Standardizing Tolerances or Tolerating Standards ? Pesticides Residues in the European Community (1955-1995)

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Present situation: the “on going” recent history

- January 2009: New Pesticide Directive from European Parliament to be implemented 2011
- “EU pesticides ban will 'wipe out' carrot crop” – the Guardian January 4 2009

Food Standards are agonistic

- "Food standards are agonistic" in that experts use them in strategic arguments and "multiple interests come into conflict in their construction."

--Patrick Zylberman, "Making Food Safety and Issue: Internationalized Food Politics and French Public Health 1870s to the Present", *Medical History*, 2004 January 1; 48(1): 1–28.

Outline and Main Approach

- Overview and brief history of pesticide residues post-WWII;
- Describe emergence of concept of “tolerance levels” and ADIs Maximum Residue Limits (MRLs) as forms of standards
- Challenges of protecting health versus facilitating trade
- Focus on two ‘standard-makers’: European Community, World Health Organization and the Food and Agriculture Organization

Methodology

- Drawing upon archival material (reports, correspondence, news articles)
- Case study approach to highlight inherent issues of standardizing food and agricultural products (pesticide residues) as set by the Codex Alimentarius (FAO/WHO) and the European Community's Scientific Committee for Food, Pesticide Committee

"In many respects the European Community (EC) is a microcosm of Codex."

- W.H.B. Denner, "Harmonization and Control of Food Additives" *Food Control*, July 1990

- Like Codex the EC embarked upon a programme of establishing common food standards to facilitate trade and protect consumer health throughout the Community.

Two Main Phases

1) Defining Standards in the form of Tolerances (ADIs to MRLs)

2) Harmonization of Tolerances

Defining the problem

- As early as the mid-1950s, international joint conferences on food additives; concern over pesticides early 1960s
- Initially, the focus was on harmonizing quality of produce to conform to the *UN/ECE Protocol on Fruits and Vegs* and reduce occurrence of pests like potato wart, fungus,
- the use of Plant Protection Products (herbicides, insecticides) was thus welcomed and widely used

Defining the Problem (cont'd)

- But by the early 1960s, these products were becoming a problem in their own right
- Intentional (food additives) versus Unintentional (pesticide) residues found in food
- Examples such as dioxin, DDT
- Problem of "shape shifting" nature of pesticides – change in composition, change in concentration pre versus post harvesting

Defining Tolerance

- Codex pesticide group chaired by the Netherlands with representatives from EEC, ISO, Shell, International Fed of National Pesticide Manufacturers
- Tolerance: “The concentration that is permitted in and on food.”
- Distinguish between trade or import tolerance vs. acceptable consumer residue

Types of “Tolerance”

- Temporary Tolerances: a) when derived from a temporary ADI and b) when derived from an ADI that could be exceeded when the pesticide is applied according to good agricultural practice.

- Gradual movement from ADI to MRL

Harmonizing Tolerance

- International collaboration and meetings in 1967 and 1968 between the US, Germany, Belgium and Netherlands, all “seeking to develop routine procedures”
- European Community: pact of 1969
- 1971: West Germany banned DDT and thus began rumblings about moving to harmonize use of pesticides or ban

Harmonizing Tolerance

- 1976: Directives on packaging and labelling of pesticides and idea of “EEC-acceptance” – a positive list of preapproved plant protection products
- Aimed particularly at DDT and Dioxin
- Optional directive; stalled for several years

Seveso Disaster, ICMESA Chemical Plant July 1976

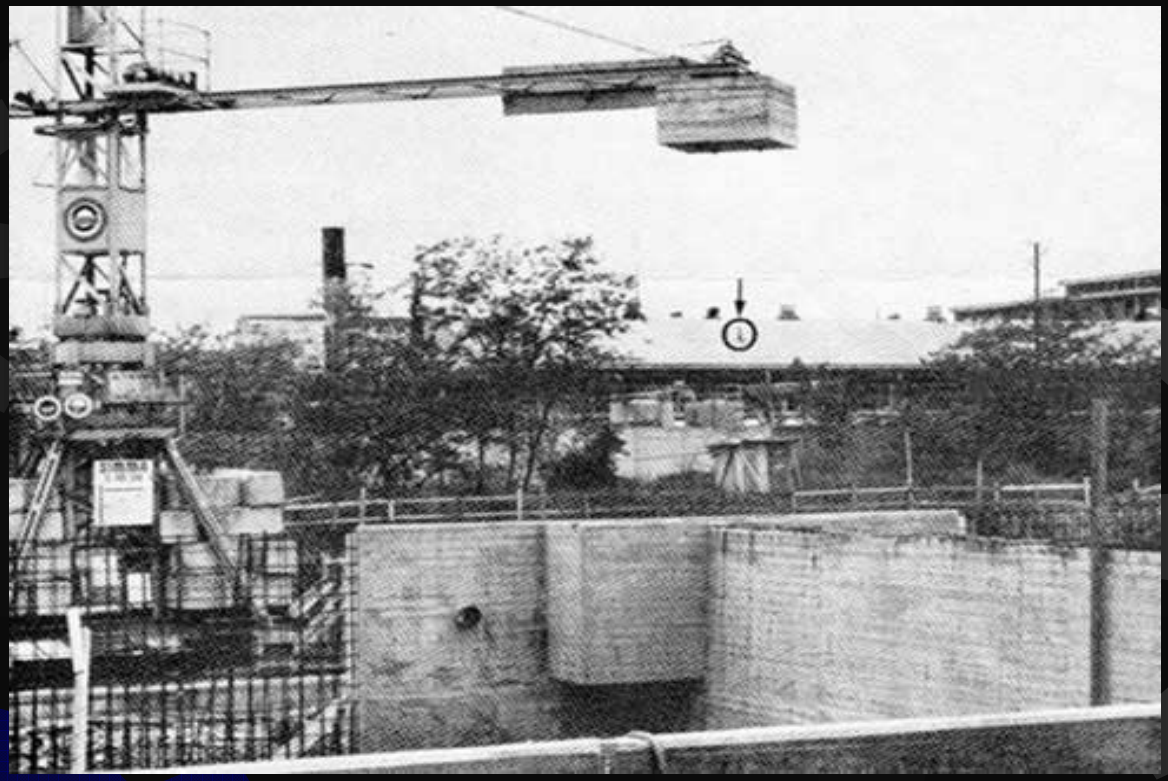

Photo courtesy of: Intl Disaster Institute, London

Seveso Disaster 1976

- Explosion at Icmesa chemical factory releasing approx. 4 lbs of dioxin into the surrounding area, killing thousands of animals, forcing hundreds from their homes
- Reports of miscarriages, cysts, chloracne, birth defects

Seveso I & Seveso II Directives

- Seveso I put forward in 1982 and brought into force in 1985 including pesticides and all other accidents – outlining responsibilities of member states
- Seveso II emerged in 1996 covering manufacturing of harmful substances, safety measures, prohibitions of use, land-use planning and inspections.

EC Directives 1991, 2005 & 2009

- 1991: Pesticide residue directive and launch of safety review of 1000+ active substances on the market
- 2005: directive on MRLs and simplification of all other pesticide acts
- 2009 directive: controversial move away from simply risk assessment to hazards analysis and calling for outright bans of certain chemicals which did not pass the review commenced in early 1990s