



Testing the effect of a rainproof protection net on the apple production regarding disease and pest damages

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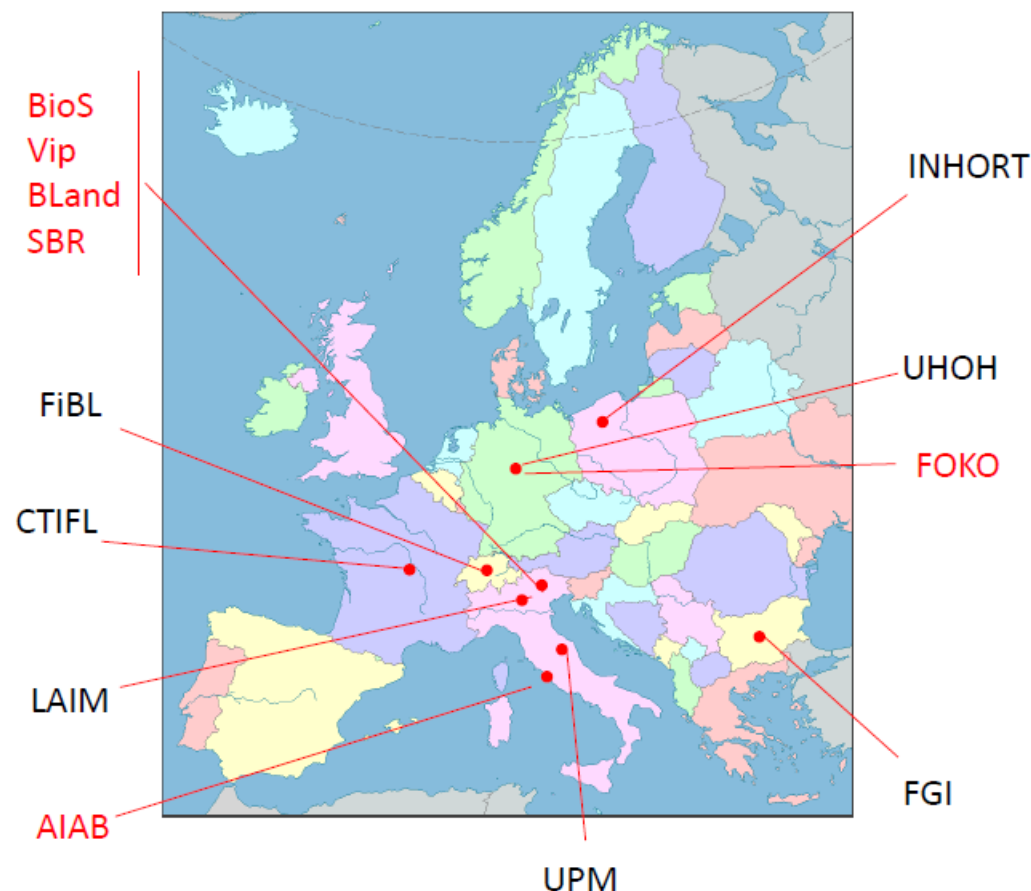
Ecofruit

Hohenheim, 17th of February 2020

Project partners DOMINO

UPM	Polytechnic University of Marche, Italy
FGI	Fruit Growing Institute, Bulgaria
INHORT	Institute of Horticulture, Poland
LAIM	Laimburg Research Centre, Italy
FiBL	Research Institute of organic agriculture
UHOH	University Hohenheim, Germany (Trials at KOB)
CTIFL	Technical centre for fruits and vegetables

BioS	BioSüdtirol, Italy
Vip	Vi.P Bio Vinschgau, Italy
Bland	Bioland Südtirol, Italy
SBR	SBR organic, Italy
AIAB	Ass. It. Agricoltura Biologica, Italy
FÖKO	Fördergemeinschaft Ökologischer Obstbau e.V., Germany



Material and Methods

«Keep in touch - Antiacqua» single-row weather protection (VWP)

- **2 apple varieties** (Topaz, Ariwa)
- **3 treatments**
 - **Keep in touch** : WP & no plant protection
 - **Control**: no WP & no plant protection
 - **Organic**: no WP & standard organic plant protection
- **Assessments**
 - Insect diversity (beating tray)
 - Fungal infections on leaves (mid-June)
 - Fungal infections and pest damages on fruits at harvest
 - Fungal infections during storage

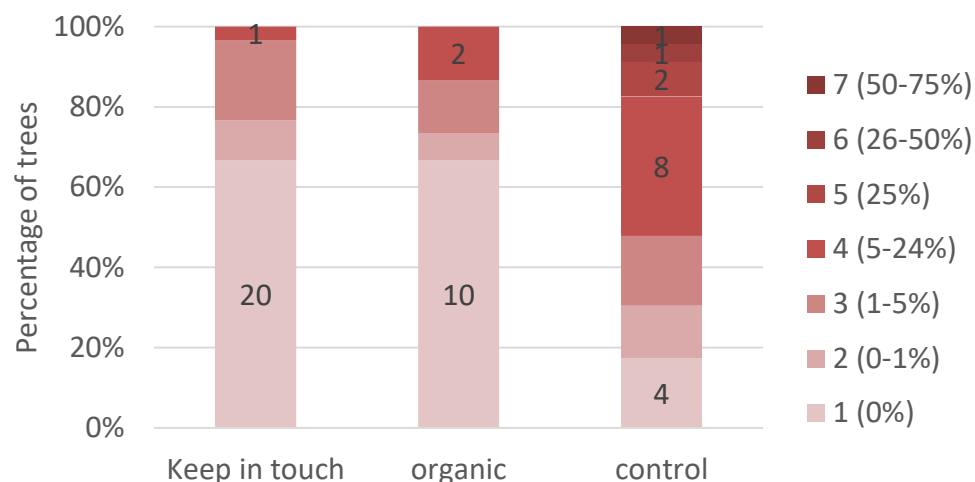


First results I

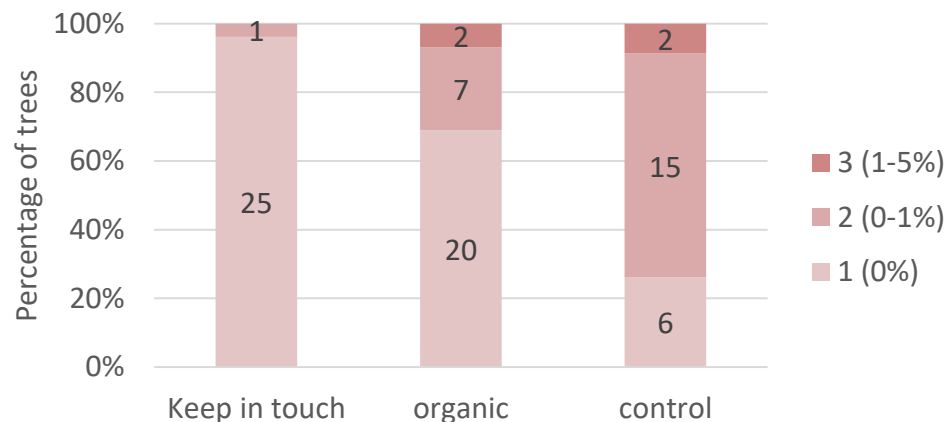
Score	Definition of the symptoms	Proportion of affected organs* (%)
0	No observation (missing plant)	-
1	No visible symptom.	0%
2	One or very few lesions detectable on close scrutiny of the tree.	0 to 1 %
3	Immediately apparent lesions in general clustered in few parts of the tree	1 to 5 %
4	intermediate	x
5	Numerous lesions widespread over a large part of the tree.	± 25 %
6	intermediate	x
7	Severe infection with <u>half</u> of the leaves** badly infected by multiple lesions	± 50 %
8	intermediate	± 75 %
9	Tree completely affected with <u>(nearly)</u> all the leaves** badly infected by multiple lesions	> 90 %

source: www.vinquest.ch

Ariwa



Topaz



First results II

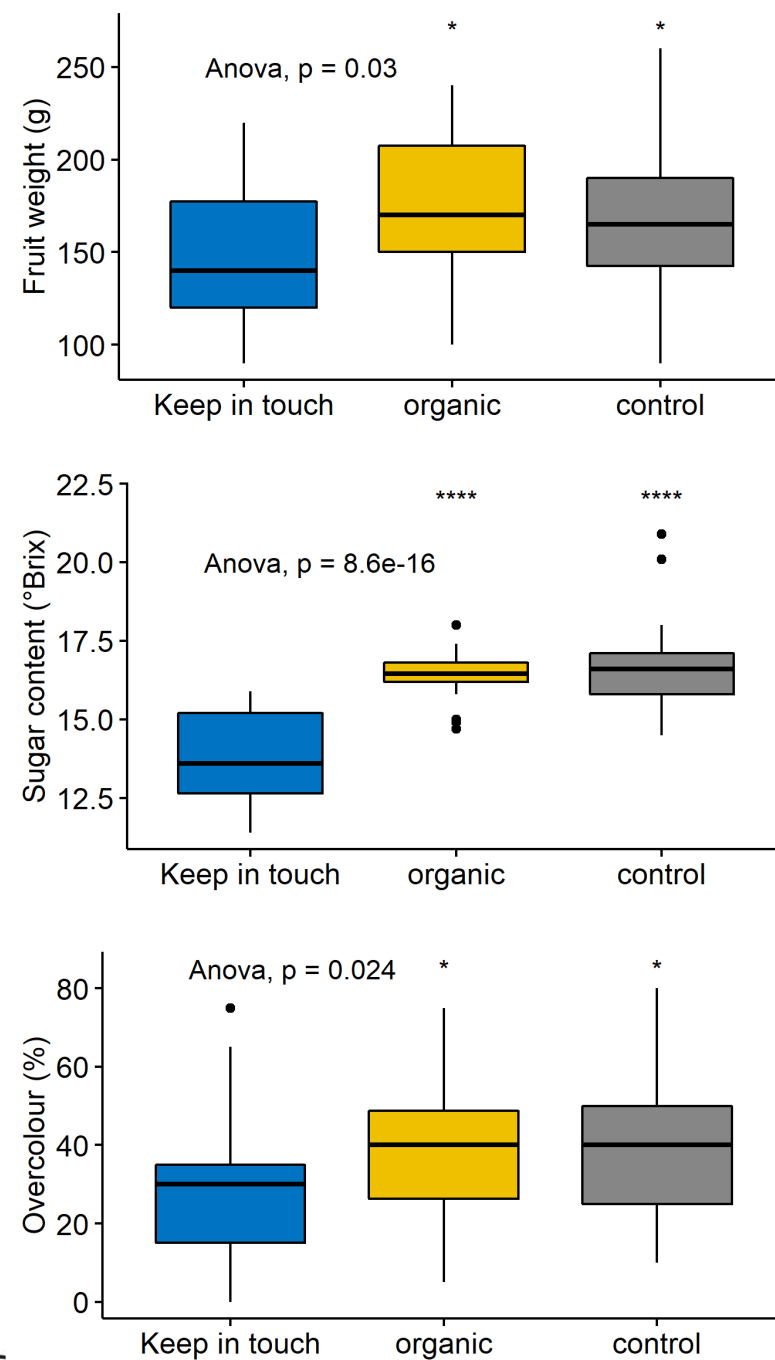
- **Less fungal infections** on fruits (monilia, gloeosporium, sooty blotch)
- **Less** insect damages through **feeding**,
- ...but more **aphids**
- More **deformed** fruits and **underdeveloped** fruits



First results III

Ariwa

- **Effects on fruit quality:**
 - lower fruit weight (g)
 - lower sugar content (°Brix)
 - less overcolour (%)
 - no effect on firmness



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