



Amakuru ku mahame agenga ubuhinzi
bw'umwimerere mu bihugu
by'Afurika y'iburasirazuba

NI GUTE NABONA ICYEMEZO CY' UBUHINZI BW' UMWIMERERE ?



1 Ese icyemezo cy'ubuhinzi bw'umwimerere kirakenewe?

Umurima ushobora kwemezwa nk'umwimerere hakurikijwe amahame y'ubuhinzi bw'umwimerere. Bigerwaho iyo umuhinzi akurikije amahame asabwa kandi bikemezwa n'ikigo gitanga icyemezo cy'ubuhinzi bw'umwimerere.

Ubuhinzi bw'umwimerere ni iki?

Ubuhinzi bw'umwimerere ni ubuhinzi habungabungwa ubuzima bw'ubutaka, urusobe rw'ibinyabuzima n'ubuzima bw'abantu. Bushingiye ku miterere y'ibidukikije, ibinyabuzima hamwe n'imiterere y'aho bukorerwa, aho gukoresha inyongeramusaruro zigira ingaruka mbi.

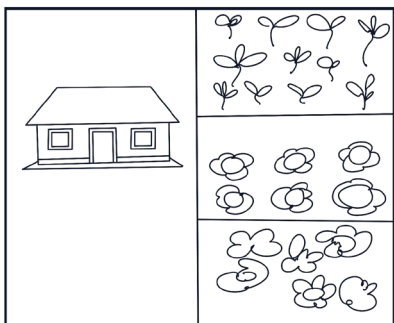
Kubera iki ari ngombwa ko umuhinzi agira icyemezo cy'uko akora ubuhinzi bw'umwimerere?



2 Ni nde ushobora agahabwa icyemezo?

Umurima ni wo uhabwa icyemezo aho kuba umuhinzi, uwo murima ugomba kuba ucungwa n'uwu muhinzi haba ahantu hamwe cyangwa henshi

Urugero



Umuhinzi ufite umurima uhingwamo igihingwa kimwe cyangwa ibihingwa byinshi



Umuhinzi ufite imirima myinshi ihingwamo ibihingwa byinshi

Icyemezo gihabwa ibi bikurikira:

Ubuso bwose buhingwaho, harimo aharajwe n'aho amatungo arisha
Ibikoresho byose bikoreshwa mu buhinzi (ingano n'inkomoko yabyo)
Ibikorwa byose bikorwa nyuma y'isarura nko gusukura, gupakira
Ububiko bw'umusaruro n'inyongeramusaruro
Ibikoresho byakoreshejwe

Ku bindi bisobanuro ku bijyanye n'ubuhinzi n'ibyemezo by'ubuhinzi
bw'umwimerere mwabariza ku biro by'Umuryango nyarwanda uteza imbere
ubuhinzi bw'umwimerere

Street KK 4 Ave

Gikondo

Kigali, Rwanda

Phone: +250 792 012 275

Email: info@roam.org.rw

3 Ni gute nabona icyemezo cy'ubuhinzi bw'umwimerere?

Kugira ngo abone icyemezo, umuhinzi asabwa kubahiriza ibi bikurikira:

Mu mwaka wa mbere



Intambwe ya 1:
Soma amahame n'andi makuru atangwa n'ikigo cy'igihugu gitsura ubuziranenge (RSB)



Intambwe ya 2:
Geza ubusabe ku kigo gitanga icyemezo cy'ubuhinzi bw'umwimerere. Egera ikigo kibishinzwe kugira ngo amakuru y'ingenzi ajyanye n'amahame, uko ubusabe bukorwa, ikiguzi cy'icyemezo n'uburyo bikorwamo.



Intambwe ya 3:
Uzura kandi utange ubusabe, mwumvikane ku kiguzi cy'icyemezo n'uburyo bukurikizwa mu kwishyura. Shyira umukono ku masezerano y'igenzura n'ikigo gitanga icyemezo cy'ubuhinzi bw'umwimerere.

Intambwe ya 4:

Tegura inyandiko igaragaza amakuru y'ibikorwa mu murima. Tunganya inyandiko z'ibyakorewe mu murima n'igishushanyo cy'umurima mu gihe witegura igenzura ry'umurima.



Intambwe ya 5:

Igenzura ry'umurima. Umvikana n'ikigo gitanga icyemezo cy'ubuhinzi bw'umwimerere igihe umugenzuzi azazira mu igenzura ry'inyandiko n'ibyakorewe mu murima.



Intambwe ya 6:

Ganira n'umugenzuzi ku byagaragajwe muri raporo y'igenzura. Soma neza raporo y'ibavuye mu igenzura ureba niba nta makosa cyangwa kwibeshya ku makuru yatanze.

Intambwe ya 7:

Subiza ibibazo byose byabajijwe n'umugenzuzi. Genzura kandi wuzuze neza ibisabwa kugira ngo uhabwe icyemezo.



Intambwe ya 8:

Umwanzuro w'itangwa ry'icyemezo. Ikigo gitanga icyemezo kizakumenyesha ibisubizo byavuye mu igenzura n'umwanzuro w'itangwa ry'icyemezo.

4 Ni iki umuhinzi akeneye kugira ngo ahabwe icyemezo?

Umuhinzi ukora ubuhinzi bw'umwimerere kugira ngo ahabwe icyemezo, akenera gushyira mu bikorwa ibi bikurikira:

Inyandiko n'ikurikiranankomoko



- Umuhinzi agomba kubika amakuru yose ajyanye n'umusaruro, bijyanye n'ingano y'umusaruro ndetse n'ubushobozi bw'umuhinzi.

Urugero: Amateka y'umurima, urutonde rw'inyongeramusaruro zakoreshejwe, inkomoko y'imbuta, n'ibindi

- Umuhinzi asabwa gutanga amakuru ajyanye n'umusaruro ku nzego zibikeneye
- Umuhinzi agomba kugaragaza igenamitererere ry'ikurikiranankomoko k'umusaruro w'umwimerere

Ihindurwa ry'ubutaka



- Igihe gisabwa mu kwita ku butaka kugira ngo buhinduke umwimerere ntikigomba kujya muni y'umwaka hakurikijwe aya mabwiriza. Mu gihe umurima wari wararajwe mu gihe nibura kigeze ku mwaka umwe udahingwa, igihe cyagenwe cyo guhinduka umwimerere ntabwo gikurikizwa. Urugero: ubutaka, amazi, umwuka, inyongeramusaruro bikoreshwa bigomba kubanza gufatwaho umwanzuro ukwiye.

4 Nakora iki kugira ngo ngumane icyemezo cy'ubuhinzi bw'umwimerere ?

Umurima ugomba kugenzurwa buri mwaka n'ikigo gitanga icyemezo cy'ubuhinzi bw'umwimerere. Genzura neza ko amabwiriza yose y'itangwa ry'icyemezo yashyizweho n'ikigo gitanga icyemezo yubahirijwe.

Ku bw'ibyo, ugomba:



Gukora impinduka zikenewe mu gihe amahame ahindutse



Kugira inyandiko zose zikenewe kandi zujujwe mu gihe cyagenwe



Kwitabira amahugurwa ajyanye n'ubuhinzi bw'umwimerere kugira ngo wongere ubumenyi



Rinda umurima w'umwimerere ikuntu cyose kitari umwimerere gishobora kuwuhumanya

6 icyemezo cy'itsinda

Abahinzi bashobora guhitamo gukoresha uburyo bwo kubona icyemezo nk'itsinda bagiramo uruhare buzwi nka PGS.



PGS ni uburyo bwizewe bugirwamo uruhare n'abahinzi bato n'abandi bafatanyabikorwa hagamijwe kugaragaza ubuziranenge bw'umusaruro w'umwimerere. Ubu buryo butanga icyemezo cy'umwimerere ku bahinzi bigizwemo uruhare n'abafatanyabikorwa bose kandi bishingiye ku cyizere, imikoranire no kungurana ubumenyi.

Inyungu za PGS

Ku rwego rw'umuhinzi:

- Kubona icyemezo cy'umwimerere ku giciro gihendutse
- Gusenyerwa umugozi umwe hagamijwe kugera ku isoko
- Kubona inyungu itubutse no kwihaza mu biribwa ku rwego rw'ingo zabo
- Kubona ibiribwa byiza mu ngo zabo

Ku rwego rw'itsinda:

- kurikiranankomoko ry'umusaruro
- Kubona ibyo bacuruzwa igihe cyose
- Bigabanywa uruherekane rw'inzego zifata ibyemezo n'ikoreshwa ry'in-yandiko
- Ubworohere

Ku rwego rw'abacuruzi banini n'abato

- Byoroshya uruherekane rw'ibicuruzwa hagati y'umuhinzi n'umuguzi

Ku rwego rw'umuguzi

- Icyizere cy'umusaruro wujuje ubuziranenge

UBUHINZI



1 Kwirinda ibyakwanduza umusaruro

Ibihingwa biri mu murima bigomba kurindwa ibikoresho n'ibintu ibyo ari byo byose bitari umwimerere byaba ibituruka mu murima imbere cyangwa hanze yawo. **Ni gute wabyirinda?**



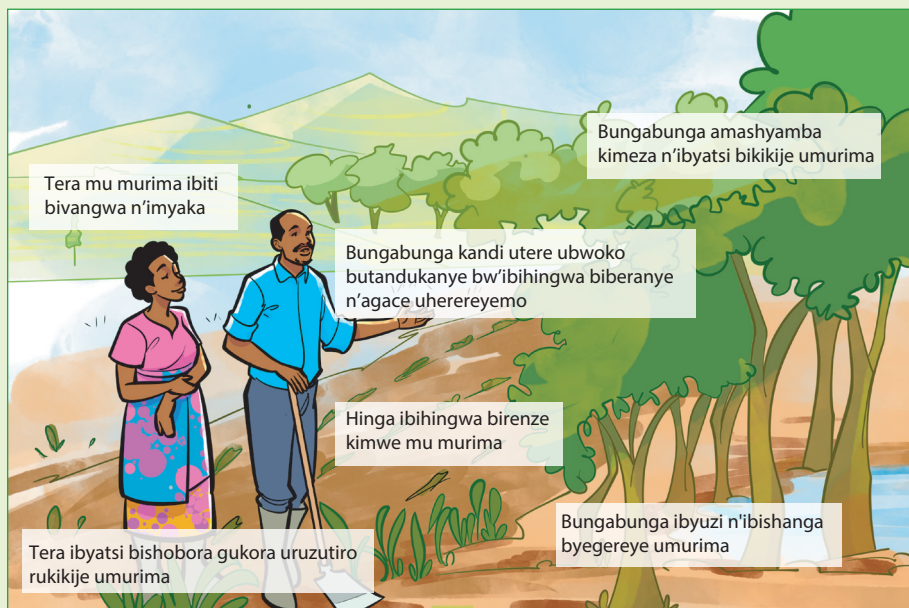
■ Umuhinzi agomba kwirinda gukoresha imiti ishobora kwangiza ubuzima bw'abantu cyangwa ibidukikije. Mu gihe habonetse imiti idafite ubukana buri hejuru ishobora gukoreshwa.



■ Umuhinzi agomba gufata ingamba zikwiriye mu rwego rwo kwirinda kwandura aho akorera ibikorwa by'ubuhinzi bw'umwimerere ndetse n'ahari umusaruro w'umwimerere. Mu gihe hari impamvu ikekwa ko habayeho kwanduzwa, urugero mu butaka, amazi, umwuka, inyongeramusaruro, ingamba zikwiriye zigomba gufatwa.

2 Kugira urusobe rw'ibinyabuzima bitandukanye mu murima

Ibihingwa by'amoko atandukanye, ibiti, udukoko n'utundi dusimba tutangiza bishishikarizwa kuba mu murima kuko buri cyose gifite akamaro. **Gute ?**



3 Irinde isuri y'ubutaka no unabungabunge amazi ari mu butaka

Rinda ubutaka isuri y'amazi n'iy'umuyaga, gutakaza ubuhehere, ufate kandi ubike amazi y'imvura **Gute?**



4 Kubungabunga uburumbuke bw'ubutaka

Shyira mu bikorwa ingamba zifasha uburumbuke bw'ubutaka, kugira ngo ubutaka buzabashe kugaburira ibihingwa. Uburumbuke bw'ubutaka buzafasha ibihingwa gukura neza.

Gute?



5 Gukora ibituma ibihingwa bigira ubuzima bwiza

Kora ibituma ibihingwa bigira ubuzima bwiza kugirango ibihingwa bibashe guhangana n'indwara n'ibyonnyi.

Gute?

KURWANYA INDWARA N'IBYONNYI

Fumbira ubutaka kugira ngo ibihingwa bikure neza

Kuramo ibihingwa byafashwe n'uburwayi

Genzura ibihingwa buri gihe ureba ko bitafashwe n'udukoko n'indwara

Koresha ibikoresho bisukuye kandi utere imbuto y'indobanure

Koresha imitego mu kurwanya udukoko twangiza imyaka

Harura ukuremo ibyatsi byona mbere y'uko bibyara

6 Ibindi bikenewe gukorwa

Uzakoresha imbuto z'umwimerere. Wemerewe gukoresha imbuto zitari umwimerere gusa igihe nta mbuto z'umwimerere ziboneka aliko ntiwemerewe gukoresha imbuto zahunduriwe muri laboratwari.

Mu buhinzi bw'ibihumyo by'umwimerere, hakoreshwa gusa ibikoresho by'umwimerere

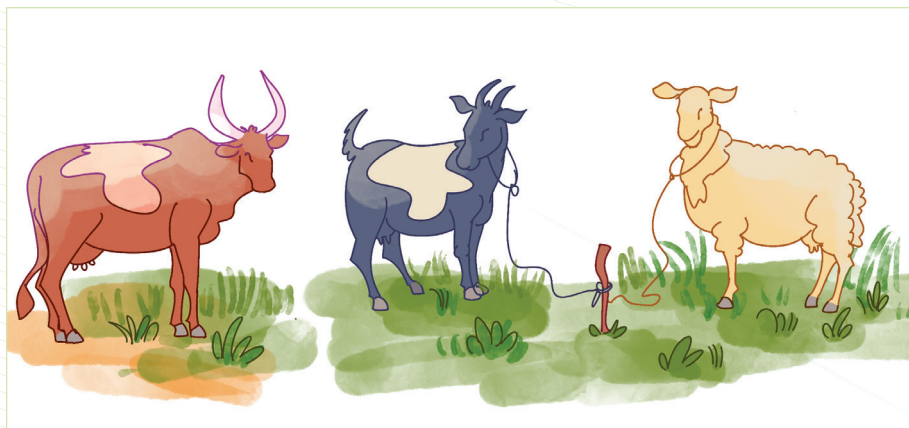
Aho inyamaswa zikoreshe mu buhinzi, basabwa kuzigaburira neza, zikagira ibiraro byiza kandi zikarindwa indwara.

UBWOROZI BW' AMATUNGO



1 Guhitamo umubare nyawo n'ubwoko nyabwo bw'amatungo yororwa mu buryo bw' umwimerere

Hitamo umubare nyawo w'ubwoko bw'amatungo bubereye kororwa, ku mpamvu zitandukanye (Inyama, amata, amagi)



NI UBUIHE?

Bushobora kwihanganira imiterere n'ikirere by'akarere runaka

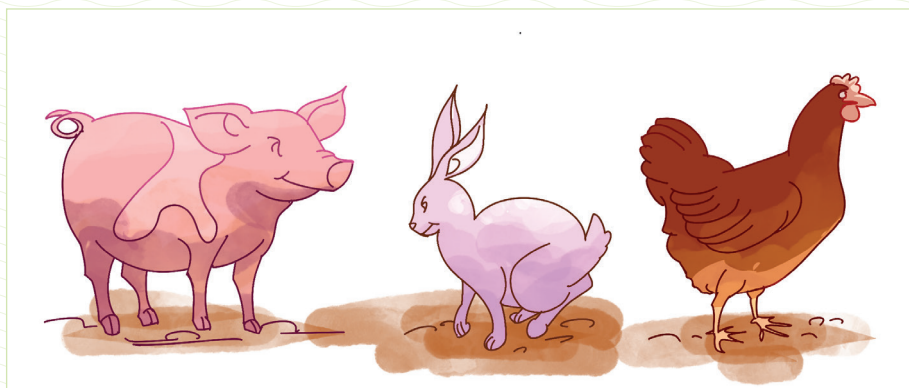
Bushobora gutungwa n'ibiryo dusanga muri aka karere

Butanga umusaruro uhagije isoko

Buhangana n' indwara n' udukoko

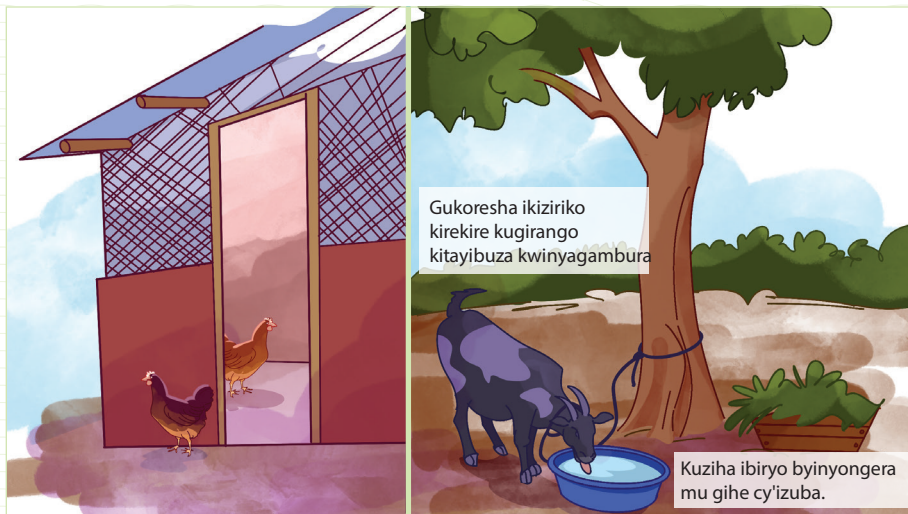
Bwororoka neza nta bibazo

Guhuza ingano y'ibiryo by'amatungo, aho zororerwa n'ubushobozi bwo kuzirinda indwara.



2 Kwita ku matungo mu buryo bukwiriye

Kuziha imibereho myiza mu kuzirinda imyitwarire idasanzwe, ibikomeye n'indwara.



GUTE?

Gusukura ibiraro by'amatungo buri gihe

Ubaka inzu z'amatungo zifite umwanya uhagije wo kuryamamo no kuruhukiramo

Shyira amatungo ahantu hari umwuka, ibiryo n'amazi bihagije



Yarinde izuba ryinshi, urusaku rwinshi, ubushyuhe, imvura, ibyondo n'umuyaga

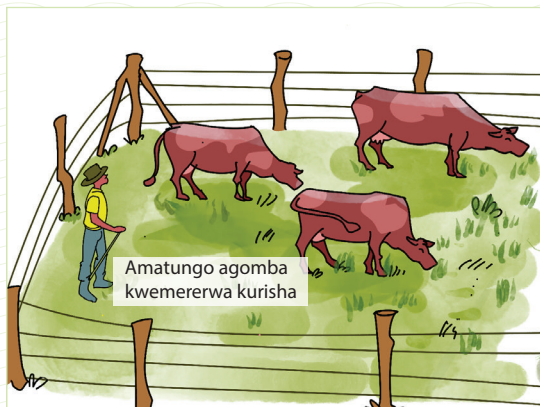
Ntukagire igice cy'umubiri w'itungo ukata kereka igihe uzikona, uzambika amaherena n'igihe uzikata amahembe (ku matungo akiri mato)

Ntugafate nabi amatungo, uyakubita cyangwa utuma amara umwanya muremure ahantu hamwe

Gutera intanga biremewe

3 Tanga ubwoko n'ingano y'ibiryo bikenewe

Gutanga ubwoko n'ingano nyayo y'ibiryo bikenewe.



Hinga byibuze mirongo itandatu ku ijana 60% by'ibiryo bikenewe.



GUTE?

Koresha ibikomoka ku bimera, ibyakorewe mu nganda zikora ibiryo (urugero; ibikatsi bisigara bakora isukari), bagiteri, imiyege nk' ibifasha mu guhunika ibiryo byamatungo.

Gaburira amatungo ibiryo birimo vitamini, n'imyungungu bikomoka ku bintu kamere.

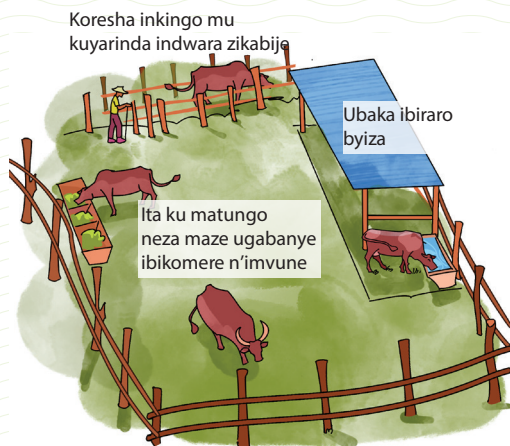
Ntugakoreshe ibintu bitari iby'umwimerere, nk'imisemburo, mu kwihutisha imikurire y'amatungo cyangwa se mu kongera umusaruro w'ibiyakomokaho.

Korora amatungo mato ukoresheje amata y'izazo cyangwa se andi y'umwimerere aturuka ku bwoko bw'ayo.

Ntugacutse amatungo hakiri kare

4 Kurwanya udukoko n'indwara mu buryo nyabwo

Mbere na mbere, irinde ubwiyongere by'ibyonnyi n'indwara z'amatungo. Mu gihe hari amatungo arwaye, yiteho vuba kandi neza.



GUTE?

Koresha imiti gakondo mu gihe byagaragaye ko ivura neza

Koresha imiti mvaruganda, irwanya mikorobe n'udukoko mu gihe nta bundi buryo

Gukoresha uburyo bw'imisemburo n'indi miti bikurikiranwa n'umuganga w'amatungo

Shyira amatungo arwaye ukwayo.

5 Gutwara amatungo no kuyabaga

Mu gutwara amatungo no kuyabaga bikore mu buryo butuje kandi utayahutaza haba ku mubiri cyangwa mu myitwarire.



GUTE?

Rinda amatungo inzara n'inyota

Ntugashyire amatungo ahantu hari ubushyuhe cyangwa ubukonje birengeje urugero

Ntukavange amatungo y'amoko, ibitsina, imyaka n'imibereho bitandukanye

6 Ubworozi bw' amatungo

6.1 Korora amatungo muburyo bw' umwimerere no kuzana amatungo mashya

Amatungo azanywe mu bushyo kugira ngo yororwe mu buryo bw' umwimerere ahinduka umwimerere mu buryo bukurikira:

Ubwoko bw'ubworozi	Ubwoko bw'amatungo	Igihe impinduka zimara
Ubutanga inyama	Inka	Amezi 12
	Inkoko	Iminsi 45
	intama, ihene, ingurube	Amezi 3
	Inkwavu	Iminsi 45
Ubutanga amata	Amatungo y' ubwoko bwose	Amezi 3
Ubutanga amagi	Amatungo y' ubwoko bwose	Iminsi 45

Amatungo agomba kororwa mu buryo bw'umwimerere kuva akivuka. Iyo amatungo y'umwimerere ataboneka, amatungo asanzwe ashobora kugirwa umwimerere iyo atarengeje igihe gikurikira:

- inkoko zitanga inyama zitarengeje iminsi 2
- imishwi itarengeje ibyumweru 18 ku nkoko zitanga amagi
- ibyumweru 2 ku zindi nkoko zisigaye
- ibibwana by'ingurube bitarengeje amezi 3
- imitavu itarengeje amezi 3
- Intama n'ihene zitarengeje amezi 3

Amatungo ashaje ashobora kuzanwa kugirango yororoke gusa

GUTUNGANYA UMUSARURO

®



1 Guhitamo umusaruro utunganywa mu buryo mwimerere

Koresha umusaruro w' umwimerere mu gutunganya ibikomoka ku buhinzi n'ubworozi by' umwimerere kandi ubitandukanye n'ibitari umwimerere ubyandikaho mu gihe utunganya, ubika cyangwa se ubyikorera.

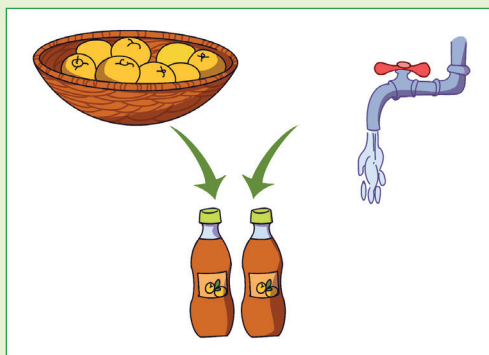


GUTE?

- Shyira ibirango bigaragara ku bikoresho bikoresha mu gutwara no kubika ibicuruzwa mwimerere.
- Reba niba ibyangombwa nkenerwa byaranditswe ko ari umwimerere ku mpapuro zabiherekeje babibagemurira, mbere yo kubikoresha mu gutunganya igicuruzwa cy' umwimerere

2 Kongera ibikoresha mu musaruro ukomoka ku buhinzi n'ubworozi bw' umwimerere

Koresha ibikoresha by'umwimerere mu gutunganya umusaruro w'ibikomoka ku buhinzi n'ubworozi bw' umwimerere



- Amazi n'umunyu wo kurya bishobora gukoreshwa mu buhinzi bw' umwimerere
- Aho wakoresheje ibikoresha bitari umwimerere, erekana ingano yabyo wakoresheje ku byo wafunytsemo.

3 Kubika ibikomoka ku buhinzi n'ubworozi bw' umwimerere

Mu kurinda ibikomoka ku buhinzi n' ubworozi bw' umwimerere byatunganijwe kwandura, koresha uburyo n' ibikoresho by' umwimerere



GUTE?

- Ntugakoreshe ibikoresho bifite ibintu byose bishobora kwanduza umusaruro.
- Koresha ubushyuhe cyangwa ubukonje bugereranyije mu bubiko

4 Koresha ibirungo n'ibindi byifashishwa

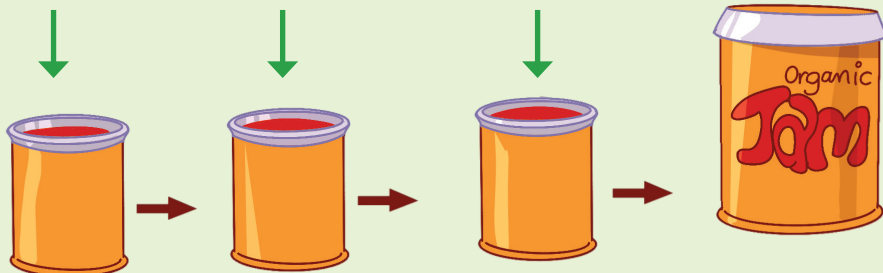
Koresha ibikoresho n'ibintu byifashishwa bituruka ku mwimerere nk'ibirungo n'ibindi byongerwamo

URUGERO

ibikomoka ku buhinzi n'ubworozi -mwimerere

ibirungo by' umwimerere n' ibyongerwamo byemewe (Nkuko bigaragazwa n' amabwiriza, ushobora no kubaza ikigo gitanga icyangombwa cy' umwimerere)

imisemburo n'utunyabuzima uretse utwahinduriwe indangakamerere



- Imisemburo n'utunyabuzima bishobora gukoreshwa mu bikomoka ku buhinzi n'ubworozi by' umwimerere, kereka utunyabuzima twahinduriwe indangakamere.
- Ntugakoreshe ibihindura amabara, icyanga n'ibyongera uburyohe bitari umwimerere.

5 Kongera intungamubiri

Mu gihe bisabwa n'amabwiriza, ushobora gukoresha vitamini, aside, azote mu kongera intungamubiri mu biribwa.



6 Gukoresha ibikoreshe bipfunyikwamo bisukuye

Koresha ibikarito, ibikapu cyangwa se amakaziye (bitigeze bigira aha bihurira n'ifumbire cyangwa imiti mvaruganda ikozwe mu buryo bw'ubutabire yangiza) mu kwikorera, kubika cyangwa gupfunyika ibikomoka ku buhinzi n'ubworozi mwimerere.

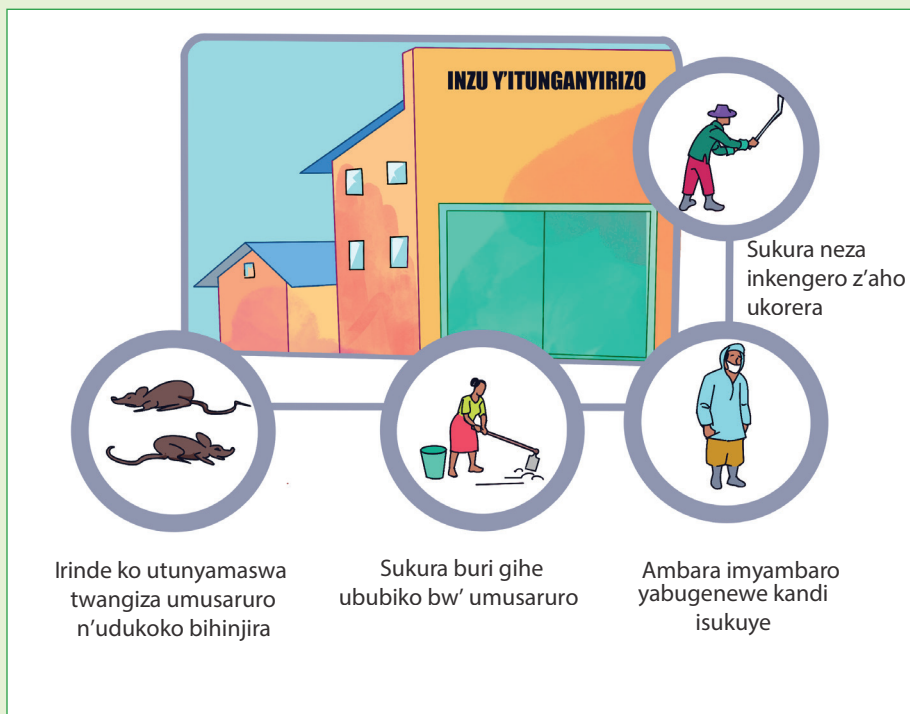


URUGERO

- Ntugakoreshe ibipfunyikwamo byatunganijwe hakoreshejwe ibintu bikoze mu buryo bw'ubutabire
- Koresha ibipfunyikwamo bitangiza ibidukikije
- Irinde gukoresha ibipfunyikwamo bikoze muri parasitiki irimo kolorine

7 Kugira isuku no kwirinda udukoko dutera indwara

Kurikirana neza ko ahantu hakoreshwa mu gutunganya no guhunika umusaruro mwimerere hatunganijwe neza kandi ko nta byonnyi bihagera.



GUTE?

Uburyo busanzwe bwo kurwanya udukoko (**Urugero:** gukoresha umwotsi), bushobora gukoreshwa ariko bigakorwa mu buryo bukurikira:

- Sohora ibikomoka ku buhinzi n'ubworozi bw' umwimerere mbere yo gukoresha uburyo bwemewe
- Itwararike uburyo ukora kugira ngo ibikoresho n'ibindi byifashishwa bidahumanya aho ukorera.
- Koresha umuntu cyangwa ikigo kibizobereyemo
- Bika inyandiko ikubiyemo amakuru y' ibikoresho byakoreshejwe, itariki, n'aho byakoreshejwe

Muri aka gatabo murasangamo ibisabwa n'ibwiriza ry'Ubuziranenge bw'ibikomoka ku buhinzi mwimerere muri Afurika y'Iburasirazuba. Iri bwiriza ryemejwe n'umuryango w'ibihugu bya Afurika y'Iburasirazuba muri Nzeri 2019 nka EAS 456:2019. Kuva ubwo ritangira gukurikizwa n'u Burundi, Kenya, u Rwanda, Tanzaniya n'Ubugande. Ibindi bisobanuro ku buhinzi bw'umwimerere n'uburyo ibi bisabwa bishyirwa mu bikorwa, wabisanga aha hakurikira:



**Rwanda Organic Agriculture Movement
(ROAM)**

Street KK 4 Ave

Gikondo

Kigali, Rwanda

Phone: +250 792 012 275

Email: info@roam.org.rw

Aka gatabo kateguwe ku nkunga ya:



Physikalisch-Technische Bundesanstalt
National Metrology Institute