla siqala nge-zincazelo.

Izincazelo

- I-*organism* yinto ephilayo ekwaziyo uku-khiqiza imikhqizo yama-*biochemical*, akhule, aphindaphindeke futhi adlulisele ufuzo lwavo kubantwana bawo.
- I-*Biology ne-Biotechnology* (a) ibhekene nezinto eziphilayo kanye nophenyo Iwezo-busayensi nokuthi ziyni futhi zenzani, nokuthi ama-jinethiki *systems* azo asebenza kanjani; (b) ingxenyenye yezobuchwephesheshe uqondiswe kumaqhingga okusungula ulwazi olusha nokuthola izindlela zokusebenzisa lolo lwazi ukuze kuhlomule abantu, izilwane kanye ne-nhlalo endaweni.
- I-*Genetic modification (GM)* yingxenyenye eyodwa ye-*biotechnology* yesimanje eyenza abantu benze izinguquko kuma-organizimu

jinethiksi noma ukufaka ama-*novel genes* ukuvenza abe nekhono elikhulu noma imikiqizo emisha 'ngezindlela okungenzeki ngazo ngo-kwemvelo lohlobo oluxutshanisiwe phecelezi i-cross breeding nangokukhetha ngokwemvelo' ukwenza ngcono izintshalo, izilwane noma ama-*micro-organisms*. Lama-GM organism alandelayo aziwa ngokuthi ama-*genetically modified organisms* noma ama-GMO.

• Le *Genome* yisamba sesibalo samajenethiksi ahlanganiswe ngama-organizimu. Iqukethe ama-jini aqukethe amakhodi e-DNA ama-khemikhali ofuzo anquma ngezici, amany amajini alawula umumo wokusebenza kwa-majini asebenzayo namajini ahlala kumaminiti ogani ngaphakathi kwamaseli.

I-Nature ne-science interaction

Emashumini eminyaka abalimi namakhaya bakhetha izitshalo ezingcono zasekhaya nezokudla okugcono nakuba bengakuboni, bakukhombe noma ba-aplaye amajini. Ngo-kwemvelo, ukuguquguquka kwesimo sezulu okuqhukayeo, nomthelela wezinambuzane nezifo zaholela ekuphileni kwama-*organism* adlule ezinguqukwensi zamajinethiki, njengewolintshi elinenkaba lesu yisitshalo esaguqlwa sewolitshi elijwayelekile, noma ukuguqlwa okusanda kwensiwa kwe-ball-worm kakotini wase-Australia ukusanda kwe-nziniwa osekudale ukudaza inkani kwe-larvae phakathi kwama-species ahlobene, enze

“

Abalimi nomphakathi kufanele baphonsele inselelo izinhlangano ezithi izilimo ze-GM zinobungozi futhi ayiwasizi amafana alima kancane ukuba ethule amaqiniso ezesayensi athi lezo zihlelo ezindala yizo ezadala indlala ngenxa yokuncipha kwezivuno, izinambuzane, izifo nokuncintisana kokhula, kuthathwa ngokuthi yizo ezihamba phambili.

kwaba nokubekezelelana kwejinethiki kulezi zingcindezi – inqubo eyaziwa nge 'genomic plasticity'.

Abazalanisa izitshalo basenza uphenyo Iwamadlozi asendle anamajini angaba nosizo. Ukuudla kwethu okuvamile, izilwane nama-*microbes* konke kwavela kuma-species asendulo. Okufana nokunye namajini ayisitaki assetshenziswa ukuzalanisa akhona ngokwemvelo kuma-species amanangi ezitshalo. Amajini amazambane asendle anenkani kwizifo ze-fungal kuzinhlobonhlobo zokulinyiwe. Ulwa-



zi olusha, i-sophisticated diagnostic ne-soft-ware yekhompyutha manje seyenza siqondisise kangcono izinhlelo ze-DNA, ukubona nokuwabeka wodwa amajini nokuwadlulisa kusuka kwesinye i-species sesitshalo kuya kwesinye njengoba i-DNA ifana kuwo wonke ama-orgasm aphilayo (ngaphandle kwama-variyasi ane-RNA genetics). Lokhu kwenzekile emva kwamashu nyaka amanangi okuphenya ukuthi ijinethikhi sistimu iyosebenza kanjani ngokwemvelo.

Ahanjiswa kanjani amajini phakathi kwama-species?

- I-Conventional cross-breeding phakathi kwama-species noma izinhlobo nokukhetha inzalo efunwayo ebukeka ivelela ngaphansi kwengcindezi noma ube nokusanhlamu okungcono ngaphansi kwengcindezi noma ikhwalithi yezithelo noma izivuno ehlolwayo.
- Kwesinye izimo ukuthutha amajini anquma ngezici ngokusebenza ama-molecular diag-

nostics enza kuhlonzwe ikhodi ethile enjengethe-Bt jinni kwi-baktheriyamu (*Crystalline 1Ac* jini yokudaza inkani kwezinye izinambuzane).

- Ukuhlukanisa ijini ehlosiwe ngendlela *ye-enzyme* leyo eyihlukanisa ngobunono inqu-nyiwe yasuswa ngendlela *ye-enzyme* leyo enqamula ngobunono kusukela ku-DNA khodi.
- Ukuphindaphinda amakhophi ejini kwisakhiko sethuluzi lelabhorethi.
- Ikhodi ende yejini inekhodi emfushane ye-DNA ngaphambili, ebizwa ngephromotha, lokho kuvusa ijini ezobhiczwa kumathishu athile kanye nekhodi emfushane ye-DNA ekugcineni imise i-expression.
- I-transgene ingaba ‘imfushane’ kumbungu wesitshalo noma kumaseli esitshalo nge-infiltration noma ngokusebenza ucezwana oluncane oluyindingilizi lwe-DNA equukethe i-transgene futhi idedele i-ibhaktheriyumu engenabungozi uthwale le-DNA, ebizwa nge-construct, phakathi kumaseli esitshalo.
- Amanye amaseli ezitshalo manje asezoo-qakatha i-construct ene-transgene engazongezela i-DNA yesitshalo lapho ingashiwo khona. Ithishu yesitshalo noma amaseli azobe esedluliselwa ku-nuthritious growing media e-lebhu iyokhulisa ibe yisitshalo.
- I-Greenhouse kanye namasimu okuhloa lezi zitshalo ukuqina kwazo nephefomensi kuyalandela.

Enye impumelelo yama-GMO

I-hybrid yommbila ingaba namandla okukhipha isivuno esingalinganiselwa ku-20 t/ha eniselwayo, anenkani ku-stalk borers nekwaziyo ukubekezelela ama-herbicides, sibonga amajinethiki asenziwe ngcono. Izilimo zembewu kawoyela phecelezi i-oilseed crops ezinenhlanganiselwa kawoyela eseeyenzelwe ngcono impilo yabantu kanye nokotini okwazi ukumelana ne-bollworm. Isoya ebekezelela i-herbicide manje isiza eko-

neni ezolimo nge-minimum noma ukungathili kanye nokujikeleziswa masinyane kwezilimo.

Isomiso sika-1991 - 1992 saba imbangela yokwehla kwsivuno saba u-0,85 t/ha noma u-3,0 million t/silimo sisuka ku-3,5 million amahektha. Inhlekelele yesomiso sika- 2015 - 2016 sasinika u-3,73 t/ha noma u-3,73 million wamathani ksukela ku-1,9 million wama-hektha sibonga ama-superior genetics kanye nohlelo lokulima olwensiwe ngcono. Sekukonke kukhule kakhulu kwaphindeka ngo-4,4.

Uphephe kangakanani i-GM yommbila waseNingizimu Afrika?

Uhlobo lobusayensi Iwensiwa yi-GMO Advisory Committee eqokwe ngungqongqoshe kanti izinqumo ezhambisa nomthetho zenziwa yi-GMO Executive Council ehlanganisa abamele iminyango eyisikhombisa. Ukuhlola okuphephile kubandakanya ukudla, ukudla nesimo sendawo, allergens, ubuthi kanye nemithelela wenhlalo-mnotho. Kusukela ngonyaka ka-2000 amathani ayizigidi ezingama-40 ze GM maize grain akhiquizwe kumahektha ayizigidi eziyi-18 ngaphandle kokusekelwa umthelela wabantu, wezilwane noma isimo ndawo.

Abalimi nomphakathi kufanele baphensele inselelo izinhlangano ezithi izilimo ze-GM zinobungozi futhi ayiwasisi amafana alima kancane ukuba ethule amaqiniso ezesayensi athi lezo zihlelo ezindala yizo ezadala indlala ngenxa yokuncipha kwezivuno, izinambuzane, izifo nokuncintisana kokhula, kuthathwa noko-kuthi yizo ezhamba phambili.

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Pula Imvula's Quote of the Month

‘Desire is the key to motivation, but it’s determination and commitment to an unrelenting pursuit of your goal – a commitment to excellence – that will enable you to attain the success you seek.’

~Mario Andretti



Isimanga sikabhekilanga ngesizini ekuhungethwe yisomiso

Empeleni asiwakhwanga amehlo ethu uma sibona izivuno ezitholakele ensimi ni beyikade ihlaselwe yisomiso esinzima kule sizini. Iztishalo ebeziabalaza zikhule zaba yimitha ubude namakhanda azo abemancane kakhulu...futhi sathola imvula eyodwa enhle!

Wow! Esakubona lapho lezi zitshalo ezazibhe-kene nobunzima zivuka emva kokuniselwa kanye nezinsuku ezimbawla ezipholie. Izinhlanvana ezincane zaqala ukugcwala, futhi zagcwala... saze sangawakhwala amehlo ethu. Kusukela ekucabangeni ngokuthi kuzomele sidedele imfu- yo idle engakudla kuleyo nsimu, esikhundleni salokho sivune isilimo esiyi-1t/h! Kubalimi abanangi kula masizini amabili esomiso nokushisa okuniza-ma, kube isilimo sabo sikabhekilanga esibe ukukhanya ngasekugcineni komhume (Le athikhili unyafunda online: [ku-\[htt://www.grainsa.co.za/sunflowers-talk-of-the-town-at-50-nampo\]\(http://www.grainsa.co.za/sunflowers-talk-of-the-town-at-50-nampo\)](http://www.grainsa.co.za/sunflowers-talk-of-the-town-at-50-nampo)).

Ubhekilanga yisilimo esibalulekile ensimini

Ngeke ubhekilanga esabizwa ngesilimo 'esi-yintandane' njengoba bekushiwo esikhathini eside. Kuleminyaka engamashumi amabili edlu-le ukulima ubhekilanga bekukhonzwe kakhulu ukulimela ukudayisa nokunamathuba amahle ezimaketha njengezinhlamu zika woyela izise-tshenzwa kakhulu yizimboni ezikhqizqa ukudla kwezilwane okunamaprotheni kanye nedimandi kawoyela kabhekilanga Le silimo futhi sinevelu enkulu ohlelwani lokujikelezisa kwezilimo.

Empeleni kulamalanga uthathwa njengesilimo sasesithathu esibalulekile esilinywayo eNingizimu Afrika emva kommbila nokolo. Ukungeza ubhekilanga kuzilimo sokujikelezisa esikhona, izinkinga zezinambuzane ezifana ne-stalk borer ne-nematodes kungacipha. Ubufisha besizini yokulima nakho kusho ukuthi le silimo singatshawa emva kwesikhathi futhi siyashesha ukuvunwe kunezinye izilimo ezifana nommbila. Isilimo sika-bhekilanga sona siyasiza ekumunceni amanzi kuphrafayili yenhlabathi ikakhulukazi kuma-sandy loam soils yingakho ke isibekezelela isimo sesomiso kunezinye izilimo futhi kufakazelwa yimiphumela emihle kakhulu ebonwe abalimi ezi-godini ezikhahlamezwu yisomiso kule sizini.

Ukukhula nokuthuthuka

Ubhekilanga yisitshalo esinamahlamu abanzi amila ngemuva kwezinsuku ezine kuya kwezinhanu emva kokutshalwa ekujulenli okulinganiselwa ku-intshi ukudepha. Enhlabathini

efudumele. Zlokhu kungathatha izinsuku ezinde enhlabathini epholile noma uma imbewu itshalwe yidepha kakhulu. Inklinga enku, eqhakambisiwe kuma-athikhili amaningi phambilini, uqweqwue olungakheka ngaphezu enhlabathini.

Uqweqwue Iwenhlabathi Iwenza kubu nzima ukuphusa izithombo zikabhekilanga ziphume enhlabathini. Kubalulekile ukuba abalimi bayi-phathe ngokucophelela. Ukhula kahle enhlabathini edreyiniwe wenza kahle enhlabathini *i-sandy soils* kodwa ayithandi ukutshalwa ehlabathini enhlabathi emanzi kakhulu. Ama-post emergence, ubhekilanga ukhula masinyane ukhiquze amahlamu amakhulu amaholo futhi amanye ama-cultivars angafinyelela emafidini ayisithupha ubude. Ayikho into enhle njengensimu kabhekilanga uqhakazile! Ngeshwa amakhanda kabhekilanga agcwele izi-nhlamu nezinyoni ziyawuthanda nabalimi babhe-kanu nezinselele eziningi zikubhekana nalezi zinyoni ikakhulukazi emasimini aseduze kweza-kiwo, ezindaweni ezisemadolobheni.

Ikhanda likabhekilanga ngalinye, itemu elifanele *yi-inflorescence*, empeleni yenzwi ngezinhlubo ezimbili zezimbali. 'Amapethali' aphuzi azungeze unqenqema Iwekhanda empeleni yizimbali nje lezo zizodwa ezibizwa nge-'ray flowers' kanti 'ubuso' bukabhekilanga benziwe ngamakhulukhulu ama-'disc flowers' amancane akheka esithelweni (*i-achene*) esibizwa ngokuthi inhlamu kabhekilanga.

Ubhekilanga olinyelwa ukudayisa ngoku-vamile azenzela *i-self-pollinating* okungukuthi akudingeki isinambuzane esizopholinetha; kodwa lapho umlimi elima izinhlamu zikabhekilanga, uzoqaphela ukuthi kukhona isikhathi lapho nge-sizini yokulima uzolanda izinyosi eziningi ukuze zizosiza ukwenza *i-pollination* yenzeke phakathi kwezitshalo zesifazane nezesilisa. (Kusekhona abalimi abakholelwu ekutheni izinyosi eziningi kakhulu ziwasiza ekukhuphuleni isivuno sikabhekilanga wabo wokudayisa, ngakho ke yiso isizuthu esihle sokunakekela izinyosi zethu!).

Ibhekilanga unezidingo zokulondoloza uma-nyolo kodwa ngokusobala lokhu kuncike elwazini locwaningo Iwenhlabathi. Isilimo senza kahle *knayithrojini aplikheshini*. Elinye ithuba likabhekilanga ukuthi amandla okukhula kwavo kwenza uncitnisane kakhulu nokhula oluningi. Ukhula kufanele lulawulwe *ye-pre-emergence* noma *i-early post-emergence*, nabalimi abanangi abasebenzisa inhlanganisa yama-herbicide namakhemikhali okulima ukuzi baphumelele kulothu. Ngenkathi ukhulisa isilimo sakho kunesidingo sokuhlala uziqaphile izimaketha ukuze umise inani elihle ongalithola.





Indawo yemakethe

Amafektha e-macro-economic anomthelela kumanani lentengo eNingizimu Afrika isisekelo salokho yi rate yokusintshisana phakathi kwe-Randi/ne-Dola nentengo kawoyela oluhlaza umphongolo. Amanye amafektha anomthelela kumanani yi-suply ne-demand okusho ukuthi kufanele sicabange ngesitoko sikabhekilanga eNingizimu Afrika ne-cross-reference nemvule esiyitholile ikakhulukazi eSinfundazweni saseNyakatho neNtshonalanga, esinye sezigodi ezilwulima kakhlulu kuleli. Uwoyela wamaveji ongeniswa kule lizwe nakho kunomthelela kumanani kabhekilanga olinya kuleli yingakho ke abalimi kufanele payiqaphele *i-import parity price*. I-dimandi enku lu ye-oilcake/meal kumareshini amaphrotheni okondla futhi ubheke namakhwantihi amakhulu avela kwamanye amazwe. Ukungena kwale mikhiqizo evela kwamanye amazwe kuchaza isizathu esisho ukuthi kungani imikhiqizo yamazwe iphazamisa amanani akuleli kangaka.

Indima yenhlango yokukhiqiza wakho: I-Grain SA

Singabalimi asivamile ukuba nesikhathi sokuqapha nokuhlangana sibheke izindleko zokuthenga imikhiqizo yangaphandle nokuyinto evikela umkhiqizo wethu kuleli. Yingakho sidunga isevisi yenzihlangano zobakukhiqiza ezifana ne-Grain SA. Umhwebi onguchwepheshe wezolimo nomongi wezokulima njengalabo abaqashwe yi-Grain SA, bagxilile, ekwazini ukuthi kanjani kanye nama-khono okuqapha izindawo za-macro-economic nokusihlanganisela. Bangumthombo wabalimi ongaguquki nemigudu yowlazi kwabenza amapholisi neminyango kahulumeni bayasimelela. Ungalinge wenze iphutha ucabange ukuthi asikho isidingo senhlangano yokukhiqiza noma uthi ayikwazi ukwenza uxhaso olubalulekile ekuzimeleleni kwepulazi lakho. Kukumlimi ukukhuluma nenhlango yabathengi bakhe nokwazi abasebenzi bayo.

Thola ukuthi bangakusiza kanjani ngokwezinga lasepulazini futhi ubatshela nangezinselele obhekeni nazo. Lena yinhliziyo yenhlango yethu, i-Grain SA. Uma bengawenzi umehluko kuwe, yingoba usuke usuyekelile ukukhuluma ngezidingo zakho!

I-Postscript

Uma ufuna imininingwane egcwale ngokukhiqizwa kukabhekilanga ikhona i-Concise Sunflower Production Guide engakusiza itholakala –online yensiwe ngumNyango wezoLimo nowokuThuthukisa izindawo ezisemaKhaya uyenzela abakhiqizi, i-KZN kule-linki: i-http://www.kzndard.gov.za/images/Documents/RESOURCE_CENTRE/GUIDELINE_DOCUMENTS/PRODUCTION_GUIDELINES/Look-n-Do/Sunflower%20Production.pdf.

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Ukukhulisa isivuno sesoya nenayithrojini nyuthrishini

Ama-athikhili amanangi ahlobene ePula Imvula akhava izibonakalo ezahlukene zokukhiqizwa kwesoya kanye necebo elifanele ukujinisa ukuba neziqana ezinhle ashicilelwa nguye lo mbhali kanye nabanye abambhali kusukela ngo-2012. Umqondo omuhle ukubheka olunye oshicilelo olwedlule njengesekelo somthombo wolwazi olunothile.

Le athikhili izobhekisira ezinye izibonakalo ezibalekile zokukhiqizela ukukhulisa isivuno noku-bheka i-nayithrojini esetshenziswa yile sitshalo.

Ukukhulisa isivuno sesoya

Isikhathi esingaphambi kokuhlela nokutshalwa kwesoya singasetshenziswa ukuhlolola uku-thi kwenzekani ngonyaka odlule epulazini lakho. Abanye abalimi bahlaselwe yisomiso esibi isivuno abasivunile sisukele ku-0,3 t/ha kuya ku-0,5 t/ha uma umlimi aba nenhlanhla. Ungabheka ama-avareji ezivuno kusukela eminyakeni engaphambili kuka-2016/2017 unyaka wokukhiqiza ukwenza i-benchmark yezivuno amandla enhlabathi yakho ngokujulile nokuphakathi kusukela kuma-cultivar ahlukena assetshenzisiwe.

Abalimi abanangi mhlampe ngeke bayifake isoya kuzilimo abaplane ukuzijikelezisa ngenxa yokudumala kwangesikhathi esedlule kanye nempumelelo enkulu eyenziwe ubhekilanga otshalwe kamuva kulo nyaka wokukhiqiza ubunzima ngendlela engakaze ibonwe. Umephi wena?

I-avareji yesivuno emhlabeni ikhule ngo-60% eminyakeni engama-30 kusukela ngo-1980 ukusuka ku-1,6 t/ha kuye ku-2,6 t/ha. Izivuno zika-7,8 t/ha zitholakale ejapan nase-USA. I-avareji



Imidumba yeSoya. (Isithombe sithwetshulwe ngu-Johan Kriel)

yethu ezweni yayingu- 1,56 t/ha ngo-2015 no-1,49 t/ha yize kube nesomiso kule sizini.

Akhona ama-cultivars akahle kakhulu eNingizimu Afrka afanele ama-microclimate ahlukene, i-height yenhabathi ngaphezu kwe-leveli yowlandle, ihlobo namayunithi okushisa ngokwamasizini okwenze ka epulazini lakho. Njengamanje kufanele ngabe asemathathu ama-cultivar osuwabonile ukuthi ayasebenza epulazini lakho. Isivuno somkhiqizo wenhabathi eyomile esingapezulu kwamathani ama-2 nangaphezulu angatholakala ngala ma-cultivar

akhona uma ukulungiswa kwenhabathi kanye nokwenziwa kobulimi bezilimo phecelezu i-crop husbandry kusetsenziswe kahle.

Amafektha a-afektha isivuno sesoya

Inhlanganisela yembewu yokugcina yesoya ukusebenza kwezinhlamu zembewu ezinani eliphindaphindiwe lezinhlamu endaweni ngayinye ne-seed mass nom aisisindo. Inombolo yezinhlamu endaweni ngayinye ibalwa ngenani lemidumba kanye ne-avareji namba ngomdumba ngamunye. Inombolo yemidu-



mba inqunywa ngenombolo yezimbali kanye nereyithi yokwakheka komdumba wezinhlamvu. Inombolo yezimbali incike enombolweni yamalunga esiqwini, inombolo yeziqiu isitshalo ngasinye nenombolo ye-density noma inombolo yeziqiu isitshalo ezimilile nezikhulile per square meter noma kwi-hektha ngayinye.

Yini engalawulwa umlimi?

Nakuba lama fektha angenbla kwangathi alula noma anelojikhi kubaluleke kakhulu ukufunda lokhu ngakunye njalo ngesizini yokutshala nge-cultivar ngayinye oyisebenzisayo ukuze ukwazi ukukhulisa isivuno ngokuhamba kwesikhathi.

Umlimi angalawula ukutshala eminyanise. Ama athikhile adlule akhave umthetho othi izitshalo eziyi-250 000/ha umnikelo omuhle wokusebenzisa amanzi kanye nesivuno sezinhlamvu. I-planting density ngeyodwa yamafektha abalulekile okukhula nesivuno sezinhlamvu zesoya. Isivuno sokugcina simi phakathi kuka 220 000 no-250 000 sizokwamukeleka ukuze ushaye ithagethi yokungaphezulu kuka-2 t/ha. Khumbula ukuthi uma utshale kwaminyana kakhulu amandla ukukhula kwamagatsha esitshalo ngasinye kuba nengindezi kanti neno-mbolo yeziqiu zamagatsha iyancipa.

Ngaphansi kwedensithi yokutshala enku kakhulu umncintiswano we-photosynthesis nokumunceka kwamanyuthriyenti phakathi kwezitshalo kuba bucayi futhi izitshalo zivamisa ukukhula zibe zinde kodwa zizace. Lezi zitshalo zingavamisa uku-lodger ngesikhathi esingaphambi kokuvuna nangesikhathi sokuvuna.

Isivuno sakho sizoncika kakhulu enanini lemidumba ihektha ngalinye. Ngokwejwayele-kile izimbalin ezingaphezulu kuka-50% ziwaya ngaphambi kobude belanga ukuze kuzongena isethi yezinhlamvu. Isisindo sezinhlamvu kani-angi si-afekthwa yizimo zokukhula ezigabenii zakamuva zokukhula.

Impilo yenhabathu nezimo zokutshala

Njengoba ululekwa njalo ngokuhlola inhlabathi nokulandela izincomo zikamanyolo noma ama-



Izithombo zeSoya. (Isithombe sithwetshulwe ngu-Johan Kriel)

application avunyelwe amanyuthriyenti Izitshalo zesoya zivuma kahle enhlabathini evele inomanyolo owakhelwe emva kwamasizini amaningu kujikeleziswa izilimo ezahlukene. Kubalulekile ukuripha umhlabathi noma uwuhlukanise ukuze uqede ukuggishelana kwenhlabathi okudalwe ukugijima kwezinkomo ezimvithini zesilimo sangesikhathi esedlule noma ugandaganda kanye nesiminyaminya sama-impliment. Isoya idinga inhlabathi e-well aerated enephrofile ethambile ukuqinisa ukukhiquzeka kwenayithrojini okwenziwa yi-rhizobia futhi uvumele imvula ene ngokwegile ukuba ingene kwi-phrofiyile yenhabathu.

Imithombo yenayithrojini (N)

Kusukela ku-25% kuya ku-75% wenayithrojini ezitshalweni ezivuthiwe ithathwa bese iyafikswa kusukela kubudlelwano be-symbiotic ye-bradyrhizobia japonicum kanye nesitshalo sesoya. Lokhu kusho ukuthi u-75% kuya ku-25% wenayithrojini edingekayo kufanele uqhamuke enhlabathini. I-single seli fiksingi organism isaplaya okunye kwalokhu kwi-soil matrix. Konke okunye kubambeka ndawo-

nye enhlabathini kanye ne-humus, i-organic matter kanye nezinye izakhiwo zenhabathi. Uma kufinyelela ku-15 kg/ha usetshenziswa ekutshaleni ndawonye ngamanani anconyiwe e-phosphates ne-potassium futhi kubekwe kuma-intshi amabili ngaphansi ohlangothini lwenhlamvu inokolotiwe ngenayithrojini ingaba khona esitshalweni ezinsukwini eziyi-10 iqhumile. Izigaqa zithatha izinsuku ezingama-21 ukuba ziqale uku-saplaya isitshalo nge-N. Izinga eliphansi lokuvunda kwenhlabathi ngeke lilungiswe ngesikhathi sokutshala.

Isiphetho

Thatha isikhathi ufunde futhi wazi ukabaluleka kwamafektha okukhiquziza izinhlamvu kanye neplane yokutshala emhlabathini ohlelekile ukuze uphumelele kuthagethi yakho yesivuno sika-2 t/h kule sizini ezayo. ⚡

I-athikhili ibhalwe umfama osathatha umhlala phansi.



I-Grain SA i-inthavywe... u-Edwin Thulo Mahlatzsi



U-Edwin Thulo Mahlatzsi wazalelwae pulazini elisigodini saseBothaville. Abazali bakhe bobabili babengabasebenzi basepulazini. Wazalwa ngomhla ka-2 Agasti 1942 futhi uneminyaka engama-74 ubudala. Wafunda esikolweni sasepulazini futhi waphasa iBanga 6. Ngenkathi ipulazi akhulela kulo u-Edwin lithengwa ngu-Frikkie Rautenbach, wahlala waqhubeke nokusebenza epulazini. Njengokusho kwakhe: 'Ubaba uRautenbach wangithenga kanye nale lipulazi'.

Uneminyaka engama-40 yesipiliyon i sokusebenza kwezolimo futhi unale sipiliyon i esilandelayo: Ama-cash crops, ukuphatha izinkomo zenyama kanye nokukhiqiza izimvu.

Umnu. Danie van den Berg, ohlole lo mlimi, usho lokhu okulandelayo ngo-Edwin: 'Ungumlimi ngenhliziy yakhe yonke, futhi mhlampe ungumunye wabambalwa kakhulu kwengike ngahlangana nabo abanesipiliyon i esikhulu kangaka kulo mkhakha usuwonke. Waqala ukuzibandanya nezolimo kusukela esemcane kakhulu kanti wakhoshwa futhi waqequeswa umfama owaziwayo esigodini saseBothaville isikhathi esingapezulu kweminyaka engama-40'.

Ipulazi i-Swartlaagte lingama-463 ha usa-yizi futhi lino-208 ha womhlaba wokulima

nama-255 ha wamadlelo. Leli pulazi la-tholakala ngo-2014 ngohlelo lukahulu-men i wesu lokuthola umhlaba le-PLAS scheme.

Kusukela ngo-2012 kuya ku-2014 u-Edwin wanikezwa ithuba lokulima ngokumbabisana nomqashi wakhe Lokhu kwaphela ngenkathi owayengumqashi wakhe edlula emhlabeni. Ngeshwa u-Edwin onke ama-implement, amagandaganda nama veni ama-pick-up assetshenzisa ngesikhathi kule minyaka abengakaloy owayengumqashi wakhe futhi kwabuyeselwa emuva kwe-estate.

U-Edwin ube yilungu lakwa-*Grain SA Farmer Development Programme* kusukela ngo-2012. Uyilungu elikhuthele le *Bothaville Study Group*. Usethamele izifundo zokuqequesha ezine neGrain SA, okubalwa kuzo: *I-Introduction to Maize Production, I-Resource Assessment and Farm Planning, i-Farming for Profits and Business Ethics*. Indodakazi yakhe, u-Doreen wethamela *i-Introduction to sorghum Production Course and Farming for profits*, njengoba ezithanda kakhulu eZolimo.

Utshale u-137 ha ommbila kule sizini ka-2015/2016, kodwa unhlala ukutshala u-208 ha kule sizini ka-2016/2017. U-Edwin unezinkomo zenyama ezingama-35, izinkunzi ezi-3 namankonyane ayi-18. Futhi unezimvukazi eziyi-118, izinqama ezi-2 kanye namazinyane angama-45.

U-Edwin wayeyengxene ye-*Recapitalisation Project* ka-2015/2016 eyayiphethwe ngokumbabisana ne-*Department of Rural Development and Land Reform*, i-Grain SA nomlimi. Le sibonelelo esivela kuHulumeni simenze wakwazi ukuthenga ugandaganda, i-planter, i-boom sprayer, i-ripper, i-disc harvester trailer amabili. Waphinda wathenga nama-input supplies ukuze akwazi ukutshala u-137 ha ommbila. Ngokwesekwa ngumqequesha wakhe, u-Christiaan Bouwer, umsebenzi uhambe kahe. Ungomunye wabalimi abambalwa aba-

vune isilimo kulo nyaka. Lona bekuwunyaka wakhe wokupala ezilimela eyedwa futhi okungenani uzoba yingxene ye-*Grain SA 250 Ton Club*. Useke wahlaselwa yisichotho senza umonakalo olinganiselwa ku-40% yize kunjalo ukwazile ukuvuna u-2,4 t/ha. Kungenzeka ube ne-avareji ka-4 t/ha. Ummbila wawunomshwanelense ka-4 t/ha ukhokhela u-R4 000/ton.

'Impumelelo yami yensiwe ukuthi ulimo kuphela kwento engiyaziyo. I-Grain SA ibe nami yangiqeqesha futhi yangeseka. Bangisizile ukuba ngibe yingxene ye-*Recap Project* futhi yangibusisa ngomqequeshi okahle. Omakhelwane bami nabo bangisize kakhulu', kusho u-Edwin.

U-Edwin ukhuthazwe yiphupho lokuphumelela. Ufuna ukukwazi ukuzinakekela yena futhi angami abambe isigqoko ngezandla, ebheke ukuphiwa.

'Amandla ami ulwazi, impilo yami enhle, izingane zami kanye ne-support system yami emkhakheni wonke wezolimo. Ngifisa ukusebenzisa ikhompyutha nokufunda futhi ngibhale kangcono'.

Esikhathini esiyiminyaka emihlanu u-Edwin unethemba lokuthi indodakazi yakhe yini ezobe isingamele i-sustainable farming operation iqhubekayo nayo futhi ikhule kakhulu futhi ibe namandla. Uqhubeke wafisa ukuthi uhulumeni angakwazi ukulawula ubugebengu njengoba ukhona osanda kutshotsha izimvukazi zakhe eziyi-16 ezemithi wazihlaba.

Iseluleko sika-Edwin asiqondise kubantu abasebasha yilesi: 'Kufanele bazithobe futhi bawuhloniphe umhlaba kanye namarisosi awo. Imali nezmoto ezinkulu ezicwebezelayo azisikona konke futhi azisona isiphetho sako konke. Uma kungekho lutho esiswini sakho ozokufa. Ukusebenza kanzima, ukusebenza kanzima, ukusebenza kanzima. Lalela, ubheke, ufunde bese uyenzo – leyo ke indlela, futhi umbonge njalo uNkulunkulu ngalokho onakho.'

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Isikhathi nomzuzu akulindeli-muntu – qinisekisa ukuthi unepulane!



Ekulimeni kufanele sizame okwenza ngokuphelele. Kusobala sibhekene nesimo sendawo kanye nomhlaba wemvelo ongaqondakali, futhi yonke into ayihambi njengoba kuhlelilwe njalo. Kodwa uma singezami ukuphuma phambili, ngeke siphumelele.

Kwezolimo ziningi izibonakalo kule nqubo yokuhlela. Isizini ngayinye inesethi yemisebenzi okufanele yenziwe futhi kudingeka ihlelwe kahle kusenesikhathi ukuze isikhathi sakho usisebenzise ngendlela efanele. Isisho esidala sithi, ‘*Uma ungazileleli wena, uzoba yingxenyen yomunye!*’ – Futhi akukhona lapho sifisa ukuphethela khona! Kule athikhili ngithanda ukuxoxa ngohlelo lwenqubo yokuhlela ngesikhathi sokutshala kanye nangamaviki aholela kulesi sikhathi.

Qinisekisa ukuthi ama-input a-odwa isikhathi sisekhona, futhi agcinwe kahle ngokuphephile ukuze assetshenziswe uma isikhathi sesifikile. Qinisekisa ukuthi uyalwenza ucwaningo masinyane emva kokuphele kwasizini edlule ukuze uzothola isikhathi sokuhlelela izidingo zenhlabathi. Inhlabathi yirisosи yakho ebaluleke kakhulu; yimboni ya-

kho yokukhiqiza izilimo. Kubalulekile ukuqondisa inhlabathi yakho nalokho okuwudingayo. Le yinto yakho esekuqaleni. Uma inhlabathi yakho idinga i-lime ukubhalansisa isimuncu, bese uyaqinisekisa ukuthi uyayi-aplaya. Unganqamuleli wenzele ukonga amarandi ambalwa njengoba uzogcina ukukhokhela lokho uma sekufika isikhathi sokuvuna. Qinisekisa ukuthi umanyolo wakho wakhelwe ukuhambisana nomphumela wocwaningo lwenhlabathi yakho. Wenza amasampula enhlabathi ngesizini. Ubuhlakan iukuthatha izincomo.

Uma usunqumile ukuthi yisiphi isilimo ozothanda ukusitshala, kufanele bese ubhekisisa inhlabathi yakho ukuze unqume ukuthi ungawulungisa kahle kanjani umbhede wembewu yakho odingekayo. Izilimo ezahlukene zifuna ukukhula ngaphansi kwezimo ezahlukene. Kufanele futhi uhlole ama-impliments lawo azokwenza umsebenzi ukuthi zonke izimpahla zokusebenza zimiswe ngokufanele. Ake sithi unqume ukutshala ummbila. Okokuqala, kufanele unqume ukuthi iyiphi i-cultivar ofisa ukuyitshala. Maningi ongakhetha kuwo namuhla, ngakho ukuze ukhethe okufanele ngingakucebisa ukuthi kufanele ubuze

‘Uma indoda ibizelwa ukuzoba umashanelo womgwaqo, kufanele iwushanele umgwaqo ngisho nalapho kupende khona uMichelangelo, noma lapho uBeethoven eqamba khona umculo noma lapho uShakespeare abhala khona inkondlo. Kufanele ayishanele kahle imigwaqo kuze kuthi abavakashelwa basezulwini nabasemhlabeni bame bathi, Lapha kwakuhlala umshaneli wemigwaqo omkhulu iwawenza kahle umsebenzi wakhe.’
– uMartin Luther King

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Isikhathi nomzuzu akulindeli-muntu – qinisekisa ukuthi unepulane!



odayisa imbewu endaweni. Uzokwazi ukuxoxa ngemiphumela yezilinga ezadlule ngaphansi kwezimo ezifanayo nalezo ezisenhlabathini yakho. Kufanele acabange ngesivuno osithagethile. Uzokwenza lokhu ngokubheka umlando wama-avareji wezivuno endawo yakho. Isizathu sokwenza lokhu ukukusiza ekubalenzi izidingo zikamanyolo wakho.

Manje njengoba ama-*input* akhe aseodiwe futhi agcinwa endaweni ephephile, ungathatha isikhathi ubheke yonke impahila yokusebenza nemishini ozoyisebenzisa ukwenza imisebenzi eyahlukene. Okokuqala, i-plant: Lo ngumshini obaluleke kakhulu okudingeka usebenze kahle-hle. Urukhalibretha kufanele kwensiwe ngaphambi kokuba i-planter iqale ukungena ensimini. Kusukela eplanini yakho yangesikhathi esedlule kufanele wazi inani lezitshalo olifisayo nokuthi iyiphi ingxube kamyolyo wesitshalo ozofakwa owanquma ukuthi uyafuneka. Manje kufanele usethe i-planter ukuba itshale ngama ma-rate owafunayo. Qinisekisa ukuba uphinde ubhekisise uma usuqale ukusebenza ensimini njengoba ukwenza iphutha ekubalenzi kungadala izindleko ezinkulu uma usufika ekugcineni kwensimu. Manje i-planter yakho isimi ngomumo.

Okulandelayo kudingeka sicabange ngombede wembewu. Lokhu kuzoya ngendlela ethile oyijwayele yokulima. Mhlampe usebenzisa imikhuba yokunga-thili. Kulokho ungakhathazeki kakhulu mayelana nembhede wembewu njengoba inhlabathi yakho izobe isinawo umbhede omuhle we- mulch elungile nezinsalela zezilimo. Kodwa asicabange nge-conventional set up ngenxa yale-athikhili.

Okokuqala kufanele wephule ukuggishelana kwenhlabathi nge-diskhi noma ngegeja. Okulandelayo kuzodingeka wephule amagabade namasoyi abe yisilinganiso senhlabathi ecoysakale ngokusebenzisa ihhala lenhlabathi njenge-Vibroflex. Kufanele usale nombhede omuhle wembewu, organawo amagabade amakhulu oneleya enhle yenhlabathi ethambile nehlelekile. Lokhu kubalulekile njengoba i-planter kudingeka ingene phakathi kahle ukuze imbewu izohlala kahle enhlabathini ehlelekile nemanzi. Amasondo agcwele umoya agijima emva kwe-seed colter azofaka umfutho oqinile avale imbewu ngenhlabathi.

Uma umbhede wenzeke ngokufanele ensimini yonke ne-planter seyiwenzile umsebenzi omuhle wokutshala imbewu, kufanele sibone ukuqhuma okuhle okufanayo kwezithombo. Uma la maprogramu afana ne-herbicide kanye nama-application ama-pesticide enziwe ngokunakekela okufanayo nokubhekisisa iminingwane okwenziwe ngayo inqubo yuktshala, sesingalindela isivuno esihle sesilimo sethu sommbila. Inqobo nje uma sizama ukwenza kahle kakhulu futhi siphume siyokwenza kwenzeke. Ngizwa isaga esidala sesi-Afrika esingifikela ugqozi esenza ngiqhubekile phambili: ‘Ibhubezi elihlala ekhaya isikhathi eside lizoqala ukuzizwa selfana nekatil’.

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