ENDURE, a resource for IPM projects

ENDURE is a consortium of research institutes, universities and extension organisations supporting the science and practice of Integrated Pest Management (IPM). We invite research and extension projects to make use of and contribute to the information, tools and services we offer.

I. Communications
ENDURE has gained five years of experience engaging with a diversified audience including scientists, policy and farm advisers, trainers, and other stakeholders. We encourage research and extension projects to use these communication tools as vehicles to assist with the dissemination of their own results and recommendations.

Website
A team of five professional communications officers maintain www.endure-network.eu, a high-visibility public website hosting a wealth of documents and tools. It enjoys an average of 2,200 monthly visits.

Newsletter
We regularly produce an electronic newsletter circulated to 2,200 recipients worldwide. To-date, we have circulated 13 issues. http://www.endure-network.eu/endure_publications/endure_publications2

Targeting advisers
ENDURE has a special commitment to provide support to farm advisers. It was therefore important for ENDURE to create and maintain the ENDURE Network of Advisers (ENA) and an associated newsletter. The ENA is a forum to share knowledge and experiences on plant protection across Europe. It currently has a membership of 171 English-speaking farm advisers from about 20 countries. Three newsletters have been circulated. www.endure-network.eu/what_is_endure/endure_tools_and_services/endure_network_of_advisers2

Information Centre
The ENDURE Information Centre is an interactive website containing validated documents to support advisers in crop protection. The documents provided fall in two categories:

• ready-to-use scientifically sound, field-tested, practical to adopt and cost-effective information on IPM
• experimental work that has the potential to provide practical solutions in the future.

More than 1,000 documents are currently made available but ENDURE wishes to substantially expand the scope of this database and its geographical coverage. www.endureinformationcentre.eu/

If the information is relevant, we encourage research projects to use these communications resources as a vehicle to reach a greater audience and enhance their dissemination impact.
II. Research

ENDURE created the ENDURE Resource Centre (ERC), an online repository cataloguing and providing easy access to data and experimental resources for the crop protection research community. For example, the culture and collections section provides access to information on more than 650,000 samples of insect, pathogen and weed pests held by ENDURE partners across 10 European countries. [http://www.endure-erc.eu/](http://www.endure-erc.eu/)

The ERC also hosts research platforms within which information on specific aspects of crop protection is collected, integrated and disseminated. These platforms include:

- **Eurowheat**, a source of information compiled from ten European countries on major wheat pathogens and their control. [www.eurowheat.org](http://www.eurowheat.org).
- **QuantiPest** on tools and techniques for field experimentation and characterisation of pest injuries and populations with the goal of improving the assessment of Integrated Pest Management strategies [http://194.94.61.13/quantipest/index2.php?portail=Agrescience&produit=quantipest](http://194.94.61.13/quantipest/index2.php?portail=Agrescience&produit=quantipest)
- **Euroblight** which is the website of the European potato late blight network compiling information from 23 European countries [http://www.euroblight.net/EuroBlight.asp](http://www.euroblight.net/EuroBlight.asp)

We encourage researchers to take advantage of these resources and to consider contributing to and strengthening the contents of the ERC.

III. Education and training

ENDURE conducts summer schools for postgraduate students on topics related to crop protection. These residential courses are organised by the Scuola Superiore Sant'Anna of Pisa and take place at the new and beautiful campus of the International School for Advanced Education located in Volterra in the heart of the Tuscany countryside. We usually host 15-20 PhD students who are encouraged to take an active role in the learning process and interact with 5 to 10 international lecturers selected according to their expertise. To-date, we have conducted three summer schools on:

- “Biodiversity for crop protection” (2007),
- “Modelling approaches to support IPM” (2009) and
- “New and emerging agricultural pests, diseases and weeds” (2010).

ENDURE can offer organisational support (advertising, communications, facilitation) for new ideas, contributions and collaborations on future summer schools at this venue. [http://193.205.80.76/aesito/endure](http://193.205.80.76/aesito/endure)

ENDURE has developed a training guide on IPM for educational and advisory purposes. The guide is a compendium of 46 training sheets covering methods, tools and training modules on a diversity of topics pertinent to IPM. [http://www.endure-network.eu/endure_publications/endure_ipm_training_guide](http://www.endure-network.eu/endure_publications/endure_ipm_training_guide)

IV. Support to policy

With European Member States facing significant challenges in introducing National Action Plans designed to deliver agricultural systems which make much greater use of IPM, ENDURE has been called upon to provide scientific expertise in a number of forums. Our track record includes:

- Presenting our foresight study “European Crop Protection in 2030” at the European Parliament in Brussels in 2009.
• Successfully supporting an FP7 call for an integrated project on IPM and the creation of a new Collaborative Working Group on IPM within SCAR (Standing Committee for Agricultural Research)
• Continued participation in the European Commission DG Sanco Sustainable Use Directive Experts Forum and contributions to national bodies overseeing research associated with National Action Plans in France and Italy
• Co-organising policy seminars under EU presidencies:
  o EU experts meeting on “National plans and programmes for the reduction of risks associated with the use of plant protection products” (Berlin, 2007)
  o “Sustainable Agriculture and Pesticides” (Paris, 2008)
  o “Sustainable Use of Pesticides and Integrated Pest Management (IPM) in East-Central Europe and the Baltics” (Radzikow, Poland, 2011)
• Contributing keynote speakers to events such as the next plenary meeting of the OECD Working Group on Pesticides (Oct. 2011, Berlin).

We invite input from organisations regarding opportunities for and bottlenecks to IPM implementation which translate into research priorities or public policies that can be raised in the various forums open to ENDURE.

V. International relations

ENDURE has developed relationships with many groups outside Europe. CARBAP (African Research Centre on Banana and Plantain) and University of Talca (Chile) collaborated on ENDURE studies. We have a formal relationship with Embrapa (Brazil) and COLEACP (the Europe-Africa-Caribbean-Pacific Liaison Committee), and cross-exchanges with INTA (Argentina). The Zhejiang Academy of Agricultural Sciences (China) participated in several ENDURE events. We are currently organising a session on networking for IPM with researchers from the USA, Brazil and Argentina at a 2012 IPM symposium in Memphis (USA). ENDURE organised two international conferences (in 2008 and 2010). The 2010 conference, held in Paris, attracted 350 visitors from 50 different countries.

We are currently exploring opportunities to strengthen our existing international links and generating new ones. Here too, where relevant, we hope that other projects will take advantage of these relationships when relevant and useful.

To contact ENDURE regarding use of and/or contribution to the information, tools and services it offers, you can email us at endure@grignon.inra.fr.