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Science For A Better Life

Decis Trap:

Platform Technology for the Sustainable
Management of Mediterranean Fruit Fly

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ABIM | Basel | October 2014



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Decis Trap

Platform Technology for the
Sustainable Management of
Mediterranean Fruit Fly



Fruit Flies on the rise?

Ungewöhnlich viele: Fruchtfliegen plagen Haushalte und Bauern

Koblenz/Region. Sie schwirren in nie gesehenen Massen durch die Region, sie umschwärmen die Obst- und Gemüsetheken in den Haushalten und sie machen den Obstbauern an Rhein und Mosel zunehmend Sorgen. Ungewöhnlich viele Fruchtfliegen suchen derzeit die Gegend an Rhein und Mosel heim. Es ist vor allem eine aus Asien zugewanderte Art, die die Situation verschärft.

Rhein-Zeitung, 25.08.2014

Asiatische Fliege eingewandert

Dieses Viech verdirbt uns den Wein

Blick, 08.09.2014
AARAU - Die asiatische Kirschessigfliege hat sich diesen Sommer explosionsartig in der Schweiz ausgebreitet – zum Leid der Weintrinker.

New fruit fly pest causes havoc across U.S.

South Dakota State University | Updated: 09/08/2014

Der neue Feind der Winzer

Die Kirschessigfliege

SWR2 Impuls. Anja Brockert sprach mit Werner Eckert. Internetfassung: C. Schnepf & R. Kölbl

Eigentlich könnte 2014 ein guter Jahrgang werden. Doch ein Schädling verbreitet Angst unter den Winzern. Die Kirschessigfliege gefährdet den Ertrag. Warum hat sich die eingewanderte Fliege so plötzlich vermehrt? Wie schädlich ist sie wirklich? Und wie bekämpft man den Schädling am besten?

SWR 2, 15.09.2014

WIKI SOURCE | SCHÄDLINGSBEFALL

Asiatische Fruchtfliege wird zum Rotwein-Killer

Die Welt, 09.09.2014

Die aus Asien eingewanderte Kirschessigfliege liebt rotes Obst und macht auch vor Wein nicht halt. Erste Sorten sind schon befallen. Ein Millionenschaden droht – und Rotwein könnte teurer werden.



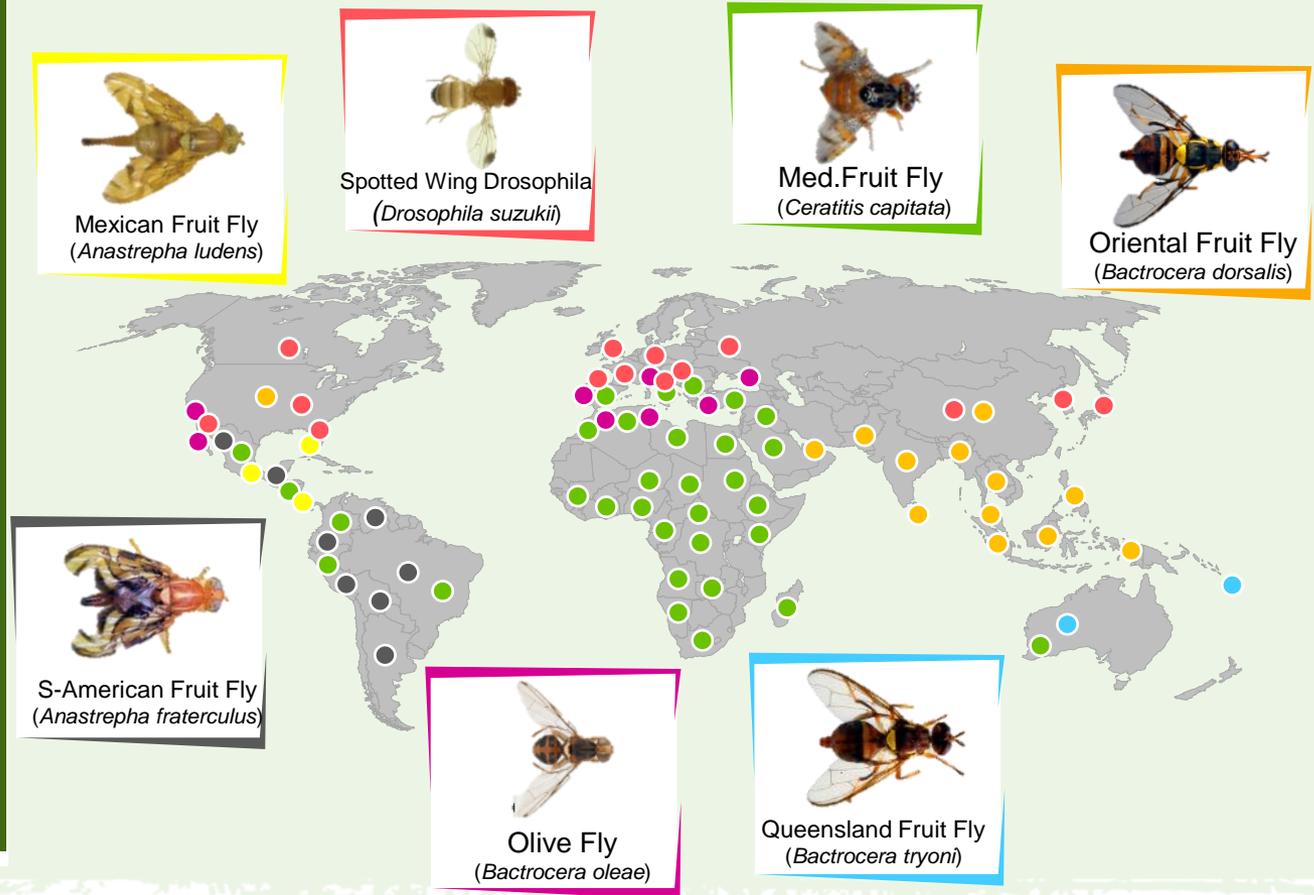
Fruit Flies are among the most economically damaging insect pests



Economic Impact

- Fruit flies (Diptera: Tephritidae; Drosophilidae) include some of the **world's most serious agricultural pests**.
- About **100 species** of fruit flies are considered as economically important agricultural pests
- **Economic effects of ~3 bn EUR worldwide** does not only include direct losses, but also the loss of export markets and costly eradication measures.
- Global costs for professional pest control are estimated at approx. **150 mEUR**.

Global distribution of key destructive fruit fly species





Standard Methods of MedFly Control



conventional

biologic

Chemical Insecticide

Full cover applications:

Mainly Pyrethroids, CNIs, Fermentation Products

Spot application:

Bait spray (insecticide + food attractant)

Sterilized Males / Beneficials

Release of sterile fruit fly males

Beneficials and nat. paratosits



Sterilization Traps

Attract and sterilization

Traps: Food attractant (gel) mixed with a sterilizing / growth regulating insecticide



Attract & Kill

Combination of contact food attractant and insecticide (e.g. Pyrethroid)

No trapping



Mass Trapping

Control & monitoring

Combination of solid or liquid food attractant and system to trap target insects (optional insecticide)





Decis Trap:

Platform Technology for monitoring and mass trapping of fruit flies



- Novel trap design **for high number of captures**
- Closed-system device **for maximum operator safety**
- Ready-to-use, fully assembled trap for **season-long convenience**
- Suitable for **IPM-programs and organic production meeting** the requirements of the **new Sustainable Use Directive**



SAFETY + EFFICIENCY + CONVENIENCE = Decis Trap



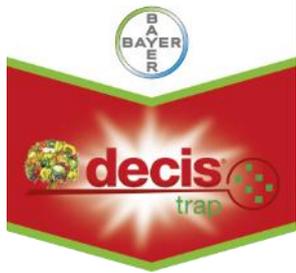
Decis Trap | Strategic Intent

We want to establish Decis Trap as a leading product for fruit fly control targeting both the conventional and organic fruit market

- **SUSTAINABILITY** ►► Helping to raise both **productivity** (yield increase, top-quality, healthy and safe food) and **environmental compatibility** (e.g. operator & consumer safety, natural resource efficiency, minimum residues)
- **INTEGRATION** ►► **Complement portfolio offer** in citrus (e.g. ENVIDOR™, MOVENTO™, SIVANTO™) to drive sustainable crop solutions
- **EXTENSION** ►► Fast extension of the Decis Trap product line (crops / fly species) addressing the unmet needs of growers
- **PARTNERING** ►► **Access high-quality attractants and pheromones** through strategic partnerships, co-development and licensing-in.

We will intensify our cooperation with our partner of choice Sociedad Española de Desarrollos Químicos S.L. (SEDQ) delivering superior R&D and manufacturing expertise in attractants, pheromones and application.





Decis Trap MedFly | Benefits



EFFICACY

- Significantly increased number of captures.
- Higher proportion of female catches (65-70%).
- 50-75 traps provide season-long control of fruit flies (120-180 days efficacy)

SAFETY

- Suitable in IPM-programs and biological production
- Helps minimize environmental impact due to less chemical treatments
- Integral part of successful residue minimization strategies
- Closed system ► helps minimize operator exposure
- No utilization of Dichlorvos (Vapona) ► replaced by low dose insecticide (Annex 1 listed in EU)

CONVENIENCE

- Fully assembled and ready-to-hang
- No maintenance during the season
- No cleaning and storage after the season
- Included in packaging recycling management systems





Decis Trap: Proven Efficacy

Minimized loss of fruits



	<u>Control</u>	<u>Decis® Trap</u>
Loss ratio (100 marked & followed fruits)	50%	10%
	Over-value, tree N°1	
Loss ratio (400 fruits – 1 st and 2 nd harvest)	27 %	9,75%
Loss ratio (200 fruits - 1 st harvest)	30,5 %	11,5%
Loss ratio (200 fruits - 2 nd harvest)	23,5%	8%



2012, San Giuliano, Corsica; on behalf of:





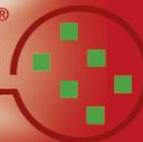
Our commitment to horticulture growers:

On the midterm, we will provide new solutions to control severe fruit pests in an efficient and sustainable way





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Just trust Decis.



THANK YOU
FOR YOUR
KIND ATTENTION