



MINISTRY OF AGRICULTURE AND ANIMAL  
RESOURCES (MINAGRI)

# IMFASHANYIGISHO KU BUHINZI BW' IBITUNGURU



**SEAD**  
Strengthening Education for  
Agricultural Development

## 1. NI IKI TWAKORA KUGIRANGO IMIRIMA YACU IDUHE UMUSARURO MWIZA?

- Gukoresha imbuto y'indobanure
- Guterera igihe
- Gusimburanya ibihingwa
- Kubahiriza intera
- Gukoresha ishwaraga ku butaka busharira
- Gukoresha imborera n'imvaruganda
- Kurwanya isuri
- Kubagara
- Kurwanya indwara n'ibyonnyi
- Gupimisha ubutaka kugirango umenye imyunyungugu iri mu butaka bwawe

## 2. NI IZIHE NYONGERA MUSARURO, INGANO YAZO N'IBIKORESHO DUKENERA KURI ARI (ARE) IMWE?

Ingano y'umurama	Imborera	Ire	NPK 17-17-17	Inkoni ipima	Agafuniko
g 60	Kg 250	Kg 1.5	Kg 3	cm10 cm 20 m 1.2	1 ka fanta 1 k'amazi

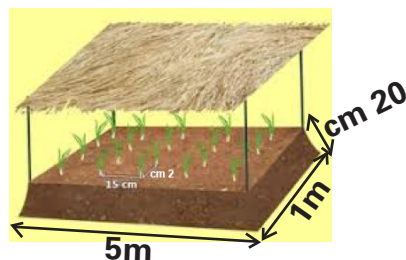
## 3. NI HEHE DUSHYIRA UBHUMBIBIKIRO KANDI BUGOMBA KUBA BUNGANA BUTE?

### Hehe?

- Ubuhumbikiro bushyirwa ahantu hagomba kuba hahinze nibura mu bujakuzimu bwa cm 20-30
- Ubutaka bugomba kuba buseseka kugirango imizi ikure neza.
- Bugomba kuba buri hafi yaho amazi aboneka byoroshye
- Bugomba kuba buri hafi y'umurima uzahingamo

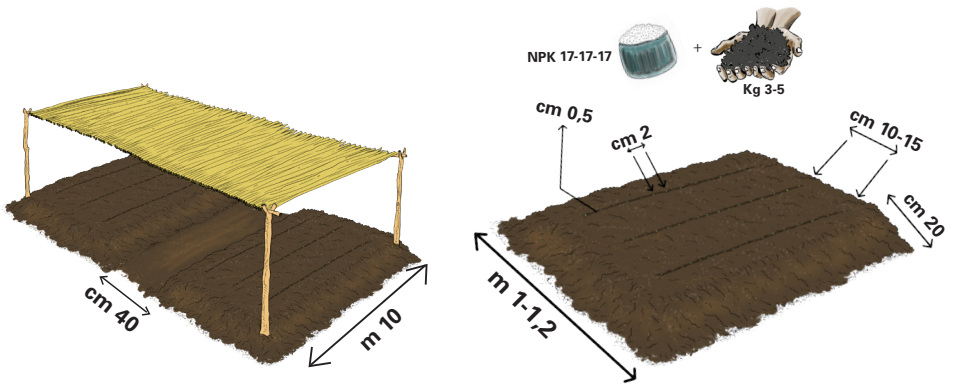
### Ingano?

- Kugirango umuhinzi abone ingemwe azatera kuri ari imwe ategura ubuhumbikiro bufite ubuso bwa metero kare 5 (metero 5 kuri metero 1) Mbese ubuhumbikiro buba bungana na kimwe cya makumyabiri 1/20 cy'ubuso bwose bw'umurima.



## 4. NI GUTE DUTEGURA UBHUMBIBIKIRO?

- Tegura umutabo ufite ubugari bwa metero 1 utarengeje m 1.2 n'uburebure butarengeje m 10, ubujyeyuru bwa cm 20 kugirango amazi abashe gusohoka mu butaka.
- Shyira byibuze inzira ya cm 40 hagati y'imitabo ibiri.
- Shyiramo ifumbire y'imborera iboze neza: amashyi 3 yuzuye (kg 3-5) kuri metero kare mwe n'imvaruganda NPK 17-17-17 (g 20/m<sup>2</sup>) bingana n' udufuniko 2 tw'amazi, bigakorwa bitarenze icyumweru kimwe mbere yo guhumbika.
- Igihe cyo kwinaza, ubutaka buraringanizwa, hagacibwa imirongo yo kwinazamo ifite ubujyakuzimu bwa cm 5 kandi itandukanijwe na cm 10.
- Umurama ubibwa/winazwa ku murongo ku ntera ya cm 2 hagati y'intete n'indi hakarenzaho agataka gake.

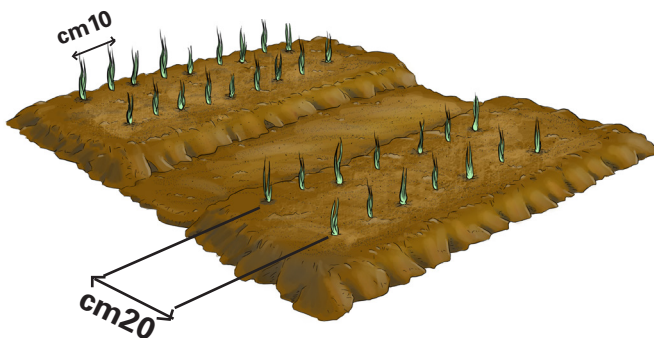


## 5. NI GUTE TWITA KU BUHUMBIKIRO NYUMA YO KWINAZA?

- Sasira ubuhumbikiro nyuma yo kwinaza
- Vomera mu gihe imvura itari kugwa
- Ubakira, unatwikire ubuhumbikiro kugirango ingemwe zirindwe kwicwa n'izuba.
- Siga aho imirasire y'izuba inyura kuko ingemwe ziba zikeneye urumuri ku rugero ruringaniye.
- Icira ingemwe mu gihe zicucitse
- Igihe hagaragaye indwara z'inyongobezamimero tera imiti nka mankozebe (Mancozeb) cyangwa vigitori (Victory) cyangwa safari zebu (Safari-Zeb): Ingano y'umuti ni garama 2.5 kuri litiro imwe y'amazi
- Iyo mu buhumbikiro hagaragaye ibyonnyi koresha imiti nka lamuda siyarotirine (Lambda-Cyhalothrin) ushyire ml 1 muri litiro 1 y'amazi.
- Genda ugabanya igihe cyo kuvomerera n'igicucira mu buhumbikiro mugihe cy'icyumweru cyangwa bibiri mbere yo kugemura kugirango ingemwe zikomere,
- Ingemwe ziba zigejeje igihe cyo guterwa mu murima hashize ibyumweru 6-8 nyuma yo kwinaza.

## 6. NI GUTE DUTERA IBITUNGURU?

- Mu gutera koresha intera ya cm 10 hagati y'igitunguru n'ikindi mu murongo na cm 20 hagati y'umurongo n'undi.
- Ni byiza guhinga ibitunguru ku mitabo cyane cyane igihe ugiye guhinga ahantu hareka amazi cyangwa mu kabande ukoresha imitabo ifite m 1,2 z'ubugari na cm 20 z'ubujyejuru kandi hagati y'umutabo n'undi usige inzira ya cm 40.
- Kugemura bikorwa nyuma y'ibyumweru 6-8.
- Gutera bikorwa hakiri kare mu gitondo cyangwa ku mugoroba kugirango ingemwe zitarabishwa n'izuba ryohyemba ku manywa.



## 7. NI IYIHE MIRIMO Y'INGENZI IKORWA MU GUKENURA IGIHINGWA CY'IBITUNGURU

- Gusasira imitabo ni ngombwa hakoreshwa ibyatsi byumye neza mbere yo gutera.
- Nyuma yo gutera uravomerera no mu gihe cyose imvura itagwa cyangwa idahagije.
- Kuvomerera bikoranwa ubwitonzi kugirango hatabaho kwanduza igihingwa cyawe indwara zituruka mu butaka.
- Bagara igihe cyose ibyatsi bibi bigaragaye mu murima wawe.
- Nyuma y'ibyumweru 6 uteye shyiramo ifumbire ya Ire (Urea) ingana na kg 1.5 kuri Ari imwe
- Rwanya indwara n'ibyonnyi



## 8. NI GUTE DUFATA NEZA UMUSARURO?

- Ibitunguru biba bigeze igihe cy'isarura igihe imitwe ireba hasi, ni ukuvuga hagati y'amezi 3-4 bitewe n'ubwoko bw'ibitunguru.
- Mbere yo gusarura ukuraho itaka ritwikiriye ikijumba cy'igitunguru habura nibura ibyumweru bibiri ngo usarure.
- Gusarura ibitunguru ubirandura ukoresheje intoki, iyo hakomeye ugakoresha agacyamuro.
- Nyuma yo gusarura, sanza ibitunguru ku mbuga isukuye neza cyangwa ubundi bwanikiro bwabugenewe kandi wanike ahantu hagera izuba; ubireke byume kugeza igihe imizi n'amababi byumye.
- Katira amababi nko kuri cm 2.5 hejuru y'ikijumba cy'igitunguru ndetse unakate ya mizi yumye.
- Ibitunguru bikomeza kwanikwa ahagera imirasire y'izuba itari myinshi kandi hagera umwuka mu gihe cy'ibyumweru 2-3.
- Ibitunguru bibikika neza igihe ijosi ryabyo ryumye neza kuburyo urikanda ukabona nta mazi akirimo.
- Umusaruro w'ibitunguru ushobora kugera kuri toni 25 kuri hegitari.



# INDWARA Z'INGENZI N'IBYONNYI BIKUNZE KWIBASIRA IBITUNGURU

## Indwara y'imvura (Milidiyu)

- Ibidomo cyangwa amabara byeruruka ku mababi bitwikiriwe n'agafu k'umweru.
- Amababi areruruka nyuma akuma.



### Uko wayirinda

- Kwirinda gutera ingemwe zirwaye,
- Gusimburanya neza ibihingwa,
- Gutera mu butaka bwumutse,
- Kudacucika ibitunguru igihe cyo gutera,
- Kuvana mu murima ibisigazwa by'ibihingwa bigakorwamo ifumbire,

### Uko wayirwanya

- Gutera umuti wo kurwanya uduhumyo urimo Mankozebe (Mancozeb), Metalaxile (Metalaxyl) cyangwa gukoresha imiti irimo Kopa (copper)nka Kopa ogisikoloride (Copper oxychloride).
- Ibipimo bikoreshwa: 37.5g/15l z'amazi.

## Indwara y'ibidomo (Ariterinariyoze)

- Iyi ndwara igaragara mu gihe cy'imvura nyinshi.
- Itangira igaragazwa n'ibikomere biretse amazi ku mababi nyuma bikaba ikigina.
- Irangwa n'ibidomo byijimye imbere ariko byerurutse ku muzenguruko wabyo.



### Uko wayirinda

- Guterera igihe bitewe n'aho umurima uherereye,
- Gutera kumitabo, no gutegura neza umurima.
- Kudacucika ibitunguru igihe cyo gutera,
- Gusimburanya ibihingwa,
- Kuvana mu murima ibisigazwa by'ibihingwa ukabishyira mu kimoteri
- Gutera mu butaka bwumutse.
- icyitonderwa :Ubutaka burekamo amazi nti buberanye n'ibitunguru

### Uko wayirwanya

- Gutera umuti urimo Mankozebe (Mancozeb), cyangwa Metalaxile (Metalaxyl) cyangwa gukoresha imiti irimo Kopa (copper) nka Kopa ogisikoloride (Copper oxychloride).
- Ibipimo bikoreshwa: 37.5g/ 15L z'amazi.



## Umugese (Rust)

- Iyi ndwara igaragara cyane igihe cy'ubuhere bwinshi buvanze n'ubushyuhe burunganiye cyangwa buke.
- Iyi ndwara ifata ku mababi ikarangwa n'ibidomo bifite ifu ifite ibara rishyira umutuku cyangwa orange nyuma bikaba umukara.
- Amababi yafashwe cyane ahinduka umuhondo nyuma agahita Yuma atarakura bityo bigatuma umusaruro ugabanuka



### Uko bayirinda

- Gutera ku mitabo,
- Kudacucika ibitunguru igihe cyo gutera,
- Gusimburanya ibihingwa,
- Kuvana mu murima ibisigazwa by'ibihingwa ukabishyira mu kimoteri
- Kwirinda gufumbiza azote irengije ikigero cyagenwe

## Tiripusi (Thrips)

- Tiripusi ni udukoko duto cyane (mm1) kandi tugenda cyane. Twangiza ibitunguru turya amababi tukanyunyuzwa amatembabuzi y'ihingwa.
- Amababi yafashwe agira amabara y'umweru avanze n'ibidomo by'umuringa. Utu dukoko dusiga umwanda ugaragazwa ku mababi nk'utudomo tw'umukara.
- Utu dukoko tugomba kugenzurwa hakiri kare kuko tugira ingaruka mbi ku musaruro.



### Uko wayirinda

- Ubutaka bugomba guhora bufite amazi ahagije;
- Kwirinda gukoresha ifumbire ya Azote irenze urugero rwagenwe;
- Kubagara neza kuko utu dukoko twihisha mu bwatsi;
- Gusukura ahakikije umurima;

### Uko wayirwanya

- Gutera imiti yica udukoko irimo Lambdacyhalothrin (Lamdex): Vanga ml 15 z'umuti muri litiro 20 z'amazi cyangwa Alpha cypermethrine: Vanga ml 20 z'umuti muri litiro 20 z'amazi cyangwa Abamectin: Vanga ml 10 z'umuti muri litiro 20 z'amazi

**Icyitonderwa: Egera umujyanama mu buhinzi akubwire umuti wemewe ku isoko mu gihe cyo gutera umuti**



# nuffic

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