



CIHEAM

Activities Report 2007 - 2009



International Centre for Advanced Mediterranean Agronomic Studies

www.ciheam.org



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CIHEAM member countries



CIHEAM's Mediterranean focus

The International Centre for Advanced Mediterranean Agronomic Studies is an intergovernmental organisation comprising thirteen member countries: Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia and Turkey.

Founded in 1962 by the OECD and the Council of Europe initiatives, CIHEAM is dedicated to postgraduate education, applied research and the development of international cooperation in the Mediterranean Region. Its General Secretariat is based in Paris.

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A top-level education

CIHEAM offers postgraduate education: Master of Science degrees and short-duration specialised courses.

➤ **Education p 13**

Cooperative research

CIHEAM manages cooperative research networks in four main areas: production and technologies; environment and resource management; economics, management and development; fisheries and aquaculture. The MAIs play an active part in some research projects and directly organise others, mainly those obtained under the European Commission tendering procedure.

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A discussion forum

CIHEAM organises regular meetings of its member countries' Ministers of Agriculture to address a topic of general importance for the future of the region. The goal is to devise a common approach and a standard frame of reference for the Mediterranean Basin as a whole.

➤ **Cooperation p 25**

Four Mediterranean Agronomic Institutes

The four Mediterranean Agronomic Institutes (MAIs) of Bari, Chania, Montpellier and Zaragoza are where CIHEAM's three core missions – education, research and cooperation – are given practical expression. By providing top-level education, managing projects and organising networks, the Mediterranean Agronomic Institutes contribute to the vitality of Euro-Mediterranean research in the agricultural sciences.

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A Mediterranean resources centre

CIHEAM contributes to dialogue and promotes cooperation on the development of Mediterranean food and agriculture through its documentation and publications.

Scientific and technical publications

- *Mediterra*
- *Options méditerranéennes*
- *NewMedit*

www.ciheam.org

A source of essential information about CIHEAM and the latest developments in Mediterranean agriculture.

The Watch Letter (*Lettre de veille*)

The *Watch Letter* provides information about CIHEAM's activities together with analyses of Mediterranean agriculture.

Documentation centres

The Mediterranean Agronomic Institutes develop their own documentation centres, making electronic catalogues available to all those with an interest in their activity: researchers, professionals and students.

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Editorial

Over the past two years, the world has rediscovered the fundamental importance of agriculture. This wake-up call, coming after a period in which international policy makers have very rarely ventured into the world of agriculture, has served as a warning to those who might have forgotten that the need to produce food is the most pressing of man's perennial concerns.

All the signs are that the volatility experienced in the spring of 2008 was a mere foretaste of far greater, more serious food crises to come. Let there be no doubt, we are seeing distinct structural changes in agricultural trade balances worldwide. Demographic and ecological parameters are changing more quickly than expected, economic challenges are becoming more complex, political forces are realigning, and new powers are emerging, together with new forms of vulnerability. The development of the different types of agriculture and the fight against food insecurity are crucial variables in a globalised world, in which risks are increasingly combined and entangled. The reason why there are one billion hungry people in the world in 2009 is that food security is highly precarious and agricultural production conditions are more difficult than ever. But this situation is also the dismal consequence of the endemic poverty found throughout the entire world. The unfortunate fact is that more and better food needs to be produced from increasingly limited resources. The world's agricultures must resolve this complex equation for the sake of human society as a whole, for let us not forget that the need for regular nourishment is as fundamental as it is universal. The new "food imponderable", linking in with the other global crises that shape modern international relations, is likely to produce further disorder, volatility and inequality.

If we observe these trends at Mediterranean level, we note that the tensions here are a microcosm of general geostrategic tensions, rooted in the world food situation. In this region the indicators are on red alert in all

areas of agricultural life: sustainable management of water and land resources; adaptation to climate change, development of rural territory, conservation of regional food identities or even regulation of trade liberalisation policies. Mediterranean agricultures have also had to display great ingenuity in confronting the many problems that arise in the region. Today, their comparatively high resilience is being put to the test as never before.

CIHEAM's endeavours since its founding in 1962 have been directed precisely towards improving our understanding of these difficult trends and finding a response to the innumerable challenges facing Mediterranean agricultural:

- First, its teaching work, enriched by the analyses provided by its agricultural research and stimulated by its research programmes, serves to emphasize that trained professionals will continue to play a central role at all stages of the Mediterranean agrifood chain, from farm to fork. In a zone where agriculture is one of the cornerstones of society, reaching as it does into many different areas of life, neglecting education and research in this field amounts to giving up on the future. Through its teaching programmes (Master of Science or specialised courses), CIHEAM sets out to help countries meet the challenges facing Mediterranean agriculture by building up a shared body of expertise and a common culture. With its transnational, interdisciplinary expertise, symbolised by the annual report *Mediterra*, CIHEAM also seeks to provide students, researchers and policy makers with a comprehensive set of strategic information.
- Second, its work in regional cooperation ensures that the results of the educational and research work can be put to practical effect. The pooling of skill and know-how may be viewed as concrete expressions of its determination to network the skills of

the Mediterranean countries. In helping to stimulate the rapid growth of the Euro-Mediterranean zones for agricultural research (ARIMNet) and organic agriculture (MOAN), for example, CIHEAM fulfils its function as a catalyst in increasing knowledge about food and agriculture around the Mediterranean Rim. Through its active participation in numerous development programmes, CIHEAM is able to apply its methods and research findings in the field.

- Lastly, by organising the biannual meeting of its member countries' Ministers of Agriculture, CIHEAM also proves itself to be one of the great facilitators of political debate on Mediterranean food and agriculture issues.

On the one hand there are opportunities to identify and understand the essential dynamics of this sensitive yet coveted region, on the other there is the obligation to continue working with even greater determination in pursuit of its mission to promote social stability and development in the Mediterranean.

Because the world food situation calls for mobilisation of institutions at all levels, the presence of intergovernmental organisations in certain strategic regions has proved to be of great value in reconciling the demands of the international community with the needs of local populations. As it approaches its 50th anniversary, CIHEAM is unquestionably at a major crossroads in its history.



The President,
Mr Abdelaziz Mougou



The Secretaries General,
Mr Bertrand Hervieu and Mr Francisco Mombiola

CIHEAM news

Sharing ideas, making decisions

Strengthening ties with member countries

■ **Turkey, 19 - 20 October 2007**

Meetings in Ankara and Izmir with the Vice Minister of Agriculture and Rural Affairs, Mr Vedat Mirmahmutogullari, and the Turkish Delegation.

■ **Egypt, 18 - 21 February 2008**

Meeting with the Minister of Agriculture, Mr Amin Abaza.

■ **Lebanon, 13 - 14 March 2008**

Meeting with CIHEAM Delegate, Mr Mouin Hamzé and the Director for Higher Education, Mr Ahmed Al Jammal.

■ **Algeria, 14 - 15 April 2008**

Meeting with the Minister of Agriculture, Mr Saïd Barkat and senior officials at the Ministry of Higher Education.

Meetings of CIHEAM member countries' Ministers of Agriculture

■ **3 - 6 February 2008, Zaragoza**

The 7th meeting was held at the invitation of the Spanish authorities and the Spanish Minister, Ms Elena Espinosa. The meeting focused on two main themes:

- management of fisheries resources;
- water resources for agriculture in the Mediterranean Region.

■ **8 - 10 March 2010, Istanbul**

The 8th ministerial meeting, to be held in Istanbul at the invitation of the Turkish authorities, will be chiefly devoted to the question of climate change and its impact on agriculture in the Mediterranean Region.

■ **Portugal, 11 - 12 September 2008**

Meeting with the President of the INRB, Ms Rosa Sà.

■ **Greece, 29 September 2008**

Participation in the inauguration of the new conference centre at MAI Chania.

■ **Spain, 3 October 2008**

Meeting with senior officials at the Ministry of the Environment and Rural and Marine Affairs.

■ **Albania, 6 - 7 October 2008**

Meeting with the Minister of Agriculture and Food, Mr Jemin Gjana. Workshop at the University of Tirana.

■ **Tunisia, 8 - 9 October 2008**

Meeting with the new Minister of Agriculture and Hydraulic Resources, Mr Abdessalem Mansour.

■ **Italy, 16 October 2008**

Participation in round table "Challenges, changes and new food security strategies" organised under the patronage of the President of the Republic and the Ministry of Foreign Affairs as one of the events marking World Food Day.

■ **France, 23 January 2009**

Participation in the inauguration of the Mediterranean Campus at MAI Montpellier.

■ **Morocco, 6 July 2009**

Meeting with the new Director of the Hassan II Institute of Agronomy and Veterinary Medicine, Mr Mohammed Sadiki.

■ **Malta, 22 September 2009**

Meeting with CIHEAM Delegate, Mr Salvino Busuttil and Mr George Attard, member of the Scientific Consultative Committee.

In the wake of the 7th CIHEAM ministerial meeting

A high-level working group has been set up. Its purpose is to recommend action for the agricultural component of the Union for the Mediterranean (UfM).

■ **17 - 18 April 2008**

Paris

First meeting, held at the initiative of the French Minister of Agriculture, Mr Michel Barnier. Four themes were identified: sustainable development in rural areas, promotion of quality products and development of geographical indications (GIs), food safety and sanitary and phytosanitary standards, coordination of agricultural research.

■ **24 - 25 November 2008**

Tunis

Second meeting, held at the initiative of the Tunisian Minister of Agriculture, Mr Abdessalem Mansour. Delegations examined and discussed the fact sheets drawn up on the four themes. Participants reaffirmed the importance of implementing a practical agricultural programme as part of the Union for the Mediterranean initiative.

Governing Board

The Governing Board, CIHEAM's decision-making forum, held four meetings. It discussed CIHEAM's activities in broad terms and also addressed the question of institutional and financial management.

■ 10 - 11 December 2007
Paris, 118th meeting

■ 6 June 2008
Paris, 119th meeting

■ 22 January 2009
Montpellier, 120th meeting
Adoption of CIHEAM's General Staff Regulations together with the specific regulations applicable to each of the five establishments.

■ 6 - 7 May 2009
Paris, 121st meeting
Unanimous election of Mr Francisco Mombiola to the post of Secretary General of CIHEAM. He takes up his new duties on 1 October 2009 and succeeds Mr Bertrand Hervieu, whose term of office has now ended.

Seminars of MAI Directors

Twice a year, the Secretary General meets with the directors of the four Institutes.

■ 23 November 2007, Tunis
– Tightening of cooperative links with member countries.
– Recognition of CIHEAM degrees by member countries and universities.
– *Mediterra* and the website.

■ 12 - 14 March 2008, Paris
– Follow-up to 7th ministerial meeting in Zaragoza.
– Preparation of the 8th meeting, to be held in Istanbul in March 2010.
– Place and role of CIHEAM in the ERA-Net project, which coordinates agricultural research in the Mediterranean.
– Update of the Academic Regulations.

■ 20 - 21 October 2008, Paris
– Coordination of tenders under the 7th FPRTD.
– CIHEAM doctoral platform.
– General Staff Regulations.

■ 11 - 12 March 2009, Rome
– General Staff Regulations.
– Priorities, terms and conditions governing cooperation with the FAO.
– M.Sc. prospectus.

Meetings of the Scientific Advisory Committee (SAC)

CIHEAM's Scientific Advisory Committee is made up of scientific figures, who are appointed thereto by the Governing Board for a period of four years.

■ 17 September 2007, Bari
– Analysis of educational, research and development activities successfully completed at MAI Bari.
– CIHEAM publications policy and development of website.

■ 21 - 22 May 2008, Montpellier
– Analysis of educational, research and development activities successfully completed at MAI Montpellier.
– Prize for best CIHEAM thesis in 2007.

■ 2 - 3 April 2009, Chania
– Analysis of educational, research and development activities successfully completed at MAI Chania.
– Prize for best CIHEAM thesis in 2008.

Meetings of Board of Auditors

■ 22 - 23 October 2007, Montpellier
■ 16 - 17 October 2008, Bari
■ 25 September 2009, Chania

Meetings of Documentalists

■ 5 - 6 March 2008, Paris
■ 5 June 2009, Paris

Meeting of Working Group on Communication

■ 4 June 2009, Paris

Communication, an essential requirement

Communication is essential to our cooperative mission in the Mediterranean region.

The development of the website (www.ciheam.org), on which we post information about CIHEAM's activities in its three main fields of operation and its different publications, is the cornerstone of this communications strategy. Entirely refurbished in June 2008 and with content available in French and English, the website serves more than ever to provide essential information on CIHEAM and current developments in Mediterranean agriculture.

The new-look **annual report**, issued under the title of *Mediterra* since 2007, has also served to consolidate CIHEAM's place in the field of scientific agricultural research. The Centre is now involved in the general debate on the Euro-Mediterranean Region and also in regional cooperation strategies.

The creation in 2007 of the *Watch Letter*, an innovative editorial product combining analyses of major themes in Mediterranean agriculture with information on CIHEAM's activities, represents another bold endeavour in the increasing effort to improve the Centre's communications operation.



Education,

International recognition of the degree

Recognition of CIHEAM's M.Sc. degree

Following France in 2005 and Spain and Egypt in 2006, other member countries have now officially recognised CIHEAM's M.Sc. degree.

- **October 2007, Turkey**
- **November 2008, Lebanon**
- **April 2009, Albania**

CIHEAM M.Sc. prospectus

■ **2008-2009 / 2009-2010**
A number of improvements have been made to the prospectus.

Meetings of heads of education

Heads of education at the MAIs meet to exchange views and put forward proposals on:

- the structure and content of the M.Sc. prospectus,
- CIHEAM's contribution to doctoral studies,
- the updating of the academic regulations,
- the diploma supplement,
- recognition of CIHEAM's M.Sc. in member countries.

- **22 January 2008, Bari**
- **28 November 2008, Paris**



CIHEAM's Master of Science prospectus plays an essential role in improving transparency of course content and knowledge gained.





Research, CIHEAM's crucial role in the Mediterranean

CIHEAM played an essential role vis-à-vis the Commission in setting up the ERA-Net for coordination of agricultural research, which was approved under the 7th FPRTD.

ARIMNet network Coordination of agricultural research in the Mediterranean

■ **September 2007, Brussels**
ARIMNet project approved by the European Commission's DG Research as part of the 7th FPRTD.

■ **4 - 5 November 2008, Montpellier**
ARIMNet officially launched in the presence of Abdelaziz Mougou and Bertrand Hervieu; Ms Marion Guillou, President of INRA; and Mr Tim Hall, Director for Agriculture, Fisheries and Biotechnologies at the EC's DG Research.

■ **16 December 2008, Rome**
CIHEAM attended the meeting organised by the Italian Ministry of Agricultural, Food and Forestry Policies. Discussion focussed on the preparation of a methodological workshop. The ultimate aim was to define common criteria for collecting and disseminating information on the educational and research programmes of the ARIMNet partner countries.

■ **2 - 4 February 2009, Rome**
The project management and steering committees produced a mapping of research programmes that might lend themselves to crossborder cooperation.

■ **15 September 2009, Algiers**
Meeting of the project management committee.

ARIMNet, an essential component of agricultural research in the Mediterranean

A RIMNet, a project intended to last four years, is rather atypical. It combines a Mediterranean regional dimension with a multi-disciplinary theme: agricultural research. Following the Rome meeting in February 2009, a methodological workshop identified common criteria governing the collection of information on research programmes underway in partner countries. www.arimnet.net

■ **24 - 26 June 2008, Paris**
CIHEAM was called upon by the *Académie des Sciences de l'Institut de France* and its international network to initiate a Euro-Mediterranean Research zone.

MIRA project

The aim of the MIRA project is to identify coordinated work in different fields – environment, energy, health, ICTs, agriculture – and bring about moments of coordination between the activities of different European Union countries and those of Mediterranean Partner Countries (MPCs), as part of the effort to establish the European neighbourhood policy. www.miraproject.eu

Prize for best thesis

Every year, CIHEAM awards a prize for the best Master of Science thesis.

■ **2008, Mr Bachir Balechn**
“An integrated molecular and morphological study to design DNA barcode discrimination protocol for *Fusarium* species involved in dry roots disease of citrus”.

■ **2007, Mr Kanj Hamade**
“Institutions and development policies for organic agriculture in the West Balkan Countries, a comparative analysis”.



Meeting of lecturers- researchers

Every two years the lecturers-researchers meet to discuss subjects of relevance to all the MAIs.

■ **15 - 17 September 2007, Bari**

- Course prospectus and recognition of degrees.
- Website and management of information.

■ **19 - 21 September 2009, Montpellier**

- Discussion of issues surrounding doctoral-level studies at CIHEAM.
- Discussion on the role of CIHEAM in the UfM.

Mediterra, a contribution to the debate on the Mediterranean

The Secretary General gives his views on agricultural issues in the Mediterranean at press conferences held at the General Secretariat headquarters in Paris.

- 9 April 2008, *Mediterra 2008*
- 8 April 2009, *Mediterra 2009*



Mediterra

Mediterra, the annual report, is a compilation of our shared expertise and serves as a decision support tool. It is intended to provide players, professionals and researchers in the Mediterranean world with the keys to interpretation and strategic indicators that are essential to agricultural and rural development. *Mediterra* has become a benchmark publication. Each edition is discussed at special symposia.

Mediterra 2008

Mediterra 2008 was awarded the special Terra prize on 25 February 2008 at the *Salon de l'Agriculture*

in Paris. The prize was presented to the Secretary General of CIHEAM, the Scientific Director of *Mediterra 2008*, by the French Minister for Agriculture and Fisheries, Mr Michel Barnier. Established in 2007, the Terra prize is awarded to the publication that best addresses relations between man and nature and more specifically problems associated with agriculture and food production. *Mediterra 2008, the Future of Agriculture and Food in Mediterranean Countries* provides a long-term forecast of the state of food, agriculture and rural affairs up to 2020.

Cooperation, a prerequisite for progress in the Mediterranean

■ **16 - 19 October 2007, Madrid**
Meeting of MAP (Mediterranean Action Plan) focal points: draft decisions, programmes, budget for the financial years 2008-2009.

■ **16 October 2007, Paris**
Signing of an agreement between CIHEAM and the United Nations Development Programme regarding promotion of human development and support for territorial development.

■ **8 - 9 November 2007, Casablanca**
Seminar organised by the FAO on the promotion of mountain products in the Mediterranean.

■ **18 - 21 February 2008, Cairo**
CIHEAM participated in the presentation of the 7th FPRTD and presented its arguments in favour of the implementation of an ERA-Net to coordinate agricultural research in the Mediterranean.



■ **7 - 8 April 2008, Chania**
The 4th in the series of meetings “Sharing knowledge across the Mediterranean” was held at the new conference centre in MAI Chania. The meeting was organised by CIHEAM and the Sharing Knowledge Foundation.

■ **7 - 10 April 2008, Sofia**
“Silva Mediterranea” Committee.

■ **23 - 24 May 2008, Skhirat**
Forum “*Le Maghreb, en 2030, dans son environnement euroméditerranéen et dans la perspective de l’Union pour la Méditerranée. Pour une compétitivité partagée*” organised by the Moroccan High Commission for Planning (HCP). CIHEAM attended and presented a paper on long-term prospects for food security in Maghreb.

■ **8 September 2008, Madrid**
Colloquium on “The role of parliaments in the management of water resources”, organised by the Agriculture Committee of the Parliamentary Assembly of the Council of Europe.

■ **10 - 12 October 2008, Damascus**
General meeting of the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA), which was called upon to support the ARIMNet project. The Secretary General met with the Directorate General of the International Centre for Agricultural Research in the Dry Areas (ICARDA) to work on further cooperation between the two institutions within the framework of the ARIMNet project.

■ **12 October 2008, Damascus**
Meeting with the new Director General of ACSAD, Dr. Rafik Ali Saleh, to discuss cooperation priorities.

■ **18 - 21 March 2009, Istanbul**
CIHEAM took part in the 5th World Water Forum.

■ **27 - 29 March 2009, Paris**
Paris Forum “Save the Mediterranean” on challenges to sustainable development of the region. CIHEAM is responsible for the workshop on agriculture and fisheries.

■ **16 - 17 April 2009, Paris**
5th “Rencontres méditerranéennes” (Horizons Méditerranée) on agriculture and food security in the Mediterranean.

■ **19 May 2009, Paris**
Workshop on health and nutrition in the Mediterranean, organised by CIHEAM.

■ **8 - 9 July 2009, Casablanca**
Participation in the 3rd meeting of the Euro-Mediterranean universities network (REMU).

■ **2008 - 2009, itinerant meetings**

Mediterranean study days 2008-2010, organised by the Rifosol consortium (*Università della Tuscia di Viterbo, Università di Siena* and the Mediterranean Institute of Certification) on the quality and identity of Mediterranean food products. Itinerant meetings involving CIHEAM and MAI Bari were held in Rome, Tirana, Cairo and Ankara.



AFD

■ 14 - 15 May 2009, Tunis

Regional workshop, jointly organised by CIHEAM and the *Agence française de développement* (AFD), to discuss a study on the outlook for agricultural policies in North Africa.

IFAP

CIHEAM has continued its collaboration with the International Federation of Agricultural Producers.

■ 1 - 2 June 2008, Warsaw

The Secretary General led the Mediterranean workshop.

■ 28 October 2008, Brussels

Seminar on the place of agriculture in the Union for the Mediterranean.

■ 27 November 2008, Cyprus

Meeting of the Mediterranean Committee of IFAP. Statement by CIHEAM on water resource issues in the region.

■ 24 - 26 September 2009, Catania

Meeting of the Mediterranean Committee of IFAP. Statement by CIHEAM on cooperation activities with IFAP.

FAO

■ 8 - 9 November 2007, Casablanca

Seminar organised by the FAO on the promotion of mountain products in the Mediterranean. The Secretary General presented work by CIHEAM published in *Mediterra 2007*.

■ 1 - 5 March 2008, Cairo

FAO Regional Conference for the Near East.

■ 25 - 27 June 2008, Innsbruck

26th FAO Regional Conference for Europe. Subjects addressed included adaptation to climate change and local food products.

■ 8 January 2009, Rome

Signing of a new CIHEAM/FAO agreement on eight areas of cooperation.

■ 13 March 2009, Rome

Joint meeting between the FAO technical departments concerned by the 8 January agreement and the Secretary General and MAI Directors.

European Commission

■ 16 - 17 October 2008, Cyprus

Conference on rural development.



CIHEAM, education for the Euro-Mediterranean world

CIHEAM continues to pursue a coherent education strategy: bringing CIHEAM's courses into line with the standards laid down by the Bologna process, gaining recognition of the CIHEAM degree or the equivalence of the degree by CIHEAM member countries, finding innovative ways of meeting the challenges of tomorrow and strengthening academic partnerships.

Post-graduate courses: the Master of Science programmes

During the academic years 2007-2008 and 2008-2009, CIHEAM offered twenty M.Sc. programmes in four fields of crucial importance to the development of the Mediterranean Region:

- food production and quality management;
- the environment and natural resources management;
- development economics, management and policies;
- fisheries and aquaculture.



Two types of course

CIHEAM offers two types of course: the diploma courses, culminating in the award of CIHEAM's Master of Science degree, and the short-duration specialised courses, intended for professionals in the agrifood sector of the Euro-Mediterranean countries.

These courses are organised in partnership with member country institutions and are given both on the premises of the latter and in the Mediterranean Agronomic Institutes, thereby contributing to student mobility.

Specialised short-duration courses

The specialised short-duration courses are intended for professionals, teachers, researchers, development agents, civil servants and private-sector executives who wish to increase their knowledge in particular fields. They are awarded certificates upon completion of the courses.

The need for continuing education

CIHEAM is the ideal provider of refresher courses in its specific areas of specialisation, in which the pace of scientific progress has been staggering. To meet the demand for "life-long higher education", the Centre, and more precisely MAI Bari, has begun to offer quality online education. At present, the distance learning prospectus lists eight online courses. All of these courses are given in English and two of them are also given in Arabic.

The course prospectus

CIHEAM's Master of Science prospectus is published annually. It is available in hard-copy and electronic form. It can also be downloaded from the CIHEAM and MAI websites. The prospectus is divided into four main chapters and lists a total of twenty one programmes.

Food production and quality management

MAI Bari

- Mediterranean organic agriculture
- Integrated pest management of Mediterranean fruit tree crops

MAI Chania

- Food quality management and chemistry of natural products
- Horticultural genetics and biotechnology
- Sustainable agriculture

MAI Zaragoza

- Plant breeding (MAIZ/UdL)
- Animal breeding and reproduction biotechnology (UPV, UAB, MAIZ, IVIA, INIA, IRTA, AGROALIMED)
- Animal nutrition (MAIZ, UZ, FEDNA, UPM)
- Olive growing and oil technology (UCO, JA, CSIC, IOC, MAIZ)

Environment and natural resources management

MAI Bari

- Land and water resources management: irrigated agriculture

MAI Chania

- Environmental management

MAI Montpellier

- Agricultural management and the environment

MAI Zaragoza

- Integrated planning for rural development and environmental management (MAIZ/UdL)

Economics, management and development policies

MAI Chania

- Business economics and management

MAI Montpellier

- Innovation and development of rural territories
- Projects and public policies engineering
- Agriculture, food and sustainable development
- Agro-food chains and actor's strategies

MAI Zaragoza

- Agro-food marketing

Fisheries and aquaculture

MAI Zaragoza

- Fisheries economics and management (UB, MAPA, MAIZ)
- Aquaculture (ULPGC, ICCM, MAIZ)



Prize for the best CIHEAM Master of Science thesis

Every year, CIHEAM awards a prize for the best Master of Science thesis prepared in one of the four MAIs or in cooperation with a national institution. The winner of the prize is selected by the Scientific Advisory Committee meeting in closed session.

In 2007, the prize was awarded to Mr Kanj Hamade – (MAI Bari)

"Institutions and development policies for organic agriculture in the West Balkan Countries, a comparative analysis"

This thesis takes a comparative and qualitative approach to study the dynamics of institutional and policy developments in the context of the changing organic agriculture sector in the West Balkan Countries. It is a good illustration of interdisciplinary methods.

It addresses historical, socio-economic and institutional factors related to the growth of organic agriculture in this area. In view of the large number of countries and players covered and the number of players surveyed, it is an excellent example of collaboration.

The cross-utilisation of different disciplines makes this thesis a valuable reference work, applicable to other real situation case studies.

In 2008, the prize was awarded to Mr Bachir Balech – (MAI Bari)

"An integrated molecular and morphological study to design DNA barcode discrimination protocol for Fusarium species involved in dry roots disease of citrus"

The work consisted in developing a standard, reliable way of identifying and distinguishing between the various species of the *Fusarium* fungus. This fungus is the cause of many serious diseases in economically valuable plants, including dry root rot disease in citrus plants, which poses a serious threat to the citrus fruit industry in the Mediterranean and across the world.

Mr Balech successfully applied the DNA barcoding protocol to identify and distinguish between the different species of *Fusarium* associated with this disease in different Mediterranean countries. This work will also serve to promote cooperative research on the use of DNA barcoding to identify and monitor plant diseases.

Educational provision: setting the standard

CIHEAM has continued work on consolidating its educational provision, which is seen as a benchmark for the Euro-Mediterranean world. In particular, the Centre has made progress in three major areas:

- improving content, credit structure, and transparency of its Master's provision;
- gaining recognition of CIHEAM's M.Sc. degree;
- strengthening institutional partnerships and doctoral studies.

Content, credit structure, and transparency of its Master's provision

As part of an ongoing process of improving the content of courses and adapting their structure to meet the requirements of the *European Credit Transfer System* (ECTS), CIHEAM has reviewed its M.Sc. prospectus, its academic regulations and its course assessment process. In particular, the Centre has consolidated routine use of diploma supplements and specified learning outcomes to improve transparency and facilitate recognition of the credits obtained from a given course of studies. The Centre has therefore been able to continue

Institutional partnerships and doctoral studies

CIHEAM has strengthened relations with the Institutes in the countries around the Mediterranean Rim with a view to offering harmonised quality education that will satisfy expectations in the region. Agreements on the joint supervision of M.Sc. degrees have been entered into with several first-rank universities, like those of Barcelona and Montpellier.

As part of the effort to implement these agreements and satisfy the demands of member countries, CIHEAM has been steadily increasing support and supervision for certain students accepted on the doctoral programmes of these universities.



to make approaches to member countries with a view to gaining recognition of the M.Sc. degree or the equivalence thereof.

Recognition of the M.Sc.

Over the past two years, there has been significant progress in the effort to gain recognition of the M.Sc.

- In **October 2007**, the Council of Higher Education of the Republic of **Turkey** officially recognised CIHEAM's M.Sc.
- In **November 2008**, it was the turn of the Republic of **Lebanon**, acting through its General Directorate for Higher Education and Equivalence Committee, to grant official recognition to the CIHEAM M.Sc. and its equivalence to the M.Sc. awarded by Lebanese universities.
- In **April 2009**, the Ministry of Education and Science of the Republic of **Albania** officially notified the rector of the Agricultural University of Tirana that it recognised the CIHEAM Masters as a second-level M.Sc. degree.

The prospectus: an essential contribution

CIHEAM's Master of Science prospectus makes an essential contribution to the task of meeting the convergence and transparency criteria provided for under the Bologna Process. In 2009, the generic and/or specific competencies, supposedly acquired by the end of a course of study, have been defined for all M.Sc. programmes.

Graduated students – years 2007/2008 and 2008/2009
All the Mediterranean Agronomic Institutes, MAIs

	Year 2007/2008				Year 2008/2009			
	Graduated		Scholarships		Graduated		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	168	106	125	90	155	103	118	89
Non-member countries	64	40	42	30	52	38	20	26
Total	232	146	167	120	207	141	138	115

By MAI

MAI Bari

	Year 2007/2008				Year 2008/2009			
	Graduated		Scholarships		Graduated		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	36	28	35	28	31	33	30	32
Non-member countries	13	14	13	12	7	10	7	9
Total	49	42	48	40	38	43	37	41

MAI Chania

	Year 2007/2008				Year 2008/2009			
	Graduated		Scholarships		Graduated		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	34	28	34	28	28	17	28	17
Non-member countries	22	16	22	16	13	17	13	17
Total	56	44	56	44	41	34	41	34

MAI Montpellier

	Year 2007/2008				Year 2008/2009			
	Graduated		Scholarships		Graduated		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	49	17	28	8	44	29	26	22
Non-member countries	6	2	-	-	6	7	-	-
Total	55	19	28	8	50	36	26	22

MAI Zaragoza

	Year 2007/2008				Year 2008/2009			
	Graduated		Scholarships		Graduated		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	49	33	28	26	52	24	34	18
Non-member countries	23	8	7	2	26	4	-	-
Total	72	41	35	28	78	28	34	18

DSP: Postgraduate Specialisation Diploma
M.Sc.: Master of Science

Specialised course – years 2007/2008 and 2008/2009
All the Mediterranean Agronomic Institutes, MAIs

Geographical distribution				CIHEAM member countries		Non-member countries	
Academic year	Courses	Successful candidates		UE	Non UE	Medit.	Others
			Scholarships				
2007/2008	55	1067	536	229	605	20	213
2008/2009	45	981	350	268	367	9	337

Student enrolled – year 2009/2010
All the Mediterranean Agronomic Institutes, MAIs

	Year 2009/2010			
	Enrolled		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	195	136	142	103
Non-member countries	72	38	48	13
Total	267	174	190	116

By MAI

MAI Bari

	Year 2009/2010			
	Enrolled		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	30	28	28	27
Non-member countries	13	4	13	4
Total	43	32	41	31

MAI Montpellier

	Year 2009/2010			
	Enrolled		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	70	38	32	20
Non-member countries	6	6	-	-
Total	76	44	32	20

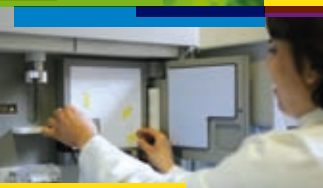
MAI Chania

	Year 2009/2010			
	Enrolled		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	46	24	46	24
Non-member countries	35	9	35	9
Total	81	33	81	33

MAI Zaragoza

	Year 2009/2010			
	Enrolled		Scholarships	
	DSP	M.Sc.	DSP	M.Sc.
CIHEAM member countries	49	46	36	32
Non-member countries	18	19	-	-
Total	67	65	36	32

DSP: Postgraduate Specialisation Diploma
M.Sc.: Master of Science



Building up agricultural research in the Euro-Mediterranean zone

CIHEAM's objectives in the field of research are clear: to facilitate the incorporation of research teams from the South and East of the Mediterranean into networks in the process of being formed; to make CIHEAM better able to respond to European calls to tender; to satisfy the increasing demand for research.



CIHEAM, a driving force for agricultural research in the Euro-Mediterranean zone

In the field of research it is important to highlight the MAIs' successful bids for European projects, notably under the 6th and 7th Framework Programmes for Research and Technological Development (FPRTD). In the fields of water resource management, the fight against desertification, agricultural and sanitary policies, organic agriculture and biotechnologies, the MAIs have played a major role as partners, producers, facilitators, lead contractors or administrators.



The need for cutting-edge research

Research teams in cutting edge scientific fields need to be maintained in the Mediterranean Basin so that common scientific and technical standards can be developed. To that end it will be necessary to link up a new scientific area, whose outlines were drawn under the Barcelona Process, with the European research area. This linkage will now be achieved under the Union for the Mediterranean process.

A key player in Mediterranean research

CIHEAM's high level involvement in Mediterranean research projects was noted at the meeting with the European Commission DG Research, organised in March 2006 in Rabat for the presentation of the 7th FPRTD. It has enabled the Centre to play an essential role *vis-à-vis* the Commission in setting up the ERA-Net for coordination of agricultural research – ARIMNet, which was approved under the 7th FPRTD.

ARIMNet, "Coordination of agricultural research in the Mediterranean", now onstream

The ARIMNet, funded to the tune of one million euros, was officially launched on 4 November 2008 in Montpellier. CIHEAM is represented on the ERA-Net Steering Committee, which held a methodological workshop in Rome on 3 and 4 February 2009 to define common criteria for the collection of information on research programmes underway in project partner countries.

Agreement was reached on a questionnaire format and on the initial structure and functionalities of the project's website.

The year 2010 would be mainly devoted to collecting and processing information for an extended conference of stakeholders where the most important items could be discussed and the research programmes best suited to crossborder cooperation could be selected.
www.arimnet.net

From the 6th to the 7th FPRTD

The sixth Framework Programme for Research and Technological Development, in force from 2002 to 2006, was followed by the 7th FPRTD, covering the period 2007-2013. In order to meet its objectives, CIHEAM has been pursuing its projects assiduously and with great success. Its work has consisted in **facilitating the incorporation of research teams from the South and East of the Mediterranean into European networks and projects**, which have been established under successive FPRTDs, and also in the important MEDA cooperation programme set up by DG AIDCO.



The ERA-Net was given a further boost when the European Commission's DG Research approved a coordination project: INCO-Net **Mediterranean innovation and research coordination action, MIRA**.

The MIRA project

The goal of the MIRA project is to identify coordinated activity in different fields – environment, energy, health, ICTs, agriculture, etc. – and to create moments of coordination between the work of European Union countries and that of Mediterranean Partner Countries (MPCs), thereby helping to establish the European Neighbourhood policy.

The four-year project, which began in January 2008, will contribute to the task of identifying research themes to be considered in future planning of 7th FPRTD work programmes. The project coordinator is the *Spanish Consejo Superior de Investigaciones Científicas (CSIC)*. The Deputy Coordinator is the Technology Directorate of the Moroccan Ministry of Higher Education, Executive Training and Scientific Research. Twenty-eight institutes from seventeen Mediterranean countries are participating in this project.
www.miraproject.eu

24 - 26 June 2008, Paris

CIHEAM was called upon by the Science Academy of the *Institut de France* and its international network to initiate work on a Euro-Mediterranean research zone by bringing together Mediterranean scientists to address three themes:

- agriculture and sustainable development in the Mediterranean Region;
- fisheries and natural resources;
- climate change, effects and adaptation strategies.

CIHEAM, CIRAD and INRA prepared the first workshop, which brought together all of CIHEAM's partner institutes. The objective was twofold:

- to impress heads of State and Government with the importance of these scientific themes for the development of the Mediterranean Region;
- to highlight the fact that the construction of a Euro-Mediterranean scientific area was essential to joint development in the Mediterranean zone.

6th and 7th FPRTD Programmes set up by the MAIs

■ MAI BARI (www.iamb.it)

UE INCO-FP

GEWAMED: Mainstreaming gender dimensions into water resources development and management in the Mediterranean region (4 years).

MELIA: Mediterranean dialogue on integrated water management (4 years).

SCENES: Water scenarios for Europe and for neighbouring States (4 years).

MIRA: Mediterranean innovation and research coordination action (4 years).

SWAP: Mediterranean dialogue on framing sustainability in water policy evaluation (2 years).

WATNITMED: Management improvements of water and nitrogen use efficiency of Mediterranean strategic crops - wheat & barley (4 years).

AQUASTRESS: Mitigation of water stress through new approaches to integrating management, technical, economic and institutional instruments (4 years).

PEOPLE-IRSES

Healthy food for Life: Supporting healthy life style in the Mediterranean area (4 years).

■ MAI CHANIA (www.maich.gr)

6th FPRTD

FIRE PARADOX: An innovative approach of integrated wildland fire management regulating the wildfire problem by the wise use of fire, solving the fire paradox (4 years).

MEDFROL: Market and trade policies for Mediterranean agriculture, the case of fruit/vegetables and olive oil (3 years).

GEOLAND: GMES products & services, integrating EO monitoring capacities to support the implementation of European directives and policies related to "land cover and vegetation" (3 years).

ENSCONET: European native seed conservation network (5 years).

TRADEAG: Agricultural trade agreements (3 years).

SEOS: Education through earth observation for high schools (2 years).

DEVELONUTRI: Development of high throughput approaches to optimise the nutritional value of crops and crop-based food (3 years).

7th FPRTD

CEUBIOM: Classification of European biomass potential for bioenergy using terrestrial and earth observations (33 months).

SUSTAINMED: Sustainable agri-food systems and rural development in the Mediterranean partner countries (3 years).

■ MAI MONTPELLIER (www.iamm.fr)

6th FPRTD

EUMED-AGPOL: Impacts of agricultural trade liberalization between the EU and Mediterranean countries (3 years).

Tahina UE INCO-MED: Epidemiological transition and Health impact in North Africa (2 years).

Ecoponics UE INCO-MED: Efficient water use through environmentally sound hydroponic production of high quality vegetables for domestic and export markets in Mediterranean countries (3 years).

WADEMED-INCO-MED: Management of water request for agricultural needs in the Maghreb countries (4 years).

AQUASTRESS IP: Program EU, participation at the action 5.3. Test and evaluation approaches, participatory approach for defining water management rules (3 years).

7th FPRTD

SUSTAINMED KBBE: Sustainable agri-food systems and rural development in the Mediterranean partner countries (2 years).

■ MAI ZARAGOZA (www.iamz.ciheam.org)

WATNITMED: Management improvements of water and nitrogen use efficiency of Mediterranean strategic crops - wheat & barley, (4 years) – FP6 INCO-MED.

QUALIWATER: Diagnosis and control of salinity and nitrate pollution in Mediterranean irrigated agriculture (4 years) – FP6 INCO-MED.

MEDROPLAN: Mediterranean drought preparedness and mitigation planning (5 years) – MEDA.

Coordination of the Education part

6th FPRTD (Integrated project)

DeSurvey: A surveillance system for assessing and monitoring of desertification (5 years).

7th FPRTD (Collaborative project)

FUME: Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world (4 years).

DNA

Development of DNA-based methodology to certify the varietal origin of protected geographical indication olive oil

The high nutritional value of olive oil and its importance to the Mediterranean countries make it a prime target to fraud.

For commercial and nutritional reasons, it is particularly important to be able to authenticate and guarantee its provenance. With European regulations on traditional products calling protected designation of origin, it is imperative that different varieties of olive be identified. With the development of molecular biology it is now possible to do so.

Under this research programme, the first database of Greek olive oils has been set up. The database lists forty-five different varieties and its availability will eventually make it easier for officials to authenticate each one. In addition, a procedure for detecting adulteration of other vegetable oils has been developed. The DNA of the oils has been studied and provides a basis for distinguishing between eleven vegetable oils, including olive oil.

Coordination: MAI Chania, Greece

Partner: AVEA SA, Chania

Budget: 400,000 euros

Period: 2006 - 2008

www.maich.gr

GEWAMED

Integration of women into water resources development and management in the Mediterranean Region

Aims of GEWAMED

– To foster the involvement of women in Integrated Water Resource Management (IWRM) in the Mediterranean Region.

– To encourage dialogue between regional countries by setting up regional and national information networks, and coordinating bodies to promote policies designed to empower women and establish a common knowledge base.

Specific objectives

– To build up a common national and regional knowledge base on associated issues, policies, actions and measures with a view to supporting integration in all processes associated with IWRM.

– To promote cooperation and dialogue between Mediterranean countries and between players in each country.

– To encourage the adoption of appropriate national policies and strategies.

Activities of MAI Bari

– Project coordination.

– Creation and administration of a regional Web page on the project.

– Dissemination of information, information letters, reports, etc.

– Organisation of regional workshops, alone or in collaboration with other institutions.

– Participation in the organisation of national, regional and international events to propagate information about the project and its results.

Results

In order to facilitate women's involvement in water resources management, the project has provided for **national focal points** and for **information and communications networks** in **Algeria, Egypt, Jordan, Syria and Tunisia**. Four **main publications** have been produced and some fifty technical studies have been drawn up for regional and international events. The project has cooperated with the AQUASTRESS project and the Gender and Water Alliance (GWA) on two training courses in Tunisia. It has also worked with the MELIA project on a seventeen-minute film designed to increase public awareness of water-related problems facing women in certain Mediterranean countries.

National seminars

In December 2008, Egyptian partners SRUNWRC and EEAA organised the first national seminars. Several other partners, CAWTAR, UJ-FA, CGSAR, and AMSED, have already organised national seminars for executives and policy makers.

Funding: European Commission, Coordination Actions – 6th FPRTD, INCO-MPC.

Partners: Algeria, Cyprus, Egypt, France, Greece, Italy, Jordan, Lebanon, Morocco, Palestine, Spain, Syria, Tunisia, Turkey.

Period: 2006 - 2010.

www.gewamed.net

SUSTAINMED

Sustainable agri-food systems and rural development in the Mediterranean Partner Countries

From 2004 to 2007, MAI Montpellier coordinated a networked European research programme under the 6th FPRTD: *Eu-Med Agpol – Impacts of agricultural trade liberalisation between the EU and Mediterranean countries.*

Continuing its economic intelligence work for the region under the 7th FPRTD, the Institute is coordinating yet another vast project: SUSTAINMED – Sustainable agri-food systems and rural development in the Mediterranean Partner Countries.

Employing a combination of quantitative and qualitative methods, the project analyses the impact of European policies on Mediterranean countries that are outside the

EU. It provides decision support tools both for Europe, its member states and the countries of the Mediterranean Basin.

It has also formed a network of partners: National School of Agriculture Meknes, Morocco; Scientific Research Council and Polytechnic University of Valencia, Spain; National Agricultural Policy Centre, Syria; National Agricultural Institute of Tunisia; University of Kent, England; MAI Chania, Greece; University of Naples, Italy; Pellervon Economic Research Institute, Finland; Zagazig University, Egypt; and National Institute for Agricultural Research (INRA), France.

www.iamm.fr

DeSurvey: Surveillance system for assessing and monitoring desertification

Although diagnostics are a valuable aid in the effective fight against desertification, there is a lack of standardised procedures governing their application at operational scales. To overcome this problem, De Survey seeks to complement them with early warning procedures and techniques designed to assess the vulnerability of the land use systems in question.

To that end, the interactive effects of climatic and human drivers of desertification will be assessed within a dynamic context. The goal of the project is to provide land administrators and policy makers with early warning and monitoring systems that will enable them to make decisions before the effects of desertification become irreversible.

Three main products (MPs) have been developed and adjusted to the needs of national and international users' organisations and local stakeholders' consortia.

- **MP1**, using remote sensing and geomatics, provides policy makers and technical advisers with geographical information on the effects of climatic and socio-economic fluctuations and management policies over time and shows trends in land use change and soil condition.
- **MP2**, the integrated assessment and forecasting model, provides support for policy makers who have to deal with land degradation resulting from desertification in the short to medium term (up to 20 years).
- **MP3**, based on system dynamics modelling, is able to assess the risks of irreversible degradation of soils and land-use systems, thereby increasing the range of improve policy options.

The DeSurvey outcomes are then tested against those of techniques and procedures applied in other regions threatened with desertification (regional annexes of the

UNCCD). This means that partners and sites in the Maghreb and Sahel countries, as well as Chile and North West China have been included in the Consortium.

Fulfilling the goals of DeSurvey requires a solid base of fundamental and applied research, development of user-support technologies, capacity building, and stakeholders, as well as data and equipment providers, including SMEs.

DeSurvey is being implemented as part of the 6th FPRTD (2005-2010) and involves a consortium of 39 organisations. These organisations are based in ten European Union countries and six third countries and work in a great many fields.

MAI Zaragoza, the partner responsible for training under the project, is giving two specialised courses to present the DeSurvey monitoring system to users in UNCCD countries affected by desertification:

- 1st Course** - *Assessing and monitoring of desertification and land use systems vulnerability* (Zaragoza, Spain, 28 September-3 October 2009).
- 2nd Course** - *Desertification forecasting in the medium term* (Zaragoza, Spain, 18-23 January 2010).

These two training courses will present participants with alternative approaches to monitoring and modelling of desertification processes. They will also provide an overview of the three main modelling products developed under the project, detailed guidance on the principles and application of the three DeSurvey MPs, hands-on practical experience in operating and working with these tools, and a basis for the independent application of the products to ensure sustainable land management.

www.desurvey.net



CIHEAM's cooperative mission in the Mediterranean

Ever since the Centre was founded, international cooperation and facilitation of the debate on regional development have been among the most important of its missions. Between 2007 and 2009, its cooperation policy involved the development and consolidation of numerous partnerships with institutions and bodies that were active in the Mediterranean. The organisation of the CIHEAM ministerial meetings is another strategic plank in its mission to foster dialogue in the Mediterranean.



ICARDA

The workshop "a methodology to develop risk management and a proactive approach in drought preparedness; Applicability in non-MEDROPLAN countries", was held on 15 and 16 January 2008 in Aleppo, Syria at the headquarters of the International Centre for Agricultural Research in Dry Areas (ICARDA).

The workshop was one of the activities organised by the EC MEDROPLAN project (Mediterranean drought preparedness and mitigation planning), which in turn falls within the MEDA Water programme (Euro-Mediterranean regional water programme for local water management programme). The goal of the workshop was to draw up guidelines for combating drought in the Mediterranean countries.

ICARDA was an important partner in the preparation of the first international conference: "Drought management: scientific and technological innovations", which was held in Zaragoza from 12 to 14 June 2008. The goal of the conference was to introduce new concepts and scientific and technological tools to manage drought and water restriction in different agricultural and urban environments. The conference highlighted successful attempts to reduce the risks of drought and mitigate its effects in different types of vulnerable environment.



The Centre's cooperative mission is also reflected in the series of activities instigated in each of the MAIs. The results of this work are to be seen both in practical projects implemented on Mediterranean territories to stimulate agricultural and rural development and in networked activities (seminars, forums), which enable the different players to share analyses and pool information and stimulate discussion on scientific developments and policy in the region.

FAO

CIHEAM and the FAO tightened their cooperative links under the terms of an agreement signed on 8 January 2009 at the headquarters of this specialised agency of the United Nations in Rome.

The two institutions undertook to strengthen their partnership, which began in 1977, with an agreement on traditional foodstuffs, protection of forests, modernisation of irrigation techniques, and plant disease and quarantine management. They will also be cooperating in other sectors, notably fisheries and aquaculture, animal production and phylogenetic resources.

To ensure effective follow-up to the new cooperation framework agreement, the FAO technical departments and CIHEAM officials concerned met in Rome on 13 March 2009. The two institutions gained an overview of the work on which they were already cooperating and identified areas that might lend themselves to new joint initiatives.

The next few years will see the organisation of workshops and exchanges of students and scientists designed to promote and stimulate Mediterranean cooperation over food, agriculture and the environment.

IFAP

CIHEAM has continued to cooperate with IFAP and its Mediterranean Committee, notably by participating in its events. CIHEAM was in Brussels from 28 to 29 October 2008 for a high-level seminar on the place of agriculture in the Union for the Mediterranean, which was organised in association with COPA-COGECA.

CIHEAM has been an active participant in the annual meetings of IFAP's Mediterranean Committee (Cyprus, 27-29 November 2008; Catania, 24-26 September 2009). CIHEAM also attended the 38th IFAP World Farmers' Congress, held in Warsaw from 30 May to 6 June 2008.

IMC

In 2008, CIHEAM embarked upon a new collaboration with the Mediterranean Institute of Certification (IMC) and the Italian University Consortium Rifosal. It involved the planning of a series of Mediterranean study days devoted to food safety and quality.

Five such events were planned. The first was held in Rome on 9 June 2008, in association with the Italian authorities. The second took place in Tirana on 6 October 2008, in the presence of the Albanian authorities. The third was held in Cairo on 28 May 2009, and was organised with the aid of the Egyptian authorities. The next two meetings will be held in December 2009 in Istanbul and in June 2010 in Barcelona.

Mediterra 2009

For the preparation of the annual report, *Mediterra 2009*, CIHEAM allied itself with the Blue Plan and the MAP Regional Activity Centre (Sophia-Antipolis). The joint production of this publication is a sign that these organisations are cooperating closely and breathing life into the Mediterranean Sustainable Development Strategy (MSDS) adopted by the Mediterranean Rim countries and the European Union in 2005.

AFD

Under an agreement signed in September 2008, the *Agence française de développement* (AFD) and CIHEAM entered into a partnership which provides for a study on the outlook for agricultural policy in North Africa. One of CIHEAM's four Institutes, MAI Montpellier, has been called upon to draft strategic notes on the following four topics: volatility of international agricultural prices and trade liberalisation, agricultural development models for North Africa, dynamics of players in the milk and cereals sectors, and lessons to be learned from local experience in Algeria and Egypt.



MAP-Blue Plan

CIHEAM's partnership with the Mediterranean Action Plan (MAP) has gone from strength to strength. The Athens-based MAP was set up under the aegis of the United Nations Environment Programme (UNEP) and is the only cooperation forum that brings together all the Mediterranean Rim countries. CIHEAM therefore attends various meetings at MAP's focal points.

The agreement also gave rise to an experts' meeting in Tunis on 14 and 15 May 2009, which brought together fifty high-level partners. A joint CIHEAM-AFD publication setting forth the findings of the meeting was published in the autumn of 2009 to promote this collaboration.

AOAD

CIHEAM is a regular participant at meetings of the Arab Organisation for Agricultural Development (AOAD). From 18 to 21 February 2008, for example, it attended a meeting in Cairo devoted to new agricultural development policies in the Mediterranean countries.

Arab Maghreb Union

In Fez on 1 July 2008, CIHEAM attended an Arab Maghreb Union (AMU) meeting devoted to food security and agricultural development strategies. The Centre presented *inter alia* a paper on the agrifood outlook for the Maghreb up to the year 2020.

Council of Europe

CIHEAM maintains a strong relationship with the Council of Europe, as illustrated by its single-handed preparation and drafting of a 2007 report entitled “Euro-Mediterranean agricultural and rural policy”. At its ordinary meeting of 25 June 2007, the Parliamentary Assembly of the Council of Europe unanimously adopted this report. Its rapporteur, Mr Walter Schmied, Chairman of the Committee on the Environment, Agriculture and Local and Regional Affairs, introduced the document and presented its recommendations in the presence of Mr Jacques Diouf, Director General of the Food and Agriculture Organization of the United Nations (FAO). Subsequently, on 8 September 2007, CIHEAM presented a diagnosis of the food and agriculture situation in the Mediterranean zone.



UNDP

In October 2007, CIHEAM signed an agreement with the United Nations Development Programme (UNDP) or more precisely with the director of its Hub for Innovative Partnerships. It has a number of aims: to strengthen cooperation between the two institutions with a view to providing joint support for the development dynamics of the Mediterranean territories; to help create conditions in which local players – particularly those from civil society and local communities – are able to devise strategies in coordination with national policies; and to develop and implement territorial development projects.

CIHEAM ministerial meetings

The 7th meeting of CIHEAM member countries' Ministers of Agriculture was held in Zaragoza from 3 to 6 February 2008.

At the forefront of the meeting were two themes of particular importance for sustainable development in the Mediterranean region: management of fisheries resources and water resources for agricultural production.

Fisheries resources

In their recommendations, the ministers proposed various measures as part of the cooperative effort in this area: basing fisheries policies on an analysis of objective, reliable data; increasing and sharing knowledge relating to assessment of stocks and protection measures; and further harmonising regulations on fishing, taking account of ecosystems and applying the precautionary principle. Ministers also believed it was necessary to improve coordination between players in the fisheries sector and those working to develop high-quality aquaculture.

Water resources

As to management of water resources, which are increasingly scarce and threatened by - among other things - inefficient irrigation and climate change, the ministers requested that these constraints be taken into account in public policy on this matter.

The 8th ministerial meeting will be held in Istanbul at the invitation of the Turkish authorities from 8 to 10 March 2010. It will be mainly devoted to the theme of climate change and its effects on agricultural sectors in the Mediterranean Region.



Ter-Com

Activation of mechanisms to sustain rural territories and communities in Lebanon

The object of the Ter-Com project is to support the incomes of Lebanese communities affected by the July 2006 conflicts.

The chosen strategy consists in devising and developing suitable initiatives designed to:

- improve the quality of agricultural production;
- promote the development of rural territories;
- encourage the growth of the fisheries sector in South Lebanon.

In concrete terms Ter-Com is committed to:

- improving the quality of Lebanese fruit and vegetable production;
- supporting initiatives to promote local products and develop territory;
- drawing up a development plan for fisheries and mariculture.

Ter-Com is run in collaboration with the Lebanese Ministry of Agriculture.

Financial institutions:

- Ministry of Foreign Affairs, General Directorate for Development Cooperation; Puglia region.

Partners:

- Italy: MIPAAF; Puglia region, *Assessorato al Mediterraneo ed Assessorato alle Risorse agroalimentari*; *Consorzio Vivaistico Pugliese*, CoVIP; local organisations dedicated to promoting the territory.
- Lebanon: Lebanese Ministry of Agriculture; Lebanese National Council for Scientific Research; Lebanese Agricultural Research Institute (LARI).

www.iamb.it

GI@MED

Electronic organisation of agricultural schools with geoinformation technologies for the promotion of convergent strategies in the management of rural regions, water resources and the environment in the South-Eastern Mediterranean

The project GI@Med seeks to establish a bilateral partnership between Greece and Egypt to promote all geoinformation technology applications – remote sensing, geographical information systems (GIS), agrometeorological and environmental observations, etc. – in agricultural and environmental sectors in the South-East of the Mediterranean.

Cooperation between research institutes and the development of IT infrastructures in Egypt will help to improve management of land and water resources and monitoring of the zones concerned. GI@Med will also be a very valuable decision support tool.

The training, collaboration between researchers and professionals, and networked activity will benefit all players:

policy makers and private companies. In the long term all rural populations will be involved

Funding: Greek Ministry of Foreign Affairs: 400,000 euros.

Partners: MAI Chania; Arid Land Agriculture Research and Services Centres (ALARC), Ain Shams Faculty of Agriculture, Egypt; National Authority for Remote Sensing and Space Sciences (NARSS), Egypt; Union of Producers and Exporters of Horticultural Crops (UPEHC), Giza.

Period: 2008 - 2010

www.maich.gr

Agrifood technology centres in the Maghreb

MAI Montpellier is helping to design and set up agrifood technology centres in Algeria and Tunisia. In Bizerta, this work is being conducted under a twinning arrangement led by the DIACT in partnership

with the Italian authorities, the object being to strengthen the institutional capacity of regional development organisations to promote private investment.

www.iamm.fr

NEMEDCA network: regional development project on drought management

Over the past five years, work on improving drought management, coordinated by the Mediterranean Institute of Zaragoza, has revolved around the MEDROPLAN project (Mediterranean drought preparedness and mitigation planning), funded by the European Union MEDA-Water programme. This five year project (2003-2008) involved ten partners from six Mediterranean countries.

The main outcome of the MEDROPLAN project was the publication of the "Guidelines for drought management", which suggest ways of establishing proactive drought management plans that can be adapted to different geographical and socio-economic contexts. In the course of 2008, the bulk of the activity consisted in organising events at various levels to publicise the MEDROPLAN approach to drought management.

The most prominent of these events was the 1st International Conference "Drought management: scientific and technological innovations", held in Zaragoza (Spain) from 12-14 June 2008. The object of the conference was to present the new scientific and technological concepts and tools to be used in drought management plans in the context of agriculture, urban supply and water management, and to highlight successful experiences whose approach, based on preparedness and risk management, was critical in mitigating the

repercussions of drought in societies with different levels of vulnerability. 113 participants from 22 countries attended this conference organised by MAI Zaragoza in conjunction with **Expo Zaragoza 2008** (the International exhibition devoted to water and sustainable development held in Zaragoza in the summer of 2008), **NEMEDCA network**, the Aragonese Regional Government and the Spanish Ministry of the Environment.

The NEMEDCA network, supported by CIHEAM, the FAO and ICARDA, is a drought management network whose main objective is international cooperation on this question in the Near East, Mediterranean and Central Asia. NEMEDCA has cooperated closely with MEDROPLAN and, upon the conclusion of the project, will become the structure responsible for ensuring sustainable cooperation on drought. It will integrate MEDROPLAN partners and results together with many other drought management institutions and projects.

The most important of the forthcoming events will be the 2nd International Conference on Drought Management, focusing on the assessment of the economic impacts of drought and the benefits of drought management plans. It will be held in Istanbul in March 2010 on the occasion of the CIHEAM ministerial meeting.

www.iamz.ciheam.org/medroplan/



The Mediterranean Agronomic Institutes, CIHEAM's Mediterranean platforms

CIHEAM's three core missions – education, research and cooperation – find practical expression in the work of the Mediterranean Agronomic Institutes. In the course of the reporting years (2007- 2009), the MAIs have pursued their endeavours in these three areas while at the same time improving living and working conditions for their students.



Excellent accommodation and teaching facilities on campus

Bari, seeking to encourage student mobility and establish collaborative arrangements for the preparation of doctoral theses, has entered into partnership with leading Italian universities. **Chania** has inaugurated the Poseidon conference hall, which can seat as many as 350 people. In 2009 it launched a project to build a new plant-virology and microbiology laboratory. In January 2009, **Montpellier** inaugurated its new campus, comprising a student residence, a cafeteria and meeting rooms. **Zaragoza** has formed a partnership with the Cervantes Institute, thereby enabling students to follow Spanish courses, and has renovated the student residence, which now offers more living space.

The four MAIs have continued to provide an excellent education for their students. While most of the latter are from the Mediterranean Basin, many are from Sub-Saharan Africa and South America as well as European countries outside the region. At the beginning of the 2009-2010 academic year, 441 students were enrolled:

- 267 in the first year to study for the Postgraduate Diploma in Specialised Studies;
- 174 to study for the M.Sc..

Mediterranean Agronomic Institute of Bari

During the reporting period (2007-2009), the Mediterranean Agronomic Institute of Bari (MAI Bari) achieved important results in education, training, research and cooperation. These achievements match the indications initially provided by the first Euro-Mediterranean Conference of Agricultural Ministers, held in Venice in 2003, and continuously re-oriented and updated to cater for urgent needs worldwide. These needs have been the focus of attention at successive meetings, right up to the latest meeting of CIHEAM's Ministers of Agriculture and Fisheries in Zaragoza in 2008.



MAI Bari

www.iamb.it

Education and training

MAI Bari's education programmes have been revised significantly to take greater account of rural development, conservation of natural resources, climate change and the need for high quality agricultural output.

To reflect progress in different areas of scientific research, the Institute constantly adapts its M.Sc. programmes by:

- maintaining links and relations with other institutes and eminent researchers;
- mobilising professional expertise;
- arranging scientific internships and collaborations;
- providing follow-up and continuing education courses.

It updates its programmes regularly by:

- introducing new courses;
- inviting lecturers and experts from other countries, who give students the best chance of completing their studies of gaining the widest possible theoretical and practical experience, and the opportunity to refine their personal knowledge and expertise.

New educational tools and approaches, updated programmes and assessment systems, and the general quality of the service offered, all help reduce disparities and divergencies between traditional attitudes of different countries.



MAI Bari plays an essential role in propagating the new vision for higher education and encouraging Mediterranean countries to work towards common ends.

In addition to its traditional programmes, MAI Bari has devised and developed pioneering “distance learning” projects and “continuing education” programmes, which are intended to reach partners and players who are directly involved in the work of their national and local institutions and have a professional interest in resource management, rural development, agricultural production and the work of the food industries.

In the last two years, 1,800 people have enrolled on institutional courses and professional training programmes made available under cooperation projects.

Advanced specialised training courses

MAI Bari organises advanced specialised training courses for different countries with a wide range of topics including:

- Sound water management;
- Cultural practices for grapevines, olives, fruit trees;
- Organic production;
- Conservation of Germplasm;
- Quality improvement;
- Quality Control.

Training is carried out in different countries involving persons working in Ministries (extension services mainly), professionals, NGOs allowing a wide dissemination of information mainly in rural areas. The improvement of quality and standardization are the latest areas of interest to MAI Bari.

Student mobility

Particular importance is attached to student mobility. Nearly half of the students go to institutions in member countries (mainly the non-European ones) in order to develop new topics based on the requirements of hosting countries and to contribute to capacity building of their research units.

Collaboration on doctoral theses

MAI Bari continues to collaborate with the leading Italian universities (including Ancona, Bari, Basilicata, Bologna, Catania, Florence, Milan, Naples, Pavia, Pisa, Turin and Viterbo) for the joint supervision of PhD theses. Ten PhD students are currently carrying out joint activities on research lines and new topics to meet the requirements of CIHEAM member countries. One agreement is with the Parthenope University of Naples: MAI Bari sits on its doctoral committee and its researchers supervise theses.

Applied research

Cooperative research between MAI Bari and its Mediterranean partners has been very fruitful. Active dialogue has enabled partners to define common lines of research and the results have been very satisfactory.

MAI Bari's research activity continues to grow in terms of the institutional contacts, of the quality and international dimension of its products. The close correlation between research protocols and teaching programmes is abundantly clear.

MAI Bari carries out applied research work in its own experimental plots and laboratories as well as in external public and private facilities throughout the Mediterranean region.

Involvement of students

Students are routinely involved in much of the work in the laboratory and in the field, always under the supervision of lecturers, researchers and experts from a variety of international and national institutions. The scientific and cultural development of the students is carefully monitored over time. They continue to be monitored after they have returned to their country of origin, where they are able to operate as specialised players and important partners in cooperative scientific projects.

Networked activities

The networked activities launched by MAI Bari have given rise to a large number of institutional partnerships and agreements with countries and public or private organisations.

In particular, during the last two years, the Mediterranean Organic Agriculture Network (MOAN), which gathers representatives from 21 Euro-Mediterranean Ministries of Agriculture, has achieved excellent results on methodologies and issues relating to organic agriculture in the Mediterranean area through collection, analysis and dissemination of statistical data, support policies and synergy with local entities and other high quality products.

Distance Learning Courses

The e-learning catalogue provides eight on-line courses given in English.

- 1• Quality management of typical and organic products in the Mediterranean-Balkan area;
- 2• Marketing of organic olive oil (**English & Arabic**);
- 3• On-demand pressurized irrigation system ;
- 4• Severe virus and virus-like diseases: A potential threat to the Mediterranean citrus industry.
- 5• Agricultural policies: instructions, tools and evaluation;
- 6• Marketing of organic agri-food products;
- 7• Distance learning tutor.
- 8• Technological innovations and advanced models of land and water resource management in the Mediterranean-Balkan area (**English, Arabic**).

Online thematic networks

Another distinctive feature of research is its networked activity. Much of the thematic research work is organised in networks based on institutions and projects interconnected via ICT.

Given the amount of activity involved in the different projects, several online thematic networks have been set up.

Water and soil resources management and development

- <http://dir.iamb.it>
- <http://integra.iamb.it>
- <http://tercom.itsyn.com>
- <http://tis.itsyn.com/>

Food production and quality management

- <http://www.biotipicipuglia.it>
- <http://www.corridoio-verde.com>

Sustainable agriculture and rural development (SARD)

- <http://sard.itsyn.com>

Training

- <http://el.iamb.it>

Publications

The numerous research activities and the cooperation projects have spawned various papers, more than 200 of which have been published in the proceedings of conferences and in international journals.

Cooperation

Through cooperation, MAI Bari promotes significant partnership actions in the Mediterranean basin. It thus contributes to upgrading and developing the agricultural sector, protecting the environment with the aim of spreading sustainable agriculture.

MAI Bari is eager to act as a promoter and catalyst by proposing initiatives that are in harmony with measures adopted in the territory and involve local stakeholders – governmental and scientific institutions, technical and business communities – in order to encourage close collaboration at the design and implementation stages and help increase synergy.

The scientific institutions of the countries involved are invited to participate in the design of the proposed actions relying upon the know-how and experience of MAI Bari, upon its specific skills, facilities and equipment, as well as its human resources.

An essential tool

All of these activities have benefited from the skills trainees have acquired by attending MAI Bari courses since former students are in charge of important technical positions and decision-making in the departments of ministries and institutions. Cooperation has always been the tool to spur exchange and to guarantee MAI Bari support by providing assistance through cooperation projects. Such support is a valid example of how institutional strengthening secures sustainability.

From a geographical standpoint, most projects are developed by CIHEAM member countries although collaboration has been requested by the Italian Ministry of Foreign Affairs to undertake relationships with Ministries, Agencies and Local Communities in countries playing a strategic role in terms of integration in the EU and for partnership-based political dialoguing.

Bari





Prospects & Future plans

MAI Bari plans to keep implementing and improving its natural and fundamental tools i.e. education, research and cooperation

Education

The targeting of training programmes, selection of candidates, quality of lectures, field and laboratory work, overall services, students performance and results, teamwork exercises and case study approaches will be continuously monitored and improved. Self-assessment tools together with external expert panels will contribute to offering highly qualified, updated and professional programmes.

Research

MAI Bari is committed: to promote internal management skills in research and cooperation projects, to provide specific assistance in order to be more competitive, to launch research and projects directly in CIHEAM member countries both single-handedly and by involving Italian and European universities in its students' PhD and M.Sc. programmes. Particular attention is paid to pursuing a strategic initiative to combine local and institutional funding. This mission refers to network based activities at regional or national level. It intends to generate added value from the actions of experts and scientists working on common topics.

Cooperation

MAI Bari will direct its efforts towards establishing an open transnational agro-food area. To that end, complete food chains shall be set up taking into account environmental concern, resources exploitation and conservation, low-input agricultural practices and technologies, pest control all along the agro-food production, storage, market line, market exchange features, traditional, typical and local productions. In addition, productions through specifications, territorial identity, promotion of fresh local products will reinforce know-how transfer, increase competitiveness and create new market opportunities.

Special attention will be devoted to new scientific and environmental topics such as agro-energy and non-food productions, biomass recycling, promotion of products from coastal areas, and sustainable fisheries (fish stocks and water resources).

Bari



Donation of a scientific research ship to the Lebanese CNRS

In April 2009, in the framework of the Ter-Com project, the Lebanese National Scientific Research Council (CNRS) received a fully equipped scientific research ship for studying the seabed and marine pollution. The symbolically named CANA, the first ship of its kind in the Arab countries of the Mediterranean Basin, was donated by the Italian Government via MAI Bari.



Bari

International cooperation programmes with the Italian Ministry of Foreign Affairs

- **ORTOFRUTTA-TUNISIA:** Measures to support fruit and vegetable production in Tunisia (3 years).
- **CERTIFICAZIONE ALGERIA:** Plant certification programme to improve fruit production in Algeria (3 years).
- **PISEAU:** Concepts, methods and tools for the inspection of irrigation systems (3 years).
- **OLIO LIBANO:** Socio-economic support for families of producers in marginalised olive producing regions in Lebanon (3 years).
- **TECNOFORM:** Multidisciplinary training programme for Iraqi officers and technicians (2 years).
- **ETIOPIA:** Improving productivity and quality of selected agricultural products in Ethiopia (3 years).
- **Ter-Com:** Activation of mechanisms to sustain rural territories and communities in Lebanon (18 months).

International cooperation programmes with the Italian Ministry for Agricultural Policy

- **PESCAMED:** Development of cooperative arrangements on fishing in the Mediterranean; producers' organisations, consumers' organisations and training in the world of work (2 years).
- **ABMed:** Technical and scientific support for MIPAAF in the Mediterranean organic agriculture sector (3 years).
- **INTERBIO:** National programme to internationalise organic agriculture (18 months).

Mediterranean transnational cooperation programme (MED)

- **BIOLMED:** Transnational network for increasing the competitiveness of Mediterranean organic olive-growing (2 years).

LIFE

- **CENTOLI.MED:** Identification and conservation of the "high nature value" of ancient olive groves in the Mediterranean region (3 years).

MEDA

- **SMAP III:** Plan of action for integrated coastal zone management in the area of Port Said, Egypt (3 years).

International cooperation programmes with regional authorities

- **SPIIE:** Establishment of integrated production systems between Italy and Egypt (2 years).
- **CIPE TUNISIA:** Promotion of territorial cooperation between the Italian regions and Tunisia through the implementation of socio-economic development initiatives (2 years).
- **RISMED:** Programme to foster preservation, rationalisation and effective use of water resources (2 years).
- **PROBIO - PROGETTO 3A:** Study to identify appropriate operations in the Puglia Region's bioenergy sector (18 months).
- Regional programme to develop organic agriculture in the Puglia Region (2 years).
- **SIMCTV:** Research programme to improve techniques for monitoring the Citrus Tristeza disease (1 year).
- **DIR:** The rural district as an economic model for integration of territorial productive systems (20 months).
- **ECOMEMAQ:** Ecomuseum district network of the Mediterranean Maquis (18 months).
- **INNOVA:** Establishing common models of integrated sustainable monitoring, planning and management of high environmental value areas to control natural resources degradation (18 months).
- **INTEGRA:** Developing an integrated model for monitoring and planning management for the enhancement of protected areas (14 months).
- **CO-BIO:** Scientific cooperation for the development of research and transfer of technological know-how to farms producing typical biological crops in order to improve competitiveness and promote sustainable development (2 years).
- **PAB II:** Targeted integrated project for dissemination and technical assistance to organic production methodologies (1 year).
- **BIOLUMICA:** Creation and activation of facilities for the recycling of organic matter through composting (2 years).
- **RISVIBIO:** Collaboration for research, development, transfer of know-how and integration of results obtained in the production and promotion processes of organic agriculture (18 months).
- **PROBIOSIS:** Development and promotion of organic farming systems production (15 months).
- **PRINT:** Integrated project for the promotion of local typical products (18 months).

Mediterranean Agronomic Institute of Chania

The Mediterranean Agronomic Institute of Chania in Greece has continued to develop its high-level programmes and to collaborate with other institutions at regional and international level. It has also provided its lecturers-researchers and students with state of the art research facilities and excellent residences. A milestone event was the inauguration of the conference centre at MAI Chania (ISO 9001:2000). The Institute's policy of maintaining a high level of quality and meeting the most exacting standards is reflected in existing facilities and functions and will continue to be followed between now and 2012.



MAI Chania www.maich.gr



Principles, objectives

The policy objectives implemented by the Mediterranean Agronomic Institute of Chania during the period 2007-2009 will be pursued vigorously in the coming years.

- The existing post-graduate programmes will be continuously adapted and will make a constructive contribution to satisfying the scientific needs of the modern world.
- The state of the art laboratory facilities in place will enable Master of Science students to continue working on complex research subjects.
- Academic programmes that already meet the Bologna process requirements will be supplemented by a rigorous educational quality assurance system.
- The pursuit of scientific excellence will be further stimulated through active participation in the European Union's Framework Programme for Research and Technological Development (7th FPRTD).
- Cooperation on the EU/Greek-sponsored programme to support regional and interregional environmental projects and neighbourhood projects will be ongoing and dynamic.
- Active participation in the work of the Greek Ministry of Foreign Affairs' bilateral "Hellenic Aid" programme will be extended to further benefit partners.



- Work on improving infrastructure and facilities (dormitories, academic village, conference centre, botanical garden, restaurants, laundry service, etc.) will continue.
- Laboratory facilities will be continuously upgraded so that they will always be state of the art.
- Installations and functions will be given ISO 17025 and ISO 9001:2000 accreditation before the year 2012, in line with the laboratory testings and conference services respectively.



Chania

Positive indicators

Indicators for research, academic mobility, educational performance and international higher education show that the results for 2007-2009 were significantly better than those for 1987-2006.

Evolution of valorization of Hellenic contribution in terms of external funding

Source of funding	1987-2006	1987-2008
EU Research Framework	32.4%	34.2%
EU/GR National and Neighborhood Actions	51.9%	47.6%
Hellenic Foreign Affairs	15.7%	17.8%
ISO Service Provision	9.2%	6.8%
Total Research & Cooperation	109.3%	105.5%



Research

The number of articles based on Master's theses and published in peer review journals rose from 256 to 308.

The number of presentations, proceedings and posters produced for international conferences derived from the Institute's research activities was up from 242 to 347.

The number of books, chapters in books and special issues of journals published by MAI Chania's scientific staff rose from 103 to 119.

Educational performance

The total number of people with a post-graduate degree from MAI Chania has increased from 1,117 to 1,275.

The total number of people with an M.Sc. from MAI Chania has increased from 563 to 720.

Academic mobility

The number of MAI Chania M.Sc. graduates accepted on the PhD programmes of leading universities with full scholarships has risen from 157 to 197.

The total number of M.Sc. graduates from MAI Chania who subsequently held a PhD and are now university lecturers in their home countries or abroad has risen from 30 to 52.

International executive training

The number of specialised intensive courses for CIHEAM beneficiary countries is unchanged. They are attended by 458 professionals.

The number of specialised intensive courses offered to beneficiary countries under the Hellenic Aid programme has risen from 31 to 36 and the number of participants is up from 475 to 525.

Business economics and management
<http://www.maich.gr/econ>



Areas of expertise

- Management of agro-industrial companies.
- Marketing of organic and high-quality foodstuffs.
- Financial analysis and applications.
- Operational management methods.

Research facilities

- IT laboratory.
- Specialised software.
- Specialised databases.

Geo-information in environmental management
www.maich.gr/env



Laboratory of GIS & RS



Cartography unit



Forest fire wind tunnel simulator

Areas of expertise

- Earth observation and decision support using GIS/RS.
- Spatial planning and environmental impact assessment.
- Environmental and agroenvironmental modelling and management.
- Management of Mediterranean ecosystems.

Research facilities

- Geographical information systems and remote sensing laboratory.
- Automated cartography unit.
- Field survey unit.
- Mobile unit for spectroradiometric measurement.
- Unit equipped with wind tunnel for forest fire simulation.

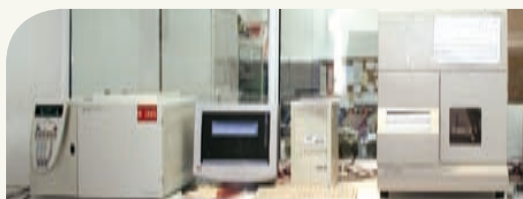
Chania



Horticultural genetics and biotechnology
www.maich.gr/hort



Real time PCR



Genetic analyser

Areas of expertise

- DNA based agrifood traceability and authentication.
- Olive biotechnology.
- DNA fingerprinting and biodiversity assessment.
- GMO certification.
- Prolyl 4 hydroxylases in plant growth and development.

Research facilities

- Plant biotechnology and GMO testing laboratory.
- Plant molecular histology laboratory.
- Horticultural product quality laboratory.

ISO laboratory services

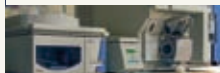
- Qualitative and quantitative detection of genetically modified organisms in food and agricultural products (ISO 17025).

www.maich.gr/services/gmo

Food quality and chemistry of natural products
www.maich.gr/fqm



GC/MS



LC/MS-MS



LC/MS

Areas of expertise:

- Food chemistry
- Natural products: isolation, structural elucidation.
- Antioxidants: products and methodologies.
- Food quality management.
- Product authentication, chemical fingerprinting.

Research facilities

- Natural products chemistry and analytical chemistry laboratory.

ISO laboratory services

- Chemical analyses: olive oil, honey.
- Toxicant residue determination (water, oil, vegetables).
- Antibiotics in honey (ISO 17025).

www.maich.gr/services/residuals.

Sustainable agriculture www.maich.gr/sust



Laboratory of Plant virology and microbiology



Soil science laboratory



Areas of expertise

- Soil quality management.
- Plant virology and virus diagnostics.
- Hydroponic substrate systems.
- Greenhouse and climate monitoring.
- Nutrient and energy balance of farming systems.
- Sustainable local food systems.

Research facilities

- Soil science and plant tissue analysis laboratory.
- Experimental closed-system hydroponic greenhouses.
- Plant virology and microbiology laboratory (under development).

ISO laboratory services

- Soil, compost and plant tissue analysis.
 - Water analysis (ISO 17025 under development).
 - Advisory/consultation services (fertigation and irrigation).
- www.maich.gr/services/soil

Conference centre (ISO 9001:2000) www.maich.gr/conference



Organisation and administrative support of conferences, seminars, meetings and summer schools

Accommodation and conference facilities

- Academic Village: 15 stone houses located in the botanical garden.
- Students' rooms: 66 double, 50 single and 8 lofts.
- Special facilities for the disabled.
- Laundry Facilities.
- Restaurants.
- Wired or wireless Internet connection provided in all facilities.

Capacity of conference centre

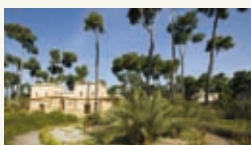
- Maximum capacity: 600 persons.
- Maximum capacity for plenary sessions: 350 persons.
- Up to 11 parallel sessions.
- Poster and exhibition area.
- Simultaneous translation, top-end audiovisual technology.

Chania

Mediterranean plant conservation unit www.maich.gr/p/garden



Botanical garden



Hydroponic greenhouses



Seed bank

Areas of expertise

- Seed bank management and techniques.
- Mediterranean flora.
- Natura 2000 network in Crete.

Plant conservation facilities

- Seed bank for endemic Cretan species, threatened native species and endangered traditional horticultural varieties.
- Botanical garden of endemic and threatened plants.
- Herbarium of Cretan/Mediterranean flora.
- Laboratory of seed germination studies.
- Information centre for Cretan plants and habitats.
- Botanical garden of aromatic and medicinal plants.
- Virtual botanical museum.

Documentation centre www.maich.gr/library



- On-line information retrieval from several bibliographic databases.
- On-line access to full text of many scientific journals.
- Bibliographical research (documentation services available to non-EU Educational and Research Partner Institutions).

Informatics, development and applications www.maich.gr/p/ist



- Collaborative development and implementation of IT based applications, Web applications.
- Graphics design/layout, digital reproduction.

Programmes in coordination/participation with other institutions

INTERREG Programmes

- **IRENE**: Innovative rural development strategy based on local and transnational economical networks (36 months).
- **HADRIAMED**: Harmonious development of rural and insular areas (24 months).
- **FARVALDI**: Crossborder action for conservation of regional agrobiodiversity and promotion of identifiable differentiation of products (3 years).
- **SEMCLIMED**: Impact of climatic change on the Mediterranean flora and of conservation actions (20 months).
- **INTEGRA**: Developing an integrated model for monitoring, planning and sustainable management for the enhancement of protected areas (3 years).
- **ECOMEMAQ**: Ecomuseum districts network of the Mediterranean Maquis (1 year).
- **STRiM**: Remotely accessed decision support system for transnational environmental risk management (25 months).
- **INNOVA**: Establishing common models of integrated sustainable monitoring, planning and management in high environmental value areas to control natural resources degradation (18 months).

LIFE

- **CENT.OIL.MED**: Identification and conservation of the high nature value of ancient olive groves in the Mediterranean region (3 years).
- **CRETAPLANT**: A pilot network of plant micro-reserves in Western Crete (3 years).
- **JUNICOAST**: Actions for the conservation of coastal dunes with *Juniperus* spp. in Crete and South Aegean, Greece (4 years).

Scientific and development programmes

- **IMM**: Development of a joint Master on Integrated Microfinance Management for poverty reduction and sustainable development in Indonesia (3 years).
- **GI@MED**: Electronic organisation of agricultural schools with geoinformation technologies for the promotion of convergent strategies in the management of rural regions, water resources and environment in South-Eastern Mediterranean region (2 years).

- **ENTER**: Diagnosis, genome analysis and study of the replication of whitefly-transmitted criniviruses in protoplasts (2 years).
- **Proteins - Pepino Mosaic Virus**: Proteins of the host involved in the reproduction of the mosaic virus of *Solanum muricatum* (Pepino Mosaic Virus) (2 years).
- **Citrus Tristeza virus**: Detection of Citrus Tristeza virus in citrus orchards in Crete (12 months).
- **Crete Fert**: Optimization and evaluation of pig organic manure (3 years).
- **Citrus Pathogens**: Pilot application of diagnostic kits and methodologies for the detection of viruses and viroids infecting citrus trees with an emphasis on Citrus Tristeza virus (25 months).
- **White Mountains**: Special environmental study of the White Mountains, Crete (20 months).
- **GLORIA 2008**: Global observation research initiative in Alpine Environments, re-investigation 2008 (5 months).
- **MedIsolae-3D**: Mediterranean Islands 3D aerial navigation (2 years).

Marie Curie

- **LaProf**: Languages for professionals in agriculture and ICT, LLPP, (2 years).
- **Pep-Rep-2**: To establish a (complete) *in vitro* replication system and identify host (tomato) proteins that bind specifically to Pepino mosaic virus (PepMV)-encoded proteins and RNA (2 years).

Leonardo da Vinci

- **CerOrganic**: To enhance the quality and attractiveness of all organic agriculture training systems (2 years).
- **e-Competences TOOLS**: To improve the development, exchange, and maintenance of VET certificates and their accessibility and transparency by harmonizing Europass with other European instruments (EQF, ECVET) and e-competences (2 years).
- **European Masters Programme for Rural Animators**: to make a direct contribution to sustainable rural development, by establishing explicitly the profession of rural animator (3 years).
- **DEARs.net**: European networking to strengthen agriculture and rural development enhancing skills (2 years).

Chania



Mediterranean Agronomic Institute of Montpellier

MAI Montpellier specialises in economic and social sciences. Its main areas of interest are agriculture, food and sustainable development, which it addresses in terms of player strategies and territorial development trends. MAIM's entirely renovated Mediterranean Campus is located at the heart of Agropolis International, the European social science and life science research cluster.



MAI Montpellier www.iamm.fr



Agropolis International is part of the Languedoc-Roussillon Higher Education and Research Hub (PRES), which comprises the three universities of Montpellier (I, II, III). This coordinated group of laboratories and mixed research units is an accredited *Réseau thématique de recherche avancée* (RTRA) for “Agriculture and Sustainable Development”. Because MAI Montpellier has the status of “international organisation of European scientific interest”, its role within this leading European network is that of Mediterranean scientific platform and vehicle for cooperation with other regional countries and institutions.

The Mediterranean Campus

MAI Montpellier has renovated its infrastructure. The **Mediterranean Campus** now comprises the new students' residence, three blocks of fully-equipped studio flats built to High Quality Environmental (HQE) standards, a cafeteria with 150 places, and meeting rooms. The **Mediterranean Villa**, made up of high-quality studio flats arranged in the form of a *riad*, provides accommodation for visitors. The whole campus was inaugurated on 23 January 2009 in the presence of the President and Secretary General of CIHEAM, Mr Abdelaziz Mougou and Mr Bertrand Hervieu; of the French Minister of Agriculture and Fisheries, Mr Michel Barnier; of the Egyptian Minister of Agriculture, Mr Amin Abaza, and many other figures from the Euro-Mediterranean world.

The student residence offers permanent accommodation for 100 students. The whole of the Mediterranean Campus is accessible to persons with reduced mobility, as are MAIM's teaching facilities.



Education

Following the international trend

MAI Montpellier is committed to the Bologna process and the LMD system. It has entered into agreements with French universities on the joint award of Master's degrees under international partnership arrangements. Particularly noteworthy are three agreements with the Universities of Montpellier I and Montpellier III, which make it easier for graduates to enrol directly on doctoral programmes. MAI Montpellier offers five M.Sc. level courses:

- Innovation and development of rural territories.
- Agriculture, Food and Sustainable Development.
- Territorial development and projects.
- Agricultural management and the environment.
- Agrifood sectors and player strategies.

In the past two academic years, MAI Montpellier received more than 700 applications for M.Sc. courses (over 400 in 2009 and over 300 in 2008) and 192 M.Sc. students enrolled on them. One candidate out of seven was therefore selected. Since 2009, MAI Montpellier has accordingly been developing its preselection procedure in Algeria. The latter, which consists in interviewing applicants at their home base with the aid of the Algerian Delegate, facilitates the final selection and raises the standard of the candidates admitted.

MAI Montpellier is a party to international agreements on higher education in the Mediterranean. In 2007, 2008 and 2009, MAIM admitted fifth year students from IAV Hassan II to study for a validated course module (15 days to a month). This exchange took place under the terms of a cooperation agreement between MAI Montpellier, IAV Hassan II and the Cooperation and Cultural Action Department of the French Embassy in Morocco.

Continuing education

Since 2007, the Institute has also been developing its continuing vocational education provision. In 2009, the programmes were reorganised to address particular themes within our areas of expertise, tailored to different pedagogical methods, and adapted to the needs

of a wide range of publics. For 2009-2010, the themes include: development of decision support tools for agricultural purposes, analysis of food and nutritional policy, land governance, *terroir* products, and use of protected geographical indications etc.

In 2008 and 2009, MAI Montpellier gave 17 continuous education courses, three of them outside the Institute's premises (Addis-Ababa, Algiers and Paris).

MAI Montpellier's lecturers-researchers also participate in the teaching programmes organised by their Mediterranean partners: IAV Hassan II in Morocco, Polytechnic University of Valencia in Spain, University of Antalya in Turkey, University of Constantine in Algeria, etc.

Committee on Education and Pedagogy (CFP)

The CFP, which coordinates higher education work, has been taking steps to **improve the quality** of teaching in its vocational Master's, continuing education and TFFL (French as a foreign language) courses. In December 2008, MAI Montpellier obtained ISO 9001 certification for these programmes. It is continuing the work of bringing its teaching into line with European quality standards: drawing up a prospectus and information brochures for new students, developing teaching assessment procedures, etc. The Institute has had its Erasmus Charter renewed for the period 2007-2012 and has now issued a diploma supplement.





Montpellier



Research: the LAMES

The Institute has restructured its research activity at the Mediterranean host laboratory for economics and social science (LAMES). The lecturers-researchers are active members of three joint research units involving the University of Montpellier, INRA, CIRAD and Montpellier SupAgro: MOISA (markets, organisations, institutions, player strategies), G-Eau (water management) and System (functioning and management of tropical and Mediterranean cropping systems), which bring together many social scientists from the Agropolis International complex.

Within the framework of these joint research units (UMR), many lecturers-researchers have applied for authorisation to supervise research work, which qualifies them to supervise doctoral theses.

Major projects

Over the past two years, the LAMES team has been assigned major projects under the European tendering procedure: FP7 SUSTAINMED, which it coordinates, and AQUASTRESS. Mention should also be made of four National Research Agency projects:

- APPEAU “Identifying systems and policies for sustainable water management”;
- VDQA “Producing quality wines with reduced alcohol content”;
- ADAR “Working together to improve quality of food”;
- FLONUDEP “Promotion of sectors committed to sustainable development” using a decision-making tool that assesses fruit and vegetable sectors in terms of three key factors: environmental sustainability, nutritional quality of produce and socio-economic conditions. MAIM is also involved in North-South

cooperation projects associated with the Tassili programme in Algeria, the PRAD programme in Morocco, as well as the PAMLIM programme in Algeria, Morocco and Tunisia, sponsored by the *Maisons des sciences de l’homme* (MSH), and the SIRMA programme in the Maghreb, funded by the French Ministry of Foreign and European Affairs.

Expert assessments

The LAMES lecturers-researchers use their knowledge to produce expert assessments, notably for the CIHEAM annual reports (*Mediterra* 2007, 2008 and 2009). The LAMES has contributed to INRA’s collective expertise on consumption of fruit and vegetables and policy designed to encourage it. They have also assessed the national project to encourage young people to eat fruit and vegetables, “*Un fruit pour la récré*”, which has now assumed a European dimension.

MAIM’s expertise has also been mobilised to strengthen relationships with partner institutions. Under the direction of CIHEAM’s General Secretariat it has collaborated inter alia with Blue Plan on a study to identify sustainable rural development indicators in the Mediterranean and with the AFD on a review of the outlook for agricultural policies in North Africa.

Doctoral studies host platform

The LAMES is a host platform for Mediterranean doctoral students who have enrolled at different French universities, whether in the traditional way or under a joint supervision arrangement with their original university. Every year, 20 to 25 new doctoral students are welcomed. The LAMES also receives foreign doctoral students who are enrolled at universities in their countries of origin and come to MAIM on short-term research placements. Eight doctoral level lecturers-researchers were taken on during the period 2008-2009. An agreement was signed with the Algerian Ministry of Education and Scientific Research, which finances placements of doctoral-level lecturers-researchers at MAIM under the REDAL programme. 22 doctoral students were taken on in the period 2008-2009.

Every year the MAI Montpellier doctoral platform hosts 40 to 60 doctoral students for longer or shorter periods.

Cooperation

MAI Montpellier is pursuing its cooperation activities, which are intended to meet three main objectives:

- to give greater visibility to its work at Mediterranean and international level;
- to establish strong synergy between research, education and cooperation, making the most of its research findings in its cooperative work, using its cooperative work to identify new research areas and lectures, and using its projects as research and internship environments;
- to enter more routinely into partnership with cooperative agencies in France and institutions across the Mediterranean Basin.

Dual perspective

Making optimum use of the results of its research work and taking advantage of its diagnostic, educational and knowledge-building capabilities, MAIM has played a front-line role in laying the foundations for sustainable agriculture in the region. It has approached the task from a dual perspective: Mediterranean and international.

Over the past two years, MAIM has strengthened its long-standing collaborative links with local development players, who have now been integrated in different ways into territorial communities, local professional associations, and public administrations: Latin Arc, Conference of Peripheral Maritime Regions, “Migrations and development” association, Medenine Sustainable Development Association, UNDP Hub for Innovative Partnerships, agri-food Cluster of Bizerte, etc.

New projects

In 2008 and 2009, new cooperation projects have come into being, extending MAIM’s network of partners and field of operation. They include AFD projects on agricultural policies and development of rural territories in the Maghreb, innovative ventures designed to foster sustainable development in southern European regions, and work to promote “high food quality” and the development of short supply chains (with the support of the *Conseil général de l’Hérault*). MAIM has also consolidated its presence on the northern shore of the Mediterranean through its involvement in the consortium that serves as a focal point of the European rural development network. Lastly it is a member of a recent initiative, Global Local Forum “*Le dialogue des territoires*”,

which seeks to help territories take action at international level.

Support services

MAIM’s support departments – Documentation, Multimedia and Communication – provide a range of information resources, including specialised documentation and electronic resources that can be accessed remotely. These departments have enabled the Institute to upgrade a number of its teaching, research and cooperation activities. This upgrading exercise, which was one of the priorities laid down in its strategic plan (2005), has enabled it to improve existing instruments and create new ones, and also to promote the identity and improve the visibility of the Institute, particularly in the Mediterranean Region.

Mediterranean Documentation Centre

– The year 2008 was marked by the introduction of a new, publicly accessible interface with the catalogue of the Mediterranean Documentation Centre. The interface is more user-friendly and in line with the latest trends in Internet services. The service requires that data in the documentary base be transferred to free PMB applications.

– The 2005-2008 scientific production catalogue was published in a new format with new artwork. Pleasant to use and designed for ease of navigation in the Institute’s major fields, this catalogue has been highly successful.

The Mediterranean Documentation Centre team continuously updates its educational provision for MAIM students and employees and is actively involved in the task of putting the *Options méditerranéennes* collection onto the CIHEAM website. It also promotes the Institute’s scientific production by organising “Cafés Doc” events, where MAIM researchers can present their most recent publication. These convivial gatherings, held two or three times a year, serve to stimulate public debate.

Montpellier



Multimedia workshop and distance learning

The workshop produces multimedia documents to aid teaching and research. These documents come with communication strategies appropriate to these activities and to a wide range of practical situations.

Publication, promotion and communications

The layout of the *Options méditerranéennes* collection was modernised in 2008 and now features a new design and format. MAIM has drawn up a publication guide, which was issued in March 2009. The *Options méditerranéennes* publication process is entirely automated and is designed to keep the Secretary General or director of publications informed of all draft issues of *Options méditerranéennes* produced in the four Institutes.

Publication, dissemination

Partners and students can receive help in having work published, particularly in the **Master of Science collection** and in scientific and knowledge exchange publications. These collections have been available on the MAI Montpellier website since 2003. **MAI Montpellier's bimonthly newsletter** is also available online. It provides information about key events for partners and the scientific community and maintains ties between the Institute and its former students.

Montpellier

European projects

– REFGOV: Reflexive governance in the public interest (2 years).

Cooperation projects

- TASSILI: Improving sustainable consumption of fruit and vegetables in Algeria - Franco-Algerian cooperation (3 years).
- PRAD: ILGEOT Local water management innovations in the Tafilalet oasis, Morocco – agricultural research and development project (3 years).

FSP Projects

– FSP/Ministry of Foreign Affairs: Food security in Ethiopia (4 years).

Emergence of rural territories in Mediterranean countries. Comparative analysis involving the three Maghreb countries, France and seven countries to the North, South and East of the Mediterranean (4 years).

– PAMLIM: Outlook for agriculture and agrifood in the Maghreb, liberalisation and globalisation, MSH project (38 months).

International Projects

- FAO: Observatory for quality mountain products (4 years).
- UNESCO: Mediterranean pastoralism, cultural and landscape heritage and sustainable development (4 months).
- IRA/IAMM/AFD: Privatisation of collective lands in arid Tunisian regions (18 months).
- TUSIAD: Regoverning markets; the keys to inclusion of small scale producers in dynamic markets (1 year). "International competitiveness of Turkish agri-food industry" (3 years).

National Projects

– APPEAU ANR ADD: (*Agence nationale de la recherche, de l'agriculture et du développement durable*). "Identifying systems and policies for sustainable water management, tools and methods for territorial governance" (3 years).

– TEMPANTIOX (ANR project): Innovative methods for production of processed foods made from nutritionally organoleptically optimized fruit (4 years).

– CASDAR (ADAR national project): working together to improve food quality (2 years).

– FLONUDEP (ANR project): Promotion of sectors committed to sustainable development using a decision-making tool that assesses fruit and vegetable sectors in terms of three key factors: environmental sustainability, nutritional quality of produce, and socio-economic conditions. (4 years).

– PNRA-VDQA (ANR project): Quality wine with reduced alcohol content (2 years).

– Assessment programme: *Fruit pour la récré* – National project launched by the Ministry of Agriculture's General Directorate for Food (1 year).

– AFD Project: Outlook for agricultural policies in North Africa (10 months).

– Coxinel2: Short supply chains for the agriculture and agrifood market; innovations for regional development, regional strategic development plan. (3 years).

– LOMAGRI II: Facilitation of workshops organised by type of farm, designed to improve technical, economic and financial expertise and conducted during the construction of the regional model (4 years).

– RTRA-FRUITMED: Promotion of fruit trees and biodiversity (2 years).

– RTRA: Food outlook for the Mediterranean Region (2 years).

Mediterranean Agronomic Institute of Zaragoza



MAI Zaragoza

www.iamz.ciheam.org



Campus Residence

The Campus Residence has recently been completely renovated and is now able to host about 50 students. All the rooms have been refurbished and each floor of the building has its own communal area. During the renovation process, a ramp and a lift were added to make the building more accessible. Some rooms have been adapted to meet the needs of handicapped persons.

Language learning

MAI Zaragoza attaches great importance to the learning of foreign languages, which is regarded as a bonus for students following international courses abroad. At the end of the M.Sc. programmes, participants return to their countries of origin having completed their postgraduate studies and also with a mastery of Spanish, which is a distinct asset in their professional life.

All our foreign students traditionally follow an intensive language course in Spain before beginning the M.Sc. programme. In recent years, however, it has become increasingly difficult for students to arrive in time for the beginning of the course, owing to the many formalities involved in obtaining a visa. An agreement has therefore been reached with the Cervantes Institute under which students follow a Spanish course in their own country while waiting to obtain their visa. Their progress is monitored by our own staff using the Cervantes Institute's virtual Spanish teaching system, which also offers the possibility of distance learning for students who do not have a Cervantes Institute in their home town. So when students arrive in Spain for the M.Sc. programme, they adapt more easily to the intensive language course.

Aula Dei Science and Technology Park

MAI Zaragoza is a founding member and sponsor of the Aula Dei Science and Technology Park (PCT-AD), recently set up on the Aula Dei Campus. The main purpose of the park is to develop and stimulate the agrifood and environmental sectors of the Aragon region by bringing research and industry closer together.

In addition to having access to a network of research and development laboratories on the campus, the PCT-AD has promoted the building of new infrastructure, which further enhance the existing synergies between institutions on the campus. Our students will thus be in close contact with a great many professional and host laboratories for their practical work.

Education

Following the official recognition in 2006 of the equivalence of the CIHEAM M.Sc. awarded by MAI Zaragoza, the period 2007-2009 saw the introduction of two new M.Sc. programmes: one in animal nutrition, the other in animal breeding and reproduction biotechnology. Once the requisite administrative procedures had been completed and the official qualitative assessment had been successfully concluded, the eight programmes organised or jointly organised by MAIZ (four *in situ*, four *ex situ*) were given official or equivalent M.Sc. status.

A leading provider of training for European projects

For many years, MAI Zaragoza has provided training for projects funded by the European Union. One or two weeks training is organised for each of the projects.

- RICAMARE, 1998-2000: A regional network project funded by the European Commission as part of ENRICH (European Network for Research in Global Change).
- REACTION, 2003-2006: Restoration actions to combat desertification in the Northern Mediterranean (EC-Energy, Environment and Sustainable Development).
- MEDROPLAN, 2003-2008: Mediterranean drought preparedness and mitigation planning (EC-MEDA).
- QUALIWATER, 2005-2008: Diagnosis and control of salinity and nitrate pollution in Mediterranean irrigated agriculture (EC-INCO-MED).

– DeSurvey, 2005-2008: A surveillance system for assessing and monitoring of desertification (EC-FP6, Priority “global change and ecosystems” integrated project).

– TELERIEG, 2009-2011: Use of remote sensing for monitoring and advice for irrigation practices in the SUDOE area; European territorial cooperation programme INTERREG IV-B, South-West European operational programme.

– FUME: Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world (collaborative project: (ii) Large-scale integrating project, FP7); currently being negotiated.

The organisation of these training courses involves closer links between cooperative research and the teaching work undertaken by MAI Zaragoza. In the period 2007-2009, the following courses relied on such links:

- Design and implementation of drought management plans: organisation, methodologies and actions, 2008; MEDROPLAN project.
- Soil salinity in agricultural systems: impact and management, 2009; QUALIWATER project.
- Assessing and monitoring of desertification and land-use systems vulnerability, 2009; DeSurvey project.
- Desertification forecasting in the medium term, 2010; DeSurvey project.



Master programmes

Master	Academic years First part of the programme	Place	Organisation
Plant breeding	2008 - 2009	Zaragoza	IAMZ/UdL
Olive growing and oil technology	2007 - 2008 2009 - 2010	Córdoba	UCO/JA/CSIC/COI/INIA/IAMZ
Animal nutrition	2007 - 2008 2009 - 2010	Zaragoza	IAMZ/UZ/FEDNA/ UPM
Animal breeding and reproduction biotechnology	2007 - 2008 2009 - 2010	Valencia/ Barcelona	UPV/UAB/IAMZ/IVIA/INIA/IRTA/ AGROALIMED
Integrated planning for rural development and environmental management	2006 - 2007 2008 - 2009	Zaragoza	IAMZ/UdL
Agrifood marketing	2007 - 2008 2009 - 2010	Zaragoza	IAMZ
Aquaculture	2006 - 2007 2008 - 2009	Las Palmas de Gran Canaria	ULPGC/ICCM/IAMZ
Fisheries economics and management	2006 - 2007 2008 - 2009	Barcelona	UB/MARM-SGM/IAMZ

During the second part of the course, theses are prepared in collaboration with universities and leading research centres. Of those awarded the M.Sc., 28% go on to pursue doctoral studies in Spanish universities.

M.Sc. graduates specialise in the following fields:

- Animal production.
- Agrifood marketing.
- Rural planning and development.
- Plant breeding.
- Olive growing and olive oil production.
- Aquaculture and fisheries.

Students are from twenty different countries. Of the students from countries other than CIHEAM members, many are nationals of Latin American countries.

Students on specialised programmes

During the period 2007-2009, MAI Zaragoza had 666 students on these programmes. All subjects fall within MAIZ's areas of expertise.

Animal production, four short-duration courses

- Applied statistical methods in animal genomics.
- Evaluation and prospective analysis of ruminant production systems.
- Control and eradication of representative animal diseases in the Mediterranean.
- Animal production and environmental management.

Agrifood marketing, two short-duration courses

- Marketing of fresh fruit and vegetables.
- Development of new products in the agrifood sector.

Plant production, four short-duration courses

- Applied statistical methods in animal genomics.
- Recent trends in conservation agriculture under Mediterranean conditions.
- Sustainable energy crops in the Mediterranean.
- Risk management in Mediterranean agriculture: agricultural insurance.

Environment, four short-duration courses

- Design and implementation of drought management plans: organisation, methodologies and actions.
- Agri-environmental and development indicators as tools for sustainable rural management.
- Ecological restoration of Mediterranean rivers.
- The economics of natural resources and the environment.

Fisheries and aquaculture, eight short-duration courses

- Marketing of seafood products: trends and challenges.
- Organisation of fishery statistics systems.
- Recirculation systems and their application in aquaculture.
- Fish nutrition: sustainability and product quality.
- Fisheries restocking and stock enhancement.
- Seafood safety management based on risk analysis.
- Methodologies for fisheries stock assessment in the Mediterranean.
- Use of geographical information systems in fisheries and aquaculture.

Ten of these courses were given in collaboration with partner institutions, notably the EC, the FAO, the ICARDA, the OIE, the CGPM, the FERT association, the Spanish Ministry of the Environment and Rural and Marine Affairs, MARM; the Spanish Agency for International Cooperation for Development (AECID); the Catalan Institute for Agricultural Research, IRTA; the Spanish Agricultural Insurance Agency (ENESA); the Spanish insurance company MAPFRE.

Research and cooperation

Research work mainly focuses on the promotion of networked activities with teams from Mediterranean countries. The main aims are:

- to conduct and disseminate studies on issues relevant to Mediterranean agriculture and the environment;
- to invest in applied research;
- to pool results while at the same time harmonising methodologies and technical applications.

Networked research

Research is organised by network, working group or research project. The networks are made up of well-organised groups of researchers and cover broad areas of research.

The working groups have more precisely targeted aims, as they have fewer members. Research projects are for a duration worked out in advance (3-4 years) and determined by the funding available, usually from external sources.

More than 80 institutions and more than 400 experts, mainly from Mediterranean countries, regularly participate in this research work. Numerous projects are conducted in coordination with major international institutions: European Commission, FAO, ICARDA, World Bank, etc.

The interrelationship between MAI Zaragoza's networked research and educational programmes is the essential reason for the excellent quality of its research and education.

Student initiatives

Graduates with common experiences and ideals have set up alumni associations in their home countries. These associations have two aims:

- to keep young students informed of CIHEAM's activities;
- to help maintain and improve the scientific and technical knowledge of their members by organising regular events.



Professional exchanges and study missions

Candidates are selected on the basis of a work plan drawn up in advance by the host/supervisory laboratories. Account is taken of their scientific profile, the scientific policy of their administration in relation to the mission required, and the outcomes expected by the players involved. There have been study missions in Spain, Algeria, Egypt and Morocco.

WATNITMED (Management improvements of water use efficiency and nitrogen use efficiency of Mediterranean strategic crops, wheat and barley)

Water is recognized as the most limiting factor in Mediterranean regions, although N shortages seem as important as water scarcity.

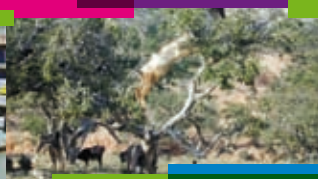
As crop productivity for a particular region is the consequence of the breeding x management x weather interaction, understanding the bases for improved management has been becoming increasingly important. The general objective of this project is to identify and transfer improvements in management of wheat and barley through increasing the capture and/or the use efficiency of water and N. The project is based on the premise that understanding the physiological bases of the responses to water and N shortages would allow the design of more consistent management practices to overcome the deficiencies explored, either by directly using the concepts in such strategic design or by being able to build up (or adapt an existing) robust simulation models based on this knowledge and then allowing the testing of different alternatives exploring a large degree of G x E interactions. We aim to improve the understanding on the determinants of the crop ability to capture more water and/or to use water more efficiently in a range of N availability conditions; as well as to capture more N and/or to use N more efficiently in a range of water availability conditions.

In this case, both ranges will be characterised and described within the context of the project:

- 1- Identifying plant/crop characteristics that may confer superior ability;
- 2- Building up a mechanistic simulation model used in the design of management strategies;
- 3- Testing agronomic hypothetical management strategies in these environments;
- 4- Evaluating the socio-economic impact of the adoption of the improved strategies, and actually transferring the outcomes to the producers (through our partnership with Farmers Associations).

WATNITMED started in 2005 and will be finished in 2009. It has been funded by the European Commission in the context of the 6th Framework Project for Research and Technological Development. It has involved 14 partners (including research institutions and farmers' organizations) from eight countries. MAI Zaragoza has carried out the coordination of the project.

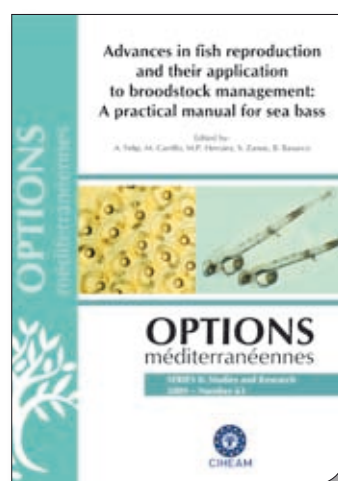
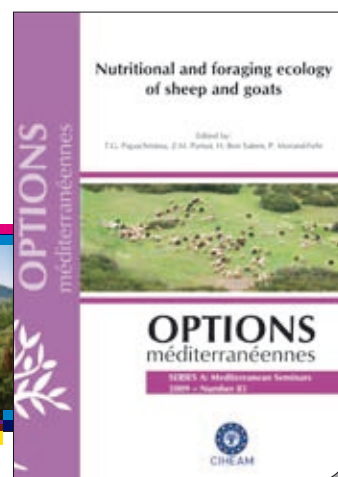
www.iamz.ciheam.org/watnitmed



CIHEAM, a Mediterranean resource centre

CIHEAM's three main missions – education, research and cooperation – continue to interact and thereby generate an active intelligence, which is shared by all players in the changing Mediterranean world.

This intelligence is reflected in the many media used to construct the Mediterranean Resource Centre facilitated by CIHEAM.



Options méditerranéennes

Options méditerranéennes has been CIHEAM's journal since 1970. Over the years, the review has been revamped several times, making it easier to consult. Since 2008, it has been published in two series:

- series A: *Colloquies and seminars* includes proceedings of all the seminars and meetings organised by CIHEAM for which written contributions were prepared by guest contributors;
- series B: *Studies* contains work produced by lecturers-researchers as part of the Institute's normal activity.

Those wishing to publish must follow the procedure set forth in the new guide to publication drawn up in 2007. Both series of *Options méditerranéennes* can be downloaded from the CIHEAM website.

Series A: Proceedings of seminars, colloquies and meetings organised by CIHEAM

N° 72 – Rana G. (ed.), Mastroilli M. (ed.), Albrizio R. (ed.)
WEMED workshop: how to advance the knowledge on water use efficiency in the Mediterranean region?

N° 73 – Di Terlizzi B. (ed.), Dragotta A. (ed.), Jamal M. (ed.)
Syrian national strategic plan for olive oil quality: final report.

N° 74 – Priolo A. (ed.), Biondi L. (ed.), Ben Salem H. (ed.), Morand-Fehr P. (ed.)
Advanced nutrition and feeding strategies to improve sheep and goat production.
Progrès en nutrition et stratégies alimentaires pour améliorer la production des ovins et des caprins.

N° 75 – Leone V. (ed.), Lovreglio R. (ed.)
Proceedings of the international workshop MEDPINE 3: conservation, regeneration and restoration of Mediterranean pines and their ecosystems.

N° 76 – Audiot A. (ed.), Casabianca F. (ed.), Monin G. (ed.)
5th International Symposium on the Mediterranean Pig.
5^e Symposium international sur le porc Méditerranéen.

N° 77 – Sagardoy J.A. (ed.), Lamaddalena N. (ed.), Quagliariello R. (ed.), Chimonidou D. (ed.), Guelloubi R. (ed.), Pinca V. (ed.)
Mainstreaming gender dimensions in water management for food security and food safety.

N° 78 – Olaizola A. (ed.), Boutonnet J.P. (ed.), Bernues A. (ed.)
Mediterranean livestock production: uncertainties and opportunities.
Les productions de l'élevage méditerranéen: défis et atouts.

N° 79 – Porqueddu C. (ed.), Tavares de Sousa M.M. (ed.)
Sustainable Mediterranean grasslands and their multifunctions.
Les pâturages méditerranéens durables et leur multifonctionnalité.

N° 80 – Lopez-Francos A. (ed.)
Drought management: scientific and technological innovations.

N° 81 – Molina Cano J.L. (ed.), Christou P. (ed.), Graner A. (ed.), Hammer K. (ed.), Jouve N. (ed.), Keller B. (ed.), Lasa J.M. (ed.), Powell W. (ed.), Royo C. (ed.), Shewry P. (ed.), Stanca A.M. (ed.)
Cereal science and technology for feeding ten billion people: genomics era and beyond.

N° 82 – Jouve A.-M. (ed.)
Transitions foncières dans les Balkans: Roumanie, Albanie, Grèce.

N° 83 – El Moujabber M. (ed.), Shatanawi M. (ed.), Trisorio Liuzzi G. (ed.), Ouessar M. (ed.), Laureano P. (ed.), Rodriguez R. (ed.)
Water culture and water conflict in the Mediterranean area.

N° 84 – Santini A. (ed.), Lamaddalena N. (ed.), Severino G. (ed.), Palladino M. (ed.)
Irrigation in Mediterranean Agriculture: Challenges and Innovation for the next decades.

N° 85 – Papachristou T.G. (ed.), Parissi Z.M. (ed.), Ben Salem P. (ed.), Morand-Fehr P. (ed.)
Nutritional and foraging ecology of sheep and goats.

N° 87 – Ambrosi L. (ed.), Trisorio Liuzzi G. (ed.), Ouagliariello R. (ed.), Santelli Beccegato L. (ed.), Di Benedetta C. (ed.), Losurdo F.
Women Status in the Mediterranean: their Rights and Sustainable Development.

Series B: Studies and research

Research works on Mediterranean agriculture
N° 56, Vol I – Lamaddalena N. (ed.), Bogliotti C. (ed.), Todorovic M. (ed.), Scardigno A. (ed.)
Water saving in Mediterranean agriculture and future research needs [Vol. 1].

N° 56, Vol II – Lamaddalena N. (ed.), Bogliotti C. (ed.), Todorovic M. (ed.), Scardigno A. (ed.)
Water saving in Mediterranean agriculture and future research needs [Vol. 2].

N° 56, Vol III – Lamaddalena N. (ed.), Bogliotti C. (ed.), Todorovic M. (ed.), Scardigno A. (ed.)
Water saving in Mediterranean agriculture and future research needs [Vol. 3].

N° 57 – Lamaddalena N. (ed.), Shatanawi M. (ed.), Todorovic M. (ed.), Bogliotti C. (ed.), Albrizio R. (ed.)
Water use efficiency and water productivity WASAMED project.

N° 58 – Iglesias A. (ed.), Moneo M. (ed.), Lopez-Francos A. (ed.)
Drought management guidelines technical annex.

N° 59 – Karam F. (ed.), Karaa K. (ed.), Lamaddalena N. (ed.), Bogliotti C. (ed.)
Harmonisation and integration of water saving options. Convention and promotion of water saving policies and guidelines.

N° 60 – El Moujabber M. (ed.), El Bitar L. (ed.), Raeli M. (ed.)
Study of the organic and safety agriculture in the Adriatic cross-border region and of training needs.

N° 61 – Allaya M. (ed.)
Mediterranean countries: country reports.
Les agricultures méditerranéennes: analyses par pays.

N° 62 – Basurco B. (ed.)
The Mediterranean fisheries sector. A reference publication for the VII meeting of Ministers of agriculture and fisheries of CIHEAM member countries (Zaragoza, Spain, 4 February 2008).

N° 63 – Felip A. (ed.), Carrillo M. (ed.), Herráez M.P. (ed.), Zanuy S. (ed.), Basurco B. (ed.)
Advances in fish reproduction and their application to broodstock management: a practical manual for sea bass.

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Mediterra

Since it was first published in 1998, CIHEAM's annual report has become a benchmark reference document, reflecting general trends in agriculture in different Mediterranean countries and providing a basis for reflection, discussion and decision making. It is also a medium for sharing knowledge, analyses and thoughts on the main issues and events marking agriculture, food production, rural affairs and sustainable development in the Mediterranean Region. In order to raise its profile, the CIHEAM annual report was officially renamed "*Mediterra*" in 2007 and is now produced in association with well-known professional, institutional publishers.

In addition to being Mediterranean by virtue of the geographical area it deals with and the source of the expertise it calls upon, *Mediterra* is also decidedly Mediterranean from a linguistic standpoint, being available in English, Arabic, French, Italian and Spanish.



Mediterra 2008

Mediterra 2008 offers prospective analyses of the agriculture, food and rural affairs situation in the Mediterranean up to the year 2020.

This edition was produced in a context marked by the return of agriculture to the forefront of the international scene and the relaunch of the policy debate on the Mediterranean. It accordingly highlights the strategic importance and multisectoral dimension of Mediterranean agriculture.

Armed with these multidisciplinary analyses, the authors put forward four global scenarios for 2020 and also recommend a series of practical proposals, calling in particular for greater solidarity between Europe and the SEM countries on matters relating to agriculture, food and the environment.

Mediterra 2008, which was awarded the special Terra prize in February 2009 in France, has been the subject of considerable comment in the regional media and has been discussed in numerous scientific and political forums dedicated to Mediterranean development.

Mediterra 2009

Mediterra 2009, entitled "Rethinking rural development in the Mediterranean", is the fruit of cooperation between CIHEAM and Blue Plan. The report analyses the latest trends in the Mediterranean rural worlds, reviews progress in the implementation of sustainable development strategies and takes a new look at the policies applied in the rural environment.

With food insecurity back at the forefront of global concerns, agriculture is once more high on the international strategic agenda. *Mediterra 2009* has taken the logical step of focusing on this development, highlighting the extent to which the increasing shortage of water and land and vulnerability of agricultural produce represent unstoppable trends in the 21st century, albeit scarcely foreseeable ones.

Divided into eleven thematic chapters, the report provides Mediterranean players and decision makers with the essential keys to understanding agricultural and rural development.

Mediterra 2010

In 2008, CIHEAM's Governing Board agreed to the Secretary General's proposal that *Mediterra 2010* should be an atlas of Mediterranean agricultures and rural areas. The French and English versions of the report are due out in February 2010 and the Spanish and Arabic versions will follow in the course of the year, thereby guaranteeing it a central place in discussions on the Mediterranean, whether at CIHEAM's 8th ministerial meeting in March 2010 in Istanbul or at the different policy meetings that make up the 2010 agenda for Euro-Mediterranean cooperation.



The Watch Letter (Lettre de veille)

Since its creation and launch in the spring of 2007, the *Watch Letter* has steadily established itself as one of CIHEAM's strategic communication tools, enabling the Centre to increase its visibility in the outside world and make its analyses of emerging agricultural and food issues available to a wide and varied public. At its recent meetings, the CIHEAM Governing Board has expressed strong support for the idea that the *Watch Letter* henceforth be regarded as one of CIHEAM's major publications.

Published every three months in French and English, the CIHEAM *Watch Letter* is dispatched electronically to more than 15,000 recipients in the Euro-Mediterranean World (decision makers, ministers, journalists, researchers, students, documentation and research centres, universities, etc.). It is also available on the CIHEAM website in its own special section.

The *Lettre de Veille*, whose strategic direction and editorial preparation are the responsibility of the CIHEAM General Secretariat, consists of articles and interviews addressing a central theme, together with supplementary sections giving information on current events in Euro-Mediterranean agriculture (news in brief, websites, publications, events, etc.), and a series of summary items on current activities at CIHEAM.

Watch Letters published between 2007 and 2009:

- 1 Agriculture and Water Resources in the Mediterranean (spring 2007)
- 2 Identity and Quality of Mediterranean Foodstuffs (summer 2007)
- 3 Zoonoses and Emerging Diseases in the Mediterranean (autumn 2007)
- 4 The Aquaculture Sector in the Mediterranean (winter 2008)
- 5 Rising Food Prices and the Mediterranean (spring 2008)
- 6 The Forest Fire Problem in the Mediterranean (summer 2008)
- 7 Organic Farming in the Mediterranean (autumn 2008)
- 8 Agrifood Industries in the Mediterranean (winter 2009)
- 9 Drought Management and Desertification in the Mediterranean (spring 2009)
- 10 Agricultural Policies in the Mediterranean (summer 2009)
- 11 Agriculture, Fisheries and Rural Affairs in the Mediterranean Islands (autumn 2009)



www.ciheam.org

The website

In 2008, CIHEAM completely modernised its website, updating its artwork, layout and functionalities. The website is now fully bilingual (French/English) and has a uniform tree structure, giving easier access to information on the Centre's three main areas of activity.

The website is now divided into ten main sections: general information on CIHEAM's mission and objectives, education and training programmes, research work and theses, cooperation on policy and technical matters, publications (*Mediterra*, *Options méditerranéennes*, *NewMedit*, *Watch Letter*), Observatory (news in brief, notes, indicators and monographs), schedule of scientific regional events, current developments at the Centre, etc. All the themes and events that mark our activity are thus reflected on the CIHEAM website.

The increasing number of visits recorded from users in all Euro-Mediterranean countries underscores the strategic importance of maintaining the ongoing dynamic of this platform, which is crucially important to CIHEAM's communication and publicity operations. Free access to all publications on the site is a decisive factor in reaching our audience and enhancing the reputation of the site.



Because it attends to all of these fundamental tasks – monitoring current events, identifying emerging trends, facilitating public access to knowledge, drawing up analyses with a regional slant – CIHEAM's website is able to provide a rich and varied panorama of agricultural, food and environmental dynamics within the Euro-Mediterranean zone.

www.ciheam.org



NewMedit

Mediterranean economic, agricultural and environmental review founded in 1990, *NewMedit* is a quarterly review published by the Mediterranean Agronomic Institute of Bari, CIHEAM's Italian Institute. Its main areas of interest are agrifood economics, rural systems, and the environment. Its articles address the different problems associated with economic and agricultural sectors of the Mediterranean countries from a multidisciplinary standpoint and consider the relationships between them.

NewMedit is therefore a scientific information and analysis tool designed to increase understanding of the economic and social changes affecting agricultural life, rural society and agrifood sectors in the Mediterranean Basin and so enhance the public debate.

Articles are published in the original language (English or French), with an abstract in the second language. Since 2007, CIHEAM has been helping disseminate this work and promote *NewMedit* by publishing each edition's contents and editorial together with the abstracts of its articles on its website.

NewMedit is in the process of obtaining an ISI Impact Factor.

www.iamb.it



Ministering to the needs of an international organisation

The financial reform, which began in 2005, has enabled CIHEAM to make a gradual changeover to the new IPSAS international accounting standards. Now that the task has been completed, CIHEAM is able to offer the highest guarantees that the resources entrusted to it will be properly administered.

Financial reform

In June 2006, the Governing Board approved new financial regulations, providing that the revenue and expenditure accounts for each financial year be presented at the June meeting. The draft budgets now include a consolidated budget presentation based on the programmes and activities of each MAI. Step by step, with the aid of the Board of Auditors and the chief accountants at the MAIs, CIHEAM has reformed its financial regulations and brought the Institutes' accounting procedures into line with the international IPSAS standards. With the completion of the final stage, that of presenting the revenue and expenditure accounts as per the IPSAS standards, CIHEAM is now recognised as one of the most advanced international organisations in this area.

A balanced financial situation

In five years (from 2003 to 2008) the overall budget of CIHEAM has grown by 45%. This increase, from 22 to 32 million euros, is largely due to CIHEAM's growing participation in national and European cooperation and research programmes. At 31 December 2008, the 13 CIHEAM member countries were all up to date with their contributions. The procedures for collecting contributions, thanks to the support of all the delegates, have once again proved very effective.

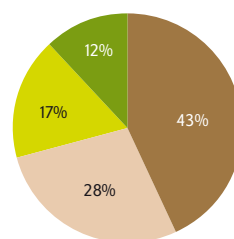
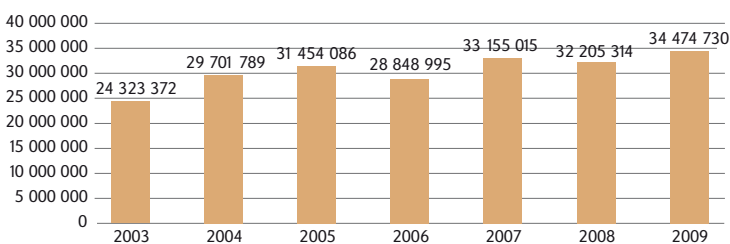
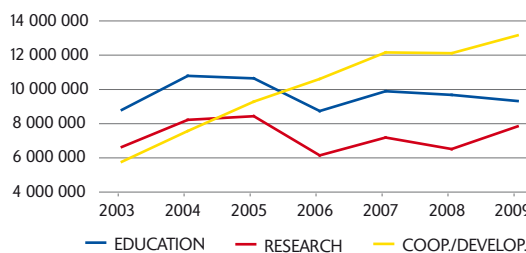
Investment

The four MAIs have invested huge amounts of money to improve the living and working conditions of students and lecturers-researchers. The student residences have been renovated at MAI Bari and MAI Zaragoza; a new residence building has been built at MAI Montpellier; the conference centre at MAI Chania has been completed; and the campuses at Bari and Montpellier have been renovated.

Regulations

In accordance with undertakings given to the Governing Board, CIHEAM has updated its General Staff Regulations. The Secretary General went to the Institutes for formal consultations on the planned modifications with directors and staff. At the same time the MAI directors started work on new versions of the specific regulations applicable to each of the institutes. Both the general and the specific regulations were adopted by the Board and entered into force on 1 February 2009.

Budget



- Programme A – Food Production and Quality Management
- Programme B – Environment, Natural Resources and Fisheries Management
- Programme C – Economics, Management and Policies Development
- Programme D – General costs

Organisation chart

The Governing Board

1 October 2007 – 30 September 2009

President

TUNISIA

• Abdelaziz MOUGOU, *Président de l'Institution de la Recherche et de l'Enseignement Supérieur Agricoles (IRESA), ministère de l'Agriculture et des Ressources hydrauliques, Tunis*

Member Country Delegates

ALBANIA

• Sali METANI, *Direction des relations extérieures, ministère de l'Agriculture, Tirana*

ALGERIA

• Mohamed Fouad RACHEDI, *Directeur de la formation, de la recherche et de la vulgarisation, ministère de l'Agriculture, Alger – Vice-Président du Conseil d'administration du CIHEAM*

EGYPT

• Ayman ABOU HADID, *President of Agricultural Research Center, Cairo*
> September 2007

FRANCE

• Philippe BARRÉ, *Direction de la coopération scientifique, universitaire et de recherche, ministère des Affaires étrangères, Paris*
< March 2008
• Elisabeth BARSACQ, *Sous-directrice des échanges scientifiques et de la recherche, Direction des politiques de mobilité et d'attractivité, ministère des Affaires étrangères et européennes, Paris*
< August 2009

GREECE

• Eleftherios TJAMOS, *Professor, Department of Plant Pathology, Agricultural University of Athens*

ITALY

• Giuliana TRISORIO LIUZZI, *Professor, Department of Engineering and Management of Agricultural and Forest Systems, Faculty of Agriculture, Bari – Vice-President of CIHEAM's Governing Board*

LEBANON

• Hady RACHED, *Professeur, Faculté de gestion et de management, Université Saint-Joseph, Beyrouth*
< October 2007
• Mouin HAMZE, *Secrétaire Général, Centre National de la Recherche Scientifique (CNRS)*
> November 2007

MALTA

• Salvino BUSUTTIL, *Président de la Fondation de Malte, La Valette*

MOROCCO

• Fouad GUESSOUS, *Directeur de l'Institut agronomique et vétérinaire Hassan II, Rabat – Vice-Président du Conseil d'administration du CIHEAM*

PORTUGAL

• José M. ABECASSIS EMPIS, *President, Instituto Nacional de Recursos Biologicos (INRB), Lisbon*
< December 2007
• Maria Fatima de SOUSA CALOURO, *Directrice, Instituto Nacional de Recursos Biologicos (INRB), Lisbon*
> January 2008

SPAIN

• Eva BLANCO MEDIO, *Conseiller aux Affaires agricoles, à la Pêche et à l'Alimentation, Délégation permanente de l'Espagne auprès de l'OCDE, Paris*
> September 2007

TUNISIA

• Fethi LEBDI, *Directeur général de l'INAT, Tunis*
> April 2007

TURKEY

• Vedat MIRMAHMUTOGULLARI, *Undersecretary, Ministry of Agriculture and Rural Affairs, Ankara*

OECD Representative

• Gérard VIATTE, *former Director for Food, Agriculture and Fisheries*
< December 2007

Observers

• Salem AL-LOZI, *Director General, Arab Organization for Agricultural Development (AOAD)*
< April 2009

• Tariq AL ZADJALI, *Director General, Arab Organization for Agricultural Development (AOAD)*
> May 2009

• Jutta KRAUSE, *Regional Representative for Europe, Food and Agriculture Organization (FAO)*
< December 2007

• Mustapha SINACEUR, *Sub-regional coordinator for Central Asia, Food and Agriculture Organization (FAO)*
> January 200

• Henri-Luc THIBAUT, *Director, PAM/Plan Bleu*



Scientific Advisory Committee

PRESIDENCY Teodoro MASSIMO MIANO

- Teodoro MASSIMO MIANO, *Professor, Department of Agricultural and Environmental Biology and Chemistry (DIBCA), University of Bari (Italy)*
> December 2006

Members

- George P. ATTARD, *Director of the Agricultural Institute, University of Malta (Malta)*
> July 2006
- Jacques BROSSIER, *Président du centre INRA-Dijon (France)*
> July 2004
- Foued CHEHAT, *Maître de conférence à l'Institut National Agronomique d'El Harrach, Alger (Algeria)*
> July 2006
- Mohamad Talal FARRAN, *Professeur de zootechnie à l'Université de Beyrouth (Lebanon)*
> July 2006
- Velesin PECULI, *Rector, Agricultural University of Tirana, Agri-environmental and Ecology Department (Albania)*
> July 2004

PRESIDENCY Masum BURAK

- Masum BURAK, *Professor, Director General, General Directorate of Agricultural Research (GDAR), Ministry of Agriculture and Rural Affairs, Ankara (Turkey)*
> January 2009

Members

- Luis Miguel ALBISU, *Head of the Agro-food Economics and Natural Resources Unit, Centre of Agro-food Research and Technology, Aragon (Spain)*
> January 2009
- George P. ATTARD, *Director of the Agricultural Institute, University of Malta (Malta)*
> July 2006
- Foued CHEHAT, *Maître de conférence à l'Institut National Agronomique d'El Harrach, Alger (Algeria)*
> July 2006
- Dimitris DIAKOSAVVAS, *Senior Economist, Trade and Agriculture Directorate, Organisation for Economic Cooperation and Development (OECD) (Greece)*
> January 2009
- Mohamad Talal FARRAN, *Professeur de zootechnie à l'Université de Beyrouth (Lebanon)*
> July 2006
- Ali ZOUBA, *Directeur, Centre Régional de Recherche en Agriculture Oasienne, Tozeur (Tunisia)*
> January 2009



Legal Adviser

- Terry OLSON, *Conseiller d'État, Conseil d'État (France)*

Audit Board

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- Orietta LUCCHETTI, *Acting President for 2008, Senior member of the Auditor General's Departement (Italy)*
- Faustino FRAILE PEREZ, *Acting President for 2009, Financial Controller, Ministry of Foreign Affairs (Spain)*
- Marie-Pierre CORDIER, *Conseiller référendaire, Cour des comptes (France)*

General Secretariat

- Bertrand HERVIEU, *Secretary General*
< September 2009
- Francisco MOMBIELA MURUZÁBAL, *Secretary General*
> October 2009
- Vincent DOLLÉ, *Director of the MAI Montpellier (France)*
- Luis ESTERUELAS, *Director of the MAI Zaragoza (Spain)*
- Cosimo LACIRIGNOLA, *Director of the MAI Bari (Italy)*
- Alkinoos NIKOLAÏDIS, *Director of the MAI Chania (Greece)*
- Roberto CAPONE, *Principal Administrator*
< May 2008
- Vincenzo FERSINO, *Principal Administrator*
> July 2008
- Placido PLAZA, *Principal Administrator*
- Richard RAJCA, *Principal Administrator*
- Sébastien ABIS, *Administrator*
- Elena KAGKOU, *Administrator*
- Pierre BLANC, *Responsible for studies and research (seconded by the French Authorities)*
- Bernadette DUPUY, *Consultant*

Index

ACSAD	Arab Center for the Studies of Arid Zones and Dry Lands	IFAP	International Federation of Agricultural Producers
AET	National Network Research and Technology	IFPRI	International Food Policy Research Institute
AFD	Agence française de développement	IMI	Irrigation Management Institute
ANR	Agence nationale de recherche, France	INRA	Institut National de la Recherche Agronomique, France
APCA	Assemblée permanente des Chambres d'agriculture, France	INTERREG	Community initiative for the promotion of cross-border and inter-regional coopération
ARIMNet	ERA-Net « Coordination of Agricultural Research in the Mediterranean »	IPSAS	International Public Sector Accounting Standards
CAP	Common Agriculture Policy	IPTS	Institute for Prospective Technological Studies
CGIAR	Consultative Group on International Agricultural Research	LAMES	Laboratoire méditerranéen de sociologie
CICA	Confédération internationale du crédit agricole	LIFE III	European Union's financial instrument supporting environmental and nature projects
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement	MAI	Mediterranean Agronomic Institute
CREDA-UPC-IRTA	Centre de Recerca en Economia i Desenvolupament Agroalimentari/ Universtat Politècnica de Catalunya/ Institut de Recerca i Tecnologia Agroalimentàries	MAP/Blue Plan	Mediterranean Action Plan
CPRM	Conference of Peripheral Maritime Regions	MOISA	Marchés, Organisations, Institutions, Stratégies d'Acteurs
CSIC	Consejo Superior de Investigaciones Científicas	OADA	Arab Organisation for Agricultural Development
ECTS	European Credit Transfer System	OECD	Organisation for Economic Cooperation and Development
EER	Espace européen de la recherche	OIE	World Organisation for Animal Health
EFSA	European Food Safety Authority	OIV	Organisation internationale de la vigne et du vin
ENP	European Neighbourhood Policy	REDAL	Réseau des Enseignants et Doctorants en Économie Agroalimentaire
ERA-Net	European Research Area Network	RTRA	Réseau technologique de recherches avancées
ERDF	European Regional Development Fund	SARD initiative	Sustainable Agriculture and Rural Development Initiative (FAO)
EU	European Union	SCAR	Standing Committee on Agricultural Research
EUMED/AGPOL	Impacts of agricultural trade liberalization between the EU and Mediterranean countries	SIC	Site of Community Interest (EU)
EURAGRI	European Agricultural Research Initiative	SNRA	Systèmes nationaux de recherche agricole
FAO	Food and Agriculture Organization	UNESCO	United Nations Educational, Scientific and Cultural Organization
FPRTD	Framework Programme for Research and Technological Development	WTO	World Trade Organization
GNIS	Groupement national interprofessionnel des semences et plants, France		
ICA	Association for European Life Science Universities		
ICARDA	International Center for Agricultural Research in the Dry Areas		
IFAD	International Fund for Agricultural Development		



MAI Bari – Italy

- Water resources management
- Protection of fruit crops
- Organic agriculture
- Sustainable development

via Ceglie 9,
70010 Valenzano, Bari
Italy
Tel: 39 080 4606 111
Fax: 39 080 4606 206
iamdir@iamb.it
www.iamb.it



MAI Chania – Greece

- Food quality and chemistry of natural products
- Horticultural genetics and biotechnology
- Sustainable agriculture
- Geoinformation in environmental management
- Business economics and management

P.O. Box 85,
73100 Chania, Crète
Greece
Tel: 30 28210 35 000
Fax: 30 28210 35 001
alkinoos@maich.gr
www.maich.gr



MAI Montpellier – France

- Rural societies and territories
- Public policies
- Rural development and environment
- Chains and actors' strategies
- World food systems

3191, route de Mende
34093 Montpellier cedex 5
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www.iamm.fr



MAI Zaragoza – Spain

- Plant production
- Animal production
- Integrated rural management
- Agro-food marketing
- Fisheries and aquaculture

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This activities report offers a photographic tour of the Mediterranean Agronomic Institutes of Bari, Chania, Montpellier and Zaragoza.

We would like to thank all the teachers, researchers, staff, students and others who welcomed us and allowed us to work. Lastly we would like to thank all those who accepted to be photographed and thus helped us to convey an impression of life at CIHEAM.

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