Imirima Yicyitegererezo Nihingwa Ry'ibinyabijumba Mu Rwanda

Uburyo bw'ibikorwa bwo guhinga ibiribwa biboneka mugihugu no kubikora neza.

Rotary
FOOD PLANT SOLUTIONS
ROTARY ACTION GROUP
Solutions to Malnutrition and Food Security

The Mustard Seed Institute

A project of the Rotary Club of Devonport North,
District 9830 and Food Plants International

Irmirima yicyitegererezo nihingwa ry'ibinyabijumba mu Rwanda

Rotary FOOD PLANT SOLUTIONS ROTARY ACTION GROUP Solutions to Malnutrition and Food Security

The Mustard Seed Institute

Icyerecyezocya the Mustard Seed Institute ni ukuba ikigo cyegereye abaturage, gitanga ibisubizo bigaragara kandi bifatika kugirango turwanye ubukene bukabije no kubaka amahoro binyuze mu bushakashatsi, guhangaimirimo cg udushya, amahugurwa nogutanga ubumenyingiro ndetse nibiganiro bifunguye kuri buriwese. Mu cyarocya Rwankuba, muntara y'iburasirazuba.

The Mustard Seed Institute ikoranye na Food Plant Solutions kugirango bongere ubuzima bwiza n'imibereho myiza yabatuage binyuze mu mahugurwa ndetse n'ukwigisha abaturage uburyo bunoze bwoguhinga ndetse n'ubworozi twibanze ku kungura ubumenyi abaturage kubihingwa bishobora guhingwa kugirango tugabanye imirire mibi mu bana.

Ku bundi busobanuro kubijanye nuyu mushyinga wabarizakuri info@foodplantsolutions.org

Inkunga yanyu turayakiriye kandi turayishimiye.

Food Plant Solutions – niumushingawa Rotary Club of Devonport North, akarereka Rotary 9830 na Food Plants International

Aka gatabo gashingiye ku makuru yakuwe mu bubiko shingiro bwa Food Plant International (FPI), "ibimera biribwa ku isi", byakozwe n'umuhanga mu buhinzi witwa Tasmanian Bruce French.

Food Plant Solutions ikora ikurikije politiki ya Rotary mpuzamahanga, ariko ntabwo ari ikigo cyangwan igenzurwa na Rotary International

Indyo irimo intunga mubiri iroroshye

Guhinga no kurya ibyokurya bikomoka kubimera byinshi, noneho iyo hari intungamubiri ibura mukimera kimwe iboneka mubindi hanyuma bikabyara indyo yuzuye.

Ubwo bw'ubunyobwa bwa bambara

Abantu bose cyane cyane abana bagomba kurya ibyokurya bikomoka kubimera bitandukanye kugira bagire ubuzima bwiza.

Ibi bisaba gushyiramo ibimera byomubwoko bwose buribwa – ibitera imbaraga-ibikuza nibitera ubuzima bwiza.

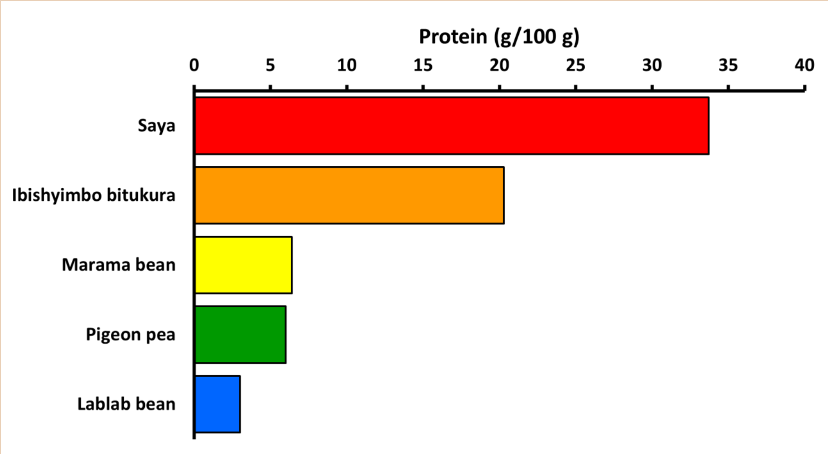
Noneho intungamubiri zose imibiri yacu ikinera zaboneka kuburyo buhagije.

Ibiryo bitera imbaraga

Ibiryo bikuza umubiri/ bifite amavitamine

Ibiryo birinda indwara/ birinda ubuzima

Ibifite poroteyine



Ibifite poroteyine

Ibiribwa biva mubimera bifite uruhare mukongera ingano ingano ya poroteyine (ibikuza) mundyo yacu yuzuye. Amasamake n' inyama byo byongera agaciro ka poroteyine. Ubwoko bwimpeke butandukanye bushobobra gukarangwa bukaribwa nkibyokurya byoroheje.

Kapok

Imbuto ibihwagari

Ibihingwa bihingwa imbere mugihugu bivamo ibyokurya kuburyo buhoraho.

Ibihingwa gakondo bitanga ibiryo bisanzwe biboneka aho

Amaranth

Gukoresha ubwoko butandukanye bukomoka cyangwa bwafashe kugirango haboneke ibyokurya kuburyo buhoraho.

Amateke

Kuberako aribihingwa biboneka mugace, bishobora kuba byarabashije kubaho mubihe byako gace ndetse nibyonnyi.

Lablab bean

Buri kimwe gifite uburyo butandukanye bwo kwirwanaho mubihe bibi bitandukanye.

Ibiribwa bikomoka kubimera byimeza

Guhinga ibiribwa muburyo buvanze mumirima ni uburyo bwiza kandi bworoshye mukugabanya indwara n'ibyonnyi.

Uburyo ibihingwa by’imeza bikuramo

Ibihingwa byimeza ntabwo bimera kumurongo.

Ntabwo hajya hamera ubwoko bumwe bwikimera muburyo bwakimeza.

Ubwoko butandukanye bw’ibimera bubasha kubaho kandi bukagumaho.

Muburyo bwa kimeza ibimera byiza bimera mumwanya nyawo.

Muburyo bwa kimeza imbuto ziribwa zera bubihe bitandukanye.

Intunga mubiri ziboneka muburyo buhoraho bwizenguruka.

Uburyo bwa kimeza bwibeshaho kandi bugahoraho.

Uburyo bwa kimeza ubutaka bukomeza kubaho kandi butoshye.

Guhinga ibihingwa bivanze nibyiza

Amateke, imboga nurutoki

Kuvanga amaranth nibigori

Amakuru kubuhinzi

Ibidakorwa neza

Guhunika imbuto

Twese dukeneye kwigira hamwe tugahana ubumenyi tuzi.

Indwara

Ibyonnyi

Ibihingwa byawe byaba bimeze neza?

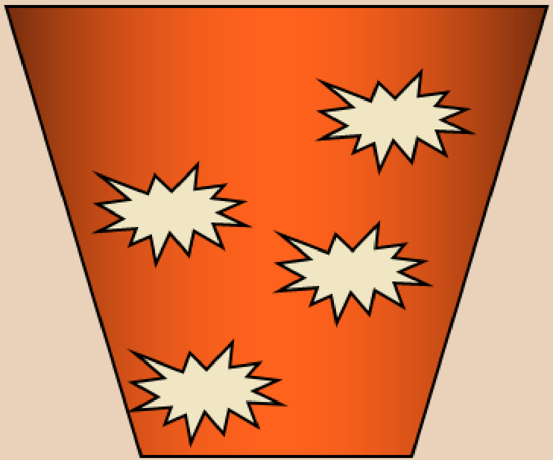
Ibihingwa byerekana ibimenyetso bidasanzwe mugihe cyose bidakura neza.

Iki kibabi cyikigori cyirerekana ko kibura intungamubiri zitwa nitorojene. Cyirerekana igishushanyo cya “V” ahamanuka herekera murufatiro rwikibabi gikuze. Nibindi byatsi bibura iyo ntungamubiri byerekana ibimenyetso nkibyo.

Nitorojeni iboneka mumwuka, ariki ibimera ntabwo byayikoresha keretse iyo udukoko duto twitwa bagiteriya two mubutaka no kumizi yibihingwa byo mumuryango wibishyimbo tuyihinduyemo ishobora gukoreshwa nibimera.

Ikirundo cy'intungamubiri

Reka dutekereze ubutaka arinkikirundo y'intungamubiri, noneho dufite gukoresha kurwego rwohasi isuka (cg kwongeramo intungamubiri tubona ko zidahagije mubihingwa) mbere yuko indobo igira ibindi bintu biyijyamo.



Dushobora kwiga uburyo bwo kumenya intungamubiri zigenda ziba nkeya mukimera dukoresheje uburyo bwo kucyitegereza.

Fosifore

Potash

Azote

Ibihingwa bitandukanye byera ku bwoko bw'ubutaka butandukanye

Ibinyomoro bikenera ubutaka burumbuka

Taros ikenera ubutaka bwiza

Chinese taros ya bashinwa ibaho ku butaka bubi

Ibijumba biryohera bishobora gukura ku butaka buringaniye

Imyumbati ishobora kwera ku butaka bubi

Mugihe nitorogeni ari nkeya…..

Nitorojeni n’ingenzi cyane kubimera kuko ibifasha kugira amababi asaneza kandi afite ubuzima bwiza.

Inanasi amababi ahinduka umutuku

Imyumbati amababi ahinduka umuhondo.

Ibyatsi bigira igishushanyo cya “V” ahangiritse kumababi akuze.

Ibishyimbo bitanga poroteyine kandi byongera kubaka ubutaka

Ibishyimbo bigira bagiteriya zumwihariko ziba kumizi yabyo zibifasha gufata nitogeni iva mumwuka ikayijyana mubutaka kugirango ubutaka buyikoreshe. Ni ifumbire y'ubuntu.

Ibishyimbo bya Mung

Marama bean

Ibishyimbo bishingiririrwa byabasha kuzamuka kukigori biri mumurima umwe kandi hakaboneka kubihingwa byombi ari ibishyimbo nibigori.

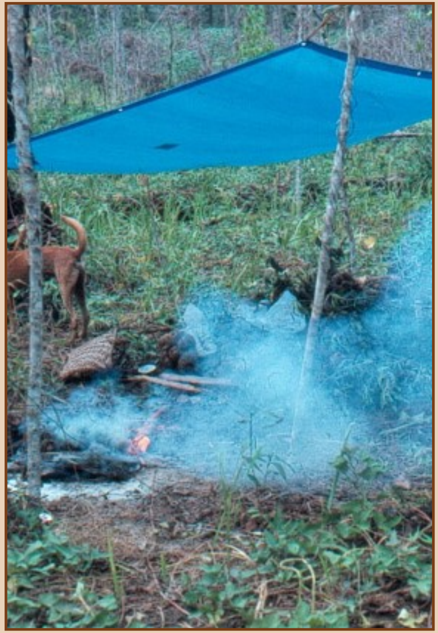
Gutwike bituma ubutaka butakaza intungamubiri bukanangirika

Gutwika ni uburyo bworoshye bwogutunganya nogusukura imirima, ariko aho bishoboka ibimera byasigara mumirima kugira ngo bisibize intungamubiri ubutaka.

Ibi bitanga intungamubiri kandi bikanafasha bagiteriya nutundi dukoko duto tuba mubutaka dufasha mu mikurire y'ibimera.

Ubutaka bufite ubuhehere cyangwa ibisigazwa by'ibimera birimo kubora, ntabwo butakaza intungamubiri mugiye cy'imvura nyinshi.

Nitorojeni (sulufire) ibura mumwuka iyo ibisigazwa byibimera bitwitswe. Izindi nyungamubiri nka potash zo zisigara mwivu.



Gukora ifumbire y'imborera

Ntagutwika ibisigazwa byimyanda-biboreshe.

Kuboresha nibyiza cyane kubuso buto bwubutaka buto bwoguhinga.

Uko bakora ifumbire y'imborerera

Amabwiriza yogukora ifumbire y'imborerera:

- **Kubaka akantu kameze nkagakarito gafunguye hejuru kugirango ubuze inyamanswa kwinjira.**
- **Kongeramo ibikomoka kubimera byatangiye kubora kugirango ikorwa ry'ifumbire ritangire.**
- **Kuvanga ibibabi bibisi nibisigazwa by'ibimera byumye.**
- **Kwemerera umwuka kwinjira mwifumbire.**
- **Kugumisha igitanda cyahakorerwa ifumbire gihehereye.**
- **Kugeramo ibisigazwa byibintu byose babayeho .**
- **Niba bishoboka, hindura ifumbire kugirango ibashye gushya kandi ibore neza.**

Impamvu y'ifumbire

Bagiterya ntoya nibindi binyabuzima bikora cyane bicagagura ibimera bishaje nibindi binyabuzima byajugunye bikabikoramo ifumbire

→

Kuberako bagiteriya zifite ubuzima zikenera umwuka namazi bihoraho hamwe nikigero kigereranyije cy'ibimera bikiri bibisi nibyumye cyangwa zigapha.

Ibinyabuzima biriho intungamubiri zibimera muburyo buringaniye neza bigafasha ibimera bishyashya gukura ubwo rero ni ifumbire nziza.

→

Kuguma mubuzima bwiza, ubutaka bukeneye ifumbire nyinshi kandi ikozwe muburyo bwagakondo bigakora akazi keza kandi gakomeza itagaragarira amaso bumutaka imbere.

Ifumbire igomba kuzamura ubushyuhe kugirango yice ibyonnyi nudukoko tubi.

Indiwara zimwe nazimwe n’inkuru kurizo

Ibwiriza ryambere mugukurikirana no kurwanya indwara hamwe nibyonnyi ni uguhinga ibihinwa nyabwo mugihe nyacyo kandi bigahingwa neza bityo bishobora kugiira ubuzima bwiza.

Peanut rust

Amabara kumakoma

Indiwara zimwe nazimwe n'inkuru kurizo

Elsinoe scab iba kubijumba burigihe itubwira ibintu bitatu:

- **Ubutaka burimo buragenda bubura intungamubiri.**
- **Ubu bwoko bwimbuto y'ibijumba ni ubwoko bufatwa n'indwara muburyo bworoshye.**
- **Ubu bwoko bwimbuto y'ibijumba bushobora kuba buva mukindi gihugu kitagira indwara, ubwo rero ntabwo bubasha kwihanganira indwara.**

Kugabanya ingaruka:

- **Kongera ibyo ubutaka bukeneye**
- **Gutoranya imbuto gakondo ibasha kwihanganira indwara.**

Ibyonnyi

Guhinga ubwoko bw'ibihingwa butandukanye, biri muburyo bwiza kandi bwagakondo bwo kurwanya ibyonnyi nudukoko byakwangiza imyaka.

Indwara y'ibitoki yitwa "scab moth" udukoko dukuramo uruti rw'ururabo rw'igitoki kuberako utu dukoko twihisha munsi duhunga izuba.

Kubika imbuto yawe bwite

Ibihingwa byameze kumbuto zabitwse muburyo bwa gakondo mubisanzwe zigira indwara nkeya, kuberako ziba zimenyereye agace.

Icyorezo

Umuryango w'ibimera byinshi bigira ibyorezo n'indwara zangiza.

Ikirere

Kwicira imyaka mumirima ni uburyo bwiza bwo gukata. Ikurwaho ry'ibibabi cyangwa udushami dukuze kukimera bikorwa kumashami yacyo. Ubutaka buvanzwe nibyatemwe kwishami bikazengurutswaho ubwoko bwa palasitike. Bizana imizi hadasgize igihe. Noneho bakurwa bigaterwa ahandi hantu.

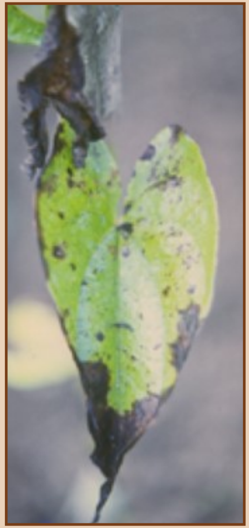
Iyo habonetse zimwe mumbuto (furuwi) ziryoshye cyangwase zikunzwe, nibyiza cyane ko hakoreshwa uburyo bwo kwinaza cyangwa kubangurira, bityo igiti gishyashya kigira ishuhsho idatandukanye cyane nigishaje.

Ibyonnyi, indwara n'ibidahagije

Indwara yigihingwa cyamateke (ibihumyo) ivaho mugihe cyimvura no murume rwa ninjoro.

Imfunyarazi yaduka mumababi y'ibijumba, iyindwara yubwoko bbwibihumyo ikomera cyane iyo ubutaka bukennye, hamwe nubwoko bw'imbuto butgabasha kwihanganira indwara.

Indwara y'ibikoro yitwa anthracnose y'ibihumyo itera amababi yose afashwe nayo ahunguka bitarera.



Ibinyabijumba mu Rwanda

Umuneke

Ibihingwa by'ibinyabijumba nibyiza cyane kuhantu hashyuha.

Amateke

Ibijumba

Imyumbat

Ibi biribwa byose ni ibyakamaro cyane mugihugu, kubwibyo rero tugomba kubimenya neza.

Guhinga amateke

Amateke yera neza kunguri nini.

Ashobora kwera mumazi atemba kandi hari urumuri.

Yerera igihe kingana n'amezi 6-9.

Indwara z'amateke

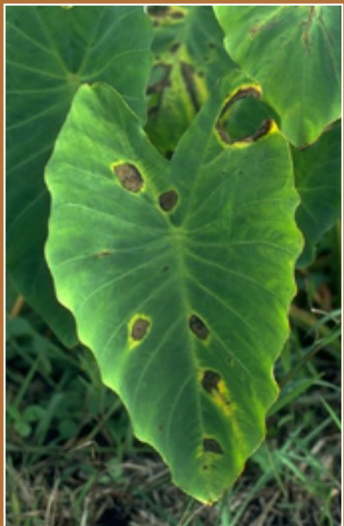
Indwara yitwa Blight na Alomae / virusi za babone n'indwara zikomeye z'amateke.

Alomae / Bobone virus

Hakoreshwa guhinga ibihingwa bitgandukanye kujgirfango habeho kugabanya indwara hamwe n'igihombo.

Taro blight - a devastating fungal disease.

Indwara z'amateke



Indwara iphumura amababi

Virus ya mosaic

Indwara itera amabara y'umuhondo kubibai

Ibyonnyi by'amateke

Isazi y'umweru

Inyenzi

Inyenzi

Udukoko dutera indwara

Taro hawkmoth

Aphids sucking sap

Grasshopper nymphs

Guhinga ibijumba

Ibyo ibijumba bikenera:

- **Umwuka mubutaka. Bihingwa mumabimba iyo ubutaka buherereye cyangwa ari ibumba.**
- **Bigomba kubona izuba rihagije.**
- **Ubutaka bukize muntunga gihingwa, cyane cyane potash (ivu).**

Hari ubwoko bwinshi y'ibijumba, harimo ubwera vuba ariko bukera ibijumba bike. Nibyiza guhinga ubwoko butandukanye kugirango wihaze mundyo.

Guhinga imyumbati

Imyumba nigihingwa kikinyabijumba cyoroshye guhinga, gishobora guhunikwa mubuhtaka, cyakwera mubutgaka bukennye kandi kikihnanganira ubutaka bwumye nigihe cy'izuba. Haterwa ingeri (cm 15 zuburebure) mubutgaka munguni iyo ariyo yose.

Iyo ari ubutgaka buseseka ntamapamvu yo gucukura. impaka ubusanzwe isarurwa mumezi 10-14. Umusaruro w'imizi ubamuke mubutaka bw'ubusharire nomutgaka bufite igicucu cucu.

Imyumbati igomba gutekwa neza burigihe kuberako yifitemo ubwoko bw'uburozi bwitwa siyanide (cyanide) bushobora kwiyubaka mumubiri bukangiza imitsi. Kuyiteka neza igashya bikuramo ubwo burozi. Amababi yayo nayo aratekwa akaribwa.

Ibibazo imyumbati igira

Iyo amababi akuze (ashaje) aba uumuhondo bivuze ko ubutaka bufite nitorogene nkeya.

Amababi kenshi agira ubudomo bw'ikigina bivuye kundwara y'ibihumyo. Iyo ubutaka aribwiza ntabwo biba bibi cyane.

Nkibindi bihingwa by' ibinyabijumba, imyumbati year neza iyo ubutaka bugite potash ihagije. Ivu rivuye muziko rigira potash.

Amababi mato ahinduka umuhondo iyo ubutaka busharira: murubuye cyangwa igishongi.

Ugushimira

Iyi nyandiko yakozwe murwego rwa gahunda irimo gukorwa na Food plant Solutions Rotarian Action Group, byashobotse habayeho guterwa inkunga na Rotary Club ya Tamar Sunrise, Rotary Club Hobart na Tony na Susanne Davies.

Ntabwo byari gushoboka gukorwa hatabayeho ubufatanye n'ubwitange byabakorera bushake batandukanye batanze ibitekerezo n'uko babona ibintu, hamwe n'umwanya wabo n'imbaraga zabo mugufasha uno mushinga.

Gusubiramo, uburyo inyandiko ikozwe - Lyndie Kite, John McPhee na umukozi ushinzwe ibikorwa Karalyn Hingston.

Ibisubizo by'biribwa bihingwa – umushinga wa Rotary Club ya Devonport North, Rotary district 9830 & Food Plants International.

Rotary | FOOD PLANT SOLUTIONS ROTARY ACTION GROUP
Solutions to Malnutrition and Food Security

www.foodplantsolutions.org

Ibyanditswe

Ibyanditswe

Ibyanditswe

Rotary | FOOD PLANT SOLUTIONS ROTARY ACTION GROUP

Solutions to Malnutrition and Food Security

www.foodplantsolutions.org