Directive 2009/128/EC of the European Parliament and of the Council and its approximation in the Slovak republic

Jaroslav Franko
6.10.2011
CEUREG FORUM XV
Bratislava

? threat or progress ?

Because in the name is
„for achievement of sustainable use of pesticides“,
regulation helps subjects that deal with production and sale of pesticides as well.

Article 4
National action plan

- MoAaRD SR – coordinator
- co-authors:
    - CCTIA
    - Ministry of environment SR
    - Technical and testing institute in agriculture
    - National forestry centre
    - Research institute in water management
    - Slovak hydro-meteorological institute
    - Research centre of plant production
    - + associations of farmers and third sector by internet discussion as well as personal negotiations with farmers' representatives

Articles 5 and 6

Special preparation

- established by legislation since 2007 in the Slovak republic
- it has started in the year 2010 in praxis
- sphere of trained persons is in accordance with Directive 2009/128/EC including persons selling retail packages of plant protection products
- the validity of certification is 10 years
- trainings are carried out by entrusted organisations
- lectured topics are in accordance with Directive 2009/128/EC
- extent – applicators 8 hours, sellers 16 hours
- training ends by written test
- control is carried out by CCTIA

- the risk can be a high number of persons subject to trainings

Article 8

Control of application devices

- established by legislation since 1996 in the Slovak republic
- on the present 2-years interval between tests
- all application devices used by business activity including smut-mills and air applicators are subject to testing
- application devices used for plant treatment for personal consumption are not subject to testing
- controls are carried out by 13 entrusted organisations
- controlled parts of application devices are in accordance with Directive 2009/128/EC
- a part of control is also a service activity
- control of testing of application devices is carried out by CCTIA

- risk – new act will be in accordance with Directive 2009/128/EC, whereby the time interval of regular testing will be prolonged

The control label of tested application device

Article 9

Air application

- established by legislation in act of land and environment protection in the Slovak republic
- the approval of institute for environment protection is needed for areas within 2nd and 3rd level of nature protection
- in areas within 1st level of nature protection the approval is not needed, but it is possible to use pesticides according the List of authorized pesticides only. Next, it is needed to keep the conditions listed in this List and specifications on label of pesticide
- air applicators are at high technical level

- the new act establishes the need of approval CCTIA for 1st level of nature protection
- details will be listed in regulation of MoAaRD SR

Article 11
Measures for drinking water protection
Article 12
Special areas

- there is a high level of water monitoring in the Slovak republic, delimitation of protective zones as well as the right practice in use of plant protection products in relation to drinking water protection
- special areas are very limited treated

- risks are minimal

Article 13

Manipulation with pesticides, their storage and waste management

- established by legislation in other than plant protection legislative in the Slovak republic – act of protection, support and public health development and act of waste management
- farmer praxis is at a high level

- risks are minimal

Article 14

Integrated protection

- we solve ecological production separately in the Slovak republic, has no intersection with IPM
- opinions on establishing of integrated protection principles can be divided into 4 basic points of view:
  - the presence has been standing undersized,
  - today conventional equals integrated,
  - small changes,
  - effective changes to better.

What are possibilities of IPM?

Details of selection of pesticides have been not stated till now in the Slovak republic. It is needed to consider scientifically substantiated materials that are accessible for use. Details of selection should include:

- the priority is protection of water, bees, useful organisms and non-targeted species,
- to have a large selection of pesticides and then we can select the one with the lowest risk from various points of view,
- to state the maximum number of treatments during certain season, mostly during growing season,
- to change herbicides for mechanical treatment of soil,
- to inform about the most effective pesticides, e.g. inhibitors of creation of chitin, pesticides against young caterpillars etc.,
- to give an accent on anti-resistant strategies,
- to specify the perennial schemes of protection according to crops,
- to refine on the dosing according to growth stage, especially by fungicides.

Risks of IPM

- insufficient selection of pesticides
- contrary of praxis and legislation
- objective needs
- benefit for environment
- not to endanger the amount of production
- possibilities and willingness of farmers
- financial costs
- subsidiary stimuli
- measurable indicators
- legislative activity establishes all condition, due to praxis has the clear rules as well as the minimal financial safety
- **Compromise!!!**

And where is customer – consumer?

- **Quality is „inside “, not on the „skin“!!!**

- Because the final effect should express for consumer as well (in lower amount of residues in food), it is needed to force watch over amount of residues in food of plant origin and especially fresh fruits that are selling without any modification direct to customer.

Current situation in the Slovak republic

– IPM has been established in praxis within the frame of axis 2 (Improvement of environment and land of Plan for rural development for years 2007-2013) like a one of sub-measures of Agroenvironmental payments.
– selected crops are vine, fruit trees and vegetables including potatoes
– every of listed crop groups has different subsidiary conditions

Vine

- to apply plant protection products (next as pesticides) allowed in IP only,
- the annual dose of cuprum max 2 kg/ha and year,
- the number of applications max 6 against *Plasmopara viticola*, 6 against *Uncinula necator* and 2 against *Botrytis cinerea* after 1st of August, biological and other pesticides have no limits for number of applications,
- fertilization by nitrogen in dose of max. 50 kg/ha including organic fertilizers,
- fertilization by phosphorus and potassium following the folium and soil analyses only,
- grassing in every second aisle,
- the number of vital individuals over 60 % of out planting,
- during first three years, to apply at least once the green fertilization,
- to keep the evidence about fertilization and pesticides' consumption;

Fruit species

- to apply pesticides allowed in IP only,
- to ensure cutting and shaping of trees,
- to watch the weather and use the signal methods,
- analyse of soil for As, Cd, Cr, Hg a Pb at least once per 3 years,
- analyse of fruits for As, Cd, Hg a Pb once per 2 years,
- to keep the minimal number of individuals according to the individual species,
- to announce the change of use of orchard,
- to keep the evidence about fertilization and pesticides' consumption;

Vegetables including potatoes

- to apply pesticides allowed in IP only,
- to watch the weather and use the signal methods,
- analyse of soil for As, Cd, Cr, Hg a Pb at least once per 3 years,
- annual analyse of fruits for Cu, Ni, Cd, Hg, Pb and nitrates,
- to use the standard seed or certified planting material of potatoes,
- to keep the evidence about fertilization and pesticides' consumption;

Criteria for pesticides' selection into IP

– on creating of lists of pesticides, we started from groundwork of the International organisation for biological and integrated control of harmful organisms (IOBC, up to 5.12. 2005), to keep the biodiversity in ecosystems and to keep sustainable soil fertility;
– from criteria for pesticides' selection, an influence on following useful and indifferent organisms was taken into account:
1. **predatory mites (*Typhlodromus pyri*)**,
2. **saprophytic wasps (*Trichogramma cacoeciae*)**,
3. **bees**;

Criteria for pesticides' selection into IP

- IOBC states the influence on other useful organisms, these were not directly taken into account in the Slovak republic:

4. predatory mites (*Phytoseiulus persimilis*),
5. parasitoids (*Aphidius rhopalosiphi*),
6. hoverflies (*Syrphus corollae*),
7. earthworms (*Eisenia foetida*),
8. lacewings (*Chrysoperla carnea*),
9. spiders (*Pardosa* spp.),
10. spiders (*Cheiracanthium mildei*),
11. flower bugs (*Anthocoris nemoralis*),
12. flower bugs (*Orius laevigatus*),
13. lady bird beetles (*Coccinella septempunctata*),
14. rove beetles (*Aleochara bilineata*),
15. ground beetles (*Poecilus cupreus*),
16. fishes.

Criteria for pesticides' selection into IP

Pesticides with active substances with classification „N“ (harmless or moderate harmful) are usable in integrated practically without limitation, pesticides with active substances with classification „M“ (medium harmful) are usable in certain limited number of treats and pesticides with active substances with classification „T“ (harmful) are prohibited in integrated production. In case of pesticides with two and more active substances, the toxicity is stated according to more toxic active substance.

F	MANCOZEB	Dithiocarbamates	80 WP	1-2 treats	3200 g/ha
F	MANCOZEB	Dithiocarbamates	80 WP	more than 2 treats	3600 g/ha

N = harmless or moderate harmful, M = medium harmful, T = harmful	1-2 treats	more than 2 treats
spiders (*Pardosa* spp.), spiders (*Cheiracanthium mildei*), hoverflies (*Syrphus corollae*)		
predatory mites (*Phytoseiulus persimilis*), lacewings (*Chrysoperla carnea*), lady bird beetles (*Coccinella 7-punctata*), rove beetles (*Aleochara bilineata*)		**N**
toxicity for earthworms (*Eisenia foetida*)	-	-
ground beetles (*Poecilus cupreus*), parasitods (*Aphidius rhopalosiphi*)	N	N
flower bugs (*Anthocoris nemoralis*)		M
flower bugs (*Orius laevigatus*)		**M**
toxicity for fishes: – absence and + presence of toxicity	+	+
predatory mites (*Typhlodromus pyri*)	M	T *
parasitoids (*Trichogramma cacoeciae*)	T	T
toxicity for bees: – absence and + presence of toxicity	-	-
WHO class of toxicity (U = (by normal using do not cause acute danger)	U	
VALUATION (IOBC in SR)	M	T
LIMITATION – number of treatments for IP	**2**	**0**

normal lettering = laboratory data, **bold lettering = half-field data,** asterisk* = field data

Final common criteria

- wide-spectrum organophosphate and carbamate insecticides are either prohibited, or have allowed low number of using only,
- dithiocarbamate fungicides can be used maximum 2 times per season,
- fungicides with possibility of creation of resistance can be used maximum 3 times per season,
- sulphur pesticides can be used maximum 4 times per season.

Common rules of selection of pesticides

- vine - mancozeb 2-times together for all pesticides, triazols 3-times together for all pesticides, sulphur 4-times together for all pesticides, without pyrethroids and organophosphates, stated maximum number of treatments;
- fruit species - without pyrethroids and organophosphates, number of treatments according to labels;
- vegetables – both pyrethroids and organophosphates mostly 1-3-times according to active substances together for all pesticides, number of treatments according to labels, less limitation for mancozeb, sulphur etc., but individually for every pesticide

Authorised pesticides into IP have been listed in bulletin of the Ministry of agriculture

for first time 2. May 2008

currently is valid completed list

from 31. 1. 2011

No. 4/2011 from 31. January 2011, volume XLIII, paragraph 8

+ 2 amendments

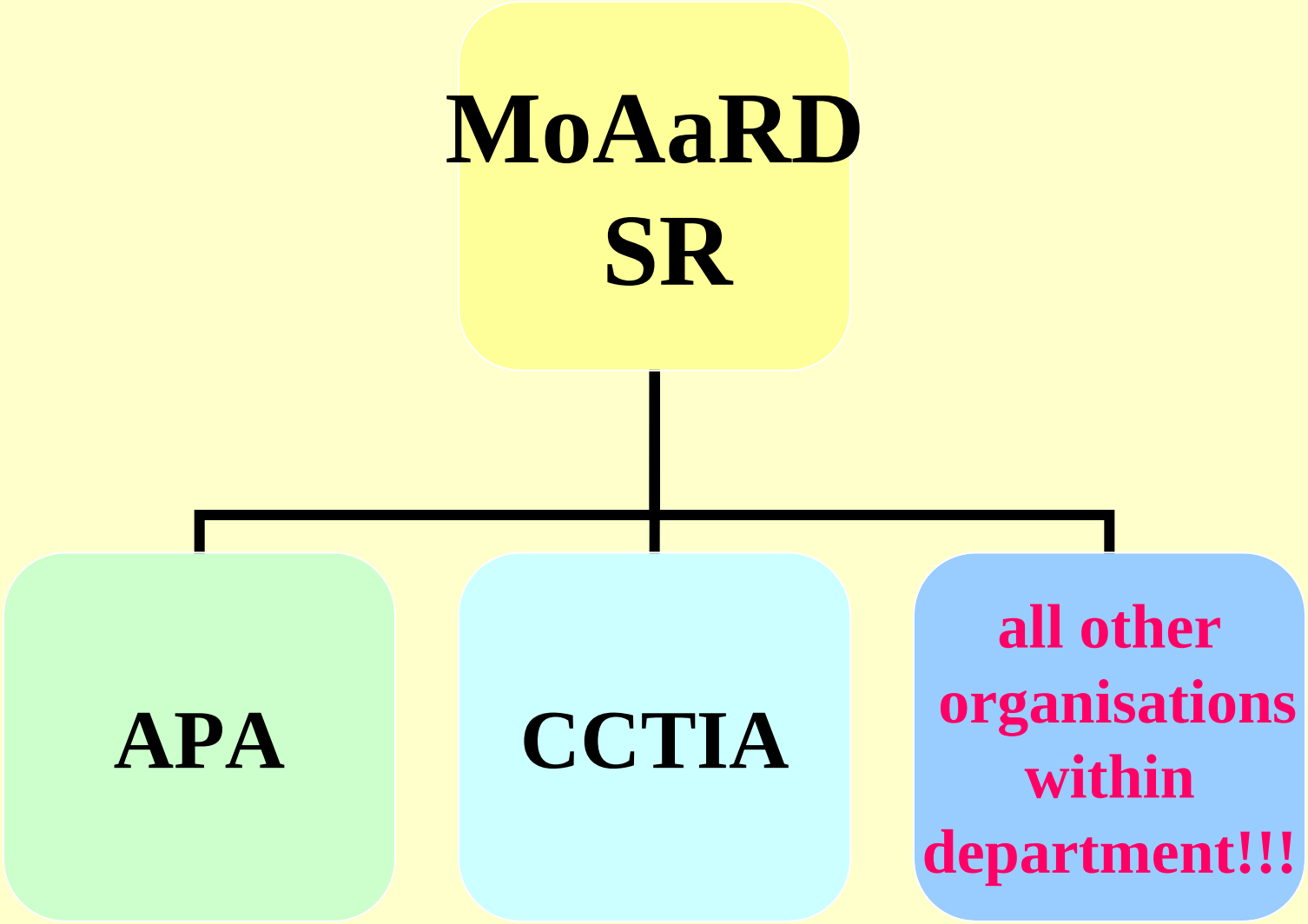
Final result for vine

12 pesticides	up to 2 kg Cu/ha
mancozeb (12 pesticides)	max. 2-x (ecotoxicity) **
triazols (19 pesticides)	max. 3-x (resistance)
strobilurines (5 pesticides)	max. 3-x (resistance)
sulphur (4 pesticides)	max. 4-x (ecotoxicity)
other 11 pesticides	max. 1-3-times (ecotoxicity, resistance)
other 8 pesticides	without limitation
* recommendation – pesticide is usable with predatory mite *Typhlodromus pyri* (30 fungicides + 7 insecticides)	
** dithiocarbamate fungicides can be used maximum 2-times per growing season, but after use of predatory mite *Typhlodromus pyri* is their use 2 years prohibited	
insecticides and herbicides	without commentary

Legislative background of approximation of Directive 2009/128/EC

- the basic regulations in proposal of act of plant health care
- individual regulations for respective themes
- IPM:
    - regulation of IPM – common rules from annex No. III of directive 2009/128/EC
    - action plan with more detailed conditions
    - voluntary provisions and regulation of crops of IPM
    - cohesion towards subsidiary schemes is missing!

Cooperation among all institutions



THANK YOU FOR YOUR ATTENTION