

## Working programme

The first work package is related to the biological characterisation of pests and diseases that can lead to adaptation in the different cropping systems.

1. Measuring the spread and infection degree of *T. urticae*, *D. suzukii*, *B. cinerea* and aphids
2. Measuring parameters (fecundity, generation time, speed of sporulation...) of these pests and diseases in laboratory conditions
3. Can trap plants in tunnels control *D. suzukii* by acting as a dead end trap plant or as an indicator plant? *Prunus padus* was recently found as a potential dead end plant<sup>5</sup>. This plant will therefore be placed in the tunnel to invest its applicability

The second work package is related to the genetical characterisation of the pests and diseases in the different cropping systems.

4. Developing genetical fingerprints of *T. urticae* and *B. cinerea* through identification of isolates with PCR techniques. Once developed, adaptations in the genome of *T. urticae* and *B. cinerea* can be traced
5. Comparison of the genetic fingerprints with 2 organic soft fruit growers (one with high intensity of intercropping, one with monocropping)
6. Can the genetical differences seen in practice be linked to observed biological parameters that may lead to an diminished fitness of pests and diseases in intercropping?

The production (kg/plant) and the harvest efficiency (kg/h) in intercropping compared to the monocropping will finally be monitored. Intercropping can only be successful if the efficiency in harvest is still comparable to a monocropping system.

This project in soft fruit is the first practical evaluation (biological and genetical) of pests and diseases control in intercropping in Western conditions.

## References

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