

LECTURE FIVE

FOOD CONTAMINATION

MODULE 2

ENVIRONMENTAL POLLUTION

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Intended learning outcomes (ILOs) for "Food Contamination" module II:

1. Define "food contamination".
2. List major food contaminants.
3. List major sources of food contamination.
4. Identify the health threats associated with food contaminants.
5. Recognize the relationship between environmental pollution and public health deterioration.

Food contamination refers to the presence of harmful chemicals and microorganisms in food which can cause consumer illness. The impact of chemical contaminants on consumer health and well-being is often apparent only after many years of prolonged exposure at low levels (e.g. cancer). Chemical contaminants present in foods are often unaffected by thermal processing (unlike most microbiological agents). Chemical contaminants can be classified according to the source of contamination and the mechanism by which they enter the food product as follows:

2. Agrochemicals

Most agrochemicals are toxic, and all agrochemicals in bulk storage pose significant environmental and/or health risks, particularly in the event of accidental spills. In many countries, access to and use of agrochemicals is highly regulated. Government-issued permits for purchase and use of approved agrochemicals may be required, and significant penalties can result from misuse, including improper storage resulting in spillage. On farms, proper storage facilities and labeling, emergency clean-up equipment and procedures, and safety equipment and procedures for handling, application and disposal are specific areas of concern, often subject to mandatory standards and regulations. Usually, the regulations are carried out through the registration process.

3. Environmental contaminants

Environmental contaminants are chemicals that are present in the environment in which the food is grown, harvested, transported, stored, packaged, processed, and consumed.

