

Ukulima Ukotapheya



ARC-Institute for Tropical and Subtropical Crops

Cultivating Avocado - Zulu



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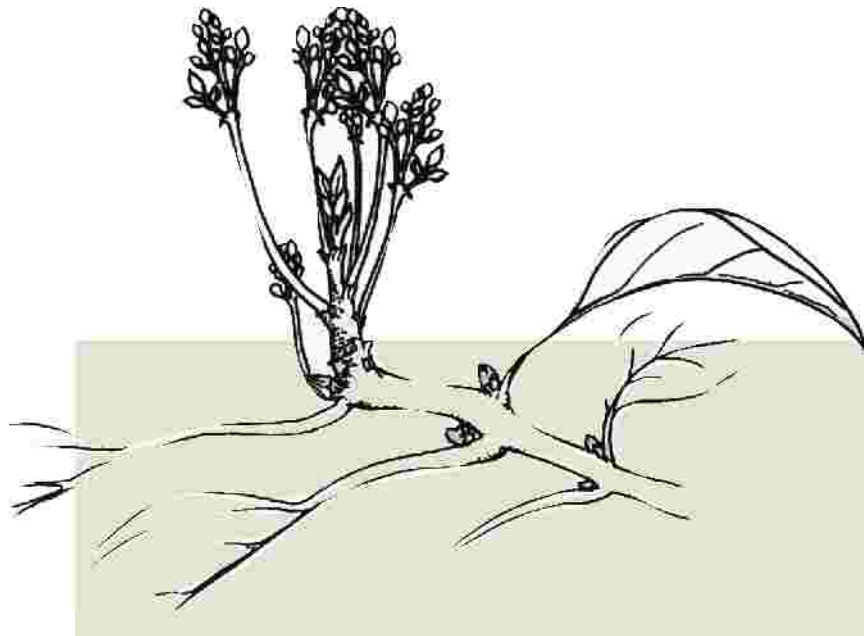


Ukulima ukotapheya

Ukotapheya unamaphrotheni amaningi, amakhabhohydrorethi kanye namaminerali bese kuthi uwoyela ube nama-fatty esidi a-polyunsaturated. Isithelo esisodwa seFuerte sinikeza amaphesenti anele anikeza ukudla okunebhalansi emzimbeni.

Okwelekelela umthengi

Ikhwalithi yezihlahla ezitshalwe engadini yizona ezikhomba impumelelo yebhizinisi. Izihlahla ezinganakekelwe engadini ngeke zichume kahle, ngisho umthengi angazinakekela kanjani kodwa zingasheshe zife.



Izitsha zokutshala kanye nokukhula kwezimpande

- Ubungako bezitsha zokutshala lapho kuzokhula khona izitshalo, zibalulekile.
- Uma izitsha zincane, lokho kusho ukuthi ukunakekela okukhulu kuyadingeka emva kokutshala izihlahla ensimini ukuqinisekisa ukuphila kwazo.
- Uma izitsha zinkulu, izimpande zizokhula kahle bese konke kuba yimpumelelo.

Ukukhula kwazo

- Ubumba luvimba izimbobo zokukhipha amanzi ezitsheni zepulasitiki.
- Ingxube yenhlabathi elula yenza amanzi adlule kalula bese yenza kube lula ukukhula kwezimpande.
- Uma ingxube ilula, inhlabathi iguguleka kalula ezimbotsheni zokukhipha amanzi, okwenza izimpande zigcine sezihleli obala.

Ifolishi

- Ifolishi lesihlahla likhombisa ukuphila kwaso. Isihlahla esinempilo siyacwebezela sibe nombala oluhlaza ngokujijile.
- Amaqabunga angakhekile kahle noma angenambala ayisibonakaliso sokuthi isihlahla asikhulanga kahle ngesikhathi sisesendaweni yezihlahla. Kungabuye kukhombe isifo esithile.
- Amaqabunga kumele ahlolwe ukuze kubhekwe izilokazane kanye nanoma yiluphi uhlobo lokukhubazeka.

Ukuhlanganisa ihlumela

- Noma yikuphi lapho kuhlangukhona khona ihlumela, uma kubonakala kukukhulu kukhombisa ukungafaneleki.
- Isihlahla esisezingeni eliphezulu kumele sibe nokuhlangana okuhle, kube kuncane noma kungabi bikho okungajwayelekile esiqwini, noma ngaphezulu noma ngaphansi kokuhlanganisa ihlumela.

Izidingo zesimo sendawo

Izinhlobo ezintathu ezaziwa kakhulu zikakotapheya, leyo naleyo nhlobo iba nohlobo oluthile lwesimo sendawo eludingayo ukuze ikhule kahle.

Uhlobo lwe-West Indian ludabuka emswakameni ezindaweni eziphansi ezitropical zaphakathi neMelika, ziyakwazi ukutshaleka endaweni enokushisa nomswakama ebuye ibe nezimvula eziningi zasehlobo. Njengazo zonke izinhlobo zokotapheya lolu aluzwani nesomiso kanye nesithwathwa (isilinganiso sezinga eliphansi lokushisa elingu-1.5 °C). Okuyilona zinga lokushisa lokukhula elingama-25 kuya kwangama-28 °C. Umswakama okungenani kumele ube ngaphezu kwama-60%.

Uhlobo lweMexican races ludabuka ezindaweni ezibandayo ezisubtropical zamahlathi aphakeme aseMexico kanti izihlahla esezikhulile

zikhwazi ukumela amazanga okushisa amane kuya kwama-5 °C. Akumele zitshalwe ezindaweni ezinesithwathwa ngenyanga ka-Agasti noSeptemba, ngenxa yokuthi izimbali zilinyazwa kalula yisithwathwa. Izinga lomswakama elingama-45 kuya kwama-60% lanele. Okuyilona zinga lokukhula ama-20 kuya kuma-24 °C.

Uhlobo lweGuatemalan ludabuka ezindaweni ezi-tropical eziphakeme zaseGuatemala kanti zidinga ukuphola, isimo esi-tropical ngaphandle kwamazinga okushisa amakhulu noma umswakama. Izihlahla zingamelana nesithwathwa esincane, esiphansi ngamazinga ama-2 °C, kepha izimbali ziyazwela esithwathweni. Amazinga okushisa aphezulu athi awabe ngama-38 °C, ikakhulukazi uma ehlangene nomswakama ophansi angehlisa izinga lezimbali nelezithelo. Kudingeka izinga lomswakama elingama-65 % nangaphezulu.

- Uhlobo lweFuerte, yilona olujwayeleke kakhulu eNingizimu Afrika, luyinhlanganisela yohlobo lwe-Mexican kanye ne-Guatemalan kanti lubekizela kakhulu (ikakhulukazi uma kubanda) kunohlobo lwe-Guatemalan.
- Okuyilona zinga eliphansi lokushisa lokukhula elithi alibe li-4 °C, kepha asikho isithwathwa esibekizelekayo ngesikhathi sokuqhakaza kwezimbali.
- Okuyilona zinga elamukelekile lokushisa, lokukhula elingama-20 kuya kuma-24 °C, kuthi ukushisa okukhulu, ikakhulukazi ngesikhathi sokuqhakaza kwezimbali asibekizeleleki kahle.
- Loluhlobo luzwela kakhulu kunezinye ezimweni zezulu ezingezinhle ngesikhathi sokuqhakaza kwezimbali. Ukushisa, nezimo zesomiso zingenza isivuno singabi sihle ngenxa yokwehla kwezinga lezithelo nezimbali.

Amazinga okushisa

- Izimo ezipholile ezi-suptropical zibe namazinga okushisa angama-20 kuya kuma-24 °C.
- Isithwathwa esincane singabekizeleka, ngaphandle kwesikhathi sokuqhakaza kwezimbali kanye nokulunga kwezithelo (ngo-Agasti noSeptemba).
- I-Fuerte, ukushisa okufanele kwansuku zonke ngesikhathi sokuqhakaza kwezimbali kumele kube ngaphezu kwe-18,5 °C, kepha nakanjani abe ngaphezu kwe-13 °C.

Umswakama

- Izinga lomswakama eliphezulu lidingekile, ngoba lehlisa isimo sokuphatheka kabi (ikakhulukazi ukushisa okukhulu), okuyikona okubamba iqhaza elikhulu ngesikhathi sokuqhakaza kwezimbali kanye nokulunga kwezithelo.
- Izindawo ezinenkungu zalapha eNingizimu Afrika yizona ezikulungele lokhu. Umswakama kumele ube ngaphezu kwama-50 % ngehora le-14:00.

Imvula

Zonke izinhlobo zokotapheya ezilinyelwa ukudayiswa lapha eNingizimu Afrika azikwazi ukumelana nokungabi bikho kwamanzi. Ngonyaka kudingeka isikali samanzi esingaphezu kwe-1000 mm, futhi okumele atholakale kahle, ngaphandle kwangesikhathi sesomiso okunguJuni noJulayi. Nakuba kunjalo izindawo eziningi ezikulungele ukutshala ziba nesomiso ngesikhathi sokuqhakaza kwezimbali, okwenza kube nesidingo sokunisela.

Umoya

Ukotapheya uba namagatsha antekenteke alinyazwa kalula umoya. Iningi lezisihla ezehlisa izinga likakotapheya lidalwa umonakalo owenziwa umoya.

Uma kubhekwa ngokwesimo sendawo, okuyizona zindawo zokutshala ukotapheya ozotheniswa yilezo ezipholile, ezi-subtropical engxenyeni yaseMpumalanga kanye neSifundazwe saseNyakatho kanye naKwaZulu-Natali lapho izinga lokuna kwezimvula liphezulu nenkungu ikhona.

Izidingo zenhlabathi

Isihlahla sikakotapheya esinempilo siba nezimpande ezingangenisa umoya ukushona phansi okuyimitha elilodwa. Ukubola kwezimpande kungavela ngokushesha enhlabathini eminyene. Kubalulekile ukubheka kusenesikhathi ukulunga kwenhlabathi ekulimeni ukotapheya.

Izindlela zokuhlola inhlabathi

Inhlabathi ingahlolwa ngokumba imigodi eyimitha nohhafu ukuya phansi ezindaweni lapho kunezinhlobo ezahlukene zenhlabathi. Noma ngabe inhlabathi engaphezulu ibukeka sengathi eyohlobo olulodwa, kubalulekile ukuthi kumbiwe okungenani umgodi owodwa ngehektha.

Ezindaweni eziyizintaba imigodi kumele imbiwe ezindaweni ezahlukene ukuze kutholakale kahle uhlobo lwenhlabathi. Isibonelo, kubalulekile ukumba imisele yamanzi ukuvimba amanzi ukuthi angakhuphuki kakhulu.

Izinto okumele ziqikelelwe uma kumbiwa umgodi; umbala, uhlobo, isimo, iziqeshana, ukhonkolo, amatshe kanjalo nokushona phansi kwenhlabathi.

Umbala

- Okuyiyona nhlabathi elungile ebomvu okunsundu, ebomvu kanye nensundu ngokujijile ikakhulukazi enhlabathini engaphezulu.

- Ukuma kwamanzi kwesikhashana noma unomphela okuba nokubola kwezimpande kwenzeka kakhulu enhlabathini ephuzi, ensundu ngokukhanyayo kanye nemhlophe.
- Inhlabathi emnyama kakhulu iba nobumba olukhulu olungenza kube nzima ukukhula kwezimpande, noma izinto eziningi zemvelo ezingaholela ekuthini kube ne-esidi eningi kanye noshevu wokusansimbi.

Ubunjalo

Ukotapheya wenza kahle enhlabathini enobumba olungama-20 kuya kuma-40 %. Uma ubumba lungaphansi kwama-20 % inhlabathi isuke iwagcina kancane amanzi, ngaphandle uma kunganiselwa izihlahla ngeke zibulawe yisomiso.

Inhlabathi enobumba oluningi yenza kube nzima ukunisela ngoba ukunisela okukhulu nemvula eningi kwenza inhlabathi ingabe isakwazi ukwenza umkhiqizo omuhle. Lokho kusho ukuthi amanzi amunceka kancane okwenza ukuba izimpande zibole.

Isimo

Enhlabathini enamaqhuzu amakhulu noma amancane njengenhlabathi engathi uma yomile ibe amatshe aqinile, ukukhula kwezimpande kuyakhinyabezeka. Okuyiyona nhlabathi kakotapheya iba namaqhuzu amancane futhi acoyisakele uma kunesomiso.

Iziqeshana

Uma kuneleya enombala okhanyayo eneziqeshana eziningi, yenzeka endaweni eyi-1,8 m ngaphansi komhlabathi, kungalindeleka izinkinga zezimpande, ikakhulukazi uma kuniselwa. Uhlobo olunjalo lwenhlabathi lungathathwa njengoluphakathi noma olungalungile ekutshalweni kukakotapheya.

Okhonkolo namatshe

Izidingo ezifanayo mayelana nokujula zenzeka kukhonkolo omnyama (I-iron ne-manganese) enhlabathini ekhanyayo. Uma ukhonkolo noma amatshe kuvela njengobhuqu kuba ngaphezu kwama-30 % enhlabathini ukugcina kwamanzi kwaleyo nhlabathi kuyakhinyabezeka, indlela yokunisela kumele ihlelwe ngendlela.

Okutholakala enhlabathini

- Ulwazi ezintweni ezinjengamanzi, i-sodium kanye nomcako wamahhala okhona kutholakala uma kucutshungulwa inhlabathi ethathwe emigodini embiwe.

- Ubungako be-pH (emanzini) benhlabathi kakotapheya kumele kube phakathi kwemi-5,0 kanye neyi-7,0. Ngaphandle uma kuzoba nezindleko ezinkulu nangesikhathi eside lapho kungashintshwa khona ubungako be-pH engaphansi kwe-3,5 ukwenza inhlabathi ikulungele ukukhiqiza ukotapheya.

Izinhlobo

Abalimi bakakotapheya kumele bakhiqize isivuno sezinga eliphezulu nezithelo ezinhle, ezamukelekile kumthengi. Ngeke kube uhlobo olulodwa olungagculisa izidingo zomlimi, opakishayo, odayisayo kanye nothengayo ngesikhathi esisodwa.

I-Fuerte

Ukwenza umkhiqizo omuhle

Izinyanga zokuqhakaza nokuvuna		
	Izindawo ezifudumele	Izindawo ezipholile
Ukuqhakaza:	Juni - Septhemba	Julayi - Okthoba
Ukuvuna	Mashi - Agasti	Meyi - Novemba

Ubunjalo besihlahla

Indlela isihlahla esikhula ngayo: Siba sikhulu senabe

Ukuqina: sibekezelela amazanga okushisa angaphansi kwama - 4 °C

Okujwayelekile

Izithiyo: Ukushintshanisa ukuthela, ukuzwela ezimweni ezithile zendawo

Ukuphawula : Ukuthela kwezithelo kukhinyabezwa ukuphuma kwempova

Ukugcinwa emva kokuvunwa: ukuzwela ekuphathweni ngesikhathi sesilondolozwe

I-Hass

Umkhiqizo omuhle ezindaweni ezipholile. Isithelo siba sincane ezindaweni ezifudumele

Izinyanga zokuqhakaza nokuvuna		
	Izindawo ezifudumele	Izindawo ezipholile
Ukuqhakaza:	Julayi - Septhemba	Agasti - Okthoba
Ukuvuna	Juni - Okthoba	Agasti - Disemba

Ubunjalo besihlahla

Indlela isihlahla esikhula ngayo: Sikhula siye phezulu, sikhula kancane

Ukuqina: sibekezelela amazanga okushisa angaphansi kwama - 2 °C

Okujwayelekile

Izithiyo: Isihlahla siba sincane ngokweminyaka kanye nasezindaweni ezifudumele.

Ukuphawula : Kukhinyabezwa yizinto ezisendaweni

Ukugcinwa emva kokuvunwa: kuhle

I-Pinkerton

Ikahle ithwala okusindayo

Izinyanga zokuqhakaza nokuvuna

	Izindawo ezifudumele	Izindawo ezipholile
Ukuqhakaza:	Septemba - Okthoba	Agasti - Okthoba
Ukuvuna	Juni	

Ubunjalo besihlahla

Indlela isihlahla esikhula ngayo: Senaba kahle nje

Ukuqina: sibekezelela amazinga okushisa angaphansi kwa1 kuya ku-2 °C

Okujwayelekile

Izithiyo: ukuqhakaza nokulunga kwesithelo kwenzeka emva kwesikhathi

Ukuphawula : isithelo singonakala ngaphakathi uma sikhiwe sesivuthwe kakhulu

Ukugcinwa emva kokuvunwa: masikhiwe sesivuthiwe ukugwema izinkinga emva kokuvunwa

I-Ryan

Umkhqizo omuhle, zikhiqiza kakhulu futhi kahle

Izinyanga zokuqhakaza nokuvuna

	Izindawo ezifudumele	Izindawo ezipholile
Ukuvuna	Septemba - Disemba	

Ubunjalo besihlahla

Indlela isihlahla esikhula ngayo: Sikhula siye phezulu, sikhula kahle

Ukuqina: sibekezelela isithwathwa

Okujwayelekile

Izithiyo: izithelo azibi zihle, kwesinye isikhathi izithelo azithambi

Ukuphawula : silungele ukutshalwa ezindaweni ezomile eziphakathi nezwe

Ukugcinwa emva kokuvunwa: okukahle

Ukulungisa inhlabathi

Kubalulekile ukuhlola inhlabathi ukuthi ngabe ilungile yini mayelana nokujula, nokumunca amanzi kanye nokugqisheka kwayo (bheka izindlela zokuhlola inhlabathi).

Isampula elimele ingadi kumele lithathwe liyocutshungulwa. Kubalulekile ukuthatha isampula lenhlabathi ezinyangeni eziyi-9 kodwa kuncomeka kakhulu ezinyangeni eziyi-12 kuya kwezingama-24 ngaphambi kokutshala. Lokhu kunikeza umlimi isikhathi esanele sokulungisa inhlabathi ikakhulukazi uma kuzodingeka umcako omningi.

Ukusampula inhlabathi

Kubalulekile ukuthi isampula limele inhlabathi yohlobo olulodwa uma kungekho umahluko obonakalayo enhlabathini. Uma kunomehluko wombala nobunjalo benhlabathi kuleyo ndawo, umhlaba kumele wehlukaniswe ngendlela bese kuthathwa amasampula ahlukene ezindaweni ezahlukene.

Kungasetshenziswa i-auger noma ifosholo ukuthatha amasampula.

Ukujula kokuthatha amasampula

Lokhu kumele kusuke endaweni eyi-0, kuya ku-0,3 m enhlabathini ephezulu kanye no-0,3 kuya ku-0,5 enhlabathini ephansi.

Inani lamasampula

Isampula kumele lakhiwe okungenani ngamasampula amancane ayi-10 (nangaphezulu). Indawo emelwe yisampula kumele ingabi ngaphezu kwamahlektha ama-3.

Ukuxuba nokupakisha

- Amasampulana amancane omhlaba othile kumele afakwe esitsheni esihlanzekile (hhayi isikhwama sikamanyolo) axutshwe kahle.
- Isampula elingama-kg amabili elithathwe kulokhu, lifakwa esikhwameni sikapulasitiki esihlanzekile bese sihanjiswa, kuyocutshungulwa.
- Lelo nalelo sampula kumele libhalwe kucace. Igama lalowo othumele, inombolo yomhlaba kanye nokujula kwalapho isampula lithathwe khona, kumele kuvele kwilebula.
- Namathisela ilebula ngaphandle kwesitsha.

Imiphumela yokucubungula izonikeza ulwazi oludingekile ohlotsheni kanye nobungako bukamanyolo okumele ufakwe ngaphambi kokuba kutshalwe. Uma kudingekile, umcako noma i-phosphate kumele kufakwe kahle enhlabathini ngaphambi kokutshala.

Indlela yokulungisa inhlabathi

Inhlabathi kumele ihlukaniswe ijule kakhulu ngaphambi kokuba kutshalwe. Kulesi simo kungeze kwalunga ukuba kwenziwe imigodi emikhulu okuzotshalwa kuyo.

- Uma inhlabathi ine-esidi eningi, kudingeka umcako omningi ozofakwa khona. Umcako ongaphezu kukahhafu kumele ufazwe endaweni okuzotshalwa kuyo, uhlanganiswe nenhlabathi engaphezulu bese kutshalwa kushonwe phansi okungenani ezinyangeni ezi-2 ngaphambi kokuthi kutshalwe, kuhlanganiswe nenhlabathi engaphezulu ngokulinywa kushone phansi.
- Umcako oyi-calcium uthatha isikhathi ukushona phansi enhlabathini ngakho-ke kumele ufakwe endaweni ezoba eyezimpende zezihlahla.
- Isitshalo sokwemboza sesingatshalwa, silinywe esikhathini esiyizinyanga eziyi-6 ukuthuthukisa umsoco wenhlabathi.
- Umcako osele (ikota) nayo yonke i-phosphate esele kumele kufazwe kufakwe ngasikhathi sinye. Izihlahla zingatshalwa emuva kwezinyanga ezintathu.
- Uma amasampula enhlabathi engathathwanga ngesikhathi esifanele ukuze kuqhubeke njengoba kuchaziwe, okungaphezu kukahhafu komcako kumele kuhlanganiswe nenhlabathi bese kulinywa kushone phansi. I-phosphate nawo wonke umcako osele kumele kufakwe kahle enhlabathini. Uma kudingeka umcako omningi kumele ufakwe ezinyangeni ezintathu ngaphambi kokuthi kutshalwe (njengoba kuchaziwe), kuhlanganiswe kahle nenhlabathi kushone phansi.
- Uma ukujula kwenhlabathi kungalungile kodwa kwamukelekile, kuyancomeka ukuthi kwenziwe imisele ethi ayibe 0,5 m ubude kanye no-3 m ububanzi. Izihlahla zizobe sezitshalwa kule misele.
- Kubalulekile ukungafaki umanyolo maduzane emva kokutshala izihlahla. Izihlahla kumele ziqale zisimame ngaphambi kokuthi kufakwe umanyolo. Esikhathini esiningi kuyancomeka ukuthi kekulindwe unyaka. Lokhu kumele kufakwe kancane. Umanyolo kumele ufakwe kahle ungahlangani nesiqu sesihlahla. Ukunisela okusheshayo kuyadingeka.

Isimo sensimu

Insimu kakotapheya kumele ikhiqize phakathi kweminyaka eyi-7 kuya kweyi-10.

Zintathu izindlela okungahlelwa ngazo izihlahla ensimini:

- Okumakhonamane (okuholela emigqeni yezihlahla eyi-hedge)
- Isikwele (okuholela ekushintsheni indlela uma ziphendlwa ngokunqumayo)
- Ezime njenge-diamond (okuholela ekushintsheni indlela izihlahla ezime ngayo uma kade ziphendlwa).

Uma izihlahla zehlukaniswe ngendlela yokuthi akukho ukuphndlwa okudingekayo ngesikhathi sensimu, ngaphezu kusetshenziswa kuphela indawo engaphezu kwama-50 %. Ukusetshenziswa ngendlela komhlaba kusho ukuthi izihlahla ziyasondelaniswa ukuze ziphndlwe ngendlela nangokukhethwa esikhathini esilandelayo.

Asikho isiqinisekiso sokuthi kukhona uhlobo lwesimo sensimu esingugo. Indlela yokwehlukana kanye nephethini yokutshala incike kulokhu okulandelayo:

- Uhlobo
- Indawo yensimu (isb. Ebheke iningizimu noma impumalanga)
- Uhlobo lwenhlabathi nokujula
- Umkhiqizo olindelwe manje nasesikhathini esizayo
- Ukusebenzisa imishini, okuya ngensimu
- Indlela yokuphndla

Isinqumo sokugcina kumele sibhekiswe emithethweni yezomnotho, ngoba lokho nalokho okubaliwe kuneqhaza okulibambayo emnothweni wensimu.

Ukushiya kwezithombo nendlela yokutshala

Ukukhetha indlela yokutshala (iphethini esasikwele okukhulunywe ngayo lapha) iya ngendlela yokuphatha elandelwe.

- Isivuno sokuqala sandiswa ngokutshala izihlahla zisondelane kulayini.
- Imigqa yezihlahla eziyi-hedge zikulungele ukufakelwa uhlelo olumile lokunisela.
- Uma izinto zokusebenza zisetshenziswa ensimini, uhlobo oluyi-hedge yilona olulungile ngoba ukungena ensimini kuba lula kunohlobo olusasikwele. Nokuhamba kulandela uhlelo olulodwa ensimini enjalo- okuyiphuzu elibalulekile emasimini enziwe ezindaweni ezehlelayo.
- Uhlobo oluyi-hedge lwemigqa yezihlahla lunciphisa ukulahleka kwamagatsha kanye nezihlahla emgqeni.

Ukwehlukana emigqeni

Ukubhekelela umnotho kanye nokufinyelela kwezinto zokusebenza yikona okukhomba ukuthi singakanani isikhala izihlahla okumele zehlukane ngaso emgqeni. Ibanga lokugcina elingaphansi kwamamitha ayi-10 lenza kube lula ukunciphisa izihlahla ngaphambi kokuthi insimu ibe neminyaka eyishumi. Ukutshala kuthothane kungenziwa okwesikhashana kube ngaphansi kukahhafu wesikhala okufanele sishiywe, ngokuqonda ukuthi lezo zihlahla ezitshalwe okwesikhashana zizobuye zisuswe.

Ukutshala nokunakekela kokuqala

- Izihlahla zikakotapheya ezithengiwe kumele zibe seziqinile.
- Tshala ngokushesha, uma zigcinwa isikhashana zingatshaliwe zingagcina sezilimele.
- Ungazibeki izihlahla elangeni ngoba izitsha zingashisa kakhulu bese izimpande zisha ngaphambi kokuthi kutshalwe.
- Sekela izihlahla ezincane ngokushesha. Qiniseka ukuthi iziqu zihlanzwe zaba mhlophe.
- Susa amapheshana afike nezihlahla ukuze zingaphazamiseki.

Umgodi wokutshala

- Uma inhlabathi ilungiswe kahle, imigodi emikhulu ayinasidingo.
- Uma ingekho indlela yokulungisa inhlabathi kahle, kumele kwenziwe umgodi wokutshala ongu 1 x 1 x 1 m.
- Insimu elungiswe kahle ayidingi umanyolo omningi emigodini. Ukwengeza ngomquba kungazishisa izimpande.
- Izihlahla kumele zitshalwe endaweni ethe ukuphakama ukuze amanzi angaqqani endishini.

Ukunisela

- Izihlahla ezincane kumele ziniselwe ukuqinisekisa ukuma okufanayo.
- Amanzi amaningi ayingozi ngendlela efanayo namanzi amancane.
- Hlolisisa umswakama osenhlabathini engaphezulu ukuvimbela ukunisela mawala.
- Ukotaphela uyazwela esithwathweni. Ensimini izihlahla zisuke sezijwayele ekufakelweni amanzi akahle kepha zibe nezimpande ezincane ngoba zisuke zisesikhwameni esincane. Kubalulekile ukuthi amanzi ahambe aze afike phansi kakhulu.
- Ubheseni omncane ozungeze isihlahla uyoqinisekisa ukuthi isihlahla sithola amanzi anele.
- Nisela kancane: 50 l ngesihlahla/ngesonto kanye no 100 l uma inhlabathi engaphezulu seyoma, usungaqala ukunisela ngama-50 l/ ngesonto/ngesihlahla.

Umthunzi

- Uma ukuqina kwesihlahla kungenzekanga (enesari) kumele zenzelwe umthunzi wesikhashana.
- Khumbula: hlanza iziqu zibe mhlophe.
- Yenza uhlaka wemboze ngotshani noma inethi eyenza umthunzi esihlahleni uvikele amaqabunga. Susa uhlaka lolo uma amaqabunga esevela otshanini ngoba lokho kusho ukuthi zisuke seziquine ngokwanele zingasadingi okunye ukuvikelwa.
- Izimo ezenziwayo ukuvikela izihlahla ezilwaneni nazo zinikeza umthunzi.

Ukuvikelwa ezilwaneni

- Izihlahla ziyalinyazwa yizilwane zasendle ebusuku. Okungavikela izilwane ukuba zingangeni kungenziwa ngokwemboza amapali ngocingo lwezinkukhu nokwenza okusatende ukuvikela izihlahla.
- Ukulawulwa komuhlwa kungadingeka ngesikhathi sesomiso.

Ukwemboza izitshalo

- Ngeminyaka yokuqala izitshalo zokwemboza zingavikela inhlabathi kuze kuba izihlahla ziyaqala zinikeza umthunzi.
- Isitshalo sokwemboza akumele siqophisane nezihlahla kanti futhi kumele sitshalwe esiqeshini esiphakathi nemigqa.
- Indawo econsayo yesihlahla akumele ibe notshani noma ukhula uma kungenzeka leyo ndawo ingambozwa ngemvundiso yasekhaya.

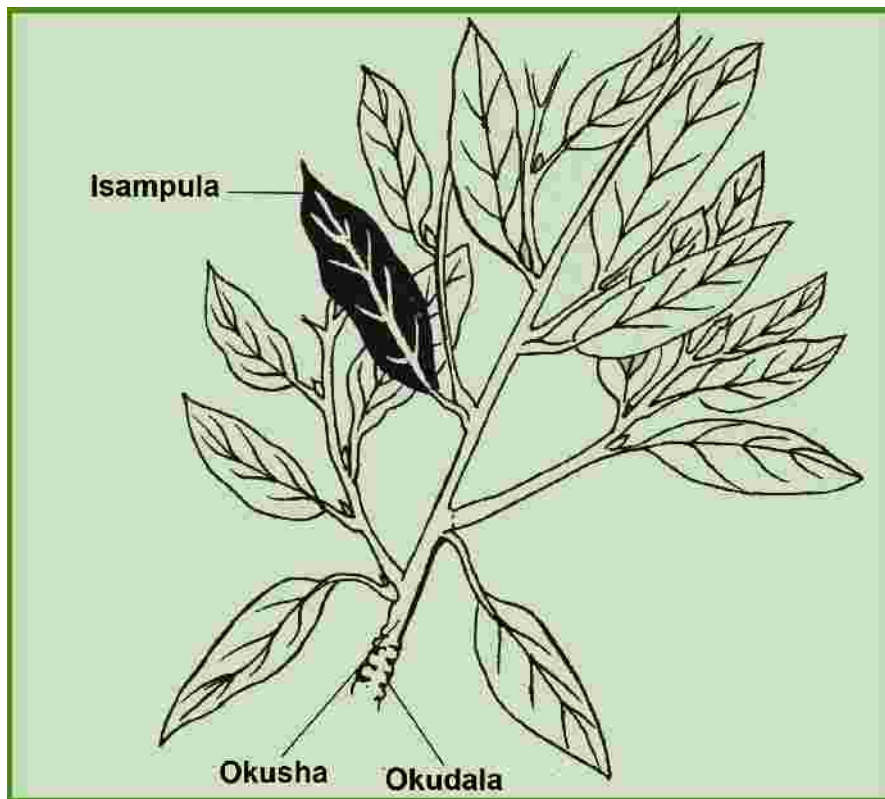
Ukucubungula amahlamvu

Ukucubungula amahlamvu kukhombisa ubungako bomsozo osensimini. Izihlahla zingafakwa umanyolo ngendlela. Ukucubungula inhlabathi, ngaphezu kokucubungula amaqabunga kukhuphula ukwethembeka kwezincomo ezenziwe.

Kumele kulandelwe lolu hlelo lokukhetha amaqabunga ngokuphelele:

- Amasampula kakotapheya amadala ngeminyaka eyi-6 kuya kweyi-8, kumele athathwe ngenyanga kaFebhruwari kuya ku-Ephreli. Uma engathathwanga ngalesi sikhathi izincomo zokufakwa kukamanyolo ngeke zihambisane.
- Kumele kuthathwe iqabunga okuyilona (bheka isithombe)

- Uma iqabunga lasengadini ethile lilethwa okokuqala, kumele lihambisane nesampula lenhlabathi. Emva kwalokho kuyancomeka ukuthi kulethwe amasampula enhlabathi minyaka yonke.
- Uma kulungiswa ukufakwa kukamanyolo, imiphumela yokucutshungulwa kwenhlabathi kanye neqabunga kumele kubhekelelwe.
- Kumele kube amaqabunga asezihlahleni eziphilayo okumele athathwe. Akumele abe nezimpawu zokushiswa yilanga, ukungabi nampilo, ukulinyazwa yizilwane noma izifo.
- Isampula leqabunga nelenhlabathi akumele limele insimu engaphezu kwamahektha ama-3. Uma ngabe kubonakala ukungefani kwenhlabathi kuleyo nsimu, kumele kuthathwe amaqabunga nenhlabathi okungefani.



Sampula iqabunga elifanele

- Indlela yokusampula ibalulekile:
 - Khetha okungenani izihlahla ezinempilo ezingama-20 kuyo yonke insimu.
 - Izihlahla ezinhle kakhulu nezingezinhle nhlobo akumele zikhethwe.
 - Izihlahla kumele zibhalwe ngokugqamile, isb. Ngopende ukuze inhlabathi neqabunga kuyothathwa esihlahleni esisodwa minyaka yonke.
- Ukuthola uhlelo oluqondile lokufakwa kukamanyolo kuleyo nsimu, amasampula amaqabunga kumele ebe ecutshunguliwe esikhathini esiyiminyaka emi-5.
- Akujwayelekile ukuthi njalo kulungiswe okungalungile, okuningi, noma ukungalingani ngesikhathi sonyaka esisodwa ngoba kwenzeka ngohlelo oluthile.

Ukufaka umanyolo

- Musa ukufaka umanyolo ezihlahleni ezisanda kutshalwa kabusha maduzane, okungenani akube emva konyaka. Izihlahla kumele ziqale zisimame kuqala futhi zithi ukukhula kancane.
- Musa ukufaka umanyolo eziqwini zezihlahla ezincane. Kumele ufazwe kuyo yonke indawo 0,2 m ukusuka esiqwini kuya ku 0,5 m ngaphandle kwendawo econsayo yesihlahla.
- Lokho nalokho kufakwa kukamanyolo kumele kulandelwe ukunisela okuncane okulawulwayo.
- Umanyolo akumele uphendulelwe enhlabathini.

Inani likamanyolo ngesihlahla ngonyaka ngokweminyaka (umhlahlandlela)

Ubudala Iminyaka	LAN 28 % N (noma okulinganayo)	I-Superphosphate (11,3 % P)	I-Potassium chloride (50 % K)
	g	g	g
1	150	200	150
2	300	400	300
3	450	600	450
4 - 5	600	900	600
6 - 7	800	1 200	800
8 - 9	1 000	1 500	1 000
10 - 12	1 200	1 800	1 200
Okokugcina	1 500	1 800	1 500

Isikhathi sokufaka

I-Nitrogen ne-potassium

Uma umanyolo ufakwa ngonyaka wokuqala, i-nitrogen (N) ne-potassium (K) kumele kwehlukaniswe okungenani kane bese kufakwa ngezinyanga ezifudumele. Emva kwalokho sekungafakwa kanje:

- N ne K: 3 kufakwe okulinganayo ngoJulayi, Disemba kanye no-Ephreli.
- P: Disemba

I-Zinc

Inhlabathi eningi ine-zinc encane noma ayikho nhlobo. Lezi zilinganiso kumele zifakwe minyaka yonke:

- I-Zinc oxide engama-200 g/100 l wamanzi noma
- NZN eyi-150 ml / 100 l wamanzi.

I-Boron

Izihlahla eziningi zikakotapheya zine-boron encane ngakho-ke izihlahla kumele zichelwe ngonyaka nge-borax eyi-100g noma 75 g Solubor/ 100 l wamanzi.

Ukunisela

Izihlahla zikakotapheya azizwani namanzi amaningi kanti futhi azizwani nesomiso.

Inhloso yokunisela ukugcina umswakama wenhlabathi uphakathi nendawo kulezi zimo ezimbili ngaphandle kwangoJuni kanye noJulayi lapho isikhathi esomile sidingeka ukulekelela ukuqhakaza.

Inhloso yokulima ukotapheya ukuthola isivuno esikahle nokwehlisa ukukhula kwezimila ensimini.

- Ngokufaka amanzi anguhhafu wesibalo isihlahla ngasinye emva kokungabibikho komswakama (ngoJuni nangoJulayi), isihlahla esisha siyakhubazeka, kuncipha nezithelo
- Emva kokuthela, ukunisela okugcwele kuyadingeka ukulungiselela ukukhula kwesithelo.
- Awukho umanyolo okumele ufakwe ngesikhathi sokuqhakaza kanye nokuthela kokuqala ngoba lokho kuyokona ensimini.

Uhlobo lokunisela

Okulula,okwenzeka kaningi ukunisela kudingekile. Ukunisela okunamandla akulungile. Ukunisela ngezisefo ikakhulukazi i-dragline yikona okufaneleke kakhulu ikakhulukazi uma imali incane. Okuyilona hlobo olungungqo lokunisela ukotapheya olwenzeka nsuku zonke okuthiwa yi-microjet.

Ukulawula ukhula

Ukulawula ukhula kungenziwa ngemishini noma ngemithi.

Okwemishini

Zintathu izindlela zokulawula ukhula ngemishini:

Isandla noma ukunquma ngomshini

Kumele kube khona unakekelo uma kubhushwa ngesandla ukuze kungalinyazwa isiqu sesihlahla. Esikhathini ukubhusha kungenza kube khona ukuhlangana nokwehlukana okumele kubhekelelwe ukuthuthukisa ukukhula kwezimpande.

Ukutubuza

Le ndlela akumele isetshenziswe ngenxa yokuthi izimpande ziyalimala kanti nenhlabathi isuke igqishekile ngaphansi.

Ukutshala nokudabula

Zombili lezi zindlela zithambisa inhlabathi, ikakhulukazi inhlabathi eqinile. Kepha-ke lezi zindlela akumele zisetshenziswe esikhathini esingaphansi kweminyaka emibili, ukuvikela izimpande. Ukulima kwenza ingxenye yenhlabathi egqishekile ingahlangani ngaphansi kanti ukudabula kungaqhephula inhlabathi egqishekile uma kwenziwa ngesikhathi inhlabathi iqinile futhi yomile.

Imithi

Imithi elawula ukhula ensimini kumele isetshenziswe. Ngakho-ke izinhlobo zokukhula nobuningi bazo ensimini kumele kwaziwe ngaphambi kokuba kukhethwe umuthi.

Izitshalo zokwemboza kanye nemvundiso

Izitshalo zokwemboza zingezesikhashana, zitshalelwa ukuthuthukisa izinga lenhlabathi ngokuvikela inhlabathi noma zifakwe njengomanyolo oluhlaza.

- Isitshalo sasehlobo sehlisa izinga lokushisa enhlabathini, ngokulekelela izimpande zikakotapheya ukuba zikhule. Sikhiqiza imvundiso yasebusika bese silawula ukhula.
- Isitshalo sokwemboza sivikela ukuguguleka kwenhlabathi nokulahleka komsoco wenhlabathi.
- Isitshalo sokwemboza esinezinhlamvu sithuthukisa i-nitrogen esenhlabathini.
- Izitshalo zokwemboza ezibolile zikhulisa umswakama enhlabathini.
- Isikhathi sokutshala isitshalo sokwemboza kuya ngezidingo zesihlahla kanye nezinga lomswakama. Esikhathini sonyaka lapho izimvula ziningi, lesi sitshalo kumele sisheshe sitshalwe, kepha uma kunesomiso izihlahla zidinga wonke umswakama okhona enhlabathini, ngakho-ke kumele sitshalwe kamuva.
- Emasimini amancane kungenzeka ukuba kutshalwe imibhede phakathi nemigqa, kepha uma izihlahla sezikhula ukutshala ngesandla kuba yiyona ndlela elungile.

Izinhlalo zezitshalo zokwemboza

Izitshalo zokwemboza zehlukaniswa ngalezo ezinezinhlamvu kanye nalezo ezingenazinhlamvu. Lezi ezinezinhlamvu zibandakanya izinhlalo ezahlukene zobhontshisi. I-while rye, i-oats, i-barley kanye ne-buckwheat yizibonelo zezitshalo ezingenazinhlamvu.

Lezi zitshalo zingabhekelelwa:

- Zilungisa inhlabathi ngaphambi kokuthi kube yinsimu: ubhontshisi oyi-velvet, ubhontshisi wesoya, i-sunnhemp, ubhontshisi oyi-ration, i-lupins, i-medics, no-cowpeas.
- Ezitshalwa emva kokuthi insimu isikhona: ubhontshisi we-velvet, ubhontshisi wesoya, ubhontshisi we-ration, u-cowpeas, i-lupins, i-medics, ukolo, i-rye, u-barley, i-teff, i-vetches, i-desmodiums, amakinati asenhlabathini, ukolo we-buck.

Izinambuzane

Abalimi bakakotapheya kumele bazazi izilwane eziba sensimini njengezinambuzane. Ingingi lalezi libulawa yizitha zazo. Ukufakwa kwemithi kukotapheya kungenza izinambuzane ezincane zigcine sezilimaza umnotho.

Izimpukane zezithelo

Lolu hlobo lusandakuthola ukubaluleka kwezomnotho kukotapheya. Uma isithelo sikhiwa singakavuthwa, isihlava asibe sisakhula, kepha-ke uma isithelo siba sesihlahleni isikhathi eside njengasengadini yasekhaya, izimpukane zezithelo zingekhule njalo nje.

Izimpawu

- Izimpukane zezithelo zaseNatali zihlasela izithelo ezincane nezindala.
- Zizalela amaqanda ngaphansi konqenqema lwesikhumba
- Uma isithelo sesingangalofu kuba khona ukusikeka okuzungezwe impuqumpuqu emhlophe. Uma sekukhula isithelo lokho kusikeka kuyoma bese kwenza izimo ezisazinkanyezi esikhumbeni.
- Uma kususwa ngommese ileya engaphezulu kuzungezwa indawo esikekile, kungabonakala ingaphakathi lilimele bese kuthi uma sekuyopopolwa ngesibuko esikhulisayo esiyi-10, amaqanda ubungako bawo buthi abube-0,5 kuya ku-1 mm angatholakala ehlangene ndawonye.



Ukulawula

Izitha ezimbalwa zezimpukane zezithelo ngeke ziyixazulule inkinga ngokuphelele. Zimbili izindlela zokulawula, okuyilezi:

- **Ukubulala izitshalo ezingadingekile**

Izimpukane zezithelo zaseNatali zihlupha ezinye izitshalo ezinjenge-bugweed noma i-bugtree, amajikijolo kanye namagwava asentabeni eziba yihlashana zizungeze ukotapheya. Lezi zitshalo kumele zisuswe endaweni engamamitha angama-20 noma ngaphezulu ukusondela ngasensimini. Kumele zinqanyulwe ngama-200 mm phezu kwenhlabathi. Umuthi ofanele kumele ufakwe uma izitshalo sezikhule kabusha zaba yi-0,5 m.

- **Ukucupha**

Ukusebenzisa isicupho esinoshevu ukuheha izimpukane kumele sisetshenziswe uma umonakalo ungaphezu kwe-5 %. Amakhemikhali asetshenziswa lapha ayalimaza ezilwaneni ezinciphisa lezo ezilimaza izitshalo.

Ukhwekhwe olumise okwenhliziyo

- Lolu hlobo lwesilokazane lukhula luze lube yi-3 mm kanti lunombala onsundu ngokubomvu. Isiphetho esimhlophe esisavolo siyabonakala kwingemuva lesesifazane esidala.
- Olwesifazane luzalela amaqanda agcinwa ngaphansi komzimba kulokho okusavolo okumhlophe okukhiqizwayo. Angaphezu kwama-200 amaqanda abaliwe ngaphansi kolwesifazane uma ebalwa kanye.

- Ukhwekhwe oluncane olubizwa ngokuthi olunwabuzelayo, lugcina seluhlezi unomphela endaweni eyodwa. Ngaleyo ndlela amaqabunga amasha agcina ehlushwa. Zimbili izizukulwane ngonyaka owodwa. Isizukulwane sasehlobo sihlala izinyanga eziyi-5 bese kuthi esasebusika sona sihlala izinyanga eziyi-7. Lolu olunwabuzelayo luba khona ngoNovemba kanye no-Ephreli.
- Ukhwekhwe luba khona kwingemuva lamaqabunga kakotapheya lapho lumunca khona inkovu emaqabungeni.
- Isithelo asithinteki, kepha ukhwekhwe lukhiqiza oluningi uju lwamazolo ehlela emaqabungeni, emagatsheni kanye nasesithelweni lapho kukhula khona isikhutha, esenza kube nombala omnyama esitshalweni kanye nasesithelweni okuphazamisa i-photosynthesis.
- Uthuli oluqhamuka emigwaqeni ewubhuqu eduze nezihlahla zikakotapheya luhlala ezihlahleni, bese lwenza isimo esingesihle ezitheni zemvelo zokhwekhwe. Ngaleyo ndlela kuba nokhwekhwe oluningi kulezo zindawo.
- Okuningi kwenzeka ohlotsheni lwe-Hass.
- Iminyovu, omanqulwana, isihlava sezinkimbinkimbi kanye nezinhlobo zezimpukane (i-Cecidomyidae) zibambe elikhulu iqhaza ekulawulweni kokhwekhwe.
- Ngenxa yokuthi ziningi kakhulu izitha zokhwekhwe, imithi igcina ingasadingeki.

Izifo

Ukubola kwezimpande I- Phytophthora

Ukubola kwezimpande okubangwa yi-*phytophthora cinnamon* kwenzeka emhlabeni wonke. Lapha kungesinye sezifo zikakotapheya esitholakala kuzo zonke izindawo, ngisho nasezingadini emakhaya. Ukuhlasele kwakho akufani kepha kuba nokukhulu ukulahlekelwa uma kungalawulwa ngendlela efanele.

Izimpawu

- Uma sesihlaselwe isihlahla sivele siphundeleke.
- Amaqabunga aba mancane, aphaphatheke, abe phuzi, abune bese eyawohlaka.
- Ukukhula kwesihlahla kuyakhinyabezeka bese isithelo siba sincane, sibe nezimpawu zokushiswa yilanga, ngokungatholi umthunzi.
- Izimpande ezithintekile ziba mnyama bese ziyafehlezeke ngesikhathi zifa.
- Uma isifo sihlasele kakhulu zonke izimpande ziyalimala bese nesihlahla sonke sifa ngenxa yenkinga yamanzi.

I-Pathogen

Ukusabalala kwe-pathogen kudinga amanzi ahambayo. Kubalulekile ukugwema ukutshala ukotapheya endaweni enokuba namanzi amayo. Isikhutha sihlala ezindaweni eziningi, okubandakanya upopo, amagilanadila, amamakhadamiya kanye nezinye izinhlobo. Uma kungenzeka ukutshala ukotapheya endaweni eke yatshala izithombo ezinezilokazane ezizidlayo kumele kugwenywe.

Ukulawula

- Ukotapheya akumele utshalwe endaweni lapho ukuma kwamanzi kuyinkinga.
- Izinto zokutshala kumele zingabi nazifo.
- Ukunisela akumele kushiye amanzi emile nje phezulu, ikakhulukazi eziqwini. Ama-sprinklers kanye nama-microjets ayanconywa kunendlela yokunisela eyi-flood. Gwema ukunisela kakhulu.

Isifo esidla isiqu

Olunye uhlobo lwe-*Phytophthora*, kodwa olubangwa yi-*P. citricola*, *P. cactorum* kanye ne *P. cinnamomi*.

Izimpawu

- Igxolo elingabi nambala uma kuya ngasezansi, ukungabi nambala okunsundu kwenabela nasokhunini.
- Isihlahla esihlaselwe siyabuna kancane kepha sigcina sesifile.

Ukulawula

- Ungalimazi iziqu eziseduze nenhlabathi, bese ugwema ukuba manzi njalo kwesiqu.
- Uma kukhona ukulimala, susa lokho okungalungile bese uvala ngokusasitaputapu.

I-Anthraxnose

Lena yinkinga yangaphambili kanye nangemuva kokuvuna engenza kube khona ukulahlekelwa okukhulu. Itholakala cishe emhlabeni wonke.

Izimpawu

- Okuyilona phawu olugqamayo, ukuba namabala kwesithelo.
- Ukulimala kuba nsundu ngombala, kunganda kuhlangani bese kugcina sekugcwele isithelo sonke. Lezo zithelo ziwa zingakavuthwa.
- Inkafunkafu engaphansi kokulimala iyathamba futhi ingabi nambala bese yenza isithelo singadleki.

- Uma ngabe kungamaqabunga athintekile, okusabhande okunsundu kusabalala ngaphakathi emgqeni, uma sekukubi kakhulu kuya engonweni yeqabunga, kuye egatsheni.
- Amagatsha aveza ukulimala okunsundu noma okunsomi bese eyafa.
- Izimbali ezilimele ziba bomvu noma nsundu bese kamuva ziwa.

Ukulawula

Ukucwilisa okubhalisiwe kwangasemuva kokuvuna kuba khona ukulawula I-anthracnose. Kumele kwenziwe endlini lapho kupakishwe khona. Ukulawulwa kwamabala e-*Cercospora* kumele kulawule kahle i-anthracnose.

Ibala le-Cercospora

Lesi isifo esenza amabala esithelweni, okudalwa isikhutha se-Pseudocercospora purpurea.

Izimpawu

- Ukulimala kwesithelo okunsundu, 3 kuya ku 5 mm kepha okungamile ngendlela, kwenzeka ekuqaleni. Ukulimala kuyoma kuklayeke bese kwenza kube lula ukungena kwezinye izifo.
- Amabala aba mancane (1 mm) aba nsundu futhi abe yisimo esithile. Ahlala esabalele noma ahlngane.

Ukulawula

- Amakhemikhali ahluhahlukene abhalisiwe ukulapha lesi sifo. Lezi zinhlelo zingasiza ekulawuleni ukukhunta.
- Ngaphambi kokusebenzisa ikhemikhali buka ilebula.
- Xhumana nokungeyokugcina i-Guide for the Control of Plant Diseases for information on chemical disease and pest control. Itholakala e-Resource Centre, Private Bag X144, Pretoria 0001

Ukuphatha ukotapheya

Ukuwukha

- Uma isithelo sisesesihlahleni sihlala siqinile.
- Siyathamba futhi sidleke uma sesikhiwe.
- Isithelo esesikhulile sivuthwa kahle. Indawo edliwayo iba yinhle, ibe nokusabhotelana bese kuthi ikhasi lingabi naphawu lokubuna.
- Isithelo esingakavuthwa, lesi esikhiwe ngaphambi kwesikhathi, ngeke sivuthwe kahle futhi isikhumba siyabuna.

Ukukha osekulungile

Ukulunga kwesithelo kuhambisana nomswakama. Isithelo silungela ukukhiwa uma izinga lomswakama walo ungama-80% nangaphansi.

Nakhu okumele kulandelwe ukubheka ukulunga kwaso:

- Yikha isampula lesithelo esesivuthiwe kulolo hlobo olukhethiwe.
- Gcina izithelo endaweni enezinga lokushisa elilingana nelasendlini zize zivuthwe. Ukotapheya usuke usuvuthiwe uma usutobozela uma uthintwa.
- Uma la masampula esevuthwe esikhathini esiyi-8 kuya kwesiyi-10 sezinsuku futhi ungasabuni, isithelo sisuke sesilungile. Ukuvuna okukhethekile kohlobo olufanayo lwesithelo sekungaqala.
- Uma isithelo sithatha isikhathi esiyizinsuku eziyi-10 kuya kweziyi-12 ukuvuthwa, ukuhlololwa ukuvuthwa sekungaphindwa emva kwesonto.
- Ukujwayela ukuvuna yikona okusizayo ekuboneni okuvunwayo. Akuzona zonke izithelo esihlahleni esisodwa ezilungela ukuvunwa ngesikhathi esisodwa.
- Uma kukhona ukungabaza kungcono ukulinda kunokuvuna kungakabi yiso isikhathi esifanele.

Ukuvuna

Hlala njalo uphathe kahle isithelo ngesikhathi sokuvuna kanye nokupakisha ngoba ukotapheya uyashayeka futhi uklwebheke kalula.

Okumele kuqikelelwe

- Abasebenzi kumele bagqoke amagilavu kakotini uma bevuna ukuqinisekisa ukuthi izinzipho zabo aziklwebhi izithelo
- Izithelo kumele zisikwe, zingadonswa ezihlahleni.
- Ingxenye yesiqu, esiyi-10 kuya ku 15 mm kumele sishiywe sinamathela esithelweni.
- Izithelo ezinempilo kumele zithwalwe ngezikhwama zokuvuna. Ingaphakathi lezikhwama kumele lihlanzeke. Akumele esikhwameni ngasinye kube nokotapheya abangaphezu kwabayi-10 kuya kwabayi-15.
- Izithelo eziphezulu esihlahleni kumele zikhiwe ngelata elide, bese kuthi ezikude kakhulu zikhiwe ngento yokukha. Ukusebenzisa into efanele kungavikela ukulimala kwezithelo okungenasidingo, kunciphise umsebenzi kanti futhi kungenza nokuphepha kubasebenzi.

Ukuziphatha

- Izithelo kumele zithathwe ngazinye ezikhwameni, zithathwe ngesandla bese zifakwa emathileyini.

- Yiba nonakekelo olukhulu uma sekuthuthwa izithelo zisiwa lapho zizopakishwa khona.
- Amathileyi anezithelo futhi alinde ukuthuthwa kumele abekwe phansi komthunzi wezihlahla. Uma ungekho umthunzi owanele, izithelo kumele zembozwe ngamathileyi angenalutho, ambozwe abhekiswe phansi.
- Ungagcobi okusatiyela emathileyini ngoba kuzovimba umoya bese kuphakama izinga lokushisa ngaphansi.
- Izithelo esezivuniwe kumele zisuswe ngokushesha ensimini.
- Kubalulekile ukupakisha nokubheka izithelo eziya emakethe, noma ukuzibeka endaweni epholile ngelanga ezivunwe ngalo.

Ukuzihlukanisa ngamazinga nokuzipakisha

- Kubalulekile ukuqikelela ukuthi izithelo azishayeki.
- Abantu abaphatha izithelo kumele bagqoke amagilavu.
- Amatafula okuzobekwa kuwo izithelo kumele ahlanzeke futhi acoyisakale.
- Isiqu nesiqu sesithelo kumele sisikwe kubhekwe emuva ngommese obukhali ubude obuyi-6 kuya ku-12 mm.
- Hlukanisa izithelo ezizothunyelwa ngokubukeka kwazo. Isithelo silungela ukuthunyelwa uma singenazibazi futhi siyisimo esikahle esejwayelekile. Isithelo esizothunyelw sibekwa etafuleni elehlukile.
- Isithelo sesingelashwa ngomuthi ofakwa emva kokuvuna, emva kokugcotshwa sesingapakishwa ebhokisini elifanele.

Ukugcinwa endaweni ebandayo

Ukuze zingasheshi zivuthwe izithelo, kumele zibekwe endaweni enamazinga okushisa aphantsi ngokushesha. Uma amazinga okushisa ephantsi nokuvuthwa kwesithelo ngeke kusheshe. Nakuba kunjalo, uma izithelo sezigcinwe endaweni ebanda kakhulu, lokho kubanda kuyazilimaza izithelo. Izinga lokushisa elamukeleke kahle eliyi-5,5°C. Ukotapheya osheshe ulunge ungagcinwa endaweni ethe ukufudumala kancane bese kuthi ophuzayo ukulunga wona ungagcinwa endaweni ethe ukuphola kancane.

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