



# IPM Decisions External Newsletter

ISSUE 5

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## New website and more DSS on the IPM Decisions platform

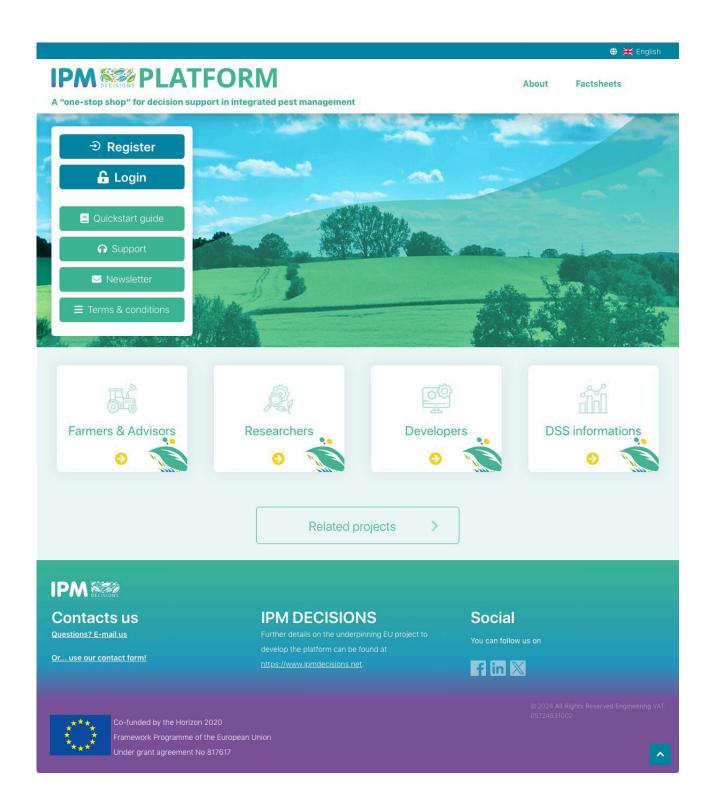
The IPM Decisions platform has been recently updated, with extra functions and with a fresh lay-out. In this newsletter you can find out more about the changes we've made, and how this state-of-the-art platform contributes to improved pest management decisions.

#### New website layout

The platform's website has been redesigned to make it easier to find the information you need, and make space for future planned updates. The home page has a new navigation menu where you can find all the fact sheets of all the DSSs here. Since the update, all information about the DSSs can also be found on the home page without having to log in first, by following the 'DSS Information' button.

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### More DSS on the platform.

Several new free to use IPM-DSS have been added to the platform. These include systems for assessing the risk of cereal diseases, from the Danish Crop Protection Online (CPO) models in wheat and barley. These were launched by Aarhus University and SEGES in 2000 and have been regularly used in Denmark since

then. The CPO models can be used to assess the risk to crops based on in-field observations. These DSS have been tested in the Nordic and Baltic countries and considered useful (if not yet formally validated) in other countries, including; Poland, Germany, Netherlands, United Kingdom and Ireland. Figure 1 shows an example from the UK for the risk of crop/disease combination in susceptible varieties as GS 31, assuming 1-10% of plants show symptoms of that disease. The septoria leaf blotch starts at GS32 and therefore is inactive, depicted by the grey colour.



Figure 1. Platform screenshot form IPM Decisions, showing the risk for fungal diseases in cereals



Tan Spot Wheat Yellow Rust Wheat Powdery Mildew

Other DSS added to the platform include:

- Narcissus bulb fly\*
- Pollen Beetle in oilseed rape, cauliflower and broccoli\*
- Cabbage root fly\*
- Carrot root fly\*
- Downey Mildew of grapes (parts of Greece only)

In total 27 free to use DSS are now included in the platform, and a further 19 DSS are accessible through a link in the 'External Links DSS Dashboard'. Linked DSS are managed by external third parties, and while some are free to use, others are 'paid to use'.

#### Introducing the DSS Comparison dashboard

A new function of the platform is the Comparison Dashboard. This offers the opportunity to 1) compare the information from two models for the same disease, or 2) compare the information for different regions in the country, or 3) to compare the situation in two consecutive growing seasons. Figure 2 shows an example for the comparison of the risk for a Barley Yellow Dwarf Virus infection for a location in Denmark, November 2022 compared to November 2023.

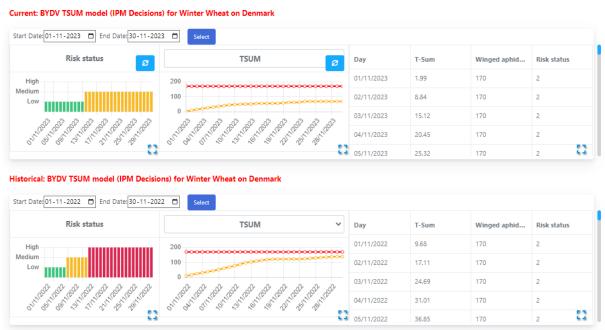


Figure 2: BYDV infection, November 2022 compared to November 2023.

<sup>\*</sup>These models require a source of historic soil temperature data, at present only available in the UK. If you are interested in these models outside of the UK, please get in touch.

## New on the platform: DSS Adaptation Dashboard for applied researchers

Many DSS are developed and tested in a certain country and not tested elsewhere. For good results of the DSS in another region or country it might be necessary to adapt the model parameters.

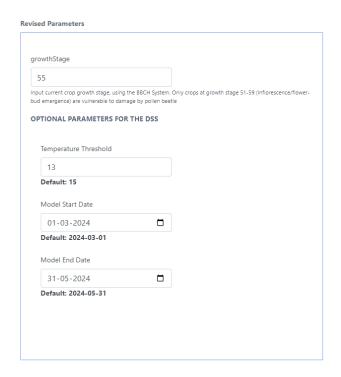


Figure 3: Example Parameters

The adaptation dashboard gives the opportunity to adapt and test the model parameters for another location. The outcome of the adapted model can be tested in the new situation, and the output of the original and the adapted version can be compared with each other. The figures show an example for the Pollen Beetle model for Oilseed Rape before adaptation and the result after adapting the temperature threshold with 2 degrees Celsius, resulting in more days with a migration forecast and risk of infection of the crop with the pollen beetle.

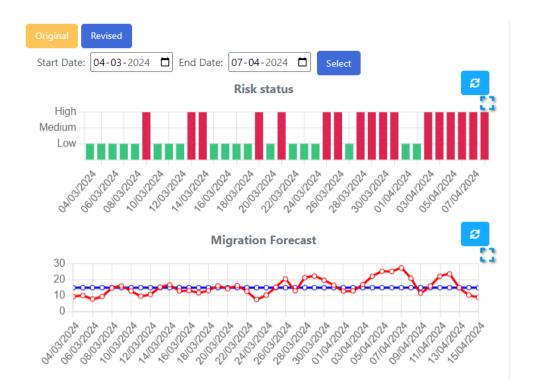


Figure 4: Output before adaptation

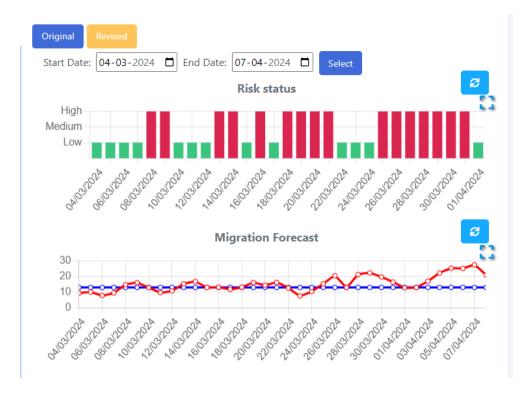


Figure 5: Output after adaptation



#### **IPM Conference in Brussels**

IPMWORKS and IPM Decisions are jointly organising the IPM Conference 2024 in Brussels, 14th May 2024. These two sister H2020 projects are contributing to the European objective to promote a holistic approach for Integrated Pest Management (IPM) and to reduce the use of pesticides. The conference will provide a forum for stakeholders involved in the development of IPM, including: farmers, advisory services, retailers, agro-industries, researchers, decision support developers and policy makers. The Conference will present results and tools produced by the two projects, with testimonies of farmers and advisers highlighting success stories in IPM implementation and practical solutions to reduce the reliance on pesticides.

HTTPS://IPMWORKS.NET/2024/02/07/IPM-CONFERENCE-2024-HOLISTIC-IPM-REDUCING-PESTICIDE-USE-AGENDA-AVAILABLE/

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HTTPS://www.ipmdecisions.net/contact-us/,
and we will update you a few times per year on

IPM Decisions and related projects.