# Food, Biotechnology and Agriculture Course outline

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## Lecture Schedule - Introduction

## 1. Food Security

- Definition of food security
- Political responses
- The right to food
- Sustainable development

#### 2. Food Loss and Waste

- Definitions
- Metrics
- Minimising FLW

# Biotechnology and patenting

## 3. Plants, Plant Breeding and Biotechnology

- WTO TRIPS Agreement
- Invention and genetic engineering
- Myriad Genetics litigation
- Genetic modification and patenting

## 4. Biotechnological patenting and climate change

- Climate change
- Climate-ready patents
- GM and negligence
- GM crops in developing countries

## 5. GM Agriculture

- Food from GE agriculture-should we worry?
- EU legislation
- Genome editing CRISPR

# Plant Breeding

#### 6. Plant Variety Rights

- The UPOV Convention, 1991 Act
- Regional Arrangements (eg CPVR)
- National Legislation
- Patenting of plant breeding methods

## Biopiracy and access to genetic resources

## 7. Biopiracy Case Studies

- Plant breeding
- Biodiversity
- Biopiracy
- Case studies
- Role of patents in biopiracy

## 8. Access to Genetic Resources and Benefit Sharing

- Convention on Biological Diversity
- International Treaty on Plant Genetic Resources for Food and Agriculture
- The Bonn Guidelines
- The Nagoya Protocol

## Geographical indications

#### 9.1 Introduction to GIs

- What are GIs
- History of GIs
- GIs and Trademarks
- International Protection of GIs
- Protection of GIs in Europe
- Australia and USA v EU in the WTO
- 9.2 EU Gls project
- 9.3 Protection of GIs in Europe
  - EU trade in GIs products
  - EU legislation
  - Infringement
  - Traditional Specialities Guaranteed
  - Proposed extension of EU law to handicrafts
- 9.4 EU Agricultural Policy and GIs
  - Common Agricultural Policy (CAP)
  - Regulation 1308/2013
  - New World v Old World

## Food Safety

- 10.1 Biosafety The Cartagena Protocol
- 10.2 Food Safety and the Precautionary Principle
  - Starlink Corn
  - Food Scares
  - EU-Framework Legislation Feed and Food Safety

## 10.3 Labelling of GMOs

- EU legislation
- European Food Safety Authority (EFSA)
- GM labelling

# WTO Agreements and Food

#### 11. SPS and TBT Agreements

- Sanitary and Phytosanitary (SPS) Agreement
- Technical Barriers to Trade (TBT) Agreement

## Enforcement

- 12 Enforcement of Intellectual Property Rights in the Field of Agriculture
  - WTO TRIPS Agreement
  - EU Draft Criminal Enforcement Directive
  - EU Civil Enforcement Directive
  - EU Customs Regulation

## Exam

- The exam will be held in the last class of the course.
- A question will be distributed in the penultimate class.
- Your answers will be written in the final class.
- I will assess these exams.
- For students unable or unwilling to sit the exam in the final class, further exams will be organised by the faculty. A question paper will be provided and examined on the scheduled dates and will be assessed by me.

## TEXTBOOK(S) & RESOURCES

No Required Text – course materials have been provided.

## **On-line Materials**

International Organisations

- Convention on Biological Diversity <u>www.cbd.int</u>
- Food and Agricultural Organization (FAO) <u>www.fao.int</u>
- United States Patent And Trade Mark Office: www.uspto.gov/
- World Health Organization: <a href="www.who.org/">www.who.org/</a>
- World Intellectual Property Organisation: <a href="www.wipo.org/">www.wipo.org/</a>
- World Trade Organisation Intellectual Property Page: www.wto.org/wto/intellec/intellec.htm

# Questions?