Samenvatting. **Voorwaarden voor de transitie naar geïntegreerde gewasbescherming (IPM)**

Bij krachtige en vergaande transities naar IPM-methoden zijn producenten betrokken die goed zijn geïntegreerd in groepen met een permanente collectieve dynamica.

In deze groepen werken ze samen aan technische oplossingen die zijn aangepast aan hun eigen situaties, vaak met steun van een adviseur of soms onderzoekers. Zulke transities worden ook ondersteund door subsidies, bijvoorbeeld door landbouw-milieu programma's en de steun voor IPM in het maatschappelijk debat.

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Over ENDURE

ENDURE is het Europees Netwerk voor de Duurzame Toepassing van Gewasbeschermingsstrategieën. ENDURE is een 'Network of Excellence' (NoE) met twee hoofddoelstellingen: herstructurering van Europees onderzoek en ontwikkeling op het gebied van gewasbeschermingsmiddelen en het ontwikkelen van ENDURE tot wereldleider in de ontwikkeling en toepassing van duurzame bestrijdingsstrategieën door middel van:

- Opbouw van een blijvende onderzoeksgemeenschap op het gebied van gewasbescherming
- Eindgebruikers voorzien van een bredere reeks korte-termijn oplossingen
- Ontwikkeling van een holistische benadering van duurzame gewasbescherming
- Volgen van en informeren over veranderingen in het gewasbeschermingsbeleid.

Achttien organisaties in 10 Europese landen hebben zich voor vier jaar verbonden aan ENDURE (2007-2010), met financiële steun van het Zesde Kaderprogramma, prioriteit 5: Voedselkwaliteit en Veiligheid, van de Europese Commissie.

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Social Science Insights on Crop Protection

The conditions of transition towards Integrated Pest Management (IPM) practices

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Food Quality and Safety
SIXTH FRAMEWORK PROGRAMME

Origins of the results

The results are based on qualitative interviews among stakeholders in the pomefruit and wheat production chains, including producers, producer organisation leaders, and advisers; on collective work conducted in four countries: Switzerland (CH), France (F), The Netherlands (NL) and the United Kingdom (UK); and on a comparative analysis.

Farmers' trajectories towards IPM appear to be gradual

Integrated pest management (IPM) practices can be analysed on a scale that goes from input efficiency (E) to input substitution (and/or reduction) (S) and to the redesigning of the whole agricultural system (R) (ESR model (Hill, 1985, see Table 1). Farmers can move forwards at their own pace along this scale or stay at the same stage; the concept of progression is what is important. "*Very quickly, we became aware that it was not enough to lower the number of treatments in order to improve fruit quality, that other factors, like manuring, pruning, etc were worth taking into consideration" (Swiss apple grower).*

Therefore, a fundamental issue is to make this progression possible.

Table 1. The Efficiency, Substitution, Redesign (ESR) model

E	Improve input efficiency Improve efficiency of conventional practices *But without reducing dependence on external inputs*	Low IPM, precision agriculture
S	Substitution of chemical inputs by biological inputs Replace conventional practices by more environmentally friendly ones	High IPM, some forms of organic agriculture Use of biological control, lengthening crop rotation etc
R	System redesign for a natural regulation of soil fertility and pest population while maintaining acceptable production levels Elimination of problems occurring in E and S (prevention), functions on a new ecological balance	Some forms of organic agriculture High IPM

Source: Adapted from Hill, S.B. 1985. Redesigning the food system for sustainability. **Alternatives** 12(3/4):32-36.

The more producers are involved in groups, the more robust the transition is to IPM

In producer groups, farmers learn from one another, which results in them feeling more confident with their decisions as they can discuss them with other farmers. Together, they build technical solutions which are adapted to their own situations, often with the help of an adviser and sometimes researchers. Many IPM farmers are very much involved in their professional bodies, and few are isolated farmers.

Five conditions for promoting IPM

Farmers are often keen to talk about rationalising their practices and about their economic expectations. Their first rationale to reduce the use of pesticides, is usually to save costs. Consequently, incentives and regulations (for example, Switzerland) and/or strong environmental motivation (for example, the case of some French arable crop grower groups who are involved in local water quality projects) are necessary to ensure continued use of IPM, especially when prices increase and returns on yield are higher. To this extent civil society, through the adoption of the environmental impact of agriculture as a public issue, has a determining role to play. Other important conditions are the involvement of research and extension, the existence of collective dynamics among farmers and the creation of specific marketing strategies (see Table 2).

Table 2. Main conditions for the adoption of IPM in four European countries

	Apple (CH)	*Apple (F)*	*Wheat (F)*	*Apple (NL)*	*UK*
Role of public policies	Strong: ecological requirements for direct payments	Might become stronger at national level and local level (for example, watersheds)		Pesticides Action Plans 1991 and 2001	UK Pesticides Strategy 2006
Involvement of research and extension	Strong especially during the 1970s and 1980s	In pilot areas (research on IP fruit production)	In pilot areas (research on low input strategies)	Strong in pesticide action plan preparation; decreasing afterwards	Strong in the Pesticides Safety Directorate
Collective dynamics among farmers	Strong especially during the 1970s and 1980s	Market led (producers' group for marketing)	Strong in some pioneer groups	Market led (cooperative) and study groups	Strong in some pioneering groups
Translation in marketing strategies	Supermarket and producer organisation schemes not very successful among consumers	Supermarket schemes	Almost none (except for short circuits and a few cooperatives)	MRL requirements of retailers	Supermarket schemes and assured schemes
Involvement of civil society	Strong: public voting on agriculture/ environment	Low except in CSA schemes		Increasing via MRL actions of NGOs towards supermarkets	Increasing (PAN actions)

Source: ENDURE DR3.5 report, 2008.

Market tools and legislation are not enough

The promotion of IPM through the market is limited by commercial demand. In fact, supermarket schemes were created after food crises, as insurance schemes for supermarkets. They focus on Good Agricultural Practices rather than on IPM.

Changes in regulations have to be accompanied by input from the agricultural advisory services and by education programmes. If not, there is a high risk of leaving behind a whole range of less skilled, less financially secure farmers who could not adapt.