ISIP - the Online Decision Support System for Plant Production in Germany

M. Röhrig, R. Sander, ISIP e.V., Rüdesheimer Straße 68, 55545 Bad Kreuznach, Germany, [roehrig:sander]@isip.de
E. Jörg, Ministry of Environment, Agriculture, Food, Viticulture and Forestry Rhineland-Palatinate, Kaiser-Friedrich-Straße 1, 55116 Mainz, Germany, erich.joerg@mulewf.rlp.de

ISIP, the Information System for Integrated Plant production (http://www.isip.de), is a Germany-wide online decision support system for agriculture. It has been initiated ten years ago by the Federal Extension Services as a common portal, thus achieving synergies by pooling existing information. Target groups are farmers as well as advisors.

Three types of information can be distinguished in ISIP, differing in scale.

1. The most general information is given in an encyclopaedia, where background information and standard recommendation for more than 20 crops and 200 pests and diseases are stored in a database.

2. More specific information is provided in regional news. The members of the ISIP association maintain own pages in the system, where they can distribute topics ranging from contact data to legislative news.

3. Decision support modules deliver the most specific results. In ISIP, such a module does not only comprise a weather-based simulation model. Given that a model is only a simplified representation of reality, simulation results are supplemented by monitoring data (if available) and a comment of a regional advisor.

Decision support modules currently implemented in ISIP:

Cereals: Eyespot in winter wheat, Infection pressure of important leaf diseases, BBCH development, monitoring of leaf diseases
Root crops: Potato late blight and Colorado beetle in potatoes, major leaf diseases in sugar beets
Maize: European corn borer
Oil seed rape: Sclerotinia stem rot, pest monitoring
Horticultural crops: Various pests in apples, fire blight in apples and pears, downy mildew in onion

By combining general with specific data, recommendations can be refined from regional to individual. The information is primarily distributed via HTML pages, thus only a browser is necessary to use the system. Other communication channels such as SMS and Smartphone Apps are also used and will be further developed in the future. An overview over ongoing projects is shown on the poster ‘Dissemination Concepts for Online Decision Support’.