Do national IPP guidelines fit into zonal registration of plant protection products?

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A variety of existing Guidelines: Grower associations, Regions, Countries, Europe, World

Landeskuratorium
für pflanzliche Erzeugung
in Bayern e.V.

Vegetables

Fruits

Bundesausschuss Obst und Gemüse

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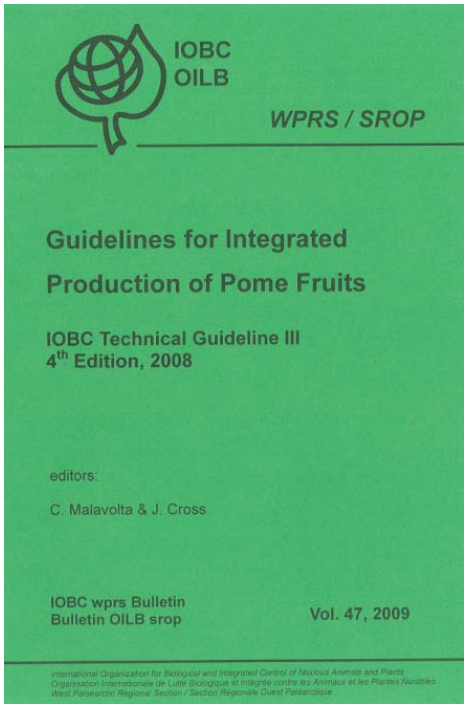

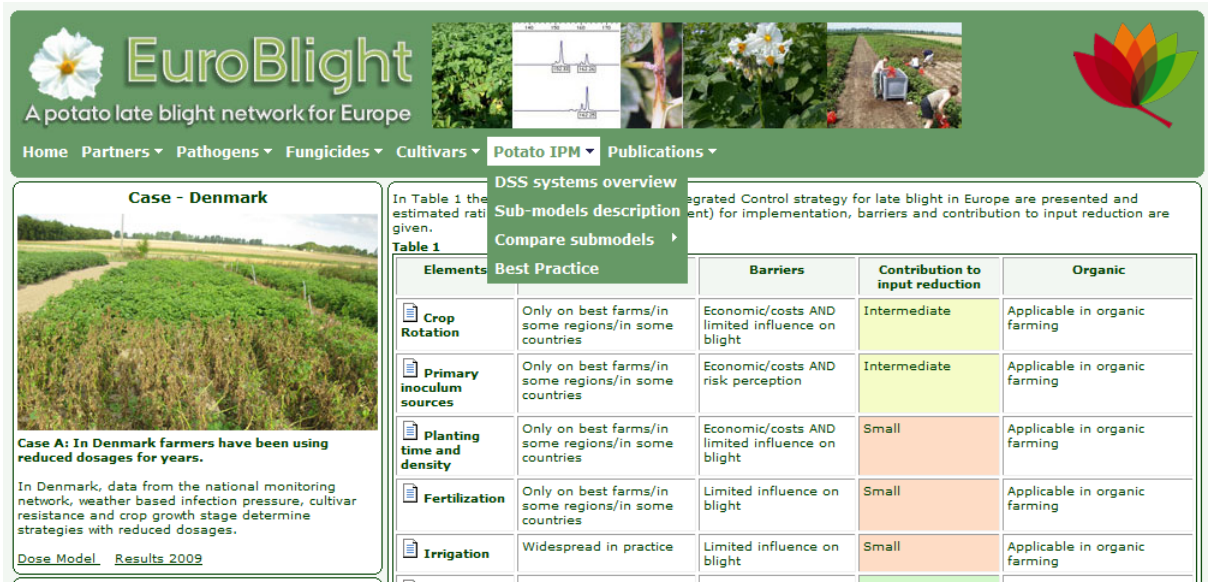

AGRIOS

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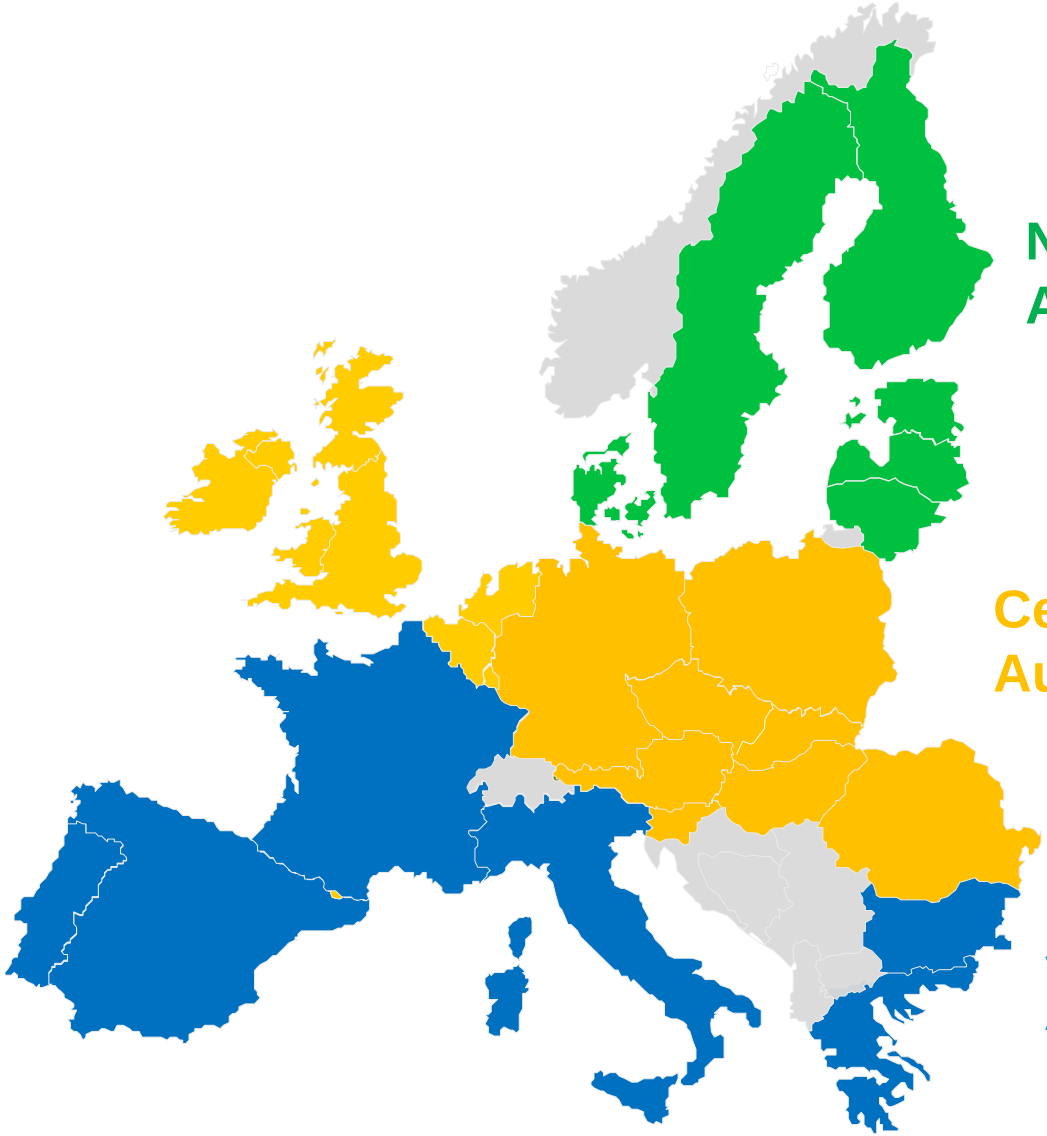
But for PPM it all comes down to….

- 1. Use non PPP options (crop rotation, cultivation, beneficials, ...) for prevention and/or suppression first.
- 2. Monitor the harmful organisms (forecasting and diagnosis systems).
- 3. Decide whether and when to apply PPP using threshold values if existing.
- 4. Prefer sustainable biological, physical and other non-chemical methods to chemical methods if they provide satisfactory pest control.
- 5. Apply pesticides as specific as possible for the target which have the least side effects.
- 6. Adapt the action to levels that are necessary, e.g. by reduced doses, reduced application frequency or partial applications.
- 7. Apply available anti-resistance strategies to maintain the effectiveness of the products. This may include the use of multiple pesticides with different modes of action.
- 8. Check the success of the applied plant protection measures.

Source: DIRECTIVE 2009/128/EC ANNEX III, adapted

Evaluation by zones – but registrations still by country!



Northern
Authorisation Zone

Central
Authorisation Zone

Southern
Authorisation Zone

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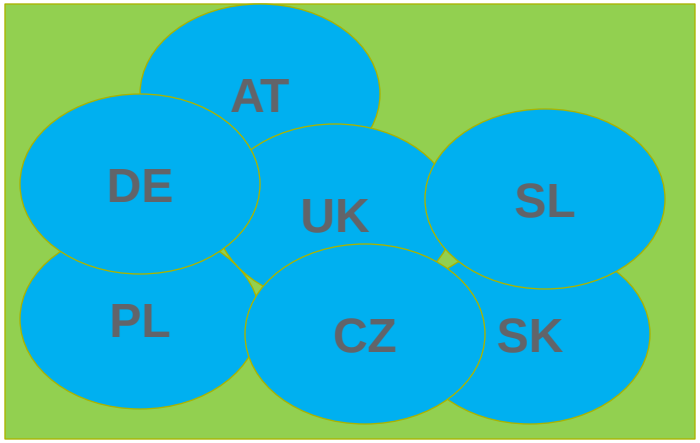
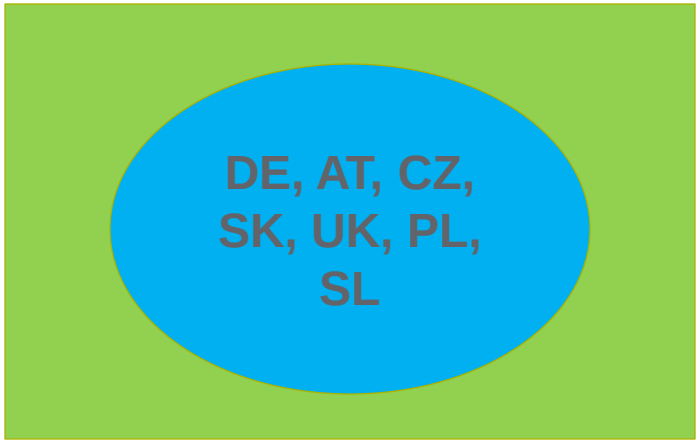
Core dossier (zonal) versus local addendum (national)

- Mutual agreement that national addendums should be kept to a minimum (eg. Local label)
- For Sections 1-6 this is possible by using the so called „risk-envelope“ approach (critical GAP)
- However, for Section 7 (Biological efficacy assessment) the data presented has to be equal to the national registration GAP



versus



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Fruit case study – different dose expressions across the zone

- regarding the harmonization of the European registration of PPPs, there is still no agreement on dose expression in some crops as fruits and protected vegetables

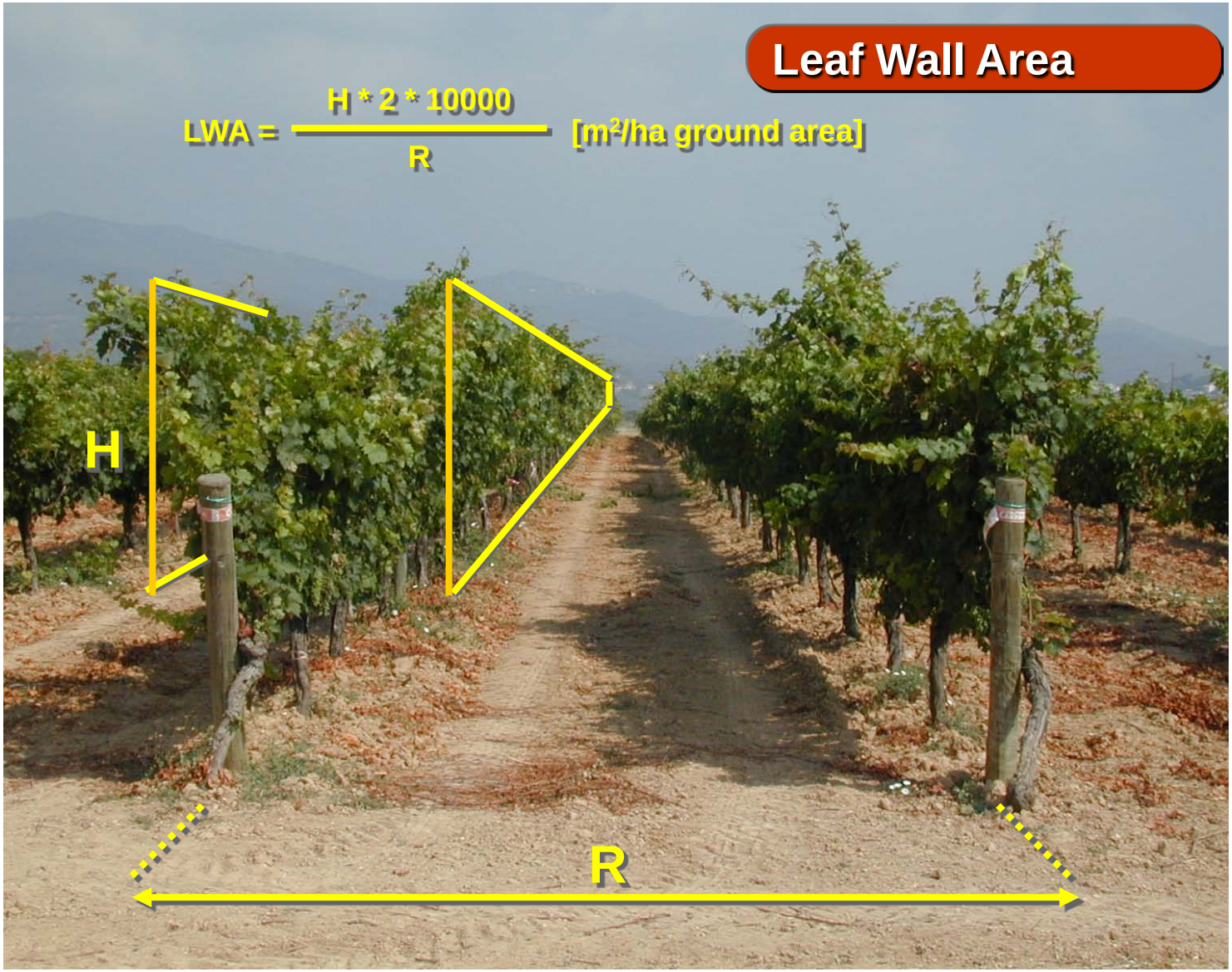
	Dose Expression
Austria	Kg/ha per m foliage height
Belgium	Kg/10.000m^2 LWA
Czech Republic	Kg/ha
Germany	Kg/ha per m foliage height
Netherlands	%, max. spray vol / ha
Poland	Kg/ha
Slovakia	Kg/ha
Slovenia	Kg/ha

- How to fit this into one core dossier?
- Mutual agreement between industry to focus on LWA in their submissions -> adaption of EPPO guideline

- But how to integrate susceptibilities of different varieties, different regional cropping systems, differences in regional climate, ...

Leaf Wall Area

$$LWA = \frac{H * 2 * 10000}{R} \quad [m^2/ha \text{ ground area}]$$



Can national IPM guidelines help?

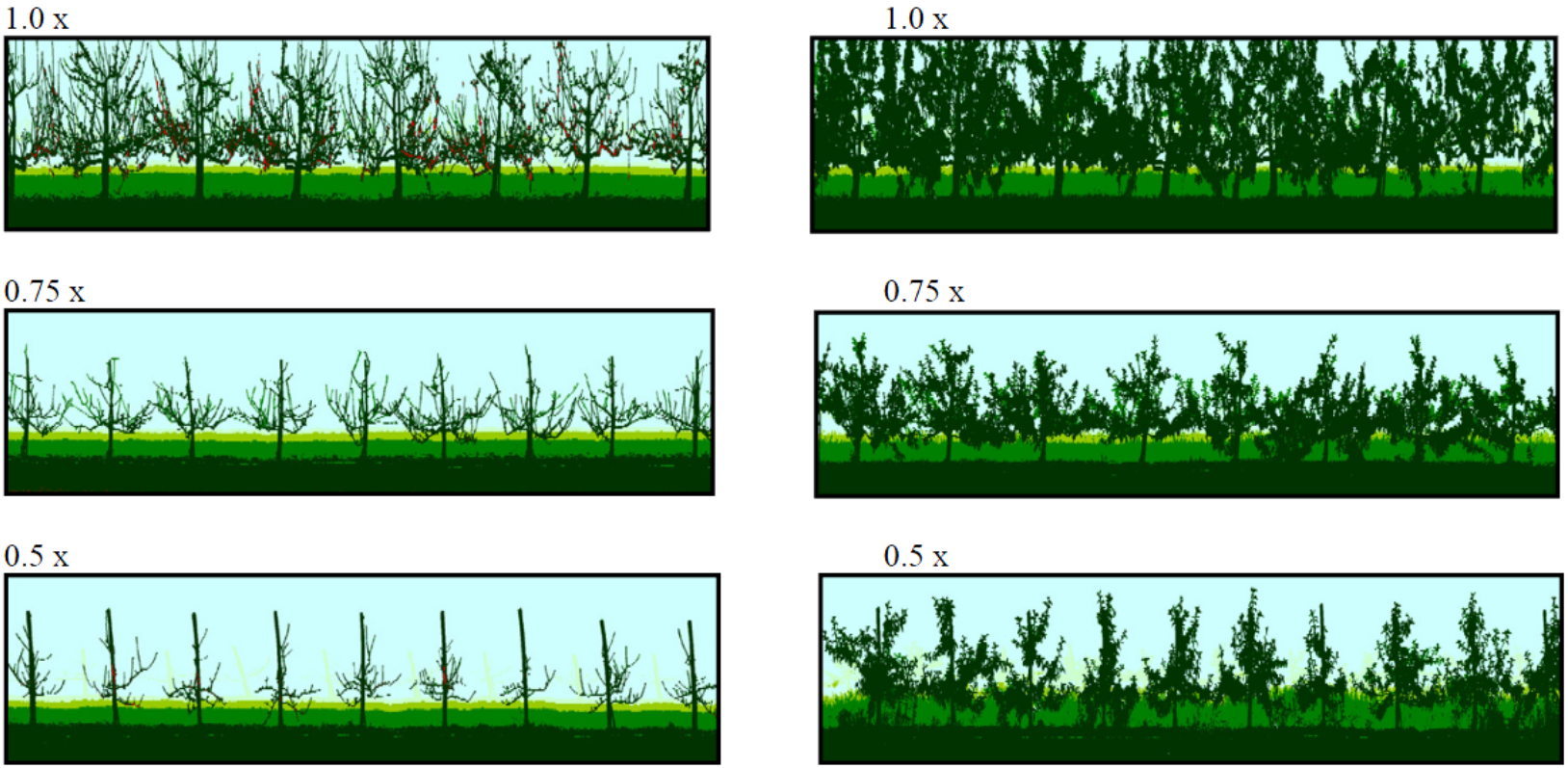


Figure 3. Pictograms indicating dose reduction factors for canopy density in dwarf and semi dwarf dessert and culinary apple orchards used in step 4 of the PACE dose adjustment scheme.

Source: J. V. Cross and P. J. Walklate. “The UK PACE Scheme for Adjusting the Dose to Suit Apple Crops”. Agricultural Engineering International: the CIGR EJournal. Manuscript ALNARP 08 003. Vol. X. May, 2008.

And national/regional IPM guidelines can also do more

- They are far beond the use of PPP
- They can give detailed guidance on many IPM aspects

a) Prevention

The entire cultivation program should be aimed at maintaining the trees' natural **resistance** against diseases and pests so that no additional spraying is necessary. Trees with too vigorous growth, for example, are especially susceptible to scab, mildew, aphids, mites, and codling moths.

Integrated crop protection means further protecting and promoting **natural enemies** of pests.
In the interest of **natural protection of species** and to promote the settlement and reproduction of beneficial animals in the orchards, we recommend the following measures:

- At the edges of the orchards, **hedges and bushes** should be left as shelter and breeding places for many species.
- Dry walls are welcome **shelter** for weasels, hedgehogs, shrews, various snakes and other beneficial animals. The same is true for rock piles, wood piles, and similar hiding places.
- To attract **birds of prey** (buzzards, falcons, owls, etc.), perches should be installed in the orchards above the trees. Birds of prey keep the orchard clean of mice.

PEST	CRITERIA FOR INTERVENTION
Codling Moth *(Cydia pomonella)*	Give preference to disruption methods for treatment. **Intervention level** **After checking at least 500 fruits per hectare, count the number of boreholes:** **June - 3 bored fruits/1.000** **July - 5 bored fruits/1.000** **August - 8 bored fruits/1.000**

Source: AGRIOS - Guidelines for Integrated Pome Cultivation 2011

Summary

- A lot of IPM guidelines already exist on regional, national and cross-country levels, currently difficult for the grower to find „the right one“
- PPP authorisation zones cover a huge variablity in terms of climate, soil, crops, pests, diseases, weeds
- To enable zonal worksharing it will be necessary to harmonise the use descriptions (dose expression, grouping of pests/weeds) across the zone
- The use (and registration) of PPP covers only one aspect of IPM, there are a lot more as crop rotation, beneficials, ...

Summary

- National IPM guidelines will probably become even more important in the new „zonal“ world of PPP authorisation
- If regional guidelines are needed they should fully integrate/refer to the national guidelines and only focus on the region specific parts (see AGRIOS as a good example)
- However, these national guidelines should adress specific points and give real „guidance“ and help for the grower
- The guidelines should be created in co-work by all the important stakeholders – growers, advisors, scientists, regulatory authorities
- These guidelines should allow the growers to be competitive both inter- and intra-zonal (pan-european alignment of some aspects?)