



Master in Sustainable Agriculture

The Master on Sustainable Agriculture is a two-year programme for graduates holding a university Bachelors degree in Agriculture or other related sciences.

Application Submission deadline

July 15th, 2012

Objectives

In the first year participants follow the Postgraduate Specialization Course to:

- be introduced in agroecology, environmental indicators of integrated crop management and organic farming systems;
- familiarize with the certification systems of environmentally friendly and sustainable agricultural production;
- present latest advances in management of soil, water and genetic resources in agriculture;
- be exposed in a

thorough background of crop protection; v) get acquainted with bioclimatology, automatization and modern recycled soilless greenhouse production methods

The qualified first year graduates are entitled of pursuing their research in an environment fully equipped with the most updated facilities.

In the second year, students who have successfully completed the first year develop a thesis based



on research work leading to a Master's of Science degree.

The scientific results of graduate studies are usually announced in International Conferences and/or published in World renowned journals.

Research Activities

- Evaluation of compost use as a substrate in hydroponic systems with application of variable parameters (e.g. CO₂, salinity)
- Study of mediterranean insect pests activity and their bio-ecological characteristics
- Host-virus interactions essential for virus replication and resistance
- Genetic basis of weeds resistance to herbicides
- Research topics on organic farming, integrated pest management as well as comparison of nutrient and energy budgets of conventional and organic farming systems as environmental indicators



Requirements

Applicants must have the academic level that qualifies them to undertake postgraduate level studies in their home country equivalent to a minimum of four years undergraduate studies. Their degree must also be in a discipline compatible with the area of specialisation. The working language of MAICH is English.

Applicants can apply for scholarship covering (fully or partly): a) tuition b) room and board c) health insurance d) pocket money

Scholarships are available - No Tuition Fees.

For more information, visit our website at: <http://www.maich.gr/sust> or send inquiries to liveratos@maich.gr

EDUCATIONAL SEQUENCE

1ST SEMESTER October - February

SAG520.11010.0 Introduction to Sustainability – (15 ECTS)

SAG524.1410.1 AGRO-ECOSYSTEMS AND POPULATION DYNAMICS

SAG522.2306.3 AGRO-ENVIRONMENTAL IMPACT ASSESSMENT & FARM MANAGEMENT

SAG525.1305.1 ECOTOXICOLOGY

SAG523.1304.1 QUALITY ASSURANCE & GOOD AGRICULTURE PRACTISES

SAG530.1810.0 Natural Resources Management – (8 ECTS)

SAG531.2510.13 SOIL PROPERTIES & QUALITY ASSESSMENT AND COMPOSTING TECHNOLOGY

SAG532.1304.1 NUTRIENT MANAGEMENT AND SOIL FERTILITY IMPROVEMENT

SAG540.1810.0 Assessment of Genetic Resources – (7 ECTS)

SAG541.2410.23 SEED PRODUCTION AND QUALITY MANAGEMENT / PLANT BREEDING

SAG543.1410.3 AGRO-BIODIVERSITY ASSESSMENT AND MANAGEMENT

2ND SEMESTER March - June

SAG550.11510.0 Crop Protection – (15 ECTS)

SAG552.2310.23 IPM / FUNGAL & BACTERIAL DISEASE MANAGEMENT

SAG553.2410.12 DETECTION AND EPIDEMIOLOGY OF PLANT VIRUS DISEASES

SAG554.1410.23 INSECT MANAGEMENT

SAG555.2410.2 WEED MANAGEMENT

SAG560.11210.0 Greenhouse Management – (8 ECTS)

SAG562.1410.1 GREENHOUSE TECHNOLOGIES AND CLIMATE CONTROL

SAG563.1410.1 SOILESS CULTIVATION

SAG510.1410.0 Biometrics – (4 ECTS)

SAG511.1410.1 CROP EXPERIMENTATION

SAGX.Y.Z Innovation and Communication in Sustainable Farming – (3 ECTS)

SAGX.Y.Z INNOVATION AND COMMUNICATION IN SUSTAINABLE FARMING



Recent Publications

Kataya, A., Stavridou, E., Farhan, K. & Livieratos, I.C. (2008). Detection and differentiation of whitefly-transmitted criniviruses using RT-PCR and hybridization assays. *Plant Pathology* 57, 819-824.

Kataya, A., Suliman, M., Kalantidis, K. & Livieratos, I. (2009). *Cucurbit yellow stunting disorder virus* p25 is a suppressor of post-transcriptional gene silencing. *Virus Research* 145, 48-53.

Klein, D., Gkisakis, V., Krumbein, A., Livieratos, I. & Köpke, U. (2010). Old and endangered tomato cultivars under organic greenhouse production: Effect of harvest time on flavor profile and consumer acceptance. *Journal of Food Science & Technology* 45, 2250-2257.

Al Naddaf, O., Livieratos, I., Stamatakis, A., Tsirogiannis, I., Gizas, G. & Savvas, D. (2011). Hydraulic properties and agronomic performance of perlite are improved when mixed with composted pig manure. *Scientia Horticulturae* 129, 135-141.

Amara, A. & Kalaitzaki, A. (submitted). Effect of temperature on development time of *Calochoris trivialis*. *Journal of Pest Science*.

Mathioudakis, M., Veiga, R., Ghita, M., Tsikou, D., Medina, V., Canto, T., Makris, A.M. & Livieratos, I.C. (2012). *Pepino mosaic virus* capsid protein interacts with a tomato heat shock protein cognate 70 in yeast, in planta and in vivo. *Virus Research* 163, 28-39.

Nol, N., Livieratos, I.C. and Giannopolitis, C.N. (in press). Reduced susceptibility to glyphosate of *Conyza canadensis* plants from a conventional citrus orchard in Crete (Greece) and early detection of resistance with the shikimate leaf disc assay. *Crop Protection*.

Shegani, M., Tsikou, D., Velimirovic, A., Afifi, H., Karayanni, A., Gazivoda, A., Manevski, K., Manakos, I. and Livieratos, I.C. (in press). Citrus tristeza virus on the island of Crete: a survey and detection protocol applications. *Journal of Plant Pathology*.