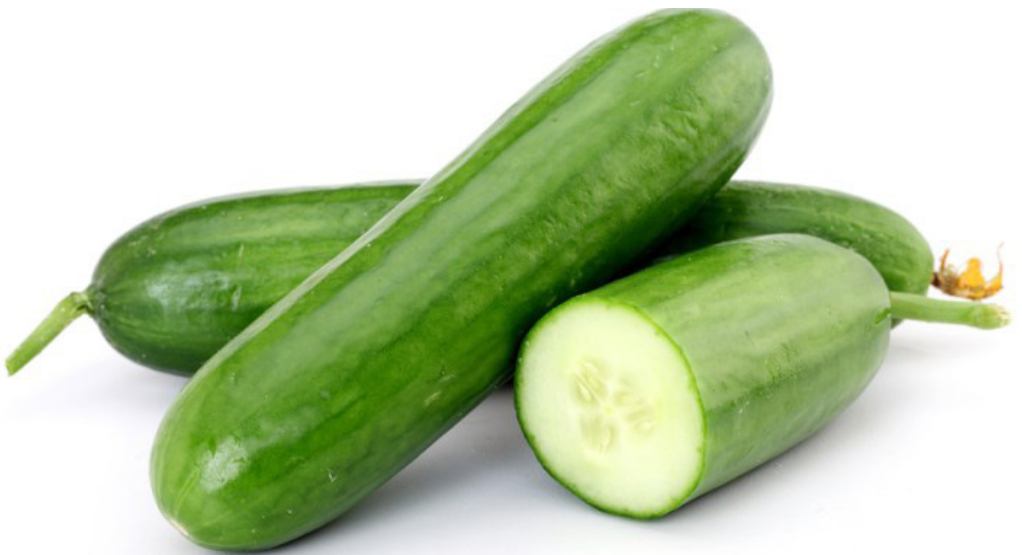




MINISTRY OF AGRICULTURE AND ANIMAL
RESOURCES (MINAGRI)

IMFASHANYIGISHO KU BUHINZI BWA KOKOMBURE



SEAD
Strengthening Education for
Agricultural Development

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

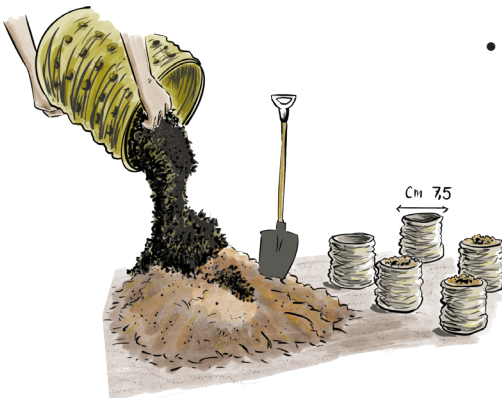
- Gukoresha imbuto y'indobanure
- Guterera igihe
- Gusimburanya ibihingwa
- Kubahiriza intera
- Gukoresha ishwaraga ku butaka busharira
- Gukoresha imborera n'imvaruganda
- Kurwanya isuri
- Kubagara
- Kurwanya indwara n'ibyonyi
- Gupimisha ubutaka kugirango umenye imyunyungugu iri mu butaka bwawe

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

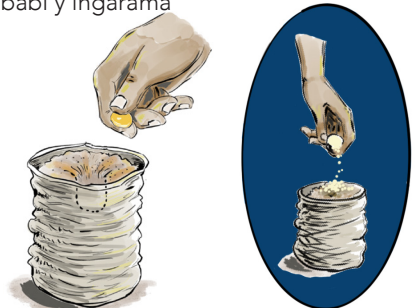
Imborera	Ire	NPK 17-17-17	Ingemwe	Inkoni ipima	Agafuniko
Kg 250	Kg 1.3	Kg 6	g 10	m1 cm 40	1ka fanta 1 k'amazi

3. NI GUTE DUTEGURA INGEMWE?

- Umurama uhumbikwa mu bihoho bifite umurambararo wa cm 7.5 kandi bikozwe mu birere cyangwa iby'amashashi;
- Ibihoho bipakirwamo itaka n'imborera iboze neza (Ibitebo bibiri by'itaka bivangwa n'igitabo kimwe cy'ifumbire;
- Bongeramo n'agafumbire gake ka NPK 17-17-17 kangana na garama 5 (agafuniko kamwe ka fanta) muri buri gihoho.
- Urubuto rumwe ruterwa muri buri gihoho ku bujakuzimu bwo guhera kuri cm 0.5 kugera kuri cm 1.



- Ni ngombwa kuvomerera buri muni mu gitondo kare no ku mugoroba
- Ingemwe ziterwa hashize ibyumweru 4-5 zifite amababi 3 utabariyemo amababi y'ingarama

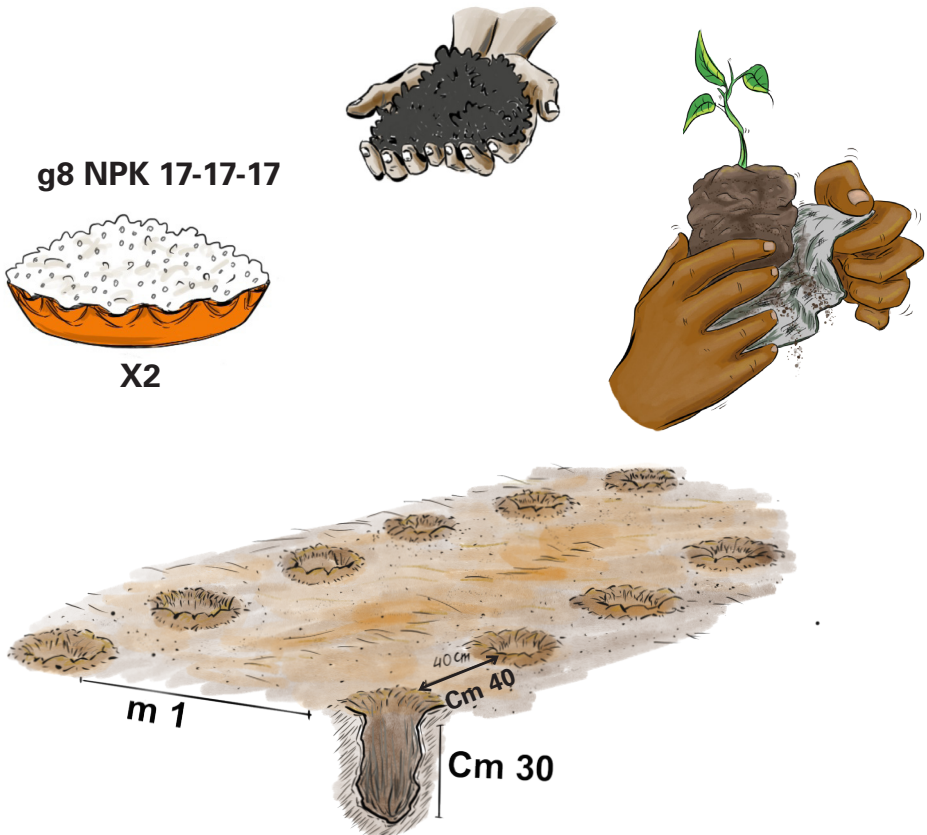


4. KOKOMBURE ISHOBORA GUTERWA ITANYUJIIWE MU BIHOHO?

- Inzuzi 4 zishyirwa mu mwobo umwe
- Iyo zose zimeze, ingemwe zisa nabi zirarandurwa hakagumaho ebyiri
- Ibi bitwara imbuto nyinshi zigera kuri garama 30 kuri ari imwe.

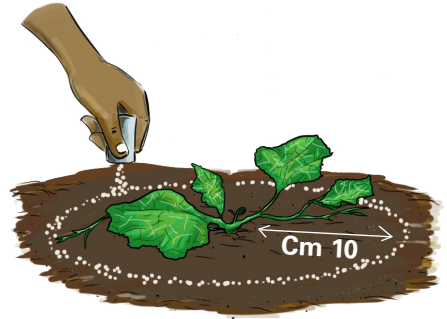
5. NI GUTE DUTERA?

- Iterwa mu murima udaherukamo ibihingwa biri mu muryango w'ibihaza nibura nyuma y'ibihe by'ihinga 2.
- Mbere yo kugemura hinga neza umurima ku bujakuzimu bwa cm 15-20, ndetse kuramo ibyatsi bibi;
- Imyobo yo guteramo : ni ubujyakuzimu bya cm 30; icukurwa ku ntera ya m1 hagati y'imirongo na cm 40 hagati y'umwobo n'undi mu murungo
- Buri mwobo ushyirwamo 1 kg cy'imborera (imborera yuzuye amashyi) na garama 8 za NPK 17-17-17 (udufuniko 2 tw'icupa rya Fanta)
- Kura ingemwe mu bihoho udakuyeho itaka rikikije imizi, uzitere mu myobo wateguye.



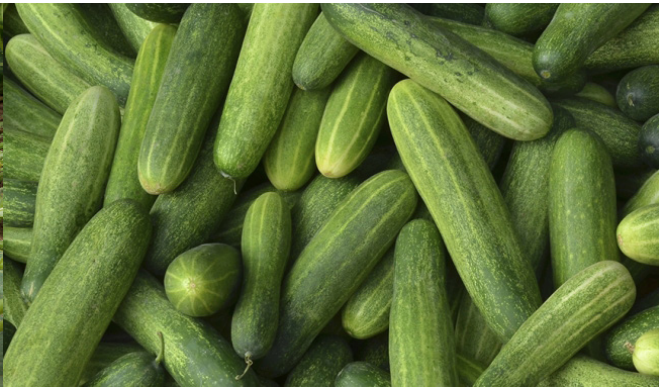
6. NI IYIHE MIRIMO Y'INGENZI IKORWA MU GUKENURA IGIHINGWA CYA KOKOMBURE

- **Gusasira:** Ni ngombwa gusasira kokombure hakoreshwa ibyatsi byumye neza
- **Kuvomerera:** Nyuma yo gutera ni ngombwa guhita bavomerera. Ni ngombwa kuvomerera witonze udatosa amababi kugirango ubuhehere bwinshi ku mababi budatera uduhumyo kororoka
- **Kubagara:** Kubagara bikorwa igihe cyose ibyatsi bibi bigaragara mu murima.
- **Kongeramo ifumbire y'imvaruganda:** Ubwa mbere:
 - Nyuma y'amezi 2 umaze gutera (kugemura). Hakoreshwa garama 8 za NPK 17-17-17 (udefiniko 2 tw'icupa rya Fanta)
 - Nyuma y'andi mezi 2 nabwo hakoreshwa garama 8 za NPK 17-17-17 uyishira kumuzenguro wa buri gihingwa
- **Kwicira :** Kuraho udushami twose tuza ku ruyuzi tuvanwaho kugeza kw'ipfundo rya gatanu (5), bityo udushami tuza ku ruyuzi nyuma y'ipfundo rya 5 turekerwaho.
 - Uruyuzi rubwa umutwe nyuma y'ipfundo rya cumi na gatanu (15)
 - Shingirira kandi unayobora uruyuzi rwa kokombure.



7. GUSARURA NO GUFATA NEZA UMUSARURO BIKORWA GUTE?

- Gusarura bitangira hashize iminsi 30-45 kokombure zitewe
- Igihe cyiza cyo gusarura kirangwa n'umurenda uba uri imbere mu mwungu
- Iyo imyungu itinze gusarurwa, umusaruro wa kokombure uba muke kandi ukaba mubi.
- Imyungu isaruzwa intoki, akenshi inshuro 3 mu cyumweru
- Ni byiza gusarura igihe hari ubuhehere kugirango wirinde ko imyungu yasaruwe ishyuhirana
- Ni byiza ko hakoreshwa icyuma gityaye kugirango umwungu ukatwe ku ruyuzi.
- Imyungu yasaruwe igomba gushyirwa mu kintu gisa neza ahantu hari igicucu.
- Imyungu igomba gufatanwa ubwitonzi kugirango uruhu rwayo rworoshye rutangirika
- Imyungu ijyanwa ku isoko igomba gutoranwa hashingiwe ku ngano yayo kandi umwe ugashyirwa mu gasashi kawo.
- Igomba kubikwa mu buhunikiro bufite ubushyuhe buri hagati ya dogere selisiyusi 10 na 12.5



INDWARA Z'INGENZI N'IBYONNYI BIKUNZE KWIBASIRA KOKOMBURE

Indwara y'uruhumbu (Powdery mildew)

- Ibidomo cyangwa amabara byeruruka ku mababi bitwikiriwe n'ifu y'ikigina.
- Amababi arwaye cyane aruma akagira ibara risa nk'ibihogo ndetse akagagara. Ubu burwayi bushobora no kugera ku ruti rw'igihingwa.



Uko wayirinda

- Gusimburanya neza ibihingwa, kuvana mu murima ibisigazwa by'ibihingwa bigakorwamo ifumbire,
- Kurwanya ibyatsi bibi byo mu muryango w'ibihaza.
- Gutera umuti urimo sufure cyangwa kwivure.

Uko wayirwanya

Gutera umuti urimo sufure nka Sulfur 80% (Thiovit) cyangwa umuti urimo kwivure nka Copper oxychloride.

Ibipimo bikoreshwa ni 37.5/ L15 z'amazi

Ibipimo bikoreshwa

g 37.5/ L 15 z'amazi.

Indwara y'imvura/Kubabuka (Downy mildew)

- Iyi ndwara irangwa n'ibara ry'umuhondo ukeye ku bice by'ikibabi ahagana hejuru.
- Mu gihe cy'ubukonje, uruhumbu rufite ibara ry'ikijuju gishyira umweru rugaragara munsu y'amababi. Amababi arwaye arihinahina hanyuma akuma.
- Iyi ndwara ikwirakwizwa n' imvura n' umuyaga.



Uko wayirinda

- Kwirinda gutera ingemwe zirwaye,
- Gusimburanya neza ibihingwa,
- Gutera mu butaka bwumutse,
- Kudacucika ingemwe igihe cyo gutera,
- Kuvana mu murima ibisigazwa by'ibihingwa bigakorwamo ifumbire cyangwa bikajugunywa mu kimoteri kure y'umurima nyirizina.



Uko wayirwanya

Gutera umuti urimo Mancozeb + Metalaxyl nka Victory cyangwa gukoresha imiti irimo copper nka Copper oxychloride (g 37.5/ L 15 z'amazi)

Cyumya (Fusarium wilt)

- Amababi agenda yuma ahereye ku yakuze, nyuma n'imigozi yose igafatwa bikuma



Uko wayirinda

- Gukoresha imbuto nziza (zitarwaye) mu gihe ugiye gutera,
- Kwirinda gukwirakwiza uduhumyo dutera ubu burwayi binyuze mu bikoresho byo murima n'amazi yo kuvomerera;
- Gukora isimburanyabihingwa neza.
- Kubangurira



Uko wayirwanya

Kurandura ibyafashwe n'uburwayi bigashyirwa mu kimoteri.

Akaribata (anthracnose)

- Ni indwara yangiza cyane kokombure. Ifata ibice byo hejuru y' ubutaka.
- Igaragazwa n' ibidomo by' ikigina ku mababi akuze.
- Ahafashwe nyuma haruma hakaba umukara ndetse hagatoboka.
- Ibidomo ku myungu biba ari ibiziga by'ibara ry'umukara byinjijye imbere mu mwungu.



Uko wayirinda

- Gutera imbuto zihanganira indwara,
- Gusimburanya neza ibihingwa:
- Kurandura inzuzi z'ibihaza zimejeje.

Uko wayirwanya

Gutera umuti urimo Sufure nka Tiyoviti (Thiovit) cyangwa gukoresha imiti irimo Kwivure nka Copper oxychloride (g 37.5/ L 15 z'amazi)



Ibipimo bikoreshwa

g 37.5/ L 15 z'amazi.

Inda/Ubuhunduguru

- Ni agakoko gafite nka mm 1-2 z'uburebure, gatungwa no kunyunyuzwa ibimera gafasheho.
- Gafata cyane amababi n'uruti bikiri bito ndetse n'indabo.
- Inda zikwirakwiza virusi nyinshi zitera indwara.
- Umushongi w'inda ukurura uduhumyo tw'umukara dutwikira ikibabi bigatuma kidakurura neza ibitunga igihingwa cg intungagihingwa



Uko wazirinda

- Kubungabunga inshuti z'abahinzi (udukoko turya inda. Urugero: Utunyamacwende, urutambara, amavubi, udusurira...)
- Kwirinda guhora ukoresha ubwoko bw'umuti umwe kuko inda ziwumenyera ntizipfe ahubwo zikororoka vuba.

Uko wazirwanya

Gutera imiti yica udukoko nka Lambda-Cyhalothrin, acetamiprid, abamectin, nimbecidine (azadirachtin)
Ku kigero cya 1 ml/1l y'amazi

Ibipimo bikoreshwa

1ml/1l y'amazi

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

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SEAD, UR na IPRC HUYE

