

Guhangana n'ihindagurika ry'ibihe



**KUGWIZA
IGITERWA**



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INTANGAMARARA

Ihindagurika ry'ibihe ni kimwe mu bibangamiye **intara kama ya Kumoso iri mu buseruko bw'igihugu c'Uburundi**. Muri ako karere hakunda kwibonekeza ikena ry'imvura rifatiye cane cane ku kutagwa neza kandi ku gihe: imvura itasura itevye, rimwe na rimwe ikaba ivanze n'igihuhusi canke ntigwe mu gihe ibiterwa biba biyikeneye cane. Iryo hindagurika ry'ibihe ryama rigira ingaruka mbi ku mwimbu w'ibifungurwa bigatuma muri ako karere hama hari inzara.

Mu ntumbero yo guhangana n'iryo hindagurika ry'ibihe no kurwanya inzara muri ako karere ka Kumoso, ishirahamwe "UCODE-AMR" ryo mu Burundi hamwe na "**Louvain Coopération**": ishirahamwe ryo mu gihugu C'Ububiligi ry'Ishule Kaminuza "Université Catholique de Louvain" yaragize ubushakashatsi ku biterwa kama bitanu vyashizwe imbere n'abarimyi: ibisunzu, inkore, intengwa, amasaka n'amateke. Ico gikorwa ayo mashirahamwe yagikoranye n'ishirahamwe "**ISABU**" ishirahamwe rya Leta rishinzwe ubushakashatsi kuva mu mwaka wa 2016 gushika mu mwaka wa 2018. **Ivyo biterwa kama birarinda uruzuba kandi birakundwa cane muri karere ka Kumoso** ariko vyariko birazimangana kubera ubuhinga buke mu kubirima n'ubusaza bw'imbutu kandi vyari bifitiye akamaro kanini imiryango mu bihe biheze. Mu gice ca mbere, ubushakashatsi bwakorewe mu ndimo z'abarimyi mu kugeragereza imbutu nyinshi zavuye mu mihingo itandukanye mu ntumbero yo kuronderamwo ubwoko bw'imbutu nziza zirobanuwe ku giterwa cose. **Abarimyi baragize uruhara runini muri ico gikorwa co gucagura ubwoko bwiza bw'izo mbuto zirobanuye.**

Mu gice ca kabiri, abarimyi baragwijije izo mbuto nziza zirobanuye hanyuma zishikirizwa abandi abarimyi bo muri ako karere kama ka Kumoso. Ico gikorwa bakiranguye bafashwe mu mugongo n'amashirahamwe "UCODE-AMR" na "Louvain Coopération" biciye mu migambi ibiri: PADASIO (2013-2018) na PRORES-KIRIZUBAMUGENZI (2017-2018). **PADASIO** ni umugambi wo kugwiza imbutu n'ukwegereza abarimyi ivya nkenerwa mu burimyi n'ubworozi. Ni umwe mu migambi ihurikiye mu mugambi munini **FB-SA-MOSO** wahawe uburyo n'Ingoma y'Ububiligi kugira ngo harangurwe ibikorwa bitandukanye vy'iterambere ry'imiryango yo mu makomine atatu y'intara kama ya Kumoso (Cendajuru, Gisuru, na Kinyinya). **PRORES-KIRIZUBAMUGENZI** ni umugambi waronkejwe uburyo n'ishirahamwe **Wallonie-Bruxelles International-WBI** ryo mu gihugu c'Ububiligi ngo uteze imbere ibiterwa kama birinda uruzuba muri ayo makomine atatu yo mu ntara kama ya Kumoso.

MU MWAKA WA MBERE habonetse ibiro 1.053 vy'imbutu z'ibisunzu, ibiro 325 vy'imbutu z'inkore n'ibiro 188 vy'imbutu z'intengwa mu mirima yo kugeragerezamwo imbutu yakurikiranywe na ISABU. Mu mwaka wa kabiri, izo mbuto zose zatewe n'imiryango y'abarimyi **33 bo mu karere ka Kumoso ku buringanire bw'amahigitari 37** : hegitari 2,5 z'ibisunzu, hegitari 21,6 z'inkore na hegitari 12,5 z'intengwa. Mu ruganda rwo gushikiriza ivyavuye mu bushakashatsi bwakozwe mu mwaka wa mbere no kubihanahana ko ivyiyumviro rwabaye mu kwezi kwa Kigarama 2017, **ubwoko bw'imbutu bukurikira nibwo bwatowe ngo bugwizwe n'abarimyi mu ntara kama ya Kumoso** :

Ibisunzu	<i>Igikongo</i> kubera ko bwakunze muri ako karere kandi bwatanze uwimbu mwinshi (4,94T/ha).
Inkore	<i>Mauve</i> kubera ko bwatanze uwimbu mwinshi (1,4T/ha) na "V8" kubera ko ifise intete nininini.
Intengwa	<i>Isega</i> kubera ko bwatanze uwimbu mwinshi (818kg/ha).
Amasaka	<i>Gambella</i> kubera ko bwatanze uwimbu mwinshi kandi bumara igihe gito mu murima.
Amateke	Variétés V3 (<i>Colocasia esculenta</i> canke <i>Bwayisi</i> atukura) kubera ko yatanze uwimbu mwinshi (10T/ha) na V4 (<i>Xanhosoma sagittifolium yera</i>) kubera ko yatanze uwimbu mwinshi (+ 13T/ha) kandi afise imyaho minini minini

MU MWAKA WA KABIRI, abarimyi 8 b'ibisunzu bagwirije imbuto kuri hegitari 3,9; 9 b' inkore kuri hegitari 6,7; 15 b'intengwa kuri hegitari 10,5; 6 b'amasaka kuri hegitari 5 na 9 b'amateke kuri hegitari 6,9. Bose hamwe babaye **abirimyi 47 bakaba bagwirije imbuto kuri hegitari 33** ku gatasi k'umwaka w'uburimyi wa 2017-2018 (Kuva mu kwezi kw'icenda kwa 2017 gushika mu kwezi kwa mbere kwa 2018).

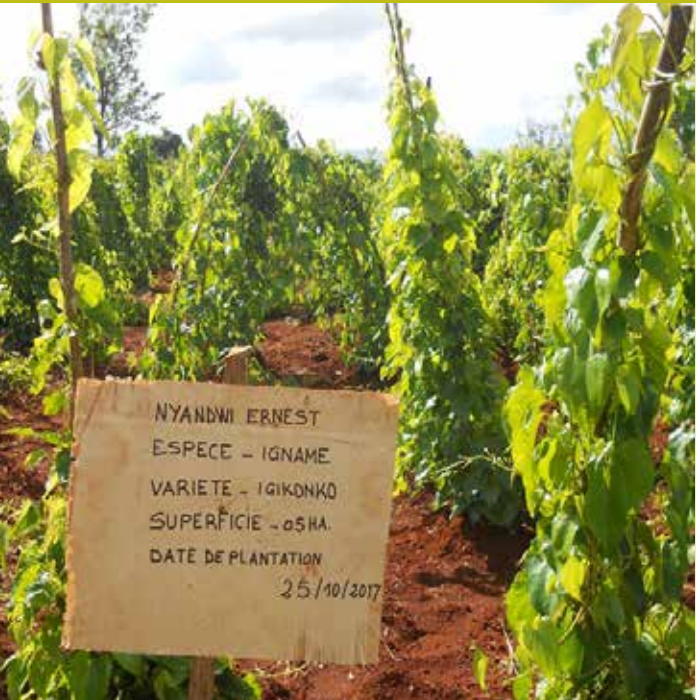
Mu vyerekeye kwemeza ko imbuto zitagira akanenge, ikigo “ONCCS”, cisunze ubuhinga bwo kugwiza izo mbuto zirinda uruzuba bwashikirijwe n'ikigo “ISABU” kandi zashimwe n'abirimyi caratanguye igikorwa co guhinyuza ko imbuto zagwizwe ari nta makemwa koko kugira ngo zizokwandikwe mu gitabo co mu Burundi c'imbuto nziza kandi zirobanuye. Carashizeho imirima 14 y'igeragerezo ku bagwizamuto bo mu karere ka Kumoso. Raporo y'ivyavuye muri ico gikorwa yarashikirijwe ikigo kijejwe kwemeza akaranga k'ubwoko bw'imbuto **(CTNHV)** kugira ngo kigire ico kiyivuzeko. Ico kigo kimaze kwemeza ibiri muri icyo raporo hisunzwe intumbero ngenderwako za **UPOV (Union pour la protection des obtentions variétales)** bizoca biba ntabanduka ubwoko bw'imbuto buce bwandikwa mu gitabo c'imbuto nziza kandi zirobanuye zo mu Burundi **(Catalogue National des Variétés)**.

Kugira ngo abarimyi bamenye neza ubuhinga bwo kugwiza imbuto n'umwimbu w'ibifungurwa bikomoka kuri ivyo biterwa bitanu vyagiriweko ubushakashatsi, amashirahamwe “UCODE-AMR” na “Louvain Coopération” yarakoranye n'ikigo ca Leta “ISABU” mu gutegura amafishi arimwo ubuhinga bukenewe mu kubirima kijambere. Ayo mafishi yanditswe mu kirundi no mu rurimi rw'igifaransa kugira ngo bizofashe abarimyi kuyisomera no gutahura ibirimwo kugira ngo babishire mu ngiro. Azofasha kandi abajejwe iterambere bazokenera bazokwisunga ubuhinga buri muri ayo mafishi mu gihe bazoba babikeneye guteza imbere ivyo biterwa kama.

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ibisunzu



Mu Burundi, igitegwa c'igisunzu camye kirimwa muntumbero yo kugwanya inzara mu miryango myinshi. N'igitegwa mbumbarugo gifise akamaro kanini iruhande y'ibindi bitegwa vyerera mu mizi. Carimwe mu gihugu kuva kera kubera cim-buka cane mu turere dutandukanye ndetse no mw'ihindagurika ry'ikirere kuko kiri mu bitegwa birinda cane uruzuba. Ibisunzu bitanga umwimbu munini kandi bifungugwa bitetswe. Birimwa mu murima wavyovyonyene kandi ntangorane bitera iyo bitewehamwe n'ibindi bitegwa.

1 Ikirere n'isi ibisunzu bikunda

Ibisunzu bikura neza iyo birimwe kuva mu biyaya gushika kumisozi y'uburebure butarenga m 1500 n'ubushuhe bw'ikirere burihagati y'ibipimo vy'ubushuhe birihagati ya degre 23 na 25. Icogitegwa kirakura neza iyokirimwe ahantu invura ishobora k:ugwa amezi atanu. Ibisunzu bikunda isi iseseka kandi irimwo uburyohe, kikanka isi igumye.

2 Uko bategura imbuto

- Manyagura ibisunzu kuburyo uronka ibimanyu bipima nk'amagarama 15 canke 30 g ;
- Burikimanyu cose gitegerezwa kuba gifise igice kiriko urukoba rw'inyuma aho kizomerera ;
- Koza ugworuhande watemye mu munyota kugira ukinge udukoko n'indwara twohatera kubora ;
- Sanza ku zuba izombuto wateguye uzishireko umunyota, zimare nk'iminota 30 kugira : ugira uwomunyota wumuke ;
- Tegura aho uzishira kugira aziduze imitwe, zisanze ntihagire izigerekerana n'izindi, uce ufukisha utwatsi duke ;
- Za urasukako rimwe na rimwe amazimake mu kiringo c'amayinga 2 kushika kuri 4. Inyuma y'aho, ziba zatanguye kumera ;
- Irinde ahowazishize ntihatote gose vyotuma zibora zitaramera.

3 Uburyo bwo kukirima

- Rima ushikane hasi, ibisunzu bik:unda ivu ryinshi, bishobotse urime invura itaragwa kugira habe harahora ;
- Niwimbe ibinogo vy'ubwagukebwa cm 50 kuri 50, n'uburebure buja hasi bwa cm 30 gushika kuri 45 ;
- Tandukanya ibinogo kuri m 1,5 x m 1,5 kuhantu haryoshe, na m 1,5 x m 1, kuhantu hatagira ivu ryinshi kandi hataryonshe cane ;
- Subiza ivu wakuye mur'ico kinogo, uce urenzako amase abongeye mu gihe uyafise ;
- Shiramwo amase (hagati y' ikiro n' ibiro 2) incuro kabiri uyatandukanishe ivu winywe amaja hejuru ;
- Fukaayo mase n'ivu ukore iburi riboneka ;
- Mu gutera Shira imbuto yawe imaze kumera(canke itaramera) mw'iburi nkokuri cm 10 ;

ibisunzu

- Gerageza ntuvune imitwe yameze kugira kibandanye gikura ;
- Ushobora gutera imbere y'uko imvura igwa, ikazosanga vyaradugije imitwe. Ni vyiza ko invura igwa isanga ibisunzu vyaratewe, niho bikura neza kandi bikimbuka cane.

4 Kubungabungaumurima

Ibikogwa nyamukuru bikenewe ni :

- **Kubagara** : gerageza ibisunzu ubibagarei bikiri bito ntibirengewe n'ishamba ngo ribinyohe ;
- **Gufurira** : bifasha kuzibira amazi no kuronka aho gishorera imizi. Amaburi ashobora kugira cm 20 gushikakuri cm 45 z'uburebure. Ukwo amaburi aba maremare bifasha igisunzu gushora ;
- **Kurembera** : bituma igisunzu gikura kikagwiza amababi. Iyo kidashingiwe n'igiti gikomeye kandi kirekire amababi akaryamahasi bituma umwimbu ugabanuka gushika kubice 50 kw'ijana.

5 Kwimbura

Ibisunzu vyimburwa inyuma y'amezi 8 gushika kuri 10. Ni mu gihe amababi yose asa n 'umuhondo canke yumye. Iyo vyimbuwe amababi agisa n'icatsi kibisi, biba bigifise amazi menshi, bituma umwimbu utabikika neza. Kubera ibisunzu vyama binini, ivyo bituma bimanyagurika. Nico gituma basoromesha isuka kugira ntibikomereke cane. Iyo bimanyaguritse, uca ubiherako mu gufungura.

6 Uburyo bwo kubishingura

Ntabuhinga bwo kubika ibisunzu igihe kirekire bikaguma bimeze neza.

Ariko, kubibika mu kiringo gito birakunda :

- Soroma ivyo ukeneye gusa ibindi bigume mu murima ;
- Bika ibisunzu wasoromye ahantu hapfutse ;
- Bibike mu kazu k'ivyatsi kugira ntibishuhigwe ;
- Irinde kubika ibimanyu canke vyakomeretse cane ;
- Vuna imitwe nimba biguma bimerera aho wabibitse.

Ubwo buryo buratuma ushobora kubimaza amezi 3 mu gihe aho vyashizwe hakwirikiranywe neza.

7 Ukobitekwa no kubifungura

- Bihwate kandi ubimanyagure mu bimanyu wipfuzwa ;
- Bironge akarenga rimwe ukoresheje utwatsi twiza kandi tutamota gushika aho kunyerera bihera gose ;
- Biteke mu mazi, ushiremwo ivyotuma bimota neza. Ushobora kubiteka kubiharage ukongeramwo ivyo vyose vyongereza akanovera ;
- Kubera bimeze nk'umutsima, ibisunzu bikozwa ubwokobwose bw'imboga.



inkore



Inkore, nikimwe nk'intengwa mu biterwa vy'ibinyamikere-ra bifise akamaro kanini cane. Nkako, uravye mu fungurwa zaco, kirafise ndemamubiri (porotéiine) kurugero rurengeye ayo usanga mubiterwa bisangiye umurwi nk'ibiharage n'ubushaza, kandi birimwa cane mugihugu ugereraniye n'inkore. Birajanye neza kumateke, kubijumbu eka mbere no kubitoke. No kuntete zibigori birajanye nkakurya kw'ibiharage. Igiterwa c'inkore naconyene nk'intengwa ico gisumbije ivyo bindi ni uko zirinda uruzuba n'imvura, zigatwara uburyo bubayabaye mu kuzirima kandi zigatanga umwimbu ushimishije. Naho biri uko inkore usanga zirimwahake mu Burundi atarimu Kiyaya c'imbo. Biracabira hariho ubwoko buriko burakwiragizwa muntara za Kumoso kandi twiyumvira ko izombuto zizoshika no mubindi bice vy' igihugu kugirango gisahirize mu kurwanya inzara na mwaburya cera ningoga mu mezi atarenga atatu kandi naconyene nk'intengwa kikarinda uruzuba.

1 Gutegura umurima

Ntaho bitandukaniye n'ibindi biterwa bisangiye umurwi canke ibindi binyantete. Rima ushikane isuka hasi. Muguhanda amasinde, gerageza wimbike ukuremwo urwiri uce urwanikira rwumye urushire muri nyabarega. Imbere yo gutera komorora neza umene amasinde kandi uringanize neza umurima. Kugira bimere ari vyinshi kandi ubikingire ingwara y'urubozo rw'imizi, tora neza imbuto uziterane n'imiti thiram canke benelate, 2 gr z'umuti ku kg c'imbuto.

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2 Ifumbire

Nkuko twamaze kubivuga, icogiterwa gitwara uburyo bubayabaye mukukirima mbere vyibonekeza no mukugifumbira. Ehe raba, kirafise impano yokwigaburira icunyunyu citwa azoti kigikuye mu muyaga wo mukirere nkakurya kw'intengwa canke ibiharage bigatuma ya fumbireya urée ariyo bita y'umunyu itakerwa. Igisigaye ni ukwongeramwo ifumbire bita y'intete DAP.

Kwisi igifise uburyohe shiramwo amatoni 5-10 y'umwavu w'amase canke wanyabarega uvunze ne kuri hegitari imwe. Kw'isi yarushe kandi itamera shiramwo 10-20 t hamwe na 500 kg z'ishwagara zo kurwanya ubusebwe kuri hegitari imwe. Muri make uri mumurima mugufumbira, mwibango ushiramwo amashi abiri yuzuye hamwe nubufuniko 3 bwaprimus bwuzuye neza DAP, ugaca ubifuka nakavu imbere yuko utera mw'ibango imbuto ahandiho ntizomera.

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3 Gutera

Naho inkore zirinda uruzuba, ni vyiza gutera imvura itasuye kugatasi canke kumpeshi kugira umuntu yizere umwimbu ukwiye, ushobora no guzitera mummyaba mucu. Wotera intete 3 canke 5 mwibango, amabango nayo akaba atandukanijwe na 75 canke 100 cm. Imirongo itandukanijwe na 100 cm (hagati y'imirongo) na 75 cm guskika kuri 100 cm mu mirongo.

inkore

4 Kukorera igiterwa

Hanyuma y' indwi zitatu canke zine uca wankanisha ibiterwa mw'ibango kuburyo usigarana bibiri mwi-bango bizobandanya gukura. Bagara mugucishamwo isuka uvyure ivu bikiri imigondoro, bibagarwa ubwambere bigeretse ambabi hanyuma ukazobandanya uko ivyatsi bigiye biribonekeza. Uriko urabagara kwegereza ivu bituma imizi yinjira neza mw'ivu kadi birankinga inkukura.

5 Udukoko n'indwara

Mubisanzwe wateranye wamuti twavuga ntangwara zifata cane inkore. Ahanini zibangamirwa n'ubukoko cane cane burya amababi nimishishi hamwe n'udukoko dutera ibungwe iyo umwimbu wabonetse.

None twoburwanya gute iyo buteye mu murima ?

Ni nkakurya kubiharage canke k'untengwa. Pompa ukoresheje umuti witwa dursban canke diméthoate, 400 cc kw'ipompo yuzuye amazi canke 12 cc kumuti witwa décis uko indwi zibiri zihaciye gushika bu-gabanutse.

6 Kwimbura be no kubika imbuto

Soroma zeze, imbere yo kukubita anikira zume neza, zikingire ibungwe na actellic super 50 gr/100 kg uzoze urongeramwo ukwo amezi atatu atashe. Hari n'ubundi buryo budakoresha imiti aribwo bwubu : Gukoresha umunyota, umusenyi canke ingwa : kurugero 1 : 1, $\frac{3}{4}$ ni ukuvuga urupimo rw'imbutu run-gana n'umunyota canke urupimo rw'imbutu uvanga na bitatu vya bine vy'umunyota.

Gukoreshaeje amavuta y'ibiyoba canke y'amamesa : 3 gr/100 gr z'imbutu.

Nomukubibika banza uzanikire ahumutse kandi haca akayaga. Uzibika mu mifuko y' amagunira muga-bo ubuhari imifuko mishasha yakijambere bita **PICS** ibika neza intente mu gihe kirekire kirenza amezi atandatu.



intengwa



Intengwa, nikiwe mubiterwa vyibinyamikerera bifise akamaro kanini cane. Nkako uravye mu fungurwa zaco, kirafise ndemamubiri (porotéine) ku rugero rurengeye ayo usanga mubiterwa bisangiye umurwi nk'ibiharage n'ubushaza, kandi birimwa cane mugihugu ugereraniye n'intengwa. Mukubifungura birajanye neza kumateke, kubijumbu ekambere no kubitoke.

Sivyogusa, igiterwa c'intengwa, ico gisumbije ivyo bindi n'uko zirinda uruzuba n'imvura, zigatwara uburyo bubayabaye mu kuzirima kandi zigatanga umwimbu ushimishije. Ntimwumve rero naho intengwa zirata ivyiza vyinshi ntizirijukirwa kurimwa mu Burundi kurugero rushimishije nko mu buhindi bihugu vyo Afirika y'uburengero be no mubuseruko nka Tanzania n'Ubugandi. Ego niko aha iwacu hari intara nka kumoso na Kirimiro n'izindi ntara atacubaza ko igiterwa cotezwa imbere kugirango gifashe kurwanya ubukene n'inzara na mwaburya icogiterwa atantara kitobamwo hamwe cokwijukirwa.

1 Gutegura umurima

Ntaho bitandukaniye n'ibindi biterwa bisangiye umurwi canke ibindi binyantete. Rima ushikane isuka Muguhanda amasinde, gerageza wimbike ukuremwo urwiri uruturire canke urushire muri nyabarega. Imbere yogutera komorora neza umene amasinde kandi ukangaze neza umurima. Imbutu kugira zimere arinyishi kandi ubikingire ingwara y'urubozo rw'imizi tora neza imbutu uziterane n'imiti thiram canke benelate, 2 gr z'umuti ku kg c'imbutu.

2 Ifumbire

Nkuko twamaze kubivuga, icogiterwa gitwara uburyo bubayabaye mukukirima mbere vyibonekeza no mukugifumbira. Eheraba, kirafise impano yokwigaburira icunyunyu citwa azoti gushikakurugerorwa 200 kg kw'ihigitari bigatuma yafumbireya urée ariyo bita y'umunyu idakenerwa. Igisigaye ni ukwongeramwo ifumbire bita y'intete ariyo DAP.

Kwisi igifise uburyohe shiramwo amatoni 5-10 w'umwavu w'amase canke wanyabarega uvunze neza kuri hegitari imwe. Kwisi yarushe kandi itamera shiramwo 10-20 t hamwe na 500 kg z'ishwagara mu buryo bwo kurwanya ubusebwe kuri hegitari. Muri make uri mumurima mugufumbira, mwibango ushiramwo amashi abiri yuzuye umwavu be nubufuniko 3 twa primus twuzuye neza DAP, ugaca ubifuka nakavu imbere yuko uteramw 'ibango imbutu ahandiho ntizomera kuko zosha.

3 Gutera

Naho intengwa zirinda uruzuba, ni vyiza gutera imvura itasuye kugatasi kugira umuntu yizere umwimbu ukwiye.

Wotera intete 3 canke 5 mwibango, amabango nayo akaba atandukaniye na 75 canke 100 cm. Imirongo itandukaniye na 100 cm (hagati y' imirongo) na 75 cm guskika kuri 100 cm mu mirongo.

intengwa

4 Kukorera igiterwa

Hanyuma y'indwi zitatu canke zine uca wankanisha ibiterwa mw'ibango kuburyo usigarana bibiri mwi-bango bizobandanya gukura.

Bagara mugucishamwo isuka uvyure ivu bikiri imigondoro, bibagarwa ubwambere bigeretse ambabi hanyuma ukazobandanya uko ivyatsi bigiye biribonekeza. Uriko urabagara kwegereza ivu bituma imizi yinjira neza mw'ivu kadi birakinga inkukura.

Udukoko n'indwara :

Mubisanzwe wateranye wamuti twavuga ntangwara zifata cane intengwa. Ahanini zibangamirwa n'ubukoko cane cane impongwa zabwo zinjira mu mukerera canke umushishi zikarya intete zose ziriyo umwimbu ukaba upfuye uko rero; hamwe nudukoko dutera ibungwe iyo mwimbu wabonetse.

None twoburwanya gute buteye mu murima ?

Pompa ukoresheje umuti witwa dursban canke diméthoate, 40 cc k'impompo yuzuye amazi manke 12 cc kumuti witwa décis uko indwi zibiri zihaciye gushika bugabanutse.

Kwimbura be no kubika imbuto :

Soroma zeze neza imbere yo kukubita anikira zume neza, zikingire ibunwe na actellic super 50 gr/100 kg uzoze urongeramwo ukwo amezi atatu atashe. Harin'ubundi buryo budakoresha imiti aribwo bwubu : Gukoresha umunyota, umusenye canke ingwa : kurugero 1 : 1, $\frac{3}{4}$ n'ukuvuga urup1mo rw'imbuto run-gana n'umunyota canke urupimo rw'imbuto uvanga na bitatu vya bine vy'umunyota.

Gukoresheje amavuta y'ibiyoba canke y'amamessa: 3 gr/100 gr z'imbutto Nomukubibika banza uza-nikire ahumutse kandi haca akayaga. U zibika mu mifuko y' amagunira mugabo ubuhari imifuko mi-shasha yakijambere bita PICS ibika neza intente mu gihe kirekire kirenza amezi atandatu.



amasaka



Amasaka ni igiterwa camuka muri Afrika, mu bice vy'uburengero bwa Ethiopiya be no mu karere k'ubuseruko bwa Tchad. Ubwoko bwabanje bwari amasaka y'amanyeshamba ameze nk'ivyatsi bita sorghum bicolor ssp.verticilliflorum. Amasaka ngo yoba amaze imyaka ibihumbi bitanu canke irenga atanguye kurimwa.

Bemeza yuko amasaka yavuye muri Ethiopiya akwiragira muri Afrika y'ubuseruko, Asiya yubuseruka , mu Buhindi, be no mu bu Chinwa, biciye muri ya ma barabara y'uguhanahana ibidandazwa mu bihe vya Yezu Kristu.

Yageze muri Amerika avuye muri Afrika mu mwaka w'1857, aho ahanini agaburira ibitungwa. Mu Burundi amasaka adufitiye akamaro kanini :

- avamwo inzoga y'impeke(inzoga y'imanza zitari nke z'imibano mu gihugu : ubukwe, ikibiri, n'izindi manza
- umusururu
- ubugari
- impengeri (bayatekanye n'ibiharage)
- ibishakara bigaburira inka mucu ...
- imisigati ku bwoko bumwe bumwe bw'amasaka

ISABU rero irafise igisata gikora ubushakashatsi ku masaka.

Amasaka atewe kw'isi yimbuka, ihagitari imwe ishobora kwimbuka hagati ya toni 1 kugeza kuri 3.

1 Mbe amasaka akunda hehe

Amasaka amera nka hose. Hari imbuto zikunda mu mitumba miremire (m zirenga 1500) aho amara amezi atandatu, mu mitumba yo hagati (hagati ya m 1000 na m 1500) canke mu biyaya (musi ya m 1000).

2 Gutegura umurima

Amasaka yimbuka neza atewe aharyoshe kandi hadatega amazi. Mu kurima ubika amasinde, randura neza urwiri. Hamaze kuvunda , komorora , uce ubiba amasaka mu murima usa neza.

3 Kubiba

Biba hagati y' itariki 15-25 kigarama. Urengaje iyo tariki menyako amasaka yawe ashobora kubura imvura ikwiye kugira yere. Imbere yaho naho intete zohava zibora. Kandi imirima yereye rimwe, inyoni zona make.

Biba ku mirongo. Ibiro 2 ku kivi ca m 20 kuri 20 birakwiye. Ni ukuvuga nk'ibiro 6-7 kuri hegitari.

amasaka

4 Imbutu

Biba imbutu zirobanuye zivuye ku mishi itagwaye kandi zitagira ibihumbwa. Bishobotse uzinike mu muti witwa thiram imisi 2 imbere yo kubiba.

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5 Ifumbire

Tabiza amase y'ibitungwa canke yomuri nyabarega itoni 10 kuri hegitari. Ushiremwo na angeri ivanze N PK ibiro 80-46-30 kuri hegitari.

Bikwirikiranye gutya :

Amase y'ibitungwa (canke nyabarega) ange ri, ivu, imbutu, ivu

.....

6 Kubagara

Amasaka amera neza abagawe kandi akankanywa. Hagati y'indwi zitatu na zine , bagara, wankanye, gutyo woroherwe mu kwongeramwo angeri yitwa» urée».

Mu kwankanya :

- Raba ko isi ibomvye.
- Randura imivyaroy mibimibi, ugerageze usige cm 10 (pimisha ikiganza cuguruye intoke zirabe hasi)hagati y'umuyyaro n'uwundi.
- Bikore ku gihe kuko amasaka amaze gukura nta kamaro, aba yamazey kuryana.

Mu gushiramwo angeri, ca akavo ka cm 10 hirya no hino y'umurongo uteyemwo amasaka. Igemerir rimwe ku kivi rirakwiye.

Kubagara irya kabiri bishobotse biba vyiza cane kuko amasaka aca yihuta gukura.

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7 Udukoko n'ingwara z'amasaka

Ingwara z'amasaka sinke, ariko iziyasinzikaza si nyishi iyo upompye. Hari ingwara zifata amababi, izifata imishi canke umutumba bivana n' aho amasaka atewe be n'igihe ingwara ikunda gukara.

- **Twovuga nk'izi :**
Kuyirwanya : Gutera ubwoko buyirinda.
 - **Helminthosporiose :** Ikara mu bice vy'intara zishushe kandi zibomvye ize ngwara zituma amababi agira amabara y'ibizengera birebire na bigufi bisa n'ivu.
Kuyirwanya : Gutera ubwoko buyirinda, no guturira ibishakashaka.
Ikinofa (hamwe bavuga ko ishaka ryarumvye) : Biterwa naka mikorobe ko mu bwoko bw'utuzinu umushi uhinduka ikazana igifufu cirabura Kwinika imbutu mu muti bita thiram imbere yo kuzitera.
 - **Hari ubwoko 3 bw'ikinofa :**
Sphacelotheca, S. Sorghi, S. reiliana cruenta
Mpongwa, yinjira mu ngingo y'ishaka.
Nta muti, ariko guhindura umurima n'ibiterwa ako gakoko gakunda (ntusubize amasaka aho ayarwaye ya hora), birafasha.
-

8 Kwimbura no Kubika imbutu

Amasaka yera ku mezi 5-6. Intete zumye manyura imishi myiza myiza itagira ingwara ikwiranye n'imbutu ukeneye kubiba umwaka ukurikira.

Zanikire, zimaze kwuma uhure, ugosore, uzibike ukwazo. Kirazira kuzibika ahatose. Ku yasigaye vuna umushi umwe umwe mujana muhira aho mwanikira, mugahura, muka-gosora.

Bishobotse bikana n'umuti bita sumithion 3% niho ata bwoba bw'ukubungwa.



amateke



Iteke riri mu bitegwa biribwa amagoma kandi bikamira mu kuzimu. Mu kubigwiza ukoresha amateke nyene. Ubwoko bw'amateke babutan dukanya bakoresheje amabara yayo, amababi, ingene vyibumvye, iminsi bimara mu murima. Iteke rikunda ahantu hashushe kandi hasisiye, rikenera amazi ari hagati ya mm 1500-2000 y'amazi y'imvura. Rirakenera ubushuhe buri hagati y'ibipimo vya 25 na 29.

1 Gucagura umurima

Iteke rikunda isi imera, yoroshe, amazi yo mu kuzimu ari hafi, kandi ifise ubukarihe buri hagati ya pH 5,5 gushika 6,5). Isi yo kurima amateke iba idaherutsemwo amateke canke ibindi bitegwa biri mu muryango umwe n'amateke. Ubwoko bw'amateke y'ikirundi canke ayo bimeze kumwe afise ibara ritukura akunda ahantu hinjiye gose. Ubwo bwoko bwimbuka neza. Ubwoko bw'amateke y'ikizungu buba hose kandi isi ntirinda kuba yinjiye gose kandi ntibukenera amazi menshi nka burya bundi. Butewe mu gitutu burimbuka gose cane na cane cane mu bitoke canke buteranye n'ibisunzu. Ubwo bwoko kandi burarinda n'amazi.

2 Gutegura umurima

Bategura umurima uko bisanzwe bikorwa ku ibindi biterwa vyamira mu kuzimu, ariko bagatera ku maburi aramvuye canke mato, canke mu binogo bingana na cm 20 kuri cm 20.

3 Gutegura imbuto

Imbere yo gutera, kugira ukingire imbuto indwara ya sutama, (*Phytophthora spp.*) n'izindi ndwara zo mu bwoko bw'ibizinu, ukora ibi bikurikira :

- Wanikira imbuto amasaha 24.
- Imbuto uca uyivanga n'umunyota.
- Imbuto uyikoza mu mazi arimwo umuti (solution insecticide-fungicide) hama ugaca wanikira amasaha 24 imbere yo gutera mu murima.

Ushobora kandi kuyikoza muri Ridomil Gold MZ 68 (2 g/L) na Benlate 50% (1 g/L y'amazi) bivanze. Hama uca ubanza kureka bigacako akayaga imbere yo gutera mw'ibango.

4 Gufumbira

Mu gufumbira amateke bakoresha umwavu w'ikizungu n'uwikirundi. Ku mwavu w'ikirundi bakoresha urushi rumwe rw'umuntu akuze, hafi amagarama 500. Kw'ifumbire y'ikizungu, umurimi akoresha ubwoko butatu bwa angeri (DAP, uree, Kcl) ku rugero rwa garama 5 za DAP, 12 za KCl na 10 za uree. Mu bisanzwe, kw'isi yinjiye, aho umwimbu ushobora kuja hagati ya tone 15 na 20 kw'I hegitari, bafumbira uku gukurikira :
- mu gutera : itonne 25 gushika kuri kw'I hegitari z'umwavu w'ikirundi, Umwavu w'ikizungu n'uw'ikirundi barabivanga mu kinogo ugomba utere. Urashobora kwongerako umwavu w'ikirundi mu mbavu n'imbavu z'igiterwa kuri cm 10 canke 15, hama ugaca urenzako ivu.

amateke

5 Gutera

Igihe ciza co gutera gihurirana n'umutasuro. Igice c'iteke gisigara hejuru kugira bigabanye ukubora. Hagati y'ikinogo n'ikindi haje cm 60-80, imirongo ibiri itandukanijwe na cm 80-100, nukuvuga ibinogo 15 000 kw'i hegitari.

6 Gukorera umurima

Umurima w'amateke ubagarirwa kabiri ariko bikavana n'uko uwo murima urara, ivyo bikagirwa mu mezi atatu ya mbere. Ariko igihe cose ushizeko umwavu, uratorera ugukuramwo ivyatsi.

7 Ikurakuranya ry'ibiterwa

Amateke bayatera aho bakuye ibisunzu canke ibigori. Ntakunda cane isi y'umushike. Ahavuye amateke harashobora guterwa imyumbati, ibigori canke ibisunzu. Ay'ikirundi arashobora kurimwa aho barima umuceri.

8 Indwara

- **Mildiou** ariyo Ruyoka (*Phytophthora colocasia*) : uko bayirwanya: gutera imbuto nziza kandi irinda ingwara, gutera mugihe hadakanye cane no gutera mu ntara zishushe mu biyaya, kurobanura ibirwaye mu murima ukabita hamwe reo no gupompa ama fungicides ku rugero rwa 6 g/L y'amazi mu misi 14.
- **Sutama** : iterwa n'akagera kitwa *Pythium spp.* Mu ku yirwanya bakoresha dithane na ridomil. Mu kuyirwanya kandi, batera ku maburi aramvuye (billons) hama mu murima ugashiramwo umwavu w'ikirundi mwinshi.
- Indwara y'umugera yitwa Dasheen Mosaic Virus (DMV) iterwa n'udutuku. Mu kuyirwanya utera imbuto itagwaye. Mu murima, imaze kwibonekeza, ibimaze gufatwa uza urabirandura.

9 Kwimbura

Amateke yimburwa iyo hatanguye gususuruka, igihe c'ici cegereje canke mu ci hagati. Kugira wimbure amateke, ubanza gukurako amababi asa n'umuhondo canke yatanguye kwuma ariko bitavuye kukugwara ariko bivuye ku kwera kwayo. Amateke uko amara umwanya munini mu kuzimu niko yimbuka yakomeye. Uhejeje gusoroma, ikinogo ukuyemwo iteke urakizibira. Urashobora gusoroma imyaho mikeya ku kigoma kimwe hama ugasubizako ivu kugira amyaho isigaye mu kuzimu ibandanye ikura. Ushobora kandi kwimbura umurima wose mu kurandura iteke ryose.



