

MSc. Food Safety Management



TRAINING FOOD SAFETY PROFESSIONALS

Lifelong Learning for Sustainable Development Project

25th April 2017



My Own Background

Fintan Moran

- Horticulture
- Plant Biotechnology
- Food Quality & Safety
- Food Law



Fintan Moran

Outline of the Presentation



- Introduction to the MSc. FSM
- Genesis of the MSc. Programme
- MSc. FSM Development Methodology
- Aims of the MSc. FSM
- Structure of the MSc. FSM

Introduction to the MSc. FSM

- Started in 2001
- Part time delivery over 2 years
- Wide range of students backgrounds
- In 2013 a Full time delivery option was added
- Now a mix of national & International Candidates



Genesis of the MSc. Programme

Mad Cow Crisis



Belgian Dioxin crisis



The BSE Crisis

- Mainly UK
- But spread EU wide
- Chaos
- Again from Animal Feed
- Very poor EU Controls
- Commission mainly concerned about Trade



The Belgian Dioxin Crisis



- Industrial oil added to animal feed
- Found in Chicken, Pork, Milk
- Very poorly handled both at a national and EU level
- EU Green Paper on Food Safety



The BSE Crisis



- Consumers Angry
- No Faith in safety of EU Food Supply
- Commission Resigns



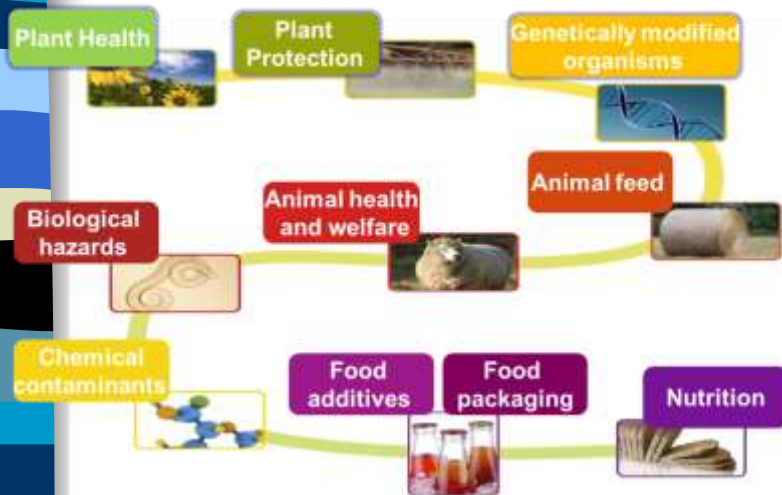
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Genesis of the MSc. Food Safety Management

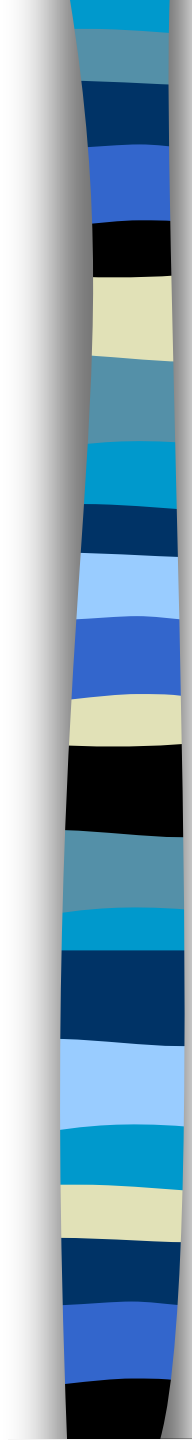
- New Commission
- David Byrne (Irish) Commissioner for health
- EU White Paper on Food Safety
- Radical change in Management of Food Safety
- Farm to Fork approach



Programme to Address this need



- Food Safety the responsibility of **everyone** in the chain
- Need for Food Safety Managers with **multidisciplinary** knowledge & skills
- Who know when to call in **specialist support**
- Commissioner Byrne gave a lecture on the White Paper in DIT Cathal Brugha St in 2000

- 
- - *"there is an increased need for **competent graduates** with food safety specialties to enter the work force into industry or regulatory positions. Our generation of scientists will be charged with **building safer systems to protect public health** and charged with laying the foundation for **everyone along the farm to fork continuum to engage in food safety dialogue.**"*
 - Ben Chapman, University of Guelph

Development of the Programme

- MSc. Committee formed
- Industry Consultation Day
- Consultation with the FSAI
- International Validation Committee



Retirement of Dr. Anna Lammerding

Laboratory for Foodborne Zoonoses
tails & dinner in honour of Anna's 31
public service!



ent Celebration for Dr. Anna
ding

y, Sat, 24th 2012 at 5:00pm

ent 12 Gwynn, CN

Bush nominates veterinarian
to head FDA

Crawford picked to lead federal agency



Dr. Lester M. Crawford Jr.

"Dr. Crawford has dedicated his career to advancing the nation's public health and will lead the way as we enter a new era of individualized medicine and rapidly developing science. With Dr. Crawford's leadership, FDA will provide the world's safest drugs and empower citizens with the tools they need to make informed choices about their health."

— MIKE LEAVITT, HEALTH AND HUMAN SERVICES SECRETARY



Course Philosophy

“Knowing is not enough; we must apply.

Willing is not enough; we must do.”

Goethe

Aims of the MSc. Food Safety Management Programme

- To Facilitate the Development of High Calibre Food Safety Managers
- How?



Aims of the MSc. Programme

1. Targeted Knowledge Transfer
2. Knowledge sourcing
3. Critical Analytical Ability
4. Integration of Knowledge



Aims of the MSc. Programme



- **1. Targeted Knowledge Transfer**
 - Via Lectures, library & Web resources
 - Peer learning
 - But knowledge can be in excess, of variable quality & goes out of date

Aims of the MSc. Programme

■ 2. Knowledge sourcing

- All training is **out of date** within 5 Years(?)
- Constant **updating** of knowledge needed through out a lifetime
- How/ Where do they locate the required knowledge?



Aims of the MSc. Programme

- **3. Critical Analytical Ability**
 - Lots of poor quality/ incorrect information available particularly on the WWW.
 - Must be able to assess the quality of available knowledge



Aims of the MSc. Programme



- **4. Integration & Application of Knowledge**
 - (Teamwork & big picture thinking)



General Structure of the Course

- **Stage 1. Course Lecture Programme**
- **Stage 2. The Integrated Case Study**
- **Stage 3. Completion of the Dissertation**
- **Stage 4. The International Study Tour**



Stage 1. Course Lecture Programme

■ SEMESTER 1

The Scientific Basis of Risk

- **Module 1. Food Hazards- Microbiological**
- **Module 2. Food Hazards- Chemical,**
- **Module 3. Food Hazards- Research.**

Food Law, the Consumer & the Regulatory Environment

- **Module 1. - Food Safety and the Consumer**
- **Module 2. - Food Regulatory Affairs**
- **Module 3. - Food Law & Media Research**



Stage 1. Course Lecture Programme

■ SEMESTER 2

Safety Aspects of Food Production Technology

- **Module 1. Safety Aspects of Primary Production**
- **Module 2. Safety Aspects of Food Processing**
- **Module 3. Food Production Research**

Food Safety Management

- **Module 1. - Food Safety Management Systems**
- **Module 2. - Food Safety Management Risk Analysis**
- **Module 3. - Food Safety Management Toolkit**

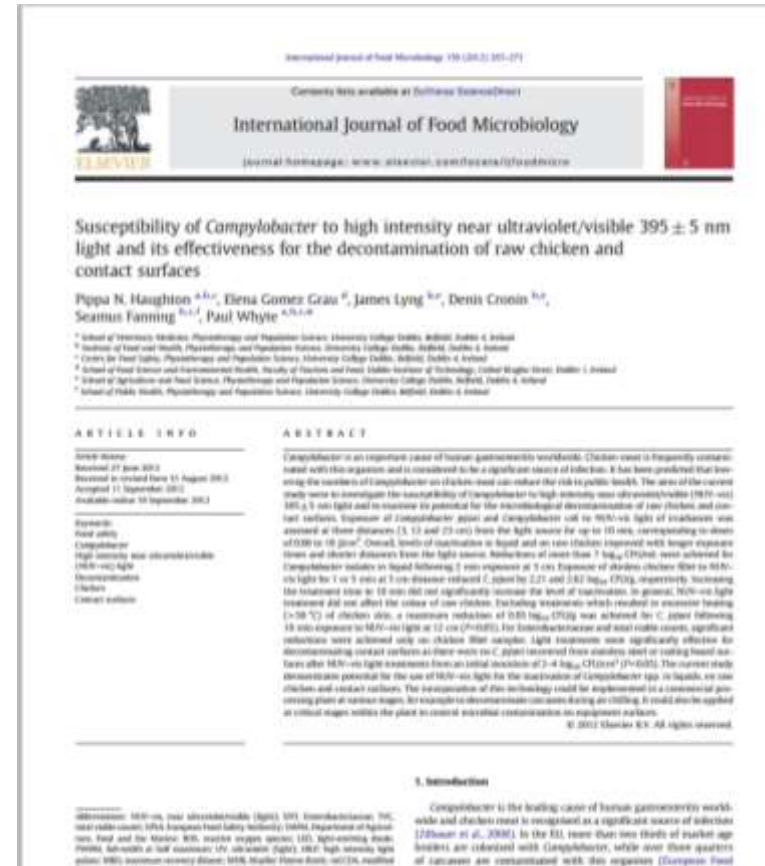


Stage 2. The Integrated Case Study

- The Integrated Case Study is an opportunity to put into practice the knowledge & Skills gained from the taught courses, by applying that knowledge in a food production company.
- Sources of risks are identified in a structured manner and systems formulated to address these risks. The case study involves a food safety audit of the premises/operation, developing controls and ultimately putting in place a food safety management strategy for the food company.

Stage 3. Completion of the Dissertation

- An individual research project
- Allows in depth investigation of a topic of interest to the student or their employer
- An opportunity to become a published author!



Stage 4. Study Tour



- Key opportunity to look at policy formation
- EU Commission, Farmer/ Processor/ Consumer Representatives
- Looking 5-10 years into the future

Parma 2015



FAO/ Codex Rome 2015

Fintan Moran



EU Commission 2010



Why we do so much Project Work?

*“Good Judgement comes from Experience”
but*

“Experience comes from bad Judgement”

Why it's Important to Study Food Safety Management Now!

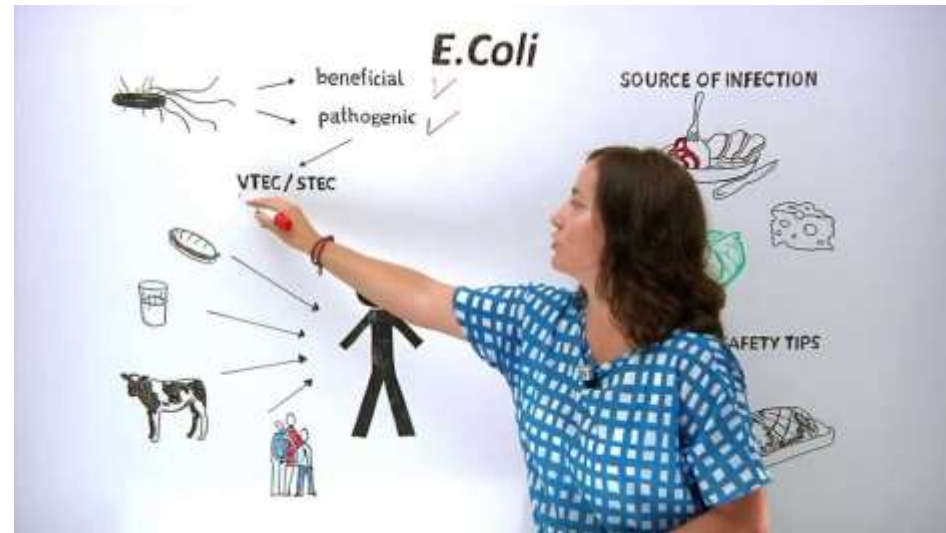
- *“Knowledge is what we will do for a living in the 21st Century”*



Why It's Important to Study Food Safety Management Now!

- A Changing Environment

- *Emerging Pathogens-
E.Coli:O104:H4,
BSE, Avian Flu/
Swine Flu?*
- *New Technology-
HP, PEF,
Irradiation?*



Why It's Important to Study Food Safety Management Now!

- A Changing Environment



- **Changing Consumer Knowledge/Needs:**
 - Lifestyle/Convenience (Affluence or Poverty!)
 - Ignorance of food safety risks
- **Environment/Sustainability-**
 - Population growth, Food Waste, CO₂ reduction



Why It's Important to Study Food Safety Management Now!

- Legislation

■ New/ Changing Safety Management Systems

– Hygiene Package

– Food Contact Materials- packaging

– Labelling -Nutritional and health claims

– Pesticide Regulations

■ Due Diligence

■ Power of the Multiples

Networking



- Maintain Contact with Past Graduates
- Guest lecturers
- Work Placements
- ICS Sites
- Employment Opportunities

An Example of a Graduate



<https://food.cloud/team/>

Any Questions ?

