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IMFASHANYIGISHO KU BUHINZI BW'INYANYA



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1. Akamaro k'inyanya

Inyanya ni igihingwa kibarizwa mu muryango w'ibisantobo kimwe n'urusenda, intoryi, puwavuro, ibirayi, n'ibindi. Igihingwa cy'inyanya gifite akamaro gakomeye haba mu kwihaza mu biribwa ndetse no mu bukungu. Inyanya ni igihingwa gikungahaye ku ntungamubiri zirimo Vitamini A, C, K, ndetse n'imyungungu nka Potasiyumu n'ibindi. Inyanya ziribwa ari mbisi, zitetse mu biryo cyangwa zigakorwamo byinshi nk'amasosi.

Ibi bijyana no kwita kuri tekiniki zikomatanije z'ubuhinzi ari zo gutegura umurima neza, guterera igihe, gusimburanya imyaka, gukoresha inyongeramusaruro zujuje ubuziranenge, kurwanya indwara n'ibyonnyi, n'ibindi.

2. Aho inyanya zikunda

Inyanya zikunda ahantu hashyuha, hagati ya dogere selisiyusi 21 na 24, kandi hari ikirere cyumutse. Zikunda ubutaka bwiza buhitisha amazi burimo umucanga ndetse n'uburimo ibumba buseseka, bufite imborera ihagije n'igipimo cy'ubusharire (pH) kiri hagati ya 6.0 na 6.5. Zikenera imvura igera kuri mm 600 kugira ngo zere neza. Mu Rwanda inyanya zihingwa cyane cyane mu burasirazuba no mu majyepfo ariko no bindi bice by'igihugu bishyuha zirahaboneka.

3. Amoko aboneka mu Rwanda

Bumwe mu bwoko bw'inyanya buboneka mu Rwanda harimo:

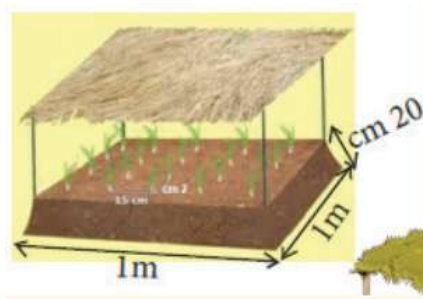
No	Itsinda	Ubwoko	Iminsi yo kwera	Umusaruro ku giti (kg)
1	Ubwoko butabanguriye	Roma	80-85	20-30
2		Riogrande	75-85	40-45
3		Cal-J	75-85	25-30
4	Ubwoko bubanguriye	Shanty F1	75	20-30
5		Anna F1	75	35
7		Monica F1	75-85	70-80
8		Star F1	75-85	70-80
9		Nuru F1	75-85	70-80
10		Tengeru 97	80-85	20-30

4. Inyongeramusaruro zikenewe kuri ari imwe

- Umurama: g 2
- Imborera: kg 250
- NPK 17-17-17: kg 3
- Ire: kg 1.3
- Ingemwe: 270

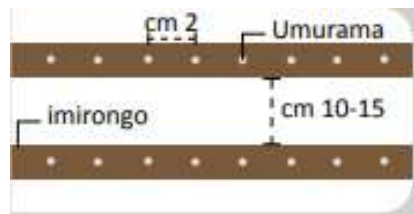
5. Gutegura ingemwe mu buhumbikiro

- ✓ Butegurwa icyumweru 1 mbere yo kwinaza
- ✓ Bushyirwa ahantu hatigeze hahingwa ibihingwa byo mu muryango umwe n'inyanya (ibirayi, intoryi, urusenda, puwavuro n'ibindi) nibura mu bihembwe by'ihinga 2 bishize.
- ✓ Ubuso bw'ubuhumbikiro bugomba kuba 1% by'umurima wose uzaterwamo.
- ✓ Ubuumbikiro buba bufite ubugari bwa m 1 kugeza kuri m 1.2 n'ubujyejuru bwa cm 20 kugirango amazi abashe gusohoka mu butaka.
- ✓ Vanga amashyi atatu y'imborera iboze neza (ibiro 3-5) n'ubutaka bwo hejuru: amashyi atatu yuzuye (kg 3-5) kuri metero kare imwe, na g 20 za NPK 17-17-17 (udufuniko 2 tw'icupa ry'amazi).



6. Kwinaza

- ✓ Ringaniza ubutaka,
- ✓ Ca imirongo yo kwinazamo ifite ubujyakuzimu bwa cm 0.5 kandi itandukanijwe na cm 10-15.
- ✓ Umurama ushyirwa muri ya mirongo yaciwe ku ntera ya cm 2 hagati y'imbuto; hanyuma hakarenzwaho agataka gacye bagatsindagira gahoro.



7. Imirimo ikorwa mu kwita ku buhumbikiro nyuma yo kwinaza

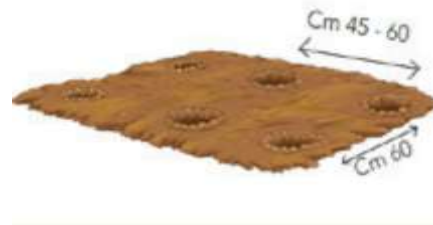
- ✓ Gusasira hakoreshejwe ibyatsi byumye neza
- ✓ Nyuma y'iminsi 4-7, ingemwe ziba zimaze kumera maze isaso igakurwaho
- ✓ Vomerera mu gitondo kare na ni mugoroba
- ✓ Ubaka igisharagati ariko usige aho imirasire y'izuba inyura haboneke urumuri ruringaniye
- ✓ Bagara buri gihe ndetse wicire ingemwe mugihe zicucitse
- ✓ Tera umuti urwanya indwara mu gihe ari ngombwa

- ✓ Gabanya kuvomerera mu byumweru 2 mbere yo kugemura
- ✓ Ingemwe zigemurwa zimaze ibyumweru 4 mu buhumbikiro (amababi 3-4).



8. Gutera ingemwe

- ✓ Umurima uhingwa neza ku bujakuzimu bwa cm 30
- ✓ Vomerera ingemwe mbere yo kuzitera uzitere mu gitondo kare
- ✓ Inyanya ziterwa ku ntera ya cm 60 hagati y'imirongo na cm 45 - 60 mu murongo
- ✓ Cukura imyobo y'ubujakuzimu bwa cm 15.



9. Imirimo y'ingenzi yo kwita ku gihingwa

- ✓ Gusasira: bikorwa mbere cyangwa nyuma yo gutera
- ✓ Kuvomerera: Bikorwa ukimara gutera bigakomeza igihe cyose ari ngombwa. Irinde gutosa amababi kugirango uburwayi butabona aho bworokera
- ✓ Gushyiraho imfumbire mvaruganda: kuri buri rugemwe bashyiraho g10 (agapfundikizo kuzuye k'icupa ry'amazi) za NPK 17-17-17 icyumweru 1 nyuma yo gutera na g5 z'ifumbire ya Ire (agafuniko kuzuye kadasendereye k'icupa rya Fanta) ibyumweru 6 nyuma yo gutera (kugemura). Iyi fumbire ishyingirwa ku muzenguruko w'urugemwe aho imizi igarukira
- ✓ Kubagara: Bikorwa igihe cyose ibyatsi bibi bigaragara mu murima
- ✓ Kurwanya indwara n'ibyonnyi.
- ✓ Gushingirira: ku nyanya zishingirirwa nko muri girinihawuzi bikorwa bayobora uruti rumwe ku mugenzi, bityo inyanya zikagira uruti rukomeye kandi rushishe ruzazana amashami meza, bikagabanya indwara n'ibyonnyi, n'imbuta zigashya vuba ku buryo bumwe.



- ✓ Kwicira: gukuraho ibisambo ku ruti rw'igihingwa bifasha gusigaza imbuto zingana n'ubushobozi amashami ziriho ashoboye kwikorera no kurera.



10. Gusarura no gufata neza umusaruro

- ✓ Sarura inyanya ugendeye ku zo abaguzi bifuza.
- ✓ Ibara ry'umutuku inyanya zifite niryo ryerekana uko zihaye
- ✓ Sarura mu gitondo cyangwa nimugoroba
- ✓ Koresha icyuma cyangwa umukasi ufite isuku mu kwirinda indwara
- ✓ Tandukanya inyanya zihaye cyane n'izidahiye neza wirinda ko zatera izindi kubora
- ✓ Koresha amakurete, amabase cyangwa ibitebo bikomeye kandi wirinde kubyuzuzanya cyane kugira ngo wirinde ko zangirika mu gihe cyo kuzikorera
- ✓ Nyuma yo kuzitera umuti, inyanya zisarurwa nyuma y'iminsi wa 14 bitewe n'umuti
- ✓ Irinde gutera umuti wica udukoko ku nyanya zasaruwe
- ✓ Sarura gusa inyanya zitangiritse.
- ✓ Inyanya zihunikwa ahantu hari umwuka uhagije ugabanya ubushyuhe buterwa n'ihumeka ryazo.
- ✓ Iyo zizahunikwa igihe kirekire, inyanya zibikwa ahantu hari ubushyuhe buri hagati ya dogere selisiyusi 10 na 15, n'ubuhehere buri hagati ya 85-95%.



11. Indwara n'ibyonnyi

	Indwara/ibyonnyi	Ibiziranga	Uko bazirinda	Ibipimo by'umuti bikoreshwa muri L20 z'amazi + Iminsi ikenerwa kugira ngo igihingwa cyatewe umuti gisarurwe (PHI)
1	Indwara y'imvura (Milidiyu cyangwa Kababu) 	-Iyi ndwara ikara cyane mu gihe cy'ubukonje n'ubuhere bwinshi, • Ikwirakwira vuba ikaba yakwangiza igihingwa mu gihe gito, • Iyi ndwara ifata ibice byose by'igihingwa. Ibimenyetso bigaragara munsu y'amababi nk'uruhumbu naho hejuru y'amababi bisa nkicyababutse.	•Gusimburanya ibihingwa •Isuku mu murima •Kudatera ingemwe hafi y'inyanya zikuze. •Kuvanaho ibisambo kugira ngo urumuri rubashe kwinjiramo •Gutera umuti urimo Mancozeb+ Metalaxyl (Ridomyl, Victory,...) •Gukoresha imiti irimo copper nka Funguran.	•Mancozeb+Metalaxyl: g50 PHI: iminsi 14-30 • Funguran: g50 z'umuti PHI: iminsi 14
2	Indwara y'ibidomo ku mababi n'imbutu (Early blight) 	Iyi ndwara iterwa n'agahumyo kitwa <i>Alternaria solani</i> . Ikagaragazwa n'ibidomo bisa n'ikigina birimo inziga ku mababi, ku ruti no kumbuto aho inkondo ifatiye. Ikunda kuboneka mu bice bishyuha kandi bifite ubuhehere buke.	•Gusimburanya ibihingwa bitari mu muryango umwe nyuma y'ibihembwe bitatu, •Kwirinda ko umurima urekamo amazi, •Gukura mu murima ibisigazwa by'inyanya, •Guha igihingwa ifumbire ihagije. Ibyiza ni ushyiramo inyongeramusaruro mu byiciro bitatu. •Gutera imiti yica Uduhumyo	-Copper: g20-g30 PHI: iminsi 14 -Chlorothalonil: g20 z'umuti PHI: iminsi 7 -Mancozeb 80%WP: g50 z'umuti PHI: iminsi 30
3	Kirabiranya iterwa na bagiteri 	• Iyi ndwara akenshi ituruka mu butaka burwaye • Irangwa n'uko igihingwa kirabirana kidahinduye ibara cyane nkaho cyatemwe mu mizi. •Uruti rusohokamo umushongi w'umweru	• Kubahiriza isimburanya bihingwa udakomeretsa imizi cyangwa amababi mu gihe cyo gutera gukuraho ibisambo, ... •Guhinga mu butaka bwumutse.	-

		usa n'amata iyo urukase ukarushyira mu mazi.	•Kurandura igihingwa cyafashwe ukimara kubona ibimenyetso. • Nta muti uhari uvurara ubu burwayi. Ni ngombwa kubwirinda	
4	Virusi z'inyanya (Imfunyarazi, Mozayike) 	Ibimenyetso bya virusi ni ibi bikurikira: kugwingira kw'igihinga, kwikunja kw'amababi, kuma ibice by'amababi n'uruti, kubemba kw'amababi. Indwara ziterwa na virusi zikwirakwizwa mu nyanya n'imbuta zirwaye, isazi y'umweru thrips n'inda z'ibihingwa.	•Kurwanya udukoko dukwirakwiza ubu burwayi. • Gutera imbuto itarwaye. • Kudakomeretsa igihingwa mu gihe cyo gutera, gukuraho ibisambo,... •Nta miti yihariye yica virus.	-
5	Ububore bwo mu ndiba y'urubuto 	Ububore buterwa n'ibura ry'umunyungugu wa kalisiyumu, bigaterwa cyane n'amazi make aba ari mu butaka. • Mu bihe by'ubushyuhe cg igihe hiriwe humagaye bakavomereza amazi menshi, bituma igihingwa kidashobora gufata vuba kalisiyumu mubutaka.	• Kuhira witonze mu gihe cy'ubushyuhe humagaye cyane mu cyiciro cyo kuzana urubuto. • Gukoresha ifumbire y'imborera ihagije. • Gushyira ishwagara mu butaka igihe ari ngombwa. • Gusasira ubutaka kugira ngo bugumane ubuhehere.	-
6	Urungu rw'amababi n'imbuta 	Ni ikinyugunyugu bita <i>Tuta absoluta</i>, gitera amagi ku mababi inyo zinjira mu mababi. Zitobora n'imbuta z'inyanya zikinjiramo imbere.	• Gusimburanya ibihingwa mu murima hahingwa ibindi bitari mu muryango umwe n'inyanya nk'ibigoli, ibishyimbo, amashu,... •Gukuramo ibisambo n'inyanya zamaze gufatwa bigatabwa, • Gukoresha imitego ifata ibinyugunyugu mu murima no munkengeru zawo. •Gutera imiti yica udukoko	-Abamectin: ml 10 z'umuti PHI: iminsi 14 -Nimbecidine (azadirachtin): ml20 PHI: iminsi 3 -Cypermethrin: ml20 z'umuti. PHI: iminsi 14 -Profenofos +Cypemethrine: ml20 z'umuti. PHI: iminsi 21

7	Ibyonnyi (Inda, Isazi y'umweru na Tiripusi) 	Ubu busimba bukunze gufata cyane cyane amababi n'uruti bikiri bito, indabo n'amababi. Inda na tiripusi bikwirakwiza virusi ku bihingwa.	• Gukikiza ibigori umurima w'inyanya kuko aryohera cyane agakurura inda zikava ku nyanya. • Kubungabunga inshuti z'abahinzi (udukoko turya inda. Urugero: udusurira, urutambara, ...) • Kwirinda guhora ukoresha ubwoko bw'umuti umwe kuko inda ziwumenyere ntizipfe ahubwo zikororoka vuba. • Gukoresha imitego y'ibara ry'umuhondo izifata. • Gutera imiti yica udukoko	-Abamectin: ml 10 ml z'umuti. PHI: iminsi 14 -Nimbecidine (azadirachtin): ml20 PHI: iminsi 3 -Cypermethrin: ml20 z'umuti. PHI: iminsi 14 -Profenofos + Cypemethrine: ml20 z'umuti. PHI: iminsi 21
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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.