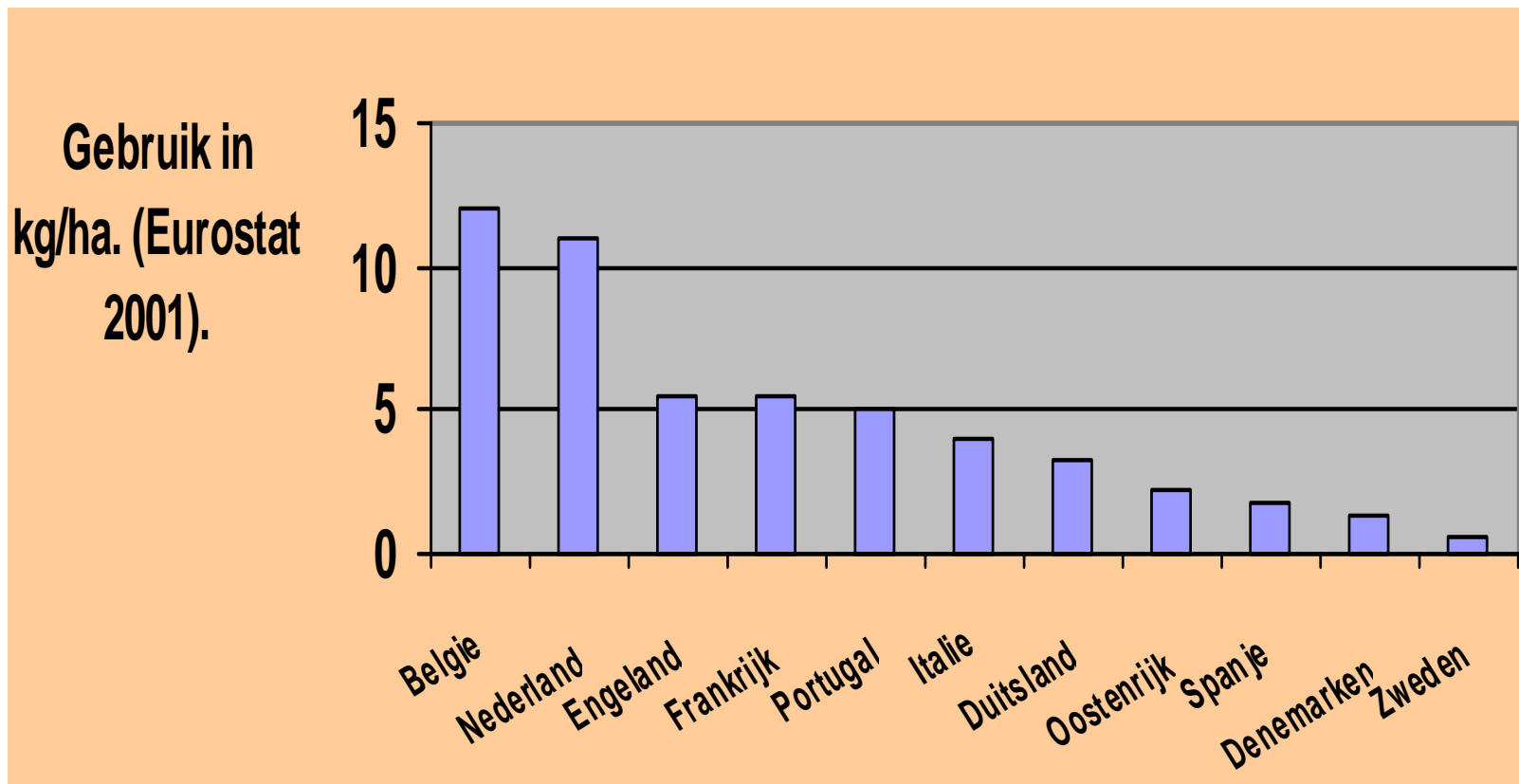
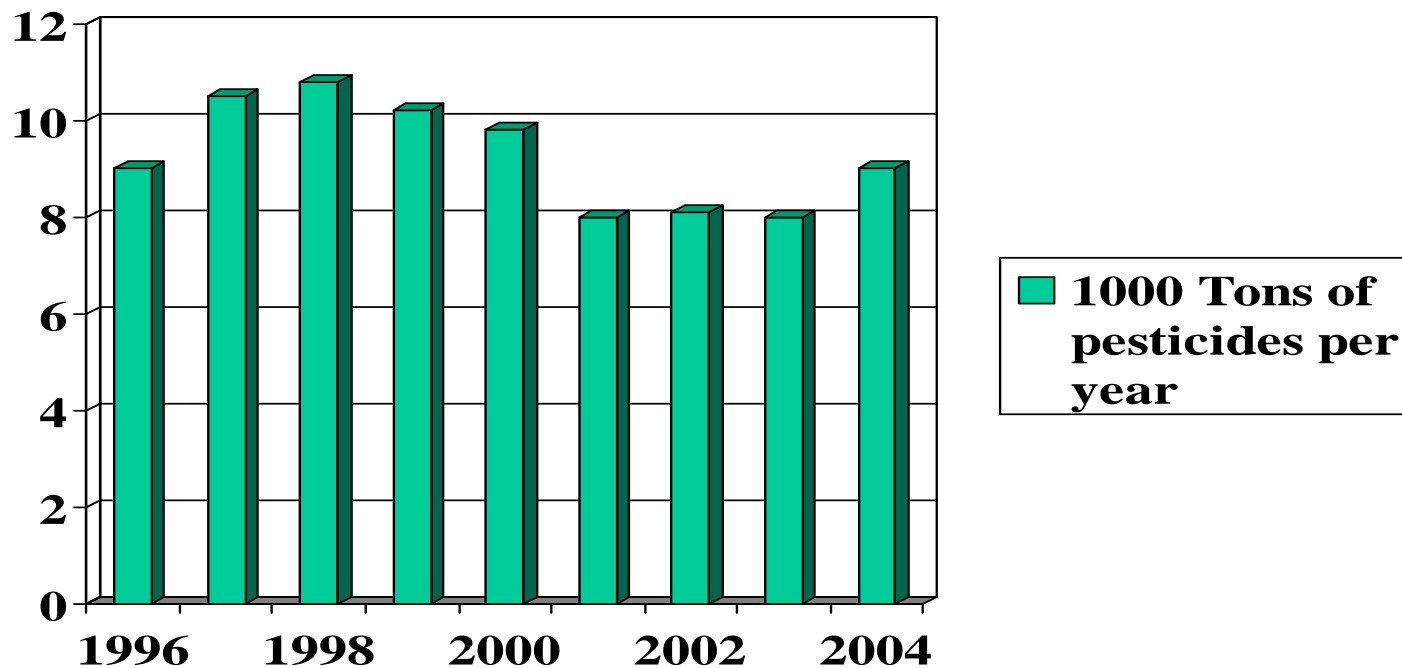


HOLLAND, LAND OF FLOWER BULBS AND PESTICIDES



USE OF PESTICIDES IN THE NETHERLANDS



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.**

6. Emission reduction.

- **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.