A new system to evaluate Organic Inputs in EU,

How does it affect the grower?

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Organic fruit growing as a case....

- Organic fruit growing depends on availability inputs
- Organic fruit growers are “heavy users”
- Different problems regarding the availability of organic inputs in EU

- Some of the problems connected with the availability of Organic inputs could be solved by a new evaluation system
Organic orchards for commercial production look not like this:
But like this!
Economic conditions

- Open European market
- World market
- Strong demand for higher quality
Ecological conditions

- Perennial crop
- No crop rotation
- Complex ecological system
- Perennial and cumulative effects in nutrition, and pest and disease management
Evolutionary pests...
Organic apple key pests

Apple blossom weevil

Apple sawfly

Codling moth

Apple scab
Organic inputs are vital
Growers attitude towards Evaluation of Input materials:

- Not the process but the outcome counts
- Growers expect a system based evaluation
What inputs are available to the local grower?

Inputs available on world scale

Available inputs in Europe in 2005

Available inputs in Europe in 2008 (Dir 91/414)

EEG 2092/91 Annex 2

National registration

Local restrictions

Available to the local grower
Current situation in EU:
“All organic growers are equal but some are more equal than others....”

<table>
<thead>
<tr>
<th>Key pests</th>
<th>Annex 2</th>
<th>Germany</th>
<th>Netherlands</th>
<th>Belgium</th>
<th>Denmark</th>
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<tbody>
<tr>
<td></td>
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<td>Italy</td>
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<tr>
<td>Scab</td>
<td>Copper</td>
<td>x</td>
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<tr>
<td>Lime sulfur</td>
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<td>(sulfur)</td>
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<tr>
<td>Blossom weevil</td>
<td>Pyrethrum</td>
<td>x</td>
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<td>Rosy apple aphid</td>
<td>Neem</td>
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<tr>
<td>Apple sawfly</td>
<td>Quassia</td>
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<td>Codling moth</td>
<td>Gran.virus</td>
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<tr>
<td>Pheromones</td>
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x= use is legalized  (x)= only temporary legalized
Growers opinions on current evaluation process

- Growers feel not represented
- **Slow** (registration of Ca-Hydroxide took 2 years)
- Conservative
- Driven by politics
- Not on system but on a substance by substance base
Wishes from the praxis (1)

Parallel to evaluation for annex 2, consideration of the possibilities and efforts for registration on EC level, and local legalization of use in member states.

......not in this project
Wishes from the praxis (2)

“System approach” for crop needs and ecological effects of the cropping system.

Both needs and feasibility of organic growing and environmental effects are a system depended, not depending on single inputs.
Examples of system effects (1):

Commercial organic production of any crop is only possible if materials or methods are available to regulate the key pests and diseases and other problems in that crop.
Examples of system effects (2):

- Ban on use of copper leads to import from countries where copper is allowed.
Examples of system effects (3):

• In The Netherlands ban on use of copper on apple leads to substitution by repeated application of Lime sulfur.

• This obstructs the natural control of red spider and leads to heavy use of mineral oil.
Examples of system effects (4):

Large quantities of Calcium hydroxide are needed to control apple canker, but this substitutes treatments with copper.
Examples of system effects (5):

Spinosatd could replace several treatments with *Pyrethrum* and Rotenon in the control of apple blossom weevil, and other pests.
Examples of system effects (6):

- The exclusive use of granulose virus to control codling moth on OF for over 20 years has lead to resistance and subsequent failure of codling moth control.

- Alternation with Spinosad could prevent further build up of resistance in Codling moth populations.
Conclusions (1)

What can be solved:

– Possibly quicker
– More transparent, technical and objective evaluation that allows for development

What can not be solved:

– Differences between countries due to lack of active policy for local registration of Organic Inputs
Conclusions (2)

What should be considered

System effects in:

- “domino” effects in the use of other PPP’s
- substitution of PPP’s
- preventing resistance
- moving organic production to geographical areas where more Inputs are allowed
Conclusion (3)

A transparent, technical and system-based evaluation of input materials, aimed at further and equal development of organic agriculture in all EU member states would be highly welcome!