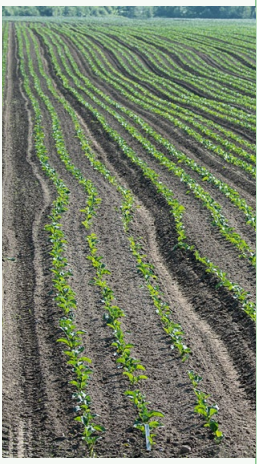
VIPS – Open Source technology for decision support in IPM

VIPS is an Open Source technology platform for prognosis, monitoring and decision support in agriculture. Data from most online weather stations, public weather data networks and weather forecasts can be used, allowing pest and disease models to be tested and validated under local conditions, with multiple sources of input data. Observations of pests and diseases can be easily registered with smartphones and reported using online maps. We aim to initiate international research collaboration to create new and improved tools for better implementation of integrated pest management.

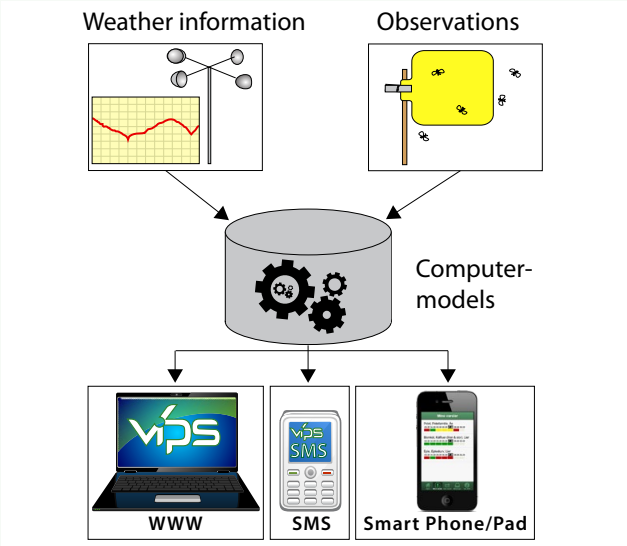


www.vips-landbruk.no

VIPS can serve research, development and extension, all by use of one system.

Model outputs from multiple weather stations can be displayed in a map to visualize regional differences, in addition to more detailed outputs for each location. The prediction outputs may be compared to actual observations in the field. The open source license allows users of VIPS to make adaptations and changes to accommodate local needs, test and validate models locally or as part of an international network, and eventually provide the models directly to end-users through the same system.

A tool for research collaboration and model development

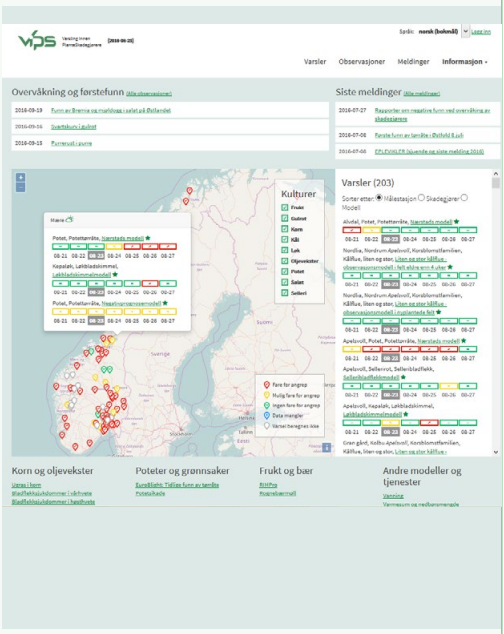


International flexibility

The VIPSweb, launched for Norwegian users in 2016, allows for local adaptations, including multi language support, incorporation of models and other services. This opens for easy customization of VIPS for international use. Alternatively, model output views can be incorporated in existing web sites or distributed on smart phones or tablets.

VIPS in Norway

VIPS is an automatic forecasting system for agricultural pests and diseases, developed by NIBIO and The Norwegian Agricultural Extension Service. Pest and disease warnings have been freely available through the web site www.vips-landbruk.no since 2001, providing data from a network of more than 80 weather stations. Users have access to risk models for 16 pests and diseases, damage thresholds for several pests, information and reports on observations of pests and diseases in a wide range of agricultural crops. All field observations are reported by local agricultural advisory services.



VIPS also includes a decision support tool for management of weeds in cereals, based on the Danish Plant Protection Online, and a direct link to RimPRO for warnings on apple scab and codling moth. Models in VIPS present risk alerts, leaving the final decisions on choice of pesticide and dose to the grower in collaboration with the local advisory service.

The Norwegian VIPS web is open and free of charge at www.vips-landbruk.no.

VIPS (Varsling Innen PlanteSkadegjørere) is a collaborative project between NIBIO and the Norwegian Agricultural Extension Service (www.nlr.no), serving as a decision support tool for use in integrated pest management.

About NIBIO

The Norwegian Institute of Bioeconomy Research (NIBIO) is one of Norway's largest research institutes since 1 July 2015, with 700 employees located in all parts of the country. NIBIO contributes to food security, sustainable resource management, innovation and value creation through research and development within food, forestry and other biobased industries.

NIBIO is owned by the Ministry of Agriculture and Food and is a merger between the Norwegian Institute for Agricultural and Environmental Research (Bioforsk), the Norwegian Agricultural Economics Research Institute (NILF) and the Norwegian Forestry and Landscape Institute (Skog og landskap).

NIBIO
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