Università Politecnica delle Marche
Dipartimento di Scienze Agrarie, Alimentari ed Ambientali

Environmental Risk Assessment of new agricultural technology

Maggio 2014

Dott Jeremy Sweet Visiting Scientist D3A

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Objectives: Lectures, and exercises of about 20-24 hours on aspects of Environmental Protection, Regulation and environmental biosafety assessment and management

- Environmental Protection Goals for vital ecosystem services and functions in agricultural and semi-natural environments
- Comparisons of pesticide and GMO regulations, and risk assessments.
- ERA methods including Problem Formulation, Hazard characterisation and Exposure assessments
- Case studies of insect resistant and herbicide tolerant crops where pesticide and GMO regulations interact
- Risk assessments, case studies and practical exercises using current and future GM crops including those being developed by UPM and other organisations in Europe
- Non-target and off–target effects
- Risk management and mitigation of GM crops and pesticides
- Coexistence of GM and non-GM crops, including isolation, labelling, traceability, thresholds and detection.
- Environmental Monitoring: feasibility and methods
- Student exercises where students will describe risk assessments and risk management requirements for new crops
- Social and economic considerations of GMOs and pesticides in relation to food, and agriculture.
- Visit to sugar beet breeding centre
- 2 hours examination on ERA approaches and methods.

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Programma del Corso

	AM	PM	
Time table	**09:00 - 10.30**	**14.00-15.30**	**16.00/16.30-**
Date			
Mag-07 Aula A			**16.30** Environmental Risk Assessment: Principals and approaches Pesticides and GMOs
8 Aula M	Environmental Risk Assessement GM Plants	ERA: Gene flow, Fitness and Invasiveness	**16.00** Coexistence, traceability, detection, labelling
9 Aula A		Non Target Organisms Insect Target Effects	**16.00** Insect Resistance management
14 Aula A			**16.30** Herbicide tolerance Rice case study
15 Aula A	ALL DAY : Visit to CRA-CIN (Rovigo : Sugar beet or Bologna Industrial crops) http://sito.entecra.it/portale/cra_dati_istituto.php?id=206		
16 Aula A		GM Sugar beet case studies	**16.00** Post Market Environmental Monitoring and Management
21 Aula A			**16.30** Gene stacking
22 Aula M	GM perennial species : issues	Risk assessment exercises: GM Potato and tree	16.00 Risk management Exercises
23 Aula A		GM animals : insects, fish, farm animals	**16.00** Risk assessment exercise GM salmon
28 Aula A			**16.30** Socio economic considerations
29 Aula M	Tutorial Session	**14.00** Examination 2 hours	