



Detection Surveys for the New Invasive Fruit Fly- *Bactrocera invadens*

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Information on the new invasive fruit fly *Bactrocera invadens* was recently provided in Cutting Edge 77. In this article, mention was made of a surveillance trapping programme that was being established in South Africa that utilised the attractant methyl eugenol (ME). It is important that this surveillance network include all citrus production areas in order to prove with zero trap catches that production areas remain free of the pest. A widespread surveillance network will also allow for timely intervention in the event of a fly being trapped. CRI is therefore calling on citrus growers and interested parties to assist them in establishing this surveillance network through the placement and servicing of traps.

ME is commercially available and should preferably be used in the form of dispensers for trapping. Bucket type traps e.g., Chempac Bucket trap or the Moroccan trap can be used for surveillance. Each trap should contain one ME dispenser and extreme care must be taken while handling the attractant to avoid contaminating the outside of the trap. An insecticide such as DDVP (dichlorvos), should also be placed inside the trap to kill any attracted flies. Dichlorvos is commercially available as solid strips and a small piece (1 cm x 1cm) can be used per trap. ME baited traps should be suspended on host trees such as mango, citrus and guava. The recommended trap density for surveillance in production areas is 1 trap per km² or 1 trap per 100 ha. Trap details such as trap number, host type (e.g. citrus, mango, marula), block number and if possible, the GPS positions should be recorded when placed.

Traps should be serviced (checked and emptied of caught specimens) every week or fortnight and fresh ME and dichlorvos should be placed inside the trap every 6 weeks. It is essential to keep all trap servicing records and if no specimens are caught this information should also be captured. Very few flies should be found in these traps but if specimens are caught they should be placed in closed plastic vials and Aruna Manrakhan (013 759 8000) should be contacted immediately for identification of the caught specimens. All citrus growers who are prepared to assist in this exercise

are requested to please contact Aruna Manrakhan (aruna@cri.co.za), 013-7598000 as soon as possible for inclusion in the surveillance network. The expansion of this network to all production areas is of great and immediate importance to the industry as a whole and the cooperation of volunteer growers is essential in this regard.

New Threshold for Monitoring Natal Fruit Fly with Capilure

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In the citrus industry, the two recommended lures for monitoring Medfly and Natal fruit fly with the Sensus trap are Capilure and Questlure. Although assumptions have been made in the past that both species of *Ceratitidis* were equally attracted to Capilure, recent research, conducted over two years and using known numbers of released fruit flies, has shown that Capilure is more effective for Medfly than for Natal fruit fly. It has therefore become necessary to adjust the intervention threshold for Natal fruit fly when using Capilure in a Sensus trap.

The new recommendation is that a threshold of 2 flies per week per trap now be used for Natal fruit fly instead of 4. The existing threshold of 4 flies per week per trap for Medfly when using Capilure in a Sensus trap can continue to be used and a total of 4 flies can be used as a threshold if there are less than 2 Natal fruit flies present. This means that instead of counting all flies in a Sensus trap with Capilure, growers will now need to distinguish between the two species. Fortunately this is not difficult because the Natal fruit fly males have noticeable black bristles on their middle pair of legs (laminated photographs are available from CRI).

As in the past, Questlure in a Sensus trap can also be used to monitor fruit flies in citrus. In this case a threshold of 1 female fruit fly per week per trap is used. When using this monitoring system one will need to distinguish between the sexes of flies but not the species.

If any of the above thresholds are exceeded, additional control measures will be required such as an additional bait application.



Opsporingsopnames vir die Nuwe Indringer Vrugtevlieg - *Bactrocera invadens*

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Inligting oor die nuwe indringer vrugtevlieg is onlangs in Cutting Edge 77 bekend gemaak. In hierdie artikel is daar melding gemaak van 'n waarskuwingsnetwerk-program wat in Suid Afrika gevestig is en wat van die lokmiddel, methyl eugenol (ME) gebruik maak. Dit is belangrik dat hierdie waarskuwingsnetwerk alle sitrusproduserende areas insluit om sodoende met geen lokval vangste te kan bewys dat produksie areas steeds vry is van die plaag. 'n Wydverspreide waarskuwingsnetwerk sal ook vir tydig aksies verseker indien 'n vlieg gevang word. CRI doen daarom 'n beroep op sitrusprodusente en belangstellende partye om CRI in die vestiging van die waarskuwingsnetwerk te ondersteun deur die plasing en diens van valle.

ME is kommersieel beskikbaar en moet verkieslik in die vorm van 'n vrysteller in die lokvalle gebruik word. "Bucket" tipe valle bv, "Chempac Bucket" val of "Maroccon" val kan vir die opname gebruik word. Elke val moet een ME-vrysteller bevat en ekstra voorsorg moet tydens die hantering van die lokmiddel getref word om sodoende kontaminasie van die buitekant van die val te voorkom. 'n Insekdoder soos DDVP (dichlorvos) moet ook in die val geplaas word om enige gelokte vlieë te dood. Dichlorvos is kommersieel as soliede stroke beskikbaar en 'n klein stukkie (1 cm x 1cm) kan per val gebruik word. ME lokvalle moet in gasheerplante soos mango, sitrus en koejawel geplaas word. Die aanbevole hoeveelheid valle vir die opname in die produksie areas is 1 val per km² of 1 val per 100 ha. Die besonderhede van die val soos die nommer, gasheerplant (bv. sitrus, mango, maroela), nommer van die blok en indien moontlik die GPS-posisies moet aangeteken word wanneer die val uitgeplaas word.

Die valle moet weekliks of twee weekliks gediens word (behels ondersoek en leegmaak van vangste) en vars ME en dichlorvos moet elke 6 weke in die valle geplaas word. Dit is baie belangrik om alle diensrekords van die valle te hou en selfs as geen vlieë gevang word nie, moet hierdie inligting ook aangedui word. Baie min vlieë behoort in die valle gevind te word, maar indien wel moet dit in toe plastiekhouders geplaas word en Aruna Manrakhan

(013 759 8000) moet onmiddellik gekontak word vir die identifikasie van die vlieë. Alle sitrusprodusente wat bereid is om hierdie projek te ondersteun word versoek om asseblief vir Aruna Manrakhan (aruna@cri.co.za), 013-7598000 so gou as moontlik te kontak om by die opnamenetwerk ingesluit te word. Die uitbreiding van die netwerk na alle produksie areas is van groot en onmiddellike belang vir die bedryf as 'n geheel en die samewerking van vrywillige produsente is noodsaaklik in hierdie verband.

Nuwe Drempelwaarde vir die Monitoring van Natalse Vrugtevlieg met Capilure

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In die sitrusbedryf is die twee lokmiddels wat aanbeveel word vir monitoring van Medvlieg en Natalse vrugtevlieg met behulp van Sensusvalle, Capilure en Questlure. Alhoewel daar aannames in die verlede gemaak is dat beide hierdie spesies ewe veel deur Capilure gelok word, het onlangse navorsing oor twee jaar met 'n bekende getal vrygelate vrugtevlieë, getoon dat Capilure meer effektief is vir Medvlieg as vir Natalse vrugtevlieg. Dit is dus nodig geword om die aksie drempelwaarde vir Natalse vrugtevlieg, wanneer Capilure in 'n Sensusval gebruik word, aan te pas.

Die nuwe aanbeveling is dat 'n drempelwaarde van 2 vlieë per week per lokval nou vir Natalse vrugtevlieg gebruik moet word in plaas van 4. Die bestaande drempelwaarde van 4 vlieë per week per val vir Medvlieg wanneer Capilure in 'n Sensusval gebruik word, kan steeds gebruik word. Die drempelwaarde bly egter 4 vlieë solank daar minder as 2 Natal vrugtevlieë teenwoordig is. Dit beteken dat in plaas daarvan dat al die vlieë in 'n Sensusval met Capilure getel word, moet produsente nou tussen die twee spesies onderskei. Gelukkig is dit nie moeilik nie omdat die Natalse vrugtevlieg mannetjies waarneembare swart borseltjies op die middelste paar bene het (gelamineerde fotos is by CRI beskikbaar).

Soos in die verlede, kan Questlure in 'n Sensusval ook vir die monitoring van vrugtevlieë by sitrus gebruik word. In hierdie geval word 'n drempelwaarde van 1 vrugtevlieg wyfie per week per val gebruik. Wanneer hierdie moniteringsstelsel gebruik word moet daar tussen die geslagte van die vlieë onderskei word maar nie die spesie nie.



Snykant

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Indien enige van bogenoemde drempelwaardes oorskrei word, sal addisionele beheermaatreëls soos 'n ekstra lokmiddel toediening nodig wees.