Agro-PEPS: a collaborative tool for innovative cropping systems

The collaborative Web tool Agro-PEPS, managed at INRA by researchers in Grignon, forms part of support actions for farmers in their transition towards sustainable cropping systems.

Access to new technical knowledge is essential in order to design, manage and learn about innovative and high-performance cropping systems. The collaborative Web tool Agro-PEPS, managed at INRA by researchers in Grignon, assembles these data and forms part of support actions for farmers in their transition towards sustainable cropping systems.

The Agro-Peps tool was designed in collaboration with IRSTEA (National Research Institute of Science and Technology for Environment and Agriculture) and Chambers of Agriculture, in the context of the RMT (Joint Technology Network) on Innovative Cropping Systems. It is built in two sections: the first, of a "wiki" type, is dedicated to knowledge and benefits from synthetic data to enable the design of innovative systems, while the second is open for exchanges in order to encourage the sharing of experiences. It is accessible to all users, whether they be farmers, advisers, training instructors or researchers.

The scientists have built the tool with the aim of preserving five major resources: water, air, soil, fossil resources and biodiversity.

These five challenges are then broken down into 19 themes, which in turn are the subject of the 150 techniques that have been described to date. For example, one of the thematic areas on water resources focuses on the issue of plant health products, and is broken down into several goals, such as "limiting herbicide use", "limiting the transfer of herbicides", etc. These goals then correspond to techniques, such as "implementing a stale seedbed during the intercropping period", "cultivating species with varying establishment periods", or "cultivating perennial species", etc. Each technique is described in a two-page document that can be consulted in the knowledge section; any user can add comments or supplementary findings regarding the text via the exchanges section.

All users can access resources in the database via different research areas: searches on challenges/themes/goals, searches by type of technique (rotation, tillage, etc.), by pest or by a combination of these criteria.

Agro-Peps, developed with the support of the French Ministry of Agriculture and the GCHP2E (Arable Crops with High Economic and Environmental Performance) GIS (Scientific Interest Group), is also applicable in the context of implementing the STEPHY guide (on the design of cropping systems with reduced pesticide inputs) (http://agriculture.gouv.fr/guide-ecophyto-grandes-cultures).

Key words: Agro-PEPS, innovative cropping systems, learning, training, knowledge, sharing of experiences, farmers, advisers, training instructors, information system

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Sources:

AgroPeps : un outil web collaboratif d'informations techniques et d'échanges, http://www5.versailles-grignon.inra.fr/agronomie/Recherche/Conception-evaluation-SDC/Co-conception/Agropeps

Agro-Peps, un outil web collaboratif d'informations techniques et d'échanges, RMT Systèmes de culture innovants, février 2012, pdf, http://www.itab.asso.fr/downloads/jtgc2012/poster-8_agro-peps.pdf

For more information

Innovative Cropping Systems Joint Technology Network (RMT Systèmes de Culture Innovants): http://www.systemesdecultureinnovants.org/moodle/

Download the StePHY guide: http://www.psdrbourgogne.org/Ressources/Documents/Guide-STEPHY

On-line StePHY calculator:
http://www.gchp2e.fr/gchp2e/accueil/actualites/le_calculateur_stephy_est_en_ligne