

Introduction

Polish Federation of Cattle Breeders and Dairy Farmers (PFHBiPM) was established in 1995 as a merger of 18 regional associations and 3 breed associations from all over the country.

By virtue of The Organization of Breeding and Livestock Reproduction Act (Breeding Act) and decisions of the Minister of Agriculture and Rural Development issued in relevant regulations PFHBiPM is:

- starting the 1st of July 2004, the only organization authorized to keep herd books for dairy cattle;
- starting the 1st of July 2006 PFCBDF has taken over the realization of milk recording for dairy cattle;
- starting the 1st of July 2007 PFCBDF has taken over the realization of tasks connected with type conformation of heifers and dairy cows.

Polish Federation of Cattle Breeders and Dairy Farmers runs milk recording of dairy cattle in Poland on the basis of current animal regulations and the directives of the European Union, the guidelines of International Committee for Animal Recording (ICAR) as well as internal PFHBiPM procedures of milk recording carrying out. These procedures guarantee, that our breeders get full, credible and reliable information about the results for each cow individually and also for the whole herd. Moreover, the procedures assure high level of services, being the condition of the highest quality and correctness of milk recording results in recorded herds. Above mentioned, was confirmed on the 28th of December 2010, when ICAR Board decided to grant Polish Federation of Cattle Breeders and Dairy Farmers the Certificate of Quality for following options:

- The identification system of dairy cattle;
- The recording of production of dairy cattle;
- Laboratory analysis;
- Data processing.

The right of using ICAR Certificate of Quality and its logo was renewed and expanded by dairy cattle herdbook and linear scoring fields of activity in June 2018 by the ICAR Board decision on prolongation of ICAR Certificate of Quality for PFCBDF until August 2021.

The first part of this study is a summary of the entire milk recording results in Poland in 2018. This study is addressed to national readers, in particular cattle breeders, milk producers and representatives of scientific centres, research institutes, educational centres, and all those who are vividly interested in matters regarding Polish agriculture and breeding.

The publication has an exclusively informative character, data are presented in nationwide, regional, voivodship, breed and sector cross-sections, often in relation to previous years, too. It presents reliable and objective data, which allows for essential evaluation of the potential of the national active population of dairy cattle.

With the present publication, we take the opportunity to congratulate warmly our Breeders on the results achieved in 2018 and to thank them for the close and satisfying co-operation aiming at the improvement of Polish dairy cattle breeding.

We wish you further successes in your work, prosperity as well as good luck in private life.

Milk Recording Department

Polish Federation of Cattle Breeders and Dairy Farmers

The results of milk recording in Poland

2018

The population of dairy cattle in milk recording in December 2018 reached **816.345** heads. In relation to the figures dated at 31st December 2017 it shows an increase in the number of dairy cows by 14.952 animals.

In December 2018 the total population of dairy cows reached **2.214.092** heads which makes up 91,6% of cows in general livestock in Poland.

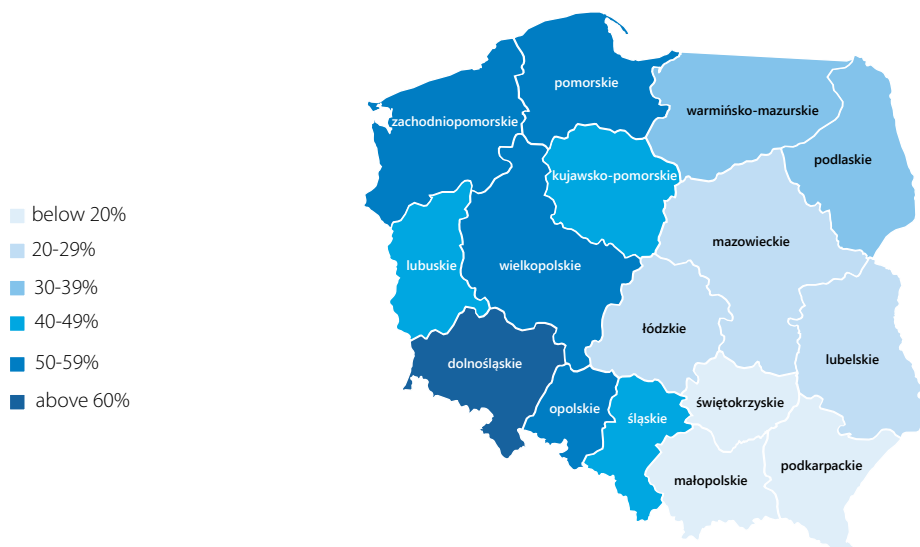
Considering the growth of recorded dairy cattle population we can still observe a natural drift of milk production concentration and an increase of farms' size in regions favourable for milk production i.e.: Wielkopolskie +4.488 cows; Mazowieckie +4.217, Łódzkie +1.548 Podlaskie +1.480 or Kujawsko-Pomorskie +1.434 voivodeships. According to information dated at 31st of December **2018 816.345 recorded cows** represent around **36,9 %** of national dairy cows population in total.

Despite continuous tendency of recorded population to grow in our country, in relation to figures from other European countries we still have a lot to do.

The highest participation of recorded dairy cows in relation to the total national dairy cows number was observed in north-western part of Poland and the lowest in south-eastern part of the country.

Illustration No. 1 represents picture of recorded population size dated at the 31st of December 2018 in relation to dairy cows livestock in total, according to voivodeships.

More detailed data relating to the recorded population of dairy cows in Poland are presented in the table No.12. (tabular part of study).



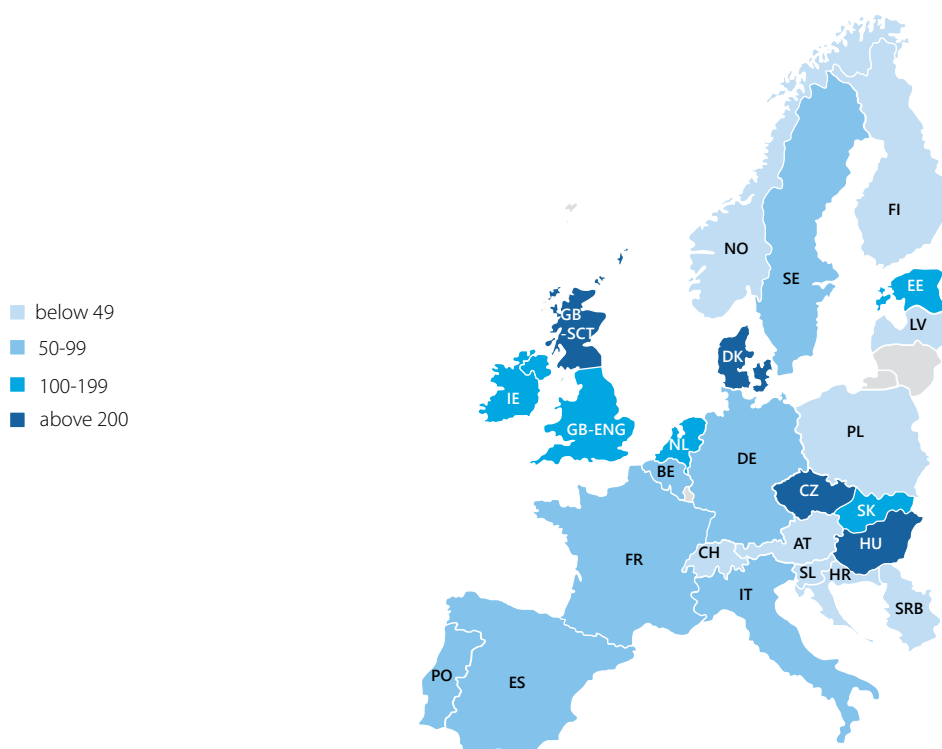
In 2018, the average size of recorded herd reached nearly 39 cows. Invariably for years, the largest herds are observed in Lubuskie, Dolnośląskie, Opolskie, Zachodniopomorskie and Śląskie, and the smallest herds: in Małopolskie. However the second smallest, average herd size in Podkarpackie and Świętokrzyskie is still slightly growing.

Illustration No 2. The average herd size in milk recording population by voivodships, according to data at 31st of December 2018.



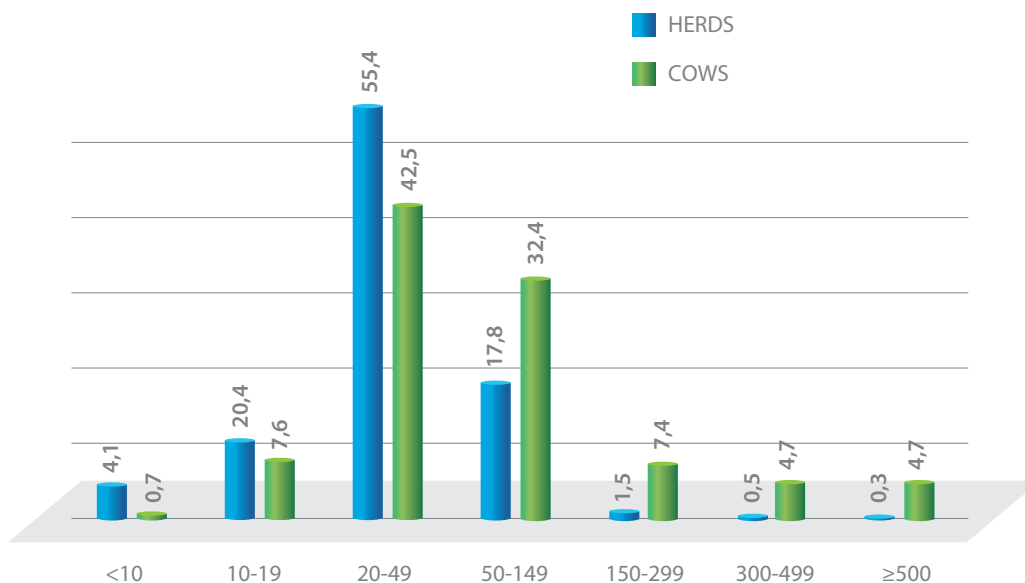
In order to compare Polish conditions and results of herds in milk recorded population we present a graph containing average data from different European countries below.

Illustration No 3. The average herd size in milk recording population in European countries, according to data on the ICAR website (January 2019).



In comparison to the previous year we still observe a slight growth tendency in herd size. In 2018, 96% of recorded farms kept more than 10 cows. Most of the recorded herds - nearly 76%, were situated in the interval 10 – 49 cows per farm. According to information dated at 31st of December 2018, there were over 20% of recorded herds consisting of more than 50 heads on average, which confirms that increasing tendency in the number of heads builds the increase of performance of a farm. Moreover the participation of farms keeping more than 50 cows is still growing.

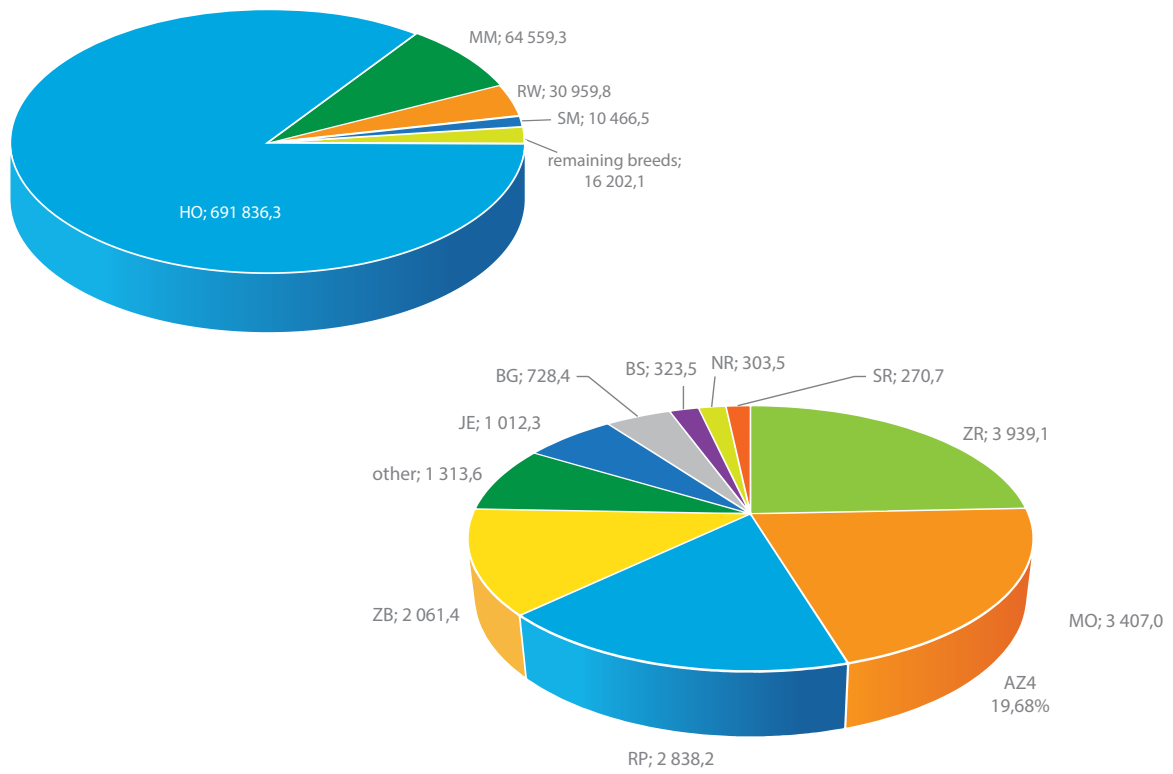
Illustration No 4. Shows the breakdown of herds and cows number by herd size.



The current data from 2018 show, that the proportional participation of recording performance methods in Poland, are as follows:

MR method	A4	A8	AT4	AR4	AR8	AZ4
Average cows number						
Poland	159 718	18 960	611 415	17 847	2 045	3 915
% in the population	19,6%	2,3%	75,1%	2,2%	0,3%	0,5%
+/- comparison to 2017 r	-3 668	-1 094	15 265	1 642	216	146

Illustration No. 6 shows the breed structure in recorded population of dairy cattle in 2018.



The main aim of the milk recording is data collection and processing, in order to provide as many as possible accurate and credible data for farmers, which will be useful for the right decision making process in herd management.

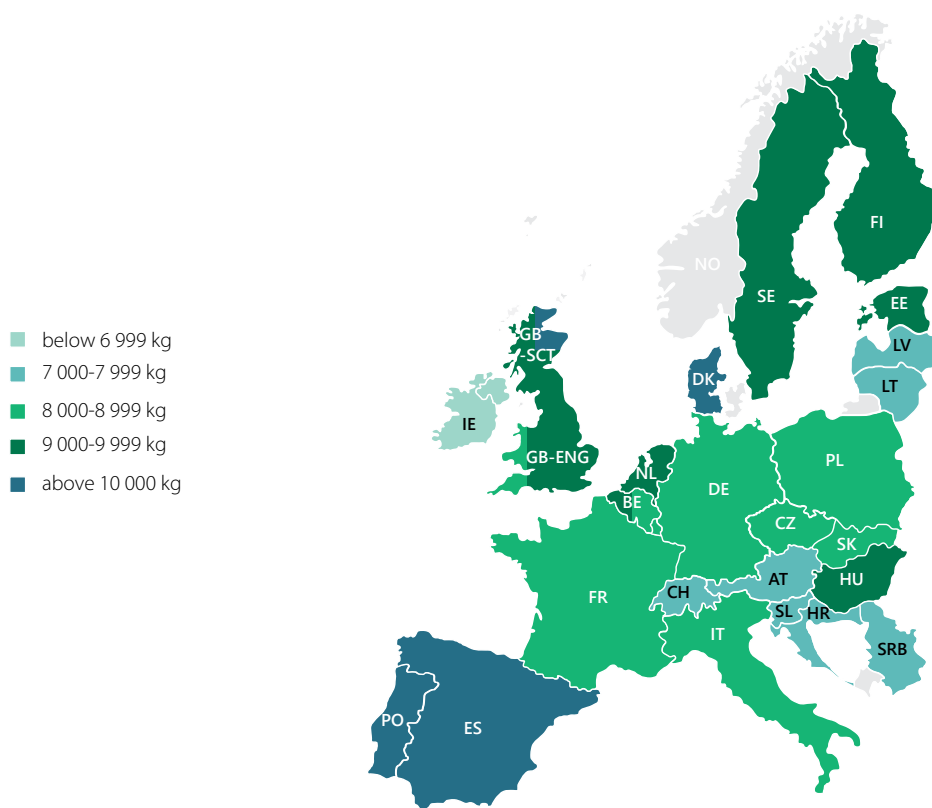
The comparison of milk yield during several last years in recorded population presents as follows:

Year	Average number of cows	Milk kg	Fat		Protein	
			kg	%	kg	%
2006	520 666	6 664	279	4,18	221	3,32
2007	526 888	6 688	282	4,22	223	3,33
2008	567 477	6 817	282	4,14	228	3,34
2009	579 910	6 935	289	4,17	231	3,33
2010	598 402	6 980	292	4,18	234	3,35
2011	625 015	7 135	295	4,13	236	3,30
2012	653 249	7 396	307	4,15	249	3,36
2013	679 029	7 441	310	4,16	250	3,36
2014	733 241	7 582	309	4,08	255	3,36
2015	753 613	7 771	318	4,09	261	3,36
2016	768 749	7 865	323	4,11	265	3,37
2017	790 261	8 150	333	4,08	267	3,38
2018	813 901	8 298	334	4,03	281	3,39

In 2018, in ranking of voivodships, where breeders achieved the best average results of kg milk performance, the best was Opolskie with the **average milk yield of 9.214 kg of milk, 367 kg of fat and 313 kg of protein** and Dolnośląskie with the **average milk yield of 9.193 kg of milk, 360 kg of fat and 312 kg of protein**.

Next illustration shows again where Polish recorded herds are placed if we compare the average milk yield.

Illustration No. 7 Average milk yield of recorded cows in different European countries, according to data on the ICAR website (January 2019).



In order to sum up the introduction to tabular part of our publication, it is necessary to underline, that 37% of recorded cows in Poland produce 57% of milk bought by dairy industry.

Illustration No. 8. Average milk yield in recorded population in 2018, according to voivodships.



Illustration No. 8. Average milk yield in recorded population in 2018, according to voivodships.



In order to guarantee the highest quality of provided services, last year our supervision inspectors carried out 2.487 controls of correctness and compliance of test milking carried out by the technicians with the existing procedures and 673 other checks of work quality of the technicians, including the correctness of breeding documentation. Besides the above mentioned, 299 repeat recordings were performed.