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SHORT NOTE [NOTA CORTA]

DEVELOPMENT AND WORLDWIDE DISTRIBUTION OF THE ANGLO NUBIAN GOAT

[DESARROLLO Y DISTRIBUCIÓN MUNDIAL DE LA CABRA ANGLO NUBIA]

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SUMMARY

The present study describes the formation of the Anglo Nubian breed in Britain and follows up the original transfer of the founder breeds to Britain in the 19th century. An overview on the worldwide spread of the Anglo Nubian from Britain to the USA and Canada, later to Africa and Asia as well as Latin America is given. Information was compiled through project reports, literature, statistical records where available and accessible and interviews with experts. It is concluded that the Anglo Nubian is an example of a breed developed by combining genetic resources from different parts of the world joining performance and adaptation to tropical conditions. The breed spread to all continents. Apart from being kept as purebreds, it is more often used in crossbreeding programmes in different regions of the world. The value of this genetic resource has been recognized a long time ago, but there seem to be no efforts to counteract the danger of loosing it by excessive use in uncontrolled crossbreeding.

Key words: *Anglo Nubian, breed history, worldwide spread*

INTRODUCTION

The Anglo Nubian goat is named after its origin from England and the long, droopy ears and convex nose associated with the name Nubian (Reinhardt and Hall, 1978). In the USA, the breed is usually spoken of as the Nubian. Herdbooks are kept in the USA, Britain, Canada and Australia (Mason, 2002). The Anglo Nubian is a dual-purpose goat used for milk and meat production. Among dairy breeds developed in northern countries, Anglo Nubians are considered as a breed also suitable for meat production because of its conformation and fertility, its adaptability to tropical conditions and non-seasonal breeding (Gall, 1996).

MATERIAL AND METHODS

The present study describes the formation of the Anglo Nubian breed in Britain and follows up the original transfer of the founder breeds to Britain in the 19th century. An overview of the worldwide spread of the Anglo Nubian from Britain to the USA and Canada, later to Africa and Asia as well as Latin America is given. Information was compiled through project reports, literature, statistical records where available and accessible and interviews with experts.

RESULTS AND DISCUSSION

Origin and breed formation

The Anglo Nubian breed was developed in Britain during the latter half of the 19th century (Peacock, 1996). Literature is not consistent as to which goat breeds contributed to the development of the Anglo Nubian. Porter (1996) states that the origins of the Anglo Nubian are diverse and were initially somewhat random. It originated from haphazard crosses between the native prick-eared Old English goats and a variety of lop-eared breeds from the eastern Mediterranean, north and east Africa and India, which had in common the carriage of their ears and a roman facial profile to a lesser or greater degree. The imported animals were long-legged, hardy goats; well adapted to hot and dry climates. Some influence from dairy breeds from Switzerland could also be traced. According to Peacock (1996), however, only the two tropical breeds – Zaraibi from southern Egypt and Jamnapari from India – were crossed with the local British goat. Gall (1996), Mason (1981) and Mason (2002), mention the lop-eared breeds Zaraibi and Jamnapari, as well as local British and Swiss goats, but also another breed identified only by the name of its place of origin – Chitral – in the extreme north of Pakistan.

The Jamnapari derived its name from the location of the breed beyond the river Jamna in the north of India (Gall, 1996). It is a dual-purpose milk and meat type much valued for its good milk yield from a large udder (Porter, 1996). The Nubian group includes the Zaraibi, Damascus and Sudanese Nubian. The name of the Zaraibi relates to confinement, indicating that this is the type of goat kept as a dairy animal under more intensive management in Egypt (Gall, 1996). At present the breed is kept mainly in the northeastern Nile Delta (Galal et al., 2005). The Damascus breed of Syria is the dairy goat of the urban areas in Iraq, Lebanon, Jordan and Syria (Gall, 1996). The Sudanese Nubian is known to be a good milker. It forms the bulk of the goat population in Sudan (Mason, 2001). The Old English Goat was described by Pegler in the late nineteenth century, cited by Porter (1996) as a long-bodied, square-shaped goat with erect or horizontal ears. According to Gall (1996) and Mason (1981), the Old English Goat has been completely absorbed in the crossbreeding with goats imported from Africa and Asia to form the Anglo Nubian.

The term Anglo Nubian was given to the various crossbreds in the British Goats Society herdbook in 1893. In 1910, the Anglo Nubian was recognized as a breed in Britain and registry began with 459 goats accepted as the nucleus of the Anglo Nubian section of the herdbook (Reinhardt and Hall, 1978). In 1911, some modifications were made in the original standards and over 60 more goats were allowed in the Anglo Nubian section. Breeders tried to import more animals in the following years, but due to health restrictions, no more imports to Britain were permitted (Reinhardt and Hall, 1978; Porter, 1996).

Distribution of the Anglo Nubian

Main distribution flows are those starting from Britain to the USA and Canada and from there further on to Latin America. Flows to Africa, the Middle East and Oceania are only occasionally documented.

Anglo Nubians were exported for the first time from Britain to the USA in 1909, reaching a total of about 30 goats up to 1950. Here, Anglo Nubians were bred and selected without any further crossbreeding with other breeds. In Canada, a breeding programme was established in 1921, based on imports of Anglo Nubians from Britain. Offspring were imported into the USA and continued to have a great impact on Anglo Nubians there until the late 1940's. From the USA Anglo Nubians were exported to Puerto Rico and Latin America as early as the 1940's (Reinhardt and Hall, 1978; Gall, 1996). Later on, Anglo Nubians were exported from Britain and the USA in several development projects to Latin America, Africa and Asia. In some countries, Anglo Nubians continue to be kept as purebreds (Mexico, Brazil, Peru, Colombia, several Caribbean states, Egypt, Israel, Oman, India, Bangladesh, The Philippines, Mauritius and Malaysia) (SENA, 1991; Gall, 1996) although numbers are sometimes so small that it is difficult to preserve the population (Venezuela, Ecuador, Thailand) (Pariacote, 1992; Pariacote and Ruiz, 2004; Mendoza, 2004; ripongpun, 1991).

More widespread is the use of the Anglo Nubian in crossbreeding (Gall, 2001). In Ethiopia, Kenya (Peacock, 1996; Rewe et al., 2002), Ecuador (Narvaez and Hernandez, 1995; Gomez, 2003) and Thailand (Sripongpun, 1991), Anglo Nubians were reported to be used in crossbreeding programmes, but once the official crossbreeding projects expire, it is often not known how many purebreds or crossbreds remain. In most cases the optimum level of exotic blood required for efficient production and adaptation was not established (e.g. Kenya) and positive crossbreeding effects were not maintained because the pool of breeding males was too small (e.g. Ethiopia, Oman) (Rewe et al., 2002; Zaibet et al., 2004). In other cases, crossbreeding resulted in higher production and better reproductive performance as reported from Argentina (Mueller, 1994; Lanari et al., 2003). In some countries of Latin America, crosses with Anglo Nubians (and other exotic breeds) tend to cause the decline or even disappearance of the original Criollo goat as reported for Chile, Cuba and Mexico (Burrows, 1994; Gallo and Wainnright, 1995; Montaldo et al., 1995; Montaldo and Meza, 2000; Ribas et al., 2000).

The current worldwide distribution, according to national reports for the state of the world's animal genetic resources requested by FAO in 2005, reveals that Anglo Nubians are present in more than a third of all 169 reporting countries. Almost all countries in North and Latin America and the Caribbean have Anglo Nubians to some extent. Two thirds of Southwest Pacific countries keep Anglo Nubians. The picture is different in the Middle East, Africa, Asia, Europe and Caucasus with one third and in the given sequence sharply decreasing existence of countries with Anglo Nubians.

CONCLUSION

The Anglo Nubian breed was formed in Great Britain by using local and imported goats. Of the founder breeds, the British base is now extinct (Old English Goat). Information is scarce on numbers of the tropical and subtropical foundation stock, the number is alarmingly low in the Jamnapari as it is being used extensively in crossbreeding programmes both in its country of origin (India) and in other developing countries (Gall, 1996); the Zaraibi could also be under threat due to small numbers (a few thousand head) and indiscriminate crossing (Galal et al., 2005). The

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REFERENCES

Burrows, J. 1994. Situación actual y perspectivas de la producción caprina en Chile. Proceedings of VII Reunión Nacional de Producción Caprina, INTA Bariloche, 2-4 November 1994, pp 11-12, San Carlos de Bariloche, Argentina

Galal, S., Rasoul, F.A., Annous, M.R., Shaat, I. 2005. Small Ruminant Breeds of Egypt. In: Iñiguez, L. (ed.), Characterization of Small Ruminant Breeds in West Asia and North Africa. Volume 2: North Africa. International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syria

Gall, C. 1996. Goat Breeds of the World. CTA, Margraf Verlag, Weikersheim, Germany

Gall, C. 2001. Ziegenzucht. Verlag Eugen Ulmer, Stuttgart, Germany

Gallo, S.C., Wainnright, C.I. 1995: Algunas características fenotípicas de rebaños de cabras criollas de la IX y X regiones de Chile y peso al nacimiento de sus crías. Avan. Cien. Vet. 10, 27-31

Gomez, O.I. 2003. Mejoramiento de la población caprina criolla de Zapotillo mediante la selección y el mestizaje con machos de la raza Anglo Nubian. In: Proceedings VI Congreso Iberoamericano de Razas Criollas y Autoctonas and IV Simposio Iberoamericano sobre Conservación y Utilización de Recursos Zoogenéticos. 1-4 December 2003, Recife, Brazil

Lanari, M.R., Taddeo, H., Domingo, E., Perez Centeno, M., Gallo, L. 2003. Phenotypic differentiation of exterior traits in local Criollo Goat Population in Patagonia (Argentina). Archiv fuer Tierzucht 46, 347-356

Mason, I.L. 1981. Breeds. In: Gall (ed.), Goat Production. Academic Press, London, UK

Mason, I.L. 2002. World Dictionary of Livestock Breeds, Types and Varieties. Rev. by Valerie Porter. 5 ed. CABI Publishing, Wallingford, UK 2002-XVIII, 3805

Montaldo, H., Juarez, A., Berruecos, J.M., Sanchez, F. 1995. Performance of local goats and their backcrosses with several breeds in Mexico. Small Rumin. Res. 16, 97-105

Montaldo, V.H.H., Meza, H.C.A. 2000. Goat genetic resources in Mexico: Bio-economical efficiency of local and specialised genotypes. Wool Tech. Sheep Breed. 49, 345-350

Mueller, J. 1994. Los recursos genéticos caprinos locales y exóticos y su potencial. In: Iniguez, L. and Tejada, E. (eds.): Proceedings: Producción de Rumiantes Menores en los Valles Interandinos de Sudamérica. Memorias de un Taller sobre Metodologías de la Investigación. Tarija, Bolivia, 16-21 August 1993. La Paz, Bolivia. pp. 74-82

Narvaez, R.F., Hernandez, E.C. 1995. Comportamiento productivo de los caprinos de la zona centro Loja (Cantones de Gonzanama y Paltas). Memorias I Convención internacional de cabras lecheras y camélidos sudamericanos, Escuela Superior Politécnica de Chimborazo, Riobamba, Ecuador

Pariacote, F.A., Ruiz, L. 2004. Diversity and performance of the goat genetic resources in Venezuela. 8th International Conference on Goats, 4-9 July 2004, Pretoria, South Africa.

Pariacote, F.A. 1992. Productivity of goat native, Alpine and Nubian breeds and their crosses in Venezuela. Archi. Zoot. 41, 555-562

Peacock, C. 1996. Improving Goat Production in the Tropics. A Manual for Development Workers. Oxfam / Farm Africa, Oxford, UK.

Porter, V. 1996. Goats of the World. Farming Press, Ipswich, UK.

Reinhardt, R.M., Hall, A. 1978. Nubian History. America and Great Britain. Second Edition Revised, Hall Press, San Bernardino, California, USA

Rewe, T.O., Ogore, P.B., Kahi, A.K. 2002. Integrated goat projects in Kenya: Impact on genetic improvement. 7th World Congress on Genetics Applied to Livestock Production, 19-23 August 2002, Session 25, Communication No. 25-19, Montpelier, France

Ribas, M., Gutierrez, M., Hernandez, F. 2000. La cabra criolla Cubana: El comportamiento reproductivo de un genotipo inexplorado. In: Proceedings of V Congreso Iberoamericano de razas Autóctonas y Criollas. 28 November to 1st of December 2000, La Habana, Cuba

SENA, 1991. Criador de caprinos. Ministerio de Trabajo y Seguridad Social, Bogota, Colombia

Sripongpun, S. 1991. The status of goat production in Thailand. In: Panandam, J.M.; Sivaraj, S.; Mukherjee, T.K.; Horst, P. (editors.): Goat Husbandry and Breeding in the Tropics. Compiled papers presented in an international seminar carried out by German Foundation for International Development (DSE) at the Institute for Advanced Studies, University of Malaya, Kuala Lumpur. Zentralstelle fuer Ernaehrung und Landwirtschaft, Feldafing, Germany

Valle Zárate, A., Musavaya, K., Schäfer, C. (eds), 2006. Gene flow in animal genetic resources. A study on status, impact and trends. Hohenheim, Germany.

Zaibet, L., Dharmapala, P.S., Boughanmi, H., Mahgoub, O., Al-Marshudi, A. 2004. Social changes, economic performance and development: the case of goat production in Oman. Small Rumin. Res, 54, 131-140

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