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Organisation de Coopération et de Développement Économiques  
Organisation for Economic Co-operation and Development

26-Jan-2017

English - Or. English

**ENVIRONMENT DIRECTORATE  
JOINT MEETING OF THE CHEMICALS COMMITTEE AND  
THE WORKING PARTY ON CHEMICALS, PESTICIDES AND BIOTECHNOLOGY**

**ANNEX TO THE REPORT OF THE OECD SEMINAR ON RISK REDUCTION AND PESTICIDE  
NON-PROFESSIONAL USES**

**Series on Pesticides  
No. 88**

*This document is available on OLIS in pdf format only.*

**JT03408242**

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This document only contains Annex 5 of the *Report of the OECD Seminar on Risk Reduciton and Pesticide Non-Professional Uses*. Annex 5 includes slides of all of the presentations made during the Seminar.

The main part of the Seminar report, as well as Annexes 1-4, is published under the reference ENV/JM/MONO(2017)3.

## ANNEX 5

### List of presentations

#### OECD Seminar on Risk Reduction and Pesticide Non-professional Uses 9 December 2014, OECD, Paris, France

*Introduction - Opening presentation about the Seminar*

##### **Presentation 1**

OECD Seminar on Risk Reduction and Pesticide Non-professional Uses, 9 December 2014, OECD, Paris  
(Seminar Chairperson, Wolfgang Zornbach, Germany, RRSO Chair)

*1) The situation in OECD countries*

##### **Presentation 2**

Outcomes of OECD Survey & other relevant OECD Activities (Beatrice Grenier, Consultant to the Secretariat, OECD Pesticides Programme)

*2) Authority/Regulatory perspectives*

##### **Presentation 3**

The German concept for the authorization of PPP for non-professional uses (Rolf Forster, Federal Office for Consumer Protection and Food Safety (BVL), Germany)

##### **Presentation 4**

Consideration of amateur pesticide uses in the US (Jeff Dawson, Environment Protection Agency, US)

##### **Presentation 5**

Management of Risks concerning Non professional Pesticide Uses without Rigid Legal Framework: Situations in Japan (Mr. Masashi Kusakawa, Deputy Director of the Ministry of Agriculture, Forestry and Fisheries, Japan)

*3) Industry/Trade Association perspectives*

##### **Presentation 6**

Risk reduction and pesticides non professional uses - Garden and Risk Perception versus Reality (Kris Leemans, CropLife International)

##### **Presentation 7**

Pesticides for Non-Professional Uses & Risk mitigation measures: Practical view from an SME (Martina Utenwiehe, the ECPA GAPEG, Garden and Amenity Group)

*4) User Group representative perspectives*

##### **Presentation 8**

The use of pesticides in German leisure gardens – a view into the gardens of the association's members (Martin Breidbach, Verband Wohneigentum e.V. - national home ownership association, Germany)

*Introduction - Opening presentation about the Seminar*

**Presentation 1**

OECD Seminar on Risk Reduction and Pesticide Non-professional Uses, 9 December 2014, OECD, Paris  
(*Seminar Chairperson, Wolfgang Zornbach, Germany, RRSO Chair*)

*1) The situation in OECD countries*





## OECD Seminar on Pesticide Non-professional Uses

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- ✓ A few words about the OECD
- ✓ OECD work on pesticides and sustainable pest management
- ✓ Today's Seminar:  
scope, key questions and structure



## WHAT IS THE OECD?



 The OECD...

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- ...is a global organisation that drives **better policies for better lives**
- ...analyses, measures and compares experiences and policies to give advice that helps **raise living standards** globally
- ...aims for a **stronger, cleaner, fairer world**



## What is the OECD?

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- An **intergovernmental organization**
- A **forum** in which **governments**:
  - ✓ work together and with representatives from **business** and **civil society**
  - ✓ compare and share **policy experiences** (social, economic, environmental)
  - ✓ seek answers to common problems & **identify good practices**
  - ✓ **promote decisions** and **recommendations**
- Key words at OECD:  
**dialogue, consensus, peer review & pressure**

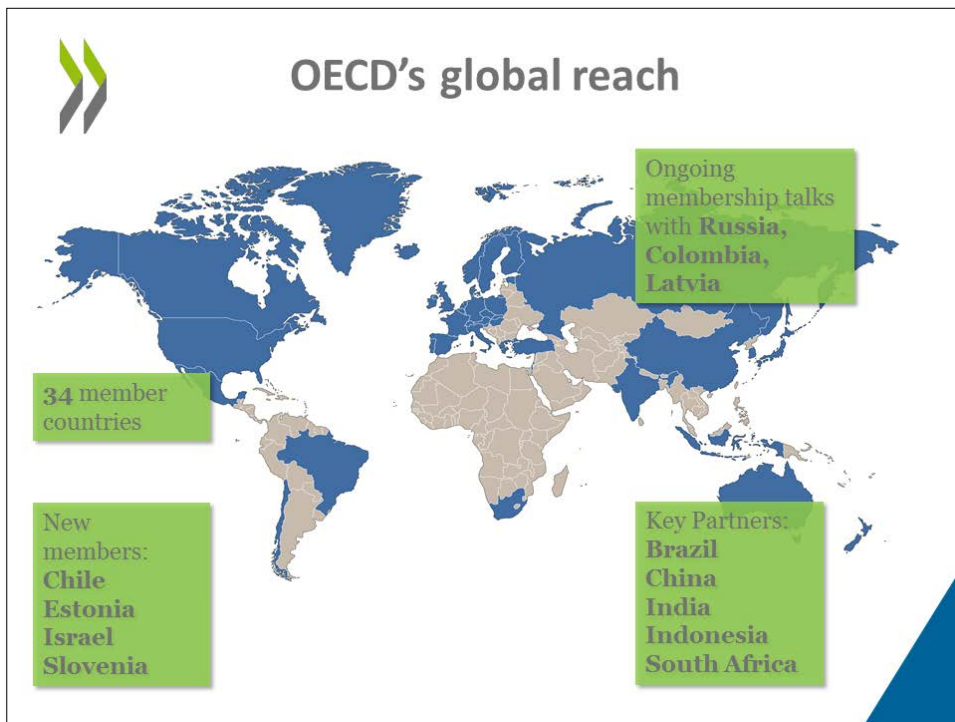


## Fast facts

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- Established: **1961**
- Headquarters: **Paris**
- OECD Centres: **Berlin, Mexico City, Tokyo, Washington**
- Members: **34**
- Secretary-General: **Angel Gurría (Mexico)**
- Secretariat staff: **2 500**
- Annual budget: **347 € million (2012)**

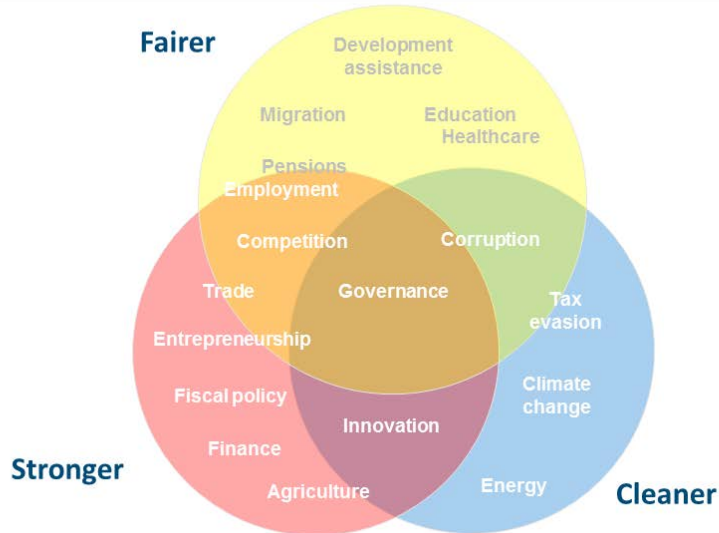
Nearly **300 expert committees** and working groups with participation of **+100 countries**



## Who does what?




## Better lives from every angle





# THE OECD PESTICIDES PROGRAMME

[www.oecd.org/env/ehs/pesticides-biocides](http://www.oecd.org/env/ehs/pesticides-biocides)



## OECD's Work on Pesticides: Where does it fit?

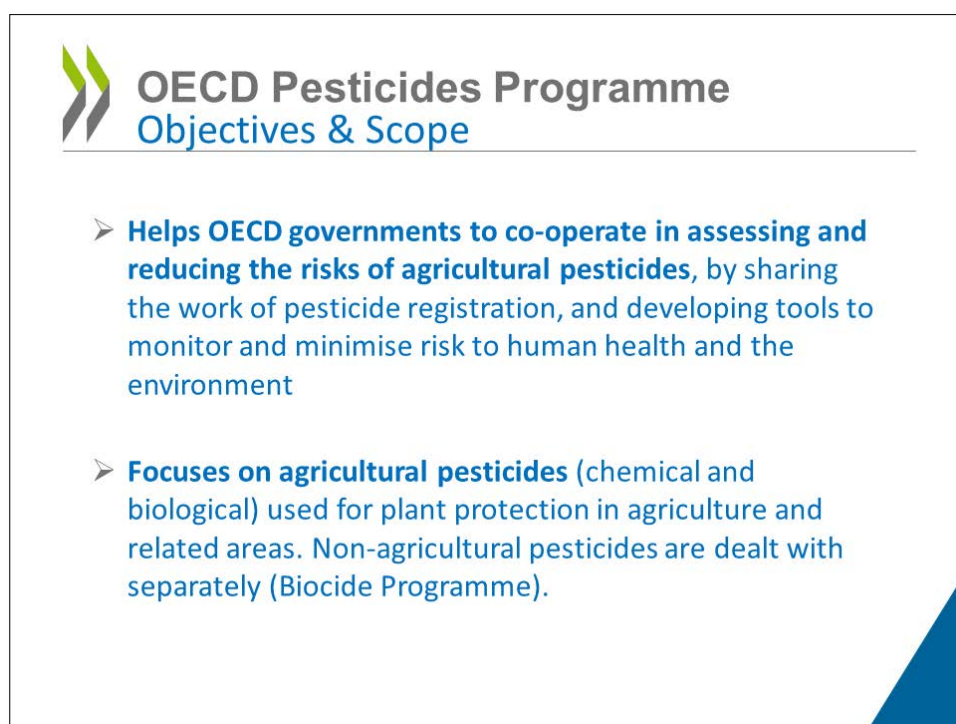
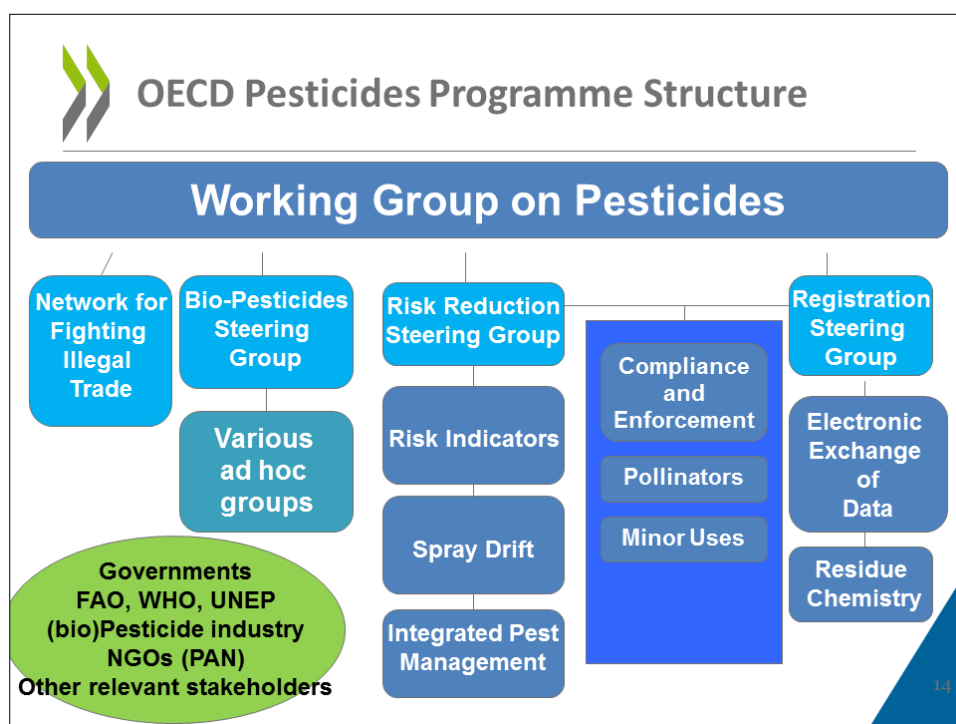
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**OECD**  
Agriculture, Development Co-operation, Education, Employment, **Environment**, Taxation & Trade, Science & Technology, Industry and Innovation, Energy, etc.

**ENVIRONMENT**  
Climate change, Biodiversity, Water, Eco-innovation, Outlooks, **Chemicals**, etc.

**SAFETY OF CHEMICALS**  
Testing, Hazard assessment, GLP, HPV, Biotechnology, Nanomaterials, **Pesticides**, Biocides, Chemical accidents, Pollutant Release & Transfer Registers, etc.

**PESTICIDES**





## OECD Pesticides Programme

A cooperative approach to the regulation of agricultural pesticides and sustainable pest management

### Vision for the Future (2024)

- Enhance protection of humans, animals and environment
- Integrate green growth strategy
- Foster public confidence
- Facilitate cooperation

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## OECD Pesticides Programme

### Core elements of the Vision for the Future (2024)

- Harmonisation of the regulatory systems and work sharing
- Sustainable approach towards plant protection
- **Risk Reduction**
- Enhanced communication
- Partnerships with non-OECD countries

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## OECD Pesticides Programme

### Core elements of the Vision for the Future (2024)

#### Risk Reduction

- High standards will be used for registration and placing on the market
- National action plans will be developed with mandatory and voluntary provisions
- Progress in RR will be monitored
- Effective and efficient compliance will be ensured
- IPM will be promoted

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**THIS OECD SEMINAR**



## OECD Seminar on Pesticide Non-professional Uses

### *Scope*

*For the purpose of this Seminar:*

- **“pesticide non-professional uses”** also called:  
“amateur uses”, “domestic uses”, “non-occupational” or  
“home/garden(ing)” uses.
- **Uses in homes:**
  - outside, in gardens, kitchen/allotment gardens, on trees, edges, etc.
  - inside, including home greenhouses, private terraces, balconies, etc.
- **User :**
  - non-professional, not a farmer, not a pest control operator
  - not expected to have received training in pesticide application
  - not familiar with proper pesticide uses and other aspects of the pesticide life-cycle.



## OECD Seminar on Pesticide Non-professional Uses

Key questions to be addressed during the Seminar:

- ✓ What are the significant **differences** between non-professional pesticide uses and normal (professional) pesticide uses?
- ✓ **Policies, procedures and regulations:**
  - ✓ Existing regulatory requirements, guidance and other voluntary measures in different countries concerning pesticides for non-professional uses
  - ✓ Risk assessment approaches, including specific exposure models for amateur use, are available
  - ✓ Differences among countries? More harmonization needed?



## OECD Seminar on Pesticide Non-professional Uses

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Key questions to be addressed during the Seminar (more)

- ✓ Improving **risk assessment/risk management approaches** for reducing risks from non-professional pesticide uses
- ✓ Promoting **better practice by non-professional users** to ensure protection of users/by-stander/neighbours such as: specific communication (tools), specific training for amateurs, specific and feasible Personal Protective Equipment ?
- ✓ What is the **possible work of OECD** in this area?  
→ Recommendations



## OECD Seminar on Pesticide Non-professional Uses

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### *Structure and programme*

**1/ Presentations** - Experience and Perspectives from:

- ✓ **OECD:** 2014 survey and past relevant activities
- ✓ **Countries:** Germany, US and Japan
- ✓ **Industry:** Producers (large companies) and SMEs
- ✓ **User Group** (Germany)

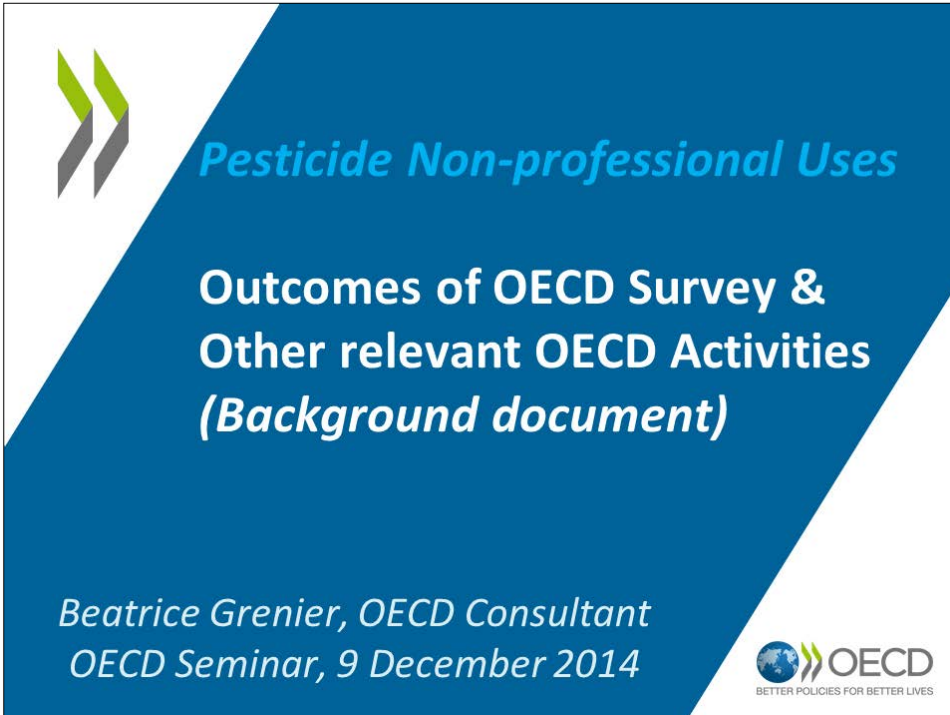
**2/ Round table discussions and Seminar conclusions**

- ✓ **Discuss/review the presentations**
- ✓ **Address key questions**
- ✓ **Identify recommendations**



**Presentation 2**

Outcomes of OECD Survey & other relevant OECD Activities (*Beatrice Grenier, Consultant to the Secretariat, OECD Pesticides Programme*)




The cover features a blue diagonal design. At the top left is a stylized logo of two green and grey chevrons. The main title 'Pesticide Non-professional Uses' is in light blue. Below it, the subtitle 'Outcomes of OECD Survey & Other relevant OECD Activities (Background document)' is in white. At the bottom left, the author 'Beatrice Grenier, OECD Consultant' and the event 'OECD Seminar, 9 December 2014' are listed. At the bottom right is the OECD logo with the tagline 'BETTER POLICIES FOR BETTER LIVES'.

**Pesticide Non-professional Uses**

**Outcomes of OECD Survey &  
Other relevant OECD Activities  
(Background document)**

*Beatrice Grenier, OECD Consultant  
OECD Seminar, 9 December 2014*

 **OECD**  
BETTER POLICIES FOR BETTER LIVES



The slide has a white background with a blue diagonal element at the bottom right. It features the same stylized logo as the cover. The title 'OECD Seminar on Pesticide Non-professional Uses' is in bold black text. Below it, the section 'OECD Survey' is in bold blue text. A list of items follows, with checkboxes for regulatory requirements and data, and checkmarks for the survey date and number of countries. The list of countries is in blue text. A red text box at the bottom asks for a review by 15 Jan. 2015.

 **OECD Seminar  
on Pesticide Non-professional Uses**

**OECD Survey**

- Regulatory requirements for pesticides used by non-professionals
- Data on incidents caused by non-professionals
- ✓ *conducted in March 2014*
- ✓ *11 responding countries*  
*Australia, Belgium, Canada, Denmark, Germany, Hungary, Italy,  
Japan, New Zealand, Norway and Turkey*

***Request to review and check responses by 15 Jan. 2015***



## OECD Seminar on Pesticide Non-professional Uses

### Other relevant OECD Activities

#### Previous OECD Seminars:

- 1st Seminar in 2003 on compliance
- 3rd Seminar in 2004 on container management
- 4th Seminar in 2006 on good pesticide labelling



## HOW NON-PROFESSIONAL USERS DIFFER FROM PROFESSIONALS?



## OECD Seminar on Pesticide Non-professional Uses

From the survey responses, non-professional users:

- ✓ no or limited knowledge about pesticides and the associated risks (for them, their family, kids and the environment)
- ✓ not trained for proper use, storage or disposal of pesticides
- ✓ do not wear any personal protective equipment
- ✓ no good access to PPE + no knowledge how to correctly use it
- ✓ use pesticides in small cultivation areas



## OECD Seminar on Pesticide Non-professional Uses

From the survey responses, non-professional users (cont'd):

- ✓ are expected to generally experience only ST exposures (handlers)
- ✓ apply pesticides in areas that may be frequented by sensitive groups of persons (e.g. children, the elderly and the ill), who may experience intermediate / LT (post-application) exposures
- ✓ spray usually with simple devices (knapsack sprayer)
- ✓ cannot be monitored by the competent authorities to the extent professional users are.
  - User categories
  - Certificates to restrict access and availability



OECD Seminar  
on Pesticide Non-professional Uses

**Specific requirements?**

- ✓ Yes for 9 countries
- ✓ No for NZ and Turkey

However: Existing regulatory criteria in place for limiting access and to dangerous substances to the general public.

**Regulatory areas**

1. Authorisation by a.i. & product (8)
2. Authorisation by uses (8)
3. Disposal (8)
4. Labelling (8)

} Used in combination

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## OECD Seminar on Pesticide Non-professional Uses

### 1. Authorisation by a.i. & product

- ✓ granted on the basis of the hazardous properties and classification of the products.
- ✓ In general:
  - ✓ “pesticides of low toxicity”
  - ✓ “those products for which there is a low or moderate risk of harm”
  - ✓ “only products without serious health classifications”.
- ✓ More specifically:
  - ✓ Health: no CMR + criteria for acute oral, dermal, inhalation toxicity
  - ✓ Environment: hazardous to bees, terrestrial organisms, systemic



## OECD Seminar on Pesticide Non-professional Uses

### 2. Authorisation/registration by uses

- ✓ Risk mitigation approaches to reduce risks due to inappropriate handling, storage (leaking and re-use), disposal, mainly focusing on **adapting packaging and formulations**
  - ✓ Limiting the volume of the container
    - 1-2 kg for granular formulations, 100 g for wettable powder, and 1 l for liquid formulations such as emulsifiable concentrate
  - ✓ Limiting the maximum area that can be treated with one single container
    - 500 m<sup>2</sup>, 1000 m<sup>2</sup>, ≤ 100 m<sup>2</sup> for applications outdoors or ≤ 10 m<sup>2</sup> for applications in greenhouses or indoors
  - ✓ Limiting the product concentration / dose



## OECD Seminar on Pesticide Non-professional Uses

### Authorisation/registration by uses (cont'd)

- ✓ Restricting some types of formulations e.g. powder
- ✓ Encouraging some packaging options
  - child resistant caps
  - bags should be reclosable
  - PPP should be equipped with graduated scoops
  - ready-to-use products in trigger spray bottles
  - ready-to-use products for wiping or spreading
  - plant sticks
- ✓ Other use conditions:
  - Specifying the location of use: e.g. 'for use in and around a dwelling'.
  - Setting re-entry interval to zero following application
  - Restricting and specifying the type of spraying equipment



## OECD Seminar on Pesticide Non-professional Uses

### 3. Labelling

- ✓ Generally: label first include a statement on whether the product is authorised for non-professional users (positive/negative way)
- ✓ Provide general data on how/when to use the product, PPE if required, hazard statements
- ✓ Specific aspects
  - Simple dosage instructions in g/l, ml/L, g/m<sup>2</sup>, granules/m<sup>2</sup>
  - In m<sup>2</sup>, not in ha
  - 'simple/standardised' names of plants and pathogens
  - Avoid passive tense and use direct statements: "you must..."
  - Avoid additional leaflets
  - First aid information more prominent



## OECD Seminar on Pesticide Non-professional Uses

### 4. Disposal

- ✓ Generally: the label should indicate disposal statements such as “*After use, do not dispose of either the container or the remaining contents into the environment*” and “*Do not reuse container*”
- ✓ Some differences among countries depending on the classification of the pesticide container as hazardous waste
  - In Canada: if empty, the container can be disposed of in household garbage. But if unused or partially used, products should be disposed at locally designated hazardous waste disposal sites
  - In Germany, non-professional users have to make use public waste disposal system, which also includes a disposal system for hazardous waste.
  - In Belgium : small, dangerous waste cannot be eliminated by means of selective household disposal. Non-professionals must go to specific container parks or mobile trucks
  - In Hungary: it depends on the size of the container, i.e. plastic bottles which are 1 liter or smaller can be disposed of as domestic rubbish, and the bigger pesticide bottles will be collected and disposed of by a company founded by the pesticide manufacturers.
  - Generally **free of charge** for the non-professional users.



## B. OFFICIAL DATA WITH RESPECT TO INCIDENTS ON HEALTH & ENVIRONMENT CAUSED BY NON-PROFESSIONAL USES OF PESTICIDES



## OECD Seminar on Pesticide Non-professional Uses

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### Specific data collected?

- ✓ **Yes** for 7 countries (Belgium, Canada, Hungary, Italy, Japan, New Zealand and Norway)
- ✓ **No** for the remaining 4 countries but:
  - some reporting programs regarding complaints about pesticides or about intoxications

### Issues

1. Reasons for incidents
2. Difficulties of collection
3. Detailed reports



## OECD Seminar on Pesticide Non-professional Uses

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### 1. Reasons for incidents

- ✓ **Health incidents**
  - ✓ direct exposure to the pesticide during application (e.g., splashed in person's eyes or on skin, or inhalation of dust, etc.)
  - ✓ post-application exposure from contact with a treated area (e.g., walking across a lawn that had been treated with a pesticide)
  - ✓ suicide attempts
  - ✓ improper storage in a container other than the original one + not properly marked
- ✓ **Environment**
  - ✓ No real data being collected (sources)
  - ✓ Some cases of plant damage



## OECD Seminar on Pesticide Non-professional Uses

### 2. Difficulties with collection of specific data regarding non professional uses

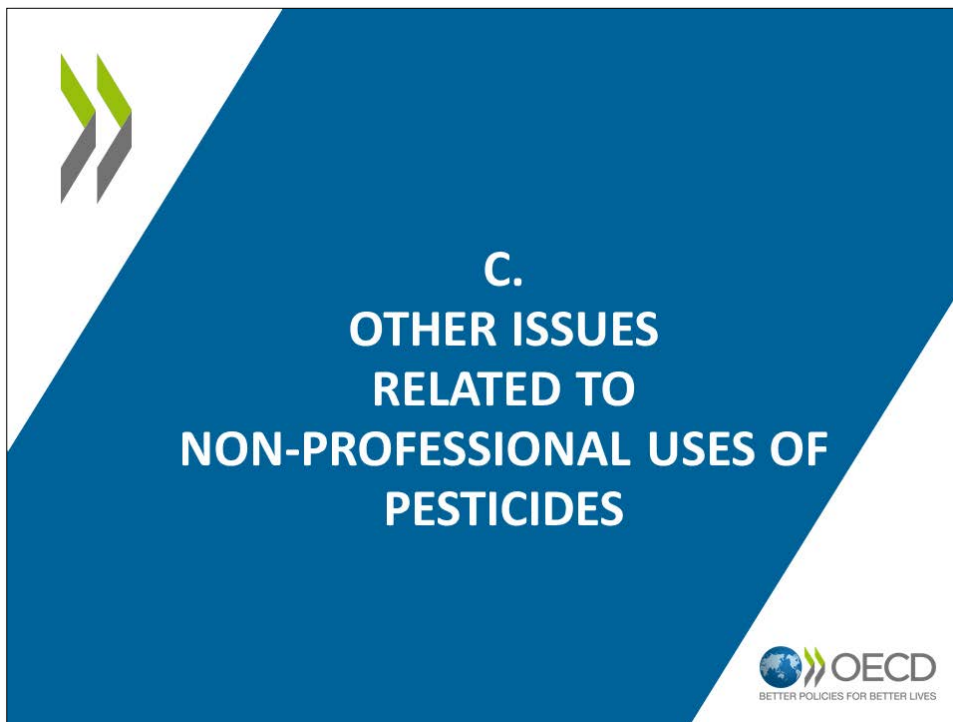
- ✓ Poison centres collect data not only on pesticides (both for professional and for non-professionals), but also on biocides (such as insecticides and rodenticides)
- ✓ A number of organisations involved in pesticides issues.
- ✓ Several tracking processes in co-existence:  
E.g. medical practitioners, national poison centre, hospitals, Ministry of Health, Fire services, media reports.



## OECD Seminar on Pesticide Non-professional Uses

### 3. Specific reports mentioned by 2 countries

- ✓ Belgium:
  - In 2007, 2011 and 2014: follow-up calls after the initial calls to assess the consequences of the incidents
  - about a thousand calls for pesticide incident each year
  - a third of the calls concerned animal/pet victims – all fatal cases, mainly dogs and cats
  - Regarding the calls involving children (27%), 2/3 were about children within the age of 1 to 4.
- ✓ Norway:
  - 2009 – 2013
  - 38% cases related to children.
  - 63% of the enquires resulted in no form of treatment, 5.7% resulted in treatment by a doctor, 4.3% resulted in treatment at the hospital



## OECD Seminar on Pesticide Non-professional Uses

- ✓ **Awareness raising and communication aspects**
  - *more attention to be given to pesticide use in homes and gardens?*
  - *Should governments and NGOs use the media to disseminate information about pesticides to the public?*
- ✓ **List of authorised products for non-professional users**
  - *on-line database in Germany*
- ✓ **Application process by the registrants**
  - *E.g. about packaging, Germany stated that “Applications for both packaging for professional and for non-professional use can be included in the same application. Information must be provided for each packaging on whether it is intended for professional or for non-professional use.”*

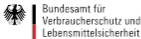


2) Authority/Regulatory perspectives

**Presentation 3**

The German concept for the authorization of PPP for non-professional uses (*Rolf Forster, Federal Office for Consumer Protection and Food Safety (BVL), Germany*)



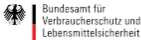
 **Overview**

- i. **General Concept of the Authorisation in Germany**
- ii. **Legal Framework**
- iii. **Information to be provided when submitting an Application**
- iv. **Specific Requirements concerning the Suitability of PPPs for Non-professional and Professional Users in Home Gardening**
- v. **Special Labels ordered in the Authorisation Certificate**
- vi. **Status Quo of Authorisations in Germany**
- vii. **Information on authorised Plant Protection Products**
- viii. **Conclusions – Regulatory Perspective**

*The authorisation of plant protection products for non-professional users and for use in home gardening*

Dr. R. Forster - Federal Office of Consumer Protection and Food Safety - Department 2  
9th December 2014

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 **The Authorisation of PPPs in Germany**

**i. General Concept of the Authorisation**

**Schedule of responsibilities of the German Federal Offices**

<b>Management BVL</b>		
<b>Assessment JKI</b>	<b>Assessment BfR</b>	<b>Assessment UBA</b>
Efficacy/IPM/Honeybees	Human & Animal Health	Environment

**Decision-Making: Authorisation requires unanimous assent!**

Dr. R. Forster - Federal Office of Consumer Protection and Food Safety - Department 2  
9th December 2014

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## ii. Legal Framework (1)

Basically two fundamentals apply:

- According to Art. 31 (4) (d) **Regulation (EC) No. 1107/2009 a differentiation is made between PPPs for professional users and non-professional users.**
- Art. 13 (2) of **Directive 2009/128/EC** provides for the handling and storage of pesticides and dealing with their packaging and left-over products as follows: **MS shall take all necessary measures regarding pesticides authorised for non-professional users to avoid dangerous handling operations. These measures may include use of pesticides of low toxicity, ready to use formulations and limits on sizes of containers or packaging.**
- According to Art. 65 (1) Regulation (EC) No. 1107/2009 in conjunction with Art. 1 and Annex I (1) (u) Regulation (EU) No. 547/2011, the plant protection **product label must state the user category.**

## ii. Legal Framework (2)

Both of these regulations are implemented in the **German Plant Protection Act.**

- Generally, according to Article 12 (3) p. 2 No. 1 Plant Protection Act, **only PPPs which are authorised for use by non-professional users may be used for home gardening.**
- However, according to Article 36 (2) German Plant Protection Act, the BVL can, on application, determine that due to its properties, **a plant protection product authorised for professional users may also be used by professional users for home gardening (according to Article 12 (3) p. 2 No. 2 German Plant Protection Act) if the plant protection product authorised for professional users only deviates from a plant protection product authorised for non-professional users due to its packaging size or dosage form.**

### iii. Information to be provided

- **A full data package** is to be provided in accordance with Regulation (EC) No. 1107/2009 and Commission Regulation (EC) No. 547/2011 as regards the data requirements for plant protection products.
- **The applicant must apply for the authorisation of a plant protection product for non-professional users** and, if appropriate, for professional users as well, **and provide special packaging sizes for non-professional users.**
- **Applications both for packaging for professional and for non-professional use can be included in the same application.** Information must be provided for each packaging on whether it is intended for professional or for non-professional use.

### iv. Specific Requirements (1)

General principle:

**Plant protection products can only be authorised for use in home gardening if the evaluation of the plant protection product shows that**, according to current scientific and technical knowledge,

- it will cause **no harmful effects** when used correctly and for its intended purpose, or as a consequence of such, **on human and animal health**
- **or groundwater nor any unacceptable effects on the environment.**
- **Dosage forms/techniques which do not cause any or negligible exposure of users, third persons and non-target areas are particularly suitable** for use by non-professional users in home gardening (e.g. ready-to-use products in trigger spray bottles, plant sticks, ready-to-use products for wiping or spreading).

#### iv. Specific Requirements (2)

For **health** reasons the following specific basic requirements apply:

- **PPPs for which special measures can be stipulated can generally be authorised** (e.g. protective glasses are recommended for handling products which are irritating to eyes (Xi; R36)) – **however, if more than sturdy footwear, rubber boots, gloves, a long sleeved shirt and long trousers, headgear or protective glasses are required, the product shall not be authorised.**
- **PPPs which are labelled very toxic, toxic, corrosive or sensitizing (chemical active substances) shall generally not be authorised** (in individual cases, a plant protection product which is classified as sensitizing can be authorised if, for example, contact with the undiluted product is negligible e.g. due to the dosing system or the ready-to-use plant spray is diluted so that components relevant for classification in the plant spray < 1% w/w).

#### iv. Specific Requirements (3)

The following specific requirements apply to the area of the **environment**:

- **Systemic products with insecticidal properties which are intended for use outdoors on flowering plants are not allowed to be used as long as harmful effects cannot be excluded** when the flowers are visited by non-target organisms (including granules for spreading, products for watering and wiping applications, sticks etc.).
- In general, **uses which require additional risk mitigation restrictions to protect terrestrial organisms (including birds and mammals) shall not be authorised** due to the strict requirements concerning the correct implementation of restrictions.
- **PPPs which are classified as hazardous to bees (German labels B1 and B2) are generally not allowed for outdoor uses.**

#### iv. Specific Requirements (4)

- Plant protection products with active **substances for which the risk assessment shows that there is a strong run-off tendency which would require mitigation measures shall not be authorised** for home gardening.
- **Uses which require buffer zones to water bodies greater than 10 m according to the risk assessment for the protection of aquatic organisms shall not be authorised** for home gardening.
- Due to the danger of plant protection product entry into water bodies, **the use of plant protection products on paths and places (e.g. pavements and drives) shall not be authorised for amateur users.**

#### iv. Specific Requirements (5)

Further requirements concerning **dosing, packaging size, dosage form**:

- For ready-to-use plant protection products which are easy to dose (e.g. granules for spreading) it must be assured that the required **application rate can be calculated up to an accuracy of  $\pm 10\%$**  (e.g. using a measuring device) and that the product is also applied correctly.
- For plant protection products which are not ready to use (e.g. formulations as concentrates) a **dosing accuracy of  $\pm 10\%$  must be ensured** when the particular spray, wiping or watering liquids are prepared for treatment. **The dosing system must be designed so as not to endanger operators and other users and the environment when the product is prepared.**
- The PPP must not exceed a maximum packaging size. The basis for calculating **the maximum packaging size is the single treatment of an area of 500 m<sup>2</sup>** in size and the lowest application rate.



Bundesamt für  
Verbraucherschutz und  
Lebensmittelsicherheit

## Authorisation Certificate

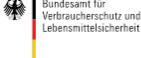
### v. Special Labels for the Product

The authorisation certificate states **all the admissible kinds of uses and packaging**. In addition

- if a plant protection product has been found to be suitable, according to Article 36 (1) p. 2 No. 2 Plant Protection Act, **for non-professional users for home gardening, the following must be stated on the packaging:**  
"Use authorised for non-professional users".
  
- if a plant protection product has been found to be suitable, according to Article 36 (2) Plant Protection Act, the following standard sentence must appear on all packaging sizes **for professional users in home gardening:**  
"Use authorised only for professional users".

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Dr. R. Forster - Federal Office of Consumer Protection and Food Safety - Department 2  
9th December 2014
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Bundesamt für  
Verbraucherschutz und  
Lebensmittelsicherheit

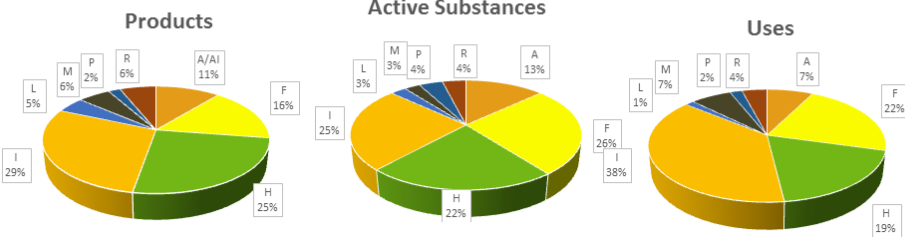
## PPPs and Uses for Home Gardening

### vi. Status Quo of Authorisations (1)

#### PPPs (active substances) and uses authorised (10/2014)

- 131 authorised PPPs (total 626 products at the market)
- 76 active substances
- 907 uses
  - Insecticides/Acaricides >> Fungicides ≥ Herbicides > Others

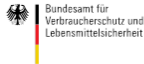
Products
Active Substances
Uses



Category	I	F	H	A	R	P	M	L
Products	29%	16%	25%	11%	6%	2%	6%	5%
Active Substances	25%	13%	22%	4%	4%	3%	3%	3%
Uses	38%	22%	19%	7%	4%	2%	7%	1%

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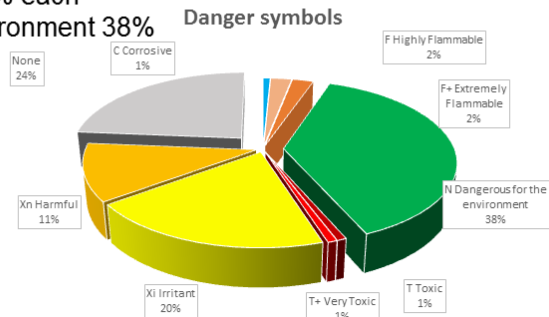


## Human Health -Danger Symbols

### vi. Status Quo of Authorisations (1)

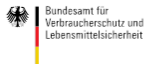
#### Safety to humans and the environment – Danger symbols (131 PPPs)

- No labels required 24 %
- T, T+ and Corrosive 1 % each
- Dangerous for the environment 38%



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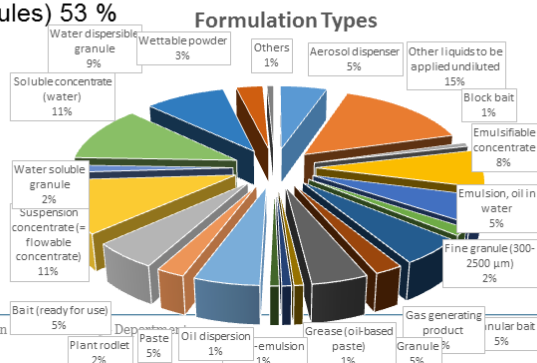


## Formulation Types

### vi. Status Quo of Authorisations (2)

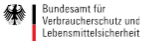
#### Safety of handling - Formulation types (131 PPPs)

- PPPs for home gardening cover more than 20 types of formulations
- RTU (incl. bait, paste) 46 %
- Concentrates (incl. Granules) 53 %




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**Authorisation of PPPs for Home Gardening**

 Bundesamt für Verbraucherschutz und Lebensmittelsicherheit

## vii. Information on authorised PPPs

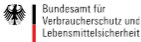
- **BVL publishes a descriptive list of authorised plant protection products** (Article 33 (4) Plant Protection Act).
- **The BVL offers an online database on its website** where authorised plant protection products incl. those for non-professional users can be identified incl. their specific provisions of use.
  - <http://www.bvl.bund.de/psmdb>
- Further information is made available incl. advice on purchase, use and storage of PPPs on the website and e.g. handouts.



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**Authorisation of PPPs for Home Gardening**

 Bundesamt für Verbraucherschutz und Lebensmittelsicherheit

## viii. Conclusions – Regulatory Perspective

- **The concept** for the authorization of PPPs for amateur users established in Germany **is in compliance with the recommendations made by the EU.**
- **Consumer and environmental protection deserve priority over plant protection.**
- **PPPs for amateur use are available** with generally low hazard for humans and the environment for a broad spectrum of uses.
- **Amateur users are being made aware of the user category, basic product characteristics and of remaining risks** by specific labelling.
- **Producers can help through innovation and development** to further broaden the spectrum of uses and in the same time reduce potential risks (e.g. RTU-products, low risk substances, specific information).

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**I thank you very much for your  
interest!**

**Contact:**

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## Authorisation of PPPs for Home Gardening

### i. General Concept (2)

***A specific assessment of the use of plant protection products in home gardening is especially necessary*** for the following reasons:

- According to Article 9 (5) No. 1 German Plant Protection Act, as a rule ***non-professional users do not have expert knowledge*** of plant protection nor of handling plant protection products.
- The ***requirements for non-professional users differ from those for professional users***, who are required to have a certificate of expert knowledge according to Article 9 Plant Protection Act, ***to assure the protection of humans, animals and the environment***.
- The fact that correct and intended ***applications by non-professional users cannot be monitored by the competent authorities of the federal states*** must be taken into consideration for the evaluation for authorisation.

## Authorisation of PPPs for Home Gardening

### i. General Concept (3)

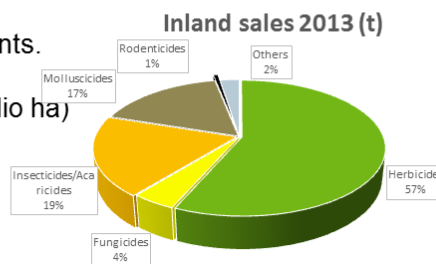
- **Non-professional users can only be expected to wear limited protective equipment** (e.g. gloves, long-sleeved shirt, long trousers, headgear, sturdy footwear such as rubber boots).
  - **Home gardening areas are mostly used intensively and in particular by sensitive groups of persons** (e.g. children, the elderly and the ill).
  - Often, **areas to be treated verge directly on neighbouring pieces of land such as gardens or public paths and areas**, so as a rule, it is not possible to maintain larger buffer zones to these areas.
- If found necessary the BVL combines the authorisation with additional provisions, which are tailored especially to the specific conditions of home gardening (e.g. protective clothes, placing of granules).**

## PPP Sales for Home Gardening

### ii. Status Quo of Authorisations (2)

#### Scope of PPP sales and amateur gardening

- Inland sales in 2013
  - 5234 t PPPs (5.3 %; total 99287 t)
    - Herbicides >> Insecticides/Acaricides ≥ Molluscicides > Others
    - 342 t active substances (1.1%; total 32551 t)
- Approx. 17 Mio private gardens; about 1 Mio of these are allotments.
  - Approx. 1 Mio ha (5.9 %; total agricultural area 16.7 Mio ha)

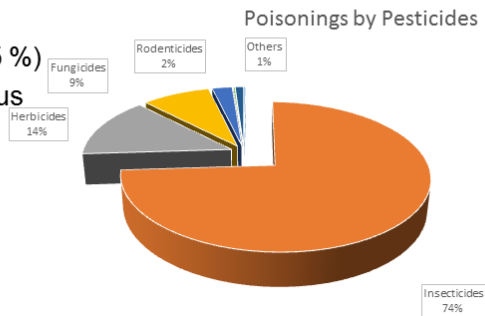


## Human Health - Poisonings

### v. Specific Requirements (3)

#### Safety to humans – a 20 years survey of medical reports on poisonings in Germany (BfR Information 2010)

- 63817 poisonings (all substances, e.g. chemicals, drugs, cosmetics)
- 542 moderate/severe poisonings by pesticides (0.8 %)
- 355 by insecticides (74 %)
- 222 home gardening (62.5 %)
- 113 by organo-phosphorous compounds (50.9 %)

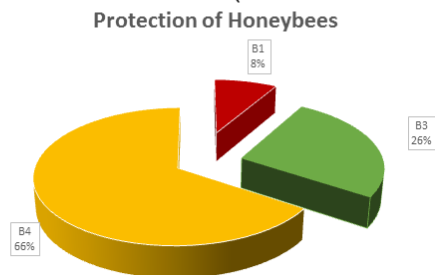


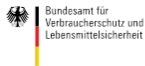
## Environment - Honeybee Labels

### v. Specific Requirements (6)

#### Safety to honeybees (131 PPPs) - Labels

- 66 % of PPPs labelled B4 (= not hazardous to honeybees)
- 25 % of PPPs labelled B3 (= not hazardous due to specific use)
- 8 % of PPPs labelled B1 (= hazardous to honey bees)



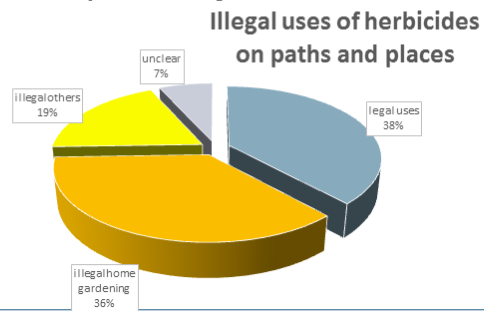


## Environment- Illegal uses of herbicides

### v. Specific Requirements (8)

#### Illegal uses of herbicides on paths and places identified in 2008 to 2010 in Germany (national control program)

- Total of 615 situations of uses checked by competent authorities
- More than 60 % uses classified illegal
- Approx. 60 % by amateur gardeners




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9th December 2014

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**Presentation 4**

Consideration of amateur pesticide uses in the US (*Jeff Dawson, Environment Protection Agency, US*)



# **Consideration of Amateur Pesticide Uses In The U.S.**

OECD RRSg Seminar on Risk Reduction and Pesticide Amateur Uses

Jeff Dawson, U.S. EPA  
Paris France  
December 9, 2014

U n i t e d   S t a t e s   E n v i r o n m e n t a l   P r o t e c t i o n   A g e n c y




# **Overview**

- Pesticide Use
- Potential Risks
- Policies & Procedures
- Risk Management
- Current Issues

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U n i t e d   S t a t e s   E n v i r o n m e n t a l   P r o t e c t i o n   A g e n c y



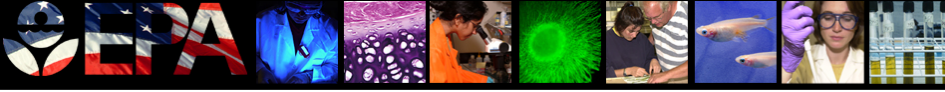
## Pesticide Use Overview

**Amount of Conventional Pesticide Active Ingredient Used in the United States  
by Pesticide Type and Market Sector, 2006 and 2007 Estimates**

Year and Market Sector	Herbicides/Plant Growth Regulators		Insecticides/Miticides		Fungicides		Nematicide/Fumigant		Other Conventional*		Total	
	Mil lbs	%	Mil lbs	%	Mil lbs	%	Mil lbs	%	Mil lbs	%	Mil lbs	%
<b>2006</b>												
Agriculture	407	82	69	70	46	63	96	79	25	83	643	78
Ind/Comm/Gov	45	9	14	14	20	27	24	20	4	13	107	13
Home & Garden	46	9	16	16	7	10	1	1	1	3	71	9
<b>Total</b>	<b>498</b>	<b>100</b>	<b>99</b>	<b>100</b>	<b>73</b>	<b>100</b>	<b>121</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>821</b>	<b>100</b>
<b>2007</b>												
Agriculture	442	83	65	70	44	63	108	81	25	83	684	80
Ind/Comm/Gov	46	9	14	15	19	27	24	18	4	13	107	12
Home & Garden	43	8	14	15	7	10	1	1	1	3	66	8
<b>Total</b>	<b>531</b>	<b>100</b>	<b>93</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>133</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>857</b>	<b>100</b>

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## Pesticide Use Overview

**Most Commonly Used Conventional Pesticide Active Ingredients  
Home and Garden Market Sector  
2007, 2005, 2003, and 2001 Estimates**  
(Ranked by Range in Millions of Pounds of Active Ingredient)

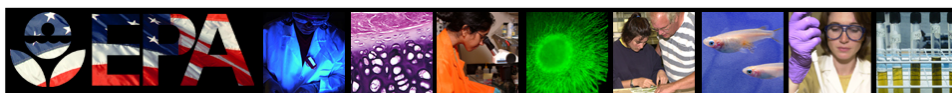
Active Ingredient	Type	2007 & 2005		2003		2001	
		Rank	Range	Rank	Range	Rank	Range
2,4-D	H	1	8-11	1	8-11	1	8-11
Glyphosate	H	2	5-8	5	5-8	2	5-8
Carbaryl	I	3	4-6	2	6-9	6	2-4
MCPP	H	4	4-6	3	5-8	5	4-6
Pendimethalin	H	5	3-5	4	5-8	3	3-6
Pyrethroids	I	6	2-4	7	2-4	—	<1
Malathion	I	7	2-4	6	3-6	8	2-4
Dicamba	H	8	1-3	9	1-3	7	2-4
Trifluralin	H	9	1-3	—	<1	—	<1
Pelargonic Acid	H	10	<1	—	<1	—	<1

**Most Commonly Used Conventional Pesticide Active Ingredients  
Industry/Commercial/Government Market Sector  
2007, 2005, 2003, and 2001 Estimates**  
(Ranked by Range in Millions of Pounds of Active Ingredient)

Active Ingredient	Type	2007 & 2005		2003		2001	
		Rank	Range	Rank	Range	Rank	Range
2,4-D	H	1	19-22	1	19-22	1	16-18
Glyphosate	H	2	13-15	2	13-15	2	13-15
Chlorothalonil	F	3	3-5	4	3-5	5	2-4
MSMA	H	4	2-4	5	3-5	8	2-4
Duon	H	5	2-4	6	2-4	7	2-4
Pendimethalin	H	6	2-4	8	2-4	4	3-5
Triclopyr	H	7	2-4	7	2-4	9	1-3
Copper Sulfate	F	8	2-4	3	4-6	3	4-6
Malathion	I	9	1-3	9	1-3	10	1-3
Sulfuryl fluoride	I	10	1-3	10	1-3	—	—

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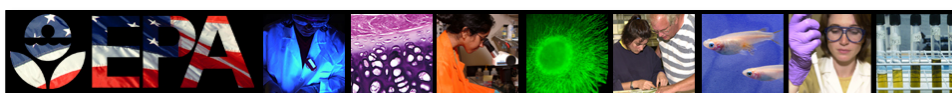


## Potential Risks

- Evaluated for all products and use patterns
- As defined in U.S., FQPA generally applies but not for some amateur uses
  - Aggregate: Diet, water, residential
  - Cumulative: Common mechanism of toxicity
- Policies under development to conduct bystander risk assessments

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## Residential SOPs Update

- Provide methods to assess amateur exposures
  - Great diversity of products considered including homeowner & agricultural products with no label restrictions
  - Added some scenarios (e.g., mister systems) and major updates to others (e.g., exposure metrics for turf uses)
- Age impacts exposure
  - Use "index" lifestages based on factors which influence exposure
  - Adults and Children (e.g., 6 < 11 years, 1 < 2 years)
- Updated since the last discussion at OECD
  - FIFRA SAP Review in 2009  
<http://www.epa.gov/scipoly/sap/meetings/2009/100609meeting.html>
  - Current Version Released 2012  
<http://epa.gov/pesticides/science/residential-exposure-sop.htm>

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## ***Impact of Turf SOP Update***

- Scenarios
  - Playing on Treated Turf: 1<2 yr olds and adults
  - Mowing Treated Turf: 11<16 yr olds and adults
  - Golfing on Treated Turf: 6<11 yr olds, 11<16 yr olds, adults
- Impact of Update
  - Dermal exposures higher
    - New exposure data better reflects children’s behaviors
  - Oral exposures generally lower
    - New algorithm accounts for complex loading and removal processes

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## ***Policies & Procedures***

- How requirements are applied in the U.S.
  - Registration by active ingredient and each end-use product
  - Label requirements
    - Instructions for each use
    - Packaging types
    - General instructions for disposal
    - Protective equipment, engineering controls and/or administrative approaches
- Many processes (e.g., Registration, Registration Review)

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## ***Policies & Procedures: Label Information***

- Smart Label Pilot Project  
[http://www.epa.gov/oppead1/cb/csb\\_page/updates/2014/smartlabel.html](http://www.epa.gov/oppead1/cb/csb_page/updates/2014/smartlabel.html)
- Web Distributed Labeling  
<http://www.epa.gov/pesticides/regulating/labels/distribution/index.htm>
- Label Review Manual  
<http://www2.epa.gov/pesticide-registration/label-review-manual>
  - Questions and Answers Page  
[http://www.epa.gov/pesticides/regulating/labels/labels\\_faq/lr\\_faq\\_1.html](http://www.epa.gov/pesticides/regulating/labels/labels_faq/lr_faq_1.html)

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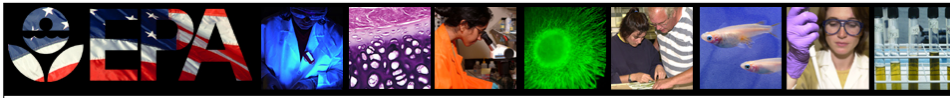


## ***Policies & Procedures: Smart Labels***

- Plan to capture data as structured content
  - Structured content refers to information or content that has been broken down and classified using metadata
    - Includes free text and discrete data elements
    - Metadata is "data about data"
- Inclusive of conventional, antimicrobial and biological products
- Primarily focus on label content, rather than format
- Label content (XML data file)
- Label format (PDF)
  - Standard EPA rendering of content for review purposes

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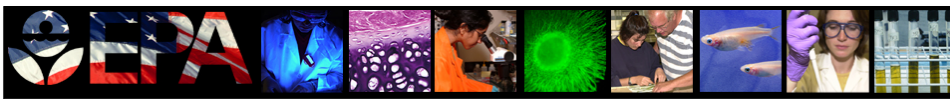


## ***Policies & Procedures: Web Distributed Labeling***

- Voluntary system
- Complete labeling still on pesticide container
  - Reference statement, unique identifier, and "released for shipment date" on the container or attached labeling
  - User has option to download "rendered labeling"
- Streamlined use directions can now be available via website
- Both container labeling and web-distributed labeling are legally valid
- Overall goals
  - Make latest version of approved labeling available to user quickly
  - Improve users' understanding of and compliance with pesticide labeling

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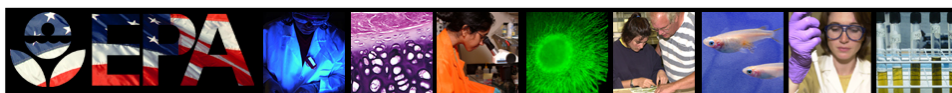


## ***Policies & Procedures: Label Review Manual***

- Chapter 1: Purpose of the Manual
- Chapter 2: What is a Pesticide?
- Chapter 3: General Labeling Requirements
- Chapter 4: Types of Label Reviews
- Chapter 5: Ingredient Statement
- Chapter 6: Use Classification
- Chapter 7: Precautionary Statements
- Chapter 8: Environmental Hazards
- Chapter 9: Physical or Chemical Hazards
- Chapter 10: Worker Protection Labeling
- Chapter 11: Directions for Use
- Chapter 12: Labeling Claims
- Chapter 13 Storage and Disposal
- Chapter 14: Identification Numbers
- Chapter 15: Company Name and Address
- Chapter 16: Graphics & Symbols on Labels
- Chapter 17: Net Contents/Net Weight Statement

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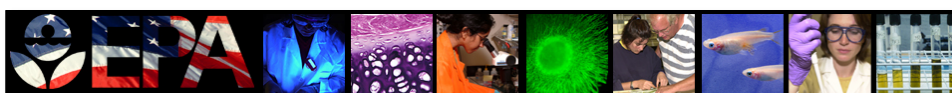


## Policies & Procedures: Containers

- **Basic container requirements**
  - Adopted from the Department of Transportation
  - no residue on the outside of the container
  - container must close securely/not leak
  - pesticide must be compatible with the container
  - "General requirements for packings and packages" 49 CFR 173.24.
- Regulations exempted residential pesticides from rinsing instructions on the labels for dilutable products in rigid containers
  - Consistent with PR Notice 2001-6 (which was updated by PRN 2007-1)

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## Policies & Procedures: Containers

- **Guidance for Handling and Disposing of Containers**
  - Nonrefillable container. Do not reuse or refill this container.
  - If empty: Place in trash or offer for recycling, if available.
  - If partly filled: Call or your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.
  - If possible, dispose of unused residential pesticide at household hazardous waste collections rather than disposing in trash.
- Never put pesticide in a food or beverage container.
- Never use a pesticide container to hold food or beverages.
- Keep out of reach of children.

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## **Policies & Procedures: Consideration of Incidents**

- Evaluates incidents on health/environment caused by all pesticide uses including non-professional uses
  - Tiered process considers various sources for incident information
    - IDS, SENSOR, CAPISP, AAPCC
  - Epidemiology is also considered
- Can inform regulatory process
  - e.g., modifications to packaging/formulations

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## **Policies & Procedures: Consideration of Incidents**

- Primary causes of incidents
  - Misuse
  - Accidents and equipment breakage
  - Spray drift & bedbug uses have high frequency
- Incidents can indicate need for regulatory action
- Considerations
  - Reporting
  - Instructions & labeling

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## **Risk Management**

- Amateur products intended for use by homeowners
- Decisions based on the following criteria
  - No training is assumed
  - No use of protective clothing/equipment is assumed
  - Summer attire used – most protective approach
- Some options which are employed
  - Engineering options
    - Ready to use products, container size/design
  - Adjust use pattern
    - Remove equipment, application rates, delete use

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## **Risk Management**

- Products used by amateurs but in work environment
- Decisions based on the following criteria
  - Training is assumed/responsible party
  - Protective clothing/equipment is assumed
  - Normal work clothing is assumed
- Some options which are employed
  - Engineering options
    - Water soluble packaging, nozzles such as injectors
  - Adjust use pattern
    - Remove equipment, application rates, delete use

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## **Current Issues** **Spray Drift & Volatilization**

- Presidential Executive Order 12898 on Environmental Justice
  - General information <http://epa.gov/environmentaljustice/>
  - Plan for 2014 <http://epa.gov/environmentaljustice/plan-ei/index.html>
- Considered for all pesticides
  - 90M people live in small urban clusters & rural settings
  - Incidents occur but rate is low, causes and impacts vary
- Information is available in public docket [www.regulations.gov](http://www.regulations.gov)
  - Spray drift – Docket ID: EPA-HQ-OPP-2013-0676
  - Volatilization – Docket ID: EPA-HQ-OPP-2014-0219
- Process so far
  - 90 day public comment periods complete
  - Comments currently being evaluated & finalize in 2015

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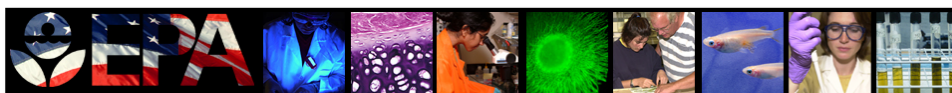


## **Current Issues** **Spray Drift Related Activities**

- *Farmworker Justice/Earth Justice* petition (Docket EPA-HQ-OPP-2009-0825)
- Drift Reduction Technologies (DRTs)
  - [http://www.epa.gov/oppfead1/cb/csb\\_page/updates/2014/spraydrift-techno.html](http://www.epa.gov/oppfead1/cb/csb_page/updates/2014/spraydrift-techno.html)
  - Data development
  - Applicability
- Federal and International partnerships

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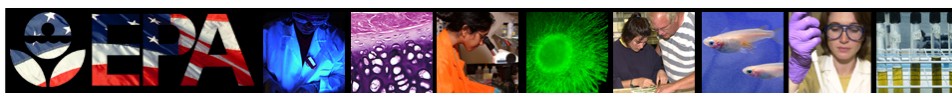


## Current Issues Volatilization Screening

- ~80% of conventional pesticides “passed”
  - Inputs include: basic use info, available toxicity, characteristics (solubility, VP,  $K_{oc}$ )
- 90 day public comment period completed
- Currently evaluating comments
- Next steps for those which did not “pass”
  - Possible refinement based on use, toxicity, and emissions

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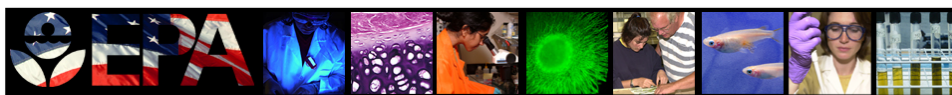


## Other Current Issues

- Worker Protection Standard updates
  - Intended to reduce take home exposures
- Numerous dermal toxicity topics, FIFRA SAP is planned in 2016
- Increased exposure potential with GMO trait pesticides
- Updated fumigant label implementation
- Epidemiology and incident data in risk assessment
  - e.g., chlorpyrifos, 2,4-D
  - Several FIFRA SAP reviews on these methods

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# Thanks

## Contact Information

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703-305-7329

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**Presentation 5**

Management of Risks concerning Non-professional Pesticide Uses without Rigid Legal Framework:  
Situations in Japan (*Mr. Masashi Kusakawa, Deputy Director of the Ministry of Agriculture, Forestry and Fisheries, Japan*)

# Management of Risks concerning Non-professional Pesticide Uses without Rigid Legal Framework: Situations in Japan

9 December 2014

OECD Seminar on Risk Reduction and  
Pesticide Non-professional Uses

Masashi KUSUKAWA  
Ministry of Agriculture, Forestry and Fisheries, Japan

**MAFF**

## Contents

1. Regulation of non-professional pesticide uses in Japan
2. Possible cases of non-professional uses and their problems
3. Measures taken to manage risks concerning non-professional uses
4. Limitations and challenges

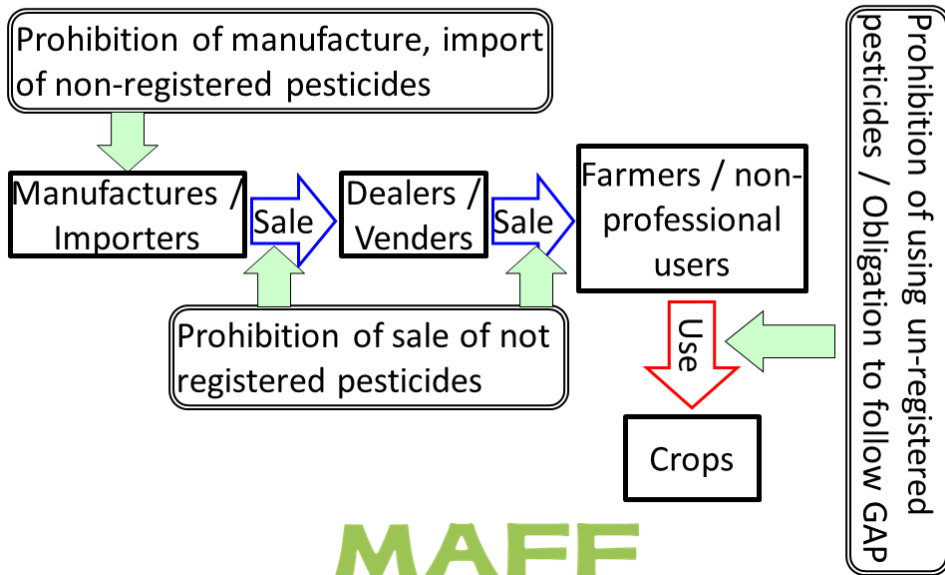
**MAFF**

# 1. Regulation of Non-professional Pesticide Uses in Japan

- ✓ What obligations apply to pesticide users in general?
- ✓ Any definition of non-professional uses?
- ✓ Any differentiated obligations apply?

MAFF

## Pesticide regulation under the Agricultural Chemicals Control Law



## Professional vs Non-professional Uses

- No reference to “professional” or “non-professional” users in the Law
    - >> Both are equally responsible for safe and proper use
  - No system of “licensing” of pesticide uses
    - >> Any registered pesticides are available to non-professional users
    - >> Non-professional users are expected to understand the label and follow instructions
- ...which may not be always the case!

MAFF

“Non-professional” uses covered in this presentation:

- Dictionary definition of “profession”:
  - ✓ a type of job that requires special education, training, or skill
  - >> “Non-professional” use could mean use of pesticides by those who have not received proper training and do not have skills to prevent health and environmental risks.
  - >> Then the root of problems with non-professional uses is self explanatory.

MAFF

## 2. Possible cases of non-professional uses and their problems

- ✓ Situations in which pesticides are likely to be applied by untrained persons
- ✓ Expected problems and possible measures

**MAFF**

## Possible cases of non-professional uses

- Application to ornamental plants privately grown in residential gardens or on balconies
- Application to food crops (*e.g.* vegetables) grown in residential gardens or allotment gardens
- Application to trees planted in public spaces by employees of the facility not specifically trained for pest management, namely, occupational use by untrained workers (*e.g.* school janitors)

**MAFF**

## Problems with non-professional uses

- Users are not familiar with the language in pesticide labels
  - No experience of wearing protective equipment and low awareness of its necessity
  - Usually only small amounts of pesticides will suffice the needs
    - >> what to do with the rest ??  
(storage and/or disposal)
- Preferably:
- ✓ Easy to use
  - ✓ Less acute toxicity
  - ✓ Less quantity (small container)

**MAFF**

### 3. Measures taken to manage risks concerning non-professional uses

- Restrictions applicable to the registration of pesticide “intended for home gardeners”
- Voluntary guidelines concerning the labelling and claims of pesticide intended for home gardeners
- Advice and consultation provided by prefectures and pesticide manufacturers

**MAFF**

## Restrictions on the registration of pesticides for use by home gardeners

- Pesticides intended for home gardeners should meet requirements concerning *toxicity* and *net content*.
- “Flags” of pesticides intended for home gardeners:
  - ✓ Reference to “gardening” in the trade name;
  - ✓ Use rate expressed in “per m<sup>2</sup>”, not “per 10 a”
  - ✓ Ready-to-use liquid or spray formulation

MAFF

## Toxicological requirements

- Toxicity of pesticides intended for home gardeners should be within the following threshold:
  - ✓ Acute oral toxicity (LD<sub>50</sub>) > 300 mg/kg
  - ✓ Acute dermal toxicity (LD<sub>50</sub>) > 1000mg/kg
  - ✓ Acute inhalational toxicity (LC50) > 1.0 mg/L  
(4 hrs)
  - ✓ Skin sensitization (positive rate) < 75 %  
in order to prevent adverse health effects  
on users wearing no protective equipment

MAFF

## Requirements on net content: why?

- Only a small amount of pesticide is necessary for home gardening
  - >> Likely to give rise to “obsolete stocks”
- Disposal of obsolete pesticides from non-professional users: covered by municipal waste management programmes
  - ...but more often than not, limitations of technological capacity does not allow it.



Net contents should not be more than necessary for normal home gardening

**MAFF**

## Requirements concerning net content

- Insecticides or fungicides
    - ✓ Granules  $\leq 2$  kg
    - ✓ Wettable powder  $\leq 100$  g
    - ✓ Liquid formulations (e.g. EC, SC)  $\leq 100$  mL
  - Herbicides
    - ✓ Granules  $\leq 3$  kg
    - ✓ Wettable powder  $\leq 100$  g
    - ✓ Liquid formulations (e.g. EC, SC)  $\leq 200$  mL
- ( Larger sizes allowed for liquid formulations directly applied without dilution with water )

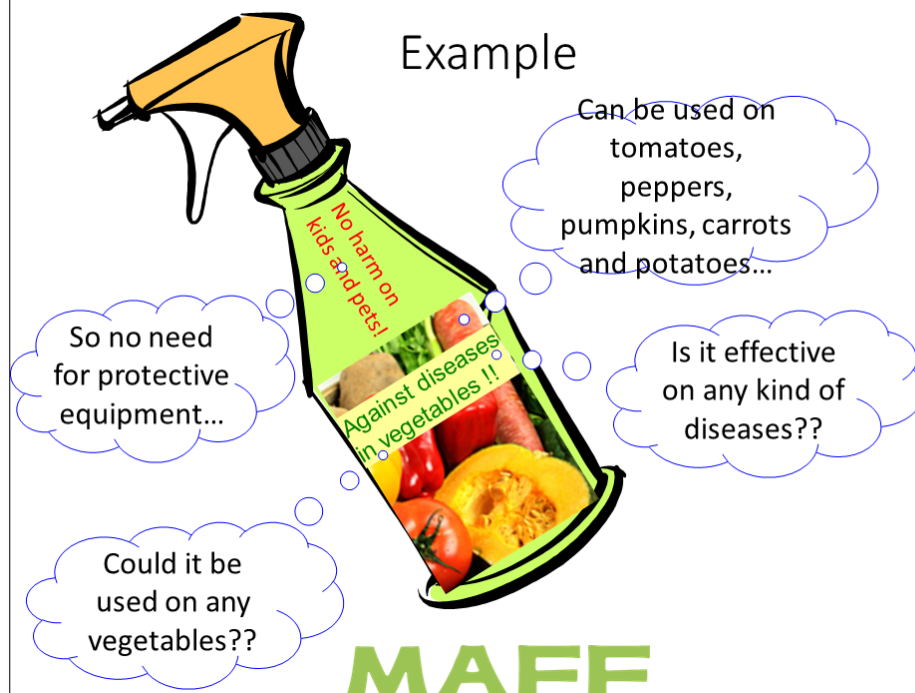
**MAFF**

## Labelling and claims of pesticides for home gardeners: the issue

- Product selection by non-professional users may be influenced by the impression given by the package more than by the authorized uses.
- Front-of-package labelling – well devised to attract such users, which could end up with confusing and deceptive information.

MAFF

### Example



But on the back...



You may find:

- ✓ Effective only to powdery mildew
- ✓ Applicable only to tomatoes, peppers and cucurbits
- ✓ Protective masks are recommended

**MAFF**

## Voluntary guidelines on labelling and claims of pesticides for home gardeners

- Voluntarily established by the association of manufacturers of pesticides for home gardeners
- Aim to restrain deceptive or confusing claims inconsistent with the authorized GAP
- Consist of basic provisions to comply with relevant laws and regulations
- Further guidance comprising examples of inappropriate claims is being developed

**MAFF**

## Advice and consultation provided by prefectures

- Agricultural extension services of prefectural governments are capable of providing advice to farmers concerning proper use of pesticides
- In some prefectures, agricultural extension services provide advice and consultation also to non-professional users

MAFF

## Examples:

- Advice is provided at the request of non-professional users who visit the agricultural extension service or contact by phone call
- Seminar on proper use of pesticides targeting the user of allotment gardens
- Questions asked:
  - ✓ Identification of the pests and measures for their control
  - ✓ Measures to reduce exposure of bystanders and residents

MAFF

## Advice and consultation provided by pesticide manufacturers

- Advice given in the course of promotional activities
  - ✓ Promotion staffs dispatched from manufactures provide general guidance on gardening at garden centers
  - ✓ They can provide pest management solutions, including authorized pesticides for the pest in question, as well as instructions for safe use

**MAFF**

## Advice and consultation provided by pesticide manufacturers – continued

- Distribution of guidance materials
  - ✓ Pamphlets for promotional purposes, usually containing guidance on safe and effective use of the pesticide, are placed on garden centers
- Response to inquiries
  - ✓ Contact numbers for inquiries are printed on the labels of pesticide for home gardeners
  - ✓ Very basic questions, e.g. how to read the labels / how to prepare spray solutions

**MAFF**

#### 4. Limitations and Challenges

- ✓ Assessment of the present approach
- ✓ Identification of limitations
- ✓ Future challenges

MAFF

- Restrictions on the registration of pesticide “intended for home gardeners”
  - ✓ Restriction concerning toxicity and net content should have contributed to reduce accidents and illegal disposals
  - ✓ But it is still possible that non-professional users buy “normal” pesticides which require more skills and cautions
- Voluntary guidelines on labelling and claims
  - ✓ Further development of guidance comprising inappropriate claims expected

MAFF

- Advice and consultation provided by prefectures and pesticide manufacturers
  - ✓ Door is open / Effectiveness of the measure largely dependent on the will of non-professional user to seek advice
  - ✓ But some of them may not have realized that they actually need advice
  - ✓ It might be necessary to disseminate the risk and benefit of pesticides in a broad effort to improve public chemical literacy.

MAFF

Thank you for your attention!

MAFF



## RISK REDUCTION AND PESTICIDES NON PROFESSIONAL USES



### CONTENT: based on surveys and studies:

- What is a garden?
- Pest management?
- Industry perception.
- What risks?
- Consumer awareness?
- What consumers want.

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### Garden = Leisure area

- Nice garden image socially very important:  
emotional garden effect: +26% value\*
- Well maintained garden = important financial factor:  
real estate garden effect: +8% value
- Plants and green area contribute to happiness (44%)  
(compared to money: 30%\*)
- People (52%) are impressed by gardens with fruit trees  
and flowers\*
  - And gives complementary food production
  - Requires maintenance



\* Husqvarna Global Garden Report 2011 and 2013

## Time spent = Leisure time

- Most efficient/time reduced pest management efforts
- Many options for maintenance activities
- People (32 %\*) feel 'garden maintainance' as a chore

→ shortest time possible  
→ Which tools are available to maintain the garden and control pests?



\* Husqvarna Global Garden Report 2011

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### Pests:

- Mildew (*Oidium*) or black spot (*Diplocarpon*) on roses and ornamentals
  - Either grow a resistant variety (limited choices)
  - Or apply a fungicide (chemical or biological)



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Pests:

- Massive aphid infection (*Aphidoidea*)
  - Either hoping for ladybird beetles (*Coccinellidae*)
  - Or apply an insecticide (chemical or biological)



Pests:

- Potato blight (*Phytophthora infestans*)
  - Either significant yield reduction
  - Or apply regularly a fungicide



Pests:

- Cut tree: avoid sucker re-growth
  - Either dig out the stump:  
hard work,  
surrounding can get damaged
  - Or apply a herbicide:  
Leave it for natural  
degradation



## Current Situation

BUT:

- Widely communicated perceptions:
  - “All PPP are very dangerous for health and environment”
  - Emotional claims – broadly used by NGO’s, media, ...  
with very limited formal grounds
  - Definition and restrictions as unnecessary ‘Cosmetic  
pesticides’

→ Producers driven in a defense position

## What are the perceived risks?



- For Regulators:
  - High risk products get to the market
- For Consumers:
  - Do not read the label
  - Are not aware of the risk
  - Misuse PPP and put their health at risk
  - Misuse PPP and contaminate the environment
- Producer/Distribution:
  - Does not give sufficient information

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## Are the perceived risks real?



Consumer intoxications

- Plant protection products are regularly involved in poison centre question handling

Medical notification statistics in Germany 2010:

Medical notification	total	private	Serious health effect
PPPs	242	8	1
Pharmaceuticals	3280	740	245
Chemicals	34658	967	359

Source: [http://www.bfr.bund.de/de/uebersicht\\_der\\_praesentationen\\_zur\\_veranstaltung\\_50\\_jahre\\_nationale\\_kommission\\_bewertung\\_von\\_vergiftungen\\_am\\_bfr\\_am\\_29\\_april\\_2014-190520.html](http://www.bfr.bund.de/de/uebersicht_der_praesentationen_zur_veranstaltung_50_jahre_nationale_kommission_bewertung_von_vergiftungen_am_bfr_am_29_april_2014-190520.html)

Helping Farmers Grow

## Are the perceived risks real?



Consumer intoxications

- Plant protection products are regularly involved in poison centre question handling

Medical notification statistics in Belgium 2013:

Calls noted	Total	% of total
PPPs	820	1.6
Cosmetics	2552	4.8
Household products	13246	25.1

→ Real intoxications are very rare

Source: [http://www.antigifcentrum.be/sites/default/files/imce/Jaarverslag\\_mail.pdf](http://www.antigifcentrum.be/sites/default/files/imce/Jaarverslag_mail.pdf)

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## Spreading into the environment: Surface water



- Plant protection products are perceived as very risky (Sustainable Use Directive 2009/128/EC Art. 11)
- Example: Glyphosate in surface water discussion.
- Some facts:
  - Glyphosate findings in surface water have always been below the environmental thresholds (e.g. EQS, MAC values)
  - If applied to surface water the *EU drinking water* (0.1 µg/L) is occasionally exceeded. So do many other chemicals and water parameters.

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## Glyphosate garden product uses including on hardened surfaces



- **UK study in Residential Area\***
  - Normal uses by the gardener monitored, real life use including all uses (hard surface included in the registration)
  - Rainwater sampled from the main sewer following 3 rain events during use season
- **RESULT:** <1 % of applied amount (calculated as 0.81% a.i. going to drain water (possibly → surface water)
- **In concentrations (3 rain events)**
  - Max: 9.0 µg glyphosate/L water
  - Mean: 2.0 µg glyphosate/L water
- **Similar results obtained in a study in BE (SETAC Conference Basel 11 May 2014)**

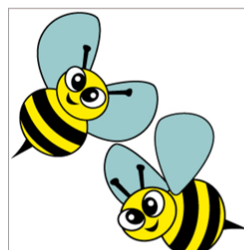


<http://onlinelibrary.wiley.com/doi/10.1002/ag.2724>

## Risk for the environment - Bees



- Study “Impact of garden PPP use honey bees in BE”
- Calculation according to the Risk Equation formular in:
  - EC-SANCO 10329/2002 vers. 2 (17.10.2002)
- **Conclusion:** In 2012 PPP had 60% less impact on honeybees than in 2005.




Source: ICP-PR symposium, 15 Sept. 2014, Gent


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## Consumer risk awareness

- For PPP:
  - 77 % awareness for PPPs (highest of all chemicals)
  - 84 % felt that use instruction is needed
  - 50 % always read the label (frequently used household chemicals = 43 – 26 %)
  - Sources Safety information:
    - 80 % from the packaging
    - 36 % from producers



Special Eurobarometer



Special Eurobarometer 360 / News 74.3 – The Opinion & Social

SPECIAL EUROBAROMETER 360

Consumer understanding of labels and the safe use of chemicals

REPORT

Fieldwork: November – December 2010  
Publication: May 2011


This survey was requested by the Directorate General, JRC Joint Research Centre of the European Commission on behalf of European Chemicals Agency (ECHA), JRC's Institute for Health and Consumer Protection (IHCP) coordinated the preparation of the questionnaire in co-operation with ECHA. The survey was coordinated by the Directorate General Communication.  
[http://ec.europa.eu/public\\_opinion/index\\_en.htm](http://ec.europa.eu/public_opinion/index_en.htm)

This document does not represent the point of view of the European Commission. The interpretations and opinions contained in it are solely those of the authors.

[http://ec.europa.eu/public\\_opinion/archives/eb\\_special\\_379\\_360\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb_special_379_360_en.htm)

## Consumer risk awareness

- Trusted information comes from
  - Poison centers (47%)
  - Doctors (34%)
  - Producer (33%)
  - ... (in total 14 categories)
- Plant protection products are perceived as potentially hazardous, not often used
- Labels are read and instructions followed
- Label text and producers are trusted info sources



EUROBAROMETER

Special Eurobarometer 360 / News 74.3 – The Opinion & Social

SPECIAL EUROBAROMETER 360

Consumer understanding of labels and the safe use of chemicals

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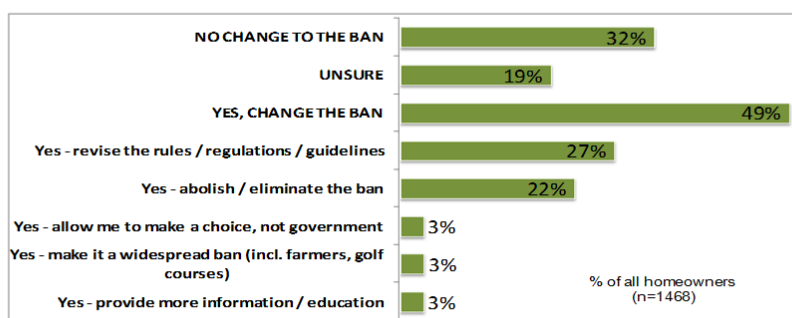
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## Ontario, Canada: ban of garden PPP



Poll after ban:

Would you like to see the Ontario Cosmetic Pesticides Ban changed in any way? If yes, in what ways?



→ 49% of homeowners would like to see the ban changed in some way or else completely abolished altogether.



Source: CropLife Canada / Blacksheep Strategy

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## Cost implication: for the user



- Products are expensive – consumers have the free choice of buying or not

1. moment of truth: consumer sees benefit → purchase
2. moment of truth: consumer uses product → satisfaction
3. moment of truth: consumer had good experience/results → re-purchase of the product

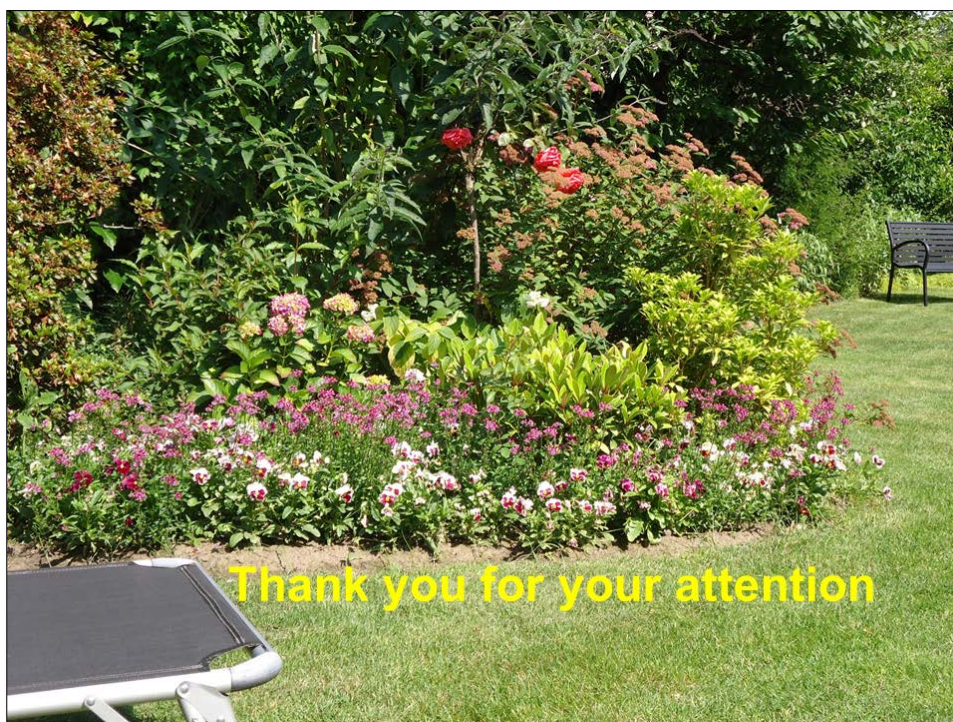
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## Key Take Away




- **Garden is a leisure area, maintenance considered a chore.**
- **Garden PPPs products are available with low hazard.**
- **Garden PPPs give limited risks – gardeners are aware of the products characteristics.**
- **Risk for the environment is limited.**
- **Gardeners ask for having the freedom of choice.**

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**Presentation 7**

Pesticides for Non-Professional Uses & Risk mitigation measures: Practical view from an SME (*Martina Utenwiehe, the ECPA GAPEG, Garden and Amenity Group*)



**Pesticides for Non-Professional Uses  
&  
Risk Mitigation Measures:  
Practical View from an SME**

OECD, 9 December 2014  
Martina Utenwiehe

W. NEUDORFF GmbH KG

Helping Farmers Grow



**Pesticides for Non-professional Uses**

Who I am ...

- Head of Regulatory Affairs at W. NEUDORFF GmbH KG
- More than 20 years experience in regulatory affairs and registration of PPPs, Biocides and Fertilizers:  
EU Member States, USA, Canada, Japan and others
- Chair of German Industrial Association  
IVA "Home & Garden" Group
- Member of ECPA GAPEG Group



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## Pesticides for Non-professional Uses



### Where we are ...

- All Plant Protection Products (PPP) need to pass registration criteria (very many parameters):  
both - products for agricultural and consumer uses
  - Many countries introduce stricter criteria for garden PPP:
    - hazard classification limitation
    - adaptation for non-professional users: no protective equipment possible; no safety distances possible; easy dosing systems...
- Producers can follow, provided criteria stay stable (R&D plus product registrations take several years and are very expensive)!

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## Pesticides for Non-professional Uses



### What are we talking about ...

- Garden market consumer business
- It is a 'small' segment of total PPP volume: (i.e. compared to Ag Uses)
  - e.g. DE 2013: all final PP products = 4.7% of total volume in kg\*
  - even less at active ingredient level



\* [http://www.bvl.bund.de/SharedDocs/Downloads/04\\_Pflanzenschutzmittel/meld\\_par\\_19\\_2013.pdf?blob=publicationFile&v=3](http://www.bvl.bund.de/SharedDocs/Downloads/04_Pflanzenschutzmittel/meld_par_19_2013.pdf?blob=publicationFile&v=3)

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## Pesticides for Non-professional Uses



What are we talking about ...

BUT:

- Widely communicated perceptions:
  - ‘PPP are very dangerous for health and environment’
  - Emotional claims with very limited formal grounds
  - Definition and restrictions as ‘cosmetic pesticides’
  - ‘Do we really need PPPs in consumers hands?’

→ All Producers are pushed into a defense position

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## Pesticides for Non-professional Uses



Do do not know ‘why’, but....

→ Political perception: ‘*ALL ARE TOXIC*’ allows for ‘extra uncertainty factor’

→ The ***precautionary principle***\* should **NOT** be invoked without serious and documented reasons

→ Registration evaluation should be based on science, without ‘political driven influence’!

\* Communication from the EU COM 2000/0001 final

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## Pesticides for Non-professional Uses



Stewardship: Reduced Risk Options / Consumer PPPs\*

Proposed, but not limited to:

- Use of pesticides of low toxicity
- Ready-to-use formulations
- Size limitations of containers or packaging



Reduced risk in the EU: Dir 2009/128/EC, Art. 13

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## Pesticides for Non-professional Uses



Stewardship: Reduced Risk Options for Packagings

- Child Resistant Closure:  
ISO standard 8317
  - Only legally required for hazardous products (EU Reg. 1272/2008, Art. 35)
  - For concentrated liquid readily available
  - Other products requires innovation.



But: not needed for products, where risk assessment confirmed that there is no risk for children!

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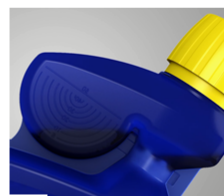
## Pesticides for Non-professional Uses



### Stewardship: Reduced Risk Options for Package

- Packaging for garden users:

- Dosing adaptation to product label indication not that obvious – requires innovation
- Packs and pack sizes adapted to garden uses:
  - in practice in various countries (UK, FR, DE, BE)
  - DE, BE, NL: pack size for max. 500 m<sup>2</sup>
  - CH: dosing expressed to 5 m<sup>2</sup>



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## Pesticides for Non-professional Uses



### Stewardship: Special Application Systems

- Ready To Spray product:

- no calculation
- no measuring
- no mixing operations

→ Needs an application system included

- spray nozzle adapted to the product type.



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INTERNATIONAL 

## Pesticides for Non-professional Uses

### Stewardship: Special Application Systems

- Ready To Use products (others than spraying)
  - really targeted to the pest
  - no side emission to the environment




**Stewardship towards less risk products is possible, but requires study and innovation investments!**

---

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**CropLife**  
INTERNATIONAL 

## Pesticides for Non-professional Uses

### Label and Packaging

- Conflict between small volume packaging and all info on the label (legally required text goes first)  
- But non-professionals need info = extra recommendations, easy to understand (pictures, icons...)  
- Claims/Legally required text: needs 'easy language' for consumer (needed for some EU Member States)
- Multi-language labels (needed for some EU Member States) 

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## Pesticides for Non-professional Uses



### Label and Packaging

- OPTIONS how to get more space for text:
  - larger facing of the package possible with flat bottles
  - Booklet labels



But, the most promising option:

- reduce wording to the needed/relevant minimum
- Use “easy language” and/or Icons

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## Pesticides for Non-professional Uses



### Registration of PPPs for Consumers

- Need of harmonized criteria for approval of consumer PPPs
- Actual situation: different rules in the countries
- Makes zonal evaluation (EU) or Mutual recognition impossible.
- Note: the consumer is the same in every country !!!



Reduced risk in the EU: Dir 2009/128/EC, Art. 13

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## Pesticides for Non-professional Uses



### Registration of PPPs for Consumers

#### WISH LIST TO THE REGULATORS:

- Risk Assessments used should be based on real risk scenarios: Identify the real risk and find harmonized risk approach for evaluation
- Actual Risk Assessments and safety factors do not reflect the real risk!
- Consumer should find a solution for each problem
- If not: illegal use/misuse can be predicted (real RISK for humans as well as the environment!)

Reduced risk in the EU: Dir 2009/128/EC, Art. 13

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## Pesticides for Non-professional Uses

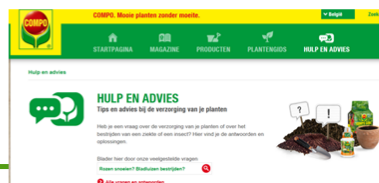
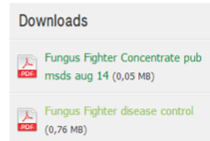


### Stewardship: other options

Supplementary info /  
via website or QR code



- Text size can be increased for better readability
- More info available in different forms ('how to use'-videos etc.)



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## Pesticides for Non-professional Uses



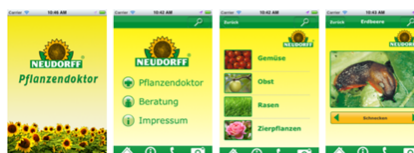
### Stewardship: other options

Service/assistance to consumers:

- Telephone hotlines
- Offer special Apps:
  - advice for target identification
  - choice of the correct product
  - advice how to use product



- Use of Social Media



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## Pesticides for Non-professional Uses



### Training of Sales Staff

- Requirement under Sustainable Use Directive (2009/128/EC Art. 5)
- Training of distributors for consumer products (e.g. FR, DE, DK, BE, UK, ...)
- Who should train: government or industry?
  - Industry meets its customers anyway – knows how to train sales people, knows the questions consumer have
  - Government should insure that the courses follow the standard (no sales presentations) according to Dir. 2009/128/EC art. 6.3 (experience in DE, NL etc).

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## Pesticides for Non-professional Uses



### Training of Sales Staff

- Content (DE: harmonized presentations available, agreed by relevant authorities)
  - Actual Legal Basis
  - Integrated Pest Management
  - Diagnosis of Damage
  - Correct use and handling of PPPs
- OPTIONS:
  - web-learning
  - Training academies
  - to offer 'mentoring' to Garden Center and DIY Shops



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## Pesticides for Non-professional Uses



### Industry knows its products

- Industry knows what is possible for their products
- Industry gives a lot of assistance + advice for using PPPs
- Industry can propose practical risk management measures
- Industry has no interest in promoting misuse
- Industry will be penalized with product cancellation anyway
- Industry invites to discuss new ideas for safe use of PPPs

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## Pesticides for Non-professional Uses



Let's summarize...

- Garden pesticide products are available with low hazard.
- Garden products give limited risks – gardeners are aware of the products characteristics.
- Producers can help – innovation and development on reduced risks (products, packs, registration, ...) takes time.
- Producers offer assistance to get predictable and stable registration requirements for consumer PPPs
- Gardeners should be given the freedom of choice.

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## Pesticides for Non-professional Uses



**Thank you very much for your attention !!!**

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4) User Group representative perspectives

**Presentation 8**

The use of pesticides in German leisure gardens – a view into the gardens of the association’s members  
(Martin Breidbach, Verband Wohneigentum e.V. - national home ownership association, Germany)


OECD-seminar on 9th December 2014, Paris

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The use of pesticides in German leisure gardens –  
a view into the gardens of the association’s members

Martin Breidbach  
Dipl.-Ing. Gartenbau (FH)  
breidbach@verband-wohneigentum.de

VERBAND **WOHNEIGENTUM** E.V.  
www.verband-wohneigentum.de




VERBAND **WOHNEIGENTUM**

Verband Wohneigentum

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- ✓ Representation of more than 350.000 members nationwide
- ✓ Representation, consumer protection, lobbying, insurance benefits, adviser . . .



The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014

Einfach gut leben!  
VERBAND **WOHNEIGENTUM**

## About myself

- ✓ Apprenticeship in horticulture with the focus on perennials
- ✓ Study completed with a degree in engineering in Geisenheim
- ✓ Since 1996 gardening adviser for the association “Verband Wohneigentum Hessen e.V.”
- ✓ **Main job focus:**  
Advice and planning in gardening design, in neighbouring rights, plant care etc., lecture und cutting courses, controls of trees  
public relation tasks with articles and exhibitions attendance etc.
- ✓ Gardening adviser for the national association with advisory and coordination function

The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014



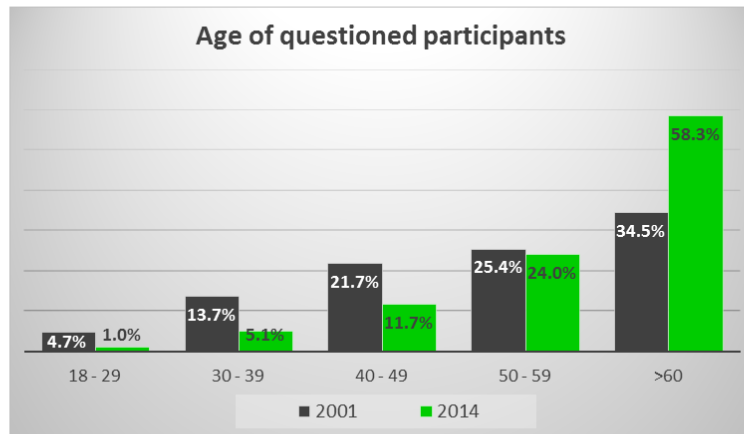
## The questionnaire

- ✓ Period of questioning: 1st August – 30th September 2014
- ✓ Media: the association magazine “Familienheim und Garten”  
online “www.FuG-Verlag.de”
- ✓ Participation: 639 print-questionnaire  
1003 online-questionnaire  
In all: **1642 questionnaire**
- ✓ Comparisons within the presentation are based on a nationwide survey about the use of pesticides in domestic and small-garden sector in 2001

The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014



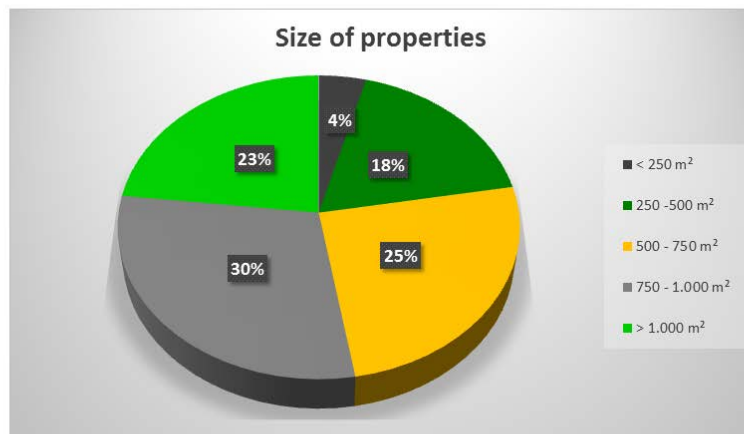
## The survey in numbers – general information



The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014

*Einfach gut leben!*  
VERBAND WOHNHEIGENTUM

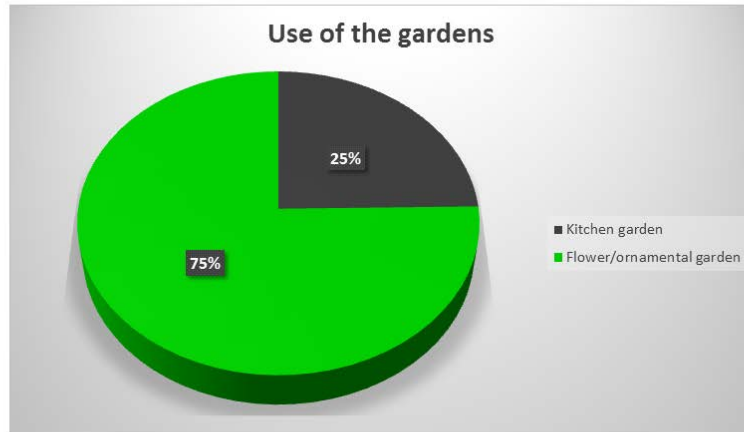
## The survey in numbers – general information



The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014

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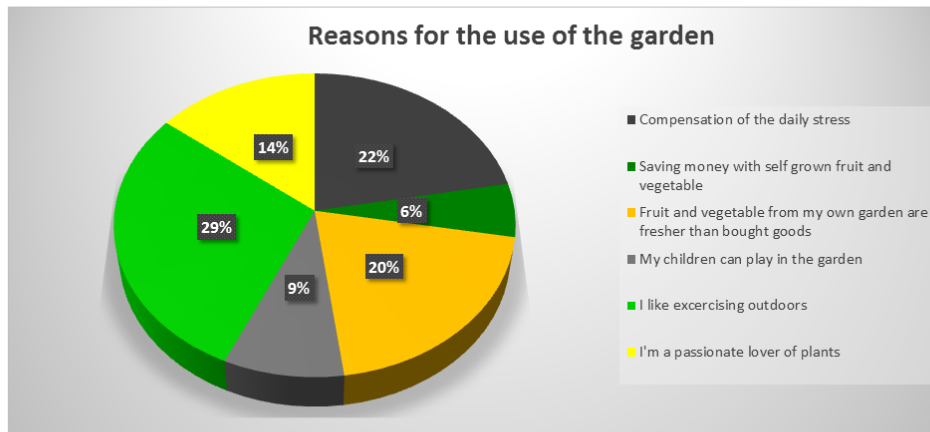
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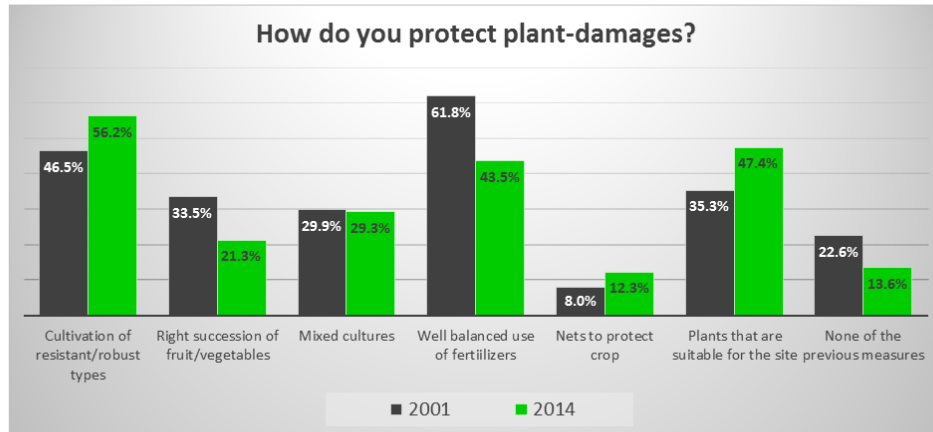
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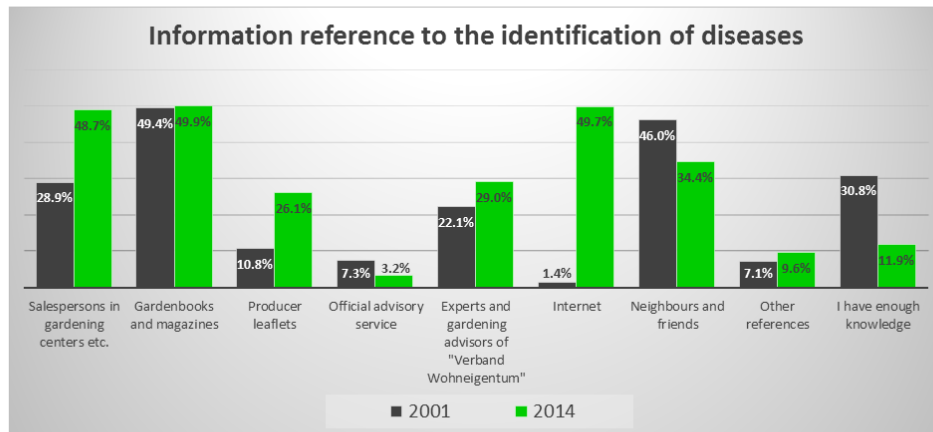
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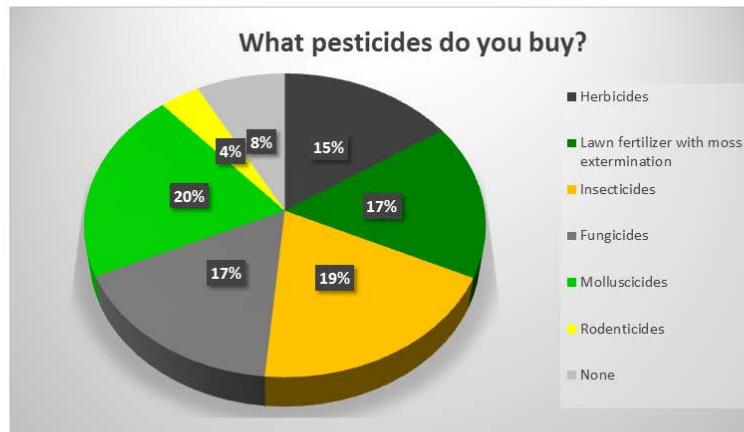
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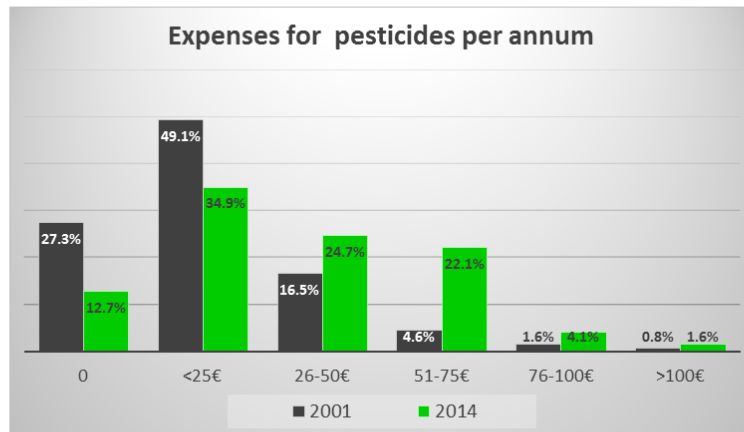
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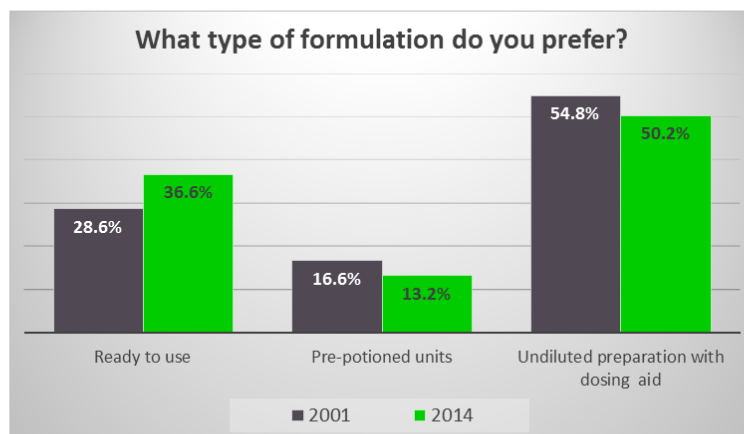
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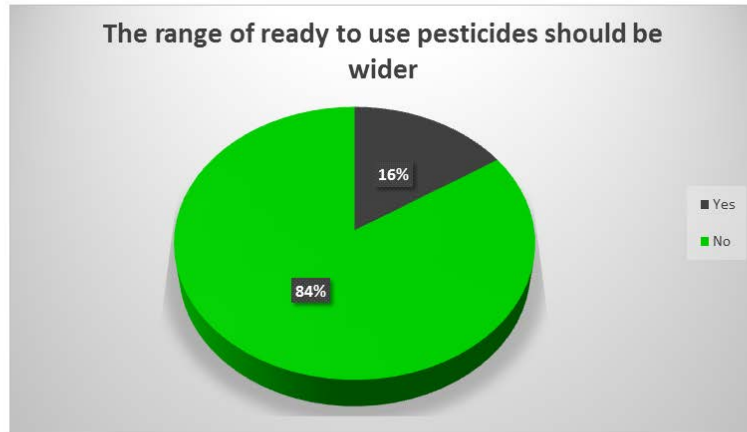
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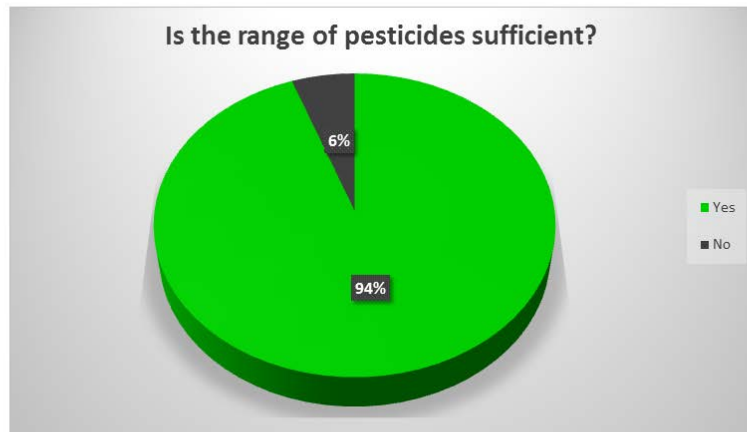
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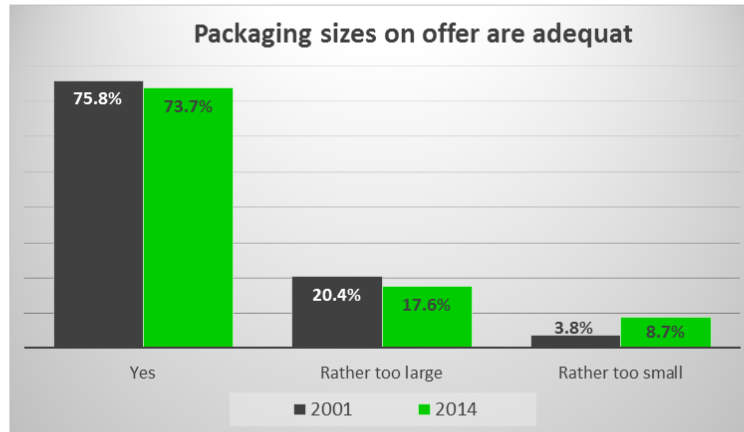
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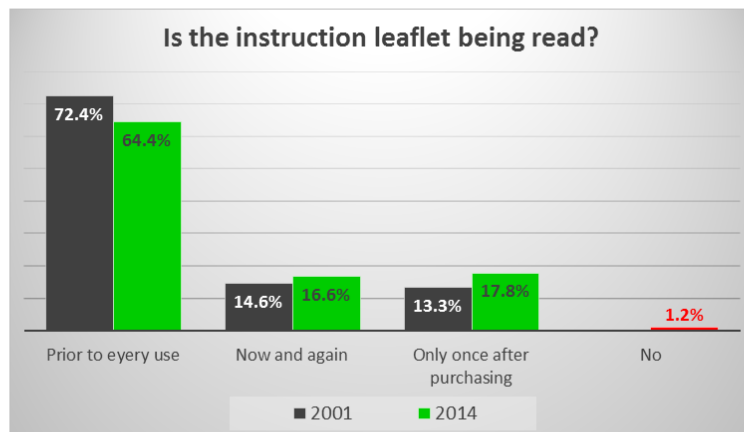
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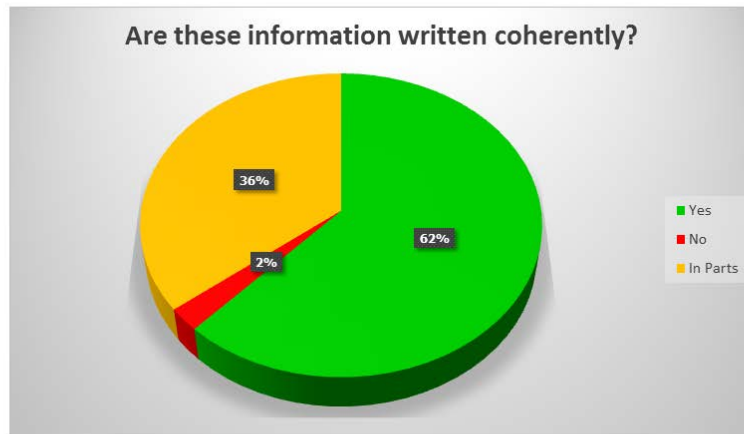
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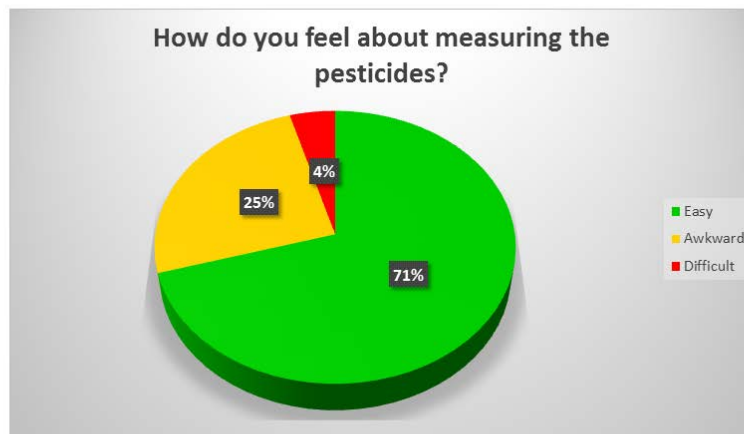
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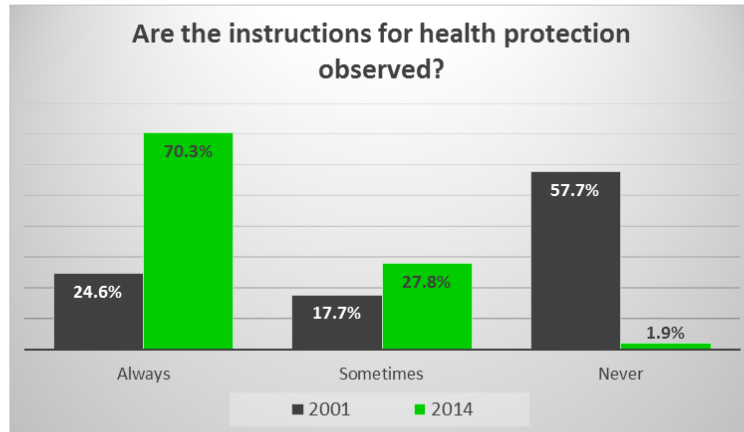
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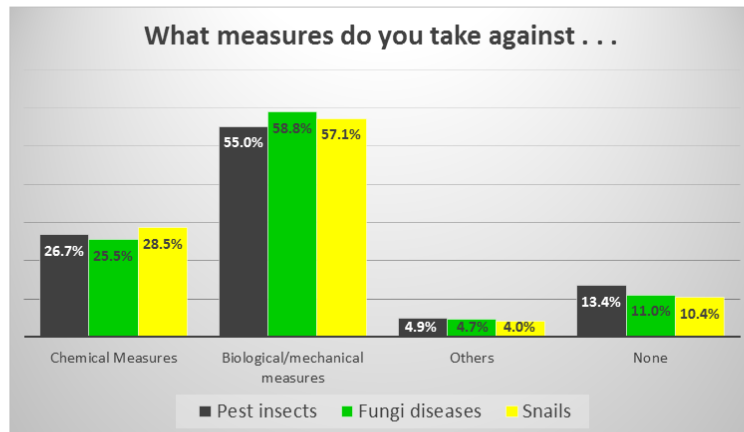
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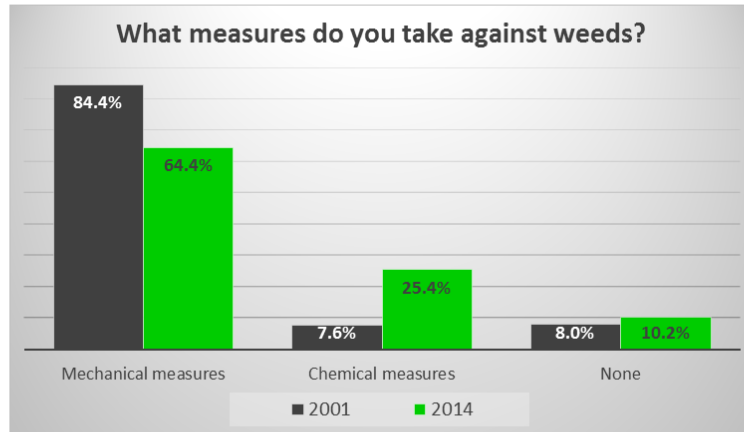
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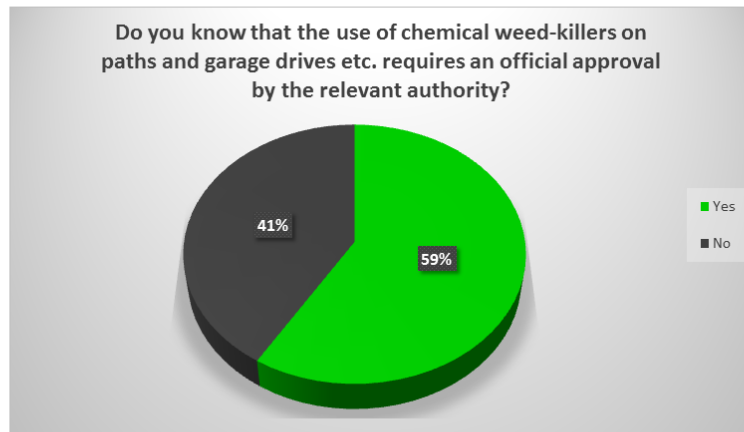
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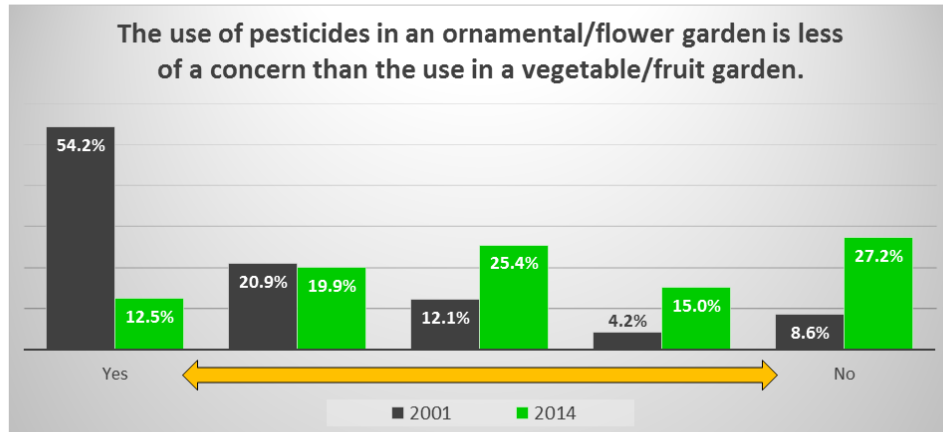
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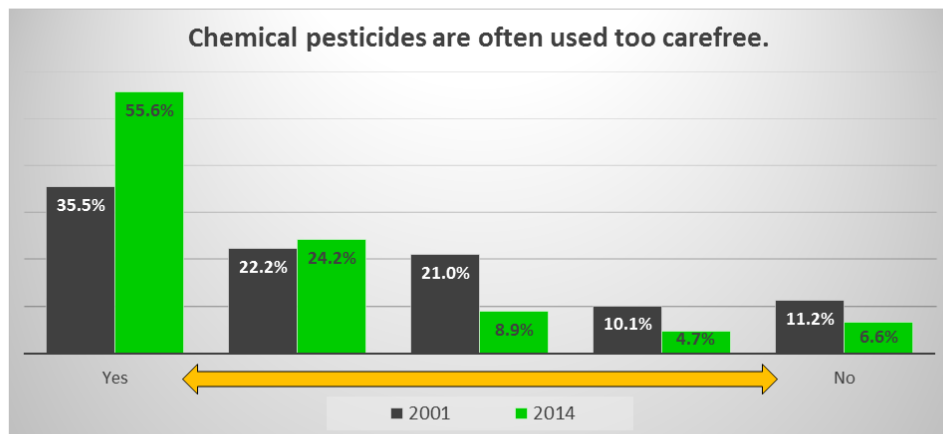
## The survey in numbers – estimation



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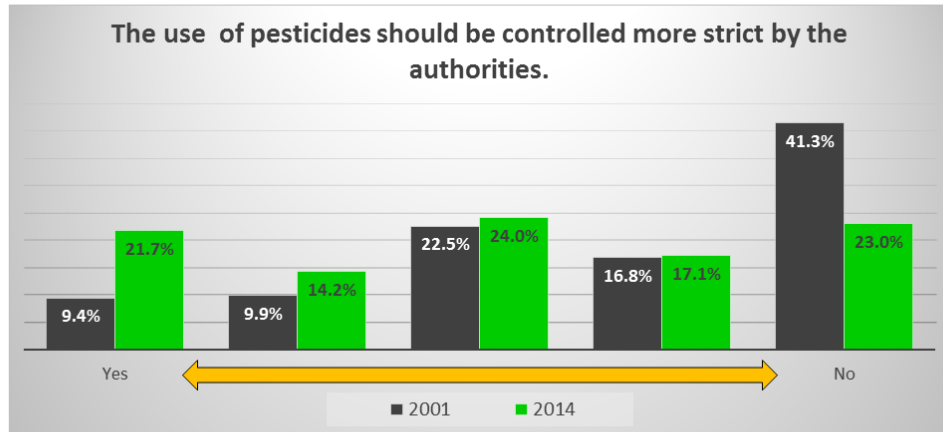
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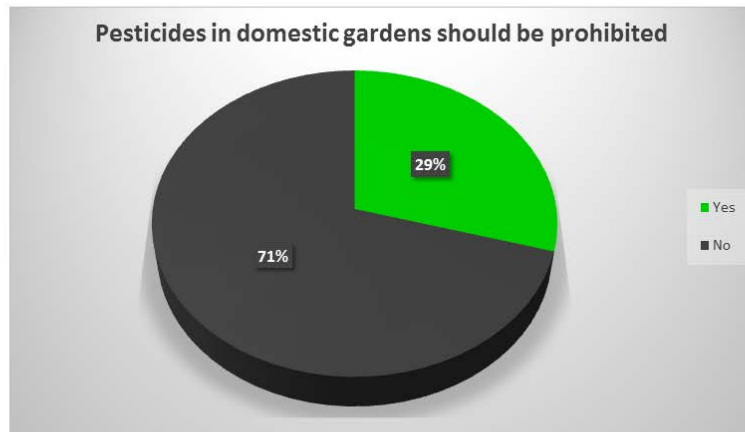
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## Take-Home Message

- ✓ The members of the association use their gardens in many different ways. They inform themselves on a broad level, but are also advised by the association and its advisers.
- ✓ The packaging sizes are sufficiently dimensioned. The range of ready-to-use-preparations corresponds to the members' needs. In contrast action is seen to improve with the instruction leaflets as well as the dosage aids.
- ✓ There is still need of information for the use of herbicides, especially in view of the use on hard surfaces like paths or garage drives.
- ✓ Environmental awareness and a perception for the risks have clearly increased over the last 14 years. However, the character of prohibition seems to be going too far for most consumers.

The use of pesticides in German leisure gardens – OECD-seminar on 9th December 2014

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Thank you very much  
for your attention



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