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## NEWS AND NOTES

### 1.0 FAO RELATED ACTIVITIES

#### 1.1 Reunion Tecnica sobre la Conservacion para el Desarrollo de los Recursos Geneticos Animales en America Latina

FAO together with IUCN and Crokeva (an Italian NGO), through an agreement with CATIE in Costa Rica, funded a regional meeting on Animal Genetic Resources (23-26 June). Participants from 14 countries in the Latin American and Caribbean area attended. Each country provided a report on activities in this field and identified some of the constraints and difficulties.

A series of working groups culminated in the provision of a number of recommendations which are being incorporated into a report of the meeting (to be published by CATIE).

These recommendations underlined the need to develop and implement a regional programme on Animal Genetic Resources and proposed a small committee to pursue this objective. The meeting also expressed its wish to cooperate fully in the global programme as outlined by FAO and the recommendations of the 1992 Expert Consultation on the Management of Global Animal Genetic Resources. The meeting urged furthermore that ALPA (the Regional Animal Production Association) be requested to hold a full session on Animal Genetic Resources at its next meeting (1993 in Chile).

#### 1.2 Strengthening of Regional Animal Gene Banks

A training course on the organization and implementation of a regional gene bank for Asia was held from 10 to 21 January 1992 at Nanjing University (China). Two participants per country (one trained in animal breeding, the other in animal reproduction) were invited from 15 different countries (Afghanistan, Bangladesh, China, India, Indonesia, Mongolia, Myanmar, Nepal, North Korea, Pakistan, the Philippines, South Korea, Sri Lanka, Thailand and Vietnam).

The first part of the course addressed the principles and methodology of animal genetic resources conservation, including characterization of breeds, genetic distances between breeds, identification of factors affecting risk of breed loss and criteria for selection of breeds for preservation. Principles and respective advantages and disadvantages of *in situ* and *ex situ* preservation programmes were equally discussed.

The second part dealt with the applicatzon of reproductive technologies to the conservation of animal genetic resources and demonstrated embryo (rabbit) collection, freezing and storage. Videos of semen collection were shown and a practical demonstration was given.

The third part presented lectures on the Global Data Bank for Domestic Livestock. Lectures were also given on the use of the software for the Data Bank for Stored Germ Plasm which allows information to be kept on the embryos and semen stored in a gene bank, including a practical demonstration.

It is hoped that ongoing as well as future activities at national level in the field of Animal Genetic Resources preservation will be shared between countries within the region taking advantage of links established during this training course.

#### 1.3 Use of DNA technologies for Conservation and Selection of Animal Genetic Resources

A training course on "Use of DNA technologies for Conservation and Selection of Animal Genetic Resources" was organized from 14 to 26 June 1992 under a Letter of Agreement with the Molecular Animal Genetic Centre, Division of Tropical Animal Production, CSIRO, in Brisbane, Queensland, and attended by 9 participants [5 from Asia (China, India, Indonesia, Korea, Malaysia), 3 from Latin America (Brazil, Colombia, Mexico) and 1 from Africa (Tanzania)].

Theoretical lectures were given every morning, the main aspects covered being: nucleic acid structure, function and analysis; sampling, preparation and storage of DNA and RNA; DNA libraries; variations in DNA; Genome mapping; DNA markers and use in selection programmes; analysis of population structure; various aspects of genetic conservation (including semen and embryos); transgenic systems.

Lectures were given by staff of the Molecular Animal Genetic Centre, as well as of the Centre for Molecular Biology and Biotechnology of the University of Queensland, where a Gene Library is already operating.

Every afternoon was devoted entirely to practical sessions, giving to all participants the possibility to practice all the steps from treatment of the blood sample to pedigree and population analysis (each participant received two samples on the first day, on which he/she had to apply the various techniques, and from which his/her efficiency could be precisely evaluated step by step).

#### **1.4 IN SITU CONSERVATION OF LIVESTOCK AND POULTRY, by E. L. Henson: FAO, Animal Production and Health paper No 99;1992.**

This manual has been prepared to draw together the information and experience of *in situ* live animal conservation theory and practice as it is found throughout the world and is designed to assist with the planning, development and implementation of conservation projects and therefore incorporates many ideas and principles already described in previous FAO publications.

After a review of definitions of various aspects of animal genetic resources and of influences which have produced livestock varieties, the processes of genetic changes are presented. The following chapter discusses the need for conservation with consideration of economic potential, scientific use and cultural importance. The importance of the size of populations and the effects of small population size on genetic variation within populations are discussed. The manual then describes the various methods of conservation for live populations, with a comparison of the advantages and disadvantages of *in situ* and *ex situ* conservation, including considerations about problems of conservation of small populations (inbreeding, genetic drift), and description of some possible breeding strategies. In the final chapter the practical application of *in situ* conservation programmes are reviewed with examples from throughout the world.

The manual ends with a series of charts presenting a succession of steps for the identification of populations in need of conservation, strategies for conservation and suggestions for the implementation of programmes to conserve animal genetic resources *in situ*.

D. Chupin and D. Steane

#### **2.0 COGNOSAC (COMMITTEE ON GENETIC NOMENCLATURE OF SHEEP AND GOATS); 147 C/3 AV J.B. CLEMENT, F - 92140 CLAMART, FRANCE**

The creation of COGNOSAC goes back to the *National Coloured Sheep Congress at Adelaide*, South Australia, in 1979. It was then felt that nomenclature of loci for coat colour in sheep was confused and not standardized. The suggestion was made that a report on this subject be presented to the next *World Congress on Coloured Sheep and their Products* held in New Zealand in 1984.

As a result of this report, a Committee was formed (NGO-like) under the name of COGNOSAG. A first Workshop was held in the South West of France (Les Deux Moulins de Gontard, Manosque) in July 1986.

COGNOSAG was officially registered as a “non-profit organization” in France in 1987 under the name of *Comite de Nomenclature Genetique des Ovins et Caprins/Committee on Genetic Nomenclature of Sheep and Goats*. Since then workshops have been held every year (five to date), and invited representatives from the *International Society of Animal Genetics (ISAG)* and other relevant organizations attended. These five workshops were held in France (1986,1987,1988), the USA (1989) and the U.K. (1990).

At the request of the International Committee organizing the World Congresses on Genetics Applied to Livestock Production, COGNOSAG organized a special session on Genetic Nomenclature in Cattle during the 4th World Congress on Genetics applied to Livestock Production in Edinburgh in 1990. It was agreed at this session to include in the future cattle in the COGNOSAG activities and to publish a newsletter (N° 1 saw the light in March 1992).

The first and second workshops on the "Genetic Nomenclature of Farm Animals" were held in 1991 and 1992 in France; the third one will be held in Australia in 1993. The dates are October 11 to October 15, 1993. The place is near McLaren Vale, in South Australia. The venue will be Tatachilla Lutheran Camp, some 40 km South of Adelaide, a residential conference center which has been converted from an old winery. The workshop will concern the publication of MIC (Mendelian Inheritance in Cattle), MIS (Mendelian Inheritance in Sheep) and MIG (Mendelian Inheritance in Goats) and it will be attempted to establish a worldwide network of contact persons for COGNOSAG. A report from the *Australasian Gene Mapping Workshop* which will be held in Adelaide a couple of months beforehand will be presented and there will be an opportunity to visit the albino *Suffolk* sheep at Marrabel.

-6The proceedings of the original two workshops (1986 and 1987) were published respectively in 1988 and 1989 by the *Bureau des Ressources Genetiques* (Paris, France). A third publication summarizing the work on the loci for coat colour in sheep and goats (1986/1989) was recently published by INRA's department of Animal Genetics (Paris, France). The last two workshops were held in liaison with the *International Society of Animal Genetics* (ISAG). In 1992 was published, in *Animal Genetics*, a list of "alleles for blood and milk polymorphisms in Cattle, Sheep and Goats" by LARSEN, DI STASIA and TUCKER. The locus names and symbols and the allele symbols in this paper are in line with the decisions taken at the 21st *International Conference on Animal Genetics*, Michigan, 1990, and with the COGNOSAC "Guidelines for gene nomenclature in Ruminants, 1991", published in *Genetique, Selection et Evolution*.

J. Boyazoglu

**3.0 GENETIQUE ET ELEVAGE DU PORC AU VIET-NAM (PIG GENETICS AND HUSBANDRY IN VIETNAM) BY M.M. MOLENAT AND TRAN THE THONG (1991). I.E.M.VT (SERVICE DE DOCUMENTATION), 10 RUE PIERRE CURIE, F - 94704 MAISONS-ALFORT, CEDEX (FRANCE). ISBN 2-85985-175-5.**

L'objet de cette publication a ete de dresser un bilan de la situation et de mener une reflexion sur l'elevage porcin dans les pays en voie de developpement prenant le Vietnam comme un cas d'etude et de reference. La publication eomporte quatre parties:

1. Un aperçu de la production : le Viet-nam se place parmi les pays dont l'effectif porcin depasse 10 millions de tetes. Lelevage industriel existe, mais avec 80 a 90 % de la production, le petit elevage familial domine et joue un role capital dans la vie sociale et economique du pays.
2. Les types genetiques exploites : le Viet-nam dispose d'une multitude de types genetiques : -races locales dont les plus representatives sont les races i et Mong Cai au nord, le races Ba Xuyen et Thuoc Nhieu au sud. D'autres races locales presentes des effectifs plus limites, en particulier la race naine Co; - race etrangeres (Large White, Landrace, Duroc, etc.). La reproduction et la pathologie de certaines races locales presentent des aspects singuliers qui meriteraient d'etre etudies.
3. Les programmes genetiques : les vietnamiens mettent a profit les phenomenes d'heterosis et effectuent de nombreux croisements; entre races locales, entre races importees, ou a partir de races locales et de races importees. Dans la selection des races pures, le Viet-nam evolue tres rapidement vers les programmes bases sur la genetique quantitative, qui on fait leurs preuves dans de nombreux pays.

4. Une discussion suit qui prend la forme d'une "table ronde" où les échanges débouchent sur des recommandations en matière de formation, de circulation de l'information, de recueil et d'analyse des données, d'expérimentation, de diffusion du progrès génétique, etc.

Dans la conclusion, les auteurs émettent le vœu que des recherches spécifiques aux conditions locales soient mises en place (nutrition, reproduction, etc.) et que les élevages familiaux et les élevages industriels cessent d'être considérés comme des pôles opposés. Leur liaison permettrait, au contraire, de faire bénéficier le Viet-nam des acquis de son élevage moderne confortés par une collaboration fructueuse avec les pays industrialisés.

D. Planchenault

#### **4.0 INTERNATIONAL CONGRESS ON AUTOCHTHONOUS BREEDS (1992)**

An International Congress on Autochthonous Breeds was held on September 24, 25 and 26. It was organized within the International Livestock Exposition of the "5th Century" in Zafra, Spain; the scientific organization was taken care of by J. Canon from the Animal Production Department of the Veterinary Faculty of Madrid and the local organizing committee's Secretary was Dr. M. Angel.

The aims of the Congress were to provide extensive insight into the wide framework of the local breeds and their productive potential. Although local breeds constitute an important proportion of the Spanish livestock, population and productive genetic parameters are not well known. In many cases these breeds yield high quality products from geographic areas with poor or limited sources; the socio-economic interest they have is quite remarkable.

There were four main papers presented which dealt with the conservation and management of animal resources, and participants from twelve countries presented some 50 free communications covering subjects as diverse as population breed structure, carcass and meat quality, reproductive cycle characteristics, ethnological description of local populations, conservation strategies of rare cattle breeds, etc.

J. Canon