

## VIPS - an open source technology platform aimed at international collaboration on IPM



Tor-Einar Skog, **Berit Nordskog**,  
Håvard Eikemo, Halvard Hole,  
Annette F. Schjøll, Jan Netland,  
Nina Trandem, Trond Rafoss &  
Richard Meadow  
Bioforsk  
berit.nordskog@bioforsk.no

We are interested in cooperation on developing the system, for example through joint R & D projects that include implementation of forecasting models and development of applications. The forecasting system will also be available as a cloud service. Bioforsk's researchers and ICT personnel will assist collaborators in configuring existing, relevant forecasting models and distribution of the model output.

VIPS is a technology platform for IPM, where results from forecasting models can be distributed to users anywhere. The model output views are flexible and simple to incorporate in existing web sites or distribute on smart phones and tablets. Worldwide cooperation on development, implementation, testing and validation of forecasting models is made easy in VIPS. The source code for the platform is released under an Open Source License, guaranteeing partners that their efforts will be mutually shared and beneficial. The VIPS system is based on 14 years of experience with a web based forecasting and information service for integrated management of pests and diseases in cereals, vegetables, and fruit crops in Norway. A totally reconstructed and internationally adaptable version of VIPS was tested internationally in 2014. The system allows for local adaptations, including language, incorporation of models and other services. Our aim is to create a technology platform for international collaboration on IPM.

Through VIPS, all available IPM-tools for pests and diseases within a cropping system can be implemented. This provides flexibility for further development, validation of models and implementation of new tools, where the end-users do not have to relate to several different platforms. VIPS can thus be used for research, development and extension, all by use of one system. This enables a quick release of new tools, without any delays or reprogramming of models when research and development is completed.