RIMpro Cloud Service info bulletin 2016-4
Zoelmond, April 20 2016

Dear RIMpro Cloud user,

The 2016 season is running. We intend to support your use of the RIMpro Cloud platform to the best of our ability by answering you questions immediately, and solving technical issues you encounter ASAP. Remember the RIMpro graph that opens on your computer screen somewhere on this planet is the endpoint of a long chain of processes involving many technical steps. Therewith the question *" Help! It does not work "* is not always easy to answer.
Meanwhile RIMpro is growing every day by smaller or bigger improvements on all levels of the system. RIMpro can only grow with your input. So please provide us feedback on what could be improved, and share your ideas for new features and functionality.

Crowd validation leaf wetness

We asked you to help us to improve the leaf wetness calculations by indicating if the leaves of your apple trees are wet at the time you visit your RIMpro graph. This is already a great success. In one week time we collected over 17000 responses! There were only two negative reactions on this popup, so please continue! If you don't know the field situation, you don't, but else please inform us on the leaf-wetness situation.

BIOFIX information.

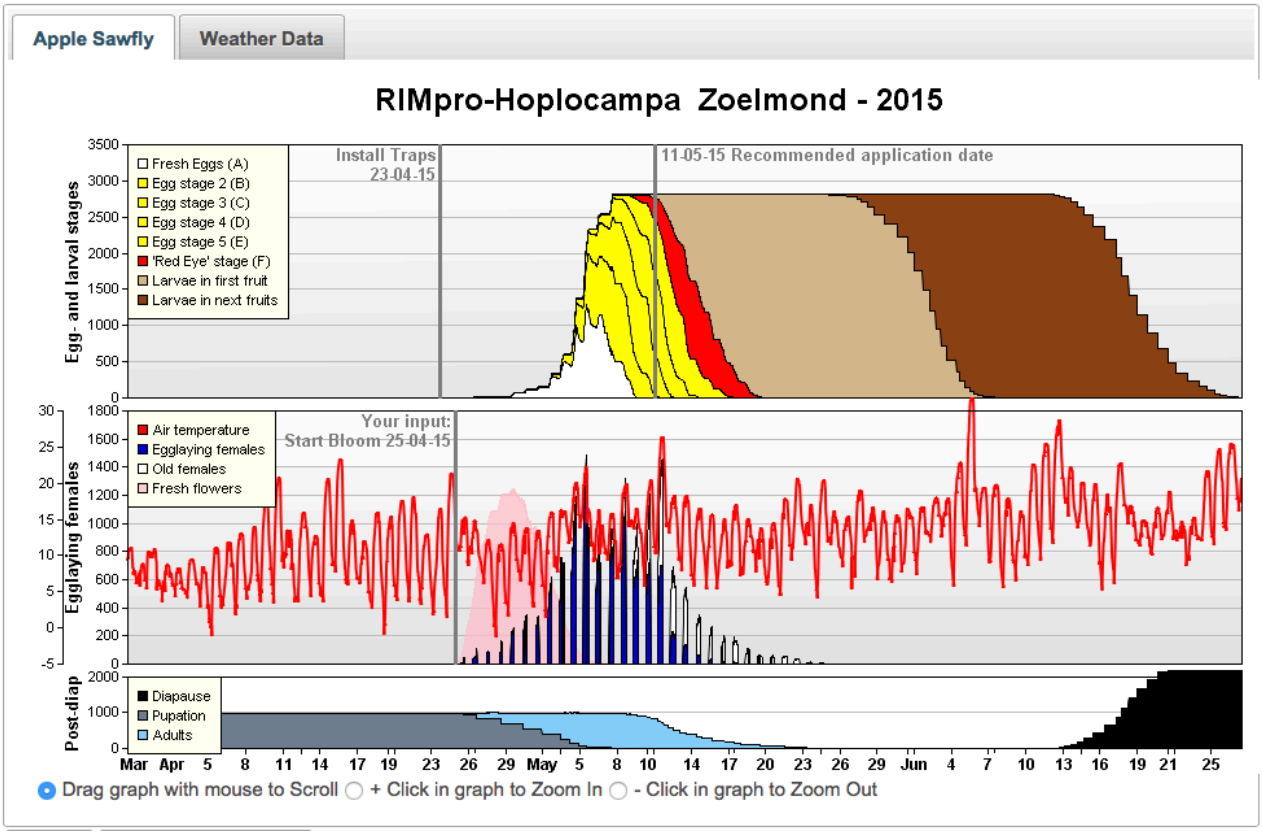
Many people contributed to the bulletins on biofixinformation. Thanks for that. Once again it was a special year. The expected very early spring did not come. The first ascospore discharges in the fields were often only a very few spores. Based on that, and the slow development of the vegetation, it was decided to move the original set biofix a few days in several situations. We will use the information you provided now and in previous years to try to find an algorithm to estimate the Biofix date based on weather data.
Now bud break is expected in the most northern apple production regions in Europe and America, while in the south of Europe bloom is already over. I will stop sending the Biofix bulletin as soon as Biofix is set for the most northern production regions.

RIMpro-*Hoplocampa* (Appel sawfly)

Apple sawfly is a key pest in organic apple production in Europe. Treatments to control apple sawfly are mostly aimed at the moment of egg-hatch: end of bloom. Timing is quite critical and is based on close observations by growers and their consultants. Optimal application dates vary per orchard and apple variety.
Scientific information and 15 years of field observations were compiled in a new RIMpro model for the biology of apple sawfly. The model is intended to support the timing of treatments to control apple sawfly. Background on the development and validation of the model you find in the proceedings of the 17th International Conference on Organic Fruit Growing. Universität Hohenheim (Germany), February 15 to 17, 2016.

The model is new, and most validation was based on data from The Netherlands, Belgium and Denmark. This year many consultants and growers will follow the development in the field along with the model.

Explanation of the RIMpro-*Hoplocampa* graph:



Lower graph: Grey=post diapause development and pupation of larvae in the soil. Blue= adult sawfly population. Black= full-grown larvae returning to the soil.
Middle graph: Red=air temperature. Rosa= fresh opening flowers. Dark blue= flight activity.
Upper graph: White = fresh deposited eggs. Yellow= egg development stages 2-5. Red= final larval stage (Red–Eye stage), Light and dark brown= larval stages in the fruits.

Notes on the use of the model:

1. The model signalizes the moment to install the white sticky traps in your orchard based on temperature development.
2. **YOU have to put in the date of start of flowering in your RIMpro under local parameters.** Start of flowering is the date that on 10% of the flower buds the king flower is open. From this moment on egg deposition on this apple variety is possible.
3. The model recommends as date of application the day that 2% of the eggs is expected to hatch.
4. Make your application on the morning of the date recommended by the model, or on the day before. Never later.

Validation in 2016:

If you want to contribute to improve the model, please check in the field whether on the day the model recommends the treatment the first eggs are hatching, and let us know the results of your observations. We will do the same in a series of orchards.

We already found in southeast Austria and southeast France that first emergence of the adult sawflies was predicted too late. Under a-typical weather condition (warm weather in February, and/or high radiation in combination with cold wind?) the air temperature proved not suitable to predict the development in the soil. Next year a Biofix (= first sawflies captured on white sticky traps) has to be implemented to optimize the simulations under these conditions.

With kind regards,
Marc Trapman