

Connecting European Researchers and Advisors

IPM knowledge, networks, tools and training

**FOOD
QUALITY
AND
SAFETY**



Introduction

Piet Boonekamp

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- 🌿 **Introduction**
- 🌿 **ENDURE Information Centre by Silke Dachbrodt- Saaydeh**
- 🌿 **ENDURE Network of Advisors by Jens Erik Jensen**
- 🌿 **IPM training guide by Philippe Delval**
- 🌿 **The follow up by Herman Schoorlemmer**

Introduction



- 🌱 **IPM as standard in EU**
- 🌱 **Science for impact**
- 🌱 **Connection between research and advisors**
- 🌱 **Why tools needed?**
- 🌱 **Participating organizations**

ENDURE Information Centre

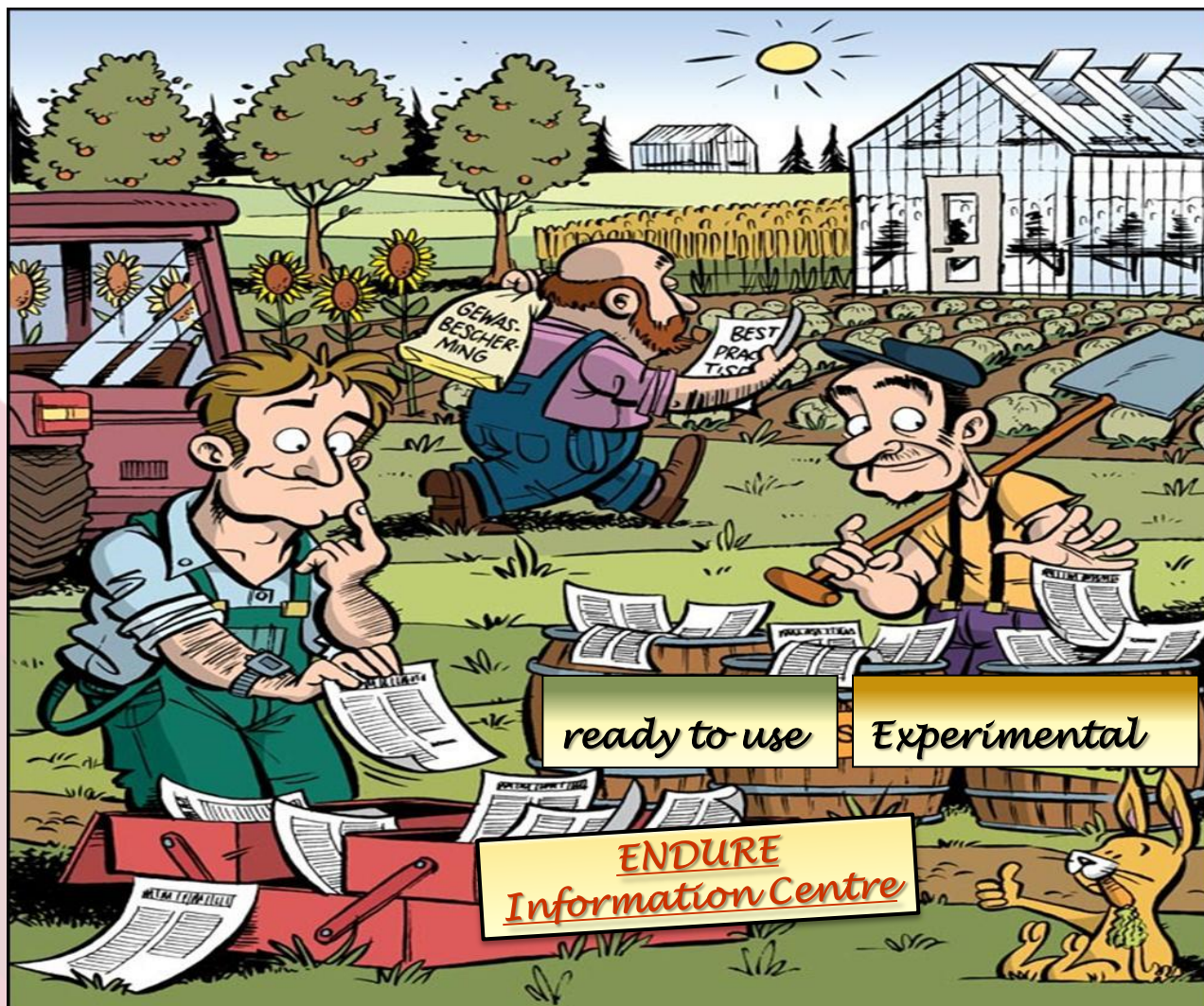
Silke Dachbrodt-Saaydeh



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<http://www.ENDUREinformationcentre.eu/>





- for advisers & extension service
- Linking between researchers & crop protection advisors
- Access to practical IPM-relevant information from a wide range of European countries
- Validated by ENDURE scientists.





ENDURE IC - content 1200 entries

Ready-to-use information about integrated crop protection

-  scientifically sound,
-  tested in field,
-  practical to adopt,
-  cost-effective

ENDURE and national sources summarized in English

Role of the scientists

-  Identification, collection and validation of content
-  Description with keywords and writing English abstracts

Crop

Wheat

wheat

Wheat

- Brassica (68)
 - Grasses (6)
 - Common sunflower (18)
- Root crops (197)
- Fodder legumes plants (15)
- Cereals (210)
 - Oats (6)
 - Six-rowed barley (56)
 - Rye (19)
 - Wheat (146)
 - Triticale (17)
 - Maize (80)
- Fruit plants (135)
- Vegetable plants (169)
- Mixed forest plants (3)

Triticum sp.

TRZSS

Clear

Pests

Common Name

Scientific Name

septoria

Septoria

Septoria glumarum

Septoria nodorum

Septoria sp.

Septoria tritici

- Fungi (94)
 - Ascomycota (54)
 - Basidiomycota (30)
 - Protozoa (2)
 - Pseudomonas (1)
 - Tilletia (1)
 - Viruses and viroids (10)
 - Weed Plants (34)
 - Disease complex, different pathogenic fungi (5)

EPPO Code

Clear

Measure

Common Name

Preventive measures (11)

- crop rotation (2)
- cultivation technique (5)
- variety/cultivar choice (8)
- fertilisation/nutrient supply (1)
- hygiene measures (1)
- other preventive measures (1)

Decision support/ control (13)

- thresholds (4)
- decision support systems (8)

Chemical control (8)

- pesticide timing (1)
- pesticide mixtures (1)
- Pesticide efficacy (2)
- disease control (7)
 - resistance management (5)

Training material (1)

Clear

Country

Common Name

Belgium (4)

Switzerland (5)

Germany (3)

Denmark (2)

Spain (1)

France (16)

The Netherlands (1)

Poland (3)

Sweden (1)

United Kingdom (7)

NUTS Code

Clear














Reports (7), Projects (1) found

Reports

Projects

7 Reports found, displaying from 1 to 7

First Previous Next Last

Crop	Pests	Measure	Country	Title	Practicability	Language	
▶ Wheat	Septoria	variety/c ...	BE	 EuroWheat.org: a new research-based websi ...	ready to use	 	Read more
▶ Wheat	Septoria	disease r ...	BE	 Using Cultivar Resistance to Reduce Fungi ...	ready to use	 	Read more
▶ Wheat	Septoria	variety/c ...	BE	 Report on Best control practices of disea ...	ready to use	 	Read more
▶ Wheat	Septoria	disease r ...	DE	 EUROWHEAT Platform	experimental		Read more
▶ Winter wheat	Speckled ...	Tolerant ...	ES	Diseases of winter cereals	ready to use	 	Read more
▶ Wheat	Septoria	variety/c ...	FR	A NEW INDICATOR TO EVALUATE WHEAT CULTIVA			
▶ Wheat	Speckled ...	variety/c ...	UK	Wheat seed health & seed-borne diseases – ...			more

Wheat seed health & seed-borne diseases – a guide

This guide aims to help farmers make more informed decisions on using seed treatments in wheat.

7 Reports found, displaying from 1 to 7

First Previous Next Last



A NEW INDICATOR TO EVALUATE WHEAT CULTIVARS

summarized by Philip

last update: 14-Jun-20

ARVALIS & ...
confounding ...
Two experim ...
phenomena.

Practicability: r

Wheat / Triticum

Septoria / Se

variety/culti
Tolerant cul

France



THIS DOCUMENT

Wheat seed health & seed-borne diseases – a guide

summarized by Bill Clark

last update: 28-Feb-2010

This guide aims to help farmers make more informed decisions on using seed treatments in wheat.

Practicability: **ready to use**

Wheat / Triticum sp. (TRZSS)

Microdochium / Microdochium (anamorphic genus (IMICDG)

Ergot of cereals / Claviceps purpurea (CLAVPU)

Fusarium spp. / Fusarium sp. (FUSASP)

Speckled leaf blotch of wheat / Mycosphaerella graminicola (SEPTTR)

Common bunt of wheat / Tilletia tritici (TILLCA)

variety/cultivar choice
certification

United Kingdom

By understanding the principles of seed testing and processing, the nature of the diseases that threaten seed and the products now available, farmers can:

- make informed decisions
- reduce their costs
- achieve high standards of seed health
- improve profitability
- reduce environmental impact

Certified seed

Modern seed treatments offer very high levels of efficacy and have become an integral part of the seed production process. Thus, most seed bought by farmers is already treated. Seed treatment cost varies from £40/t to £150/t. On a cost/hectare this is less than foliar sprays. Nevertheless it is a significant cost. Seed loading (active ingredient/kg seed) and uniformity of application are important. Many seed treatment manufacturers have developed quality assurance schemes for operators to ensure high application standards. This has not only led to improvements in quality of treatment, but also to increased operator and user safety.

Farm-saved seed

The term 'farm-saved' can imply taking grain from a heap in the barn for sowing. This is bad practice. Producing seed from home-grown grain should be planned as meticulously as if it were seed grown for certification. Field history, rotation, weed burden, seed source and treatment of the parent crop should all be taken into account. The crop should be carefully managed and monitored regularly through the season. Seed should be kept separate at harvest. Farmers who choose to save their own seed need to consider whether or not to treat. However, decisions should be based on results of tests for seed-borne diseases. Potential seed lots should be tested after harvest. Decisions on whether or not to treat should be based on thresholds. Whether treated or not, seed should be cleaned before sowing. This should be the case whether the seed is grown by a specialist seed grower or by a farmer for his own use.

propose an
layer emergence is
ting resistance and
disease

Wheat Septoria variety/c ...
A NEW INDICATOR TO EVALUATE WHEAT CULTIVARS



Wheat Speckled ... variety/c ...
Wheat seed health & seed-borne diseases – ...



Previous

erant ...

ity/c ...

E WHEAT

ity/c ...

ses – ...

Next



ENDURE IC - numbers

crops	entries
arable	600
cereals	220
maize	85
potato	180
oil seed rape	70
pome- and stonefruit	110
vegetables	170
vine grapes	67

measures	entries
preventive measures	380
decision support/ control	185
non-chemical control	310
chemical control	340
legislation	93
training material	80
assessment of crop protection strategies	6



It is up to you to!

**Share, adapt and combine
existing knowledge and
tools in IPM**

Visit the ENDURE IC!

Source: Farming with Future, NL (modified)

<http://www.endureinformationcentre.eu/>

Come and join the **ENDURE Network of Advisors**

Jens Erik Jensen



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Fragmented advisory systems



🌿 Advisers

- instrumental in implementation of IPM
- have expertise in training and extension
- useful test persons for ENDURE tools

🌿 No formal European networks today

🌿 More linkages with research than among advisers

- small advisory companies
- local competition for customers
- lack of R & D budgets etc.

🌿 Language barriers – a major constraint



Benefits of advisory network



Level of engagement

- 🌿 Receive information about IPM tools
- 🌿 Receive results from ENDURE and ENDURE ERG
- 🌿 Receive newsletters
- 🌿 Test new tools
- 🌿 Share experiences regarding IPM
- 🌿 Share methods of interaction with farmers
- 🌿 Engage in discussions with colleagues
- 🌿 Propose new documents for the ENDURE IC
- 🌿 Identify future research challenges

ENDURE Network of Advisers - State of the art



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- 🌿 Slow start, but we are getting there!
- 🌿 First newsletter has been issued
- 🌿 A group of delegates supported by ENDURE / ENA
- 🌿 Second newsletter after the conference
 - please give us your inputs!
- 🌿 **Welcome to ~~our~~ ^{your} network!**

Number of advisers from European countries



- As per 1st November
 - 129 members in total
- Strong northern and western European bias
- Job categories
 - 62 advisers
 - 22 senior advisers
 - 8 managers
 - 6 directors
 - 5 product managers
 - 26 others (primarily scientists)



Please register during this conference!



- 🌱 Go via www.endure-network.eu > Information for Advisers and Extension Services > ENDURE Network of Advisers
- 🌱 Or use direct link from newsletter



- 🌱 Enter your email address
- 🌱 Await registration email
- 🌱 Fill out online form (takes 5-10 minutes) – small investment for potentially high return!!
- 🌱 Help available in workshop W2 this afternoon

ENA - The outlook is good!!



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A large photograph showing seven men from behind, standing in a field of tall grass. They are looking out over a calm lake, with a dense forest of green trees on the far shore under a clear sky. The men are dressed in casual outdoor attire like jackets, sweaters, and hats.

**It is your network –
Please get involved!!**

ENDURE IPM Training Guide :

Resources and tools for successful IPM training

Philippe Delval



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Background



🌸 **IPM is a continuously improving process**

🌸 **IPM needs a more participatory approach**

🌸 **Trainers need tools to adapt their trainings**

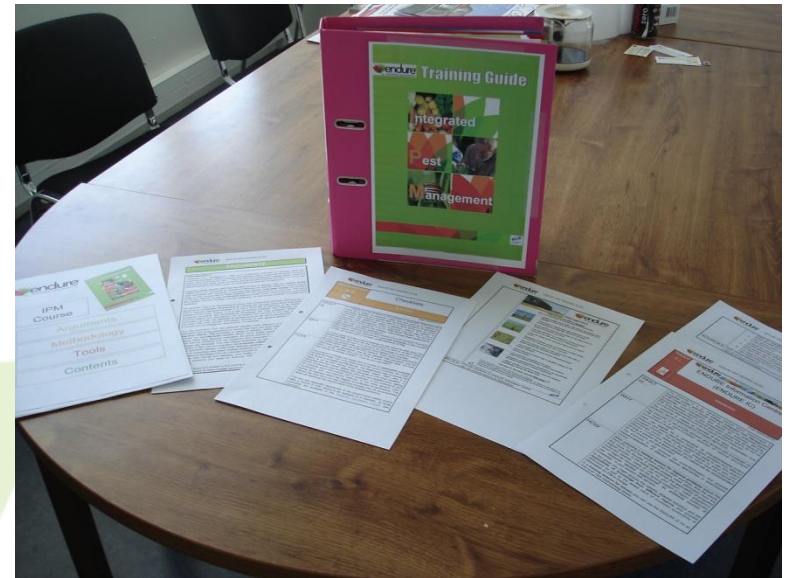
🌸 **ENDURE brings a lot of outputs**





🌸 The Guide has been adapted to the needs and wishes of agricultural advisers and trainers

🌸 A lot of links with ENDURE publications



🌸 Experiences and status

Objectives



- 🌿 To allow users to adapt ENDURE's outputs to their plant protection systems
- 🌿 To help trainers create their own training modules



ENDURE IPM training guide



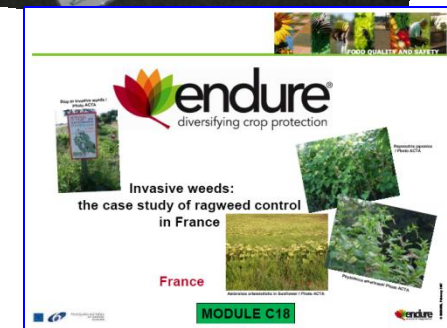
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- 🌸 The guide is composed of:
 - sheets,
 - leaflets,
 - recommendations and links,



- 🌸 following four main topics requested by trainers:

- arguments,
- methodology,
- tools,
- contents

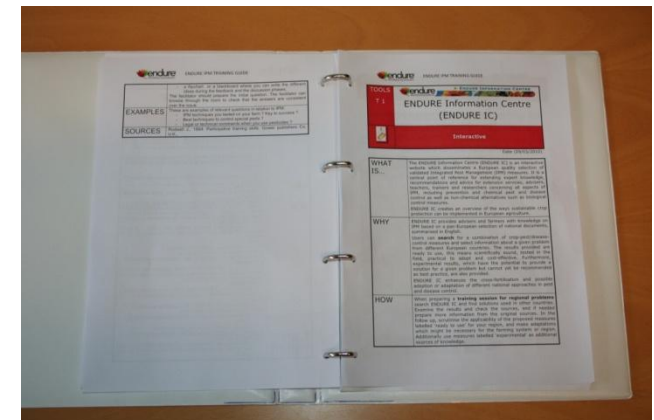


ENDURE IPM training guide



Each sheet provides:

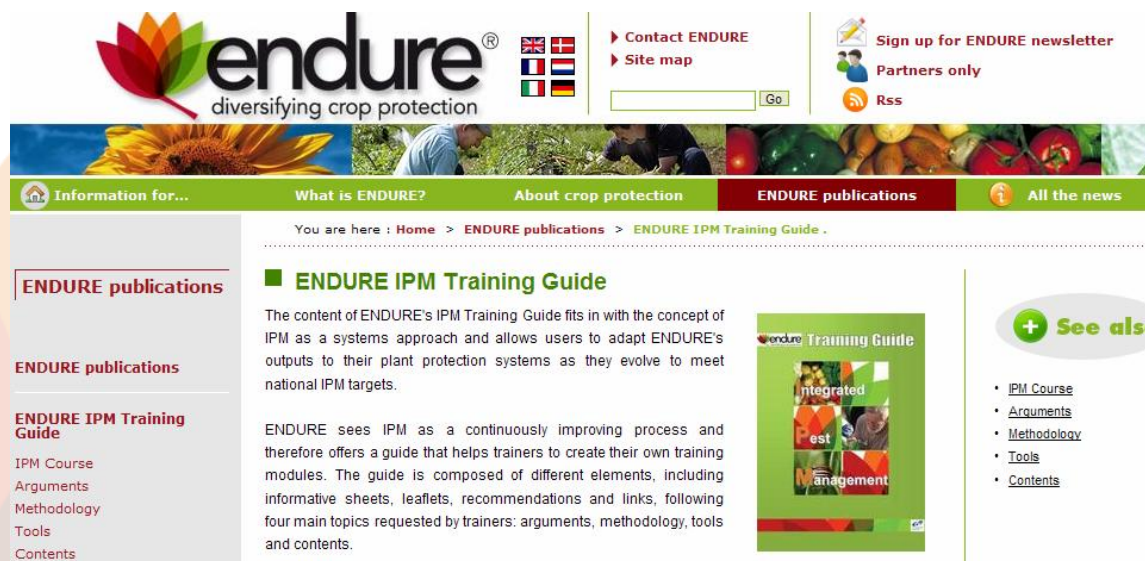
- 🌿 **The definition of the subject (What is?)**
- 🌿 **The principle (Why?)**
- 🌿 **How to use it (How?)**
- 🌿 **The tools you need to implement the concept (What I need to?)**
- 🌿 **Links or other sources to additional information that may be useful (Source).**





🌿 On the ENDURE website:

- www.endure-network.eu/endure_publications/endure_ipm_training_guide



🌿 For the ENDURE training contact in your country, go to:

- www.endure-network.eu/what_is_endure/endure_training_contacts

The follow up

Herman Schoorlemmer

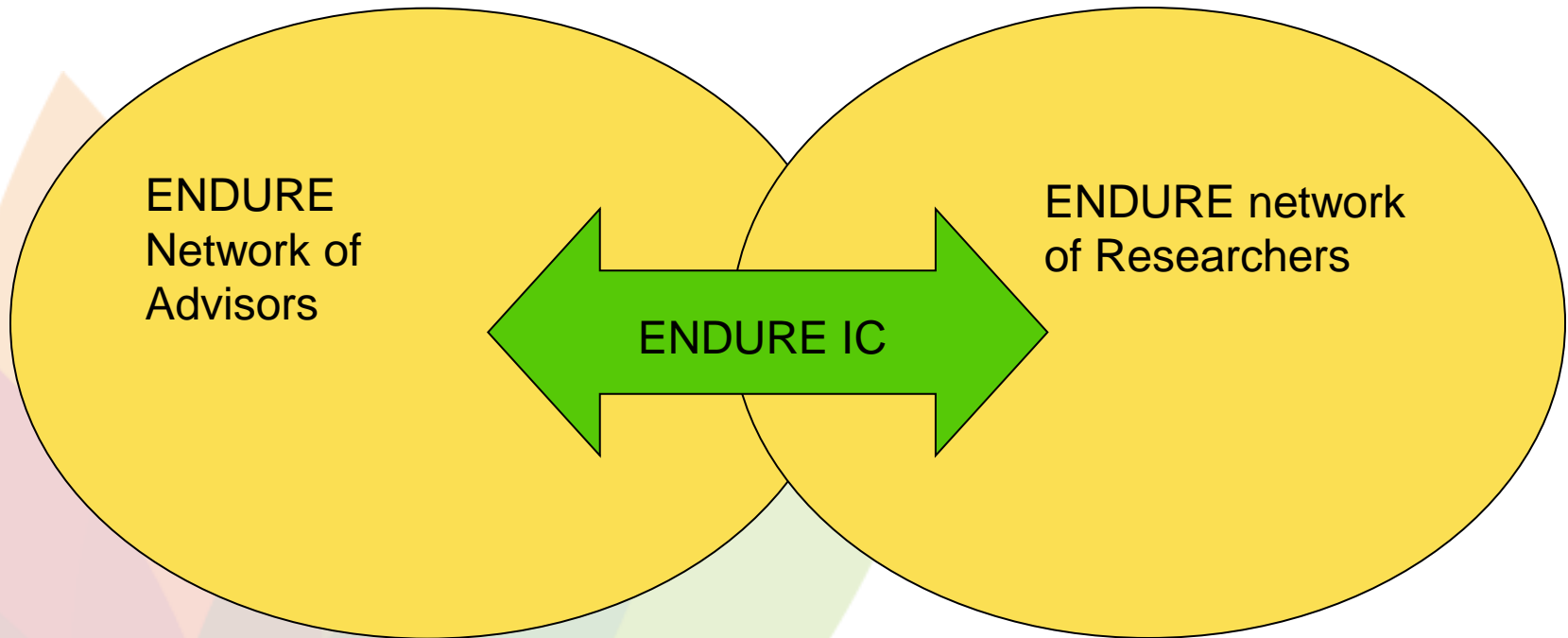
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- ❁ **The point of reference for IPM and non chemical alternatives in Europe**
- ❁ **Leading in European transnational knowledge exchange about IPM**
- ❁ **For advisors: The place to get access to validated practices and expertise and to address questions for research and advice**
- ❁ **For researchers: The place to get feedback from practice. Publication at ENDURE IC is a sign of success**

Empowering knowledge exchange





- 🌸 **ENDURE Partners signed for follow up**
- 🌸 Maintenance of tools and network is guaranteed
- 🌸 Selection, validation and uploading of new documents and experiences
- 🌸 Increase number of participating advisors and research organisations
- 🌸 Improve the infrastructure for easy communication and feedback
- 🌸 Stimulate learning and reflection on IPM and non chemical control measures



Strengthen base for ENDURE Network of Advisors by:

- Knowing each other
- Knowing how to use and reflect on ENDURE tools
- Share ideas, needs and bottlenecks to realise IPM in practice



Your turn: IPM status



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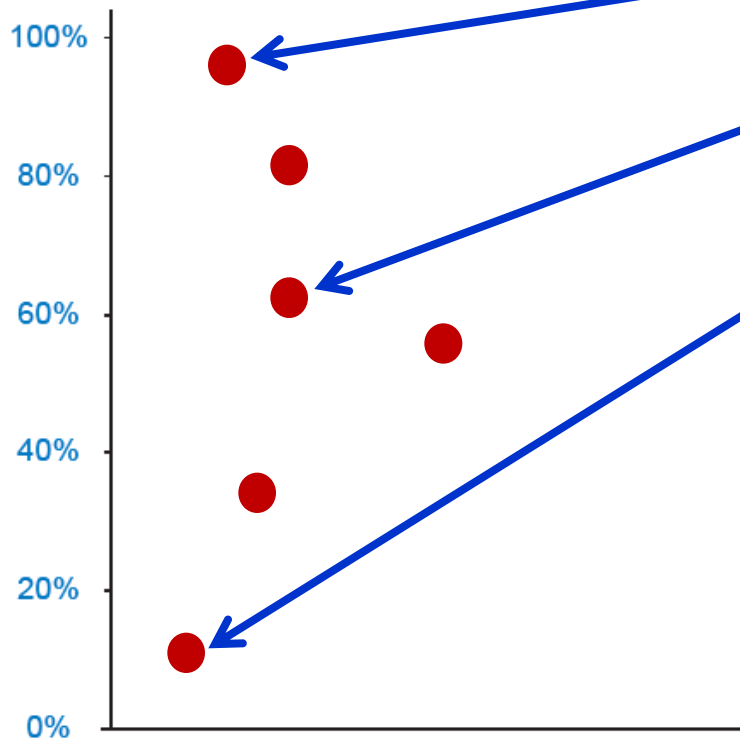


What is your opinion?

Write your country code,
e.g. UK on the label



How large a proportion of growers
produce according to IPM principles today?



Please place a red label
to indicate your opinion
regarding present state
of IPM implementation
in your country (add
country code)

IPM future focus areas



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Which of the 8 IPM principles should be in focus from now until 2014?

Use this label to indicate areas where new tools (e.g. warning systems, technology) must be developed

Use this label to indicate areas where we should focus on implementation of existing knowledge and tools

1. We prevent and control weeds, diseases and pests (in the following denoted as pests) by several methods, notably by:
 - having a healthy rotation

Use a green label to indicate where you think new tools must be developed

NL

2. We know and follow/monitor the pests in crops, use warnings and forecasts, and seek advice from qualified and independent advisers



• preventing the spread of weeds, diseases and pests (through cleaning of machinery, etc.)

• protecting and increasing the amount of beneficial organisms in and around the cultivated area

2. We know and follow/monitor the pests in crops, use warnings and forecasts, and seek advice from qualified and independent advisers.

3. We include warnings, forecasts and economic thresholds when we make decisions about plant production. Furthermore, we take regional and climatic conditions into account.

4. We choose non-chemical methods (biological, mechanical, thermal, etc.) against the pests if the methods are sufficiently effective and cost-effective.

5. We choose the pesticides that are best suited to the task and imply the lowest risk of adverse effects on human health, other organisms in nature and the environment.

6. We choose the correct dosages, preferably reduced dosages. We treat as few times as possible, apply patch spraying etc. At the same time we prevent that pests develop resistance against the pesticides.

7. If there is a risk of development of resistance, we try to replace some of the treatments with pesticides with alternative modes of action, or we mix pesticides with different modes of action.

8. We follow up on how the control measures have worked. The starting point is a continuous monitoring of pests in fields and spray records.

Use a yellow label to indicate where you think we should implement existing knowledge and tools

DE

One set of labels/votes per delegate, first come – first served basis



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This afternoon



- 🌻 **Room Paris!!!!**
- 🌻 **Visit our Market stand to try and see our results (between 14.30 and 16.30)**
 - Try ENDURE IC and give your feedback
 - Learn about our training material
- 🌻 **Experience the added value of the network (between 17.00 and 18.30)**
 - 🌻 Get ready for a date
 - 🌻 Join the world café
 - 🌻 and jump in the fish bowl

