

Analysis of the Galician dairy sector to 2030

Increase in production expected with less cows but an increase in productivity



WORK PACKAGE 4
DAIRY SECTOR ANALYSIS

Overview of outlook to 2030:



Dairy cow numbers projected to decrease by 13.7% since 2020 (342.9 thousand dairy cows). Average milk yield per cow and milk solids are projected to increase by 35.4% since 2019 (8,090 kg per cow and year and 576 kg per cow and year)



Milk production projected to increase by 15.1% since 2019 (2.82 billion kg)



The volume of concentrates is projected to increase by 8.3% since 2014 (3014 kg per cow and year)



Dairy farm numbers projected to decrease by 45.7% since 2020 (7284 dairy farms). Average dairy farm size is projected to increase by 26.6% since 2019 (22.9 hectares). Average dairy herd size is expected to increase by 66.6% since 2019 (44.9 cows)



Milk deliveries are expected to increase by 15.1% since 2019, (2.79 billion kg) and may require additional processing capacity



Labour input per cow is going to reduce by 33.3% since 2019, from 65 to 43.3 hours/cow/per annum



The percentage of dairy herds in farms of most than 100 cows is expected to increase from 27.7% in 2016 to 45% in 2030. The stocking rate is expected to increase by 26.8% since 2016 (2.42 LSU/ha)

Projections subject to no major crisis, pandemic, climate disorder or environmental policy changes associated with climate change, water quality or biodiversity.

Analysis of key performance indicators for Galicia

DAIRY COW NUMBERS

In a business-as-usual scenario outlook, dairy cow's number across Galicia are expected to decrease year on year to 2030. According with regressive trend observed during the 2015-2020 period in the livestock survey (annual variation rate -1.463; MAPA, 2021a), it is projected that dairy cow's number will decrease by 13.7%, from 342.9 thousand of heads in 2020 to around 295.9 in 2030. In the case of the number of dairy farms, it has been projected a bigger adjustment (-45.7%), from 7284 dairy farms in 2020 to around 3957 dairy farms in 2030. This is the result of a negative trend observed in the structure of dairy sector (MAPA, 2021b), between 2015-2020.

However, the milk production is expected to increase by 15.1%, from 2.82 billion kg in 2019 to 3.24 billion kg in 2030. This projection is based on the Galician Strategic Plan for the Dairy Sector 2020-2025 (milk production will increase by 8% in 2025) (Xunta de Galicia, 2020).

PRODUCTIVITY

The projected growth in milk production in Galicia will be due to an increase in productivity per cow (milk yield). Average milk yield and milk solids per cow are projected to increase by 35.4%, according with milk production and dairy cows projections, over the 2019 to 2030 period (circa 8,090 to 10,956 of milk yield kg per cow and from 576 kg to 780 kg per cow). This will be achieved through a structural change (increase in herd size) projected from 2016 to 2030. The percentage of cows in farms with more than 100 cows, will grow from 27.7% in 2016 to 45.0% in 2030. Then, having the assumption that bigger farms are more dependent from concentrate in diet (Flores et al., 2016), we estimate an increase in volume of concentrate consumed (kg/cow/year) from 3014 kg in 2014 to 3265 kg in 2030.

Figure 1: Dairy cows & dairy farms projections to 2030

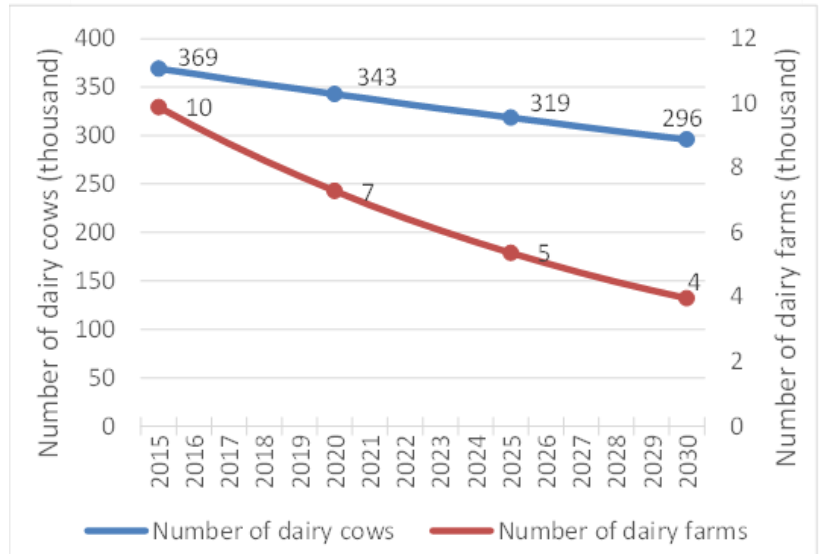


Figure 2: Milk production projections to 2030

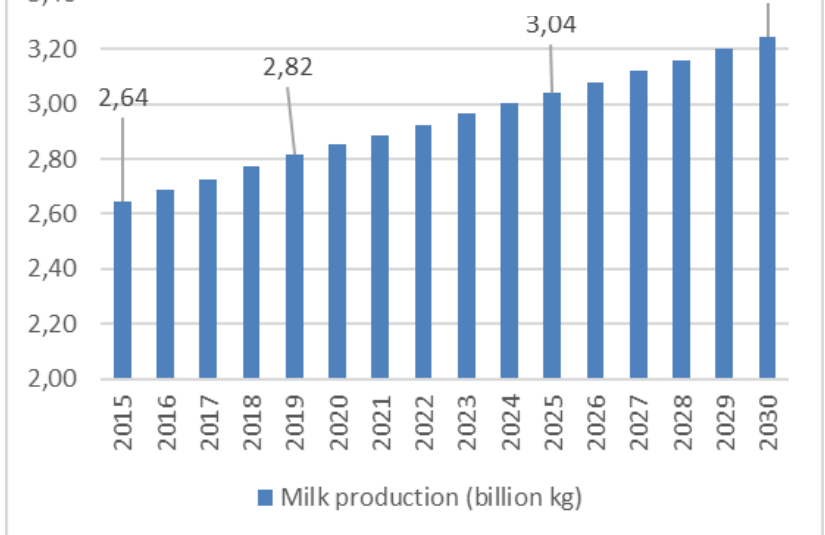
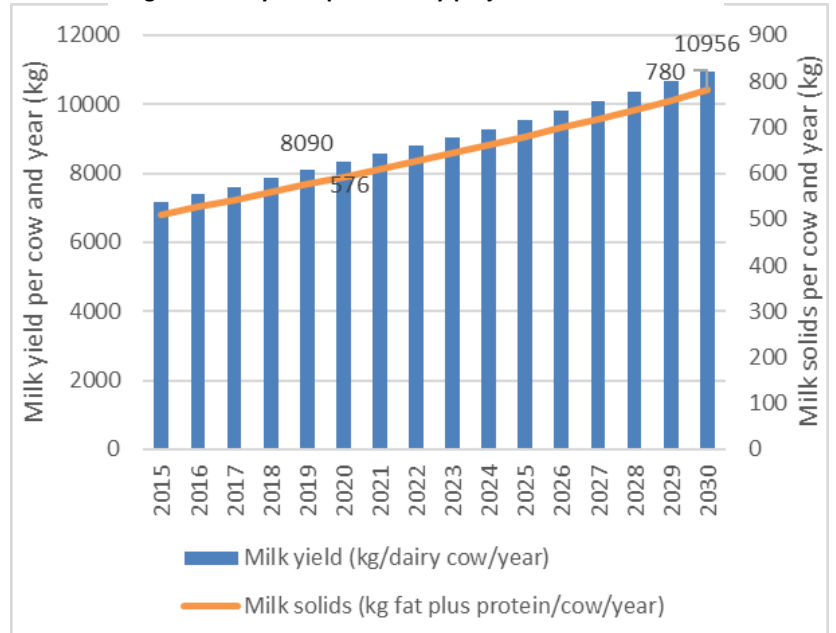


Figure 3: Dairy Cow productivity projections to 2030



The increased herd size will place additional requirements of labour input. Productivity gains and economies of scale are projected to see a 33.33% reduction in per cow labour input from 65 hours/cow/per year in 2019 to 43.3 hours/cow/per year in 2030.

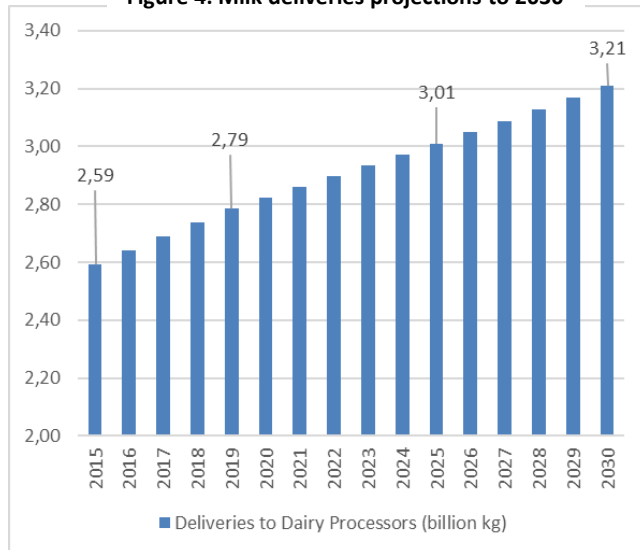
MILK DELIVERIES & PROCESSING CAPACITY

On the back of the increased productivity per cow, milk deliveries across Galicia are expected to increase by 15.1% from 2.79 billion kg in 2019 to 3.21 billion kg in 2030 (Xunta de Galicia, 2020).

In contrast to the dynamism of milk production, the development of the Galician dairy processing industry remains quite limited. As a result, a substantial part of milk production (49%) is sold to dairy industries outside Galicia for the processing of drinking milk, cheese and fresh products. At the same time, the firms located in the region are mostly oriented to the fluid milk, with a high dependence on private labels of food retailers. One of the main issues of the Galician dairy sector strategic plan 2020-2025 is to increase the percentage of milk processed in Galicia up to 75%.

The industrial structure has changed little since the late 1990s. In 2016, there were 145 dairy industrial establishments; most of them were very small cheesemakers. In addition, co-operative structure has a little relevance. No major consolidation is expected in the Galicia dairy industry at processor level in the medium term, however a small number of recent projects stand out in this rather static panorama: in cheese (Entrepinares, Innolact), in dairy products (Dairy lact, Inleit ingredients), and in ultra-fresh products (Acolact).

Figure 4: Milk deliveries projections to 2030



DAIRY FARM STRUCTURES

As consequence of a high adjustment in the number of dairy farms (-45.7% between 2020 and 2030) (Figure 1), higher than in dairy cows' number and in area, the average farm dimension will increase (Figure 5).

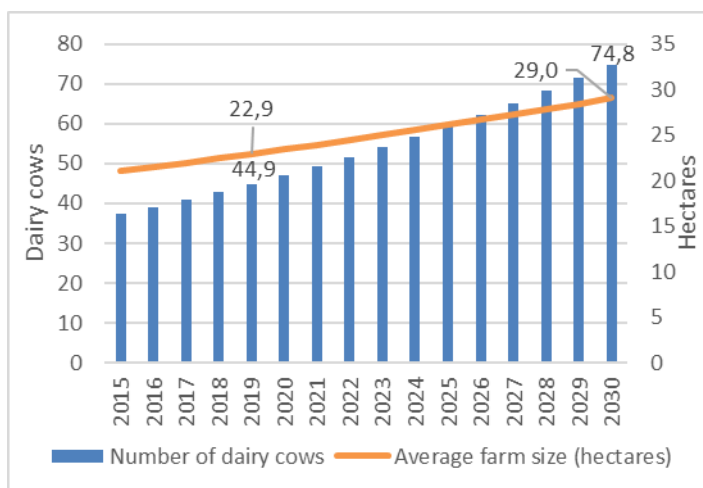
Based on historic trends, provided by Farm Structure Survey (2013-2016), the average dairy farm size (hectares) is expected to increase year on year by 2.17% from 22.9 hectares in 2019 to 29 hectares in 2030.

The average dairy herd size in Galicia is expected to have a higher increase year on year by 4.735%, from 44.9 dairy

cows in 2019 to 74.8 cows in 2030. In addition, this is expected to precipitate an upward movement in the herd size distribution where 27.7% of the dairy herds had more than 100 cows in 2016 to a situation where 45% of dairy herds are above this 100 cows threshold in 2030.

Finally, an increase in farms stocking rate (livestock units/hectare) is expected, from 2.42 LSU/ha in 2016 to 3.07 LSU/ha in 2030.

Figure 5: Average farm size (hectares) and farm herd (dairy cows)



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Project funded by



Interreg
Atlantic Area
European Regional Development Fund

