

ENDURE Foresight Study: Crop protection in Europe in 2030

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The ENDURE foresight group has defined five scenarios of agriculture in Europe in 2030. These are simplified rather extreme scenarios supposing a uniform situation throughout Europe. Real situations in Europe will probably be a mix of some elements of the different scenarios. The scenarios are not intended to forecast what would occur in 20 years, but help understanding how the changes in the organization and role of agriculture in Europe could impact crop protection practices, and in turn the consequences of research needs. By back-casting it can be determined, which research areas need attention now, to be ready in 2030. The five scenarios that will be presented can be described as follows.

The Commodity-Market player:

Situation: Europe competes in the world on the production of commodity crops; large farms in non-populated areas; free trade; focus on increased production;

Crop protection: intensive use of pesticides; new molecules and precision technology from industry; government on distance and only responsible for end-control of residues on products and control of pollution of environment (limited chances as agriculture is physically separated from nature/urbanized areas); precision GPS-agriculture;

Crop protection research: private industry as major innovator supports basic research on mechanism of new pesticides; boost of GMO-research; large scale high tech monitoring and application technologies; remediation of residues on products to secure human health; limited support from governments, only on monitoring residues and pesticide risk assessments.

The specialized high tech grower:

Situation: Free market and commodities are imported, only added value crops (vegetables, flowers, specialty crops) are competitively produced in EU under high tech controlled conditions in urbanized areas; consumers appreciate industrialized produced food; agricultural production and environment are physically separated;

Crop protection: limited or no pesticides, no emission, no residues; high tech robotized DSS

with strong focus on biological control; for some crops GMO allowed;

Crop protection research: Private/Public research on resistance breeding (incl. GMO); diagnostics for starting material and culture substrates; high tech robotized monitoring technologies for closed production systems; advanced IPM systems.

Sustainable food-provider:

Situation: Self sufficiency of food in EU, due to world wide food shortage; governmental subsidies and control of farmers for sustainable production of a diversity of crops at affordable prices; integration of farmland and environment;

Crop protection: integrated use of pesticides under governmental control; no damage of precious farmland and environment allowed; focus on robust IPM principles; regionalization of varieties; for some crops GMO allowed;

Crop protection research: strong support from government (EU and local level) and society for IPM research, incl. resistance breeding and GMO; high tech and ecology oriented in order to ensure sustainability; limited financing from industry.

Energy-saving producer:

Situation: Self sufficiency on energy in EU, due to world wide energy crisis; shortage of fossil energy, no break-through in alternatives and therefore focus on bio-energy; food production is no priority as EU is still prosperous enough to import from the world market; large scale farming on all land available;

Crop protection: intensive use of pesticides, new molecules and precision technology from industry, government on distance and only responsible to control pollution of environment (limited chances as agriculture is physically separated from nature/urbanized areas);

Crop protection research: strong governmental support on high-yielding crops, (including GMO's) and energy processing, not on IPM as high use of pesticides is allowed; private industry supports research on precision GPS-agriculture including (new) pest warning systems.

Local community farmer:

Situation: Self sustainability in EU is not necessary, and most produce is imported; EU is for internal market and tourism dependent on 'territoires': multifunctional areas in which farming is integrated in other socio-economic and cultural region specific activities; government is on local level, and supported by the EU;

Crop protection: focus on biological control, spatial mosaics of crops and landscaping to prevent diseases; only limited use of pesticides,

no residues and negative impact of pesticides on environment allowed;

Crop protection research: local public/private and support from EU; small scale programs limited resistance breeding (no GMO) and limited high-tech control; focus on monitoring and IPM-without-pesticides (biological control, ecological engineering including landscaping); social research to facilitate interaction between farmers and the other stakeholders of the 'territoire'.

Voorgestelde agenda Algemene Ledenvergadering 25 mei 2009

1. Opening
2. Stand van zaken rond de vereniging: Gert Kema
3. Toelichting nieuwe werkgroep Fytobacteriologie: Joop van Doorn
4. Notulen 3 december 2008
5. Jaarverslag: Jan Bouwman
 - a) Bestuur (verslag 2008 van de secretaris)
 - b) Redactie Gewasbescherming
6. Financiën: Jan Bouwman
 - a) Financieel overzicht 2008
 - b) Verslag kascontrolecommissie
 - c) Begroting 2009
7. Rondvraag
8. Sluiting