



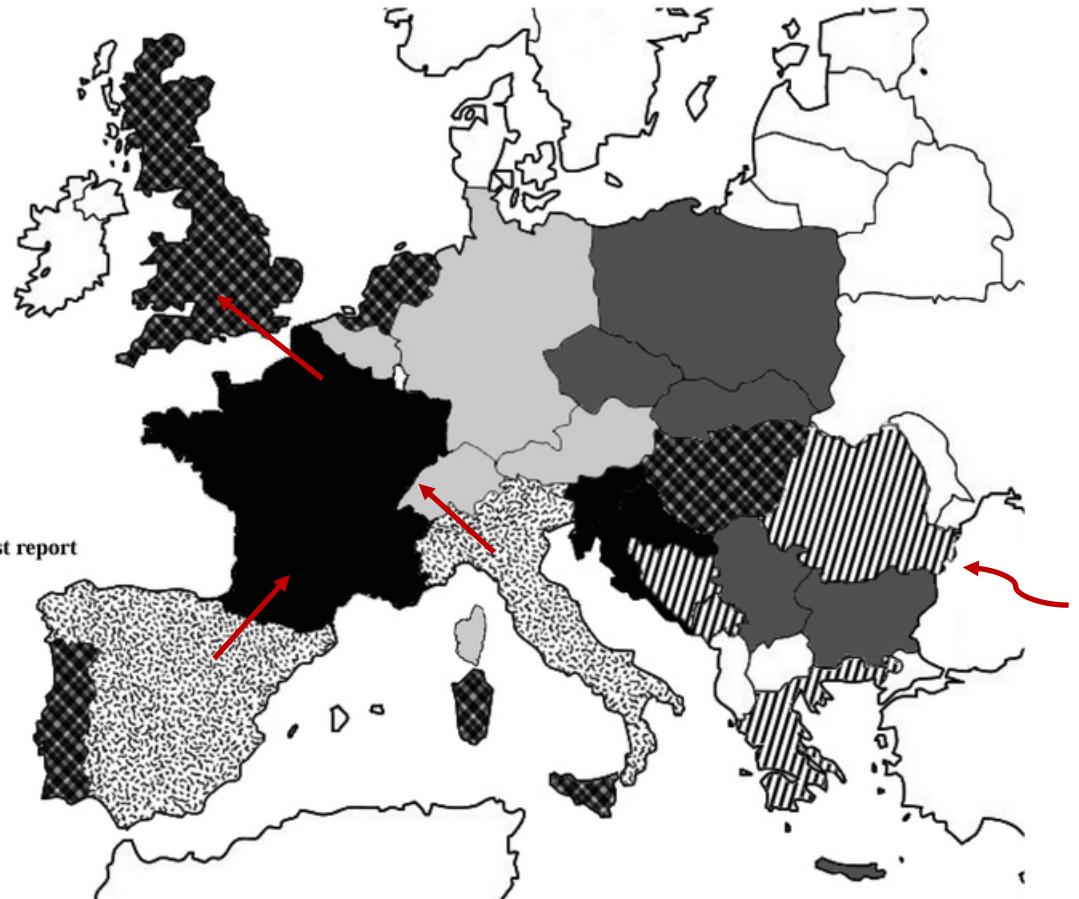
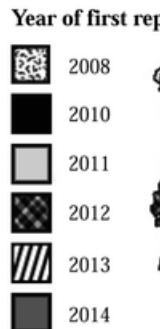
Two years of experiences with *Drosophila suzukii* and increasing problems with thrips in strawberry

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HortiAdvice Scandinavia

Denmark & Sweden 2014



October 2014



Larger scale monitoring from June 2015



Strawberries, raspberries, blackberries, currants, cherries & plums

First appearance end of July
Increasing in numbers from medio september

No reports of damage.....but?

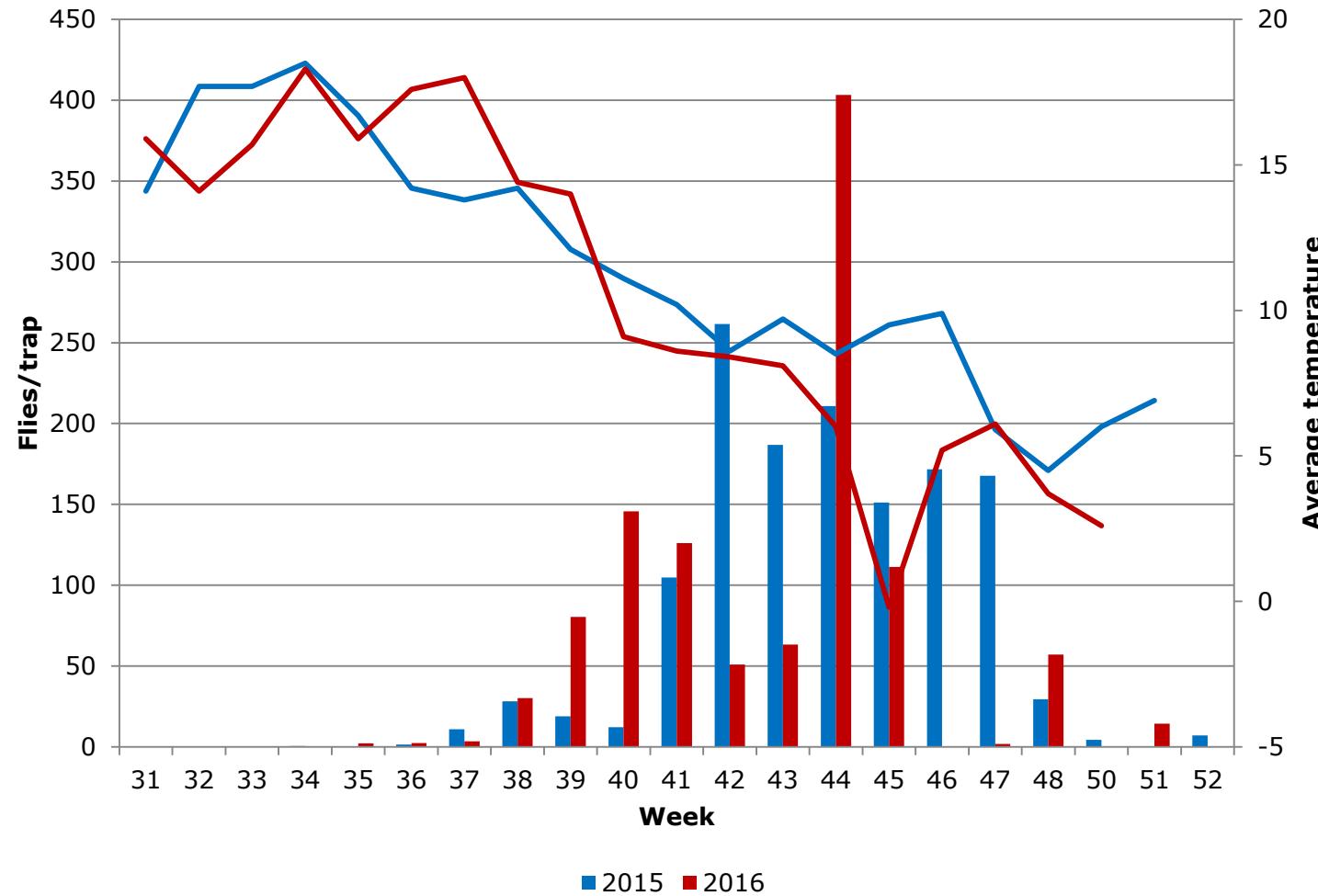
Monitoring all year 2016



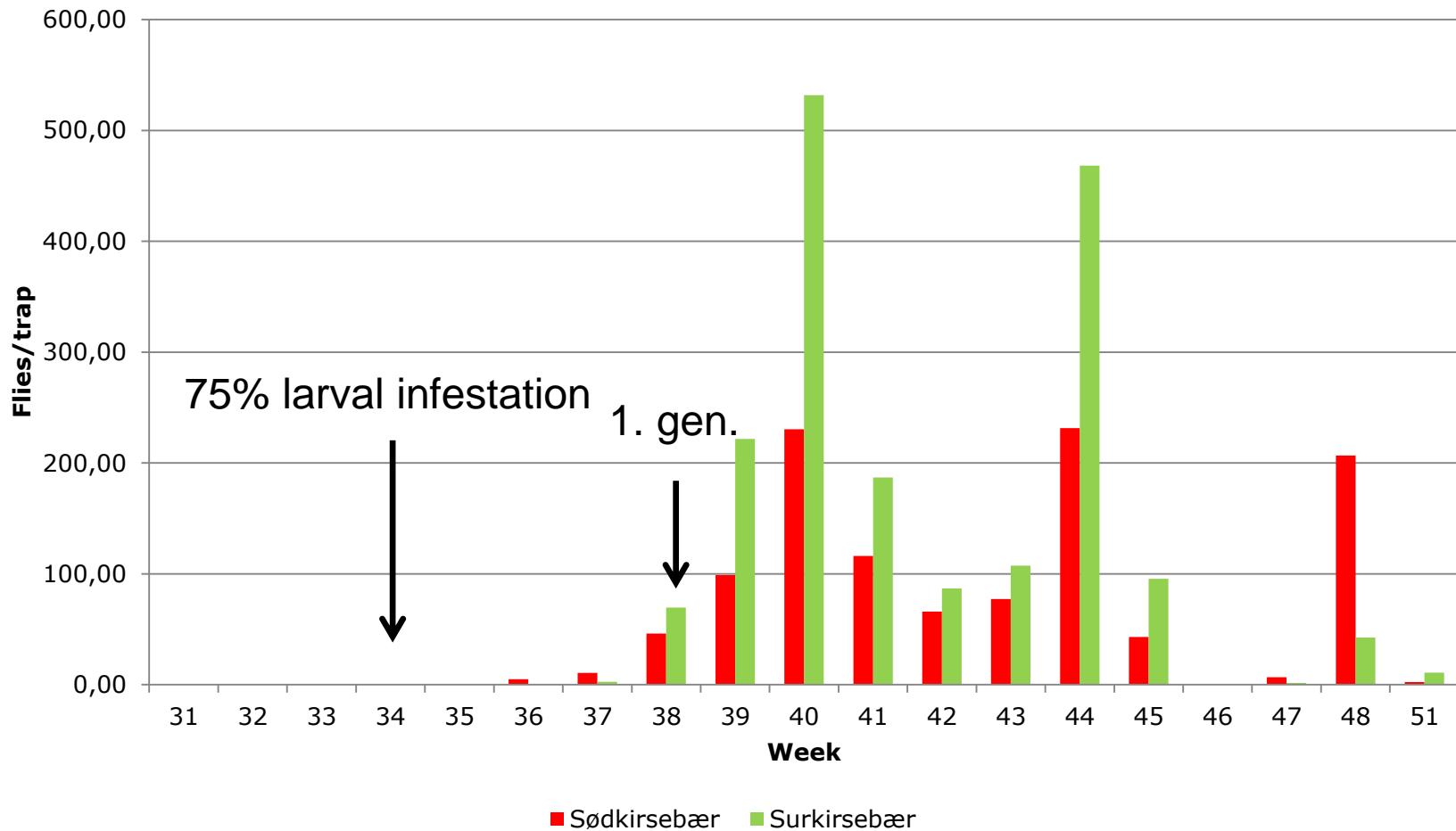
+ monitoring of damage in cherries and strawberries

High level of damage in late raspberries

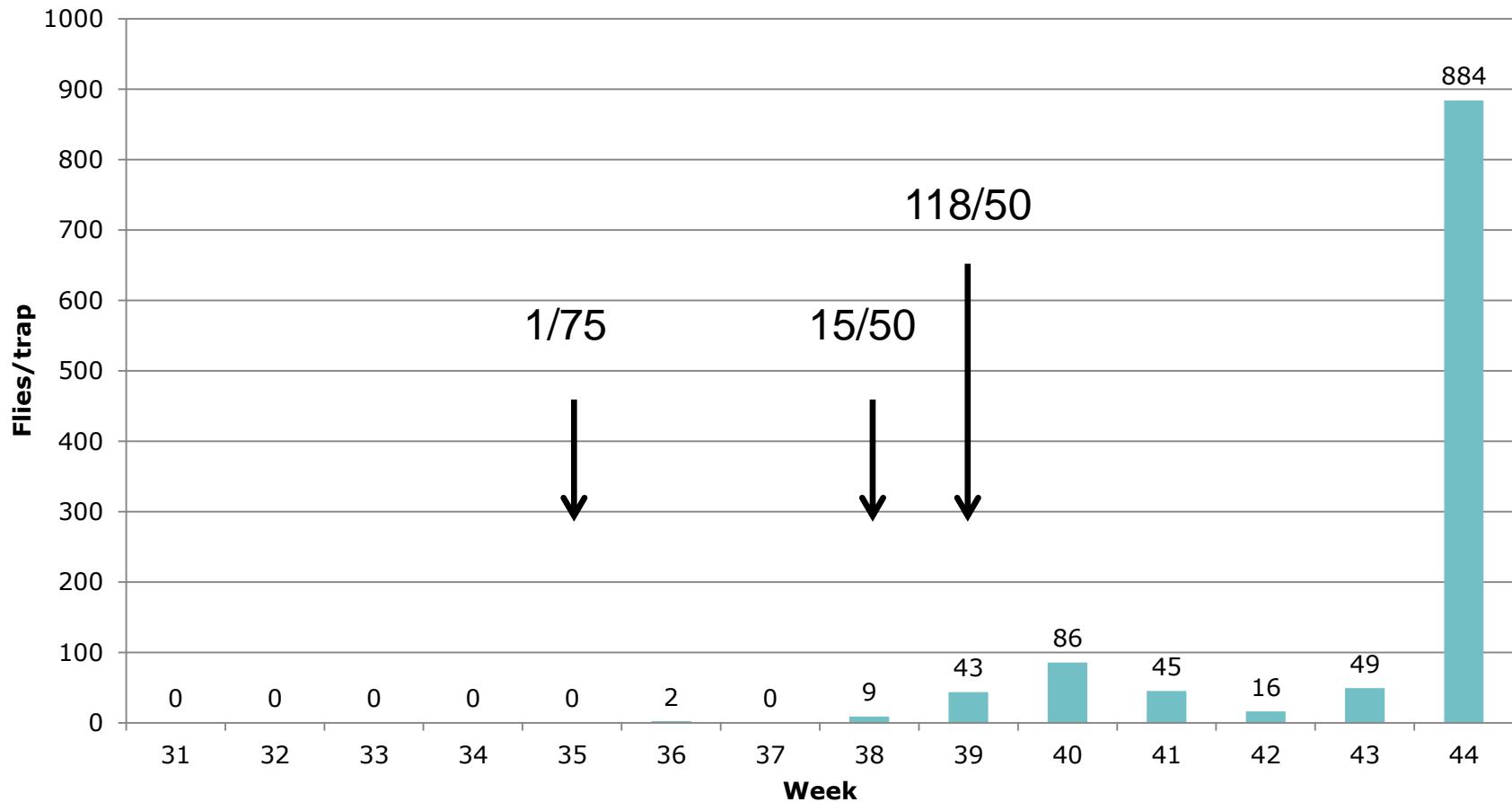
The first build up of flies in Tart cherries



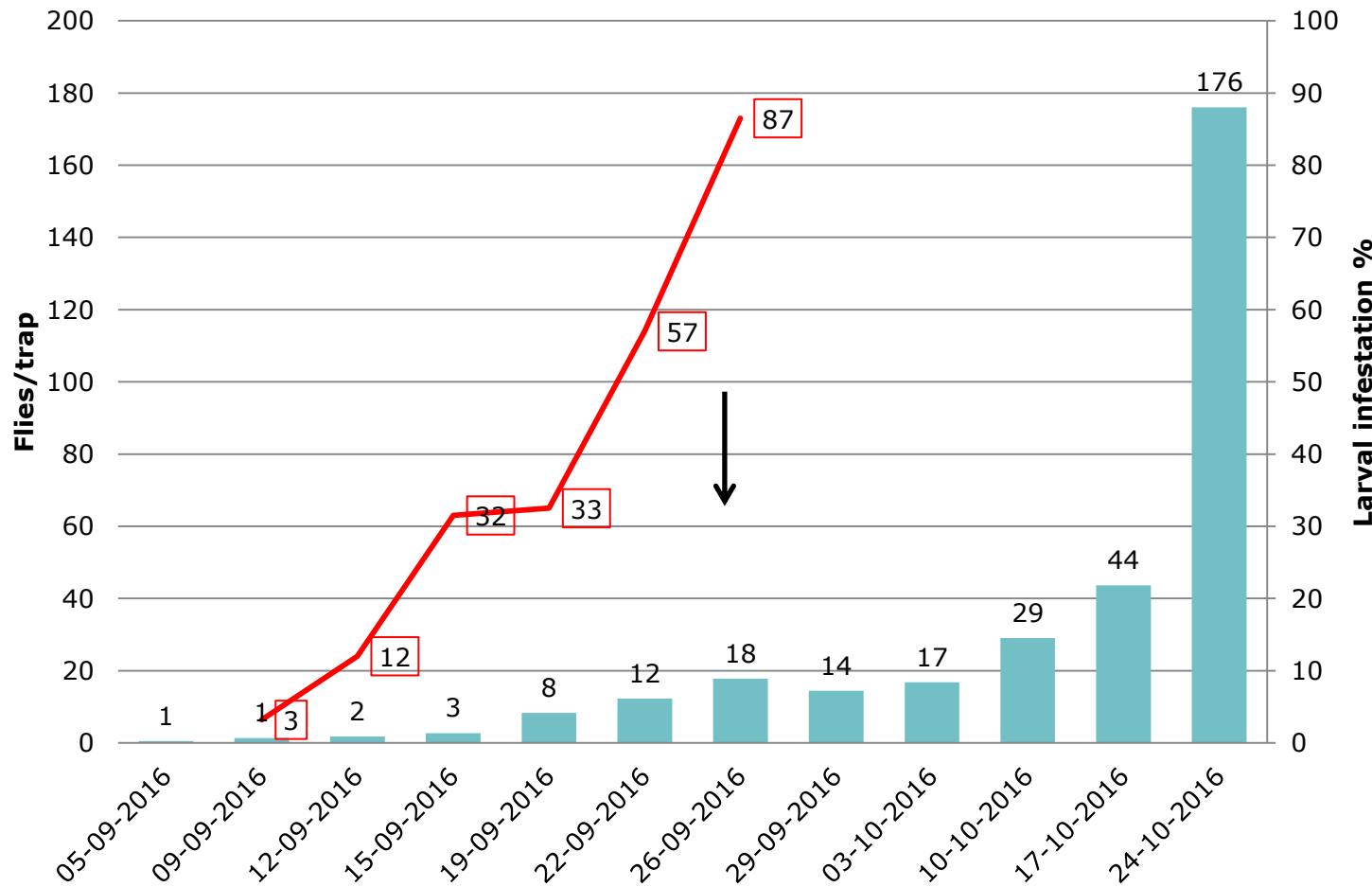
Cherries



Strawberries



Raspberries



TART CHERRIES

Larval damage 22. august (after harvest)



Damage at none to low trap catches!

82% damage!



STRAWBERRIES

Increasing damage from start of September



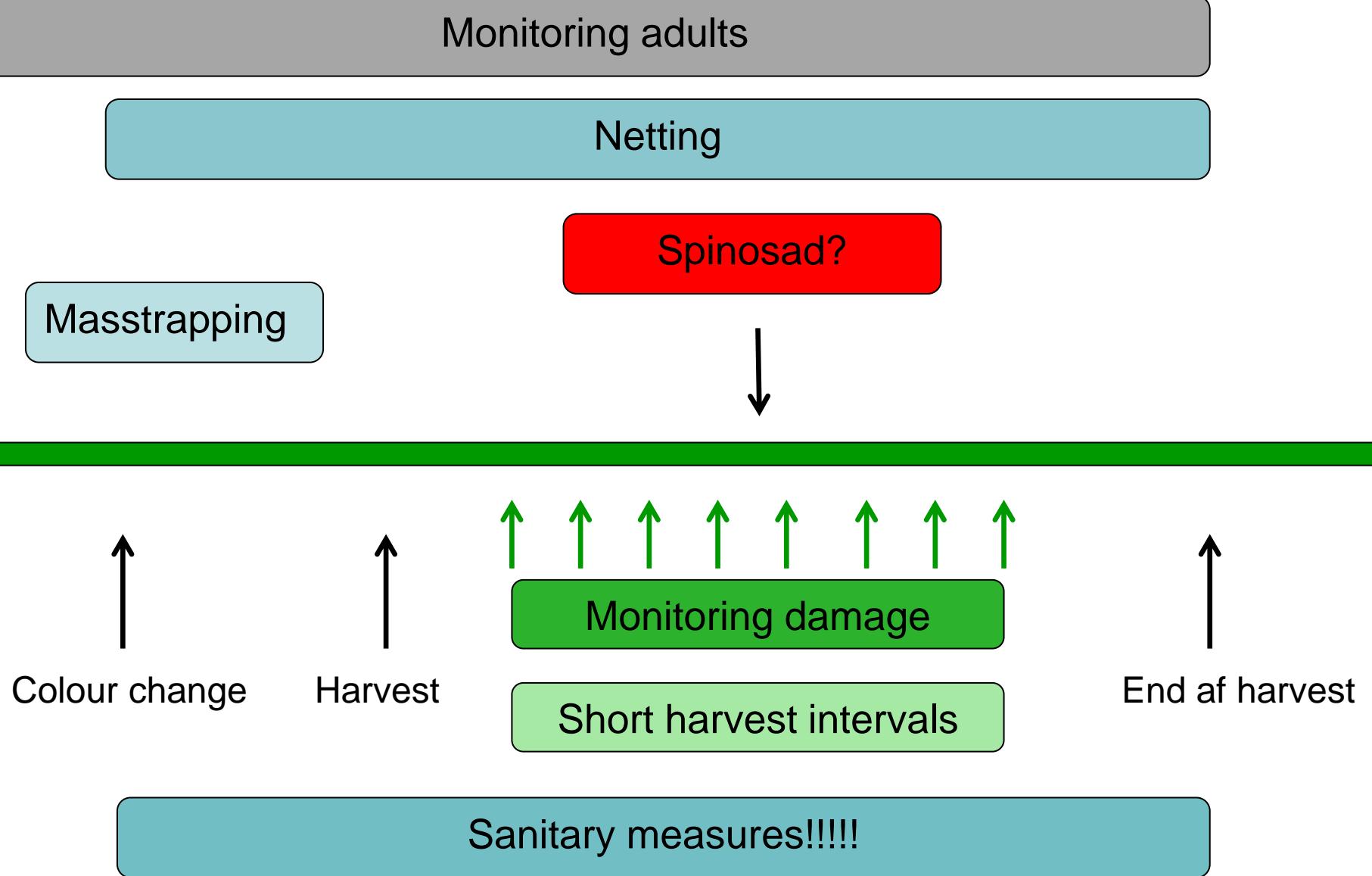




Mass trapping outside production
No treatment
Sanitary measures...hmm



An integrated strategy



Attract & kill

Biological control - parasitoids & dead end trap crops



- Guidelines for use

Persistence of *Prunus padus*



Repellants (lime)

Applicationsrate & crops

Other pest challenges in the Danish strawberry production

- Problems with thrips in strawberries are increasing.
- Due to increase of 60-days production and everbearers.
- No chemicals approved against thrips in DK.
- Some chemicals with side effects:
lambda-cyhalothrin/alpha-cypermethrin, thiacloprid, spinosad.
- Trying to introduce biological control strategies.
Neoseiulus cucumeris and *Orius spp.*
- In 2016, we saw thrips damages already early in the season.
- Biological control could not keep the problem sufficiently under control.



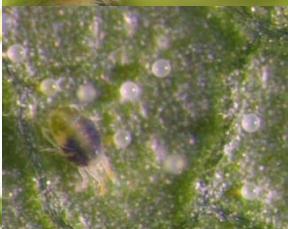
Problems in thrips control

- Which thrips do result in damages in the fields?
- Where do the trips come from?
 - Building up within the plants or neighboring fields?
- Cost price of biological control.
- Thresholds. To spray or not to spray?
- Challenges with other pests.



Some other importuned pests in strawberry

- Tortrix (*Acleris comariana*, *Phiaris locunana* and *Cnephiasia asseclana*)
- Aphids
- Strawberry blossom weevil (*Anthonomus rubi*)
- Bugs (*Lygus* ssp., *Placochilus* ssp., *Orthotylus* ssp.?)
- Two-spotted spider mites (*Tetranychus urticae*)
- Tarsonemid mites (*Phytonemus pallidus*)
- Spotted-wing drosophila (*Drosophila suzukii*)



Thanks for your attention



The project is founded by:

*Promilleafgiftsfonden for frugtavlens og gartneribruget
og Den Europæiske Landbrugsfond for Udvikling af
Landdistrikterne: Danmark og Europa investerer i
landdistrikterne.*

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Miljø- og Fødevareministeriet

