HOLLAND, LAND OF FLOWER BULBS AND PESTICIDES

Gebruik in kg/ha. (Eurostat 2001).
USE OF PESTICIDES IN THE NETHERLANDS

- 1996: 8000 Tons
- 1998: 10000 Tons
- 2000: 10000 Tons
- 2002: 8000 Tons
- 2004: 9000 Tons

1000 Tons of pesticides per year
GOVERNMENT ACTION

Several attempts to reduce pesticide use:

• Multi-year crop protection plan (95-2000), 50% reduction target not met;
• No-unless principle and ICM (2000-present) stuck in mud of self-regulation.
WHAT DID WE LEARN MOST?

• Focus on individual farmer
• Focus on concrete crop practices
• Regulate and enforce.
ICM PROVEN STRATEGY

• Crop-wise prevention strategy available
• Proven since 20 years
• Pesticide reduction up to 90%
ICM strategy:
hierarchy of methods & practices.

• 1. Prevention
• 2. Technical methods for crop growing
• 3. Pest-warning and decision-predicting systems
• 4. Non-chemical plant protection
• 5. Chemical plant protection
• 6. Emission reduction
1. Prevention

- Disease-free starting material;
- Cleaning of equipment;
- Choice of soil (organic matter/clay);
- Crop rotation frequency;
- Increasing biodiversity of soils;
- Etc.
2. Technical methods for crop growing.

• Use of resistant varieties;
• Increasing plant distances;
• Registration of unbalanced soil areas;
• Crop planning for mechanical weeding;
• Etc.
3. Pest warning and decision-prediction systems

- Information on presence of pests by scouting, sensors, or on-line services;
- Connection to decision-supporting plant protection systems;
- Etc.
4. Non-chemical plant protection

• Mechanical weeding;
• Biological control/ refuges for natural enemies of pests;
• Nutrient management;
• Use of non-synthetic products;
• Etc.
5. Chemical plant protection

- Use of selective chemicals;
- Spot-wise use of chemicals or ‘on-target’;
- Chemicals combined to prediction system;
- Chemicals on recipe for calamities;
- Maximum total dosage in kg/ha.year;
- Etc.

• Use of air-jet spraying equipment;
• Spraying in absence of wind;
• Non-spraying zones;
• Etc.
Not a lack of information
Not money
Neither techniques,
is the problem,
but,
A lack of strong incentives on farm level.