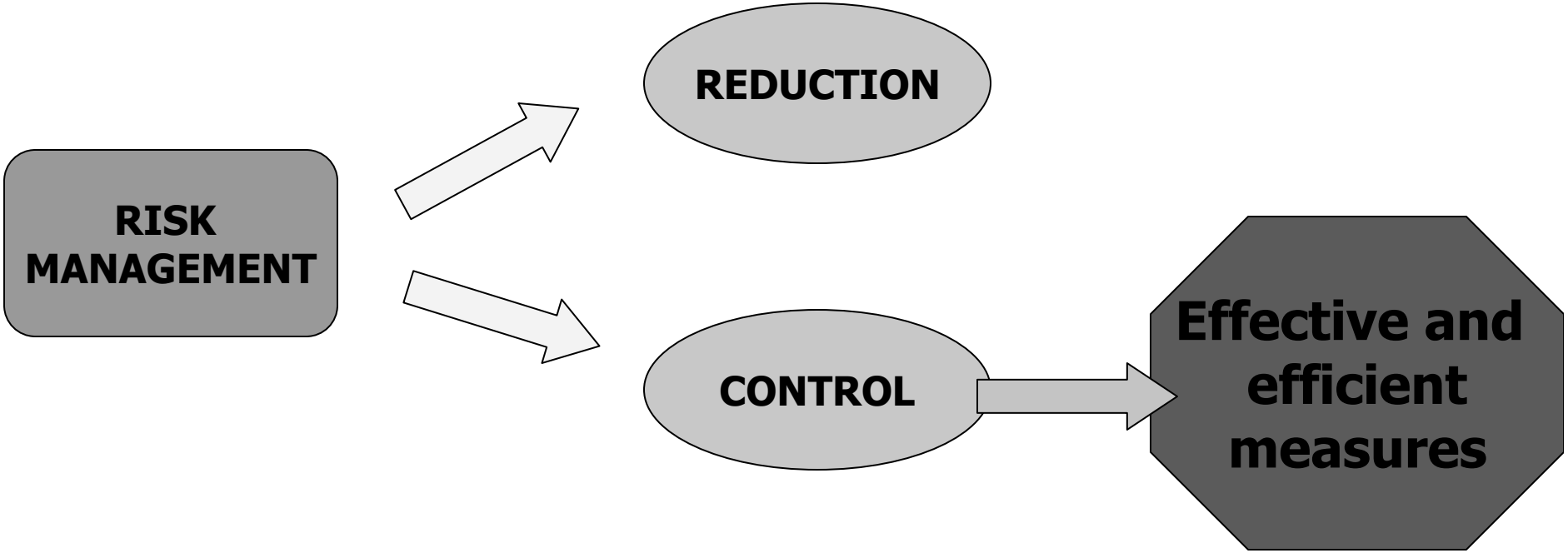

Risk Management:
Farm Level

Risk Management

The process of weighing policy alternatives in the light of the results of risk assessment and, if required, selecting and implementing appropriate control options, including regulatory measures

Activity directed toward the assessing, mitigating (to an acceptable level) and monitoring of risks



Risk Management often policy based.

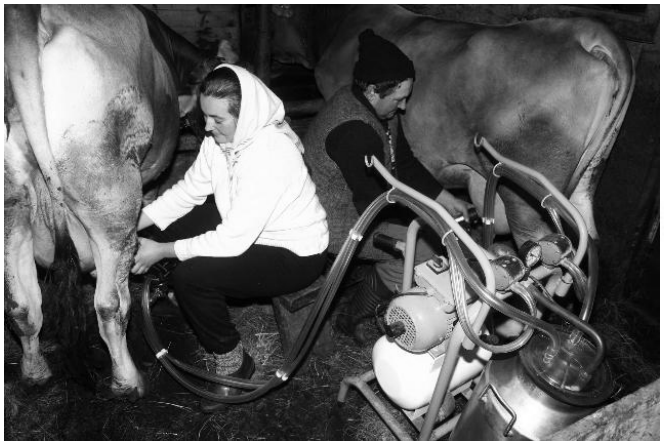
Risk management decisions: scientific risk/benefit assessment, ethical considerations, cultural considerations, social implication & economica assessments

HAZARD ANALYSIS CRITICAL CONTROL POINT

Food safety management based on

risk management

HACCP provides a structured way to identify food safety risks and reduce or eliminate them.



Control Measure for Risk Management

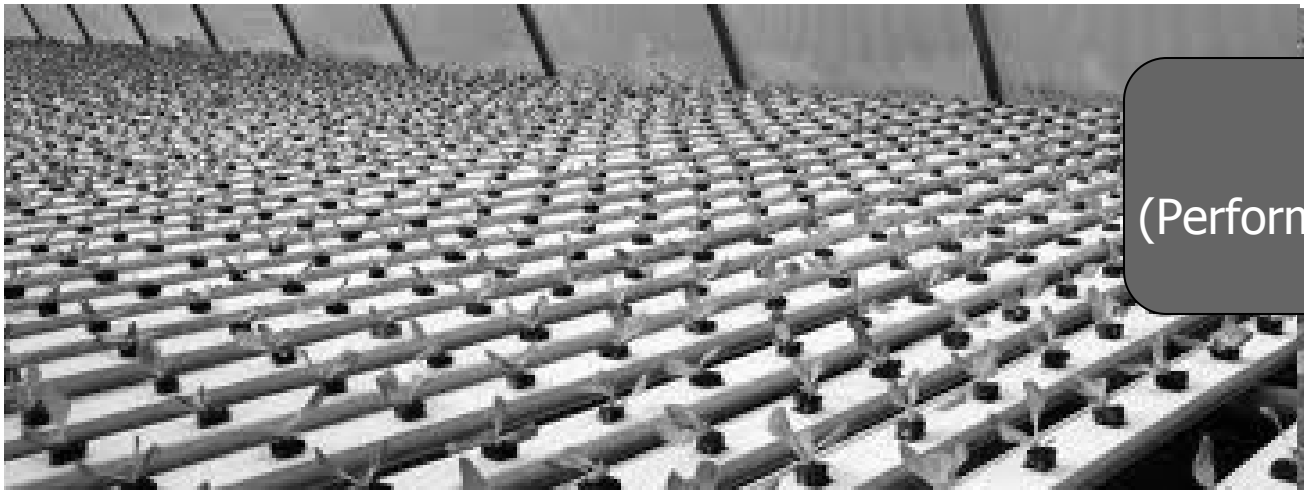
Reducing risks to a target level

ALOP
(Appropriate Level of Protection)

FSO
(Food Safety Objective)

Risk manager must determine the degree of health protection they are aiming to achieve

PO
(Performance Objective)



Appropriate Level of Protection

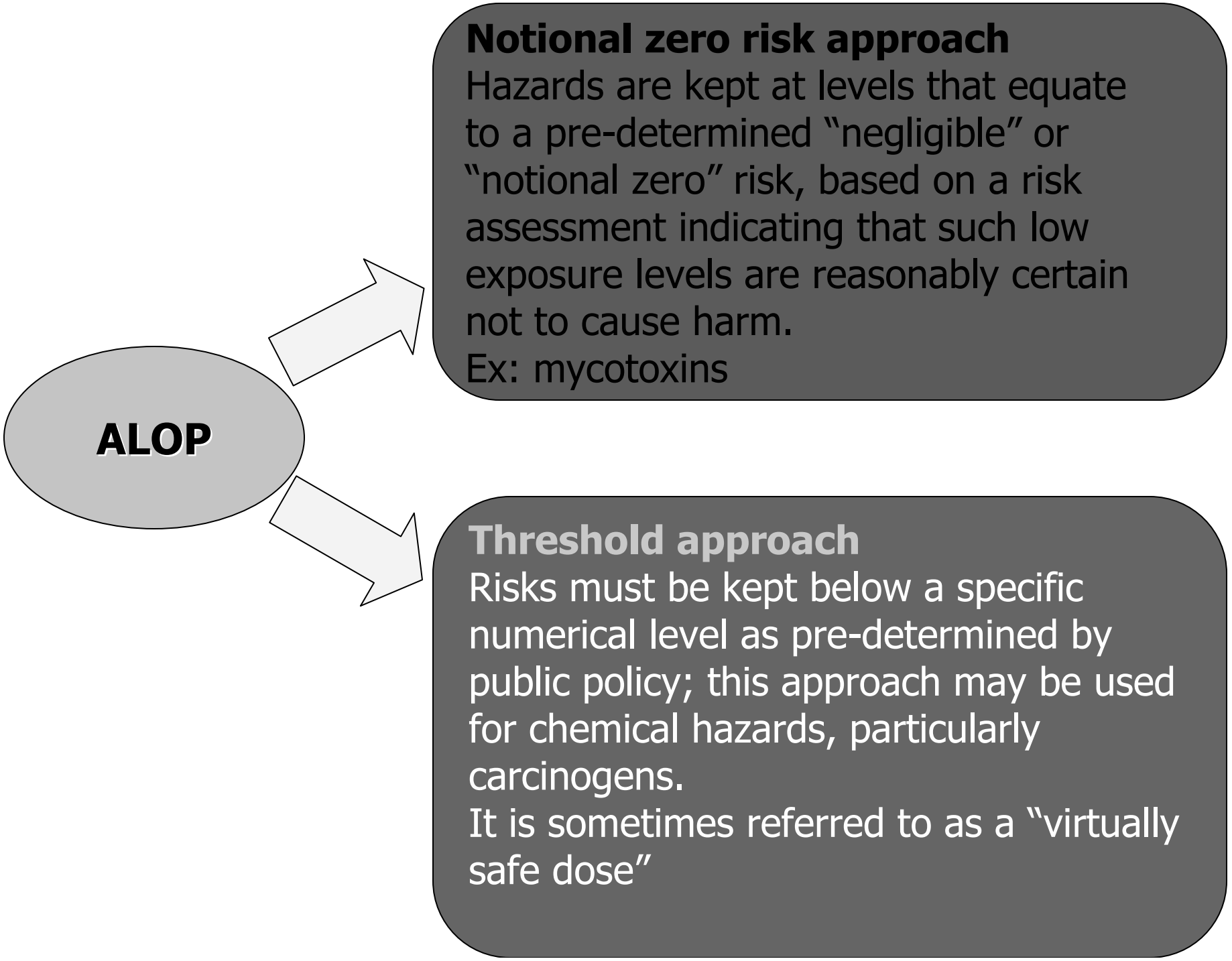
- ALOP was introduced in the WTO Agreement on the application of the SPS (Sanitary or Phytosanitary) Agreement in 1995.

ALOP

"The level of protection deemed appropriate by the Member establishing a sanitary or phytosanitary measure to protect human, animal or plant life or health within its territory"

Appropriate Level of Protection

- The acceptable level of risk is the level adopted following consideration of public health impact, technological feasibility, economic implications, and that which a society regards as reasonable in the context of and in comparison with other risks in everyday life.
- ALOP was initially defined for microbiological hazards.


ALOP
Notional zero risk approach
Hazards are kept at levels that equate to a pre-determined "negligible" or "notional zero" risk, based on a risk assessment indicating that such low exposure levels are reasonably certain not to cause harm.
Ex: mycotoxins
Threshold approach
Risks must be kept below a specific numerical level as pre-determined by public policy; this approach may be used for chemical hazards, particularly carcinogens.
It is sometimes referred to as a "virtually safe dose"

- The scope of SPS Agreement covers risks to human life and health, and requires that WTO members:
  - shall ensure that any measure is applied only to the extent necessary to protect human life and health;
  - shall base their measures on risk assessment, taking into account the techniques developed by the relevant international organizations
  - may implement a measure that differs from international norms where a higher "appropriate level of health protection" is a legitimate goal
  - shall apply the principles of equivalency where a different measure in an exporting country achieves their ALOP

Food Safety Objective

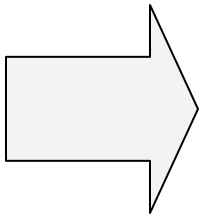
- The FSO specifies a goal which can be incorporated into the design of control measurements in the food chain corresponding with the maximum permissible level of permissible level of a hazard in a food at the moment of consumption which leads to an ALOP.
- The FSO is the maximum frequency and/or concentration of the hazard in a food at the time of consumption.
- Although CODEX condisers FSOs only for microbial hazards, in principle, the concept could apply to other types of hazards as well.

FSO - PO

- The FSO is preceded by the **PO**, which is the maximum frequency and/or concentration of a hazard in a food at a specified step in the food chain before the time of consumption.
- FSOs should be used to coordinate risk management in the production process throughout the farm to fork production chain.

GOOD AGRICULTURAL PRACTICES
GOOD VETERINERY PRACTICES

HAZARD ANALYSIS CRITICAL CONTROL POINT



The primary tools available to control hazards in food operations

- Discussion: Opportunities for mitigating pathogen contamination during on-farm food production