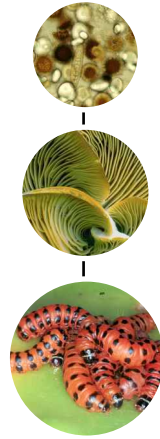


SERURUBELE FALL ARMYWORM (FAW), SE SE SWA SEO SE ITAOLANG GO LA AFRIKA BORWA



The Fall Armyworm (FAW) *Spodoptera frugiperda*, e tšwelela lebakeng la molatšatši go la United States, Argentina le sebakeng sa Caribbean, mme ke disenyi tše kgolo tša dibjalo tša mafela nageng ya Brazil le dinageng tše dingwe. Pego ya mathomo ya ponagatšo bontšhi bja FAW gola Africa, e ile ya tšwelela mabakeng a fapaneng a bodikela le magareng ga Afrika mo mathomong a 2016, empa e ile ya swantšhwanywa le mehlobo e megwe ya dirurubele (*Spodoptera*) eo e hwetšagalago ka hlago mo Afrika borwa.

Ka nako ya manthole (December) 2016, pego ya mathomo ya tshenyi ya FAW dibjalong tša mafela yeo e hlokilego tshedimošo, e tšweletše nageng ya Zambia le Zimbabwe. Ka pherekong (January) 2016, kgoro ya temo, dithokgwa le dihlapu ya Afrika borwa (The Department of Agriculture, Forestry and Fisheries; DAFF), e ile ya fiwa pegelo tše mmalwa tša dibokwana tšeo di hlalago tshenyi mo dibjalong tša mafela dipolaseng tša Limpopo le North West province. Mohlathi wa dikhunkwane go la ARC-PPRI go karoganyo ya Biosystematics, o ile a kgona go ahlahla a be a hlatholla dirurubele tše ditona (males) tša tšeo di ilego tša kgoboketswa. Tšona di ile tša hlatholla bjalo ka Fall Armyworm *Spodoptera frugiperda* (JE Smith) (Lepidoptera: Noctuidae).

Serurubele (FAW) se se fofa bonolo moyeng o montšhi, se na le potologo ya bophelo bjo bokopana (go tloga leeng go fihla serurubeleng), ebile se hlasela maloko a mmalwa a dibjalo. Go le bjalo, serurubele se, se beile maemo a ekonomi kotsing e kgolo go balemi. Yona e beilwe sehlopheng sa disenyi tše arotšweng (A1 Quarantine) lenaneong la mokgahlo wa tšhireletšo ya dibjalo ya Europe le Mediterranean (Europe and Mediterranean Plant Protection Organisation, EPPO), bjalo ke sesenyi seo se arogantšweng mo no Afrika Borwa.

BOITSEBIŠO

Mae a beelwa ka dihlopha tša gotloga go 20-250 mme a hwetšagalaga ka godimo le ka fase ga matlakala a dibjalo.

Dibokwana di na le difala tše tshela tša tšwetšopele go tloga leeng go fihla sefaleng sa serurubele. Ga go bonolo go ka hlatholla FAW go šomišwa sefala sa dibokwana tše nnyane, ka ge e swana fela le tše dingwe tša dirurubele ka botlalo (Noctuids).

Sefala #	Botelle bja mmele (mm)	Mmala	Maswao a mmeleng
1, 2	1,5 to 3,5	Botala le hlogo ye ntsho	Ga e na maswao
3, 4	6 to 10	Karolo ya mokokotlo ke ye sothoana ka mmala mola dimpeng e le ye tala. Ena le methaladi e mešweu yeo e bonalago ka mathoko	Ena le marothontho a maso, a mane (4) a go emelela ao a beakantšweng bja ka sekwere go karolo ya seswai (8th) le ya bosenyane (9th) ya mosela wa dibokwana
5, 6	15 to 40	Bosothoana, botala, bontsho	Ena le marothontho a maso, a mane a go emelela ao a beakantšweng bja ka sekwere go karolo ya seswai (8th) le ya bosenyane (9th) ya mosela wa dibokwana



Seboko sa FAW (Sefala sa bohloano sa tšwetšopele)
(Seswantšho ka Benjamin Janse van Rensburg)



Hlogo ya FAW yeo o bonagalago "Y" ye e lebeleletšego fase ebile e na le bošweu (Seswantšho ka: Margaret Kieser)

Dirurubele

Ela hloko: Go ya ka mehuta ya makgwai ao a amogetšweng a dišupo mo no Afrika Borwa, hlathollo ya serurubele se e gakantšhwa gantšhi le tše dingwe tša dirurubele ka botlalo (Noctuids). Go hwetša hlathollo ya maleba, dišupo di ka romelwa go Ms Vivienne Uys go la ARC-PPRI.

Phapano ya maphego e thoma go 30 go fihla go 40mm. Maphego a ka godimo: **tše tona** – ke a ma tshela go ya go bosootho, ebile ena le marothontho a mašweu go ya niheng ya bofelo bja maphego; **tše tshadi** – botshehla bjo bo swanago go ya go bosootho, makgwai a maphego ga a bonale botse. **Maphego a morago:** go tše tona le tše tshadi – ke a mašweu/selivere mme a na le morumo o mo kopana wa mmala o mosehla go ya go boswana.

Tlhaloso	Fall Armyworm (<i>S. frugiperda</i>)	African Armyworm (<i>S. exempta</i>)
Mmala wa bokwana tše kgolo	Ke tše sootho go ya go botala ebile ena le methaladi ye mesothoana ka mathoko	Ke tše ntsho ebile e na le methaladi e mesothoana go ya go bo serolwana ka mathoko
Boitshwara bja diboko	Diiiphihla ka gare ga dibjalo	Ga di iphihle (di bonalagala bonolo dibjalong)
Mae	Dihlopha di beelwa mathokong ka bobedi a matlakala e bile a apešwa ka boditsi bja mmala o mo sothoana	Dihlopha di beelwa ka fase ga matlakala ebile a apešwa ka boditsi bjo boso
Serubele se se tona	Se hlathollwa ka bong	Se hlathollwa ka bong
Dibjalo tša go hlaselwa kudu	Mabele a mafela le a sorghum	Bjang bja naga
Diphetogo tsa ponagatšo bontšhi	Difalala go tšwa dinageng tša leboa la Afrika Borwa; kokeišo segaeng le ponagatšo bontšhi di ile tša tššetšwa ka kgwedi ya dibokwana (February) 2017 mono Afrika Borwa	Ponagalo bontšhi e hwetšagala ka nako tše dingwe mme le tšona difalala gantšhi go tšwa dinageng tša leboa la Afrika Borwa

**Papišo magareng ga mefuta ye e tswalanago
Dibjalo tše dileng kotsing Afrika Borwa**

Khunkhwane ye FAW ke sesenyi seo se kgonago go ja mefutafuta ya dibjalo eupša e hwetšagala kudu dibjalong tša dithorwana (mabele). Mafela a go tlwaelega le mafela a go tanta (dibjalong tše nnyane le dikgokgathing tša mafela) a hlasetšwe gonabjale go la Afrika Borwa. Dipego tše dingwe tša tshenyi di kwagetše go sebjalo sa mabele a sorghum. Dinyakišišo tše dingwe tšeo di begilwego di laetša tshenyi go dibjalo tša spinach, sugarcane, rice, lucerne, sunflower, wheat, cabbages, pepper, soya, potatoes, pastures and grasses.

Taolo ya sesenyi

Kgoro ya temo, dithokgwa le dihlapa ya Afrika borwa (DAFF) e hlagisitše tlhahlo ya ditoko go bontšha tselo e kaone ya go šomiša khemikhale tša temo go leka go laola **ponagano bontšhi ya Fall Armyworm go dibjalo go la Afrika Borwa**, yona e hwetšagala go.... <http://www.daff.gov.za>

Balemi ba swanela go ela hloko gore bagase fela dikhemikhale tšeo didumeletšweng ke mmušo go bolaya dikhunkhwane. Gape, go šomišwe tekano ya maleba go ya ka tselo yeo e bontšhago ke lebotlolo la khemikhale. Khemikhale e swanetše e gašwe fela go maloko a manyane a dibokwana ao a lego ka fase ga dimilimitara tše lesome (10mm). Kgašo ya khemikhale go lwantšhana le dibokwana tše kgolo ga e atlege gobane, tšona diiphepha ka gare ga matlakala ao a kopakopanego. Se ke sona seo se dirago gore khemikhale ese ke ya fihelela dibokwana tše ka nako ya ge e gašwa.



Tshenyi ya FAW go lefela (Seswantšho ka Margaret Kieser)



Serubele se setona sa FAW (Seswantšho ka Matt Bertone)



Tshenyi ya FAW go matlakala a sebjalo sa mafela (Seswantšho ka Annemie Erasmus and Margaret Kieser)

Go bega ponagatšo bontšhi

Go kgopelwa gore ponagalo bontšhi bja FWA, bo begelwe go Jan Hendrik Venter go nomoro mogala (012) 31 96384, janhendrik@daff.gov.za goba go Dr Gerhard Verdoorn go la CropLife, info@croplife.co.za. Mmegi o swanetše go bontšha letšatši leo a bonego FWA, Leina la polasa, Province le mohuta wa sebjalo seo FAW e bonwego go sona.

Balemi ba hlohleletšwa go hlola dibjalo tša bona, go hlolela goba gona ga mae le dibokwana tša FAW. Tlhahlo le lenaneo la go hlola dibjalo le tla tšweletšwa go Kgoro ya temo, dithokgwa le dihlapa ya Afrika borwa (DAFF)... <http://www.daff.gov.za>

Ditebogo

Go lebogwa Matt Bertone (North Carolina State University) go re a dumele ge go šomišwa seswantšho sa gage sa serubele FAW, le yena Benjamin Janse van Rensburg ka seswantšho sa sefala sa bohloano sa tšwetšopele ya dibokwana.

Ge o hloka tshedimoso ye e okeditšweng, ikgokaganye le ba ba latelago:

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