

PULA IMVUILA

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UOKTHOBA
2018

Ukuqondisisa IMAKE- THE YOMMBILA

Incwadi yeGrain SA
yabalimi abasakhulayo

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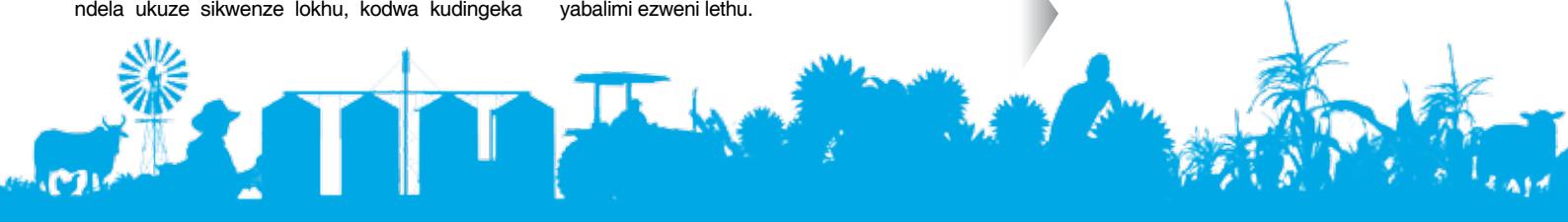


Amanani entengo ezimakethe kuyo yonke imikhakha yemikhqizo ahlala eguquka njalo ngenxa yemaektha amanagi ahlukene. Njengabakhqizi kungumsebenzi wethu ukuthi sihlale sinolwazi ngamanani entengo yomkhqizo wethu futhi siqhubeke nokuwulandela njalo umkhondo wezimo.

Miningi imithombo yowlazi ekhona esingayilandela ukuze sikwenze lokhu, kodwa kudingeka

siqaphele njengoba eminye ithembeke kakhulu kuneminye. Hlunga kahle. Kule athikhili sizobheka amafektha ahlukene anomthelela kumanani entengo ezimakethe nokuthi singazi kanjani ukuthi sihola intengo efanele ngemikhqizo yethu.

Amanani entengo ezimakethe zommbila ngeyne yezinto eziguquguquka ukwedlula yonke imikhakha yokusanhlamu futhi ngenxa yokuthi ingomunye womkhqizo wokudla okuyisisekelo eNingizimu Afrika inomthelela engxenjeni enkulu yabalimi ezweni lethu.





UGOGO JANE UTHI...

Kamuva nje bengicabanga ngokuthi yini eyenza umuntu abe qotho nokuthi yini eyenza isakhamuzi esiqotho eNingizimu Afrika?

Njalo ngihlale ngizibuza – yini inhloso yempiro yami? Ngizimisele ngani empilweni? Njengomuntu, ngiyakhola ukuthi ukuba khona kwami emhlabeni ngizokwenza okuhle ezimpilweni zabanye. Kudingeka ngibe neqiniso, ngethembeke, ngicabange, nginakekele futhi ngisebenze kanzima. Kudingeka ngisebenze ngenze imali ukuze ngondle futhi ngiqqokise umndeni wami; ngifundise izingane zami futhi ngizilungiselele umhlaba eziyohlala kuwo (ngenze konke okusemandleni ngoba angiwazi umhlaba abayohlala kuwo); ngizilungiselele umhlaphansi; futhi ngaphezu kwakho konke, kube khona okuncane engikwenzayo emphakathini wami nasezweni lethu.

Njengabalimi, akekho esimsebenzelayo – siyakwazi ukusebenzisa umhlaba nezinsiza zemvelo ukuze siphile. Kodwa, umhlaba awuwenzi umsebenzi – yithina esenza umsebenzi enhlabathini ukuze sikhiqize izilimo sizidayise. Kodwa, siqoka ukwenza imali. Kufanele senze leyo mali ukuze siziphilise.

Yini engenza ngifaneleku ukuzibiza ngesakhamuzi saseNingizimu Afrika esiqotho? Izwe linemithetho okufanele siyihloniphe. Inhloso yemithetho ukuqinisekisa ukuthi umphakathi wethu isebeanza ngokuyikho. Kudingeka ngikhokhe intela ukuze ngibambe iqhaza ezweni. Eningizimu Afrika manje abantu bangaphezulu kwezigidi eziyi-17 abathola isibonelelo kuhulumeni. Ivela kuphi le mali? Ivela kuhulumeni futhi leyo mali ivela kubantu abakhokha intela. Abalimi futhi bakhokha intela esingayazi – intela ebalulekile kuma-*inputs* ethu, intela kaphethiloli esiwusebenzisayo, ne-VAT kuma-*input* ethu. Uma singayikhohki intela, uhulumeni ngabe akanayo imali futhi izwe lingenayo imale ngeke likwazi ukusebenza.

Ngabe ukuba umuntu oqotho, noma umlimi oqotho, noma isakhamuzi esiqotho akuhlangene nebala ami? Cha, ngempela akusho lutho. Sonke singabaseNingizimu Afrika futhi kudingeka sisebenze ngokuhlanganyele senze ikusasa elingcono lethu sonke. Ngiyawathanda amagama ka-Dalai Lama: **Uku-be ngempela besingabhekana njengabafowethu nodadewethu, besingeke sibe khona isizathu sokwehlukana, ukukhohlisana, nokuxhaphazana phakathi kwethu. Ngakho ke kubalulekile ukuphromotha umqondo wobunye kubantu, lokho kungukuthi ukuba abantu sonke siyafane.**

Ukuqondiswa imakethe yommbila

Ngabe siwutshalelani ummbila?

Ukuza, isimo sezulu nokudla. Lawa ngamafektha amathathu abalulekile anquma ngokwenza kukhiciqwe isilimo sommbila. Kufanele sikhiqize isilimo esenza umqondo kwezomnotho. Uma singakwenzi lokho kusho ukuthi siqhuba ibhizini elingazinzili. Futhi sida ngeza ukukhiciqizwa isilimo ezifanele isimo sethu esithile sezulu. Okokugcina, thina njengabalimi sinomsebenzi omkhulu wokunikeza abantu bezwe lethu ukudla. Sidinga ukuwenza ngokufanele lo msebenzi wokubhalansisa la mafektha amathathu ngendlela esawenza umqondo webhizini futhi ingaguquka umsebenzi oyinzuzu.

Amafektha anomthelela ezimakethe zommbila eNingizimu Afrika

Umthelela omkhulu ukwedlula yonke eminye enquma ngenani lentengo yommbila ngesizini ngayinye yi-**saplayi nedimandi**. Cishe ulinganiselwa ku-75% umkhiciqizo wommbila ngesizini othengwa yizimakethe zethu kuleli. Lokhu kungaba ukudla okwenziwa ngommbila okudliwa abantu nokondla izilwane; Ukubeka kalula; uma sinonyaka omuhle nezilimo zethu zommbila ziba nesivuno esihle, ngakho ke inani lentengo yommbila liyehla njengoba kune nala yesaplayi. Ngeminyaka emibi yesomiso ngenkathi isivuno siphansi inani lentengo lizoyikhulisa idimandi.

Imithelela yezimakethe zamazwe futhi zdilala indima kumanani entengo esiwatholayo ngommbila wethu. Eminyakeni lapho isaplayi yommbila iphansi ezweni kudingeka kuvalwe ukushoda ngokuthenga ummbila kwamanye amazwe. Kwezinye izikhathi lokhu kungaba nohlu lemithelela ezimakethe ngoba njengoba sakha izitolo zommbila ongabizi othengwa kwamanye amazwe kungenza ukuba amanani entengo yommbila kuleli ame ndawonye.

Amanani entengo yommbila wethu kuleli aphinde aphanzanyiswa ukudayisa amazwe angaphandle isilimo sethu. Eminyakeni lapho sibe nommbila omningi ngokweqile angaba khona amanye amazwe angashodelwa lokho kuzokwenza ukuba athenge ummbila wethu. Lokhu kungenza amanani entengo azinze. Kodwa minigi imithetho yokuwheba emazweni angaphandle kanye nezindleko zokuthenga kwamanye amazwe kanye namazinga ezempilo. Lesi yisihloko esididayo asingeke sixoxe ngaso kule-athikhili.

Amanani entengo **kaphethiloli nezokuthutha** adlala enkulu indima kumanani entengo yommbila wethu njengoba kwe nzeka kwezinye izimpahla ezithengwayo. Ummiba ukhiciqiza kulolonke izwe futhi



kudingeka uhanjiswe izindawe ogcinwa kuzo nasezimakethe. Ngakho ke uma intengo kaphethiloli ikhuphuka intengo yommbila esiwukhiciqizayo izokwehla njenqoba umthengi lokho uzokufaka ezindlekeni zakhe. Ummiba unevelu eyisheyini elide elilandela ukusuka epulazini liye kumthengi futhi isinyathelo ngasinye sidi ng uphethiloli.

Ngabe inani lentengo esitholayo iyahambaisana yini nemakethe?

Manje kunemithetho embalwa esiyiqondayo enqumayo ngentengo yommbila, kodwa sazi kanjani ukuthi le ntengo esiyitholayo iyahambelana nemakethe?

Yilapho ke wena njengomlimi okudinge ka ukuba uhlale ixhumene nalokho okwenzekayo emakethe. Hlala uno iwazi ngokufunda nokulalela kulabo abanolwazi ngale sihloko. Lokhu kubaluleke kakhu hlu njengoba ungafuna ukwenza amasu futhi upulane ukuthi uzo simaketha nini futhi kanjani isilimo sakho uzame futhi nokuthola inani lentengo engcono kakhulu. Ungacabanga futhi nangokugcina ummbila wakho isikhathi eside ize ikhuphuke futhi intengo.



Kukhona imithombo ethembekile eshicilela amanani entengo yommbila nsukuzonke efana ne-Grain SA ne Safex. Ungacela ukuthi bakhumelele umbiko wetheksthni efonini yakho zonke izinsuku ezokunika amanani entengo yangaleso sikhathi. Abosizo lwasekhaya abafana ne-Afri, Suidwes, NWK, I-Senwes nabanye bazoba umthombo othembekile lapho ungathola khona ukuthi intengo ithini, nokuthi izimo zesikhathi esizayo zizobe zinjani.

Into ebaluleke kakhulu ukuzenzela **ucwaningo** lwakho ngaphambi kokwemuke-

la noma nguyiphi i-ofa ngomkhiqizo wakho njengoba ngeshwa bahlezi behkona abeama ukusebenzisa ithuba lokungazi kwakho. Kufanele wazi kodwa ukuthi kukhona imali edonswayo ngokwestandadi kule mboni. Kungenzeka kususwe isisindo sommbila ongcolile onezimvithi eziningi phakathi. Ungahlawuliswa futhi ngommbila ungeyona ikhwalithi. Izindawo zezemakethe eziningi zissebenza ngesistimu yokugreda eyistandadi. Futhi ngezinye izikhatha ungakhokhiswa imali encane yokuwuphatha uma udiliva

isilimo sakho endaweni yemakethe. Lokhu kujwayelekile futhi akufanele kukwethuse ungabe usadayisa. Ngaphezu kwakho konke hlala unolwazi futhi uhlale uxhumene nemboni yakho. ⚪

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Pula Imvula's Quote of the Month

Leadership is practiced not so much in words as in attitude and in actions.

~ Harold S. Geneen





Umthelela wezinambuzane I-NEMATODE uma kukhiqizwa izilimo

I-*Plant-parasitic nematodes* i-(PPN) ama-roundworms amancane abonakala ngaphansi kwe-microscop ahlasela izimpande zezitshalo nezinye izingxeny ezingaphansi, kodwa futhi neziyu namahlamvu. Ziphakathi kwezinambuzane ezisabalele namaspisisi angaphezulu kwe-4 000 e-*plant-parasitic nematodes* abikiwe emhlabenji jikelele.

ENingizimu Afrika, alinganiselwa ku-455 amaspisisi asebikiwe. Kodwa, i-*Meloidogyne* spp. i-(root-knot nematodes) yisinambuzane esinamandla kakhulu esilimaza umnotho wezilimo eziningi kulandele i-*Pratylenchus* spp. i-(lesion nematodes). Nakuba imininingwane ngomthelela wayo emnothweni ihlezi ingagcweli, isihlangene yonke ifaka ingindezi ebalulekile ekudiliveni ukuvikelela kokudla kwakuleli ikakhulukazi izilimo ezikhqizwayo ezindaweni okulinywa kuzo kancane phecelezi subsistence farming.

Ukhula ngakolunye uhlangothi, alugcini ngokuncintisana nezilimo ngenxa yendawo, ukukhanya namanyuthriyenti (**Isithombe 1**), kodwa ingazenza ikhaya lezinye izinambuzane, ngalokho ke lunganciphisa umnotho wesivuno somkhqiziso wezilimo.

Ukulahlekela yisilimo nekhwalithi noma ukulahlekela yisivuno ngenxa ye-*plant-parasitic nematode* parasitism ngokuvamila kuba namandla emiphakathini wabaliwa kancane phecelezi -i-subsistence

farming uma kuqhathaniswa namazwe asethuthukile. Lokhu kudalwa ikakhulukazi yigibe lolwazi kanye nobuncane bezingqalasizinda kanye nezimali ezikhona emkhakheni wezolimo lwe-subsistence.

Umonakalo odalwa yi-*plant-parasitic nematodes* ngokuvamile yenzeka ingaqaphelikile noma ifaniswe yeminye imithelela eziphazamisa ukukhula, ngenxa yokweswela noma ukungabikho kwezimpawu ngaphezulu komhlabathi nokunganaki kwabakhqizi. Inkinga ye-nematode iphinde ibhebhethekiwe ukuncipha komhlaba wokukhiqiza izilimo zokudla emkhakheni wezolimo kanye nokusesthenziswa kwama-cultivar ngokwemvelo alula ukuhlasewla yi-PPN ekuphindaphindweni kwe-sistimu yokulima isilimo nokulima ngokuhlanganyela (**Isithombe 2a - b**).

Izinyathelo zokulawula

Kubalulekile ukuthola amasu asebenzayo na-yinhlanganisela ebumbene ezizolawula ukhula ne-nematodes ngokuhlanganyela, ukuze ukwazi ukuvikela isibalo sokwakheleka kwezinambuzane ze-nematode ezithagethiwe. Ngokujwayelekile ukhula lunciphisa amandla omjikelezo wesilimo okuhloswe ngayo ukulawula i-nematode.

Ukwengeza, olunye ukhula olusebenza njengama-saplimenti omthombo wokudla, ngeke abakhqizi balususe ngabomu, kodwa okungenani lulinywe kancane kanye nesilimo sokudla ukubalulekile. Lokhu ngokungathandeki kungaholela ukwakhekeni kwenani le-PPN futhi kusenjalo isilimo esibalulekile sihlasewla umonakalo ngenkathi abakhqizi bengasinakile le simo.



Isibono lo samasistimu aphindaphindiwe noma ukulima ngokuhlanganisa okwensiwa ama-subsistence farmers.



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Ukhula oluvela phakathi kommbila ensimini, olungaolela ekwakhekeni kwenani le-plant-parasitic nematodes.



IZIMPAWU EZINGAPHEZULU KWENHLABATHI EZIHAMBISANA NE-PLANT-PARASITIC NEMATODES KUZILIMO



Iziqinti nokukhula ngokudondobala emasimini ommila okudalwa yi-plant-parasitic nematodes.



Ukushintsha kombala (ukuphupha) wamahlamvu nokudondobala kokukhula kwemifino okudalwa yi-parasitic nematodes.

IZIMPAWU EZINGAPHANSI KWENHLABATHI ZIHAMBISANA NE-PLANT-PARASITIC NEMATODES KUZILIMO



Ukudumba kukakherothi, izambane nasezimpanden i-Hibiscus spp.
Ngenxa ye-root-knot nematodes.

Amasu okulawula engafaka phakathi okukodwa noma inhanganisela yaloku okulandelayo:

- Ukuhlakula amaploti okudla ngesikhathi kubalulekile ekunciphiseni ukwakhela kwesibalo se -PPN, njengoba ukhula lungasebenza njengekhaya futhi kusekela ukhukhula nokukhiqizeka kwezinambuzane ezinjalo.
- Ukwengeza i-organic matter:
 - Kusiza ukugcina umswakama enhlabathini futhi kungeze amanyuthriyenti akhona.
 - Amanzi andile namanyutriyenti amuncwa

yizitshalo ukuze zimelane nokuhlaselwa yi-nematode.

- Umanyolo, amasoyi ambiwayo noma ukuguqulwa komquba owenziwa ngamahlamu abolile nakho kuzokwandisa izinga le-microbes enhlabathini futhi lokhu kuzovumela nokwakhela okuzohlumulisa amanye ama-micro-organisms edla onke ama-microbes enhlabathi, kanye ne-non-parasitic nematodes. Kodwa, kubalulekile ukuqinisekisa ukuthi umanyolo osetshe-nziswayo awuzibolisi izimpande/tubers

anomthelela we-PPN noma amanye ama-soil-borne pathogens. Uphenyo olwedlule luhkhombisa ukuthi ukwelapha ngomanyolo wesibaya esibolile kunciphisa i-root-knot nematode ngezinombolo ezipakathi kuka-41% no-71% kumathrayeli kata-matisi naphakathi kuka-49 % no-99% ku-mathrayei ommila atshalwe ezindaweni ezinamarisosni amancane.

I-Soil solarisation:

- Isebenza emaplotini amancane futhi isho ukwemboza umhlabathi ngoplastiki abakhanyayo ngesikhathi sasehlobo ngesikhathi amazinga okushisa ephezulu emini. Le lisu lasetshenziswa ngempume-lelo kumatravayeli e-ARC futhi Iwanciphisa ama-root- knot nematodes kakhulu.

Umijkelezo weSilimo:

- Iztshalo ezhlobene ngokuvamile zisengcupheni yokuzwela ezinambuzaneni ezifanayo nezifo futhi akufanele zitshalwe zisondelane noma zilandelani ngochungechunge lomjikelezo. Izimpande ne-nezilimo ze-tuber ikakhulukazi akufanele zitshalwe endaweni efanayo yengadi iminyaka elandelayo ngenxa yokuthi kulula ukuhlaselwa yi-PPN nezinye izinambuzane nezifo.

- Isitshalo sasekhaya esinenkani ngenye indlela ongayeisebenza ukuvikela i-root-knot nematodes ukwakhela kwenani kwe-cropping systems. Le ndlela ukukhetha ukulawula okuhle ngoba kubandakanya umfutho omncane nezindleko. Kodwa, izinhlobo zezi-limo ezinenkani azikho kukho konke okusahlamvu nezilimo zemifino.

- Ukusetshenziswa kwe-green manure na noma izilimo eziyisembozo ezifana notshani i-Vetiver kanye ne-Brassica cultivar i-Nemat ukunciphisa i-root-knot nematode izibalo zakho kokubili i-greenhouse kanye namasimu amathrayali. Utshani i-Vetiver nakho kungangeza ivelu yomkhiqizo lapho imfuyo ine-qhaza elikhulu kusistimu yokulima.

- Omonakalo wezimpande/ezinye izingxenye zesitshalo: ibulala izimpande/ezinye izimpande masinyane lapho izitshalo zingasakhuli engadini. Kufa izimpande/nezinye izingxenye ngokushesha ngenkathi izitshalo zingasakhuli engadeni. I-plant-parasitic nematodes iyaqhube ka nokudla futhi izalele ezincezweni zezimpande/nakwezinye izingxenye zesitshalo enhlabathini futhi zikhele zifinyelele ezigabenzi zokumosha ezithambile, nezilimo zokulandelisa.

I-athikhili ibhalwe ngu-Nancy Ntidi, we-ARC-Grain Crops, e-Potchefstroom, u-Akhona Mbatioti, we-ARC-Tropical ne-Subtropical Crops, eMbombela ne-Driekie Fourie, iYunithi ye-Environmental Sciences and Management, eNorth-West University, ePotchefstroom. Uma ufuna iminininingwane egcwele, thumela i-imeyili ku-ntidin@arc.agric.za.



IKHANOLA

– yini okufanele uyibheke ngo-Okthoba

Ngo-Okthoba siyaqala ukulungiselela ukuvuna imivuzo yokusebenza kwethu ezinyangeni ezidlule. Bonke omanyolo abathelwa phezu kwensimu, izifutho ze-fungicide ne-herbicide aplikheshini yizinto yakudala.

Ikhanaola ukugcwala komdumba ekuqaleni nakho kungaba sengcupheni yokuhlaselwa yizinambuzane emva kwsikhathi kanti ukuhlola njalo ngeviki kusengenziwa. Lokhu kungenzeka kukhanola enamagatsha amanangi kakhulu ngengxa yokuma okungajiyile kanti nemidumba esemagatsheni angaphandle ikhula kancane.

Izinambuzane ezingadala omonakalo emotnothweni kulesi sigaba kungabalwa ama-aphids, i-diamond back moth ne-bollworms. Ukubheduka okukhulu kuphela okwedlula i-spray threshold okufanele kufuthwe ngaso.

I-Aphids

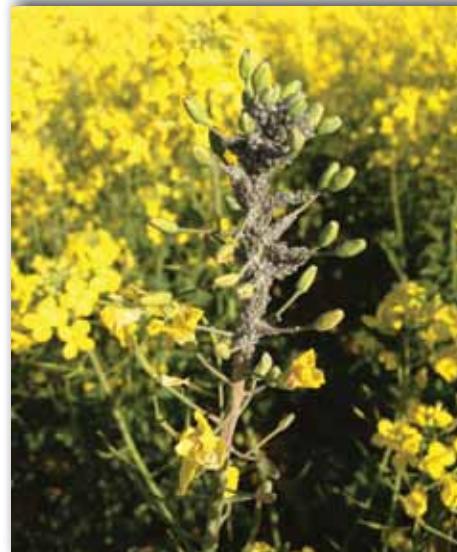
I-Aphids ngokuvamile iba yinkinga uma kushisa, isimo sezulu somile. Amaklasta amakhulu e-aphids aphezu kweziqiu nasemidumbeni anganciphisa ukugcwala kwemidumba. Kufanele ucabange ngokufutha kuphela uma inani eliphezelu lezitshalo lihlaselekile. Ikhanaola evuthiwe ingakwazi ukumelana nokubheduka kakhulu kwe-aphids kuanagesikhathi sasekuqaleni.

Isimo sezulu esibandayo sinciphisa ukwanda kwesibalo se-aphid kanti nemvula ingalinciphisa inani layo. Izinambuzane ezsizayo ezifana nomnyovu, ama-hover flies ne-ladybird zidla noma zincela ama-aphids futhi zingalehlisa inalo layo. Ngakho ke kubalulekile ukubheka isimo njalo ukuze unqume ukuthi isifutho sifanele yini ukufakwa ngendlela efanele.

I-Diamond back moth (DBM)

Qaphela ama-moth amancane amhlophe lawo andiza phakathi kwezitshalo uma ephazamisekile. Hlola izintshalo ubheke izimpawu zesibungu esinombala o-light green lezo ezivamise ukususuwa ku-silk thread ezitshalweni uma ziphazamisekile. Isibungu esincane sidla izimbontshana ezincane emakhasini nokuwuphawu lokuthi kungenzeka ukuthi zihlasele ngobuningi. Uma ekhula eba makhulu athi uma edla kusale izimbobo emidumbeni nongagcina kudaleke omunye umonakalo wezifo.

I-life cycle ye-DBM kusukela emaqandenai kuye ku-moths endala emazingeni ashisayo (28°C) kungaba yisikhathi esifishane esingaba yizinsuku ezi-14, ngakho inani lingakhulu masinyane. Ukufutha i-DBM kufanele kwensiwe uma izibungu angapezulu kuka 20 mm kuya ku-4 mm ubude zibonakala ezitshalweni eziyishumi uma kubalwa esigabeni esimaphakathi nasegabeni sokugcina



Amaklasta amakhulu ama-aphids aphezu kweziqiu nasemidumbeni anganciphisa ukugcwala kwemidumba.



Amasimu ekhanola kufanele abhekwe kusukela eqala ukuqhakaza izimbali ukuthi ayikho i-bollworms.

sokuqhakaza kwezimbali. Le nombolo ingakhula izi ifinyelele ku-50 ezintshalweni eziyishumi esigabeni sokugwalwa komdumba.

Ama-Bollworms

Amasimu ekhanola kufanele abhekwe kusukela kuqala ukuqhakaza izimbali kubhekwe i-bollworms. I-moths endiza ebusuku izalela amaqanda amhlophe ngamanye phezulu kwamahlamu. I-bollworm moth ineziempaphe ezibomvane nokunsundu ngaphambili kanye nezimpaphe zangemuva ezi-creamy white. I-moth endala ingazalela amaqanda amanangi angaze afike ku-1 000 ngesikhathi sokuphila kwayo okuyizinsuku ezinhlanu kuya kweziyisishiyagalombili. Amaqanda achamusela emva kweviki, akhiqize izibungu ezincane ezidla ifoliji. Lezi zibungu zebuza izikhathi eziyizithupha ezinsukwini ezi-14 kuya kwezi-18 kanti isibungu esidalu singafinyelela ku-3 cm ubude. Ngenxa yesibalo esiphezelu samaqanda azalelw, isibalo singakhula masinyane, futhi ukubeduka kwe-bollworm kungadala umonakalo omkhulu kusilimo.

Izimo ezithandwa ukubheduka kwe-bollworms kungabalwa kuzo izimo zesomiso, ukuhlaselwa kwe-aphids njengoba i-moths idla uju olukhiqizwa yi-aphids noma ngokweswela omunye umthombo wokudla kwestibungu. I-Bollworms izigaba zokuqala zesibungu (esingaphansi kwa-1 cm) silawuleka kalula kunesibungu esidalu. Ukufutha kufanele kuqalwe emva kokubalwa kwezibungu ezishumi km² ngayinye.

Ukuvunwa kwekhanaola

Abalimi abaningi baqapha ikhanola yabo isizini yonke yokulima, kodwa balahlekelwe yi-net profit

ekupheleni kwesizini. Abacwaningi abaningi bakholwa ukuthi ukulahlekelwa ngaphandle kwsedingo, nokungeke kumkhokhise lutho uma kulungisiwe okwenzeka uma kunqunywa nangenqubo yokuvuna. esivuno esingalahleka ngenxa yokungaonanisi kahle isikhathi noma ukulahlekelwa okusanhlamu ngesikhathi sekhombayiningi kungahlukana kalula kusukela ku-500 kg/ha. Kumanani entengo yamanje, lokhu kumele u-R500 nethi phrofithi ngokulahlekelwa u-100 kg.

Ukunquma

Ukuba khona kwale lithuluzi ngokuvamile kuba yifektha yokwenza isinqumo noma uyanquma noma ukuvuna ngqo. Ezindaweni ezihlaselwa umoya onamandla uma ikhanola iqala ukuvuthwa kungcone ukuyinquma ngoba ukulahlekelwa okukhulu kwenzeka kukhanole emile.

Ukuyinquma kunethuba elinye kunokuvuna ngqo, nakuba abalimi abaningi e-Australia nase-Canada sebaphindle ekuvuneni ngqo. Uma ikhanola ivuthwa ngokungalingani ukuyinquma kuyasiza njengoba izinhlamvu zivuthwa ngokufanayo uma inqunyiwe. Kungamsiza futhi umlimi ukuba akhombayine isivuno ezinsukwini eziyi-8 kuya ku-10 wezinsuku ngaphambili.

Isikhathi esifanele sokubopha yingenkathi izinhlamu seziqala ukushintsha umbala okuphakathi kuka-40% no-70% okuqukethe umswakama ka-30% kuye ku-40%. Abalimi kufanele benze iphutha ngasohlangothini lwakamuvu, ikakhulukazi ezindaweni ezishisayo, nezomile ngoba amazinga okushisa aphezelu adala ukuba ama-windows



Kufanele kunqunywe ebuden i obungaphezulu kwegatsha lezitshalo, ukuze iziqu ezimile zakhe izimfologo lapho i-windrow ungalala khona.

asheshe ukoma. Ikhanola asheshha inqunye ingenza ama-kernel aluhlaza nezinhlamu ezincane eziqukethe uwoyela omncane.

Ukunquma ngenkathi sekushintsha umbala wezinhlamu, kufanele kuqoqwe amasampuli emidumba eyi-100 insimu yonke. Njengoba isitshalo siqala ukuvuthwa phansi, imidumba kufanele iqale ukukhiwa phansi, maphakathi kanye nangaphezulu kwesthalo esiqwini esikhulu. Vula imidumba futhi ubheke idigri yokushintsha kombala wohlamu. Bala izinhlamu ukuthi zingakhi eseziphantshe umbala waba phuzi, nsundu noma waba mynaya. Kumanyuwali yomkhqizo wekhanola kubekwe ngokucacile ukuthi ushantsha ube njani umbala wohlamu esithombeni.

Amasampuli okuqala kufanele athathwe ezinsukwini eziyi-15 ngaphambi kokuphela kokuqhakaza ukuze unqume isikhathi esifanele sokunquma. Ukuphela kokuqhakaza kuhlu-kanisa uma u-10% wezitshalo zonke zisenazo izimbali. Amasampuli kufanele athathwe njalo, ngoba uma izinhlamu seziqinile uma uzinginqqa phakathi kweminwe, ingashintsha umbala ngamahora angama-24. Umbala ushantsha masinyane uma kushisa futhi komile kanti ushantsha kancane uma kunesimo esibandayo nomswakama. Ensmini, kutholakala ukuthi izinhlamu zishintsha umbala ngalendlela elandelayo ngosuku:

20°C kuya ku-24°C: 3% kuya ku-4%;
24°C kuya ku-2°C: 4% kuya ku-6%; no-
27°C kuya ku-30°C: 7% kuya ku-8%.

Ikhanola inqunywa ezinsukwini ezine kuya kwezinhlanu ngaphambi kwsikhathi, ukulahleka kwesivuno kungafinyelela ku-10%. Ifasitela lokunquma elifanele lingathatha izinsuku ezintathu kuya kwezine kuphela. Le nqubo yenzeka cishe izinsuku ezi-21 kuya ku-25 emva kokuqhakaza kwezimbali, nokho kuya ngesimo sezulu. Isivuno siyalahleka uma uwunquma emva kwsikhathi eside singancishiswa ngokuyinquma ebusuku noma uma umswakama uphezulu kakhulu.

Ubude balapho kufanele unqume khona kufanele kube ngaphezulu kwalapho kuhlukana khona amagatsha, ukuze izinsalele ezimile zakhe imfologo lapho kuzolalisa khona i-windrow. Lokhu kuqinisekisa ukuheleza kangcono komoya ngapansi kwe-windrow nekhanola yoma masinyane.

Kuya ngezimo zezulu emva kwe-windrowing efana namazinga okushisa, umoya nomhwamuko, ikhanola inga-khombayinwa cishe ezinsukwini eziyi-7 kuya kwezi-14 emva kokunqunywa.

Ukuvuna ngqo

Izimo zesizini ziyifiktha enkulu enomthelea uma ikhanola ingavunwa ngqo. Ngokwejwayelekile ikhanola isuke isikulungele ukuvunwa ngqo emva kwezinsuku eziyi-16 kuya kwezi-20 emva kwesikhathi esiphezu se-windrowing, kodwa isikhathi esomile sizosheshisa isikhathi ngaphambi kokuvuna. Ukhixye wokulungisa ukuvuna okuqondile amaphesent omswakama wezinhlamu. Izinga elifanele u-7,5 kuya ku-8%, okusho ukuthi imidumba akulula ukuba ifahlake futhi kuzoba nokuhamba kahle kwezinhlanga ziya ku-header.

Ukuvuna ngenkathi umswakama wekhanola uku-7,5 lokho kusho ukuthi ikhanola ingavunwa ngaphandle kwamazolo njengoma isitshalo sizobesiseluhlazana. Uma abalimi bengalinda izinhlanga zekhanola zize ziqale ukuguquka zibe mhlophe, njengoba kungaba njalo ekuvunweni kwe-windrowed yekhanola, ziningi izinhlamu ezingalahlekha. Uma umswakama wezinhlamu wehla ube ngaphansi kuka-8%, ngaleso sikhathi qhubeka nokuvuna ungabe usama. Imidumba ingavuthwa masinyane ngaphansi kwesimo sezulu esishiyayo, ngakho ke ukugcina isikhathi kubalulekile uma ikhanola ivunwa ngqo uma kuqhathaniswa nezinye izilimo. Isivinini esiphezulu sibalulekile, ikakbulukazi uma isilimo somile, singadala ukwe-phuka kwemese ne-divider. Isivinini sokuvuna kungadingeka sincishiswe kancane kancane njenqoba ilanga liphakama liya ngasemini. Vuna uma umhwamuko ungaphezulu kuka-70% futhi ueye ukuvuna uma wehla uba phansi. Ikhanola ingadilivwa nomswakama ewuqukethe ofinyelela ku-14%, kuye ngokuthi zikhona izinsiza.

Uma ikhanola ivuthwe ngokungafani, ukhula lwakamuva selumilile futhi lungadala izinkinga ngesikhathi sokuvuna noma ngesikhathi isilimo sibhaiwi, kungacatshanga ngamakhemikhali okusivuthiswa. Sebenzisa umkhiqizo orijistiwe kuphela njengoba amakhemikhali okuvuthiswa njengezinye izinsalela zomkhqizo zingakufeyilisa ukudilivwa kwaleso silimo. Ukusimanzia sonke isitshalo

Isikhathi esihle sokunquma yingesikhathi izinhlamu siguqula umbala okuphakathi kuka-40% no-70% noswakama oqukethwe ungama-30% kuya kuma-40%.

kubalulekile njengoba ikhemikhali ethintene nesitshalo ayisuki.

Isigaba sokufafaza ngekhemikhali yokuvuthiswa sibaluleke kakhlulu njengoba umphumela wokushesha ufafaze kungadala ukuba imidumba angasaghubezi nokukhula. Ukvuthiswa ngekhemikhali, izinhlamu kudingeka zibe phakathi kuka-70 no-80% ukushintsha umbala leso yisikhathi esisemuva sokunquma. Ikhanola izobe isikulungele ukuvunwa phakathi kwezinsuku ezine kuya kwezisyikhombisa emva kokufutha, kuya ngosayizi nedensithi yesilimo. Qaphe ufuthe kuphela indawo engavunwa ngosuku noma ezimbili ukuze ugweme ukulahlekelwa nokufahlaka.

Ukupanelia isizini elandelayo

Uma insimu isivuniwe, izinyathelo eziningi zingabasiza abalimi ukuba bahlelele isikhathi esizayo. Buka izinhlanga ezinqunywe ukuze unqume isigaba lomthelela we-black leg ne-sclerotinia. Uma izimpawu zikhomba ukuthi bekukhona izinga eliphelzulu le-sclerotinia, zama ukugwema ukutshala ikhanola ensimi eseduzane kakhulu nensimu enomthelela ngesizini elandelayo.

Uphinde uhlele ukusebenza kwephrogremu yakho yokulawula ukhula. Qaphela ukuthi yiluphi ukhula olukhona, nquma ukuthi ngabe amakhemikhali owasebenzisili abelungele ukhula lwakho oluvelole futhi uhlele nome-luleki wakho uma kufanele wenze izinguqko esikhathini esizayo.

Ekgcineni, cabanga ukuthi yimaphi amasimu okufanele atshalwe ikhanola ngonyaka olandelayo futhi ucabange ngenqubo yokuvuna leso sitshalo samanje. Ikhanola ayimili kahle uma ingaphansi kwamabibi ezinsalela, ngakho ke ukufanele kucatshangwe kungaba ukunciphisa noma unciphise inani lezimvithi ezisele, isib. ukuqoqa izinhlanga uzenze ibhele, unqume izinhlanga uzsabalalise ngokulinganayo ukuze ugwerme izinsalela.

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CABANGA NGALA MAFEKTHA UMA UTSHALA UBHONTSHI ISOYA

I phrogramu yokuhlelala isilimo sakho sase-hlobo ingabandakanya esilimo esingaphe-zulu kwesisodwa kanye nomkhiqizo wesoya mhlambe emhlabeni owomile noma kumjikele-ziso wezilimo eziniselwayo.

Okunye nokufanele ukucabange okulungele *i-crop husbandry* okudingekayo kuzokwehluka kuye ngokuthi kusendaweni eyomile noma kweniselwayo kufanele kwensiwe.

Intengo yempahla ephumile emaketha noma inani lentengo ye-Safex kabhontshisi isoya ngo-Mashi nangoMeyi 2019 ngu-R4 807/ ithani. Icwanningo lwe-gross majini uma kuqhathaniswa nezinye zilimo ezahlukene ezikhethiwe ngabe bekuzokhombisa inzuso esalayo kuzilimo ezikethiwe ezahlukene ezikhqiqizwe epulazini lakho nezivuno zezilimo ozitholayo enhlabathini nasesimweni sezulu kumazoni endawo olima kuyo.

Amazinga amanani entengo ngethani eliodwa akhombisa ithagethi engengaphansi kwamathani ama-2 noma isivuno esikhulu somkhiqizo emhlabeni owomile wesoya yikho okulindelekile. Yenza olwaho uhlaziyo wezindleko ukuze uqiniseke.

Amafektha okuphatha nokukhiqiza okufanele ugxile kuwo ngo-Okthoba noNovemba

Imbewu nokutshala

Ezinye izindawo zokukhiqiza emhlabathini owo-mile zithola u-50 mm ngoJulayi kanye nonezimvula zangasekupheleni kwehlobo nasekwindla iprofifi-yile yenhabathi kufanele okungenani ibe umthamo wensimu. Lokhu kwabonakala ikakhulukazi emhlabeni ongaphansi kwe-conservation tillage noma *i-no-till* kulo nyaka.

Uma ngabe kunjalo epulazini lakho, ukutshala ubhontshisi isoya kusaqala ungakhetha. Lo kungaba unyaka wesivuno esihle ngempela. Mhlawumbe kungaba ukuthi utshala okukodwa kokuthathu kwesilimo sikabhontshisi isoya ngasekuvaleni kukaSeptembra noma ngo-Okthoba bese

kuthi okusele ukutshale ngoNovemba noma ngasekuvaleni kukaDisemba.

Ukukhetha *i-cultivar* kabhontshisi isoya kuzoba yisinqumo esibaleuke kakhulu okufanele usenze. Ama-*cultivar* kabhontshisi isoya kufanele uwathenge kubadayisi abaziwayo futhi ucele iseluleko kubo mayelana nokuthi yizithi izinhlobonhlobo ezelungele ukukhiqizwa ngesizini ende noma ephakathi. Kuningi okungakhethwa kukho manje okulungele amandla enhlabathi yakho, amaphethini emvula namayuniti okushisa aba khona ngesikhathi sesizini yokutshala endaweni yakho.

Ukukhetha *i-cultivar* ngqo yasekuvaleni, yaphakathi noma ngasekupheleni itshalwe ngesikhathi esifanele ngempela kungaba yifiktha yokwakha noma ukwephula eqinisekisa ukuthi uzothola isivuno esikhulu kakhulu ngaphansi kwe-zimo zendawo okuyo. Qinisekisa ukuthi uthenge imbewu eyanile ukuze utshale kabusha uma isidingo sikhona. Inani lezitshalo zokugcina esiphakathi kuka-240, 000 no-280,000 ngumthetho omuhle okufanele uwulandele njengoba ulungele ukukhiqiza emhlabeni owomile. Sebenzisa le thagethi kukho kokubili u-0,76 mitha u-0,91 imitha izikhala zemigqa uma ukhalibhretha *i-planter* yakho.

Iplan kamanyolo

Uma usebenzisa indlela yokutshala *i-convention-al* noma *i-conservation tillage* qinisekisa ukuthi *i-planter* yakho isethwe ngokulungele ukusebenza kahle inhlabathini ithintana ngokufanele nembewu namazinga kamanyolo akhalibhrethwe ngokufanele ngokwemiyalelo.

Abanye abalimi basebenzisa inayithrojini encane uma betshala, abanye abayisebenzisi. Xhumana nomdayisi wakho wembewu ne-agronomist owaziyo ngendlela evumelekile nonolwazi mayelana nomanyolo ukuze uthole isivuno esiphezulu nolwazi endaweni olima kuyo. Ukufaka umanyolo kususelwa kumanyuthriyenti okufanele amunceke yisilinganiso okufanele sisetshenziswe.

Ukuncipha kwefosiferasi ekhona nephothezi-yamu kuba nomthelela omkhulu esivunweni esithagethiwe.

Cwaninga inhlabathi yakho ngesikha ukuze wazi ukuthi kungani usebenzisa i-aplikheshini yaman-yuthriyenti enconyiwe efanele ukuvundisa isimo senhabathi yakho. Thenga umanyolo olungle ngokwezincomo zesikhathi.

I-Rhizobium ne-nodulation

Qinisekisa ukuthi iphrogremu yohlelo lwakho lmijovo *we-rhizobia* isesimeni esihle futhi usebenzise imijovo kusukela emthonjeni ethembekile. Ungathathi amashansi kulokhu futhi uyijove imbewu ngokwemiyalo. Emino imikhiqizo kufanele ihlanganiswe izinsuku eziningi ngaphambi kokutshala kanti amanye kufanele ahlanganiswe ngokufanele amahora ngaphambi kokuba utshale ukuze uthole imiphumela emihle.

Imijovo eminingi ifaka phakathi kokukhula kwe-zimpande ukukhulisa amandla ngokujova okuyisekelo somkhiqizo. Lokhu kungasebenza kuye ngokwesimo sikamanyolo nethilithi yenhabathi kanye nesimo esitholakala enhlabathini yakho. Ungayivezi obala imbewu exulshiwe ngqo elangeni uma ugcwala *i-planter* yakho ngembewu ejoviwe.

Kubalulekile ukuqapha ukukhula kwe-nayithrojini *fixing rhizobium bacteria* ezimpandenzi zesoya. Okujova okuhle kwenza amanojuli ezimpande aqinile yikhona okuwukhiye wokuthola isivuno esiphezulu.

Iphrogremu yokulawula ukhula

Uma usebenzisa *i-glyphosate tolerant cultivars* qinisekisa ukuthi ama-spray rigs anakekelwe futhi angama-aplikheshini alungele ukuze lonke ukhula oluyinkinga lulawuleke ngesikhathi ohlelweni lwakho lokutshala. Ngicela ubheke iseluleko nengokulungisa nokugxila komkhiqizo *we-glyphosate* ezosetshenziswa. Lesi seluleko sibambele indlela *ye-mechanical tillage* esekelwa yindlela yokulawula ukhula *i-glyphosate*.

Isiphetho

Hlela ukuba onke ama-*input* esoya yakho ngqo abe sesandleni ngesikhathi, epulazini, emva kokucabanga ngazo zonke izincomo ezinhle zethimba labeluleki bakho. Buningi ubuchwepheshe obuthuthukile *be-cultivar* ongabukhetha nezindlela zokukhiqiza njalo ngonyaka umuntu kufanele akhe inethiwekhi yabeluleki abaphambili ehlangothini lokukhiqizwa kukabhontshisi isoya.



UBHONTSHISI ISOYA: Ngabe yini elindelekile kule sizini ezayo?

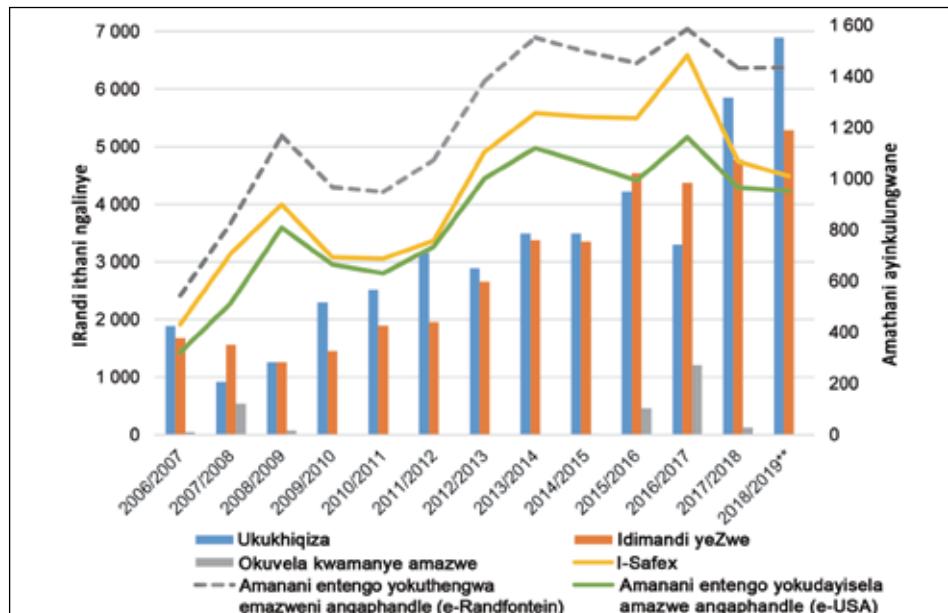
Umkhiqizo kabhontshisi isoya emhlabeni ka-2018/2019 obhekekile u-354,5 wezigidzi zamathani. Umkhiqizo waseBrazil kulindeleke ukuba uhlale uflethi ku-117 wezigidzi zamathani kanti i-Argentina isindile esomisweni futhi kulindeleke ukuba umkhiqizo wayo ukhule ngo-17 wezigidzi uye ku-56 wezigidzi zamathani.

UMnyango wezoHwebo neziMboni i-(DTI) yaqhamuke neqhinga lokuvala isikhala ukuthengwa emazweni angaphandle kukabhontshisi isoya eminyakeni embalwa edlule, lokhu kukhuthaze umkhiqizo kanye nokukhulisa umthamo wezitshalo zikabhontshisi isoya ezigxotshwayo ezweni.

Eminyakeni eyishumi edlule, ubhontshisi isoya ube yisilimo esitshalwa ngamandla eNingizimu Afrika. Njengoba isondela isizini yokutshalwa kukabhontshisi isoya, kubukeka sengathi le simo sizoqhubeke nokukhula. Isizini edlule ibe yinhlle kakhu, ngo-573 950 ha otshaliwe nesilimo sokugcina u-1,316 izigidi zamathani, lokhu kwenziwa kakhulu yisimo esihle sezulu.

Ngonyaka wemakethe ka-2018/2019 i-Crop Estimates Committee (CEC) yenze isilinganiso sokuthi indawo okutshalwe kuwo ubhontshisi isoya izoba u-787 200 ha, ngomkhiqizo ka-1,551 wezigidzi zamathani futhi isivuno esilindelekile singalinganisela ku-1, 97 t/ha. IMPumalanga ihlezi ingumkhiqizi omkhulu we-554 300 amathani akhiqizwe ngo-2017/2018 futhi umkhiqizo ulindelekile ukuba wande ngo-127 700 wamathani ukuya ku-682 000 amathani ngo-2018/2019. Kulandele iFreystata ngomkhiqizo ka-504 000 wamathani ngo-2017/2018 futhi lokhu kulindeleke ukuba kuhule kufinyelele ku-552 000 wamathani ngesizini ezayo.

Igrafu 1: Ukuhqiqwza kukabhontshisi isoya, ukuthengwa, ukuhweba namana entengo: 2006/2007 - 2018/2019.



Ithebulu 1: I-value kabhotshisi isoya etholakala ku-soy oilcake (u-47% wamaphrotheni) efike eThekwini ngomhla ka-2018-08-21.

Hambisa ngomkhumbi R6 297	Uwoyela kabhotshi- si isoya R10 900	Izembozo zi- kabhotshi- si iSoya R1 600	I-Exchange rate R14,43
Ilike Ethekwini u-47% iphrotheni oilcake			R6 297 R6 297 R4 660
Imali engenayo ye-Oilcake u-74%			R32
Imali engenayo yamaHlamvu kabhontshisi iSoya phecelezi i-Hulls u-2%			
Imali engenayo kaWoyela kabhontshisi iSoya u-17%			R1 853
Isamba semali engenile			R6 545
Izindleko zokuphresa nezingaphansi kwemajini			R400
Izithuthi eziya emshinini kabhontshisi isoya			R200
Inani lentengo yomkhiqizo wesoya (epulazini)			R5 945

Ngo-2017, amanani entengo kabhontshisi isoya abeguquguquka ephakathi kuka-R4 600/ithani, lokho kwaba ukwehla ngo-29% unyaka nonyaka, ngenxa yokwehla kwamanani entengo emazweni kanye nokuqina kwerandi. Kule sizini ezayo amanani e-Safex kulindeleke ukuba abe sesimweni esiphakathi kwentengo yempahla engena kuleli nedayiselwa amazwe angaphandle (**Igrafu 1**), kanye namanani entengo i-derived price yekhekhe no-woyela enquma nge-benchmark yanmani entengo yakuleli (**Ithebuli 1**).

Imininingwane yokuhukaniswa kwamanani entengo

- **Efike eThekwini u-47% protein soybean oilcake:** Intengo ye-oilcake kabhontshisi

isoya oqukethe amaphrotheni angu-47% angathengwa emazweni angaphandle (ku-mahhala ngamathraki, eThekwini).

- **Amahlamvu:** Intengo adayisa ngayo amahlamvu kabhontshisi isoya e-ex soycrushing plant reef.
- **Imali engenayo:** Imali engenayo evela ezingxenyeni ezahlukene emva kokuba nemali yokukhokha izikweleti isuse ukugxotshwa kukabhontshisi isoya emishinini emikhulu yokugxoba engenisa inuzu.
- **Izindleko zogxoba:** Imali engenayo eyisilinganiso edingekayo ukukhokhela izindleko zokugxoba.
- **Izithuthi zikabhontshisi iSoya:** I-avareji yezindleko zokuthutha ubhontshisi isoya uhampjiswa emshinini owugxobayo.
- **Inani lentengo yokuhqiqa epulazini:** I-intrinsic value kabhontshisi isoya epulazini emayelana nazo zonke izindleko nemali engenayo yokuwugxoba isoya (solvent extracted) nokufika kumajini encane.

Ukuze imakethe kabhontshisi isoya iqhubeki ikhule futhi izimele, sidinga ukusebenzisa umthamo omkhulu wokugaya ka-2,5 wezigidzi zamathani kabhontshisi isoya nobhekilanga. Lokhu ke kuzodinga ukuncishwa kakhulu kokungena kuleli kunalokho esikuthola ngaphandle okwamanje; abathenga ubhontshisi isoya emazweni angaphandle kufanele baqale ukuthenga umkhiqizo wakuleli nezinyathelo kufanele zime ngomumo ukuzomisa i-oilcake eza kuleli ngentengo engaphansi kwentengo yomkhiqizo wethu.

I-Athikhili ibhalwe u-Ikageng Maluleke, i-Junior Economist, Grain SA. Uma ufuna imininingwane egcwele, thumela i-imelyi ku-Ikageng@grainsa.co.za.



Ake sixoxe ngokujikelezisa izilimo

Uma ufunu imiphumela ehlukile kufanele uzame izindlela ezahlukene

Ukujikelezisa izilimo kwabe kungumkhuba ojwayelekile kubalimi besikhathi sakudala emhlabeni. Ngesikhathi seRoman Empire abalimi babelandela isistimu eyaziwa ngokuthi 'ukudla, ukondla nokungahlwanyela'.

Amasimu abo babewahlukanisa izingxenyen ezi ntathu bese betshala ukudla okusanhlamvu isib. ukolo, noma amabele, ukudla kwemfuyo, njengobhali noma i-oats bese kuthi ingxenyen yesithathu yayiphunyuzwa inikezwa ithuba lokuvusezel a manyuthriyenti nokuvundisa.

Abalimi bapehelewla uthando lokujikelezisa izilimo ngeminyaka yawo-1950 ngenkathi yethe-khnoloji 'yesimanje' namakhemikhali enza ukuba abalimi baguukele ekutshaleni isilimo esifanayo unyaka nonyaka phecelezi i-mono-cropping futhi babekhqiqa izivuno zezilimo eziphezulu njalo besebenzisa omanyolo abasha, izibulalazinambuzane nezibulalakhula.

Kodwa isondo selijkile...

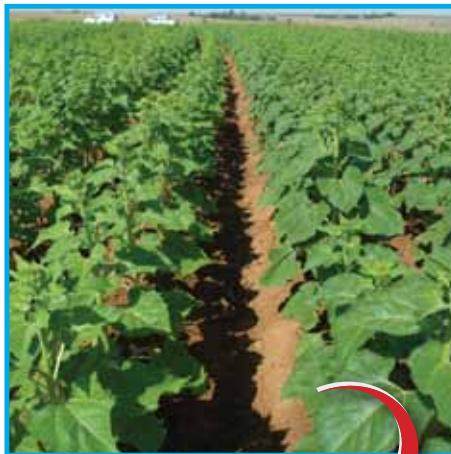
Banigi abalimi abalima ummbila ngempumelelo bephindelela ensimini, besebenzisa omanyolo amaphrogramu omanyolo abanesiggi belawula nezinambuzane nokhula ngama-pesticides asemazingeni aphezulu. Abalimi baseNingizimu Afrika bathola ukuthi i-monoculture ikhqiqa isi-vuno esiphezulu nenzozo enhle.

Kodwa, emva kwesikhathi esengeziwe se-monoculture, abalimi babona ukuthi ukulima isilimo esifanayo ensimini eyodwa unyaka nonyaka kwakuholela ekwandenki kakhulu kwezinambuzane nezifo emasimini abo. Ukuguguleka kwenhlabathi kwaba ngenye inkinga abahlangabezana nayo kakhulu kunangaphambil. Inuzu yomkhqizo wezilimo yehle kakhulu ngawo-1980 futhi abalimi babhekena nobungozi obukhulu ekulimeni isilimo esisodwa. Kwadingeka ukuba bazame enye into eyehlukile – ngalokho ke baqala ukusebenzisa amasistimu okujikelezisa izilimo.

Okubi ngokulima isilimo esisodwa

- Ukuguguleka kwenhlabathi ngokuvamile kugqugquzelwa ukulima futhi kuvamise ukuba namandla kakhulu ngaphansi kwestilimo esilinywa sodwa unyaka nonya.
- Isivuno sesilimo singancipha uma kulinywa isilimo esisodwa unyaka nonyaka ensimini eyodwa.
- Ukhula luthanda ukukhula futhi lube yinkinga.
- Ukuvunda kwenhlabathi kuyaphela, namazinga emvundo aphansi.
- Isimo senhlabathi kanye namazinga okumunceka kwamanzi aphansi ku-monoculture sistimu.

UNYAKA 1



- I-Monoculture iholela ekwandenki kwezina-mbuzane, ukubheduka kwezifo nokuhlekela yisivuno.

Imithetho yokijkelezisa izilimo

Ukujikelezisa izilimo empeleni yisistimu yokutshala izinhlobo ezahlukene zezilimo ngokokulandelana emhlabeni owodwa ngenhoso yokwenza ngcono amandla okukhqiqa. Yi sistimu eyaqaliswa ukusetshenziswa ngoba mhlambe iyawuzuzisa umhlaba noma ngenxa yembuyiselo kwezomnotho – noma kokubili.

Ukujikelezisa okuhle kuzokwenza ngcono ukuvunda kwenhlabathi nokukhqiqa futhi ngokuvamile kuzofaka phakathi izilimo ezithela imidumba kuphromotha ukulungisa inayithrojini, utshani noma imidumba okuzokwenza ngcono imvundisa kanye nesilimo esizophromotha ukulawuleka kohkula. Ukukhetha ukujikelezisa kuncike kuzilimo ezilinywa emhlabeni wesifunda, isimo sezulu kanye nesimo somnotho wezulu. Ukwehlukahlu-ku ka okuza ngephrogramu yokujikelezisa izilimo kuqukethe imihlomulo eminingi okubalwa kuyo ukusetshenziswa komnotho wamanzi akhona.

Imihlomulo yokijkelezisa izilimo

Ukujikelezisa izilimo kunama-agronomikhi amani-nji, umnotho kanye nemihlomulo yenhlalo yenda-wo kuye ekutshaleni isilimo esisodwa ensimini eyodwa unyaka nonyaka. Umijkeleziso wesilimo ohleliwe wenza ngcono impilo yenhlabathi ngokuthe xaxa njengoba ayanda amahlamvu okuvundisa, ukwenza ngcono isimo senhlabathi futhi kunciphisa nokonakala kwenhlabathi. Kungaphinde kube nomphumela wesivuno esiphezulu kanye nenzozo enkulu yepulazi esikhathini eside.

- Ukhula kokuvunda kwenhlahla kuqinisa ukugineka kwamanzi namanyuthriyenti.
- Ukwenza ngcono isimo senhlabathi kunciphisa ukuncika kuma-synthetic fertilisers = kwehlise izindleko zama-input.
- Isimo esingcono senhlabathi senza amanzi dreyineke kangono futhi kunciphise ubungozi bogedula kwamanzi kwamanzi ngesikhathi sezhikhkhula.
- Isimo esingcono senhlabathi kusho ukuncipa kwamanzi agelezayo futhi kunciphie nokuhlekela kwenhlabathi ephezulu.
- Ezifundeni eziningi eNingizimu Afrika ukugugulwa umoya kwenhlabathi yinto eyinkinga enkulu, isimo senhlabathi esenziwe ngcono kanye namahlamvu okuvundisa anciphisa ukulahlekela.
- Yenza ngcono isimo senhlabathi kinika amandla amanzi asenhabathini ngesikhathi sesomiso.
- Ukujikelezisa izilimo kusetshenziswa ukulawula ukhula nezifo nokhula oluyinkinga kutholakale

UNYAKA 2



UNYAKA 3



Isibonele isistimu yomjikeleziso wezilimo ezinempilo. Unyaka 1 = Ujikanlanga → Unyaka 2 = Imidumba → Unyaka 3 = Ummbla → Unyaka 4 = Ujikanlanga.

NGABE LIYAKHULA IBHIZINISI LAKHO?

Ku-athikhile yethu engaphambili senze isitativende esicacile esithi kubaluleke kakhulu ukuba abalimi bethu banamuhla, abakhulu noma abancane, ukuba bazi ngezezimali. Kuleyo athikhili sigxile kakhulu ku-*income statement* noma ephinde yaziwe nge-*statement of financial result*, isitativende esisentshenziswa ukubheka ukuthi uyayenza yini inzuzo.

I-*income statement* yenza isilinganiso somphume-la wemali emva kwesikhathi, yinto efana nomjaho. Ebhizinisi umjaho ngokuvamile uthatha unyaka into eyaziwa ngokuthi unyaka zimali.

Kule athikhili sizogxila ku-*balance sheet*, kamuva iphinde yaziwe nge-sitativende sesimo sezimali futhi ilinganisa isimo sezimali zebhizinisi lakho ngosuku oluthile. Isimo sezimali shiso inani lama-asethi uma eqhathaniswa nenani lezikweleti. Isikweleti ke sikhombisa inani lemali oyikweleta abanye abantu noma izikhungo zezimali. Kodwa, i-*balance sheet* iphinde isetshenziswe ukunquma ngokukhula kwemali noma inqubekelaphambili yebhizinisi lakho unyaka ngonyaka.

Ngokwejwayelekile uzoba ne-*balance sheet* ekuqaleni konyaka wezimali neyodwa ekupheleni konyaka bese usuyaziqhathanisa zombili.

Ku-Thebula 1 kunohlaka olulula olufushane lwamabili ama-*Statements of Financial Position* noma i-*Balance Sheets* ngosuku oluthile ekuqaleni konyaka zimali nangosuku lokuphela konyaka. Kukhonjiswe ama-asethi nezikweleti okumbalwa.

Asiqale ngokuchaza amatemu ambalwa.

- Ama-asethi yikho konke okusepulazini okungokwakho – ngengamathuluzi, ama-implimenti, imishini, izimoto, izakhiwo, imfuyo.

- Izikweleti yimali yonke oyikweleta izikhungo ezebolekisa ngezimali.
- Amatemu u-current, i-medium no-long kugondwe iminyaka ngqo – uma kugondwe ama-asethi kuqondiswa impilo yama-asethi ngokujwayelekile (mhlambe ukuthi angakuqhube isikhathi esingakanani). U-*Current* unyaka owodwa kuya kwemibili, u-*medium* ngokuvamile yiminyaka emihlanu kuya kweyishumi nangaphezulu.
- Uma kukhulunyuwa ngezikweleti kusuke kushiwu isikhathi onaso sokubhadala imali oyebolekile. U-*Current* noma futhi okwaziwa nge-short term kusho ukuba nonyaka kuya kwemibili yokukhokha imali oyebolekile, i-*medium term* ngokuvamile kuba iminyaka emihlanu kanti i-long term iminyaka eyishumi nangaphezulu.
- Leli temu elithi owner's equity noma capital employed yi-value yemali ephuma ephake-theni lakho oyitshale epulazini lakho ne/noma inzuzo ophinde ayitshala epulazini lakho.

Ukuze ukwazi ukwenza i-*balance sheet* udinga imininingwane. Okokuqala, udinga irejista ye-asethi okuwuhla lwakho konke okungokwakho kanye ne-value yemali yalezo mpahla. Okwesibili, kufanele ugcine amarekhodi afanele ezikweleti zonke.

Ngabe ibaluleke ngani i-*balance sheet*? Kuleyo balansi ungakwazi ukubona ukuthi liyakhula yini ibhizinisi lakho. Lokho kwensiwa ngokwenza umehluko phakathi kwemali yakho ekupheleni konyaka zimali nasekuqaleni konyaka zimali.

Kusibonelo sethu ukuphela konyaka kwaba ngomhla-ka 28 Febhuwari nokuqala komhla ka-1 Mashi 2017. Umehluko ngaleso sikhathi kwaba

u-R117 500 kususwe u-R1 090 000 (amafiga u-J) iphozethivu ngo-R85 000. Njalo kuba inani lokugcina kususwe inani elisekuqaleni. Uma imphumela imihle, njengakuso isibonelo sethu, kukhombisa ukuthi ibhizinisi lakho lithuthukile onyakeni noma lisesimeni esingcono, esiqinile noma esiphephile ekupheleni konyaka kunasekuqaleni. Lena akuyona inzuzo noma i-cash-flow, ngenye into. Iningi imali yakho oyitshalile ebhizinisi lakho ne/noma inzuzo ebhizinisi lakho na/noma uzinciphi-sinile izikweleti.

I-*balance sheet* ingaphinda ikhombise ukuthi ngabe ibhizinisi lakho liwile noma cha. Ukubona lokhu, kufanele ubale ireshiyo phakathi kwama-asethi nezikweleti. Kusibonelo sethu ireshiyo phakathi kwesamba sama-asethi kanye nesamba sezikweleti u-2.58:1.



Ithebula 1: Uhlaka olulula lwama-Statements of Financial Position ngosuku oluthile ekuqaleni konyaka wezimali nosuku ekupheleni konyaka.

	Ama-asethi	2017/03/01	2018/02/28		Izikweleti	2017/03/01	2018/02/28
	Ama-asethi amanje	R	R		Izikweleti zamanje	R	R
	Ibhange	25 000	-		Ibhange	-	5 000
	Imfuyo edayisekayo	100 000	125 000		Ukubambisana	40 000	30 000
A	Isamba	125 000	125 000	E	Isamba	40 000	35 000
	Ama-asethi e-Medium-term				Izikweleti ze-Medium-term		
	Ogandaganda	50 000	60 000		Imalimboleko yebhakhi	35 000	30 000
	Izimoto	40 000	60 000				
B	Isamba	90 000	120 000	F	Isamba	35 000	30 000
	Ama-asethi eSikhathi eside				Izikweletu zesikhathi eside		
	Umhlaba	1 000 000	1 000 000		Imalimboleko yoMhlaba	550 000	525 000
	Izakhiwo	500 000	520 000				
C	Isamba	1 500 000	1 520 000	G	Isamba	550 000	525 000
				H	Isamba sezikweleti + F + G	625 000	590 000
				J	Imali yakho H + J or D - H	1 090 000	1 175 000
D	Isamba sama-asethi	1 715 000	1 7650 000	K	Isamba sika-H + J	1 715 000	1 765 000
	A + B + C						

Ithimba labahleli

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IsiZulu,
IsiBhunu, isiNgisi, IsiTswana, IsiSuthu,
IsiSuthu saseNyakatho, nesiXhosa.

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

10 Ake sixoxe ngokujikelezisa izilimo

ukuthi ludala umonakalo omncane ekujikeleziseni izilimo uma kuqhathaniswa nesistimu yokutshala isilimo esifanayo unyaka nonyaka ensimini eyodwa.

- Ukujikelezisa izilimo, njengoba kuqhathaniswa neokulima isilimo esifanayo unyaka nonyaka, kunciphisa ukuhlaselwa yizilokazane nezinambuzane futhi inciphisa kakhulu ukusetshenziswa kwezibulal zinambuzane = kunciphisa umthelela wenhlalo yendawo + kunciphise izindleko zama-input + kukhulise namamajini enzulo.
- Izilimo ezithela imidumba – njengesoya, ubhontshisi, i-cow peas, amantongomane – kulo mjikeleziso ukulungisa inayithrojini bese uyibophela enhlabathini kwande ukuvunda futhi kunciphise isidingo se-synthetic fertiliser.
- Akubalulekile futhi ukuthi ukujikelezisa izilimo akuyona indlela yokunciphisa uguquko lwestimo sezulu. Ukunciphisa ukusentshenziswa kwe-synthetic fertilisers kuholela ekunciphiseni ukuphuma kwe-sisi phecelesi i-greenhouse gas.
- Impilo engcono yenhabathi ehlanganiswe nokugcineka kwamanzi=kusho isivuno esiphezulu isikhathi eside.
- Umjikeleziso wezilimo ngenye yezindlela ezilula kakhulu zokugcina umhlaba ukhiquiza.



Izimpawu zokhula olunenkani ngenxa yokusebenzisa ngokweqile amakhemikhali afanayo.

kakhulu isib. ummbila nojikanelanga bayizitshalo ezinezimpande ezipjulile kanti ukolo nobhontshisi unezimpande ezingajulile.

- Isitshalo esinamahlamvu andlalekile noma amancane?
- Yimaphi ama-herbicides azosetshenziswa, ngabe anesikhathi eside angadala umonakalo kusilimo esilandelayo kusistimu yomjikeleziso?
- Buza abanye abalimi ukuthi imiphi eminye imjikeleziso eyabasebenzela. ENyakatho neNtshonalanga abalimi bathanda ukulandela uNyaka 1: Ujikanelanga – uNyaka 2: Ezithela imidumba isib. ubhontshisi noma i-cow peas – uNyaka 3: Umjikeleziso wommbila. Isilimo ujikanelanga onezimpande ezipjulile ulandelwe izilimo ezithela imidumba ezinezimpande ezingajulile kakhulu ezifaka inayithrojini enhlabathini ngaphambi kokuba utshale isilimo esisebenzisa amanyuthriyenti kakhulu.
- Izilimo zomndeni ofanayo akufanele zitshalwe ngokulandelana ngoba zingabelana ngezinambuzane nezifo ezifanayo.

Yenza i-homework yakho futhi uzazi izitshalo zakho

Ukujikelezisa isilimo akuyona enye yezinto oyithathela isinqumo esisheshayo. Yisinyathelo esihlelwa ngokucophelela. Kujwayelekile ukuba iphogremu ithathelwe isinqumo iminyaka eminingi ngaphambili. Kuhlale kungumqondo omuhle njalo ukuba ubonisane nabaphathi bakwaGrain SA abaseduze nawe nabanye ochwepeshe mayelana nale-phogremu ezowufanela kahle kakhulu umsebnzi wakho wokulima.

Kubalulekile ukucabanga ngamafektha afana ne

- Yisilimo esinezimpande ezingajulile noma ezipjule

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Ngabe liyakhula ibhizinisi lakho?

(R1 520 000 (C) sihlukanise ngo-R590 000 (H) futhi kubekwe njenge reshiyo). Lokhu ke kusho ukuthi ku-R2,58 wama-asethi unezikweleti zika-R1,00. Isiphakamiso ukuthi le-reshiyo kufanele okungena ni kube u-2:1, okusho ukuthi ibhizinisi lakho lisesimeni esihle futhi alikho engozini ngokungakho.

Kubhekene nokuthi uma unezikweleti ezingi kunama-asethi, ukwenza isibonelo i-reshiyo u-0,5:1, ngakho ke ibhizinisi empeleni alisakwazi ukubhadala izikweleti. Lesi yiso sodwa isibonelo samareshiyo amanangi ungabala kusukela kule mininingwane eyethuliwe ku-balance sheet futhi umuntu ngamunye uxoxa indaba ehlukile yempumelelo yezimali zebhizinisi lakho.

Ukuze ibhizinisi lakho liphumelele kufanele lenze inzulo (njengoba kushiwo ku-income statement), ibhizinisi kufanele likhule njalo ngonyaka (ngokushiwu kwi-balance sheet) futhi kufanele ubo nokheshe ebhange lakho (I-cash-flow statement). Kodwa, ukwenza inzulo kuhlezi kubaluleke kakhulu. Uma ibhizinisi lingayenzi inzulo ngeke likhule, futhi kungenzeka ukuba ungabi nayo imali ebhange.

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