



INDWARA N'IBYONNYI BY' INYANYA



Inyanya



Inyanya

1. MILIDIYU (*Late blight*)

IKIYITERA

Iyi ndwara iterwa n'agahumyo kitwa *Phytophthora infestans*, ikaba ariyo ndwara iri ku mwanya wa mbere mu zangiza igihingwa cy'innyanya. Aka gahumyo kihisha mu bindi bihingwa nk'ibirayi, isogo ibi bihingwa bikaba biri mu muryango umwe (solanacées).



AMAFOTO: ibimenyetso ku mababi n'uruti

IBIMENYETSO

Iyi ndwara ihera ku mababi, hagakurikiraho uruti ndetse n'urubuto. Amababi afatwa ahereye ku mpande, akagenda yuma hanyuma igihingwa kikuma cyose. Uruti usanga rwumye (iyo amababi amaze kuma) naho urubuto iyo rufashwe rurabora ariko ruhereye aho rutereye ku nkondo, imbuto zigahunguka zose.



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AMAFOTO: ibimenyetso ku mbuto n'igihingwa

UKO BAYIRWANYA

- Kwirinda guhinga inyanya mu gihe cy'imvura nyinshi kuko agahumyo kororoka vuba kandi gagakwira hirya no hino
- Gusimburanya ibihingwa mu murima bitari mu muryango umwe n'innyanya
- Kwirinda gukoresha ifumbire irimo Azote nyinshi cyane
- Kugabanya amababi no gukuraho ibisambo kugira ngo urumuri rugere mu murima
- Gukoresha imiti nka Mancozeb, metalaxyl, chloro-thalonil, zenebe, folpel, sulphate de cuivre, Oxychlorure de cuivre.



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2. ALITERINARIYOZE (*Early blight*)

IKIYITERA

Iyi ndwara iterwa n'agahumyo kitwa *Alternaria solani*. Aka gahumyo kibera mu butaka no kubisigazwa by'igihingwa.



AMAFOTO : ibimenyetso ku mababi no ku mbuto

IBIMENYETSO

Amababi azana ibibara ahereye mu mababi akuze. Iyo hashize iminsi usanga indwara yarateye inziga ku mababi zikurikirana kandi zegeranye. Imbuto usanga zifite ibibara biboze bisa n'umukara.

UKO IKWIRAKWIRA

Ikwirakwizwa no gutera imbuto ifite ako gahumyo, umuyaga n'imvura.



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UKO BAYIRWANYA

- Kwirinda kuvomera igihe hari ibihu
- Gukoresha imbuto nziza itarwaye
- Gusimburanya ibihingwa mu murima
- Gukuraho no gutwika ibisigazwa byavuye ku gihingwa cyagaragayeho uburwayi
- Gukoresha imiti nka: Mancozeb, Maneb, azoxystrobin, trifloxystrobin, famoxodone, pyrethamil, fenamidone, na boscalid



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3. FIZARIYOZE (*Fusarium wilt*)

IKIYITERA

Iyi ndwara iterwa n'agahumyo kaba mu butaka kitwa *Fusarium oxysporum f.sp.lycopersici*. Aka gahumyo gatuma urunyanya rutabona ibirutunga kuko kazibya imiyoboro izamura amazi n'ibitunga igihingwa.



AMAFOTO: ibimenyetso ku mababi n'uruti

IBIMENYETSO

Urunyanya ruruma rwose. Ariko mbere yo kuma amababi arabanza agahinduka umuhondo.



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IFOTO: igihingwa kirwaye

UKO BAYIRWANYA

- Kurandura inyanya zose zafashwe hirindwa kuzishyira mu murima
- Kwirinda kugenda mu murima urwaye nyuma ukajya mu murima utarwaye
- Gukoresha imbuto yihanganira ubwo burwayi
- Gusukura ibikoresho by'ubuhinzi mbere na nyuma yo kubikoresha
- Kwirinda guhanahana imbuto hatabanjwe gusuzuma aho iyo imbuto ituruka.
- Gukoresha imiti nka Prochloraz, Carbendazim, Benelate cyangwa Benomyl



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4. UBUBORE (*Grey mold rot*)

IKIYITERA

Ni indwara iterwa n'agahumyo kitwa *Botrytis cinerea*. Ifata inyanya cyane cyane izihingwa mu mazu yabugenewe. Yororoka vuba kandi igakwira ku buryo bwihuse. Igabanya umusaruro ku buryo bukabije



AMAFOTO : ibimenyetso ku rubuto na ku ruti

IBIMENYETSO

Iyi ndwara igaragara ku mababi, imbuto, indabo n'uruti. Imbuto zafashwe ziragwa ndetse n'igiti gishobora kuma cyose. Urubuto rubora ruherereye aho rufatiye ku nkondo. Amababi aruma, ahumye hakajya kugira ibara ry'ikijuju.



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UKO BAYIRWANYA

- Gushyira amadirishya ahagije yo kwinjiza umwuka n'urumuri mu mazu yagenewe guhingwamo inyanya
- Kwirinda ubuhehere bwinshi mu butaka no ku nyanya kuko bituma indwara yiyongera
- Kwirinda gukoresha ifumbire irimo Azote nyinshi
- Kwirinda gukoresha intoki mu gukura ibisambo n'amababi ku nyanya
- Gutwika ibisigazwa bivuye ku nyanya zirwaye
- Gukoresha imiti nka lefludioxonil, anilinopyrimidines (pyriméthanil, cyprodinil), fenhexamid



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5. POWDERY MILDEW

IKIYITERA

Iyi ndwara iterwa n'agahumyo bita *Oidium lycopersicum*.



AMAFOTO: ibimenyetso ku mababi

IBIMENYETSO

Iyi ndwara ikunda gufata munsu y'ikibabi, igatuma hejuru ku kibabi habanza kuba umuhondo. Iyo hashize igihe usanga ikibabi cyose gisa n'icyo basutseho ifu y'umweru.



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UKO IKWIRAKWIRA

Ikwirakwizwa n'umuyaga.

UKO BAYIRWANYA

- Kwirinda gukoresha ifumbire irimo azote nyishi
- Kwirinda kuvomera birenze urugero.
- Gukoresha imiti nka Azoxystrobin, chlorothalonil, Cupric hydroxide, Mancozeb.



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6. KIRABIRANYA (*Bacterial wilt*)

IKIYITERA

Iyi ndwara iterwa na bagiteri yitwa *Ralstonia solanacearum* / *Pseudomonas solanacearum*.



AMAFOTO: ibimenyetso ku ruti
ibimenyetso ku gihingwa

IBIMENYETSO

Igihingwa cy'urunyanya kiraba gihereye ku mababi yo hejuru, ibi bikagaragara cyane igihe ubushyuhe bubaye bwinshi. Ku mugoroba igihe hahehereye igihingwa gisa nigisubiye kuba kizima, hanyuma kikazongera kikuma noneho burundu. Iyo ukase uruti rwafashwe ukarukanda ubona hasohokamo amazi asa n'arenduka



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UKO BAYIRWANYA

Iyi ndwara nta miti igira. Kugira ngo igabanuke ni byiza:

- Gukoresha ishwaraga mbere yo guhinga
- Gukoresha ifumbire y'imborera
- Kwirinda guhinga inyanya ahavuye: itabi, inyanya, urusenda n'urutoki.
- Gusimburanya mu murima inyanya n'amashu cyangwa umuceri



Inyanya

7. IBIBARA BITERWA NA BAGITERI (*Bacterial spot*)

IKIYITERA

Ni indwara iterwa na bagiteri yitwa *Xanthomonas campestris pv. Vesicatoria*. Ikwira cyane mu gihe cy'imvura n'ubushyuhe.

Ishobora kuba mu mbuto, mu butaka, mu bisigazwa by'ibihingwa.



AMAFOTO: ibimenyetso ku
mababi na ku mbuto

IBIMENYETSO

Igaragazwa n'ibibara biza ku ruti, ku mbuto no ku mababi. Ku ruti no ku mababi ibyo bibara biba ari bito. Bigenda bikura bikaba binini ari nako bigenda bizengurukwa n'ikibara cy'umuhondo kandi bikagenda byiteranya. Amababi ahinduka ikigina. Ku mbuto



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ibibara biragaragara cyane ku mbuto zitarahisha kuko ubwandu buca mu twoya tuba ku rubuto rubisi gusa. Ibyo bibara bitangira bisa umukara bimeze nk'ibizengurutse n'amazi n'ikibara cy'umweru. Uko bikura bigenda bihinduka ikigina bikamera nk'ibiheri bicukuye hagati.



AMAFOTO: ibimenyetso ku ruti,
ku mababi na ku mbuto

UKO BAYIRWANYA

- Gutera imbuto itarwaye
- Kudasimburanya inyanya n'urusenda mu murima.
- Kudakata amababi n'intoki kuko byongera ubwandu.
- Gukoresha imiti irimo copper nka oxychlorure de cuivre.



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8. UBUBORE BWO KU MUTWE W'URUBUTO (*Blossom end rot*)

IKIYITERA

Iyi ndwara iterwa n'ibura ry'amazi cyangwa umunyu wa karisiyumu



AMAFOTO: ibimenyetso ku mbutu

IBIMENYETSO

Urubuto rubora ku mutwe. Hariho n'igihe usanga rwacitsemo umwobo ruherereye ku mutwe.

UKO BAYIRWANYA

- Gukoresha ishwagara mu murima ubuzemo karisiyumu (ibiro 25 kugera kuri 30 kuri ari)
- Gukoresha ifumbire
- Gusasira inyanya
- Kuvomera igihe bibaye ngombwa



Inyanya

9. INDA

Inda ni udusimba tubamo amoko menshi tugatandukanwa n'amabara. Utwangiza inyanya usanga kenshi ari udusa n'icyatsi kibisi (*Myzus persicae*).

UKO TWANGIZA

Utu dusimba tunyonyuza amazi mu gihingwa ugasanga nta ngufu gifite. Dukwirakwiza virusi z'ibihingwa. urugero: Potato virus Y na Tomato Mosaic Virus



AMAFOTO: inda z'icyatsi n'iz'umukara

UKO BATURWANYA

- Gutera amazi bigabanya utwo dusimba.
- Gukoresha imiti nka fenthion, cyfluthrin, dimethoate, imidacloprid.



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