

Types of domestic farm animals

The main types of domestic farm animals are grouped into two broad categories depending on the digestive system they have and the type of food they consume: **ruminant or polygastric** animals (cows, sheep and goats) and **monogastric** animals (pigs, birds and rabbits). This sheet describes some of the characteristics that distinguish these species: type of feeding, size, main use, energy needs, use of the environment and preferred foods and the average CO₂ emissions of each one.



Figure 1. Chickens eating in a meadow at Planeses farm. Photo: AV Video.

Different types of animals can be produced on farms depending on the final products to be obtained. Depending on the animal species that is introduced, we will talk about different kinds of livestock: **cows, sheeps, goats, pigs** and other less common, but no less important, such as **birds** (poultry farming) (**Figure 1**) or **rabbits**.

This set of animals is grouped into two large types depending on the digestive system they have and which will determine the type of food they consume (**Table 1**): **ruminant** or **polygastric** animals (cows, sheep and goats) and **monogastric** animals (pigs, birds and rabbits).

All ruminant animals are herbivores. They have a stomach divided into 4 compartments with a mouth that specialises in grasping the pasture: with a long and rough tongue and incisors that hold the grass and allow it to be cut. Among them we can **distinguish different types depending on the vegetable part they consume**. Thus, among the farm species we find that **both cows and sheep are grazing**

ruminants, feeding mainly on herbaceous pastures, with a wider mouth to capture a greater volume of grass. For their part, goats are **browsing ruminants**, in addition to grass they feed on leaves, shoots, seeds, fruits and bark, they have a neck with more developed muscles to be able to reach and chew more resistant food. In contrast, **monogastric animals only have one stomach** (except birds). Many of them can consume a wide variety of foods: pigs, chickens and ducks are omnivores, while rabbits are herbivores. All have **different ways of chewing food** (except birds which do not have teeth but a gizzard) and **different digestion**.

Nutritional needs mainly depend on the sex, age and physiological state the animal is in. Within the same animal species, the energy needs and therefore, the use of resources, vary depending on the productive purpose that it has: **meat, milk or eggs** (**Table 1**). Thus, for an animal in dairy production it will be essential to know which point it is at in its productive cycle: if it is lactating and producing milk or if it is in the drying period.

	Species	Feeding type	Size	Use	Energy needs *	Use of the medium	Favorite foods	Average CO ₂ emissions (kg eq/kg protein)
RUMINANTS	COWS (<i>Bos primigenius taurus</i>)	Grazing herbivore	Big size (bull 300 a 900kg)	Meat (weight 600kg)	End of gestation 8,7 Breastfeeding beginning : 9,7	Herbaceous, bushy and tree grasses	Tree and bushy species sprouts such as the holm oak, oak, arbutus, kermes oak, mastic tree, and acorn.	295
				Milk (weight 600kg)	End of gestation 7,6 Breastfeeding beginning : 22,6	Herbaceous	Pasture, grasses and plants: stem, seeds, leafs and roots	87
	SHEEPS (<i>Ovis aries</i>)	Grazing herbivore	Medium size (male: 45 a 160 kg)	Meat (50kg)	0,62	Herbaceous, bushy and tree grasses	Tree and bushy species sprouts such as the holm oak, arbutus, heather, mastic tree, etc.	201
				Milk (50kg)	Maintenance: 0,41 Breastfeeding beginning 0,83	Herbaceous	Pasture, grasses and plants: stem, seeds, leafs and roots	148
	GOATS (<i>Capra aegagrus hircus</i>)	Browsing ruminants	Medium (20 a 140 kg)	Meat (50kg)	Maintenance: 0,6-0,8 Breastfeeding beginning 0,9	Herbaceous, bushy and tree grasses	Rastrojeras - Grass trees: Rokrose, broom and lentisk. Fruits: acorn and carob bean. Crops remainings: stubbles.	201
				Milk (50kg)	Maintenance: 0,69 Breastfeeding beginning 1,20	Herbaceous	Pasture, grasses and plants: stem, seeds, leafs and roots	148
MONOGASTRIC	PIGS (<i>Sus scrofa domesticus</i>)	Omnivorous	Medium - big (110 a 360kg)	Meat	Maintenance: 2850 Breastfeeding beginning 3100	Herbaceous, bushy and tree grasses	Cereals, fruits, vegetables, insects, small mammals, vegetable remainings and animals, fresh pasture, worms, and seeds.	55
	CHICKENS (<i>Gallus gallus domesticus</i>)	Omnivorous	Small (0,62 a 4 kg)	Meat	2950-3180	Herbaceous	Cereals, fresh grass, approx. worms, insects ... and seeds	35 (Chick)
				Eggs	2850-3450	Herbaceous		31 (Chicken)
	DUCKS (<i>Anas</i> sp.)	Omnivorous	Small (0,72 a 1,6 kg)	Meat	2400-3200	Herbaceous	Seeds, cereals, plants, insects, algae, fish	Data not available
	RABBITS (<i>Oryctolagus cuniculus</i>)	Grazing herbivore	Small (1 a 2,5 kg)	Meat	2140-2380	Herbaceous	Herbs: grasses> legumes and composites> umbelliferous (carrots), tree bark and leaves	Data not available

Table 1. Characteristics of the main types of domestic farm animals. *Ruminants: UFL/day, pigs, chickens, ducks and rabbits: EM (kcal/kg).