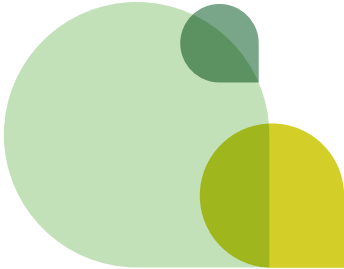


**Uhlolo lwemeko yelo
xesha yokuTshintsha
kweMozulu kwaneCandelo
lezoLimo kwiPhondo
leNtshona Koloni**

Isishwankathelo seZitya zoKutya kwanoKhusleko loKutya
Brief for Food Gardens and Food Security



IProjekthi i-SmartAgri

I-Smart Agriculture for Climate Resilience (i-SmartAgri ngamafutshane), iprojekthi yeminyaka emibini esekwe liSebe lezoLimo laseNtshona Koloni libambisene neSebe leMicimbi yezokusiNgqongileyo kunye noCwangciso loPhuhliso eNtshona Koloni, yathi yaphelelelwa ngoAgasti ka-2014. I-SmartAgri iphendulo kwimfuno yesicwangciso sempendulo esebenzayo yokutshintsha kwemozulu, ngokukodwa kwicandelo lezolimo keiPhondo leNtshona Koloni. NgoMatshi ka-2016, iLinge loPhuhliso lokutshintsha kwemozulu eAfrika, kwiDyunivesithi yaseKapa (i-ACDI ngamafutshane kwisiNgesi), ibambisene nentlangano yamaqumru, ziza kube zinikezela ngobume nesiCwangciso ZokuPhumeza eziza kuthi zikhokhelke ze zixhase ukudaleka kokumelana ngokukhawuleza kunye nokutshintsha kwemozulu kumafama, kwakunye noshishino lwezolimo kwiphondo jikelele. Le projekthi iza kunikezela ngolwazi olusebenzayo nolulolwenyani kunye nenkxaso, ze iphembelele amafama ngendlela ethi ibeke phambili ukuthabatha kwawo izigqibo, ikwaqinisekisa ukugcinkakala kwimqanaba lasekhaya.

Esi sishwankathelo silungiselelwe abo babandakanyekayo kwizitya zoluntu nezasemakhaya (kugxilwa kwimifuno) ze sijongane nesihloko zokhuseleko lokutya. Sishwankathela izinto eziphandiweyo ze-Status Quo Review of Climate Change and Agriculture kwiPhondo leNtshona Koloni. Olu phando luquka imingcipheko kunye neempembelelo ezikhoyo zemozulu, nendlela ekulindleleke ukuba ziguquke ngayo phantsi kokutshintsha kwemozulu. Sikwa sijongana nendlela imingcipheko neempembelelo zemozulu ezinokuthi zicuthwe ze zilawulwe ngayo. Oku kujongwa kwimeko yezoqoqosho lwePhondo kunye neenjongo zoPhuhliso loLuntu, kwakunye nokusetyenziswa ngenkathalo yezixhobo ezinqongopheleyo nezinexabiso.

Imixholo

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Izitiya zoluntu nezasemakhaya zokutya

Izitiya zokutya zasekwa kwimozulu nemihlaba eyohlukeneyo yasemakhaya. Uninzi lwazo lwenziwa kumhlaba onesanti nakulowo ungenazondlo zomzimba, okanye kumhlaba onamatye, nto leyo ithi yenze ukuba kube nzima ukulawula ezi zitiya nokuzuza amazanga angawo emvelliso. Amanzi okunkcenkceshela akholisa ukuveliswa ziinkqubo zikaMasipala (indawo exabisa kakhulu yokuvelisa amanzi), kodwa ayafumaneka nakumatanki akhongozela amanzi emvula, emachibini nakumanzi aphuma phantsi komhlaba. Amaxesha amaninzi, ukunkcenkceshela kwabantu ngokwabo kwakunye neendlela ezilula zokunkcenkceshela zithi zisetyenziswe. Kuba uninzi lwezitiya luye lugxile kwimifuno, iimeko eziyimfuneko zokukhula ziye zixhomekeke kwisilimo namaxesha okulima nawokuvuna. Iimeko zasekhaya nazo ziye zilawule iintlobo zezitshabalalisi kwanezifo ezinokubangela iingxaki.

Ngeli lixa izitiya ziqhubeka nokuba kho kulo lonke iPhondo leNtshona Koloni, yaye zisekelwa iinjongo ezohlukeneyo, zigxila kwiindawo ezinamazanga aphakamileyo okungabikho kokhuseleko o.k.u. iSixeko saseKapa kunye neendawo ezikumaZantsi oNxweme oluseNtshona, ummandla waseCeres nase-Witzenberg, ummandla wase- Swellendam naseRiversdale, i-Little Karoo, umZantsi Koloni kunye neendawo ezikumazantsi oMbindi-Karoo.

Ingaba imozulu iza kutshintsha njani kule mimandla kwixa elizayo?



Ukutshintsha kwemozulu eNtshona Koloni

Ngenxa yotshintsho lwemozulu kwihlabathi-jikelele, iNtshona Koloni ijongene nekamva elifudumeleyo. Oku kuthi kube sisigrogriso kwimveliso yokutya kweli phondo. Iinguqu kwiimvula zonyaka kwakunye neenguqu ekuhanjiseni ngamathuba athile, imijikelezo yamaxesho onyaka kunye neemvula ezimandla, zilindelekile, ubungakanani kunye nendlela ekujoliswe kuyo ezi nguqu azikacaci. Iprojekthi i-SmartAgri igxile kucwangciso nolungiselelo olufuneka kwicandelo lezoLimo khon' ukuze kujongwane nesi soyikiso kwiminyaka ephakathi kwelishumi (10) nengamashumi amane (40).

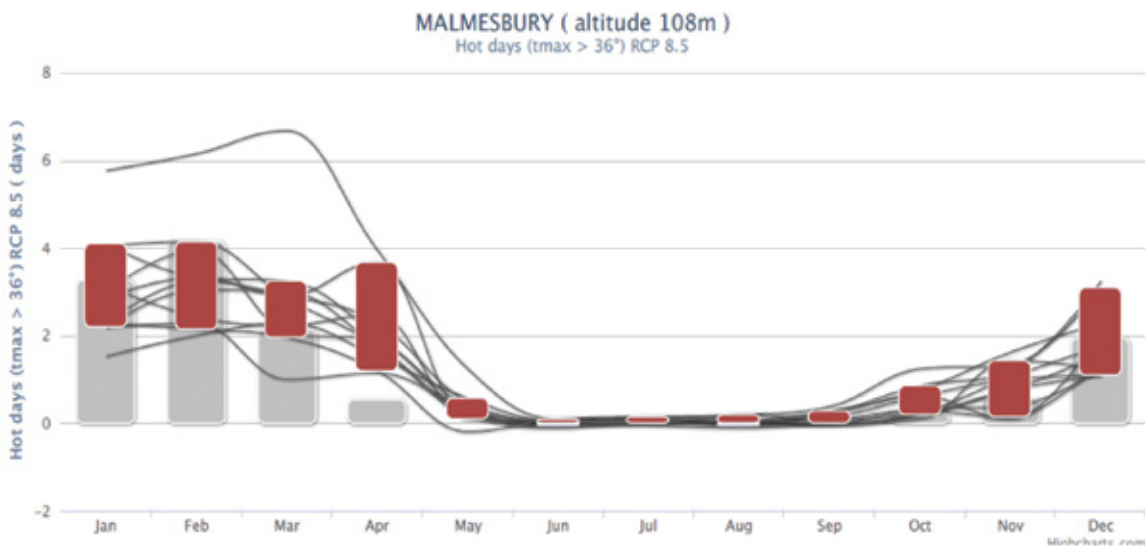
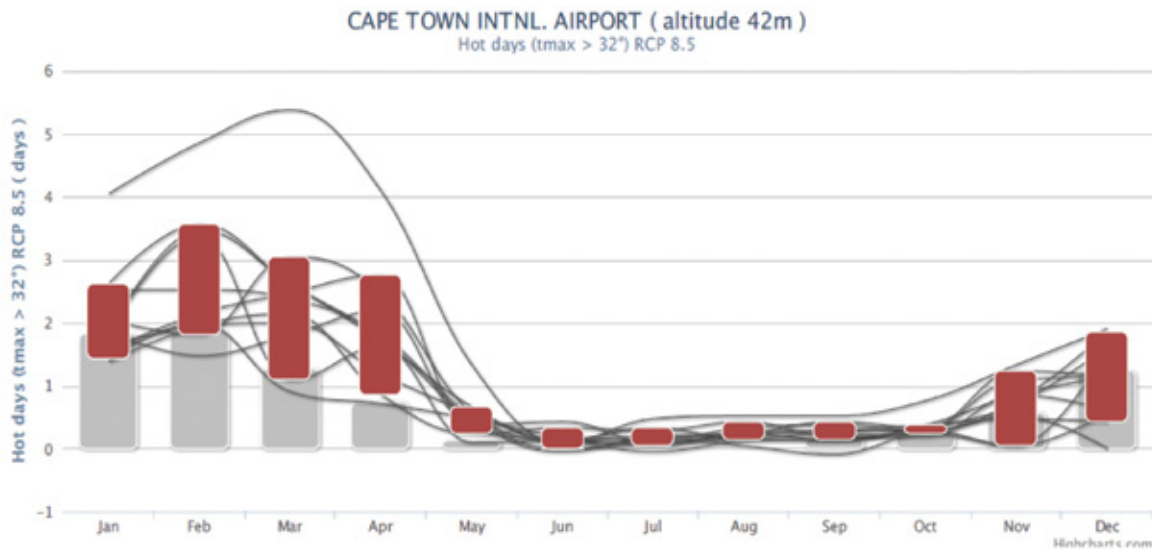
Kusenokwenzeka ukuba iindawo ezikwiNtshona yeli Phondo ziza kuthi gqolo ukufumana amazinga aphezulu obushushu ngaxeshanye nokwehla kweemvula zobusika. Utshintsho olubalulekileyo kwinkqubo yemozulu iquka ukutshintsha kwemizila yezaqhwithi ezizisa imvula kwimimandla ekumazantsi ngethuba lasebusika. Ukanti, iuthe leentaba kunye nolwandle liya kuthi likhokhelele kwiziphumo ezimandundu kumgangatho wasekhaya, ngokukodwa ekuneni kwemvula. Ngolo hlobo, kweminye imimandla, kuya kuthi kube ukwanda okanye ukuncipha kwamathuba okuna kweemvula. Kwiindawo ezisemazantsi eli Phondo, kukho iimpawu zemozulu ezibonisa ukwanda kwamathuba eemvula zonyaka. Omnye umba kukuba kho kotshintsho ekuneni kwemvula ngamathuba onyaka, ezithi zine kakhulu eKwindla okanye naseNtlakohlaza.

Ulwazi lwemozulu sele lubonakalisa ukuba kukho ubushushu obukhoyo (obumalunga ne-1.0 °C kule minyaka ingama-50 idlulileyo), ngokukodwa phakathi ukuya ekupheleni kwehlobo. Kukwakho nokwehla kwenani ezinethayo ngonyaka, ingakumbi eKwindla, kwanokwanda kweentsuku ezinethayo entlakohlaza nasekuqaleni kwehlobo. Okwangoku, akukabikho mizila ibonakalyo kwiimvula ziphelele ngethuba lasebusika okanye ngonyaka wonke.

Amaqondo obushushu aphezulu exa elizayo aphantse aqinisekiwe. Okona kunyuka kwawo kulindeleke phakathi elizweni ze okona kuphantsi kube selunxwemeni, nto leyo ibonakalisa ifuthe elivela kwiilwandle. Ukwenyuka okulindelekileyo kwamazinga onyaka kwisiqingatha senkulungwanane kusuka kwi-1.5 °C ukuya kwi-3 °C. Amaqondo aphezulu kunye nalawo aphantsi aza kuthi enyuse uxinzelelo lobushushu kwizityalo nesivuno.

INtshona Koloni inezikhukhula ezithe gqolo, imbalela kunye nexesha lobushushu obugqithileyo. Ezi meko zibe nempembelelo ebalulekileyo kumafama nakubalimi-zitya zokutya. Izikhukhula ziyona ngxaki iqhelekileyo, nethi ibangele owona monakalo kunye neendlelo zokubuyisela kwisimi esisiso. Ukwenyuka kwezehlo zeemvula kulindelekile phakathi ebusika nokunokuthi kwenyuse ubungozi bezikhukhula kwixa elizayo. Oku kuyaxhalabisa kakhulu ngokukodwa kwingingqi yee-Cape Flats, apho iimvula ezinkulu zithi zikhokhelele kwizikhukhula ebusika emva kokuna kwazo ngokugqithisileyo.

Amaxesha obushushu obugqithisileyo kulindeleke ukuba axhaphake. Umfanekiso 1 ubonakalisa amanani anyanga zonke eentsuku apho amaqondo obushushu athi adlule kuma 32 °C kwiSikhululo seeNqwelomoya saseKapa (nesimele ummandla obanzi weKapa), neentsuku apho athi adlule kuma-36 °C eMalmesbury, kwakunye neenguqu ezilindelekileyo kumanani afanayo esiphakathini sesigiqi senkulungwane. Oku kubonakalisa ukuba, phantsi kwale mozulu ikhoyo, kukho iintsuku ezishushu kakhulu kwiinyanga zokugqibela zehlobo, yaye phantsi kolu tshintsho lwemozulu, izehlo ezilolo hlobo ziza kwenyuka kwixa elizayo.



Umfanekiso 1. Ukwanda okubonakalayo (ngwevu) ze okulindelekileyo (bomvu) kwinani leentsuku ezishushu (ngaphantsi kwama-32°C) ngenyanga kwisikhululo semozulu esikwiSikhululo seeNqwelomoya saseKapa, kunye nenani leentsuku ezishushu (ngaphantsi kwama-36°C) ngenyanga eMalmesbury. Uqikelelo lolwexesha ukusuka kunyaka ka-2040 ukuya ku-2060, yaye lusekelezwe kwiindidi ezili-11 ezahlukeneyo zemozulu.

Ukhuseleko lokukutya kunye nenkqubo yako

UKhuseleko loKutya lungahlula-hlulwa lube zizintlu ezine: ukufumaneka kokutya, ukufikeleleka kwako, ukusetyenziswa kwako kwanokugcinakala kwako. ENtshona Koloni (nakuMzantsi Afrika uphela), ukutya kuhlala kukhona, nokuba kulinywa kwiPhondo okanye kuvele kweminye imimandla. Phantse wonke ubani kwiPhondo uthenga okona kutya kwakhe kuninzi kwiivenkile ezohlukeneyo, iimarike, abarhwebi abangengekho sesikweni kunye neendawo ezithengisa ukutya ukutya okukhawulezileyo nesele kuvuthiwe. Oku kuthetha ukuba umvuzo udlala indima ebalulekileyo ekukhetheni ukhuseleko lokutya kumgangatho lasekhaya. Ukufikelela kukutya okwaneleyo nokunezakha-mzimba ezohlukeneyo kuxhomekeke kumaxabiso ako. Amaxabiso othusayo okutya abangelwa kukwehla nokwenyuka kwamaxabiso aphesheya okutya kwakunye neentlekele zemozulu, ngokunjalo neemeko zeemarike zasekhaya ezikhokhelela ekuxhomeni kwaloo maxabiso. Isivuno esisezantsi sasekhaya sibangela ukuba amaxabiso emveliso enyuke ngokugqithisileyo, yaye oku kukhokhelela ekunyukeni kweendidi zokutya okusetyenziswa mihla le, okufana nesonka kunye nenyama yenkukhu.

UMzantsi Afrika upha 'kotshintsho lokondleka' apho inkcitho exhomis' amehlo kwanokungondleki kwabantwa abancinane kuthi kwenzeka, nokwanda kwamazinga okutyeba ngokugqithisileyo nobukhulu ngokwasemzimbeni kwabanye abantwana kwanabantu abadala. Ezinye zezi nguqu kwiindlela zokutya zibangelwa kukufudukela ezidolophini, ukwanda koobhaza-bhaza beevenkile kunye nobukho bokutya okugcinwa kungonakali nokunetyuwa eninzi, amafutha kunye neswekile ecoliweyo.

Uphando lwakutshanje olwanziwe ngokubanzi lokhuseleko lokutya emakhayeni, eMzantsi Afrika, kumakhaya, ngama-45.6 % abemi bafunyenwe bakhuselekile ngokokutya, ama-28.3 % asemngciphekweni wendlala, ze ama-26.0 % sele elamba (engakhuselekanga ngokokutya). Ngeli lixa iNtshona Koloni ichase awona maqondo aphakamileyo okukhuseleka kokutya (ama-57.9 %), ama-25.6 % abathabathi-nxaxheba kolu phando bebesemngciphekweni wendlala, ze i-16.4 % yasendlaleni. Iintlobo-ntlobo ezahlukeneyo zokutya ziyadingeka ukuqinisekisa ukufumaneka okwaneleyo kwezakha-mzimba. Ukutshintsha-tshintsha okuphantsi kohlobo lokutya nako kuye kwayanyaniswa nokungondleki kwanokukhula okuxhomi's amehlo. ENtshona Koloni, ama-28.2 % abathabathi-nxaxheba kolu phando abe neendidi ezimbalwa ezohlukeneyo zokutya. Ukohluka okukhulu kweendlela zokutya kukholisa ukwayanyaniswa nokwanda kophuhliso lwezoqoqosho.

Kukho uluvo lokuba ukungakhuseleki kokutya kuxhaphakile emaphandleni kunasezidolophini, kodwa uphando lubonisa ukuba oku akuyonyani. Kanti, ezidolophini, ukubakho kokutya kukholisa ukungabi nguyena ndoqo ophembelela ukungondleki. Abahluphekileyo ezidolophini bafumana iingxaki zethutyana kwanezingasombululekiyo zokufikelela ekutyeni – amaxesha amaninzi oku kwenzeka ngokuqhubekayo. Kuye kwafumaniseka ukuba ama-68 % oluntu oluhluphekayo eKapa awanalo ukhuseleko lokutya ngokugqithisileyo.

Indima yezitiya zoluntu nezamakhaya zokutya

Bekukho iphulo elimandla lokunceda uluntu kwanamakhaya ukuba aseke izitiya zokutya, ngokukodwa kwiindawo ezinabantu abahlala kwiindawo ezixineneyo ezidolophini, kwiindawo ezisondele kuzo, kunye nemimandla esemaphandleni nethwaxwa yindlala. Ezi zitiya zijoliswe ekufakeni igxalaba kukhuseleko lokutya kumakhaya akwiindawo ezihluphekileyo. Uninzi lwezi projekthi zezitiya zoluntu zixhaswa ngamaSebe kaRhulumente wePhondo kwanalawo oRhulumente weSizwe, imibutho engekho phantsi koRhulumente kwanemibutho esekelezwe kuluntu. Nangona kunjalo, kukho ukwanda kwenani lamakhaya anemivuzo ephakathi athi akhethe ukwenza izitiya zokutya njengenxalenye yokuzikhethelela indlela esempilweni yokuphila, ingakumbi eNtshona Koloni, apho bakhangeleka besininzi.

Uphando lubonise ukuba izinga lokuthabatha inxaxheba kulimo lwasezidolophini ngamakhaya ahluphekayo eKapa (i-5 % yamakhaya ngo-2007) ne(2 %) kwiPhondo lisengaphantsi xa kuthelekiswa namanye amaPhondo (umz. Ama-64 % eMpuma Koloni) nama-22 % ezinye izixeko ezisemaZantsi eAfrika. Ezinye zezizathu ezibangela ukuba izitiya zokutya zilinganiselwe kwiindawo ezihluphekayo ziqhuka imiba yokwabiwa kwemihlaba, ukunqongophala kwezithuba ezaneleyo zokulima, ubusela kunye nobundlobongela bamaqela oonqevu, ukunqongophala kwexesha, ukunqongophala koncedo lwezimali zokuthenga izinto zokulima, kwanokunganeli kweendlela zokufikelela kuqeqesho nenkxaso.

Uncedo lwezitiya zokutya ekutyeni kwamakhaya nakukhuseleko lokondleka ludinga uphando lobuchule novavanyo ngokuphathelene neemeko zasezidolophini kwanezo zasemaphandleni. Ukanti, kukhangeleka ngathi olona ncedo luphambili luxhomekeke ekunikezelweni kwemifuno esempilweni nefreshi nekwanexabiso eliphezulu lesondlo (umz. Ispinatshi), njengezincedisizokutya okuthengwayo, kwakunye nolwazi olubanzi lokubaluleka kweendidi ezahlukeneyo zokutya kwanesondlo. Kwiimeko apho kuveliswa imifuno engaphezulu kunemfuneko, ingathengiselwa abamelwane okanye iimarike ezingekho sikweni, ngokwenza njalo kunikezelwa ngomthombo owongezelekileyo womvuzo wekhaya.

Impembelelo yokutshintsha kwemozulu kwimveliso yemifo kwizitiya zokutya

Ukutshintsha kwemozulu kuya kuba nempembelelo ethe ngqo kwizitiya zokutya ngezixhobo ezidingekayo (umhlaba, umhlaba wokulima, amanzi), izigrogriso eziguqu-guqukayo zezitshabalalisi-sivuno kunye nezifo ngethuba lokulinywa kwezityalo kwanelokuvuna, izigrogriso eziguqu-guqukayo zezehlo zemozulu eqatseleyo, kunye nokunyuka kwamazinga olwandle (kwindawo enye).

Kwiindawo ezininziezisezidolophinikukhoukukhuphisana okukhulungomhlabaphakathikokwakhiwa kwezindlu kwanabaphulisi bawo. Iindawana zomhlaba ezisetyenziselwa ukulima izitiya zikhulisa ukuba nesanti okanye amatye yaye zingachumanga, yaye ukulima imifuno phantsi kweemeko ezinjalo kungumceli-mngeni kakhulu. Kwixa elizayo, ukufikelela kumhlaba ochumileyo wokulima kuya kusiba nzima njengokuba ixabiso lomhlaba lisiya linyuka ngenxa yokunqongophala kwawo, yaye umhlaba olungele ukulima kwiindawo ezingachatshazelwa kakhulu ngendlela engeyiyo kukutshintsha-tshintsha kwemozulu kuza kuba nzima ukuba zifikeleleke kuluntu oluhluphekileyo.

Imfuneko yomhlaba ochumileyo nowongezelelekileyo (ngomgquba nangezichumiso ezithengwayo) kulindeleke ukuba ikhule kunye nokunyuka kwamazinga obushushu. Imhlaba efudumeleyo yokulima ilahlekelwa kukucuma kwayo ngokukhawuleza kunaleyo ipholileyo. Isigrogriso esongezelelekileyo kwimihlaba yokulima kukukhula okulindelekileyo kwizehlo zeemvula ezimandla, nezinokuthi zikhukhulise umhlaba ongaphezulu. Ulawulo olululo lomhlaba wokulima kwanokugcinwa kwawo, kuquka nezenzo ezifana nokugquma ngesigcina-kufuma, yindlela ebaluleke kakhulu yokumelana nokutshintsha-tshintsha kwemozulu.

Phantse kwiNtshona Koloni jikelele, imithombo yamanzi sele ishukuxekile. Ukutshintsha-tshintsha kwemozulu kulindeleke ukuba kukhulise oku kushukuxeka ngokuthi kwandise ukuguquka kwamanzi abe ngumphunga, iimvula ezandileyo nezahlukeneyo kunye nokwanda kwebango lamanzi ezityalo. Abalimi-zitiya zokutya eNtshona Koloni sele bexhomekeke ekunkcencsheleni ngeendlela ezohlukeneyo, yaye kuza kuya kusiba nzima ukuba baxhomekeke kwiimvula ezicingekayo. Umyinge wamanzi adingeka mihla yonke ngesityalo ngasinye uza kunyuka. Iindlela zokovelisa kufuneka zigxile ekugcineni ukugqunywa komhlaba wokulima. Oku akukhuseli kuphela umhlaba wokulima ngendlela ebonakalayo ekukhukhulisweni kwawo ze kufake igxalaba kulawulo lokuchumisa, koko kukwanciphisa ukuguquka kwamanzi asemhlabeni abe ngumphunga.

Omnye weyona mingeni inzima nejongene nezitiya zokutya yindlela yokuthintela nokulawula ukuqhambuka kwezitshabalalisi kwanezifo. Oku kuquka izitshabalalisi zangaphantsi komhlaba (umz. imibungu, iintuku), kwanezitshabalalisi zangaphezu komhlaba (iinyekevu neenkumbi, iminyiki,

amangolwane, iintwala zemithi, oqongqothwane, phakathi kwezinye). Izifo nazo zingabangela umonakalo omkhulu, ofana nokungunda, iindawo ezimnyama kunye nezinye izifo ezihambelana nokungunda. Imifuno ekholisa ukulinywa efana neetapile neetumata iba sisisulu kwizigrogriso ezininzi.

Ukwenyuka kwamaqondo obushushu, utshintsho kumyinge weemvula nokuna kwazo ngamaxesha athile onyaka, nokufuma okwandileyo kumaxesha abalulekileyo, ezibangelwa kukuguqu-guquka kwemozulu, zingabukhuthaza ubukho bezitshabalalisi, izifo kunye nokhula, ze zikhokhelele kwilahleko yesivuno. Ubusika eNtshona Koloni bumanzi enamaqondo aphakathi obushushu, yaye akufanele ukukhula kwezifo ezohlukeneyo zezityalo. Amazinga aya ngokukhula asebusika kulindeleke ukuba avumele ezinye zezifo ukuba zibe yingxaki enkulu. Kukwacetyiswa nokuba iimvula ezina ngamandla ngexesha lasekwindla nasekuqaleni kwehlobo ziza kuba nefuthe elikhulu ekugquqgiseni kohlula, yaye izitshabalalisi kunye nezifo zinganda ngokukhawuleza ngeli thuba. Ukongeza, ezinye zezitshabalalisi nezifo kungalindeleka ukuba zibe kho kwiindawo apho zingekabi kho khona, ze ezo zingekabonwa eNtsona Koloni, zifudukele apha ukusuka kwiindawo eziseMntla-Mpuma yoMzantsi Afrika njengoko imozulu itshintsha. Amaxabiso anxulumene nokhuseleko lwezityalo kungalindeleka ukuba enyuke.

limeko ezinobushushu nezifumileyo nezibangelwa kukutshintsha kwemozulu, zingabangela isivumo esivuniweyo nesifreshi, ukuba sibole ngokukhawuleza. Oku kuyingxaki ingakumbi kuluntu oluhluphekayo nolungakwazi kufikelela ngokupheleleyo kwiindawo nezixhobo zokubandisa.

Omnye weyona mingcipheko ibalulekileyo yemozulu etshisa ngokugqithisileyo kwizitya zokutya, ziimvula ezina ngamandla nezikhukhula, ezikholisa ukuhamba kunye nemimoya ebhudla ngamandla. Oku kuhambelana kunye nemiba emininzi ethi iquke amazing ephezulu amanzi kwezinye iindawo (ingakumbi kwii-Cape Flats), okunqongophala kwezixhobo zokususa amanzi, kwiindawo zoogob' ityholo, kunye nokungakhusleki kwezinye zezi zityalo apho kungekho mithi yaneleyo kunye nezinto zokugquma izityalo. Ukutshintsha kwemozulu kukwakhokhelela ekunyukeni kwamazinga okuphakama kolwandle kwezinye iindawo. Imozulu elindelekileyo ibonisa ukuba zininzi izehlo zeemvula ezina ngamandla ezinokulindeleka kulo lonke eli Phondo kwixa elizayo.

Enye indawo eqwalaselwa kakhulu sisigrogriso zokunqongophala kwamanzi ngethuba lembalela, okanye ukwenyuka kwexabiso lamanzi okungqamene nokunqaba okulindeleke kweleNtshona Koloni. Ngokukodwa kwiindawo eziNtshona zeli Phondo, ukwehla kweemvula kulindelekile, nokuthi, kuhambelane namaqondo obushushu abangela ukuguquka kwawo abe ngumphunga, yaye oku kungacutha ukunikezelwa kwamanzi kkubantu abasemaphandleni nasezidolophini. Kuza kulindeleka ukuba ixabiso lamanzi anikezelwa ngumasipala linyuke, nto leyo iza kuchaphazela abanini-zitya abaninzi zokutya, nabaxhomekeke kulo mthombo wamanzi.

Ixabiso lamanzi liya lisiba ngumngeni kwezinye iindawo apho ungcoliseko ezidolophini luchaphazela amanzi aphantsi komhlaba.

Amaqondo obushushu aphezulu kunye neentsuku ezandayo zemozulu etshisa ngamandla ziya ziqheleka yaye ziqatsela zilindelekile kwixa elizayo. Oku kuthi kube sisigrogriso kwimiba emininzi yolimo lwemifuno, njengokuba kuphazamisa ixesha nesantya senkqubo yokukhula kwanokuvelisa (umz. ukuvundiswa kwembewu, ukusetyenziswa komgquba, ixesha lokuvuna). Ezinye zeemveliso, ezifana neetumata, nazo zingaba sisisulu sokutshiswa lilanga xa amaqondo obushushu ephezulu ngamandla. Ngokuqhelekileyo, ixabiso lesivuno likholisa ukuchaphazeleka ngendlela engeyiyo yaye alithabathi xesha lininzi emva kokuvuna.



Lintshukumo eziphambili ezinokusetyenziswa ngabalimi-zitya zokutya

Ziziphi iintshukumo eziphambili ezinokuthathwa ngabalimi-zitya zokutya ukuze bakwazi ukujongana ngokukuko kunye nezigrogriso ezikhoyo kwaneenguqu ezilindelekileyo zemozulu? Ezi zinto ziphambili zingakhankanywa:

1. Lintshukumo ezizezona zilungele ukuulawulo lwezixhobo okusebenza umhlaba wokulima: Indlela esebenzayo yolawulo lomhlaba wokulima ingafanelana yaye ibe nenzuzo, yiloo nto ukusebenza ngendalo kunikezela ngokomelela phantsi kweemeko ezinzima. Oku kuthetha ukuba uqweqwe lwento elungelelanisiweyo (isigcina-kufuma emhlabeni, okanye umgquba owenziwe ngokutya okulahlweyo nezilimo ezidala) kufuneka zisoloko ziwugquma umhlaba. Oku kunikezela ngezakhazimba, kunyusa ukutshintsha kwezinto ezakhayo zebhayoloji emhlabeni wokulima (umz. izinto eziphilayo ezinokwandisa ukuchuma komhlaba zikwakhusela kwizitshabalalisi), ze zikhokhlele kwinkcitho engephi yamanzi athi alahleke ngenxa yokujika kwawo abe ngumphunga. Ukuveliswa kwezinto eziphila emanzini kuyafaneleka kwiindawo ezihluphekayo kuba kuxabisa kancinane. Omnye umba obalulekileyo kukusekwa kweenkqubo zokuhambisa amanzi (nditsho nenkqubo elula ingasebenza) namalungiselelo angawo omhlaba wokulima, phambi kokuba kulinywe isivuno.

2. Ulawulo lwezitshabalalisi, izifo nokhula. Iinzuzo zokuhanjiswa kwesivuno esihle, njengendlela yokulawula isivuno, izifo kunye nokhula, zaziwa kakhulu. Ukongeza, abatyali kufuneka bandies ukuhlolwa kwezitshabalalisi nezifo ukuze kuthatyathwe amanyathelo kwangethuba, ukunqanda ukuqhambuka kwazo. Amarhamncwa, (afana ladybugs) kufuneka zikhuthazwe ukugcina isivuno zilungelelene. Kwezinye iimeko, kungayimfuneko ukusebenzisaiindlela ekujoliswe kuzo zeekhemikhali, yaye ngoku kukho iimveliso ezilungileyo ze-oganikhi nezikhoyo ukulungiselela le njongo. Nasiphi na isitshabalalisi okanye isifo esitsha kufuneka sixoxwe kunye namagosa asebenza ngazo, imibutho engekho phantsi koRhulumente kakunye naleyo yasekuhlaleni esebenza kule ngingqi.

3. Sebenzisa izixhobo ezingezizo zikamasipala nezigcinakalayo zamanzi ze usebenzisa iindlela ezilula zokuncenkceshela. Izitya zokutya zingancenkceshelwa ngokusebenzisa amatanki ukugcina amanzi emvula, kungcono xa edityanise nophahla lwendlu. Ezinye izixhobo ezinokusebenza nezigcinakalayo zamanzi asemgangathweni kufuneka ziphandiwe, umzekelo amanzi 'alubhelu', ukuba nje acoceke ngokwaneleyo ukuba angasetyenziselwa imifuno. Umgangatho wamanzi

kufuneka uqwalaselwe ngenkathalo kwiindawo apho oku kuba yingxaki khona. Amanzi kufuneka asetyenziswe ngokugcinakalayo kangangoko. Iindlela ezilula ezingoozenzele zokunkcenceshela zinganikezela ngomlinganiselo nje ofanelekileyo wamanzikwisityalo ngasinye kumgangatho wohlaba, ngokuhambelana nemfuno zaso zemihla ngemihla. Ezi zingenziwa ngokusebenzisa iibhotile zeplastiki kunye neenkonkxa. Ukufaka iminatha yomthunzi nako kuyasebenza ekunciphiseni iimfuno zamanzi ezityalo.

4. Zama ukunqanda umonakalo ubangelwa yimozulu emandla. Izitya zokutya kufuneka zikhuselwe ekukhukhulisweni ngazo zonke iindlela kwindawo ethile. Kwezinye eimeko, abahlali kufuneka bakhankasele izixhobo zikuhambisa amanzi kwindawo ebanzi. Ukuba oku akunakwenzeka okwangoku, kungakhiwa izakhiwo ngaphantsi nasemacaleni sitya ukuhambisa amanzi angeyomfuneko, ingakumbi apho oku kuthi kudibane namaqondo aphezulu amanzi aphantsi komhlaba. Ukuba oku kuyenzeka, tyala imithi eyomeleleyo emacaleni esitya eza kuthi isebenze njengezikhuseleli nokunciphisa ukuhamba kwamanzi azibalekelayo. Iminatha yomthunzi ingasebenza ngeyona ndlela ukukhusela uxinzelelo lobushushu kunye nokutshisa kwelanga, ze kunciphise amanzi aza kuthi adingeke, kodwa oku kungandisa izitshabalalisi nezifo ekuza kufuneka ukuba ziqwalaselwe ngenkathalo.

5. Dala indima eyiyo ekuzuzeni **ulwazi** nasekunxibelelaneni rhoqo kunya nabo banokuba luncedo, umz. amagosa asebenza ngoku, ezinye ii-arhente zikaRhulumente, imibutho engekho phantsi koRhulumente, imibutho yasekuhlaleni, kunye namalungu anamava kuluntu. Khuthaza la maqela enkxaso kunye noomalulelane ngabanye ukufumana likhulu malunga nokutshintsha kwemozulu, nangendlela ekulindeleke ukuba kuchaphazele ngayo indawo ohlala kuyo, kwanezityalo ozikhulisayo.

Ulwazi oluthe vetshe ngazo zonke ezi mpendulo namathuba, kwanezinye, lungafumaneka kwi-portal yolwazi yakwaGreenAgri, eyile: <http://www.greenagri.org.za>

lintshukumo eziphambili zikaRhulumente, imibutho engekho phantsi kwakhe kunye naleyo iyeyasekuhlaleni

linkqubo eziqalwe neziqhutywa zii-arhente zikaRhulumente, imibutho engekho phantsi kukaRhulumente, naleyo iyeyasekuhlaleni ukuxhasa uphuhliso lwezitya zokutya kweli Phondo zidlala indima ekuncedeni uluntu oluhluphekayo ukuba lube nokhuseleko lokutya ze londleke. Kukho imingeni emininzi ejongene nezi nkqubo yaye ukutshintsha kwemozulu akukholisi kuqwalaselwa njengomba ophambili. Ukanti, impendulo eyimpumelelo kutshintsho lwemozulu kwicandelo lezolimo eNtshona Koloni, akufuneki ukuba lungazinaki izigrogriso zokutshintsha kwemozulu abathi abatyali-zitya zokutya bajongane nazo. Abaxhamli bangabonwa njengeqela elisenokwenzakala, yaye xa kunjalo, banelungelo lokuxhotyiswa ngokubhekiselele ekubeni bakwazi ukumelana nokutshintsha kwemozulu.

Eyona ntshukumo ibalulekileyo kaRhulumente, imibutho engakho phantsi kwakhe kunye naleyo yasekuhlaleni, kukuqeqesha abasebenzi babo ukuze baqonde ngcono ubume bokutshintsha kwemozulu, nendlela eba sisigrogriso ngayo kwizitya zokutya, nakuluntu oluzisebenzisayo. Olu qeqesho kufuneka lugxile kwimeko o.k.u. ezidolophini okanye emaphandleni, amaqela eendawo ezahluke ngokwemozulu kwimeko yolimo, izitya ezihlakue ngokobukhulu nezineemveliso eyohlukeneyo. Okwesibini, ubume bezitya nokusebenza kwazo kufuneka kubandakanye uvavanyo lokutshintsha kwemozulu, kwanamanyathelo ekufuneka ethatyathiwe kwimeko ethile ukunikezela ngokhuseleko. Izenzo ezininzi ezilungileyo, ezifana nokugquma umhlaba kwanokusetyenziswa komgquba, okanye ukufakelwa kwamatanki amanzi emmvula, sele sisetyenziswa. Nangona kunjalo, kunzini okusenokwenziwa. Okokugqibela, uRhulumente, imibutho engekho phantsi kwakhe naleyo yasekuhlaleni kufuneka ibambisane ngakumbi, ze yabelane ngamava eyona misebenzi ilungileyo. Umyalezo kawonke-wonkekufuneka udluliswe ngemfuneko yokuseka izitya zokutya ezikwaziyo ukumelana nokutshintsha kwemozulu zikwanakho nokuzimela.

Kwimeko yokungabikho khuseleko lokutya kwanenkqubo ephambili zokutya, engasebenzi kakuhle kungokunje kwiindawo ezihluphekayo, ukuqonda okungcono kokunxulumana phakathi kwemveliso yasekhaya yezorhwebo kunye naleyo yokutya kuyafuneka, imfuneko ulimo (kuquka nezitya zokutya), kunye nenkqubo yokutya. Indlela yokusebenzisa iinkqubokufuneka isetyenziswe ukuqinisekisa ukuba impendulo epheleleyo kwizigrogriso zokutshintsha kwemozulu kunye nempembelelo yako ijongwa ngokubambeneyo, ze ingalinganiselwa kwizisombululo zobuchwepheshe obujongene nendawo kwiinkqubo ezohlukeneyo zolimo.

Phantsi kweemeko ezilungileyo, izitya zokutya zingaba yinto ebalulekileyo yokhuseleko lokutya phantsi kweemeko zokutshintsha kwemozulu, kodwa oku akunakusoloko kuqhubeka. Ekufudukeleni ezidolophini eMzantsi Afrika, kubalulekile ukuvuma ukuba izitya zokutya akufuneki zibe zisona sisombululo sokhuseleko lokutya emakhayeni. Kukwabaluke kakhulu ukukhusela umhlaba kwiindawo ezikufuphi nezikwimida yesixeko neyedolophu, yokuveliswa kwemifuno. Ezi ndawo zolimo ezikufuphi needolophi zidlala indima ibalulekileyo kwiinkqubo zokutya gokuthi zinikezele ngokutya okufikelekayo nokunesondlo kumakhaya ahluphekileyo ezidolophini.

Qhagamshelana nathi:

Ukufunmana okuthe vetshe nokuthumela izimvo zakho okanye imibuzo, nceda usityelele apha:
www.greenagri.org.za



Olunye upapasho kolu luhlu

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Brief for the Grain and Livestock sector: Rûens

Brief for Mixed Farming and Regional Commodities: Little Karoo

Brief for Dairy and other Regional Commodities: Southern Cape

Brief for the Livestock sector: Central Karoo

Brief for the Citrus sector

Brief for the Table Grape sector

Brief for the Deciduous Fruit sector

Brief for the Olive sector

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