



Funded by
the European Union



IMFASHANYIGISHO KU BUHINZI BW' AVOKA



Gicurasi 2024

Ishakiro

1. Akamaro ka avoka	2
2. Aho avoka zikunda	2
3. Amoko y’avoka yamamazwa mu Rwanda	2
4. Gutegura ingemwe zo gutera	3
5. Gutegura umurima	7
6. Gutera	7
7. Imirimo y’ingenzi yo gufata neza avoka mu murima.....	8
8. Gusarura no gufata neza umusaruro	9
9. Indwara z’ibanze n’ibyonnyi by’avoka n’uburyo bwo kuzirwanya.....	10

1. Akamaro ka avoka

Avoka ni igihingwa cyakomotse muri Amerika yo hagati n'iy'amajyepfo. Mu Rwanda yera mu turere twose tw'Igihugu ariko cyane cyane mu majyepfo, ikaba ikize kuri proteyine, potasiyumu, vitamin B1, B2, B6, C, D na E. Amavuta ya Avoka arwanya indwara z'umutima na kanseri kandi zikoreshwa mu nganda zikora imiti, amavuta yo kwisiga n'amasabune. Ibishishwa n'ibisigazwa by'inganda bikorwamo ibyo kurya by'amatungo. Ubuhinzi bw'avoka buzanira umuhinzi amafaranga menshi cyane cyane amoko nka Hass na Fuerte akunzwe ku isoko mpuzamahanga.

Umusaruro kuri hegitare imwe ushobora kugera kuri toni 40 ku mwaka.

2. Aho avoka zikunda

Avoka ihingwa ahantu hari ubutaka bufite isi ndende, buhitisha umwuka, bufite ifumbire ihagije, bufata amazi ariko ntarekemo, kuko yatuma imizi ibora bityo igiti kikuma.

Ikunda ahari ubusharire (pH) buri hagati ya 5.5 na 6.5 n'ubutumburuke bugera kuri m 2500; ibi bikaba bigaragaza ukuntu avoka ishobora kwera ahantu henshi hatandukanye. Ikunda ahantu hagwa imvura iringaniye (mm 1250-1750) mu mwaka, ariko ntigomba kuba muni ya 750mm. Kugira ngo ikure neza kandi itange umusaruro uhagije, ubushyuhe bukenewe ni hagati ya dogere selesiyusi 16 na 30.

3. Amoko y'avoka yamamazwa mu Rwanda

Mu Rwanda haboneka amoko menshi ariko ashobora kwera hose ni atatu: Hass, Fuerte na Ettinger bitewe n'uko ashobora kwihanganira ubutumburuke buri hagati ya m 2000 kugeza kuri m 2500.



Ifoto 1: Hass



Ifoto 2: Fuerte



Ifoto 3: Ettinger

Ubundi bwoko buboneka muri RAB harimo n'ubushobora kwihanganira ubutumburuke buri muni ya m 2000, ayo moko ni Choquette, Collinson, Simpson, Booth 7 na Booth 8.

Ubwoko bwa Hass bushobora gutanga umusaruro ugera ku biro 120 ku giti nyuma y'imyaka irindwi gitewe. Ubu bwoko ni nabwo bukunzwe cyane ku isoko mpuzamahanga kuko imbuto zabwo zigira amavuta menshi bityo zikabasha kumara igihe kinini nyuma yo gushya zitarangirika. Ubu bwoko bukurikirwa n'ubwita Fuerte mu gukundwa no kugira amavuta menshi, Fuerte niyo

itanga umusaruro mwinshi ugereranyije na Hass kuko yo igeza ku biro 180 ku giti ku mwaka nyuma y'imyaka irindwi itewe.

4. Gutegura ingemwe zo gutera

➤ Gutoranya ibiti by'imbutu

Ni byiza gutangira ubuhumbikiro bw'avoka mu kwezi kw'Ukuboza - Mutarama kuko ari cyo gihe avoka za gakondo ziba zeze ku buryo ibibuto biboneka bitagoranye. Ibi kandi bituma ingemwe zibanguriye zizabonekera igihe cyiza cy'itera (Nzeri-Ukwakira).

➤ Gutegura ubuhumbikiro

- Guhumbika bikorerwa mu butaka bwiza, buseseka, burimo ifumbire ihagije, kandi butari mu gishanga.
- Ubuumbikiro burubakirwa, bugasakarwa, bagatera ibibuto mu mirongo.
- Umurongo n'undi itandukanwa na cm10, mu murongo ibibuto biba byegeranye, utwikirizaho agataka gake n'utwatsi duke hanyuma bikavomererwa kenshi mu gihe cyose imvura itagwa.
- Nyuma y'ukwezi n'igice kugeza kuri abiri, ibibuto biri mu buhumbikiro biba bimaze kumera. icyo gihe umumero uba ureshya na cm 5-10 kandi uba ugifashe ku bibuto. Urandura ikibuto cyameze, ugakata umuzi kuri cm 3-5 uvuye ku kibuto kugira ngo izamereho indi mizi, ukagishyira mu gihoho cya pulastiki gipfumaguye cyuzuye igitaka rivanze n'ifumbire.
- Bakoresha ibihoho bya cm20xcm20, kuko bifata umwanya muto muri pepiniyeri kandi bikagabanya akazi. Ibihoho biterekwa ku murongo, muri pepiniyeri itwikiriye. Ingemwe zitabwaho, uvomerera iyo imvura itaguye.

➤ Gutegura ibibuto byo kwinaza

Imirimo yo kurera ingemwe zizabangurirwa ikorwa mu buryo bukurikira:

- Hatoranya ibiti bya gakondo bifite avoka zeze neza kandi zidafite indwara. Ibibuto bikurwa muri avoka zihanuwe ku biti: si byiza gukoresha ibibuto byatoraguwe kuko biba bifite uburwayi.
- Hasarurwa avoka zeze neza zigatarwa. Iyo zimaze gushya, zikurwamo ibibuto bikarongwa mu mazi meza, nyuma bikumutswa ahantu hatava izuba.
- Mbere yo guhumbikwa, ibibuto binyuzwa mu mazi arimo umuti wica uduhumyo (urugero: copper oxychloride) bikamaramo nk'iminota 10 nyuma bigashyirwa ku gatanda ahantu haherereye bikumuka.

➤ **Kurera ingemwe zizabangurirwa**

Ubuhumbikiro bwubakwa hakurikijwe ibipimo bikurikira:

- Ubugari bw'umutabo: m1.20-m1.50,
- Uburebure bw'umutabo: m10-m12,
- Hagati y'umutabo n'undi: m0.8-m1,
- Ibiti byo gushinga bigomba kuba bifite m1.8m-m2,
- Ucukura umwobo wa cm 50 z'ubujyakuzimu,
- Ushingamo bya bita ku buryo ubuhumbikiro buba bufite m1.30-m1.50,
- Igomba kuba ifite ibiti, imbaho (cyangwa imbabari) ku mpande byo gutangira ibihoho,
- Igomba kuba kandi itwikiriye kugira ngo ugabanye izuba (iyo sakaro ntigomba kuba igizwe n'ibyatsi bimera cyangwa bifite imbuto zimera).

➤ **Guhumbika ibibuto**

- Guhumbika bikorerwa mu butaka bwiza, buseseka, burimo ifumbire ihagije, kandi butari mu gishanga.
- Ubuhumbikiro burubakirwa, bugasakarwa, bagatera ibibuto mu mirongo.
- Hagati y'umurongo n'undi basigamo cm 10; mu murongo ibibuto biba byegeranye, utwikirizaho agataka gake n'utwatsi duke hanyuma bikavomererwa kenshi igihe cyose imvura itagwa.

➤ **Kugemurira mu bihoho**

- Hakoreshwa ibihoho bifite cm 20 z'umurambararo na cm 20 z'uburebure (ibihoho birengeje uru rugero biba byiza nubwo byongera ikiguzi; iyo ibihoho bipfutse muni, biratoborwa kugira ngo amazi azajye abona uko asohokamo. Ibihoho bishyirwamo imvange y'itaka ryiza, ifumbire y'imborera iboze neza n'umucanga ku bipimo bya 3:1:1.
- Nyuma y'ukwezi n'igice kugeza kuri abiri, ibibuto biri mu buhumbikiro biba bimaze kumera. icyo gihe umumero uba ureshya na cm 5-10 kandi uba ugifashe ku kibuto. Urandura ikibuto cyameze, ugakata umuzi kuri cm 3-5 uvuye ku kibuto kugira ngo hazamereho indi mizi, ukagishyira muri bya bihoho byateguwe.



Ifoto 4: Urubuto rwa avoka rwameze neza

➤ **Kubangurira**

- Kubangurira bikorwa ku mezi 2-3 nyuma yo kugemurwa mu bihoho, urugemwe ruba rufite cm 20 kugera kuri cm 30, rufite umubyimba ungana n'ikaramu.



Ifoto 5: Urugemwe rwo kubangurira

- Hari uburyo bwinshi bwo kubangurira avoka ariko ubukunze gukoreshwa ni uburyo bwo kubangurira ku mutwe, kuko ni bwo butanga ijanisha rinini mu gufata. Bikorwa bafata urugemwe babanguriraho bagakuraho umutwe bakatiye hagati y'ahoroshye n'ahakomeye, bagasatura ku mutwe hagati kugeza kuri cm 3-4. Nyuma y'aho babaza (kugegena) impande zombi agashami ko kubanguriza (umubangurizo), bakakinjiza muri rwa rugemwe rwasatuwe, bagahambira n'agasashe gato ku buryo igikomere cyose gipfukwa. Ibi bikurikirwa no gupfuka ka gashami kabangurijwe hakoreshejwe ishashi ibonerana.
- Umubangurizo ukoreshwa ni umutwe cyangwa ishami by'igiti cy'avoka y'ubwoko bwifuzwa (butanga umusaruro mwiza, mwinshi kandi buryoha). Uwo mubangurizo mwiza uba ifite amaso 3-4, ifite uburebure buri hagati ya cm 6-10.



Ifoto 6: Akabangurizo gaconze habiri



Ifoto 7: Gucomekamo agashami



Ifoto 8: Guhambira no gutwikira

➤ **Kwita ku ngemwe nyuma yo kubangurira**

- Nyuma y'ibyumweru bitatu umaze kubangurira, amababi ya mbere atangiye gupfundura, ishashi yatwikirijwe ka gashami ikurwaho.
- Ni ngombwa gukata buri gihe ibisambo bishibuka munsu yaho igitsindiro gitereye ku rugemwe rwabanguriweho.
- Urugemwe rumaze guhindura amababi icyatsi kibisi nirwo rukwiriye guterwa mu murima; ruba rumaze amezi 2-3 rubanguriye.
- Ishashi yahambiriye ku gisebe igomba gukurwaho kimaze gukira kugira ngo itanyunyuze urugemwe uko rugenda rubyibuha.



Ifoto 9: Urugemwe rwafashe

➤ **Imirimo rusange yo kwita ku ngemwe mu buhumbikiro**

- **Kuvomerera:** Ni byiza kuvomerera igihe cyose imvura itagwa. Kuvomerera bigomba gukorwa mu gitondo. Si byiza kuvomerera nimugoroba kuko amazi atinda ku mababi akaba yatuma uburwayi bwororoka vuba ndetse n'indwara zo mu mizi zikororoka vuba.
- **Kumenera:** bikorwa kugirango itaka ryo mu bihoho ryorohe bityo amazi abashe kwinjiramo neza.
- **Kubagara:** ibyatsi bimera mu bihoho bigomba gukurwamo bikigaragara.
- **Gukuraho ibisambo:** udushami twose tumera munsu y'aho babanguririye tugomba gukurwaho buri gihe. Kwimura ibihoho no guca umuzi warenze igihoho: ibi bikorwa kugirango ingemwe zidashinga imizi mu butaka bityo bikazagorana igihe cyo kuzitera mu murima. Imbutu uzimura cyangwa uzinyeganyeza nyuma ya buri kwezi kugirango urinde umuzi kwinjira mu butaka.
- **Gutera imiti:** ingemwe z'avoka zikunda guhura n'uburwayi butandukanye. Aha twavugaga: kubora kw'imizi (root rot), akaribata (anthracnose), n'izindi. Ibyonyi bikunze kugaragara ni tiripusi (thrips), udutagangurirwa (mites), n'ibindi. Ni ngombwa rero gutera imiti mu buhumbikiro. Mu kurwanya indwara, batara basimburanya iyi miti ikurikira: imiti irimo cuivre (Gitenge, Komando, Funguran, Nordox), imiti irimo sulfur (Thiovit, Miovit, Thiogil, Ramsulfur), imiti irimo carbendazim (Rodazim, Megazim, Goldazim). Mu kurwanya ibyonyi, batara basimburanya iyi miti ikurikira: imiti irimo abamectin (Dudu abamectin, Romectin, Glider), imiti irimo acetameprid (Aster extrem, Dudu acetameprid),

imiti irimo lambda-cyhalothrin (Lamdex, Lamdaline), imiti irimo alpha-cypermethrine (Kiboko).

- **Kumenyereza ingemwe zenda guterwa:** kugirango ingemwe zikomere bityo zizabashe gufata neza mu murima, ni ngombwa kuzimenyereza bagabanya gahoro gahoro amazi zihabwa mu buhumbikiro ndetse bagabanya gahoro gahoro n'igicucu. Ibi bitangira gukorwa habura nk'ukwezi kumwe kugira ngo ziterwe mu murima.

5. Gutegura umurima

- Hinga umurima neza uvanemo urwiri.
- Ni ngombwa kubanza kugaragaza mu murima ahazaterwa ibiti by'avoka, hagashingwa imambo.
- Cukura imyobo ya cm 60-100 impande na cm 60-100 ibujyakuzimu (ibi bipimo bigenda bihinduka bitewe n'ubwoko bw'ubutaka). Igitaka cyohejuru gishirwa uruhande rumwe aricyo gisubiramo kivanze n'ifumbire, ibyo bigakorwa nibura icyumweru mbere yo gutera.
- Mu mwobo umwe hashyirwamo imborera ingana nibura n'ibase nigice
- Ku ngemwe zibanguriye, intera hagati y'igiti n'ikindi no hagati y'imirongo iba m 5 iyo nta yindi myaka iteganya guterwamo cyangwa se m 6 kugeza kuri m 7 iyo uteganya guhingamo indi myaka.



6. Gutera

- Avoka ziterwa mu ntangiriro y'imvura kuva muri Nzeri kugeza mu Ugushyingo.
- Mu gutera igihoho kivanwaho hagasigara igitaka gikikije imizi kugira ngo ingemwe zifate neza.
- Umugoroba ubanziriza umunsi wo gutera, ni byiza guha ingemwe ziri mubihoho amazi ahagije.
- Mu gihe cyo gutera ugomba kuzuza itaka ukarenzaho gato kandi ugatsindagira wirinda ko amazi areka hafi y'uruti igihe ingemwe zikiri nto kuko bituma hashobora kuzaho indwara z'imizi.

7. Imirimo y'ingenzi yo gufata neza avoka mu murima

- **Gushingirira:** Ni byiza gushinga imambo hafi yabyo zifasha kubiyobora bigana hejuru; hakoreshwa akagozi gahambira igiti cyatewe ku rumambo. Mbere y'uko urumambo rukoreshe, rubanza kunyuzwa muri vidange kugira ngo rutazakurura umuswa. Igihe imambo z'imiyenzi ziboneka, nizo zakoreshe kuko zirwanya umuswa.
- **Gukuraho ishashi yakoreshejwe babangurira:** Iyo umubangurizo watangiye kuzana udushibu dushya ndetse n'igikomere cyarakize neza, kiba ari ikimenyetso cy'uko ishashi yahuzaga umubangurizo n'icyo ubanguriyeho yakurwaho. Mu kuvanaho ishashi, hakoreshwa urwembe hirindwa gukomeretsa igiti. Ni byiza ko iyo sashi ikurirwaho igihe kuko iyo bitinze yinjira mu ruti ikaruniga ndetse rukavunika.
- **Gusimbuza ibyapfuye:** Ingemwe zitafashe zisimbuzwa hakiri kare kugirango izizisimbuye zizakurane n'izindi. Mu gusimbuza, hakoreshwa ingemwe zakuze neza kandi bigakorwa hitawe ku iboneka ry'amazi.
- **Kubagara, kumenera, gusasira:** Iyo avoka zimaze guterwa ni ngombwa kuzifata neza uzibagarira, umenera kugira ngo amazi abashe kwinjira neza mu butaka. Ni ngombwa gusasira hafi y'igiti hakoreshwe ibyatsi byumye neza. Si byiza kwegereza isaso uruti (siga akarambararo ka cm 20 uvuye ku ruti) kuko byongera ibyago byo gukurura umuswa ndetse bigahembera indwara zo mu butaka.
- **Kuvomerera:** Ni ngombwa kuvomerera igihe ibiti bikiri bito mu gihe cy'izuba. Kuvomerera bifasha kugirango ibiti bikure neza bitange n'umusaruro mwiza mu gihe imvura yabaye nkeya. Avoka zibangamirwa no kubura kw'imvura, zikenera amazi ukizitera, mu gihe cy'ururabo, cyo kuzana imbuto no gukura kw'imbuto. Ahantu hakunze kurangwa n'ikibazo kibura ry'imvura ndetse haba izuba ryinshi, ni byiza kuvomerera kabiri mu cyumweru ku ngemwe zikiri nto, na buri cyumweru ku ngemwe zimaze gufata neza. Ingano y'amazi akenerwa ku giti kimwe igenda ihinduka bitewe n'aho kigeze gikura, ubwoko bw'ubutaka, ikirere cy'ahantu ndetse n'ibihe by'ihinga. Ni byiza ko ibiti bihabwa amazi ahagije. Ni byiza kuvomerera mu gitondo kare izuba ritarakara.



- **Kugenzura igihingwa:** Ni ngombwa kugenzura kenshi ibiti by'avoka kugira ngo niba hari ikibazo bifite kimenyekane kandi gikemurwe hakiri kare. Mu kugenzura wita kukureba ibi bikurikira: umuswa mu butaka hafi y'igiti, indwara n'ibyonnyi ku mababi, guhindura ibara kw'amababi, n'ibindi. Igihe cy'igenzura, harebwa kandi niba ibiti bigihagaze neza bikaba byahengamurwa ndetse byaba bifite ibisambo bigakurwaho. Biba byiza iyo umuntu ahora ahindura inzira anyuramo akora igenzura mu murima.
- **Gukata:** Gukata amashami y'ibiti mu myaka ya mbere ikurikira iterwa ry'ibiti ni ngombwa kugira ngo bibashe kugara ndetse bigire amashami menshi. Amashami yose avuka muni

y'aho babanguririye akurwaho buri gihe. Igiti cy'avoka kigomba kutemererwa kugira amashami muni ya cm 50-70 uturutse ku butaka. Ibi bikorwa igiti kitaratangira kwera. Iyo ibiti bimaze gukura, ikata riba rigamiye kubona imbuto zifite ubunini, ubwiza ndetse n'umubare runaka byifuzwa. Icyo gihe hibandwa ku kvanaho amashami atifuzwa, ayavunitse n'afite uburwayi ndetse no kugabanya uburebure bw'akora ku butaka.



- **Gushyira ifumbire ku biti:** Ibiti by'imbuta ziribwa bikenera ifumbire cyane cyane ifumbire y'imborera; mu gihe cyo gutera, umuhinzi ashyira mu mwobo kg 25-50 by'ifumbire y'imborera ku giti. Kuva ibiti byujuje umwaka, buri giti gishyirwaho gr500 ya NPK 17-17-17 buri mwaka. Iyo ibiti byujuje imyaka 3, hatangirwa gushyirwaho kg30 by'imborera, na kg1 ya NPK 17-17-17 ku giti ku mwaka. Ifumbire mvaruganda igenewe igiti kimwe ishyirwaho mu byiciro bibiri (Ukwakira na Gashyantare).

8. Gusarura no gufata neza umusaruro

- Umusaruro wa mbere utangira kuboneka nyuma y'imyaka itatu igiti gitewe, ariko umusaruro ugenda uzamuka buri mwaka.
- Bitewe n'uko avoka yafashwe, uyikata amashami, ishobora kwera 2 mu mwaka, hagati ya Nyakanga na Kanama no hagati y'Ukubozza na Gashyantare.
- Igiti cy'avoka cyafashwe neza (gusasirwa, kuvomererwa, gukonererwa, kurwanya indwara n'ibyonnyi, cyahawe amafumbire) cyera kabiri mu mwaka.
- Avoka yeze uruhu rwashashagiranaga rutangira kwijima nyuma hazaho utudomo duto dusa n'utw'umugese.
- Uruhu bitewe n'ubwoko rushobora guhindura ibara rukava ku cyatsi rugahinduka icyatsi cyerurutse, umukara cyagwa move (Purple) uko avoka zikomera.
- Imbuto zeze ni byiza ko zisarurwa buri cyumweru mu gihe ziri ku giti; ibi bishobora kumara igihe cy'ukwezi kurenga, aho inini kurusha izindi arizo zisherwaho mbere.
- Iyo bigaragaye ko hari ishimi ry'avoka rimererewe n'imbuta, ni ngombwa kuritega umuhembezo kugira ngo ridahaguka.
- Imbuta z'avoka zenda kujya mu mahanga zisarurwa zikiri icyatsi ku ntambwe ya 1 kugira ngo zibashe kugerayo zikiri nzima zibone n'umwanya wogushya zarageze ku isoko.
- Imbuta z'avoka zisarurwa basigaho agace gato k'inkondo kahuzaga urubuto n'ishami hakoreshejwe icyuma gityaye kugira ngo birinde urubuto rw'avoka gukomereka.
- Imbuta zisarurwe zigomba guhita zishyirwa ahantu hari igicucu ku isaso ryumye cyangwa mumakurete igihe hategerejwe kuzirobanura no kuzipakira.

- Ni ngombwa kwirinda gukomeretsa avoka igihe cyo kuzisarura; wirinda kandi kuzijugunya mu kintu uri kuzisaruriramo (uyirambikamo witonze). Avoka zisaruwe zihita zishyirwa mu gicucu.
- Imbuto zasaruwe zigomba kubikwa ahantu hatari ubushyuhe, hasukuye, kandi humutse hatambuka umwuka igihe zitegereje kujyanwa kw'isoko.
- Ni ngombwa kwirinda gukomeretsa avoka igihe cyo kuzisarura; wirinda kandi kuzijugunya mu kintu uri kuzisaruriramo (uyirambikamo witonze). Avoka zisaruwe zihita zishyirwa mu gicucu.



Ikigereranyo cy'umusaruro uboneka ku giti kimwe cy'avoka (urugero: Hass):

Umwaka	3	4	5	6	7	8	9	10
Umubare w'imbuto ku giti	60	180	240	320	480	540	650	650
Umusaruro ku giti (kg)	15	45	60	80	120	135	163	163

9. Indwara z'ibanze n'ibyonnyi by'avoka n'uburyo bwo kuzirwanya

	Indwara / Ibyonnyi	Ibimenyetso	Wayirwanya ute?	Ibipimo by'umuti bikoreshe muri L20 z'amazi + Iminsi ikenerwa kugira ngo igihingwa cyatewe umuti gisarurwe (PHI)
1	Kubora kw'imizi (Avocado root rot)  	Mu butaka burekamo amazi, avoka ishobora gufatwa n'ako gahumyo, ku myaka iyo ariyo yose igiti cyaba gifite. Ibiti byafashwe bitangira gutakaza ubuzima, bigahunguka amababi kandi ntibigire umusaruro bitanga. Amababi ahindura ibara	-Gutera ahantu hatareka amazi, -Gukoresha imiti yica uduhumyo	- Metalaxyl 8% + Mancozeb 64% WP: gr 50. PHI: iminsi 14-30 - Copper hydroxide 50% WP: ml 40-60. PHI: iminsi 14 - Copper oxychloride 50%WP: ml 50-70. PHI: iminsi 14

		akeruruka kandi akaraba, amashami agenda asa n'ababurwa n'izuba akagenda yuma buhoro buhoro. Imizi igenda ihinduka umukara ikabora, hanyuma igiti kikuma imburagihe.		
2	Antarakinose (Akaribata) 	Iyi ndwara iterwa n'agahumyo kitwa <i>Colletotricum</i> <i>gloeosporiodes</i>. Amababi niyo akunze kugaragaza ibimenyetso aho usanga hazaho ibibara by'ibihogo, nyuma agahunguka, igiti kigasigara kimeze nk'icyakokotse. Iyo igiti cyafashwe bikabije, imbuto zikiri nto zirahunguka. Iyo imbuto zifashwe zimaze gukura, ako gahumyo kagumamo kihishe kugeza igihe urubuto ruzahira. Ni indwara iza na nyuma yo gusarura.	• Iyi ndwara ikwirakwira cyane mu gihe cy'imvura, • Gutera imbuto zifite agahumyo gatera iyi ndwara, • Kubangurira avoka bakoresheje udushami dufite iyi ndwara • Gukora isuku mu murima, kugabanya amashami no gukuraho ibisambo ku giti kugirango urumuri rwinjiremo neza, • Kuvanaho imbuto zaguye • Gukoresha ingemwe zitarwaye, • Gutera imiti irwanya uduhumyo nka Copper oxychloride/ hydroxide, carbendazim, chlorothalonil, Benomyl, Mancozeb, Metiram, Propineb, Thiabendazole cyangwa Triforine.	- Metalaxyl 8% + Mancozeb 64% WP: gr 50. PHI: Iminsi 14-30 - Copper hydroxide 50% WP: ml 40-60. PHI: Iminsi 14 - Copper oxychloride 50%WP: ml 50-70. PHI: Iminsi 14
3	Amaga (Scab)	Iyi ndwara iterwa n'agahumyo kitwa sphaceloma perceae. Aka gahumyo gafata amababi	• Gukora isuku mu murima, kugabanya amashami no gukuraho ibisambo ku giti kugira ngo urumuri rwinjiremo	- Copper hydroxide 50% WP: ml 40- 60 PHI: Iminsi 14 - Chlorothalonil 50%SC: ml 20 PHI: Iminsi 7

		akiri mato, ibisambo n'imbuto. Imbuto zafashwe zigira ibibara ku ruhu bimeze nk'uduheri cyangwa amagaragamba afite ibara ry'igihogo byerurutse bifite ishusho y'uruziga. Ku mababi usanga ariho byiganje cyane ku gice cyo hejuru cy'ikibabi kandi bikibanda ku mitsi y'ikibabi. Igishishwa cy'imbuto kirasatagurika, aho gisatuye hakabwoko. Ifata cyane ubwoko bufite igishishwa gito cyoroshye.	neza. • Gukura mu murima imbuto za avoka zaguye hasi, • Gutera imiti irwanya uduhumyo nka Copper oxychloride/hydroxide, carbendazim cyangwa chlorothalonil.	- Carbendazim 500 g/L SC: ml 10-40. PHI: Iminsi 30
4	Ibido bya Serikosiporiose 	Iyi ndwara iterwa n'agahumyo kitwa <i>Sphaceloma purpureae</i>. Iyi ndwara ni ikibazo ku bwiza bw'imbuto. Gukura kw'iyi ndwara kugenda gutandukana bitewe n'igihembwe cy'ihinga, kandi ishobora gutuma umusaruro ugabanuka kugeza kuri 60%. Aka gahumyo kayitera gakunze gufata ku mbuto	• Gutera umuti nka nka Copper oxychloride/hydroxide, Carbendazim cyangwa Chlorothalonil mu gihe cy'irabya, mu gihe cyo kuzana imbuto na nyuma y'isarura, • Gukura mu murima avoka zigushije kugira ngo zitaboreramo • Gukura isuku mu murima, kugabanya amashami no gukuraho ibisambo ku giti kugira ngo urumuri rwinjiremo neza	- Copper hydroxide 50% WP: ml 40-60 PHI: Iminsi 14 - Copper oxychloride 50%WP: ml 50-70 PHI: Iminsi 14 - Chlorothalonil 50%SC: ml 20 PHI: Iminsi 7 - Carbendazim 50% WP: gr 10-40. PHI: Iminsi 7 - Carbendazim 500 g/L SC: ml 10-40. PHI: Iminsi 7

		ndetse n'amababi, imbuto zafashwe zigira ibibara bisa n'umuhondo cyangwa ibihogo ku ruhu rw'imbuto no ku mababi Nyuma ibyo bidomo bigenda bihinduka bijya kuba ibihogo byegera umutuku, bigakomera kandi bigasatagurika. Iyi ndwara ikwirakwira cyane mu gihe cy'imvura cyangwa hariho ubuhehere bwinshi mu murima uteyemo avoka.		
5	Tiripusi 	Tiripusi zikuze zikunda gufata avoka zijya gusa n'ikigina kijimye cyangwa umukara, naho izikiri nto ziba ari umuhondo. Izi tiripusi zikwirakwizwa n'ibikoresho by'umuhinzi ndetse n'imyambaro. Akenshi tiripusi zangiza igihingwa mu gihe cy'izuba aho zitera amagi ku mababi avamo ibishorobwa birya amababi agasigara abonerana. Tiripusi ishobora gukwirakwiza virus yitwa tospovirus	-Kugenzura umurima ku buryo buhoraho, • Kubagara umurima hakurwamo ibyatsi bibi, • Gusiga intera ihagije hagati y'ibihingwa, • Gukoresha imiti yica udusimba uyisimburanya	-Alphacypermethrin 10%EC: ml 15-20 PHI: Iminsi 14 -Deltamethrin 2.5 EC: ml 10-20. PHI: Iminsi 7 -Profenofos 40%+Cypermethrin 4% EC: ml 20. PHI: Iminsi 21 -Buprofezin 25%: ml 20-40 PHI: iminsi 7-20.

		ituma amababi yeruruka hanyuma akuma. Tiripusi zikunze kugaragara ku mitwe y'udushami, mu rurabo no ku duteja.		
6	Agasimba gatera utubuye mu rubuto (<i>Amblypelta lutescens</i> & <i>A. nitida</i>) 	-Udusimba dukuze kimwe n'udutoya turuma urubuto tukanyunyuzamazi -Amoko afite igishishwa cyoroshye kandi gito nka Fuerte niyo akunze kugira icyo kibazo -Imbuto zikiri nto zirahunguka iyo zikomerekejwe n'utwo dusimba -Imbuto zikuze zo ziguma ku giti iyo zimaze kwangizwa n'ako gasimba zikagaragaza ibimenyetso bikurikira: - Ibikomere binyenya amazi ahinduka nk'ifu y'umweru iyo amaze kumuka -Urubuto rusadukira aho agasimba kanyunyuje bigakora igikomere gikoze ku buryo bw'inyenyeri -Ibikomere byatewe n'utwo dusimba biba intandaro yo kubora guterwa n'uduhumyo - Aho agasimba kariye	-Gusura umurima cyane cyane guhera ku rurabo kugera mu isarura. Ugenzura aho udusimba twariye cyangwa niba imbuto zikiri ntoya zihunguka -Gukata ibiti kugirango ugabanye aho udusimba twihisha binoroshye gutera umuti. -Guhitamo amoko yihanganira ako gasimba cyane cyane afite igishishwa gikomeye nka Hass. -Gukuraho ibindi bimera bishobora kuba indiri y'utwo dusimba hafi y'avoka -Gukoresha imiti yica udusimba	- Alphacypermethrin 10%EC: ml 15-20. PHI: Iminsi 14 - Deltamethrin 2.5 EC: ml 10-20 PHI: Iminsi 7 -Profenofos 40%+Cypermethrin 4% EC: ml 20 PHI: iminsi 21 - Buprofezin 25%: ml 20-40. PHI: iminsi 7-20.

		ntihagaragare inyuma hagaragara imbere mu rubuto iyo rutoyeye cyane cyane ku moko afite igishishwa gikomeye nka Hass. -Aho agasimba gakomerekeje harakomera hakamera nk'utubuye tugaragara munsu y'igishishwa.		
--	--	---	--	--

Icyitonderwa: Iyi mfashanyigisho yateguwe n'umushinga "HINGANA UBUZIRANENGE" ugamije kongera ubuziranenge bw'ibiribwa mu Rwanda. Uwo mushinga ushyirwa mu bikorwa n'Umuryango Nyarwanda Uharanira Inyungu Rusange Utegamiye kuri Leta "AGRIFOP" ku nkunga y'Umuryango w'Ubumwe bw'Ibihugu by'i Burayi "EUROPEAN UNION".

Mu kuyitegura, hifashishijwe impuguke, abakozi ndetse n'imfashanyigisho zateguwe na Minisiteri y'Ubuhinzi n'Ubworozi (MINAGRI), Ikigo cy'Igihugu Gishinzwe Guteza Imbere Ubuhinzi n'Ubworozi mu Rwanda (RAB) n'abandi bafatanyabikorwa.