



Insect netting as a vital component of a *Drosophila suzukii* control strategy

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We tested the use of insect-proof nets in combination with additional control measures for the control of *Drosophila suzukii* in large-scale Dutch cherry orchards.

Questions

- When should the net be closed?
- Is additional control needed?
- How can build-up of the pest in the fenced-off area be prevented?



Strategy

- Research on 4 commercial scale cherry orchards.
- Apply insect netting well before the first cherries start to ripen.
- One application of Tracer (a.i. spinosad) after closing the nets, but before ripening of cherries, to eliminate adult flies before egg laying can occur,
- and/or weekly application of a bait spray (Combiprotec with low dose of insecticide) on cultivars with ripening fruits.
- Good hygiene ("clean picking") to prevent pest reproduction.



Results

- Insect nets strongly reduced infestation in cherries, but the use of nets without any additional treatment led to an early *D. suzukii* attack in orchard #1. Pest reproduction inside the orchard resulted in severe infestation by mid-July in this orchard. Harvest had to be ceased.
- Insect nets combined with either an early applications of Tracer or the use of a bait spray gave complete control of *D. suzukii* until the end of harvest (mid-July) in 2 orchards (#2 and #3).
- Orchard #4 had the longest harvest period. A combined approach of nets, an early Tracer application and weekly bait sprays gave complete control until 25 July. Then, pest pressure around the test orchards strongly increased. Combined with repeated opening of the nets at harvest time, this resulted in some infestation on the very last cherries in orchard #4.

Table 1. *D. suzukii* infested cherries (%) in 4 orchards protected with insect nets (green columns) and on nearby untreated trees (no net) in 2017. Bottom lines: additional treatments.

	Orch. 1 net	Orch. 1 no net	Orch. 2 net	Orch. 3 net	2-3 no net	Orch. 4 net
24 May						0
29 May						0
6 June	0	80	0	0		0
12 June	1	98	0	0	14	0
19 June	0		0	0	74	0
27 June	3	85	0	0		0
3 July	4	97	0	0		0
10 July	*		0	0		0
18 July						0
28 July						**
Net closed	12 May		20 May	21 May		18 May
Early Tracer	No		Yes	No		Yes
Bait spray	No		No	Yes		Yes

* : Harvest stopped because of *D. suzukii* infestation

**: Infestation on the very last cherries to be harvested (<1% of total harvest), % not measured because of small number of fruits.

