

Course outline

Introduction to Agricultural Waste Management

- Concepts, definitions and classification of wastes
- Effects of wastes on the environment and health
- Objectives of Agricultural Waste Management
- Components of the Agricultural Waste Management system, their functions and design considerations

Livestock and poultry waste management

- Characteristics of manure
- Sources of manure pollution of the environment
- Effects of manure on ground and surface water pollution, air pollution and on climate change
- Technologies for manure collection, handling and storage
- Manure treatment and utilisation options (biogas and composting technologies)
- Odour control
- Agricultural waste disposal methods on agricultural fields and application rates

Management of Horticultural Wastes

- Types, sources and characteristics of horticultural wastes
- Utilisation potentials of horticultural/agro-processing wastes
- Technologies for processing specific horticultural wastes into added value products

References

1. Jacob, P. et al.(1989). Best Management Practices for Agricultural waste management - Prince Edwards Island's (Canada) joint practical guideline for agric. Waste management. (available on the website: www.gov.pe.ca/photos/original/af_bmp_wastemgt).
2. Moffitt, D. (1999). Waste Management and Recycling of Organic Matter – In animal Production and Aqua-cultural Engineering. A CIGR Handbook on Agricultural Engineering Vol II.
3. USDA-Natural Resources Conservation Service (1992), Agricultural Waste Management Field Handbook. (available on website: www.wsi.nrcs.usda.gov/products/W2Q/AWM/handbk).
4. Vernick S.A. and Walker C.E. Handbook of Wastewater Treatment Process.