



Le 8ème FORUM Causses méridionaux du Gard et de l'Hérault – Montpellier, France Fin septembre – début octobre 2002



Bob Gibbons

Les activités de l'EFNCP ont clairement démontré l'importance majeure du bassin méditerranéen et des régions de montagne pour une agriculture pastorale d'une grande valeur pour la conservation de la nature. Les paysages de la région méditerranéenne ainsi que leur faune et leur flore spécifiques gardent l'empreinte d'un pastoralisme ancien de plusieurs centaines d'années. Il n'est donc pas étonnant que beaucoup d'activités de cette région aient un rapport au pastoralisme.

Conscient du travail réalisé en France, l'EFNCP s'est associé au SIME (Service Inter Chambres Montagne Elevage) et à ses partenaires régionaux pour tenir sa prochaine conférence sur le territoire des Causses méridionaux et de la région Languedoc Roussillon.

L'EFNCP et le SIME estiment que, dans un avenir proche, l'abandon des pratiques extensives d'élevage notamment ovines et

Cirque de Navacelles, Causse de Blandas.

caprins sera un sujet majeur de l'Union européenne. Le Ministre français de l'Agriculture lors de la journée nationale « Contrat Territorial d'Exploitation » insistait sur le fait que « pour les Causses méridionaux l'élevage extensif est l'activité primordiale et en même temps la seule garantie à terme de l'entretien des milieux ouverts sur une grande échelle ».

Les secteurs ovins et caprins ont récemment fait l'objet d'une première réforme; ils seront très certainement des candidats pour une réforme plus substantielle d'ici 2006. Il s'avère que les trois quarts des élevages d'ovins et de caprins se situent dans des zones montagne et défavorisées, souvent d'une grande valeur au niveau de la biodiversité. Depuis, la mise en place au niveau français d'un groupe interministériel sur le pastoralisme est venue

conforter la nécessité de prendre en compte et de faire reconnaître les spécificités de l'élevage pastoral.

Localisation de la conférence

Les Causses méridionaux, territoire typique du sud du Massif Central et classé en zone de montagne, réunissent l'ensemble de ces problématiques et semblent un lieu idéal pour discuter de l'ensemble de ces problèmes. Sur ce territoire qui abrite largement des habitats de la Directive européenne et des sites Natura 2000, plusieurs projets dans le cadre du programme européen Life ont été réalisés et sont en cours sur le pastoralisme et le patrimoine écologique. Cette région est aussi représentative de l'ensemble des enjeux concernant le maintien d'une activité agricole respectueuse de l'environnement dans les zones de montagne de la région et intéresse de ce fait de nombreuses institutions comme l'Agence Méditerranéenne de l'Environnement, la DIREN, le Conseil régional, les Conseils Généraux, le Parc National des Cévennes, l'Office National de Chasse et de Faune Sauvage, les associations naturalistes, le Conservatoire des Espaces naturels du Languedoc Roussillon.

Thèmes de la conférence 2002

La conférence permettra de traiter des problèmes régionaux, d'exposer la situation des Causses, de la comparer à celle d'autres milieux semblables (par exemple à celle des Burren irlandais visités lors de la dernière conférence du Forum), et principalement les zones de montagnes et pastorales, et de tenter de trouver des moyens pour leur développement durable aussi bien au niveau régional que national et européen.

Les thèmes abordés pendant la conférence :

- Raisons pour les changements survenus dans les pratiques agricoles en matière d'élevage.
- Fonctionnement des systèmes d'élevage et rôle du pastoralisme dans l'écologie de la région.
- Lien entre le pastoralisme et la valeur patrimoniale et biologique de la région (analyse historique et prospective).
- Influence des plans de développement rural (PDR) sur la réalisation des objectifs de développement rural durable et

2002 Conference of the European Forum on Nature Conservation and Pastoralism Causses méridionaux of Départements Gard and Hérault – Montpellier, France Late September – early October 2002 – the '8th FORUM'

The activities of the EFNCP have clearly shown that the Mediterranean Basin, as well as mountain regions, are of major importance for pastoral farming of high nature-conservation value. The landscapes and the flora and fauna of many Mediterranean regions have been dramatically shaped by pastoralism for hundreds of years and, importantly, the traditional styles of pastoral management survive in many of the farming systems of these regions.

Aware of the large amount of work that has been done in France on this subject, the EFNCP is collaborating with the SIME (Service Inter Chambres Montagne Elevage) and its regional partners to organise the next conference near the Causses Méridionaux and in the Languedoc-Roussillon region.

The EFNCP and SIME believe that in the near future the abandonment of extensive sheep and goat breeding will be a major topic of concern for environmental groups in the European Union. The French Minister of Agriculture recently made an important statement. He said that for 'southern Causses extensive stock breeding is not only the main activity but the continuation of this management can be the only long-term guarantee for the open landscape at a large scale'.

The sheep and goat sector, recently the subject of an initial reform, is almost certain to be a candidate for substantial reform in 2006. At least two thirds of the sheep and goat farmers live in the Less Favoured Areas of Europe, very often areas of great importance for wildlife. Now, an inter-ministerial group of the French government on pastoralism is emphasising how important it is to take pastoralism into account and to show the major contribution it makes to landscapes, wildlife and the social and economic activities of rural areas.

The location for the conference

The southern Causses, at the southern edge of the Massif Central (classified as a mountain zone), shows all the typical problems of this type of region and is an ideal area to discuss these problems. Large areas of these Causses meet the criteria of the Habitats Directive and are Natura 2000 sites; there are several existing projects on pastoralism and on the ecological value of the region. Because of the importance of this topic for the development of a sustainable agriculture in the region, several agencies and groups are interested in being involved. They include, Agence Méditerranéenne de l'Environnement, the DIREN (regional environment authority), the Conseil régional, the Conseils Généraux, the Parc National des Cévennes, the Office National de Chasse et de Faune Sauvage (all governmental institutions), several local NGOs and the Conservatoire des Espaces naturels du Languedoc Roussillon.

Themes of the 2002 meeting

The conference will give an opportunity to show the situation as it is today on the Causses, and to compare it with other similar habitats (for example, the Burren in Ireland, where the last EFNCP conference was held). The discussions will focus on regional problems, future management possibilities and policy realities, both at national and EU scales.

The conference will be built around the following topics.

- Reasons for the changing practices of pastoralists.
- Functioning of stock breeding systems and the role of pastoralism in the ecology of the region.
- Exploring the link between pastoralism and the landscape and biological value of the region (analysis of historical and future trends).
- The influence of Rural Development Regulation 1257/1999 (EC) and Rural Development Plans (RDP). Will they achieve the aims of sustainable rural development and biological diversity of the region? How important is production support, and what is the prognosis as it becomes replaced with RDP measures?
- Agri-environmental measures in livestock rearing systems – options for different approaches in pastoral landscapes.
- The degree to which the CTE's (Contrats Territoriaux des Exploitations) have had an impact on the ground and the attitude of farmers towards them.
- Evolution and future viability of transhumance between Mediterranean lowland areas (Languedoc and Basse Provence) and the neighbouring mountains (Cévennes, Causses, Alpes, Pyrénées) and the the ecological implications.

Structure of the conference

The first day will be spent in the field visiting pastoral farms and characteristic sites on the Causses. This will provide a practical introduction to the themes of the conference.

There will be two days in the conference rooms in Montpellier, with lectures, discussions and workshops on the themes of the conference.

Lectures will be in French or English with simultaneous translation. The number of delegates will be limited to between 80 and 100. There will be participation of delegates from central and eastern Europe.

Organisation of the field trip

Visits to stock breeding areas and discussion of the different experiences of partners on the Causses méridionaux (Départments Hérault and Gard).

- Visit to a sheep farm with meat producing sheep on a transhumance site (migrating in spring from the garrigues near Montpellier to the Causse du Larzac further north).
 - Visit to a milk sheep farm on the Causse du Larzac (producing milk for Roquefort cheese).
 - Visit to a mixed farm with suckler cows – goat cheese production on the Causse de Blandas
- These visits will help to illustrate:
- how the livestock production systems function, the economics of these farms, and how the pastures and the transhumance sites are used;
 - the implementation of Natura 2000 on the Causses;
 - the implementation of agri-environmental schemes and of the CTE (Contrats Territoriaux des Exploitations) and problems encountered;
 - relationships between different partners (agricultural organisations, conservation organisations, collectives, etc.);
 - help available for territorial collectives to maintain and develop pastoralism.

Administrative arrangements

The conference is planned for the weekend of the 28th-29th September 2002; delegates should anticipate arriving on Saturday 28th and leaving on Wednesday 2nd October.

Bookings and registrations will be dealt with by SIME in France, but initial expressions of interest, or requests for further information, can be sent now to: Jean-Pierre Biber, Bureau NATCONS, Steinengraben 2, CH - 4051 Basel; tel: 00 41 61 271 92 83; fax: 00 41 61 271 04 74; e-mail: Jean-Pierre.Biber@natcons.ch

de diversité biologique des régions et adéquation avec la réforme de la politique agricole commune et de l'Organisation Commune des Marchés (OCM).

- Limites aux niveaux local et régional du règlement (CE) n° 1257/1999 du Conseil du 17 mai 1999 concernant le soutien au développement rural par le Fonds européen d'orientation et de garantie agricole (FEOGA).
- Conditions d'application des mesures agroenvironnementales dans les systèmes d'élevage.
- Impact des CTE (Contrats Territoriaux des Exploitations) sur le terrain et attitude des agriculteurs par rapport aux CTE.
- Evolution de la pratique de la transhumance entre les plaines du midi méditerranéen (Languedoc et Basse Provence) et les zones de montagne limitrophes (Cévennes, Causses, Alpes, Pyrénées) – implications écologiques.

Structure de la conférence:

Une première journée sur le terrain (visite d'exploitations pastorales et de sites sur les Causses méridionaux) permettra une introduction concrète à la conférence sur l'ensemble des thèmes envisagés ;

Deux jours de travaux en salle à Montpellier suivront, de présentations, discussions et tables rondes sur l'ensemble des thèmes de la conférence.

Les présentations pourront se faire en français ou en anglais, avec traduction simultanée. La participation sera limitée à 80 à 100 délégués, incluant aussi des personnes venues des pays de l'Est de l'Europe.

Organisation prévue de la visite de terrain:

Visites de sites d'élevage et présentation d'expériences des partenaires sur les Causses méridionaux de l'Hérault et du Gard

- Visite d'une exploitation ovine allaitante en site de transhumance (élevage des zones de garrigues du montpelliérain transhumant sur le causse du Larzac héraultais)
- Visite d'une exploitation ovine laitière sur le causse du Larzac héraultais (rayon Roquefort)
- Visite d'une exploitation mixte bovins allaitants – caprins fromagers sur le causse gardois de Blandas

Seront notamment présentés à l'occasion des visites:

- Fonctionnement et économie des élevages, utilisation et part des parcours
- Mise en œuvre de la procédure Natura 2000 sur les Causses méridionaux
- Mise en œuvre des mesures agroenvironnementales et du dispositif des CTE (Contrats Territoriaux des Exploitations)

et problèmes rencontrés

- Relations de partenariat entre les différents acteurs du territoire (organisations agricoles, associations naturalistes, collectivités, etc...)
- Soutien des collectivités territoriales au maintien et au développement du pastoralisme.

Organisation administrative

La conférence est prévue pour le week-end du 28 / 29 septembre 2002; les participants arriveront le samedi 28 septembre et repartiront le mercredi 2 octobre.

Les réservations et l'enregistrement seront pris en charge par le SIME, en France. Pour exprimer votre intérêt et

avoir plus d'informations vous êtes priés de vous adresser à :

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PASTORAL: the extent and characteristics of European extensive livestock systems

Readers of *La Cañada* will be more than aware of the precarious viability of extensive livestock systems and, if they continue to decline, the subsequent threat to the cultural landscapes and semi-natural habitats that they have created and maintained. Rafael Caballero's article in *La Cañada* 14 described the problems faced by extensive sheep farmers in the Spanish region of Castilla-La Mancha. Whilst some of these are social, an overriding one is the inability of the Common Agricultural Policy to recognise that land-less shepherds depend on the practices of arable farmers. A detailed analysis of the cereal-sheep system by CSIC in Madrid has resulted in the development of simple proposals to modify the regional regulatory framework so that support payments can be better targeted to allow the continuation of sheep grazing in the area. The clear and optimistic message of Rafael Caballero's article is that, armed with a detailed system-based analysis of a livestock system, it is possible to come up with a practicable policy solution that should maintain viability and the nature conservation value.

However, there are a wide variety of regional livestock systems in Europe and this diversity will increase with the proposed eastward expansion of the EU. The problem is that policy makers will not wait for each and every one of these systems to be analysed and evaluated in detail. Urgent action is needed now to describe the extent and distribution of the systems we value most, explain the relationships between pastoral management practices and nature-conservation value, and show how to develop policies which can maintain this value in a realistic way. This process will inevitably reveal all sorts of gaps in our knowledge and understanding, but this is an essential part of the process. Ideally, this should have been done already at a rate that kept pace with, or preferably overtook, policy development.

The PASTORAL project

The EU-funded PASTORAL project is focusing on extensive livestock farming systems with the aim of meeting these requirements and identifying some of the

Case study 1: cattle farms in the Sierra de Guadarrama mountains

The Sierra de Guadarrama mountains lie north of Madrid and contain a range of habitats from evergreen oaks in the foothills to pine forests and alpine pastures on the higher slopes. The area has been used for sheep and cattle grazing for many centuries. Transhumance is still practised and stock are seasonally moved between lowland meadows, wood pastures and alpine pastures. Land-use has changed significantly in the last 50 years: mountain slopes have been afforested to improve water retention and many valleys have been flooded to create reservoirs. Most grazing systems have undergone intensification whilst others have been abandoned completely. The numbers of sheep have declined markedly and this has led to serious scrub encroachment.

Delegates visited a communal summer pasture, two farms and, following a lunch of local produce, had the opportunity to pose questions to a panel of local experts. Details of the agricultural characteristics of cattle systems visited and the problems they faced emerged throughout the day, as did some of the consequences of management practices on the ecology of the area. However, it was not always easy to ascertain the current ecological value of the systems visited.

Some of the key points are listed below.

- Interestingly, all the cattle systems visited integrate extensive grazing with intensive

most important gaps in information and understanding, the forces causing change (social, economic and policy-driven) and priorities for future research. The project is addressing these issues by bringing together policy experts, ecologists, socio-economists, agricultural extension workers and livestock farmers for a series of four meetings/workshops (see also Notice-board, *La Cañada* 13). The first meeting was held in July, in the village of Soto del Real, central Spain, and brought together 35 experts from 12 different countries includ-

(housed) finishing units. A complete switch to sedentary systems has not taken place because the rental cost of pastures here, over 70% of which are in communal ownership, remains low.

- There was some disagreement amongst the farmers as to whether local breeds, such as Avilena cattle, produce better quality meat than cross-breeds. However, all agreed that cross-breeds (using Limousin or Charollais bulls) give better returns due to their ability to gain more weight during finishing. Concerns were raised that the genetic stock of local breeds is dwindling, a problem related to the decline in herding practices on common land.
- This decline, a result of increased labour costs, has resulted in over-grazing of some pastures and under-grazing of others. Similarly, trees on one of the farms are no longer pruned to provide additional fodder, and labour costs were given as the main reason for the rapid decline in sheep farming in the area.
- Viable herd sizes range between 60 and 70 animals, but over half of all the farmers in the region are part-time and own between ten and 40 animals. Only farmers that earn over 35% (equivalent to 32 cows) of the farm reference income (the theoretical average income in the sector) are eligible to receive grants for environmental improvements.

Livestock subsidies help to maintain extensive cattle rearing.



Sally Hubbard

Case study 2: sheep systems in the Carpathian Mountains

A staggering 6.3 million sheep in Romania are currently owned by subsistence farmers. On average these farmers each own less than 20 sheep and one or two cows. In the spring, sheep are gathered together in large flocks by professional shepherds and taken 10-50km away to the high summer pastures. The farmers pay a grazing tax on each of their animals to a shepherd camp organiser who then uses the money to pay for the rent of the pastures and the wages of the shepherds. Cheese provides the main source of income for the shepherds, although a certain percentage is returned to the farmers. The Romanian Carpathians have the highest density of large carnivores in Europe and at 2% per year, the loss of livestock, and therefore shepherds income, is significant.

Each farmer also owns between 2ha and 3ha of land, most of which is dedicated to hay production. Hay is cut by hand and the traditional high labour input and low or non-existent chemical and mechanical inputs have maintained exceptionally high nature-conservation value habitats and staggeringly beautiful cultural landscapes.

During the excursions, delegates had the chance to pose questions to a shepherd camp organiser, local subsistence farmers and the director of a state-owned farm. The main impressions gained from these visits are listed below.

- The shepherd camp organiser described the functioning of the camp and provided a snack consisting of the five different cheeses produced on site. Whilst all agreed that the cheeses were superb, it was doubted that the camp would meet the stringent requirements of the EU's hygiene and welfare standards, reinforcing the prediction that accession has serious implications for Romanian livestock systems and nature conservation.
- The state-owned farm visited has the capacity for 14,000 sheep but currently holds 2,000. Such systems presently comprise less than 5% of the national sheep flock. Despite the significant difference in scale of the operation compared to the shepherd camp, it was noted that the hay produced on the farm was still species-rich due to the low inputs of fertilisers and pesticides. Although possible to see at first hand at the farms visited, it was difficult to ascertain the general state of knowledge on the condition and nature-conservation value of Romanian pastures in general. Understandably, nature conservation is not high up the political agenda in Romania and only the rarest habitats such as bogs are afforded protection.

However, the Romanian NGO 'TER' have been actively lobbying for agri-environment schemes and developing pilot agri-environment schemes.

- The discussion with local subsistence farmers particularly illustrated the dependency of livestock systems on incredibly high and arduous labour inputs. How can the social 'costs' of maintaining these systems be addressed and the essential management practices supported in the future to ensure that habitats of high nature-conservation value are not lost?



Romanian semi-subsistence agriculture – would it pass the EU's viability test (see page 10)?

Sally Hubbard

ing Poland, Romania and Slovakia. The second meeting was held in Romania in October when over 30 people from ten European countries travelled to the village of Moieciu de Sus, in the Carpathian Mountains. Both meetings borrowed on the successful format of recent EFNCP conferences by placing emphasis on visiting farms and taking delegates in to the field to discuss issues *in situ*. These excursions and field discussions then provided the context for, and greatly helped, the subsequent indoor sessions.

Main discussion points

The typology approach: a way forward for the project

Having taken the decision to develop the project around livestock systems (for all the reasons stated above), a mechanism was needed to categorise these in order to make it clear in which ones PASTORAL was really interested. To do this, at the meeting in Soto del Real, a number of variables were agreed upon which, through the use of a dichotomous key, could produce groups of farms which truly reflected the focus of the project (extensive production in areas of high nature-conservation value).

The typology that evolved at that first meeting is on the PASTORAL website (details below). It is planned to refine this further as the project proceeds, but even in its embryonic state it provides a rationale

Indicators of pastoral areas of high nature-conservation value

- 1 The livestock density on main forage area
- 2 The percentage self-sufficiency in providing energy deficiency requirements of semi-natural vegetation
- 3 The percentage of the main forage area that is semi-natural vegetation
- 4 The proportion of the energy deficit produced from conserved fodder or from forage
- 5 Whether seasonal or continual use of pastures
- 6 Whether the livestock are shepherded, hefted or free-ranging

for selecting certain farm types (and not others) for further investigation.

The next step is to explore questions about how these farms interact with the environment (how agricultural necessity creates ecological-value), their dynamics, their history, their future response to policy and the relative importance of a wide range of other factors such as age of farmer, market effects and social pressures.

Real life is very complex. Typologies are a subtle and effective way of allowing us to think about it, and one of the beauties of a good typology is that it really is a reflection of the real world – it has a robustness that belies the simplicity of the questions within it.

Identifying ecological links

It is interesting that identifying good

examples of how pastoral systems (and their component management practices) maintain ecological conditions has proved one of the more difficult tasks. The question was even asked in one discussion as to whether many of the ecological relationships are too nebulous for this to be done at all. In response to this challenge, Axel Wolff provided an example of the quite subtle relationship between sheep management and the steppe habitats of the Crau, in southern France. Several different types of pasture are utilised in this transhumant system. Sheep are moved from mountain meadows in the Alps to the Crau area in November and stay until July, moving from cut hay fields to fodder crops, fallow land and on to the natural steppe pastures in April. This long established grazing management provides a variety of conditions needed by steppe plants, invertebrates and birds (see article on page 6).

The relationship between more intensively managed components (arable in the case of the Crau) with (often large) areas of very extensively managed pastures has emerged as a recurring theme. A similar juxtaposition of management practices was seen in the cattle production systems of the Sierra de Guadarrama, in the same way that Alpine dairy systems utilise natural pastures in the mountains but rely on the relatively intensive production of silage in the valleys. This emphasises the

importance of understanding all aspects of the production systems and not just focusing on 'habitats' of high nature-conservation value.

Accepting the inevitability of change

This more holistic approach to understanding the nature conservation value of pastoralism raises another important issue – that too often farming is viewed by conservationists as being static. The reality is that systems are dynamic and are always changing – some more rapidly than others and not always for the same reasons. It is, therefore, important to focus on identifying the limits of tolerance of these changes within which the ecological aspects that we currently value will be maintained. If we can do this we can be more relaxed about some management changes and concentrate on those that really will disrupt the ecology of the system. This point is particularly pertinent to central and eastern European countries. Marija Markeš described some of the measures that have been put in place in Triglav National Park, Slovakia, for buffering the changes that will occur during accession

into the EU; for example, small dairies have been constructed and training has been given to allow shepherds to meet stringent hygiene regulations.

Perhaps not surprisingly the systems visited in Romania have changed little over the last 100 years or more despite many national policy shifts. The social element plays a major role in determining whether these extensive livestock systems continue in their current form. In fact for many of them they only survive because cultural aspects resist the incentives of modern agricultural policy. In some ways this is even more worrying because, as one delegate commented, the culture is like a dam holding back the pressure of policy and rationale economic response – when it gives way the rate of change will be rapid.

Conclusions

A remark made during the first meeting was that, losing an extensive livestock system is analogous to losing a language. If you have to reintroduce a system it will never be as rich as one that has been passed down (not to mention the greater cost of reinstatement compared with main-

tenance). The PASTORAL meetings in Spain and Romania have successfully set in motion the process of consolidating a better understanding of pastoral systems. One key point was mentioned several times in a variety of contexts; that farming systems are complex and diverse yet need to be maintained by simple, flexible and appropriate policies. That has to be the principal target.

More details and information on how to join the PASTORAL network are available on the PASTORAL website, <http://www.sac.ac.uk/envsci/external/Pastoral/default.htm>, or from Sally Huband at s.huband@au.sac.ac.uk.

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Noticeboard

European Parliament calls for increased support for mountain areas

The European Parliament has recently published a report entitled *25 years' application of Community legislation for hill and mountain farming*, which clearly sets out how more support should be provided for mountain areas. The Parliament stated that the catalyst of this report was a perceived lack of effectiveness of previous measures in reversing the trend of land abandonment in mountain areas.

Some suggestions for policies to support mountain areas are set out in the report. These include:

- improvement of the role of Structural Funds in mountain areas, through substantially increased funding;
- extended use of Second Pillar measures in mountain areas, such as organic farming, processing and marketing of high quality products and use of 'Protected Designation of Origin' labelling;
- long-term continuation of Less Favoured Area payments to hill and mountain farmers;
- inclusion of an integrated plan for structural support for mountain regions in the mid-term review of the CAP;
- continuation of the general milk quota regime for hill and mountain farmers, and exploration of the possibility of allowing them a special

exemption from general penalties for over-production;

- consideration of allowing exemptions from State Aid rules for mountain areas in candidate countries, to enable special support for businesses in these areas; and
- a recommendation for the Commission to develop a complete EU plan for the sustainable development of mountain regions in the EU and applicant countries, which includes safeguards for agriculture.

The European Commission is not obliged to act upon the report. However, in nearly all previous cases in which the Parliament has made similar requests, the Commission has responded.

The report can be downloaded at: <http://www.europarl.eu.int/meetdocs/committees/agri/20010709/431666en.pdf>

Europe's Rural Futures – Research project on RDPs

In preparation for the mid-term review and future reform of the CAP, the Land Use Policy Group (LUPG) of the GB countryside, conservation and environmental agencies and WWF Europe have sponsored a pan-European research project on the implementation of rural development programmes supported under the EU's Rural Development Regulation (RDR) and the SAPARD pre-accession instrument. The study will be carried out by the Institute of European Environmental Policy (IEEP), the

Centre for Rural Economy (CRE) at Newcastle University and the University of Leeds. The principal aims of the project are to compare approaches to planning, implementation and monitoring of RDR and SAPARD programmes, and assess how far they are delivering/can deliver a sustainable balance of economic, social and environmental benefits. The study will examine the extent to which rural development programmes are promoting integrated and sustainable rural development, the protection and enhancement of biodiversity and the coherence of rural development policies with environmental legislation.

National researchers have been employed in eight core countries (Austria, Poland, Hungary, Germany, Sweden, France, Spain and the UK). It is intended that the information gathered should inform and influence reform of the RDR and to promote a European debate on policies needed to support sustainable rural development and other relevant policies.

The project will build on the scoping project 'The Nature of Rural Development' carried out in 2000, which compared the meaning of rural development with the institutional structures for its implementation in ten European countries. The national reports and a comparative pan-European study were produced for WWF Europe and the LUPG agencies by IEEP and the CRE, and can be downloaded at: www.panda.org/resources/programmes/epo/initiatives/agridev.cfm#nature

The study will include a wide

range of consultations in the national studies and at European level with key stakeholders. The final national reports will be produced, and a comparative pan-European report will be completed, by the end of 2002. A working paper of policy lessons and recommendations will also be produced as part of the project. For further information please contact Harriet Bennett at IEEP (hbennett@ieeplondon.org.uk).

Agri-environment 'know-how' publications

As part of an international project entitled 'Building know-how for the implementation of agri-environment schemes in Central and Eastern Europe' that is funded by DG Environment of the European Commission and the Dutch Government's PIN-MATRA fund, two publications have been produced by IEEP and the Avalon Foundation.

- A directory of contact details of 'experts' in agri-environment programme development in CEE and the EU, available for short telephone consultations and/or able to provide information on schemes in their own country.
- A colour leaflet entitled *The opportunities and benefits of agri-environment schemes*, which is aimed at decision-makers in CEE, and contains details of the aims, status and design of schemes in the EU and CEE. If you would like copies please contact Harriet Bennett at IEEP (hbennett@ieeplondon.org.uk).

Ecological consequences of pastoral practices in the Crau



Bob Gibbons

Since the Roman Era, and probably as far back as the Neolithic, the Crau has been grazed by sheep. This 600km² alluvial plain is located in Provence, south-eastern France, approximately 50km north-west of Marseille. It is the ancient delta of the Durance river, where the natural habitat is a stony, semi-arid steppe: the 'coussoul'. Driven by economics, the agricultural development of this arid and sterile land began as early as the 16th century, when the first irrigation schemes initiated the cultivation of the steppe, mainly for hay-meadows which now cover 120km². After World War Two, highly intensive crop production began, such as peach-tree orchards and greenhouse market gardening. As a result of irrigation and urbanization, only one-sixth (about 100km²) of the original steppe now remains.

A complex grazing system

Despite all the changes, pastoralism remains a major activity in the Crau: about 100,000 'Mérinos d'Arles' sheep still graze in the area. This breed, created at the end of the 19th century, is a cross between the Spanish Merino and a local rustic breed. At present, the grazing system depends on the exploitation of three main types of pasture. In autumn (lambing) and winter, the sheep graze on the rich hay-fields of the Crau, renowned for the high quality of the hay they produce. In March, the sheep are moved to the 'coussoul'. Because this is now limited, some herds spend the spring on fallows, most of which are the result of abandoned melon fields from the 1970s. In some cases, dry crops of cereal and/or

Vegetation patterns created by shepherding practices create breeding niches for different steppe birds.

legumes are also grazed in the spring as complementary forage. In mid-June, the herds undertake a 200-450km transhumance (by truck) to the mountain pastures of the Alps, where they stay until October. Grazing pressure varies greatly between the different pastures used, from less than 1 sheep/ha on mountain pastures, 2-4 sheep/ha on steppe and fallows, up to 8-12 sheep/ha on hay-fields and 20-25 sheep/ha on dry crops.

Pastoralism and nature conservation

Over the centuries, pastoralism shaped the composition and structure of the vegetation of the Crau, and thereby of the entire ecosystem. The Crau shelters a community of steppe birds which is unique in France, with the only breeding populations of pintailed sandgrouse *Pterocles alcata* and lesser kestrel *Falco naumanni*. The Crau also holds the largest French populations of little bustards *Tetrax tetrax* and calandra larks *Melanocorypha calandra*. The arthropod community is also very diverse, and includes an endemic wingless grasshopper. The flora holds few rare species, except for a fern that grows inside wells and an endemic *Teucrium* found in a single temporary marsh at the border of the steppe, but the plant community as a whole is unique. Recognition of the high nature-value of the steppe only began in the early 1970s, when naturalists became

alarmed by the rate at which the steppe was being destroyed. In 1990, the remaining steppe patches were declared as Special Protection Area (SPA) under EU Regulation 79/409, which in 2001 led to the creation of a natural reserve over 75km² of steppe. Because of the obvious role of extensive pastoralism in the maintenance of the ecosystem, conservation programmes immediately sought ways to retain this slowly but steadily declining activity. Agri-environmental measures were thus developed through the application of EU Regulation 797/85 and of a LIFE Programme. These programmes, developed jointly by nature conservation agencies and local and regional agricultural agencies, rested on per-acreage incentives offered to shepherds (Regulation 797/85) or to the shepherd and the landowner (LIFE) to maintain extensive sheep grazing on the steppe. Because sound conservation measures could only rest on a precise understanding of the relationships between pastoralism and the ecosystem, several research programmes were conducted jointly with these measures. Due to the importance of the area for bird conservation, much ornithological research has been carried out in the Crau. Two main questions have been the focus of study:

- 1) What is the influence of grazing practices on the ecology of birds that breed in the steppe?
- 2) How are these species affected by the evolution of land-use at the landscape scale?

Examples of some answers obtained from these studies are detailed below.

1) Shepherding practices and birds

Although grazing is a major factor shaping the ecosystem, it is often difficult to obtain precise information on how it influences bird populations. This is due not only to the difficulty of understanding the ecology of steppe birds, but also to the complexity of the grazing activity in itself: grazing pressure, the timing of grazing and the way sheep are kept on the pastures all affect the vegetation in different and complex ways. This is complicated further by the fact that studies of grazing systems, of plant communities and of birds are usually conducted at different spatial and time scales. One of the studies conducted in the Crau illustrates how complex the relationships between the grazing system and bird communities may be.

Holdings on the steppe usually cover several hundred hectares, which are grazed by herds of 500-2,000 sheep. Each holding has a sheep barn, located more or less centrally, where the sheep are kept at night. Each herd is guarded by a single shepherd, who determines where the

sheep go during the day. Because of the central function of the barn (where the sheep may also return to at midday), grazing pressure and nutrient input decrease from the barn to the edge of the holding, creating a marked spatial heterogeneity of vegetation composition and structure within each holding. In addition, holdings in the Crau are not enclosed, but are delimited by landmarks such as stone piles. To maintain good relationships between neighbours, the shepherds do not allow their sheep to graze beyond the limits of their own holding, and to prevent this they have to avoid grazing too close to the boundaries. Because of the difficulty of turning the flock, the corners of each holding are little grazed. It is this grazing system, which increases the spatial heterogeneity of the vegetation, that promotes the diverse bird community. It has been shown, for instance, that little bustards breed preferentially in higher vegetation near holding borders, whereas stone-curlews *Burhinus oedicnemus* and especially pin-tailed sandgrouse nest and feed in shorter vegetation, sometimes less than 100m from barns.

2) Steppe birds in the landscape

The evolution of the Crau's landscape during the 20th century had very contrasting consequences on the fauna. The populations of sandgrouse and calandra lark have declined because of the reduction and fragmentation of the steppe, and their present conservation status is a major

concern, with only about 100 breeding pairs of sandgrouse and 60 pairs of calandra lark. The endemic grasshopper, whose movements are very reduced as it is flightless, has also been strongly affected, and only remains in the largest steppe patches. However, other species have been little affected by these landscape changes, or may even have benefited from them. This is particularly the case with the little bustard, which only seems to have colonized the Crau in the last 100 years. Recent research suggests that bustards have benefited from the development of crops such as legumes and hay-fields at the periphery of the steppe and the grazed fallows. The fallow and extensive crops areas are used (with the steppe) for breeding, but they are also very important winter feeding habitats. As a consequence, bustards are more abundant where the landscape is a mosaic of steppe patches, extensive crops and fallows, than in areas where steppe is dominant in the landscape. Other steppe-nesting species in the Crau, such as the stone-curlew, show similar distribution patterns.

The future of the Crau

These findings have important implications for bird conservation in the Crau. Firstly, the influence of shepherding practices on steppe birds makes them an essential component of the management of the nature reserve. However, management plans will need to reconcile conservation imperatives with the economic and social evolution of pastoralism. Present trends

show a decrease in the number of shepherds and an increasing pressure to fence holdings. Because of the predictable influence on birds of such management changes, they will need addressing in the near future.

Secondly, the influence of the landscape mosaic on the distribution of species, such as little bustard and stone-curlew requires that the nature reserve must not be managed independently from the rest of the landscape. Special attention must be paid to the preservation of extensive habitats linked to pastoralism, such as the fallow and grazed crops, which are progressively being replaced by more intensive farming activities less suitable for steppe birds. Complementary measures must therefore be developed to sustain the pastoral system as a whole, which will require protection not only for the steppe, but also for the different types of pastures used in the Crau and in the Alps. To achieve, this the ecological objectives will have to be integrated with appropriate economic and social developments by the pastoralists.

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Problems of free-ranging livestock systems in Romania

Many of Romania's agricultural systems could be described as 'low-intensity', particularly given the reduction in inputs which resulted from the breakdown of state-controlled farming after the fall of Ceaucescu. When compared with much of north-western Europe, the high biodiversity value associated with aspects of Romanian peasant agriculture, in particular hay meadows, old orchards and so on, is very striking (see also *La Cañada* 4).

Some of these farming systems involve not only the use of enclosed fields, but areas of open semi-natural pastures, particularly in the Carpathian mountains, which form the spine of the country. For example,



The local grey steppe cattle have been replaced by free-ranging Holstein cross-breeds, here feeding next to reedbeds in the Danube Delta.

in many villages 'house cows' are grazed communally on mountain grasslands during the day and housed in their home byre every night.

However, in this article we describe not these systems, interesting though they undoubtedly are. We concentrate rather on the three surviving forms of truly pastoral systems which are to be found in Romania's marginal areas. These are characterised by free-ranging stock, in other

words, stock which is not housed at the farm every night. They combine low economic viability with high ecological, socio-economic and cultural importance.

Free-ranging cattle and pigs in the Danube Delta

The Danube Delta is a wetland system of global significance. Within the Delta, there are large tracts of permanently or seasonally dry ground. In these areas, peasants

keep a variety of domestic animals. The majority of the stock, particularly the cattle and the pigs, are managed in free-ranging systems – the stock are born on and spend the whole of their lives on the Delta. The swineherds keep their animals familiar with humans by feeding them maize about once every two weeks. But to a large extent the animals are allowed to follow their natural foraging behaviour patterns. Domestic livestock have thus been an integral part of the Delta's terrestrial ecosystems for centuries.

The local races which used to dominate the area – Grey Steppe cattle and Stocli and Mangalitzza pigs – were adapted to local environment in terms of food, diseases, and so on. A foolish decision in the 1960s led to the introduction of some foreign breeds (Santa Gertrudis, Red Poll, Holstein, Large White). By the 1970s, when it was decided to conserve the local breeds, it was too late. However, free-mating on the Delta (even with wild boar) has inevitably produced cross-breeds, so that natural selection is interestingly moving the stock in the direction of the old adapted breeds once more.

The Danube Delta is also one of Europe's premier nature conservation sites. Falling mostly within Romania's borders, it is a National Park, a Biosphere Reserve and a World Heritage Site. The Park's vast area is divided into three zones: Strictly Protected Areas (506km², 8.7%); a Buffer Zone (2,233km², 38.5%) and an 'Economic Zone' (3,061km², 52.8%) with 28 settlements organised into seven villages and one town. Domestic animals are only permitted within the Economic Zone, where they do not fall under the jurisdiction of the Park.

These Park rules, together with a reduction in the area of the Economic Zone, a dramatic decrease in the number of inhabitants (from some 22,000 in the 1970s to around 15,000 in the 1990s) and the general underplaying of the role of domestic animals in the Delta ecosystems, have combined to create problems for the future of free-ranging systems of cattle and pigs in the area.

It seems clear that free-ranging livestock systems can and should be integrated into the overall management of the Delta, whether for nature-conservation, landscape or socio-economic reasons. However, considerable research needs to be undertaken on the details of the system

and, in particular, how it links into the overall Delta ecosystem. This will almost inevitably necessitate a re-evaluation of the extent to which domestic stock should be excluded from the Park's core zones.

Pendulation of sheep between alpine and subalpine pastures and the home village

In Romania, sheep production is an important traditional activity. The sheep are kept mainly in marginal areas in a variety of herded systems. Some 70% of sheep are owned by small landholders (2-3ha and up to 20 sheep, with an average of only 4.9 ewes). The sheep are in the care of the peasants during the winter and through lambing (2-4 months per year). For the remainder of the year, the sheep are gathered in large flocks tended by professional shepherds. These flocks, which contain some 100 ewes in spring and autumn and 300-500 in summer, have about 100 sheep per shepherd. They are either organised co-operatively or are run as a commercial operation by a few enterprising individuals.

Some 60% of the country's sheep – mostly those owned by the inhabitants of the lowlands and hills fringing the high mountains – are moved short distances (10-50km) for summer grazing in alpine and subalpine areas. This system is regarded in Romania as being different from long-distance transhumance, which has its own peculiar problems. The practice has no common English name, but the term *pendulation* is in line with Romanian usage.

The Romanian alpine and subalpine pastures used for pendulation lie between 1,000m and 2,500m and cover an area of some 2.7 million ha. Although they contain some villages and relict terraces up to about 1600m, they are now mostly uninhabited. The shepherds therefore take with them some cattle and pigs for food and asses and horses for transport. This system therefore has some similarity with transhumance proper (see below).

At present, the pendulation sheep production system is experiencing considerable difficulties. Before 1990, the wool price was strongly supported by the state. Since then, the wool price has dropped to world market levels. The small income derived from ewe milk products and lamb meat, which is limited by the small purchasing power of the people, has to be

divided among retailers, processors, professional shepherds and small peasant owners. The last receive the least, bearing the burden of any losses. Romanian forestry statutes also impact on the passage of the flocks to the alpine pastures.

As a result of all these factors, the number of sheep dropped from 18.6 million in 1986 to 8.5 million in 2000. The negative socio-economic and environmental effects are already visible. In the absence of appropriate policy measures from the state, the situation will only get worse in the near future. The mountain landscape and the wildlife it supports are already being affected.

In the short term, the problem is how to slow down the process of abandonment of small-scale sheep-keeping by peasants by decreasing their economic losses. Two approaches to this problem would be to reduce the rent for the pastures and to increase the income from dairy produce and lambs.

The complication is that sheep milk systems, which are labour-intensive, utilise pastures in an extensive manner, so that it is difficult to increase production. It is also rather doubtful that the state will be able to subsidise sheep production. In the medium to long term, one possible solution is to stimulate the professional shepherds to become the owners of large sheep enterprises in their own right.

Such a development would also affect the forage conservation aspects of transhumant systems in their widest sense. The 'cut and carry systems' of hay production on the hill grassland, used currently by small sheep enterprises for the wintering of their flocks, is rather costly. Secondly, at least in the mountain areas, it is difficult to increase milk productivity by the intensification of production.

Transhumance

Transhumance is a long-established system in Romania. It was practised by some 40 villages, clustered in four areas of the southern and south-eastern Carpathians (see map). Each village used to have some 100,000 sheep and transhumant flocks were moved very long distances to their wintering grounds – the Crimea and North Caucasus, Bohemia, Istria, Bosnia and the Danube flood-plain, to give just some examples.

Transhumance is thought to have played a great role in the linguistic and national cohesion of the Romanians over the centuries. It also contributed to the spreading of Romanian sheep husbandry methods (Matley 1968) and even Romanian sheep breeds over a vast swathe of central, eastern and south-eastern Europe (Drăgănescu 1997, 1998). In at least nine countries, scattered throughout this

An analysis of the Romanian sheep flock (September 1997)

Types of owners	No. of owners	No. of ewes		% of sheep
		Total	Per owner	
Peasants (1-20 ewes)	1,075,392	5,270,500	4.9	67.1
Professional shepherds (20-200 ewes)	40,545	1,813,449	44.7	23.09
Medium-sized enterprises (200-500 ewes)	1,120	302,722	270.3	3.85
Large enterprises (500 ewes)	369	467,407	1,266	5.9



Map of Romania, showing transhumance centres in relation to the Carpathian mountains.

region the main sheep breeds used to be called Vlach/Wallachian (a general nickname for Romanians and the linguistically-related Aromanians throughout the Byzantine empire).

The transhumant system has not been the subject of scrutiny from either an animal production or ecological perspective. This is primarily because the traditional system of sheep production was regarded chiefly as *passé* and the concern of ethnologists, geographers and historians rather than of animal production scientists. Also, the details of the practice were closely guarded by the shepherds. It was never possible even during communist times to know the exact size of the flock, their system of grazing on the roads, or the productivity. (Nevertheless, shepherds were the only official millionaires in Ceaucescu's time!) What is clear is that the transhumant shepherds always relied on marginal resources, for example, alpine pasture in summer, pastures en

route in autumn and spring, the fallows of arable agriculture or marginal pasture in winter. This was the secret of their economic efficiency.

Transhumance was in continuous decline in the face of 20th century agricultural and social development. Now only a few villages, mostly from the Sibiu area, practice transhumance, but then only within the borders of Romania.

Two forces acted against transhumance. Firstly, shepherds have a difficult life and are also socially isolated. Secondly, there is an antipathy towards transhumance on the part of arable farmers which results from the damage caused to crops along the routes taken by the flocks as they travelled.

There are, however, a number of arguments in favour of conserving and developing transhumance. First, it is a system which works with nature. It is highly integrated into both semi-natural and agricultural ecosystems. In fact, the conservation and use of alpine and

subalpine areas in Romania will become very difficult in the near future in the absence of transhumance.

Secondly, transhumant sheep businesses are large-scale enterprises with economies of scale which produce quality goods for which there is a market demand, even if the market is at present somewhat weak and chaotic.

Thirdly, in Romania, unlike in Hungary or Greece, for example, the mountains do not form the edge of the country but are its heartland. Romanians and their cultural relatives thus have an important link to sheep and shepherding and to the landscape which they produce. The conservation of the transhumance system is therefore, at least in Romania, of historical and cultural importance.

How should support be directed? Firstly, it will be necessary to organise a number of economically-strong, vertically-integrated associations of transhumant shepherds. This will require some financial assistance, at least initially. Secondly, the difficult working conditions of professional shepherds must be improved. And lastly, attention must be given to easing the conflicts between settled agriculturalists and the transhumant flocks.

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Sheep premium settlement

After a few tense moments, the EU Agriculture Council has finally agreed to changes to the Sheep Annual Premium, thanks to the charring skills of the Belgian presidency.

The reform was almost derailed by the European Parliament's recommendation for an unrealistically high level of

premium (over-riding the more sensible recommendation of its own committee), along with the split in the Council between those who wanted to pay more (notably the Irish) and those who wanted to pay less. Last minute agreement, however, allowed the Commission to achieve more or less what it originally proposed just in time for the 2002 claims to be made as usual, in early February.

The premium will now be 'fixed' like the other major support measures and not dependent on market prices during the claim year. For 2002, the payment level for the basic premium will be €21 for meat ewes, with a €7 top-up in the Less

Favoured Areas. Goats and dairy sheep will get 80% of the basic premium as previously.

More interestingly in the long term, a national envelope has been introduced into the regime for the first time. The Commission has specified a limited (but fairly wide-ranging) set of measures on which it can be spent, from a simple top-up to the premium through to marketing (see box). The way in which the envelope is spent can change between scheme years.

The small size of the top-up – at present it is only the equivalent of €1 per premium claimed – will no doubt limit how Governments may choose to use it, but

already in the UK there are differences emerging. England may use it to fund a quota buy-back, while there is some interest in Scotland in taking the marketing option.

Even more interestingly, the Commission has also allowed Member States to impose a €1 modulation on the basic premium which can also be used on the national envelope measures. This modulation may be imposed on a regional basis.

If used imaginatively, these provisions represent a very significant opportunity for greening a 'first pillar' measure from within. As such, they offer a clear alternative to the preferred strategy of many policy-makers of creating an environment-friendly, WTO-acceptable CAP by shifting environment payments out of the production sector and completely into the Rural

Development 'second pillar'.

Keeping funds within the sectoral regimes, allowing local targeting through subsidiarity, while giving Member States clear guidance on their use may yet prove to be a more successful approach than the very much unproven, 'second pillar' rural development option.

The leaking of support away from marginal, but high nature-value farming systems is a clear danger of the general modulation system (particularly in the brutal form implemented in the UK). Perhaps this is a way of focusing minds on what we really want from those systems and trying to direct payments towards that.

At least no one can disagree with the verdict of the Scottish farming press (*The Scottish Farmer*) that the sheep sector faces interesting times ahead. Whether it will be

National Envelope Measures

Payments shall be made annually and may be made on a regional basis; they may include the following (but could include other payments subject to certain conditions and objective selection criteria):

- 1 Payments to producers engaged in specific production related to quality, importance to the local economy or protection of the environment.
- 2 An addition to the basic premium.
- 3 Support for restructuring or for producers' organisations.
- 4 Area payments.
- 5 Voluntary quota buy-up schemes.
- 6 Support for improving and rationalising the processing and marketing of sheep- and goat-meat.

a 'Great Leap Forward' remains to be seen.
Gwyn Jones

EU publishes strategy for integrating CEEC states

At the end of January, the European Commission released its plans for the introduction of CAP payments into the countries which are to accede in 2004.

Market support measures will operate fully from the date of accession. However, direct payments will be phased in over ten years, starting at 25% in 2004.

This is to enable further 'restructuring' of the industry and to minimise social tensions in countries where the average rural incomes are substantially lower than in the EU. Quotas, etc., will normally be based on a reference year in the period 1995-1999 (1997-1999 for milk). In other words, after de-intensification and, in some sectors, after widespread land abandonment had occurred.

States will be allowed to pay direct support through a simplified area-based scheme for the first three years. Payments

will, it seems, be calculated as a fixed sum for each country, by dividing the total budget by the UAA. This would seem to reward extensive producers, but it is possible to imagine that in some states, Poland, for example, smaller traditional producers may operate relatively intensive, yet high-nature value systems.

In contrast to the CAP in current Member States, the Rural Development pillar will be equal in size to production support, at least in the first few years. EU co-funding will be at 80%.

Rural development measures will largely mirror those in the Rural Development Regulation, but with the significant addition of a 'semi-subsistence farms' payment. This bears out predictions in *La Cañada* 14 (page 9) on the Commission's proposals on subsidies for small producers. Farms can be paid a flat

rate maximum of €750, conditional on the production of a business plan demonstrating the future viability of the enterprise.

It is interesting to speculate whether this model is a precursor of what the Commission would like to see in the whole EU after the Mid-term Review of Agenda 2000 this year, and the next reforms in 2006. Initial impressions are of the same old conflict between 'restructuring' and the maintenance of environment-beneficial farming systems, which are usually the preserve of smaller farmers.

Flat rate and area payments that do not recognise and somehow maintain the link between production and nature-value are treading a dangerous path.

Meanwhile, it is worrying that so much of the emphasis in SAPARD plans seems to be on agri-environment and so little on Less Favoured Area payments. The hand of Western European NGOs, and a view of the world coloured by England and the Netherlands, seems to be shaping policy, yet the high nature-value areas of Central and Eastern Europe have more in common with Norway or the Mediterranean countries.

Gwyn Jones

Maintaining traditional extensive land-use systems – is it actually possible? One experience from the Alentejo montados

The idea of writing down our experiences with a montado farm in Alentejo came from various discussions with Eric Bignal about the frustrations of farmers in different parts of Europe who decide to maintain extensive farming systems, often inspired by the traditional agricultural practices of their region, and who face all types of problems, despite the systems they work on being supposedly defended at different levels by various EU strategies.

We started in 1996 by buying the farm,

Serra dos Mendes, located in the borders of a small village, near Alcacer do Sal. The farm has about 100ha of cork oak montado, partly on rather steep slopes. There are also 7ha of relatively good cultivation land, which take up most of the flat areas, and 5ha of olive grove around the main buildings.

Premium products

We wanted to start extensive Iberian pig production, intending to sell both fat pigs, grown in the montado, for hams and the like, and piglets, which would never be out under the trees. The model we developed corresponds to an improvement and rationalisation of the traditional systems, where all pigs of both sexes were out all year round with a swineherd.

The production was based on 40 sows of pure Iberian breed, divided in two groups of 20, and two boars. All the sows in a cohort are mated at the same time. When they are pregnant, they go into the montado for a few weeks, eating roots, mast and grass. Some fodder is also fed to keep them used to humans. They are moved closer to the pighthouse when they are close to giving birth in October or November. The piglets stay inside for more or less 6 weeks, and the sows go out every day, returning for suckling at night and in the middle of the day.

The young are sold as piglets, or they are taken out into the montado, where they stay until they are big enough to be sold. If they are sold as reproductive animals, they are sold at a few months old; if they are for hams and sausages, mainly for the Spanish market, they are sold at 16 months.

For the best final product, and for certification as 'Iberian', the pig must be out all the time and never housed, eating mainly acorns, eventually with some supplement, if required. On this farm, and depending on the acorn production, no more than 30-50 pigs can be fattened in this way each year. With the second group of sows the system is the same, but alternating with the first.

Traditional management

This type of production was planned to make the best sustainable use of the montado, maintaining at the same time the soil and the trees and preserving its cork production, allowing regeneration, and resulting in enough profit to support one full-time worker on the farm.

As the farm area was abandoned when we bought it, there was a tall dense shrub layer under the cork oaks. The first task was to clean out this understorey, which was done with the help of heavy machines in autumn 1997 and winter 1998. At the same time, a small dam was built as a drinking place for the pigs in the montado.

Lack of advice

Before we started, but also later, we lacked proper advice – we had an idea about the system, but we would have liked to discuss the details with experts. In Portugal, there is no public extension or advisory service, and no associations who can give support to the montado as a system. There are forest owners or cork producers associations, which are concerned mainly with trees. There are two Iberian pig producer associations, but their interest is in the quality of the product and the certification of the breed. There are also private technical specialists, but there was no-one with whom to discuss the whole farm system, how to maintain its balance and how to assure its economic viability.

Administrative chaos

Before production could start, much capital investment was required, including the erection of a system of boundary and internal fences; the modernisation of the pig house, which did not have water or electricity; and the renovation of a large farm building for tractors and other machinery. As we had used all the funds we had in purchasing the farm, the investment required for these works was supposed to be supported by a financing programme for Portuguese agriculture, in which traditional extensive forms of production were explicitly given high priority.

The application was submitted in March 1998. But, as we were later told, by summer 1998 all the funds were spent, so no projects could be approved until who knows when. Because of this, we decided to invest all the profit from the cork, which is only harvested every nine years, into the works that had to be done, instead of paying our debts from the purchase of the farm, as we had originally planned.

The modernisation of the pig house was carried out in summer 1998; the 40 sows were bought in September and the fences installed in the same autumn. The first worker started when the sows arrived. We also bought 20 pigs for fattening, which were to be finished over the winter out in the montado.

In this first year, the fatteners were sold at a good price, and despite some beginners' troubles with the births, diseases, and so on, the general balance was positive. However, the overall budget was a problem, since there was not much profit, yet we had many expenses, and still had serious debts to pay.

We got our producer number from the Ministry of Agriculture, and so could start the production, but we never got the permission from the Municipality. The technical staff there were concerned with the possible pollution risks, assessing our

farm using the same parameters as for an intensive pig producer.

After many months and many different contacts with the various administrative entities, the Ministry of the Environment argued that there was no problem at all. The system was so extensive that we only needed their own permit, which they would give us – and for which we are still waiting, two years later. But as the Municipality told us, we should not complain, because we had been in production all the time, and no one had controlled it or asked us to stop...!

Agri-environment – or forestry?

In spring 1998, we applied for support within the agri-environment programme for maintaining extensive grazing areas under the trees in the montado. The measure was available as long as there were no more than 40 trees per ha. Our application was accepted – we even received confirmation that we were going to receive the five-year contract to sign – but then we heard nothing more. After many months we were finally told that we could not receive this support, since extensive pigs had not been accepted by Brussels as a livestock type compatible with this measure. All other animals were accepted, but not the pig.

One year later, we applied for the same measure again, since in the meantime the Portuguese Ministry had convinced Brussels that the Iberian pig is, indeed, the animal best adapted to the montado, and should also be accepted. But by this time there had been a random check of our farm, and the experts decided that, counting the young trees less than 15 years old, we had more than 40 trees per hectare (even knowing that the young replace the old, which progressively die). We therefore could not receive this support.

So, no support from the agri-environmental programme. The measure we applied for is the only one which relates to cork oak montado – even if the programme clearly says it aims at maintaining extensive and traditional land-use systems in general.

Other types of financing which almost all farmers receive, for example the area-based support for cultivated areas, cannot be applied in the montado, since it is classified as a forestry area. But we could not apply for measures within the *forest* programme because there were less than 60 trees per ha!

Disease controls

In winter 1999, a case of African Swine Fever was declared in the Alentejo, and all activities became much more complicated: no transport, no selling, strong sanitary control. We had to accept this, but the

problem was that no one in the official services could give us any information which was not going to change the next day, or which wasn't totally different from that from the association for Iberian pig producers. Anyway, the costs had to be borne by us – if the 80 piglets could not be transported for two weeks and got too big to be sold as piglets, that was our problem – and it was a big problem.

The same happened when we found out that we had Brucellosis in the pig herd. As there is no official programme for the control of this disease in pigs, requirements would change every week.

Final failure

The prices for the piglets kept more or less constant for three years, but the prices for the fat pigs decreased notably. While we earned some money the first year, we managed to balance the expenses the second year, selling the fat pigs to the Spanish under a contract drawn up when they were new born. In the third year, we clearly lost money, selling to a Portuguese ham producer. As the fat pigs were those supposed to bring profit, with the piglets just covering their own expenses, we accumulated a deficit, adding to our heavy debts.

The final straw came in November 2000, when ten fats pigs, which were going to reach 150kg in two or three months, were stolen from the montado. A few weeks later one more went, and another one, and one more again. The police told us they couldn't do anything as it was impossible to trace that type of robbery and we should bring the pigs in each night if we did not want it to happen again. Yet these pigs, to be valuable, have to be out all the time; and to hire a swineherd, as they did in the old days, was simply too expensive.

In 2001 we decided to stop.

Modern methods pay!

So what's happening there now? Well, the montado and the piggery are both leased to a landless farmer from the village. The production is more intensive, in order to secure a profit. It is a mixed system, with



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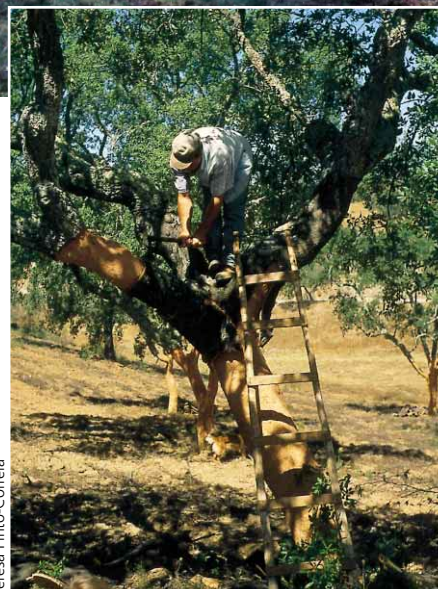
Neither the Common Agricultural Policy nor the Rural Development Regulation effectively support traditional Montado farming.

sheep grazing under the trees, and, yes, outdoor pigs. But these are in a smaller area close to the piggery, eating mainly fodder.

He is not producing fat pigs for ham, but mainly piglets, from crossings between the Iberian pig and normal white pigs. By doing this he gets piglets that grow faster, have more meat, and are an easier product to sell. He has 60 sows, both Iberian and white, and boars of both types.

The arable land is also leased to him, and cultivated organically – we have imposed that as a condition of the lease. The olive grove is still managed by us. In the montado, the scrub layer is growing again. The sheep grazing under the trees is very extensive, since there is only a small herd. The trees and cork production are still managed by us, as it often is in this type of agreement in this region. But it is hard to find a balanced management for combining the different interests in the same area.

Where did this leave us? We were tired, disappointed, and only managed to avoid financial ruin because we both earned



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money from other work. Most of all, we were frustrated – we got so little support and what we got was often unhelpful. We did not even get many of the supports 'targeted' at our system, which we logically should have received. Despite all the documents and strategies for both Portuguese and European agriculture which claim to value and defend the montado system, no one really seems interested in the preservation of this type of farming.

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