

The history and activities of the FAO/CIHEAM Research and Development Network on Pasture and Fodder Crops

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The network has been created in 1978. It aims at exchanging scientific and technical information, managing working groups on targeted research activities that lead to the development of common methodologies and results, development of research projects, publications, organization of technical stays and training of researchers. It includes two sub-networks: the 'Mountain Pastures sub-network' and the 'Mediterranean Forage Resources sub-network'. In 2010, it is coordinated by a network coordinator (Prof. Dr Alain Peeters. RHEA, Gentinnes, Belgium. Email: alain.peeters@rhea-environment.org) and two sub-network coordinators (Mountain Pastures: Dr Eric Mosimann. Agroscope Changins-Wädenswil (ACW), Nyon, Switzerland. Email: eric.mosimann@acw.admin.ch; Mediterranean Forage Resources. Dr Claudio Porqueddu. CNR-ISPAAM, Sassari, Italy. Email: c.porqueddu@cspm.ss.cnr.it).

The Mountain Pastures sub-network existed first as a working group since 1962. It became the sub-network on Mountain Pastures of the FAO cooperative research network on Pastures and Fodder Crops in 1978. The liaison officers in charge of the coordination of the sub-network were successively: Dr J. Caputa (Switzerland) (1962 – 1976), Dr J-P. Charles (Switzerland) (1977 – 1985), Dr J. Troxler (Switzerland) (1985 – 1996), Prof. Dr A. Peeters (Belgium) (1996 – 2007), Dr E. Mosimann (Switzerland) (2008 -). Between 1963 and 2007, 25 meetings were organized: Switzerland (1963), Switzerland (1964), Austria (1965), Italy (1966), Germany (1967), Poland (1968), France (1969), Yugoslavia (1970), Rumania (1972), Czechoslovakia (1974), Switzerland (1976), Austria (1978), Germany (1981), Italy (1983), France (1985), Yugoslavia (1987), Poland (1989), Switzerland (1991), Norway (1994), Slovakia (1996), Rumania (1998), France (2000), Spain (2003) in collaboration with the FAO Sheep and Goat network, Italy (2005), Bulgaria (2007) and Switzerland (2009). The next meeting will take place in Poland in 2011. In 2010, about 400 members from 27 countries are registered. The objectives of the sub-network are : (1a) before 1989, stimulating contacts between European researchers from both sides of the iron curtain; (1b) after 1989 and the collapse of communism, the first goal of the network has sensibly changed, the topics of the meetings have evolved towards the new development needs of Central and Eastern European countries (methods and tools of extension, quality and promotion of the products, restoration of abandoned land); (2) implementing a place of dialogue on the specific problems of forage production in mountain; (3) creating a complementary role compared to the European Grassland Federation (EGF) where most papers dealt with forage production in the lowlands; (4) stimulating discussions and contacts in small groups of people (about 50-80 per meeting) with similar needs. Meetings are organised once every two years. In the last 30 years, the main research topics were: PLANT – ANIMAL: Quality and productivity of herb species and natural grassland types; Methodological aspects of permanent grassland characterisation; Biodiversity and feeding value of mountain grasslands; Comparison of the effect of sheep and cattle on the vegetation; Altitude grasslands for dairy cows; Role of grazing in the management of agro-pastoral mountain areas; Adapting management to the new challenges of mountain areas. ENVIRONMENT: Quality of the environment in mountain pastures. PRODUCT QUALITY: Quality characterization and promotion of mountain animal products; Sustainable grazing, nutritional utilization and quality of sheep and goats products. DEVELOPMENT METHODS: Methods and tools of extension for mountain farms. Three topics have been identified for future activities: Sustainable grazing systems; Quality of animal mountain products; Quality of the environment (biodiversity conservation and restoration; landscape management (importance of grazing as an ecological management tool); water quality).

The Mediterranean Forage Resources sub-network was created in 1980. During the 1980th and at the beginning of the 1990th, part of its activities were carried out in collaboration with the AGRIMED programme of the DG VI of the European Commission. During the years 1990-1996, research projects were financed within the framework of the CAMAR and AIR programmes of the European Commission. Since 1995, CIHEAM (International Centre for Advanced Mediterranean Agronomic Studies) co-sponsored, through its Mediterranean Agronomic Institute of Zaragoza (IAMZ), the network activities that are important for Mediterranean countries. The sub-

network organises general meetings every two years. The last meetings were organized in Greece (1993), France (1995), Spain (1997), Italy (2000), Tunisia (2002), Greece (2003), Spain (2003) in collaboration with the FAO Sheep and Goat network, Portugal (2008) and Spain (2010). The next meeting will take place in Turkey in 2012. The sub-network includes participants from 16 countries (Algeria, Australia, Bulgaria, Chile, Egypt, France, Greece, Israel, Italy, Morocco, Portugal, Serbia, Slovenia, Spain, Tunisia, Turkey). The objectives of the sub-network are the study and improvement of forage crop production on irrigated and rain-fed land, the development and management of Mediterranean rangelands; the study of forage feeding value, by-products and rangelands of the Mediterranean. During many years, three projects were active: Rangeland utilization (Dr M. Etienne); Forage and grazing systems (Prof. Dr A. Pardini); Genetic resources and improvement of legumes (Dr H. Marrakchi). The proceedings of the meetings are published in the CIHEAM journal 'Options Méditerranéennes' and are available on-line at the CIHEAM web-site: www.ciheam.org. The PowerPoint presentations of the two last meetings of the sub-network are available in the web site of IAMZ: http://www.iamz.ciheam.org/en/pages/paginas/pag_investigacion3b.htm.

Results and impacts of the network

The results of the activities carried out within the framework of the Network on Pastures and Fodder Crops range from the more or less formal exchange of information to the development of large-scale research projects, as well as formal meetings and seminars and a large number of publications. Moreover, a large majority of the researchers working in pastures and forage crops in the Mountain areas and the Mediterranean Region participate in the network. There is a good connection with many European research centres.

Meetings have created links between research teams. Many young scientists from the South, the Centre, the East of Europe and from North Africa have been trained in North-West Europe. Among these researchers, many hold important responsibilities in research institutions of their own countries. Many young students and scientists from West Europe have achieved training periods in Central and East Europe. Many senior scientists from both parts of Europe and North Africa have achieved short-term stays in the framework of common research or continuous training. Important scientific and technical links were also established between researchers from South Europe and North Africa with scientists of Australia and Chile, especially on the topic of pasture legumes.

The impact of the Mediterranean sub-network can be measured not only by the research activities, but also by the economic development activities of the Mediterranean countries since almost all the large development bodies of the Mediterranean interested in small ruminants participate actively in this sub-network.

Some recent publications

Biala K., Nösberger J., Parente G. and Peeters A. (eds) (2006) *Quality production and quality of the environment in the mountain pastures of an enlarged Europe*. ERSA, Gorizia, Italy: 374 pp

Etienne M. (ed.) (1996) *Western European Sylvopastoral Systems*. INRA Editions: 276 pp.

Ferchichi A. (ed.) (2002) *Rangeland and Pasture Rehabilitation in Mediterranean Areas*. Cahiers Options Méditerranéennes, 62: 335 pp.

Georgoudis A., Rosati A. and Mosconi C. (eds) (2003) *Animal production and natural resources utilisation in the Mediterranean mountain areas*. Wageningen Academic Publishers, EAAP Publication 115: 624 pp.

Lloveras J. (ed.) (2001) *Quality in lucerne and medics for animal production – Qualité de la luzerne et des medics pour la production animale*. Options Méditerranéennes, Série A, 45: 275 pp.

Molina Alcalde E., Ben Salem H., Biala K. and Morand-Fehr P. (eds) (2005) *Sustainable Grazing, Nutritional Utilization and Quality of Sheep and Goat products – Pâturage Durable, Utilisation Nutritionnelle et Qualité des Produits des Ovins et des Caprins*. Options Méditerranéennes, Série A, 67: 466 pp.

Peeters A. (ed.) (2000) *Biodiversity and feeding value of mountain grasslands in Europe*. FAO, REU Technical series 62: 120 pp.

Peeters A. (ed.) (2000) *Methods and tools of extension for mountain farms*. FAO, REU Technical series 57: 218 pp.

Peeters A. and Frame J. (eds) (2002) *Quality and promotion of animal products in mountain*. FAO, REU Technical Series 66: 147 pp.

Porqueddu C. and Ríos S. (eds) (2010) *The contributions of grasslands to the conservation of Mediterranean biodiversity*. Options Méditerranéennes, Série A, 92: 286 pp.

Porqueddu C. and Tavares de Sousa M.M. (eds) (2008) *Sustainable Mediterranean Grasslands and their Multi-Functions – Les Pâturages Méditerranéens Durables et leur Multi-Fonctionnalité*. Options Méditerranéennes, Série A, 79: 501 pp.

Sulas L. (ed.) (2000) *Legumes for Mediterranean forage crops, pastures and alternative uses – Légumineuses pour cultures fourragères, pâturages et autres usages en région méditerranéenne*. Cahiers Options Méditerranéennes, 45: 483 pp.