

ENDIMA ENUNGI NOKUKUZAEBYOKULYA EBITULYA EMIHAMA MUNUKA UGANDA

*EMIRINGO YOKULIMIRAMU NOKUKULIZAMU
EBYOKULYA BYAITU EBYENZARWA HAMU*



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



A project of the Rotary Club of Devonport North and
District 9830

www.foodplantsolutions.org



Endima enungi nokukuzaebyokulya ebitulya emihama munuka Uganda



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

Ekigendererwa kye kitongole kinu ekikwegesa endima enungi eyebyokulya ebyemigaso mubwomeezi kiri kyokusobozesa abantu kwetegereza emigaso enyakuli mukulya ebbyokulya byaitu ebyenzarwa kurabira mukuhandika hamu nobusagiki bwokwegesa habwokuba abaana bataano abalihansinyemyaka etaano nibafwa buli dakiika buli kiro habwa malyamabi.

Mukwongerraho ebiri mukatabu muno ebindi ebikuyambaho bihandikirwe habwa Uganda kandi nibisobora kutungibwa kuraba hamukutu gwaitu gunu ogwokuhulirizangana owakalimagezi -
www.foodplantsolutions.org

Nitutangirra kandi nitukutamu amaani habwobusagiki bwawe.

Ekitongole kinu ekyebyokulya hamu nemikibi eyerukwiragura kiri kitongole kyaba Rotare Ekkusangibwa mumatemba ga Devonport.

Akatabu kanu kahandikirwe ha musingi gwekitongole kyensi yoona ekikwegesa abantu kulima kurungi ebyokulya byomugaso hamu namalya amarungi: "Ebyokulya ebrisemerire kulibwa munsi enu", bitekanizibwe kandi bya korwa omukugu kandi kalimagezi mubyokulima wekitongole kya Tasmanian Omukuru Bruce French.

Kulya kurungi kwanguhire

Lima kandi olye ebyokulya ebyemiringo nyingi.

Nukwo ekirisa obukirabura mukyokulya kimu noija kukisanga mubyokulya ebindi
Kandi ebyemiringo etakusana.



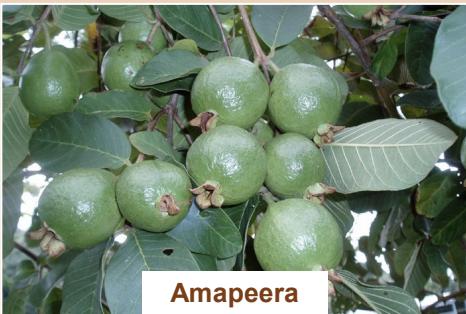
Endya enungi

Abantu boona nokukiramuno abaaba baine kulya ebyokulya ebyemiringo nyingi nukwo baikale bomeezi kurungi.mulibinu harumu ebyokulya ebyemiringo nyingi kuruga mubika byabyo ebitakusana nka ebyokulya ebituha amaani, ebikuza ebmibiru hamu nebi ebikulinda emibiru yaitu kwikara nyomeezi kurungi. Buli kirisa kyoona ekiturukwetaaga nikisangibwa mukulya ebyokulya ebyemiringo nyingi.



Ebitakuli

Ebyokulya ebituha
amaani



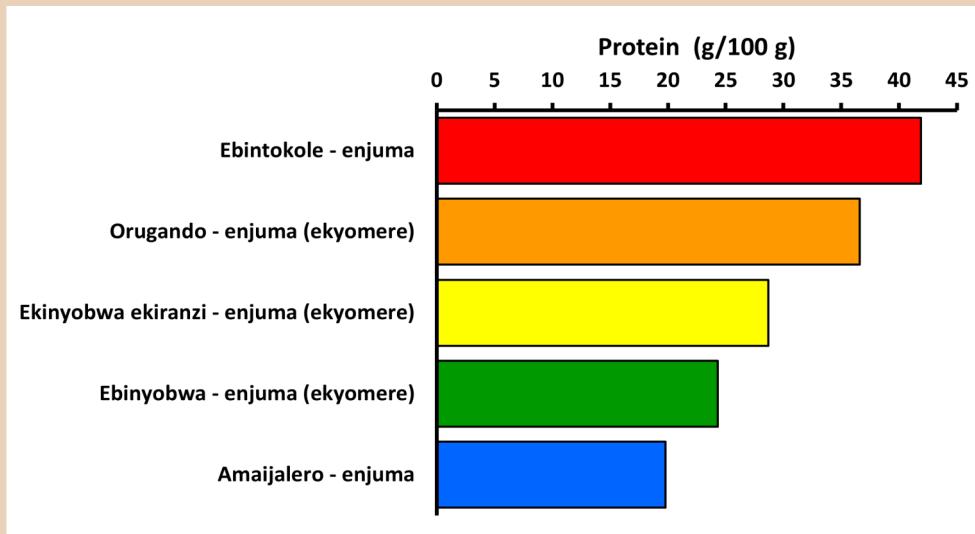
Amaapeera

Ebyokulya ebikuza emibiru
yaitu.



Ebinyobwa

Ebyokulya ebyebirisa ebikuza emibiri yaitu



Ebyokulya ebyebirisa ebikuza emibiri yaitu

Ebyokulya binu nibyongeramu ekirisa
ekyomugaso ekikuyamba kukuza emibiri
yaitu obutubirya.



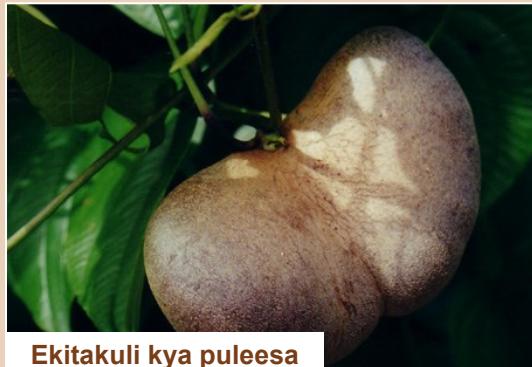
Ensigo enyingi nizisobora
kukarangibwa kandi zikaliibwa
bwango bwango.

Ebimera ebyabulikiro bituha ebyokulya ebyorutekerro



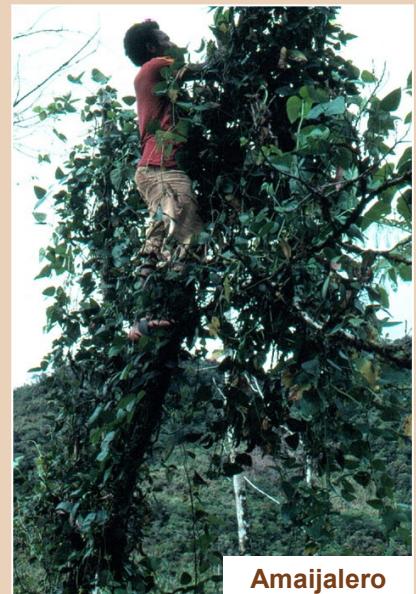
Dodo

Kozesa ebyokulya ebyenzarwa ebyemiringo nyingi rundi ebyo ebyalesirwe bushyaka nukwo habeho ebyokulya buli kaire.



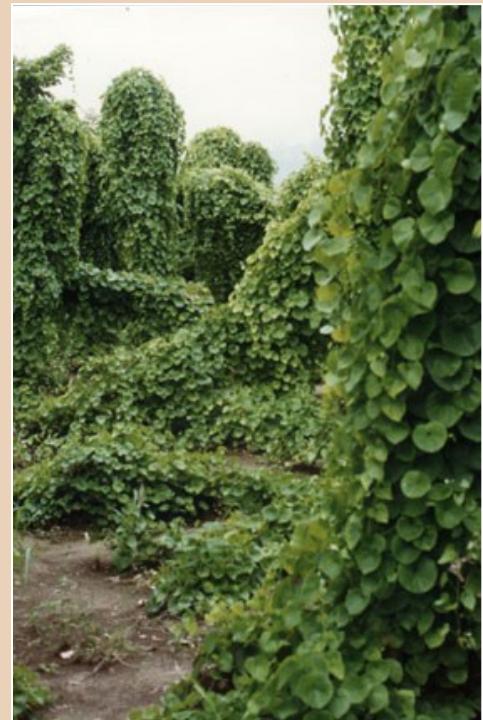
Ekitakuli kya puleesa

Ebimera byoona binu buli
kimu kiine emiringo etakusana
eyokugumira enyikara embi
rundi sizoni embi.



Amajalero

Kulima ebyokulya mumulingo gwobuhangwa



**Kulima ebyokulya ebyemiringo nyingi mumusiri
gumu mulingo murungi kandi nikikeshyaho amali
hamu noburwaire bwebimera.**

Nkoku ebyokulya bimera mubuhangwa

Ebimera tibikurra mu line mubuhangwa bwabyo.

Kukuza ekimera kimu kyonka tikikizire kukanya mubuhangwa.

Ebimera byemiringo nyingi nibirlererwa mubuhangwa.

Mubuhangwa ekimera ekihikire ekirungi nikikurra mukikaro ekihikire.

Mubuhangwa ebijuma bimera buli sizoni.

Ebirisa bikara nibigarurwa buhyaka mubuhangwa.

Enkora zebintu ebyobuhangwa nizikaraho.

Mubuhangwa itaka likaraho kurungi kandi line orwezo.

Kulima ebyokulya nobitabatabura kintu kirubgi muno

Dodo hamu ne bicooli birimirwe
mumusiri gumu.



Ebiyuni, ebitoke hamu
nemikubi erukwiraguar
mumusiri gumu.

Ebyoine kumanya ha kulima

Ebikuburamu



Kwahura ensigo

Itwena hamu twine
kwegerahamu kandi
tukabagana hamu
ebitumanyire.



Amali



Endware



Ebimera byawe byomeezi kurungi?

Ebimera byoleke obwokurorraho obwembaganiza obubikuba bitakukura kurungi.

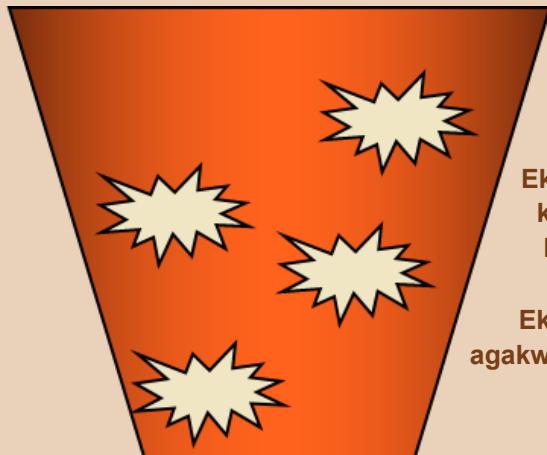
Ekikora kyekicooli kinu nikyoleka ibura lyekirisa ekya nitrogen. Ebikora ebikuru muno ha kicooli muhagati yakyo homa nihasana nkenyuguta ya V.nebimera ebindi nabyo nkebinyansi biine akokurorraho nkako.

Ekirisa kinu ekikukuza ebimera kiri mumwanya kandi ebimera tibisobora kukitunga rundibuli obuhuka obutoito mwitaka kandi na hamihama yebimera nkebihimba nebyo byoona ebikwesaniriza nkebihimba buhindura ekirisa ekyo nukwe kikozesibwe ebimera.



Ekigega kyebirisa

Kakuba tutekerezaho itaka nkekigega kyebirisa, twine kwijuza ekina ekyahansi muno rundi kwongeraho ebirisa ebituli haihi ekigega kinu kitakahimbire kint kindi kyoona.



Nitusobora kwega kumanyirra birisaki ebiri haihi obu niturora ebimera byaitu nobwegwndereza

Ekirisa ekikuyamba ekimera
kukora ebyokulya byakyo
hamu nokumera kurungi

Ekirisa ekikupima amaizi
agakwetagisa hamu nokutangira
endware mu kimera

Ekirisa ekikukuza ekimera



Ebimera ebitakusana bimera hamataka gemiringo etakusana



Ebiyuni
bwetagisa itaka
lyorwezo



Vayisi nazo
zenda itaka
lyorwezo



Ebiyuni ebindi
nibigumira itaka
eritaine rwezo



Ebitakuli
nibisobora
kumera haitaka
lyona eritaine
rwezo rwingi



Muhoogo emera na
haitaka eribi



Ekirisa ekya nitrojeni ekikukuza ebyokulya kakuba kiba kitaito....

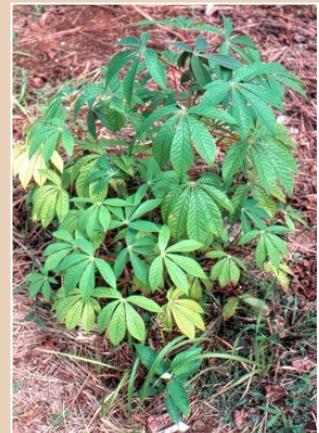


**Enanasi Zenga
zitukura**

**Ekirisa kinu kiyamba ebimera kutunga
amakora amarungi**



**Ebimera ebinyansi ebikuru binemu
enyuguta ya V**



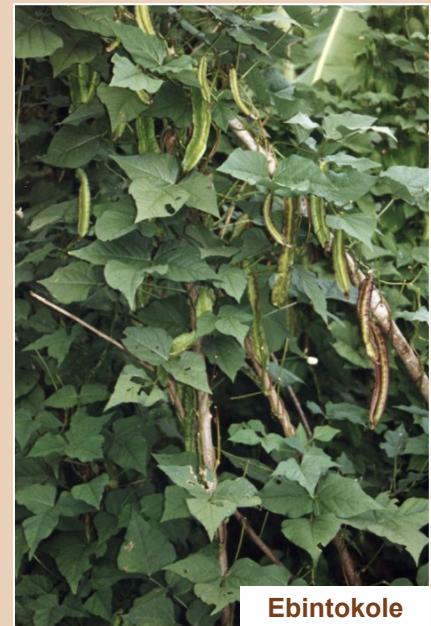
**Ebikora ebikuru
bihinduka biba bya
kyenju.**

Ebihimba bireta ekirisa ekikukuza kandi bigarra buhyaka itaka

**Ebihimba biine obuhuka obwembaganiza obuli hamihama
yabyo nukwe busobozeseebimera kutahya ekirisa kinu
kuruga mumwanya bikakiteeka mwitakahabwebiera
kukikozesa. Kirisa kya busa.**



Amajjalero



Ebintokole

**Ebihimba ebikutembera nka habichooli mumisiri kandi byona
ebichooli nebuhimba byera kurungibyera kurungi.**

Kwokya nikusisa ebirisa hamu nitaka

Kwokya muhanda murungi ogukwanguha kutekaniza omusiri. Baitu kyakubaire kirungi kuleka ebinyansi nebimera ebindi ebitemerwe kujunda bikagarra orwezo mwitaka.

Kinu kireta ebirisa kandi kiyamba obuhuka obwomugaso mwitaka nebintu ebindi ebiine obwomeezi kuyambaho ebimera kukura kurungi.

Itaka erine orwezo rundi ebintu ebijunzire nenjura obwegwa nyingi tirihwaibwaho orwezo oru.

Ebirisa ebindi obubokya ebimera, ebirisa bicucuka mumwana kandi ebindi bikara mwitaka nkekirisa ekiri mwiju.



Kukora orwezo



Orwezo runu orwamunuka rurungi habwemisiri yaitu entaito eyahaihi neka.

Otokya kasasiro gituumé hamu ekolemu orwezo rwaitu orwamunuka.



Nkooku osobora kukora orwezo rwaitu orwamunuka

Ebyokuhondera mukukora orwezo rwaitu orwamunuka

- Yombeka ekibokisi ekine ekitaswekerwa hamutwe kitangire ebisoro aheru
- Tekamu ebintu ebikwanguha kujunda nibyootandikise hansi
- Taburamu ebikora ebibisi hamu nebintu ebindi ebyomera
- Osigemu mbere embeho eraraba kutaha mukibokisi
- Ekibokisi kibemu oryoya namaizi mataito taito
- Tekamu ekintu kyoona ekyali kineho obwomeezi
- Obukiraba nikisoboka ogume nohindahindura omutumo gwawe
ogworwezo nukwo obutagasi bube bwingi nukwe kicweke cweke kijunde
bwagu

Ensonga zorwezo runu

Obuhuka obutaito nebintu
ebindiebiine obwomeezi bikora
muno kucwacwana ebimera
nebindi ebiine obwomeezi nukwe
harugemu orwezo rwaitu
orwamunuka.

Habwokuba obuhuka bwomeezi
nibwenda orwoya na maizi nokulya
kurungi amakora hamu nebindi
ebindi ebyomere kitalyekyo
nibifwa.

Ebintu ebindi ebine obwomeezi
nibiba biine ebirisa byabyo
ebingaine ngaine kurungi
habwebimera ebindi kumera
hati ebyo birisa birungi muno.

Kwikara lyomeezi itaka niryenda
ekirisa kyamaani hamu nebintu
ebindi ebine obwomeezi kukora
omulimo ogukuhuniriza
ogwamaani ogututakurora
mwitaka oku.

**Ekirisa kinu kiine kuba nokyoka nukwe kite Irungu hamu
namali gebyokulya.**

Endware ezimu zituha oruganikyo



Oburwaire bwe
binyobwa
obukukwata
ebikora bikaba
byakyenju



**Ekiragiro kimu mukutangira amali hamu
nendware mu bimera byaitunikyo
kubyara ebimera ebihikie kurung,
mukikaro ekirungi nokubiroterra kurungi
nukwo bikale byomeezi.**



Oburwaire bwakihotoka yebitooke



Endwaire ezimu zituha oruganikyo

Bunu oburwaire hankora yebitakuli nibumanyisa ebintu bisatu:

- Itaka litandikire kukura hamu nokuhoibwamu orwezo.
- Enkoora yebitakuli enu mbibo etakugumisiriza endwaire.
- Enkoora enu nesobora kuba yarugiremwihanga lindietaine burwaire hati tiine mani goona agokugumira endwaire.



Hati mukukendezaaho endwaire
enu kora binu

- Itaka lyongeremu orwezo.

Amali

Nokoseza ebimera ebitakusana kandi nebika bingi kinu kyokwerinza kyamaanihali
ebihuka na amali agandiagakusiisa ebirimwa byaitu.

Akahuka akakusana Akahoiholya
komuakakulya ebitooke. Cwaho
enkanaana habitooke habwokuba nuho
akahuka kanu kakwesereka nikatina
omusana.



Weyahurre ensigo zaawe wenka

Ebirimwa ebirugire munsigo oyeyahuliire
wenka tikira kurwara rwara nkoku zimanyiriire
enyikara yekikaro.



Oburware
obukusana
nkorum
nekiho
hamababi

Ebikeke bingi nebindi ebimera ebiri nko
mu kika ekyebikekenibirwara orufu oru.

Air-layering

Gunu guli mulingo gwokutungiramu ensigo. Akatagi akataito nokasaraho kataito akatagi kakyalyaho hamuti omukooto. Itaka, nebirisa mbabisibira hakitaagi kukyetorora nekintu ekya pulastiki. Nihahwaho obwire nikirasa emihama hati aho nokisaraho notwara kubyara.



Kakuba ekijuma ekikunura rundi ekyokwenda rundi ekinyobwa kyakubaire kirungi kubyara empinju zakyo nukwe omuti omushyaka gube nigusana omukuru.

Amali, nendware hamu nebikuburamu

Oburwaire Bwa Kihotoka
ya Bwaise nibuturra
kakuba enjura egwa ekiro
obu hakuna haligo
obutagasi.



Enkkora kwefunya funya. Bunu oburwaire
buba bubi muno kakuba itaka liba libi
litaina rwezo hamu nembibo etakugumira
endware

Bunu oburwaire bwebiyuni
bwita amakoora
bwangukakuba amakora
gatunga obuzibu.



Kubwara ebitooke



Ebitoke kukira muno tubyara ebyana.

Ebibo etalyemu kandi eyekomerwemu
neyetagisibwahabwokutunga embibo
enungi.

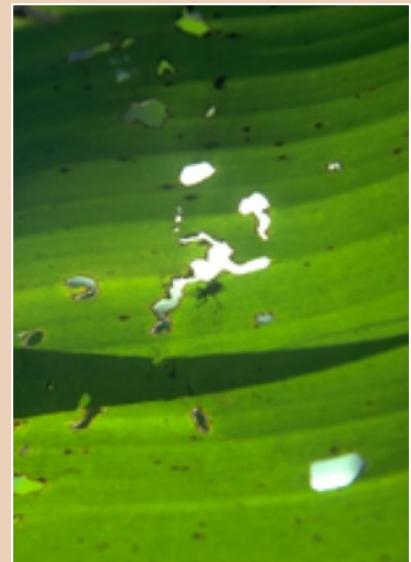


Endware hamu na amali ge bitooke



Empuku zinu nizisia emihama
yebitooke hamu nemikonde ekintu
ekikumara ebitooke amaani.

Empuku zebitooke , wefunye, empuhira
binu byona birya embabi zebitooke
nizibisia.



Ebihuka ebikusisa ebitooke

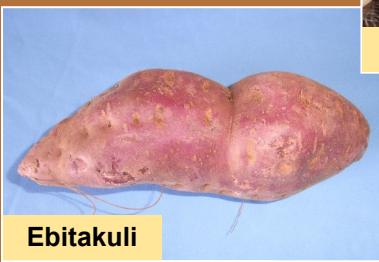


Kanu kahuka kataito muno nikasana ekihoiholya baitu
kalya ebitooke nikabisisa muno.nikesereka
munkanana yekitooke habwokutiina omusana.
Enkanana nikagirya nekwekahō nebitooke nikabirya.



Empuku zomubitooke nizisobora
kutahirakimu mu Mihama yebitooke kandi
bikagwa na hansi.

Ebyokulya rundi ebimera ebyemihama



**Binu bisemera muno mubikaro
ebikwokya yokysa**

Ebyokulya binu nibyo maani gihanga layitu. Hati
twine kubimanya kurungi.

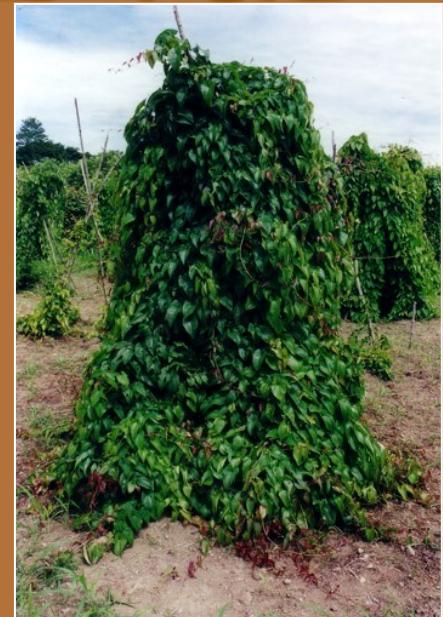


Kulima ebiyuuni

- Ebiyuni biine kubyarwa mwitaka erikworoberra kandi eryorweao
- Ebiyuuni nubyenda omusana mwingi.
- Biine kuba byemerire bigumire kurungi biraihire nka mita 2
- Ekyana kye kiyuuni ekikuru nikyo kirungi kubyara.
- Ebiyuuni ebitemerwe hamutwe gwekiyuuni biine kwahurwa kurungi mukikaro ekikufuka kurungi nobutagasi butaito kuhikizakimu biresire eminonwa.



**Kubyara embibo
eyetemerwe hamutwe
gwekiyuni**



Ekiyuni ekigumire kurungi

Endwaire zebiyuuni

Oburwaire bunu ebiikora nibifwooka bya buaka rundi
nibiragura kandi nibijunda kara habwoburwaire kandi

oburwaire bunu nibweyongera
kakuba ebiyuuni biba bikuzire
kandi mubwire bwenjura
nekimera kakuba kiba kiine
butandwa bwoona.



Oburwaire bwo
kwegenyagenya
kwebikora byebiyuuni



Endwaire zebiyuni

Ekiyuni ekirwaire ekiine ebikora
byakyenju tosemeriire kukibyara.



Baitu kakuba ebimera biba nibimera
kurungi ekyo tikine kizibu kyamaani.

Kulima bwaisi



Enkonya za bwaise eyekika ekichaina hiyo nekura kurungi mwitaka eritaine maizi maingi. Netwara emweezi Mwenda kukurakandi nomukituru ekitaitotaito nekurrayo.

Bwaise ekura kurungi kakuba nobyara ekikonya kyayo ekikooto. Nesobora kukurra mumaiz ngebisaru hamu nomubituru.



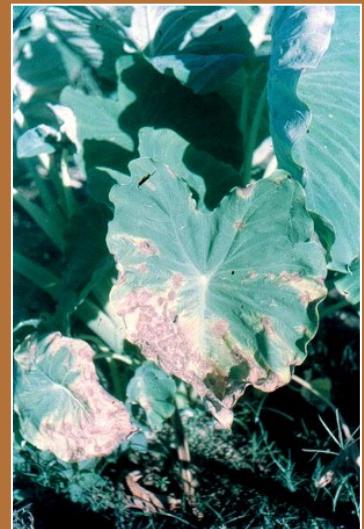
Endwaire za bwaise

Kihotoka ya bwaise ebikoora nibyefunya
nibifooka bya kyenju kandi nibyoma.



Alomae / Bobone virus

Byara bwaise zebika bingi
nukwo oyetantale byoona
kurwarra hamu.



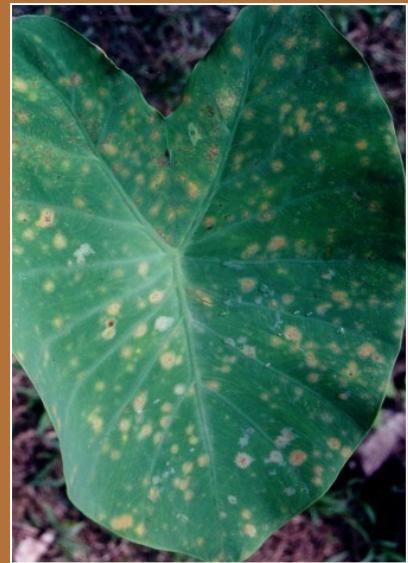
Oburware
bwakihotoka ya
bwaise burware
bubi muno.

Endwaire za bwaise



Bunuburtaire
nibutekam ebihuru
mubikora bwa bwaise

Kwefunya funya
kwebikoora



Obotone tone bwa
kyenjo habikoora

Amali ba bwaise



Ekihuka nikisana
Empuku yabwaise



Kinu kihuka nikiragura
kirya bwaise

Wefunye

Amali ba bwaise



Akahuka
nikasikamu amaizi
mubwaise kaine
omunwa
guraihirire

Empuhira



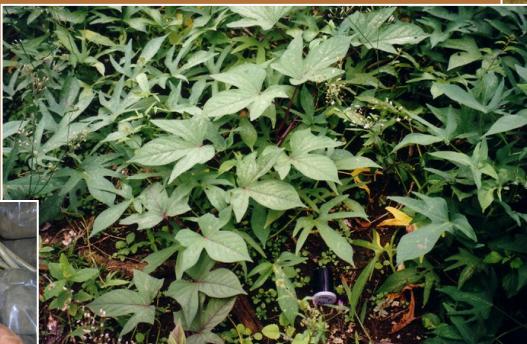
Ndihuliza



Kulima ebitakuli

Ebitakuli nibwenda binu ebintu hansi kukura kurungi

- **Orwoya mwitaka obibyale**
- **Obyale enkora etunuliire omusana**
- **Itaka erine orwezo kukira muno ita erirumu iju**
- **Itaka erina orwezo nkiju.**



Ebitakuli biine ebika bingi ebitakusanaisana. Ebimu bikura bwango baitu bitaho ebitakuli bitaito. Olime ebitakuli ebyemiringo nyingi nukwe otunge ebyokulya bingi ebikusemeza.

Kulima muhogo

Muhogo kirimwa ekitulya emihama kandi kyanguhire kubyara nokukuza,nikisobora kwahurwa mwitaka kandi nikikura nitaka nobulikuba libi nikigumira nobwire obwomusana.

Obyale empinju ezebiti byamuhogo nkoburaiha bwa centimita 15 cm mwitaka.

Itaka obuliraba niryoroba tikikwetagisa kubanza kulimamu.

Muhogo nekurra kutandikira emyeezi ikumi kugarukira 14.

Itaka obulikuba libi nkeryekisura rundi mubituru bingi muhogo nayo tekutaho muno



Muhogo one kugicumba ekahya kurungi nukwe obutwa bwenguda obuletereza muhogo kusarrasarra bukarugamu nukwo butajya mumusayi gwomubiri.

Ebikora bya muhogo nabyo nibisobora kucumbibwa bikalibwa.



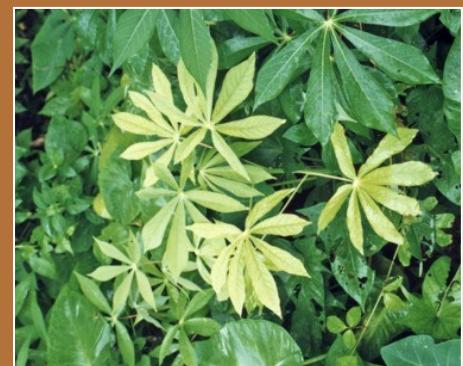
Ebizibu ebimu ebiri mumuhogo

Kakuba ebikora byamuhogo
ebikuru bihinduka bikafwooka
bya kyenju nikimmanyisa
haroho ekirisa ekikuburamu
ekyo ekikuza muhogo.



Nkebirimwa ebindi muhogo ekura
muno kakuba itaka liba lirungi
muno. Nkitaka erirumu iju lirungi
muno mukukuza muhogo.

Ebikora byamuhogo obumu
biba nobutone tone bwakitaka
habwoburware. Baitu itaka
kakuba liba lirungi oburware
bunu tibukuba bubi muno.



Ebikora ebito nibindukamu
kyenju mwitaka eribi
eryorunyu - Nanambee hali
ebifutafuta.

Kulima ebilaya

Ebilaya byokulya Birungi
ebikutuha amaani kandi
biine ebirisa ebindi ebingi
muno.



Ebilaya nibibyarwa kuruga
mukilaya kyenyini ekikuru, ekilaya
ekikooto nosobora kukisaramu
okabyaraeminonwa mbere
ekuturukira. Ebilaya bwenda
kubikutira obubiba nibyera mpore
mpore.



Ebilaaya nabyo
obirireho
ebyokulya bundi.



Kusiima nokumanyirra

Ebihandikirwe mukatabu kanu bitairweho nkemu hantekaniza eyatwairwe ekitongole ekikwegesa abantu kulima ebimera hamu nendya nungi ekya Rotary nobusagiki kuruga mu Distrikiti numba 9830.

Kinu tikyakusobokere kakuba batarabaire abantu abatalibamu kwehayo kuyamba hamu nokurorra hara kandi bahayo obwire bwabu batakwebalirra mukusagika purojekiti enu.

Kurabyamu Amaiso, Nokutekaniza Hamu nokwinganizibwa - Rick Campbell, John McPhee

Kuhindura - Mugume Bright Araali (Lead), Sam James Mugweri.

Akatebe akagumize ebihandikirwe - Faustine Victor Ngarambe (Lead)

Akatabu kanu kahandikirwe ha musingi gwekitongole kyensi yoona ekikwegesa abantu kulima kurungi ebyokulya byomugaso hamu nendya enungi projekiti ya Rotare Distrikiti 9830.



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Kumanya ebikukiraho tuhondere hamikutu yaitu enu. : info@foodplantsolutions.org, website:
www.foodplantsolutions.org

Ekitongole kinu ekyebyokulya hamu nemikibi eyerukwiragura nikorra habiragiyo bye kitongole kyaba Rotare baitu tikikukwatibwaho Habwekitongole kya Rotary ekyensi yoona, rundi kubaragira ekyokukora.



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