



## INDWARA N'IBYONNYI BY' IBINYOMORO

### 1. MILIDIYU Y'IFU (*Powdery mildew*)

#### IKIYITERA

Ni indwara iterwa n'uduhumyo twitwa *Erysiphe sp.*, *Oidium sp.* Ishobora gutuma amababi yose akokoka ku giti agashiraho iyo itarwanyijwe. Igaragara cyane ku kibabi hejuru, ku ruti ruto, ku mutwe w'igihingwa, ku ndabo, no ku mbuto.



**IFOTO:** indwara ya oidium ku mababi

#### IBIMENYETSO

Iyi ndwara igaragazwa n'ibibara bimeze nk'ivu by'ikijuju. Indabo zibanza kuba umuhondo nyuma zikuma, zikaba umukara zigapfa. Amababi yafashwe ashobora kuba umuhondo kandi akikunja, naho intimatima y'igihingwa ntibumbure.

#### UKO BAYIRWANYA

- Gukoresha umuti wica uduhumyo urimo sulfure.

- Kutegeranya ibinyomoro mu gihe cy'itera.
- Kutavomera cyane.
- Hari ibihugu bakoresha igice cya litiro y'amata avanze na litiro enye n'igice z'amazi bagatera ku gihingwa kirwaye.

## 2. INDA (*Aphids*)

Inda ni udukoko tubamo amoko menshi atandukanwa n'amabara yatwo. Izwi cyane mu binyomoro ni inda y'icyatsi (*Myzus persicae*).

Zikunze kugaragara munsu y'amababi no ku ruti by'igihingwa cy'ikinyomoro. Ziboneka igihe cyose ariko cyane cyane mu gihe cy'izuba.



AMAFOTO: inda ku mababi

### UKO ZANGIZA

Inda inyunyuzwa imyunyu n'amazi mu gihingwa. Zikwirakwiza indwara za virusi z'igihingwa zikanashyira umushongi ku mababi ukurura uduhumyo dufata muri uwo mushongi ugasanga amababi atwikiriwe ntabeho neza akaba yakuma akagwa.



IFOTO: ikibabi gitwikiriwe n'uduhumyo twafashe mu mushongi

### UKO BAZIRWANYA

- Gutera imiti nka Diméthoate irwanya udukoko.
- Gusura umurima byibuze kabiri mu cyumweru.
- Gukuraho amababi ashaje umurima ukinjiramo urumuri n'umwuka.
- Kugenzura niba nta nshishi zigaragara ku giti kuko zishobora kuba zikuruwe n'umushongi w'inda.
- Kudakoresha ifumbire irimo azote nyinshi.
- Gukoresha amasabune arimo umuti wica udukoko, cyangwa amavuta y'igiti cya neem.
- Kuvomera n'amazi afite ingufu.

- Kugenzura umurima n'iruhande rwawo niba nta nda zihari mbere yo gutera ibinyomoro.

- Kudahohotera udusimba turya inda nk'udusurira n'amavubi.



AMAFOTO: Agasurira karya inda ivubi ritera amagi mu nda

## 3. ISAZI Y'UMWERU (*Whitefly*)

Isazi y'umweru ni agasimba kareshya na mm 1 gasa umuhondo kakagira amababa y'umweru.



AMAFOTO: isazi y'umweru n'amagi

### UKO YANGIZA

Iyo sazi inyunyuzwa imyunyu n'amazi by'igihingwa kandi isiga umushongi umeze nk'ubuki ku mababi no ku mbutu bigatuma imbutu zisa nabi.

### UKO BAYIRWANYA

- Kugenzura umurima kenshi havanwa ibibabi bishaje n'ibiriho isazi nyinshi mu murima
- Gukoresha imitego ifite ibara ry'umuhondo(rikurura izo sazi) irimo kole yo gufata izo sazi ishyirwa hejuru y'amababi.
- Gukoresha imiti yica udukoko nka Diméthoate

#### 4. TIRIPUSI (*Thrips*)

Ni agasimba gato gashobora kugira uburebure bwa mm 1.25. Gafite ibara ry'umuhondo. Ingabo igira amabara yerurutse kandi ari nto ugereranije n'ingore.



AMAFOTO : Tiripusi n'aho iriye

#### IBIMENYETSO

Tiripusi yangiza mu gihe cy'izuba. Ibimenyetso bikunze kugaragara ni tiripusi zitera amagi mu mababi akaremererwa. Zirya amababi agasigara yerurutse. Ku mbuto aho tiripusi yariye hamera nk'ahakobotse hakaba ikigina.



AMAFOTO : imbuto z'ibinyomoro zangijwe na tiripusi

#### UKO ZANGIZA

Ibishorobwa birya amababi agasigara abonerana, Tiripusi n'ibishorobwa byazo byona birundaniye ku mababi bikarya amababi.

#### UKO BAZIRWANYA

- Gukura ibyatsi bibi mu murima.
- Ubutaka bugomba guhingwa nyuma yo gusarura.
- Gusiga intera ihagije hagati y'ibihingwa.
- Gukoresha imiti yica udukoko nka Dimethoate

#### 5. VIRUSI Z'IBINYOMORO

Igihingwa cy'ibinyomoro kigira virusi nyinshi zituma gikura nabi, zikanatera amabara ku mbuto ibyo bikagabanya ubwiza n'umusaruro wabyo.



IFOTO: ibimenyetso bya mozayike ku mababi

#### IBIMENYETSO

Virusi izwi cyane ni mozayike (Tamarillo mosaic virus; TaMV) ituma urubuto ruzaho ibibara byerurutse, ku mababi hakazaho ibibara by'umuhondo.

Izindi virusi twavuga ni nka "cucumber mosaic virus" itera kugwingira kw'igihingwa amababi akazaho ibibara. "potato virus Y" ituma ku mbuto hazaho ibibara by'umukara n'umusaruro ukagabanuka.

#### UKO BAZIRWANYA

Nta miti ya virusi ihari, igikorwa mu kuzirwanya ni:

- Kurandura ibiti byafashwe.
- Gufumbira igihingwa kikagira ingufu zo kwirwanaho.
- Kurwanya inda z'ibihingwa n'utundi dukoko tuguruka kuko dukwirakwiza izo ndwara.