

**Report of the OECD Pesticide Risk Reduction Steering Group Seminar
on Compliance and Risk Reduction**

ANNEX 2 PART B

SEMINAR PRESENTATIONS AND PAPERS

(Available on the Pesticide Risk Reduction Steering Group Password Protected Web Page for the Compliance Seminar)

Government Experience and Perspectives

European Commission Food and Veterinary Inspection Office
United States Environmental Protection Agency
Australian Department of Agriculture, Fisheries and Forestry
Netherlands Ministry of the Environment

Stakeholder Experience and Perspectives

Pesticide Action Network
CropLife International
National Farmers' Union, UK
Working Group on Integrated Crop Management, Germany
Co-op Supermarket, UK
BEUC, the European Consumers' Union

Pesticide Action Network

**Pesticide Action Network
(PAN) Perspective on
Pesticide Compliance**

*Stephanie Williamson
PAN Europe Coordinator and
PAN UK International Project Officer*

PAN Germany

- **Info exchange slow and poorly coordinated between agencies**
- **Conflict of interest between giving advice and acting as "policemen"**
- **Neither users nor enforcers appreciate the hazards or understand the laws**
- **30% pesticides used in Bavaria imported by farmers from other countries**
- **Inadequate control and training of retailers**

PAN North America

- **1/3 pesticide operations failed to meet requirements for PPE**
- **Fines issued for <20% of documented violations , most only US\$150-400**
- **In 38% of reported poisoning cases, no relevant violations found**
- **In 21%, DPR failed to determine whether violation had occurred**
- **Pesticide approval process leads to unacceptable risks**

PAN UK

- **22% arable landholdings sprayed under "grandfather" rights**
- **Voluntary Initiative failing to deliver the changes in behaviour and practice**
- **No clear, strong, universally accepted motivation for compliance**
- **Very limited provision of appropriate disposal for home and garden pesticides**
- **Lindane purchased 6 months after all lindane products were supposed to have been removed**

Key areas for risk reduction

- **Accept pesticides are going to be used improperly**
- **Stronger messages and commitment from enforcement agencies**
- **Targets for Pesticide Use Reduction are the most effective way to reduce negative impacts**
- **Home and garden use is a neglected area**
- **Consequences of July 2003 phase-out ?**
- **How best to foster co-operation ?**

Successful approaches

- **User-friendly information on regulations and their rationale**
- **Independent pest management advisory services**
- **Prioritise protection of human/environmental health**
- **New attitudes in regulatory departments and among stakeholders**
- **Achieve the right mixture of legal, financial and social incentives**
- **Actively involve food chain stakeholders and farmers with experience in using less pesticides**

Croplife International

**Some (incomplete) thoughts on
(non) compliance**

Bernhard Johnen
March 2003

Labels

Simple labels improve compliance but:

- problem with size and complexity
- litigious systems produce more complex labels
- credibility of label recommendations (“over protection”)
- lack of clarity on PPE

Training / Certification

- Improve Education and Training
- Build on existing certification schemes
 - Farmer
 - Distributor / retailer
 - Equipment maintenance / calibration
- Certification creates compliance culture

“Cultural Hurdles”

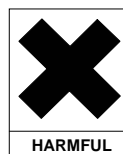
- Label fatigue - e.g. E.U. DPD:
 - chemical not changed
 - label very different
- Tradition
- Lack of recognition of hazard / problem
- Familiarity breeds contempt

Product Choice

- Individual use registration
- Loss of uses
- Loss of products
- Loss of compounds

CURRENT LABEL

- HARMFUL IF SWALLOWED
- HARMFUL IN CONTACT WITH SKIN
- IRRITATING TO EYES AND SKIN



LABEL AFTER DPD

- VERY TOXIC BY INHALATION
- HARMFUL IF SWALLOWED
- DANGER OF SERIOUS DAMAGE TO HEALTH FROM PROLONGED EXPOSURE
- HARMFUL IN CONTACT WITH SKIN
- IRRITATING TO EYES AND SKIN
- VERY TOXIC TO AQUATIC ORGANISMS
- CONTAINS SUBSTANCES WHICH ARE DANGEROUS FOR THE AQUATIC ENVIRONMENT



National Farmers' Union, UK

**"Risk Reduction – to operator, consumer or
the environment?"**

OECD seminar 10 March



General

- *A direct correlation between risk reduction and use reduction is not sound.*
- *What does society really want?*
- *"in the can" versus "downstream" use*



Risk reduction

- *Training and provision of information to farmers*
- *Adoption of 'Best Agricultural Practices'*
- *Pan-European GAP standards*
- *Harmonising EU maximum residue levels*
- *Improving the co-ordination of residue monitoring programmes*



Strengthening the controls on the use and distribution of plant protection products

- *Categorisation of products*
 - *Open use*
 - *Prescription only by qualified persons*
- *Equivalence for non- agricultural uses*
 - *Domestic*
 - *Industrial*
 - *Amenity*



CRA & Substitution

- *Harmonisation under 91/414*
- *Comparative risk assessment*
 - *at farm level*
- *Substitution*
- *non-chemical alternatives*



Conversion to “ low-use husbandry”

- *Who’s pushing or pulling?*
- *perception of IFM/ICM/IPM*
 - *by growers*
 - *by society*
- *Organic production*
- *What price sustainability?*



Production Protocols

- *National schemes*



The Voluntary Initiative



- *EUREP – GAP*



The International Dimension

- *Distortions at WTO level*
 - exports
 - imports
- *Minor crop production*
 - cost of production
 - local socio-economic impact



OECD request

Identify:

- *where and why non-compliance occurs*
- *areas that are most important for risk reduction*
- *successful approaches for improving compliance*



Working Group on Integrated Crop Management, Germany


Paris, 10th of March 2003
OECD Pesticide Risk Reduction Steering Group

“Seminar on Compliance and Risk Reduction”

Dr. Erich Jörg

LPP - State Agency for Agronomy and Crop Protection, Mainz
AGIL - Working Group for Integrated Crop Production, Mainz

1. Where and why non-compliance ?
2. Important areas for risk reduction
3. Successful strategies for improving compliance



Non-compliance with rules for PPP applications

1. Application rates

- insignificant; fruit production; problem solved in early nineties
- wrong calculations (vol. spray liquid, concentrations, target area)

2. Restrictions: Safety distances, max. number of applications

- significant problem

NG: 313, 401, 402, 404, 408, 410, 411...
NS: 6121.. NT: 101, 102, 103, 107, 109, 125, 139...	Amistar Zen 20m
NW: 467, 468, 469, 600, 601, 602, 603, 605, 606, 609...	AZUR 15m
NZ: 102, 107, 112... VZ: 450, 453, 454...	Bacara 10m
	Bardos 5m

- too complex; unclear; unintelligible
- especially herbicide use: infestation with perennial weeds, harvest problems

⇒ sometimes non-compliance

Non-compliance with rules for PPP applications

1. Application rates

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Slope ? Clay content of soil ?...

...excluding watercourses occasionally filled with water, but including periodically water - filled ones ...

Drift reducing equipment ? Risk category ?...

- too complex; unclear; unintelligible
 - especially herbicide use: infestation with perennial weeds, harvest problems
- ⇒ sometimes non-compliance

Areas for Risk Reduction

1. Reducing the need for PPP applications

2. Improving decision support for PPP applications

3. Improving spraying quality and handling of equipment

4. Landscape management

(protection of watercourses by creating linear structures, e.g. hedgerows, buffer zones)

Successful strategies for improving compliance

...and the winner is: IPM

1. Preventive Measures

- rules for crop rotation: lowering disease risk
- exploiting the benefits of cultivar choice:
 - shorter life span of cultivars
 - ..bye-bye „Ritmo“, hi „Tommi“ !
 - trend to more resistant cultivars
 - ⇒lower disease risk

2. Determining the need for PPP applications

- infection pressure
- action thresholds

⇒ increased acceptance via decision support systems (DSS).

DSS help in estimating the necessity for PPP use, reduce labour for field inspections and reduce fungicide and insecticide use.

3. PPP applications

- choice of products least toxic and persistent, selective
- reduced dosage rates herbicides often less than 50%
- improved spraying equipment
 - cabins
 - nozzles

Improving compliance with safety distance rules !

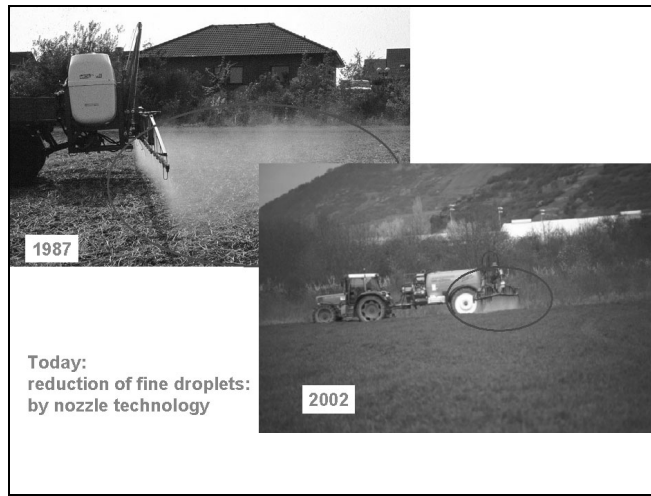
- cleaning of spraying equipment
- regular maintenance and calibration of equipment

**Drift deposit on leaf surfaces in a meadow
(% of nominal dose (500 ng/cm²) in sprayed area)
dose 50g/ha in 200 l/ha, fieldsprayer**

	sprayed area	drift area			
		1m	3m	5m	10m
standard flat fan (03) 56 results	500ng/cm ²	1,515	0,414	0,188	0,051 %
Nozzle classified as 50 % drift reducing (AI 025) 46 results		0,139	0,022	0,014	0,005 %
Nozzle classified as 90 % drift reduction (ID 05) 20 results		0,109	0,015	0,011	0,003 %

**Results 2001/2002
! Wind speed: 2 - 5 m/sec !**

H.Koch, Landesanstalt für Pflanzenbau und Pflanzenschutz, Mainz 2-2003



Co-Op Supermarket, UK



Kevin Barker

Quality Assurance Manager
The Co-operative Group

CO-OPERATIVE GROUP

- Co-operative Retail working alongside:
 - Farmcare, our farming division and the country's largest farm manager
 - Our suppliers
- Developing alternative approaches
- Providing advice to improve controls
- Controls and advice

CONTROLS AND ADVICE

- Pesticide application controlled by
 - Prohibition of use of certain chemicals
 - Restriction on use of additional pesticides
- Based on risk evaluation
- Data not always available
- Where approval is required, given when other cultural, biological and alternative, more benign chemical alternatives not available or exhausted
- Applied worldwide

MONITORING

- Regular pesticide usage checks on farms
- Traceability audits on produce
- Supplier residue testing
- Independent residue testing
- Results posted on website

ADVICE TO GROWERS

- Developing advisory sheets to indicate pesticides controlled by Co-op Retail
- Emphasises cultural and biological controls as preference
- Easily understandable format
- Risk assessment protocols being developed further

ASSURANCE SCHEMES

- Continue to support Assured Produced and EUREP/GAP

But ...

- Can these deliver more value for growers, rather than just “police” the system?
- Can they help develop, communicate and implement improvements?

THE APPROVALS PROCESS

- Mutual recognition
- Products on the periphery of the definition
- Support comparative risk assessment


NEXT STEPS

- Continue to review current “controlled lists”
- Develop review programme and framework with Technical Advisory Group
- Technical, farming and consumer group input
- Develop alternatives for those pesticides causing concern
- Consideration of cocktail effect and LoD effects

AND

- Collective approach will help develop improvements in controls
- Helping to reinstate consumer confidence on those controls
- Effective support to growers
- Alternative styles of control

BEUC, The European Consumers' Union

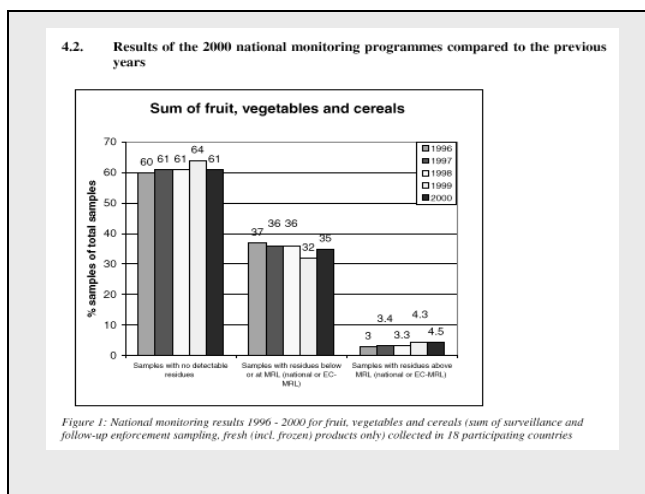


Seminar on Compliance and Risk Reduction

Consumer Perspective
B. KETTLITZ, Food Policy Adviser
European Consumers' Organisation

Pesticides and Pesticide Residues 3 Topics

- ◆ Pesticide registration
- ◆ Pesticide residues
- ◆ Monitoring and control of pesticide residues

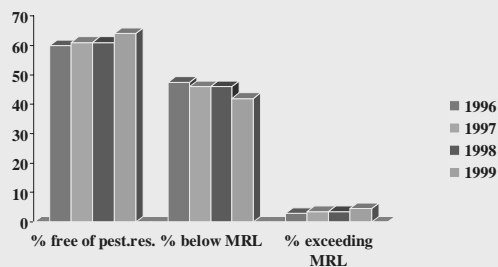


The Netherlands - Paprika Tests

publ. CONSUMENTENGIDS, September 2002

- ◆ Dutch Food Inspection Services (2000) test results of paprika:
53% free of residues; 31% residues above limits
- ◆ Test Consumentenbond 2002
Dutch products: 75% free of residues, all other products not exceeding limits
Import products: 18 % free of pesticides, 33% above limits
Bio Products: 50% containing residues of for organic farming permitted products

Evolution of Residues in Belgium Fruit, Vegetables, Cereals*



Belgium (2) Test Results

ref. TEST ACHATS, March 2002 no.452

- ◆ Lettuce
 - 70 % with residues, of which 80 % with more than one pesticide; 1 sample exceeding the MRL
- ◆ Grapes
 - 47% with residues, of which 61 % with more than one residue and more than 9 samples = 70 % exceeding the MRLs

Italy Test Results

ref: ALTROCONSUMO*, March 2002, no 147

◆ **Strawberries**

- 58 % with residues, of which 36 % with multiple residues, non exceeding MRLs, but one with a forbidden substance

◆ **Grapes**

- 92 % with residues; of which 60 % containing multiple residues and 34 % exceeding the MRLs

Portugal Test Results

ref: PRO TEST*; March 2002, no223

◆ **Tomatoes**

- none contained pesticide residues

◆ **Pears**

- 24 % with residues, with 1 sample containing multiple residues, but none exceeding the MRLs

UK Test Results

ref. -WHICH*- September 2001

◆ **Grapes**

- 67 % with residues, of which 29% with multiple residues; 7 % exceeding MRLs and one sample containing 5 different pesticides

◆ **Strawberries**

- 80 % with residues, of which 42 % with multiple residues; 1 UK sample with 5 different pesticides and 1 with a fungicide not allowed in UK

Germany

ref. various mag. STIFTUNG WARENTEST

- ◆ Organic Vegetables (10/2000)
 - at most traces of residues
- ◆ Fruit Teas (e.g. dogrose, hibiscus, apple) (12/2001)
 - high levels of residues, PCP as a post-harvest contaminant
- ◆ Baby Food (03/2002)
 - free of pesticide residues

The Challenges (1)

- ◆ Realistic consumption data
- ◆ Vulnerable population groups
- ◆ Bound residues of pesticides and pharmaceuticals
- ◆ If residues are ubiquitary spread, there is no control group for epidemiological studies
- ◆ Combined effect of multiple pesticide residues
 - Possibly synergistic effects of multiple residues
- ◆ Multiple sources of exposure to pesticides

The Challenges (2)

- ◆ Harmonized monitoring and data collection systems, including the identification of results from imported products to get objective national reports and to check for the success of national measures
- ◆ Harmonisation of allowed substances and MRLs throughout Europe

Action Points

Levels of residues and contaminants should be **As Low As Reasonably Achievable**.

Shared with other factors the following should be considered:

- national pesticide reduction plans
- promotion of alternative pest control methods
- use less harmful alternatives
- control over unsafe pesticide application practices.

Publication of test results in an easily accessible way.

The way forward

◆ For the use of pesticides

One should set:

- Objectives for reduction of use and dependency,
- Targets and preferably timetables for reduction

Conclusions

- ◆ Specific targets should be designed at national levels to progressively achieve more stringent qualitative and quantitative reductions in the use of pesticides on specific crops and overall.
- ◆ Principles for Good Agricultural Practices (GAP) should be developed which specifically aim at reducing the dependency of agriculture on plant protection chemicals. This may be facilitated by establishing an EU-supported 'GAP research facility'.
- ◆ Least-harmful plant protection practices should be developed and promoted wherever feasible and practicable.
 - Best environmental practices should be applied.
- ◆ The use of pesticides should ultimately give rise to **appropriate** control measures of the residue levels