

THE CATALONIAN LIVESTOCK

Catalonia is a small country with rugged terrain that is densely populated and with low water availability. However, it enjoys a privileged location, with good conditions for the provision of raw materials and for putting their products in the market. Moreover, Catalonia has also a high capacity for industrialization of its livestock products and a high potential of consumers with the high purchasing power of an environment of over 10 million people.

From the weather point of view, most of Catalonia has a Mediterranean climate, with areas and periods of high hydrologic deficits. Agricultural production is at the plain and sloping areas of easy mechanization. In contrast, rainfall is concentrated in the mountainous areas. All this has forced the construction of large reservoirs in order to regulate the water and prevent flooding.

The agricultural surface available (ASA) per inhabitant in Catalonia is of 0.17 ha (6 inhabitant/ha), when in Spain is of 1.6 inhabitants/ha. It was this lack of land which, from the beginning, has encouraged Catalonian producers to intensify production in difficult conditions (“the Catalonians, from stones they make bread” they said). In addition, the availability of foreign supply has encouraged the location of manufacturing industries that produce animal feed or products used in this industry (extraction of soybean, corn derivatives production) while the potential for internal and external marketing promoted the location in Catalonia of a large number of meat industries, pharmaceuticals, etc., which, in turn, encouraged the growth of livestock production.



Regarding the land use, nearly 30% of the total area of Catalonia is cropland. In this area, 30% is irrigated and 70% is rain feed. For crop groups, cereals are the ones that occupy the biggest area, with a 37%, scattered throughout almost the entire territory, although located mainly at the centre of Catalonia: they cover part of the rain feed Mediterranean lands, part of the disadvantaged area and the area of consolidated agriculture.

The area occupied by forage crops is almost 12% of the total, located in the same area of grain, except in the Mediterranean area of rain feed agriculture, where they are rare. With regard to woody crops, typical Mediterranean crops have a significant presence: olive tree (13%), nut tree (10%), vineyard (7%) and fruit trees (7%) are found in the whole territory, except for the Pyrenees area.

Livestock production is of major relevance to the agricultural production structure in Catalonia, as shown in figure 1.

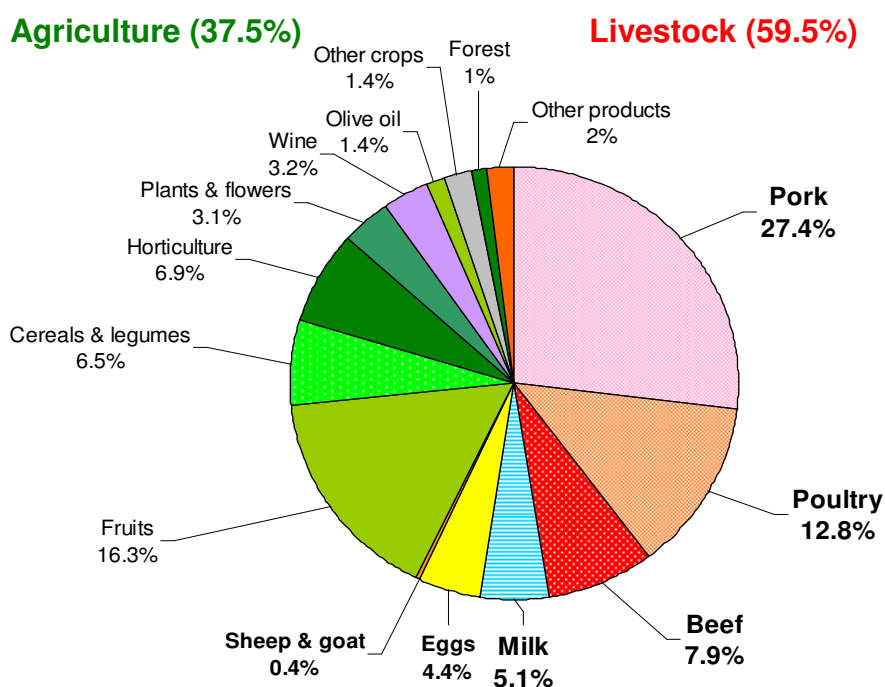


Fig. 1: Partitioning of the final agrarian production of Catalonia (2007)

The livestock population of Catalonia is well known and also its large contribution in the Spanish and European figures. Only to place the issue, it should be noted that, with 4.6% of the Spanish ASA and 16.5% of the population of Spain, Catalonia has 23% of the sows and 25% of fattening pigs, 22% of fattening calves and 48% of the broilers. With that animal population, Catalonia has a much higher production than consumption capacity (the triple in pig meat production and almost twice in meat poultry production).

Item	×1000 head	% Spain
Sows	571	21
Fattening pigs > 50 kg BW	2,617	22
Piglets and pigs < 50 kg BW	2,689	23
Dairy cows	83	9
Beef cows	70	3
Fattening calves	367	25
Sheep	513	3
Goat	56	3
Light laying hens	4,557	-
Meat laying hens	2,273	55
Chickens & roosters	23,774	-
Breeding rabbits	333	-
Fattening rabbits	1,693	-

Fig. 2: Livestock population of Catalonia (2007)

Livestock production is characterized by the development of intensive livestock (pigs, fattening of calves, poultry and eggs) that have allowed the growth of the economic size of many farms with little surface. In pig production, Catalonia represents 27% of the total production of Spain, 30% of the production of calves for fattening and 30% of the poultry production.

Item	Harvested head ($\times 10^3$)	Carcass weight	
		($\times 10^3$ t)	(%)
Pigs	16,353	1,310,602	70.4
Cattle	517	130,510	7.0
Sheep & goat	1,856	22,179	1.2
Horses	7	1,964	0.1
Hens & chickens	167,593	292,830	17.7
Other poultry	76,172	87,791	4.7
Rabbits	13,944	16,039	0.9
Eggs (dozens)	-	122,924	-
Milk (t)	-	575,231	-

Fig. 3: Livestock production in Catalonia (2007)

The data of animal population and productions listed in the attached tables are based mainly on intensive animal production of selected breeds consolidated in the world as the Friesian dairy cows or cross-breeds of also selected meat breeds (pigs and beef) or synthetic lines (poultry).

However, in Catalonia there is a significant number of local breeds used mainly in extensive or semi-intensive systems.

The existence of the Pyrenean Mountains in the north of Catalonia has set the extensive livestock as a "mountain" production, characterized by the use, during the summer, of numerous high pastures and the maintenance of cattle in winter in conditions of scarcity. The frequent and high imbalance between abundant and cheap resources that are found for 3 to 5 months at the mountains and the lack of winter food, that are the result of a farming area limited in space and opportunities, have been the mark of that productive way. The livestock population that has been taken advantage of it, however, has not always been the same.

Of the variety of breeds and that sub breeds that existed on our populated valleys in the eighteenth century, only remain an small amount like a few relict of "Pallaresa" or "Albera" cattle in which are detected some genetic relations with types of cattle of the Pyrenean trunk (Pyrenean, Blonde d'Aquitaine) and Iberian (cattle of the Camargue).

In the areas where the dairy specialisation was not sustainable, the best cattle for meat production were kept, and selected the roughest by natural ways, gradually returning to the traditional Alpine type, with very good maternal conditions and a good quality meat. This "racial ecotype" is today known as "Bruna dels Pirineus". This breed has its own Herd Book and genealogical records, and is subjected to a breeding program and is the basis of the IGP "Vedella dels Pirineus Catalans".

With regard to the small ruminants, sheep was mountains and, in some cases, remaining during the winter at the low areas, forming local populations. Among the current sheep breeds the “Ripollesa” has the largest population of autochthonous sheep being subjected to a genetic improvement program. It is followed by the “Xisqueta” or “Pallaresa”, which belongs to the group of black eyed sheep or "montesinas" that can be found in other mountainous parts of the Iberian peninsula. Moreover, the “Aranesa” sheep, seems to be the result of crossing transhumant sheep flocks with “Tarasconeses” and “Ripollesa” breeds.



In the mountains of southern Tarragona it can be found the goat called “Cabra Blanca” or “Cabra de Rasquera”, a breed of goats related to the populations of "Serrana" goats.

There is a worldly known breed of Catalonian donkeys (“Guarà Català”). Some fossil remains give evidence of the antiquity of this donkey population in Catalonia. On the other hand, we assume that, in the same way as in other areas of the Pyrenees, the horse primitive population would be composed of elipometric animals with straight profile, very rough, as was required by the need of spending the worst winter pastures. The demand of production of animals for work that required animals with more strength and good height acted as a selection factor, since the destiny of its production was towards the lowlands or the forest production. The trend of demand had decisive influence on the choice of breeding animals, using for the production of mules the good qualities of the Catalonian donkey, till arriving at the definition of the current breed “Cavall dels Pirineus Catalans” (Horse of the Catalonian Pyrenees).



Regarding poultry, the local breeds are scarce and its breeding is confined to very specific areas that, in most cases, give name to the breeds. That is the case with the breeds “Gallina del Prat”, “Gallina Empordanesa” and “Gallina Penedesenca” and the goose “Oca the l’Empordà”.

Not all of these breeds are in the same situation. The sheep breeds “Ripollesa” and “Xisqueta” are considered "endangered" and the cattle breed “Bruna dels Pirineus” is a breed in need of help, although all three have enough heads to achieve genetic improvement programs and can be found in competitive farms. Others, like the cattle breed “Pallaresa”, has its recovery in doubt. All of them, however, have specific programs, tailored to different circumstances and with the common goal of ensuring the maintenance and even the expansion of the breed, and the gain of benefits for the producers that opt for their exploitation.