

Agricultural Census 2020 – final results in Opolskie Voivodship

29.04.2022

Decrease in the number of agricultural holdings in relation to AC 2010

According to the final results of the Agricultural Census in 2020, the total number of agricultural holdings amounted to 25.5 thousand and decreased by 10.4% in relation to the data obtained in the Agricultural Census in 2010. The total land area used by agricultural holdings increased by 0.4%. During the analysed period, the livestock of poultry and cattle increased, while of pigs decreased.

Introduction

Agricultural Census (AC) was carried out on the territory of Poland during the period from 1 September to 30 November 2020, as of 1 June 2020.

As a complete survey, the agricultural census included agricultural holdings managed by natural persons (private farms), as well as legal persons and organisational units without legal personality.

Data for the voivodship are presented according to the seat of the user, whereas for gminas – according to the seat of farm.

Farms

The final results of AC 2020 showed that in Opolskie Voivodship a decrease in the number of agricultural holdings was recorded in comparison with the results of AC 2010, with simultaneous growth of their average area. The number of agricultural holdings in 2020 amounted to 25.5 thousand and its vast majority were private farms (98.8%). In comparison with the results of AC 2010, the number of agricultural holdings in Opolskie Voivodship, as well as in other voivodships, has decreased. That decrease amounted to 3.0 thousand, i.e. 10.4% (average in the country – 12.7%), while the largest occurred in Śląskie Voivodship (of 23,3%), and the smallest in Warmińsko-Mazurskie Voivodship (of 2,7%).

The number of agricultural holdings decreased by 10.4% compared to 2010

Table 1. Agricultural holdings and their average area

Specification	2010	2020	Index (2010=100)	
			2010=100	country=100
Agricultural holdings	28437	25479	89.6	1.9
Average total land area in ha	18.9	21.2	112.0	167.7
Average agricultural land area in ha	18.0	20.3	112.7	179.2

According to the final results of AC 2020, in relation to 2010, there were changes in the structure of agricultural holdings by their land area. In the total number of agricultural holdings, there was an increase in the share of largest units in terms of land area (with land area over 15 ha of agricultural land) and the smallest (up to 1 ha of agricultural land), which, mostly, conducted intensive plant and animal production (i.e. glasshouses, pig and poultry farms). Therefore one can say about an increase in the importance of farms focused on market production.

In the structure of agricultural holdings, farms with an area up to 5 ha of agricultural land area still predominated and their share remained at the 2010 level (45.8%). The second group were farms with an area of 5–15 ha of agricultural land – 28.4% (decrease in the share of 2.8 percentage points with regard to 2010), however the share of farms with an area of 15 ha and more of agricultural land increased and amounted to 25.9% (compared to 23.0% in 2010).

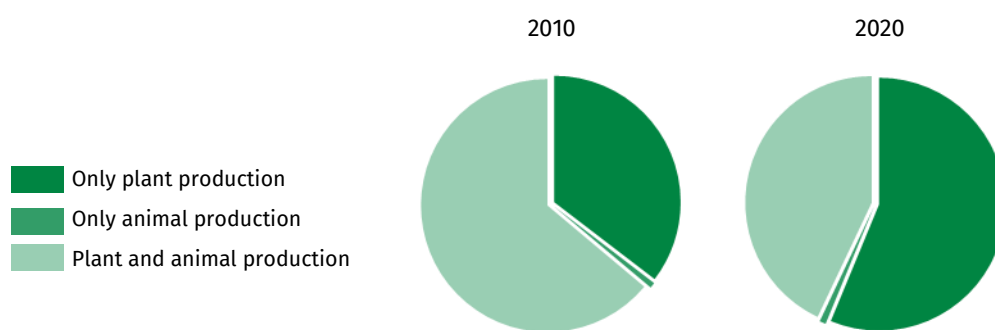
Table 2. Structure of agricultural holdings by area groups of agricultural land

Area groups of agricultural land	2010		2020	
	in absolute numbers	in percent	in absolute numbers	in percent
Total	28437	100.0	25479	100.0
Up to 1 ha inclusive	437	1.5	487	1.9
1–5 ha	12600	44.3	11170	43.8
5–10	5831	20.5	4774	18.7
10–15	3036	10.7	2460	9.7
15–20	1830	6.4	1427	5.6
20–50	3292	11.6	3225	12.7
50 ha and more	1411	5.0	1936	7.6

Final results of AC 2020 show that in Opolskie Voivodship there have been significant changes also in the structure of farms due to the type of conducted agricultural production, which is confirmed by the observed for years processes of production specialisation. In 2010 farms conducting plant and animal production were dominant, whereas in 2020, the most numerous were farms conducting only plant production. Said farms accounted for 56.3% of the total number of agricultural holdings, while in 2010 – 35.4%. Percentage of farms conducting both plant and animal production decreased from 63.9% to 42.9%. Percentage of farms conducting only animal production remained on the similar level (0.8% compared to 0.7%).

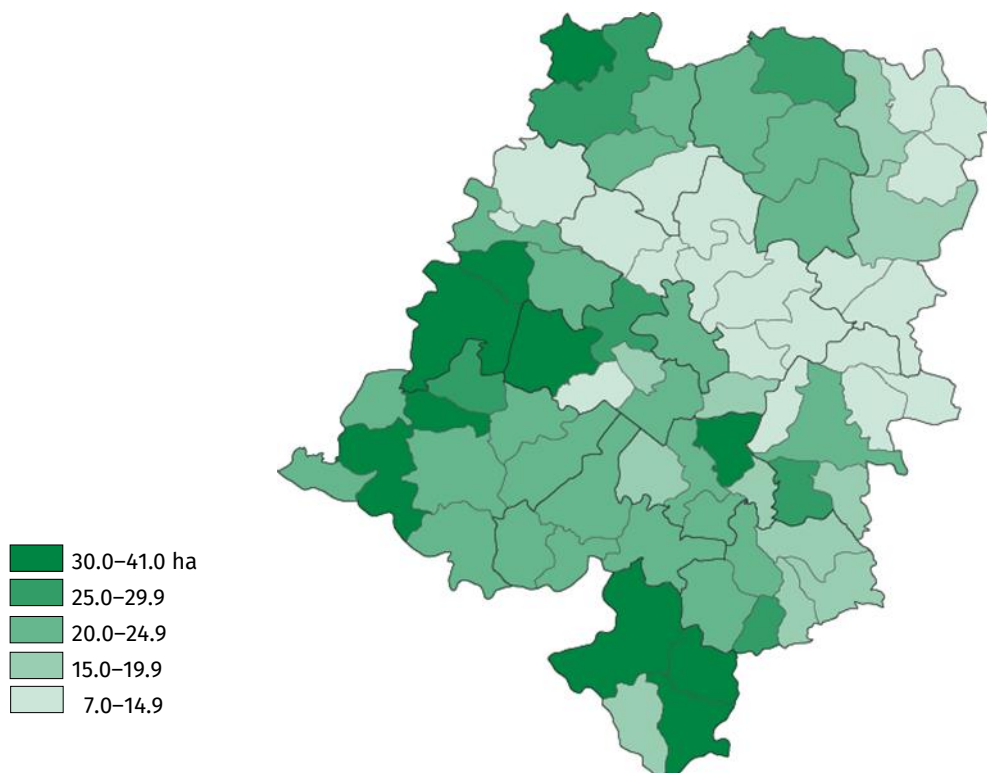
In 2020 over a half (56.3%) of farms conducted only plant production

Chart 1. Structure of agricultural holdings by type of agricultural production



By analysing farms conducting particular kinds of agricultural production it should be noted, that the largest average area of agricultural land was recorded in entities conducting plant and animal production, i.e. 22.3 ha compared to 18.7 in 2010.

Map 1. Average area of agricultural land in 2020



Final results of AC 2020 have shown that the largest number of agricultural holdings in Opolskie Voivodship was recorded in gminas: Rudniki (3.9% of the total number of farms), Namysłów (3.3%) and Praszka (3.1%), the lowest in city of Brzeg (0.2%) and in gminas: Tułowice (0.3%) and Bierawa (0.5%).

Land use and sown area

According to the final results of AC 2020, the total area of land in agricultural holdings in Opolskie Voivodship slightly increased (by 0.4%) and amounted to 540.7 thousand ha, while in the country, on average, it decreased by 1.9%. An increase in the land area, with a simultaneous decrease in the number of agricultural holdings resulted in a growth of average total area of agricultural holding from 18.9 ha in 2010 to 21.2 ha in 2020. On average total area of an agricultural holding in the country amounted to 12.7 ha compared to 11.3 ha in 2010.

In comparison with results of the previous census, in the structure of land usage, the share of agricultural land area in the total land area increased by 0.6 percentage point. At the same time, a relatively high increase in the share of crop area (by 2.5 percentage points) was recorded. On the other hand, there was a decrease in the share of other agricultural land – by 0.4 percentage point, of forests and forest land as well as other land by 0.3 percentage point, each.

In relation to 2010 the total land area used in agricultural holding slightly increased.

Table 3. Land use in agricultural holdings

Specification	Area of agricultural land				
	grand total	Of which agricultural land in a good agricultural condition			
		total	of which		
			sown area	permanent meadows	permanent pastures
in hectares					
2010	513137	508142	453162	39450	5461
2020	518316	515382	468080	38918	4249
2010=100					
2020	101.0	101.4	103.3	98.7	77.8
in percent of total area agricultural land					
2010	100.0	99.0	88.3	7.7	1.1
2020	100.0	99.4	90.3	7.5	0.8

The agricultural land area of agricultural holdings in 2020 amounted to 518.3 thousand ha and accounted for 95.9% (on average in the country – 89.7%) of the total land area of agricultural holdings. In this regard, Opolskie Voivodship ranked 1st in the country.

Final results of AC 2020 indicate that in the past decade, the agricultural land area in agricultural holdings increased by 5.2 thousand ha (by 1.0%), including sown area by 14.9 thousand ha (by 3.3%). On the other hand, there was a decrease in the fallow land area by 5.9 thousand ha (by 75.3%), permanent pastures – by 1.2 thousand ha (by 22.2%) and permanent meadows – by 0,5 thousand ha (by 1.3%).

The area of agricultural land in good agricultural condition in 2020 amounted to 515.4 thousand ha, i.e. 99.4% of the total agricultural land (in 2010 – 99.0%). In the structure of agricultural land in good agricultural condition, the largest share (90.8%) was the sown area, which occupied 468.1 thousand ha.

The observed decrease in the number of agricultural holdings with an increase in the area of agricultural land was reflected in the increase of the average area of agricultural land per 1 agricultural holding by 12.7%, i.e. from 18.0 ha in 2010 to 20.3 ha in 2020 (on average in the country from 9.8 ha to 11.4 ha). In terms of average land area of agricultural holding, Opolskie Voivodship ranked 4th in the country. The largest average agricultural land area per 1 agricultural holding was recorded in Zachodniopomorskie Voivodship (32.5 ha) and the smallest in Małopolskie Voivodship (4.4 ha).

In the territorial cross-section of Opolskie Voivodship, the highest average area of agricultural land per 1 farm was in gmina Kietrz (41.0 ha) and the lowest in gmina Kolonowskie (7.0 ha).

Total sown area in agricultural holdings in 2020 amounted to 468.1 thousand ha and was by 3.3% higher than in 2010 (on average in the country – by 5.7%). Share of sown area in the total land area amounted to 86.6%, i.e. by 2.5 percentage points more in relation to 2010. In this regard Opolskie Voivodship ranked on the 1st place in the country.

The share of main agricultural crops in the total sown area was:

- total cereals (i.e. basic cereals with cereal mixed as well as buckwheat, millet and other cereals including maize for grain) – 71.8% (on average in the country – 68.1%),

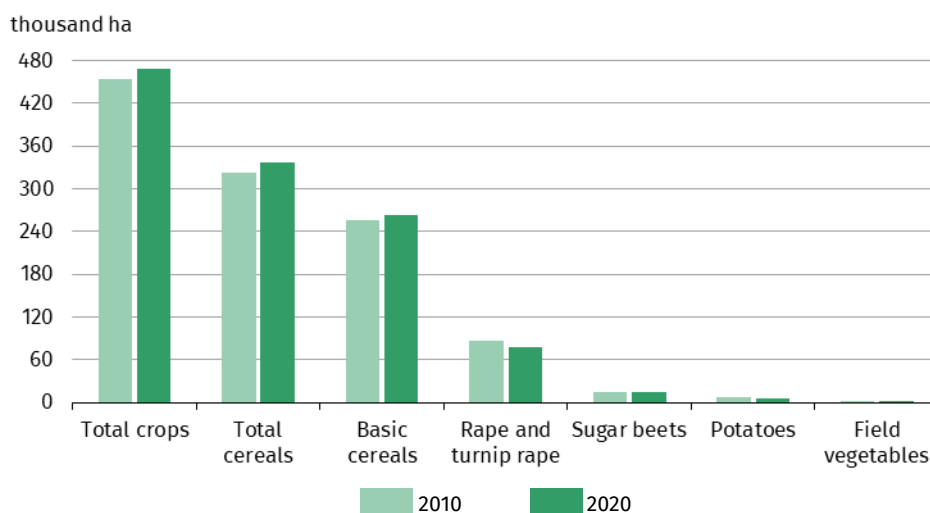
Average agricultural land area of agricultural holding in 2020 amounted to 20.3 ha and was by 12.7% higher than in 2010

Sown area in agricultural holdings increased by 3.3% compared to AC 2010

- basic cereals (i.e. wheat, rye, barley, oat, triticale) – 56.3% (53.0%),
- rape and turnip rape – 16.6% (8.9%),
- sugar beets – 3.3% (2.2%),
- potatoes – 1.3% (2.1%),
- field vegetables – 0.5% (1.5%).

In 2020, similarly to 2010 in the structure of sown area, total cereals were the dominant crop

Chart 2. Sown area by groups of crops



Comparing the results of AC 2020 with the previous agricultural census, some changes in the structure of sown area of particular crops can be observed. In relation to 2010, a share of sown area increased for:

- total cereals – by 0.7 percentage point, with an increase in the cultivated area of 13.9 thousand ha, i.e. of 4.3%,
- field vegetables – by 0.3 percentage point, with an increase in the cultivated area of 1.2 thousand ha, i.e. of 127.7%,
- sugar beets – by 0.1 percentage point, with an increase in the cultivated area of 0.7 thousand ha, i.e. of 5.1%.

On the other hand, in relation to the results of agricultural census of 2010, there was a decrease in the share of sown area:

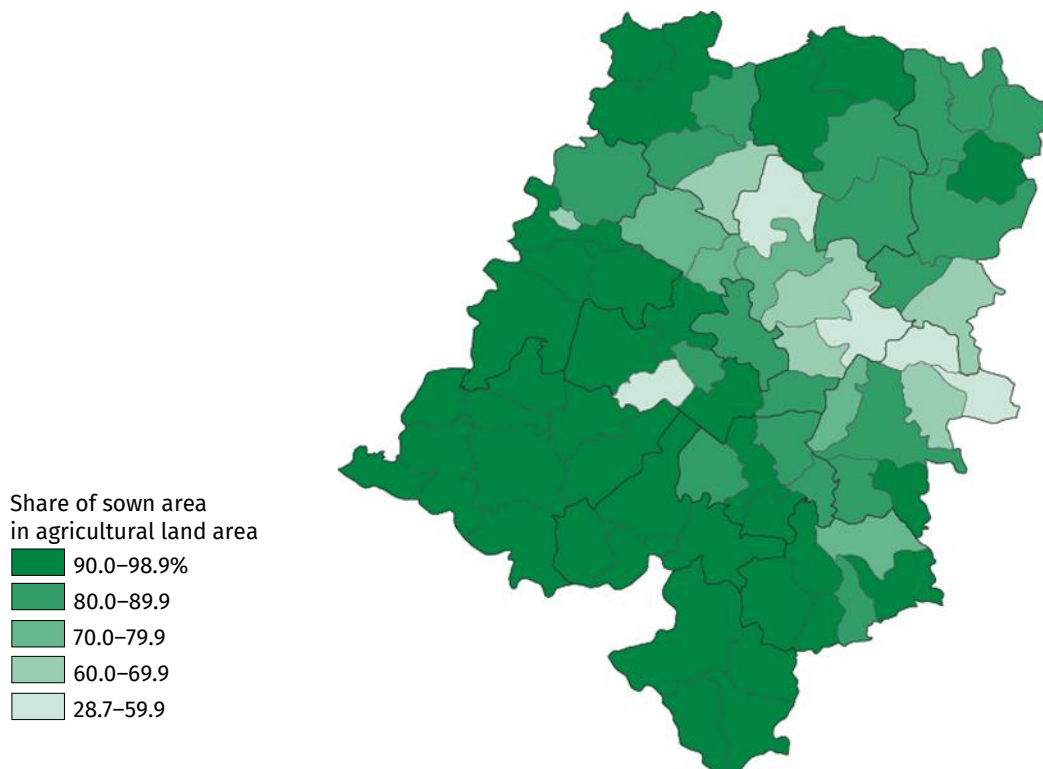
- rape and turnip rape – by 2.7 percentage points, with a decrease in the cultivated area of 10.0 thousand ha, i.e. of 11.5%,
- potatoes – by 0.6 percentage point, with a decrease in the cultivated area of 2.7 thousand ha, i.e. of 31.7%,
- basic cereals – by 0.4 percentage point, with a decrease in the cultivated area of 6.7 thousand ha i.e. of 2.6%.

Agricultural holdings in Opolskie Voivodship in 2020 had:

- 4.5% of the domestic total cereals sown area (in 2010 – 4.2%),
- 4.5% of the domestic basic cereals sown area (in 2010 – 4.2%),
- 2.6% of the domestic potatoes cultivated area (in 2010 – 2.3%),
- 6.2% of the domestic sugar beets cultivated-area (in 2010 – 7.0%),
- 7.9% of the domestic rape and turnip rape sown area (in 2010 – 9.3%),
- 1.3% of the domestic field vegetables cultivated area (in 2010 – 0.7%).

In the territorial cross-section by gminas of Opolskie Voivodship (by the seat of agricultural holding), the highest share of sown area in the total agricultural land area was recorded in gmina Baborów (98.9%) and the lowest in gmina Murów (28.7%).

Map 2. Sown area in 2020



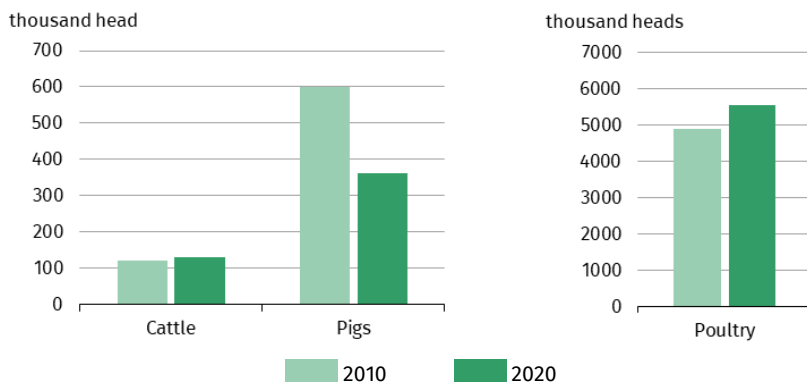
In 2020, the highest share in voivodship's sown area of total cereals characterised gminas: Głubczyce (5.2%), then Grodków and Namysłów (3.9% each). In the voivodship's cultivation area of potatoes, the largest share was in gmina Głubczyce (25.5%), then Namysłów (12.7%). The share of rape and turnip rape in voivodship's area of this cultivation reached the highest values in gminas: Głubczyce (6.1%) and Grodków (5.8%). In sugar beet cultivation dominant were gminas: Głubczyce (12.3%) and Kietrz (11.1%).

Livestock

According to the final results of AC 2020, the number of basic livestock species in agricultural holdings amounted to:

- cattle – 131.1 thousand heads, of which cows – 45.5 thousand heads,
- pigs – 363.5 thousand heads, of which sows – 32.0 thousand heads,
- poultry – 5536.8 thousand heads, of which laying hens – 1155.2 thousand heads.

Chart 3. Livestock population



Compared to the results of the 2010 census, a significant increase in the number of total poultry population – of 13.4% (on average in the country – of 29.6%), of which laying hens – of 22.1% (of 8.3%). Growth, although on a smaller scale, also-occurred in cattle population – of 6.9% (on average in the country – of 9.9%), with a decrease in the number of cows herd – of 5.6% (of 6.3%). During the 2010-2020 decade a deep decrease in the pig population was recorded– of 39.5% (on average in the country – of 26.9%), of which sows – of 44.3% (of 42.8%).

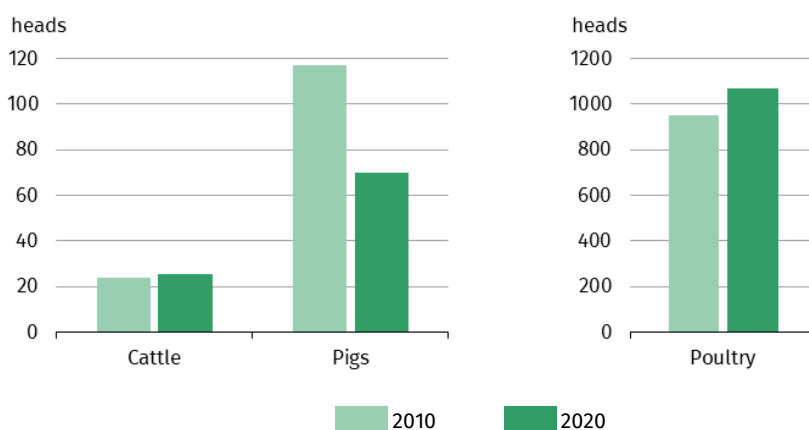
In relation to 2010, an increase in the number of poultry and cattle population, with a simultaneous decrease in the number of pig population was recorded.

In 2020, agricultural holdings in Opolskie Voivodship held:

- 2.1% of domestic cattle population, of which 1.8% of cow population (in 2010 2.1% and 1.8%, respectively);
- 3.3% of domestic pig population, of which 3.9% of sow population (in 2010 3.9% and 4.0%, respectively);
- 2.5% of total domestic poultry population, of which 2.1% of laying hen population (in 2010 2.8% and 1.9%, respectively).

In 2020, in Opolskie Voivodship, per 1 recorded agricultural holding, in total there was an average of 5.1 heads of cattle, 14.3 heads of pigs and 217.3 heads of total poultry.

Chart 4. Livestock population per 100 ha of agricultural land



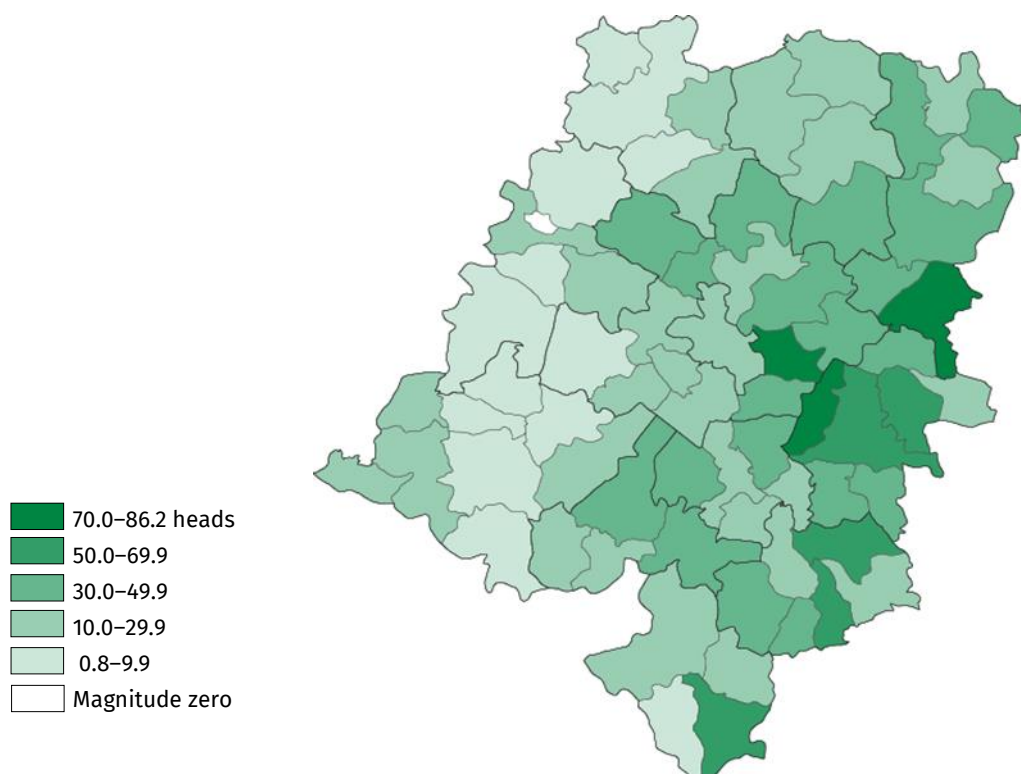
The number of cattle per 100 ha of agricultural land in 2020 amounted to 25.3 heads compared to 23.9 heads in 2010 (on average in the country 42.2 heads compared to 38.6 heads). At the same time, the number of pigs per 100 ha of agricultural land decreased by 47.1 heads and was on the level of 70.1 heads (on average in the country by 28.0 heads and 74.6 heads, respectively). In poultry's case, said indicator amounted to 1068.2 heads compared to 951.8 heads in 2010 (the national average 1510.8 heads against 1173.2 heads).

A considerable variation in the livestock population per 100 ha of agricultural land can be seen within particular voivodships. In 2020, the largest cattle population per 100 ha of agricultural land was recorded in Podlaskie Voivodship (94.7 heads) and the smallest in Dolnośląskie Voivodship (12.1 heads). In pigs' case, the highest indicator occurred in Wielkopolskie Voivodship (174.9 heads), and the lowest in Dolnośląskie Voivodship (23.5 heads).

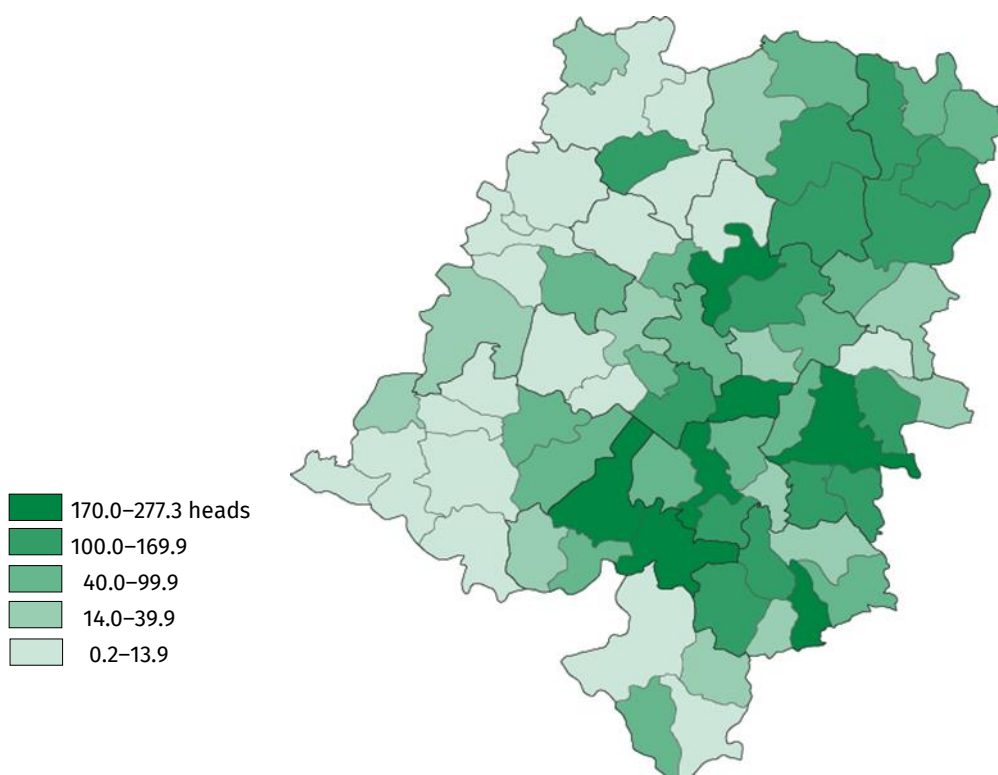
In 2020, the largest cattle population was recorded in gmina Kietrz (9.2 thousand heads), pig population in gmina Głogówek (39.6 thousand heads) and poultry population in gmina Biała (787.0 thousand heads).

Map 3. Livestock population per 100 ha of agricultural land in 2020

Cattle



Pigs



In the territorial cross-section by gminas of Opolskie Voivodship, the highest number of cattle per 100 ha of agricultural land occurred in gmina Izbicko (86.2 heads), Dobrodzień (82.9 heads) and Chrząstowice (77.5 heads), and the lowest in gmina Lubsza (0.8 head), Łambinowice (1.0 head) then Skoroszyce and Wilków (per 1.8 heads each). On the other hand,

the biggest pig population per 100 ha of agricultural land was recorded in gmina Krapkowice (277.3 heads), Głogówek (266.3 heads) and Łubniany (234.4 heads), and the smallest in gminas: Skarbimierz, Kolonowskie, Olszanka, 0.2 head, 1.0 head and 1.1 heads, respectively. In poultry's case, the highest population per 100 ha of agricultural land occurred in gmina Zawadzkie (19313.5 heads), Izbicko (6274.1 heads) and city of Kędzierzyn-Koźle (6864.7 heads), and while the lowest in city of Brzeg (10.6 heads) as well as in gminas: Pakośćawice (14.0 heads) and Kietrz (23.3 heads).

In 2020, the largest number of cattle per 1 agricultural holding in total was in gmina Kietrz (25.6 heads), while of pigs in gmina Głogówek (58.7 heads) and of poultry in gmina Zawadzkie (2427.0 heads).

Tractors and agricultural machinery

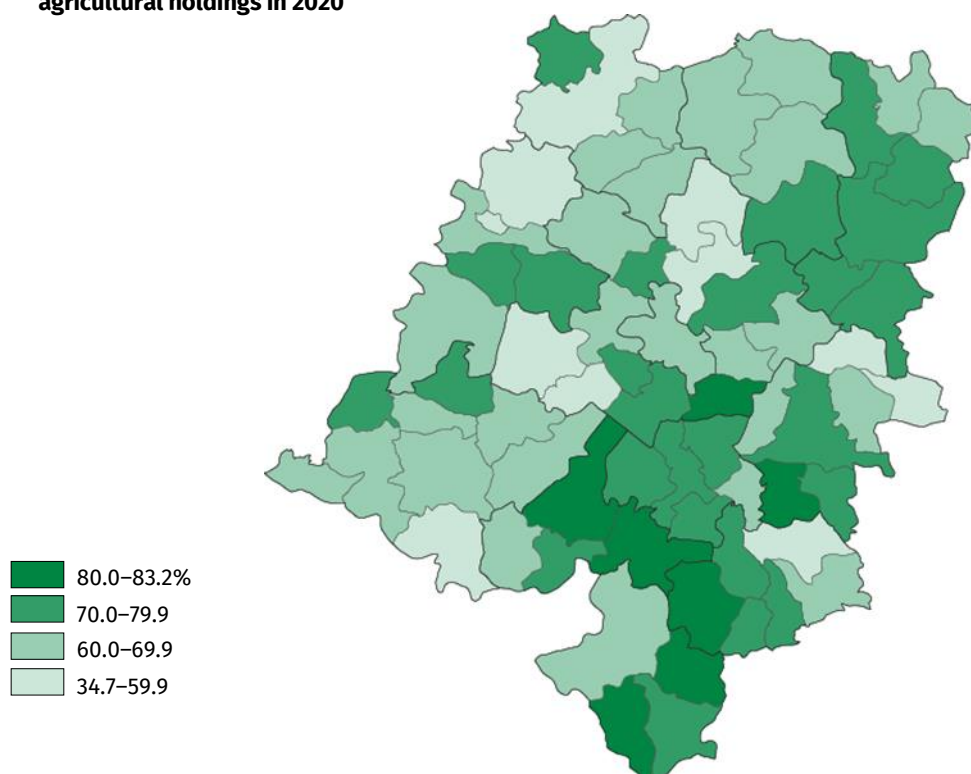
In the years 2010–2020, changes in the equipment of agricultural holdings with basic agricultural machines were observed, which was mainly the result of the progressive specialisation of agricultural production and the simultaneous process of modernisation of farms.

According to the final results of AC 2020, in agricultural holdings, 34.8 thousand tractors were recorded, i.e. by 7.3% fewer than in 2010 (on average in the country – by 2.1% more).

On average, each agricultural holding in Opolskie Voivodship was equipped with one tractor.

A larger scale of the decline in the number of agricultural holdings than of tractors resulted in the average number of tractors per 100 agricultural holdings increasing from 131.9 in 2010 to 136.4 in 2020 (on average in the country from 94.0 to 109.9). More tractors per 100 agricultural holdings were recorded in voivodships: Kujawsko-Pomorskie (146.6) and Podlaskie (140.9).

Map 4. Share of agricultural holdings equipped with agricultural tractors in the total number of agricultural holdings in 2020



Final results of AC 2010 indicate the differentiation in farms' equipping with agricultural tractors on a territorial cross-section. The highest share of farms with tractors in the total

number of farms was recorded in gminas: Głogówek (83.2%) then Pawłowiczki and Leśnica (83.1% each). These gminas were simultaneously characterised by a large number of tractors per 100 farms (196.1, 205.6 and 195.8, respectively), however the largest number of tractors per 100 farms was recorded in gmina Polska Cerekiew (210.2). The lowest share of farms equipped with tractors occurred in city of Brzeg (34.7%), gmina Kolonowskie (53.6%) and gmina Lubsza (55.2%). On average per 100 farms there were 59.2, 79.7 and 88.3 tractors, respectively).

With a reduced number of farms and simultaneous increase in the area of agricultural land, an average area per 1 tractor increased in relation to the results of the previous census from 13.7 ha of agricultural land to 14.9 ha of agricultural land (on average in the country it decreased: from 10.5 ha of agricultural land to 10.3 ha of agricultural land, respectively). In 2020, the largest average area of total agricultural land per 1 tractor was recorded in Zachodniopomorskie Voivodship (31.0 ha), and the smallest – in Małopolskie Voivodship (5.2 ha).

Table 4. Tractors and agricultural machinery

Years	Tractors	Combine harvesters for:			Field crop sprayers
		cereals	beet	potatoes	
In units					
2010	37502	6894	2012	2697	13154
2020	34750	6185	673	1479	11227
2010=100					
2020	92.7	89.7	33.4	54.8	85.4
Per 100 agricultural holdings					
2010	131.9	24.2	7.1	9.5	46.3
2020	136.4	24.3	2.6	5.8	44.1

The state of equipment of agricultural holdings with agricultural machines was determined, among others, by changes occurring in the structure of cultivated area of main crops, ongoing process of farm specialisation and increasingly common usage of machines owned by other farms, cooperatives or service companies.

For years in Opolskie Voivodship, the structure of sown area has been predominated by production of cereals (approximately 72%). In relation to 2010, the number of combine harvesters for cereals per 100 agricultural holdings (24 units) remained at a similar level. Discussed indicator, both in 2010 and 2020 clearly exceeded country's average (10 units and 13 units, respectively) and was the highest among the voivodships.

In a territorial cross-section by gminas of Opolskie Voivodship, the highest number of combine harvesters for cereals per 100 agricultural holdings was recorded in gminas: Biata (45.3), Leśnica (43.6) and Pawłowiczki (41.5), while the lowest in city of Brzeg (4.1), gmina Kolonowskie (8.7) and Praszka (9.5).

With an increase of the sugar beet harvested area and continuing downward trend in the acreage of potatoes, similarly to the national average, a decrease in the number of combine harvesters for these crops was recorded. In 2020, per 100 agricultural holdings, there were

In Opolskie Voivodship there were most cereal harvesters per 100 agricultural holdings

2.6 beet harvesters (on average in the country – 0.8) and 5.8 of potato harvesters (4.5), while in 2010 7.1 (1.8) and 9.5 (5.3), respectively.

The equipment of agricultural holdings with field crop sprayers has also decreased.

Census included a total number of sprayers, which might include not only machines used in plant protection (sprayers in use) but also for fertilising, watering and other purposes concerning agricultural production. In 2020, per 100 agricultural holdings, there were 44.1 field crop sprayers, with an average in the country amounting to 35.1 (in 2010: 46.3 and 32.5, respectively).

Sources of income of households with a farm holder

Final results of AC 2020 show that in the period from 2 June 2019 to 1 June 2020, 25.2 thousand households with a farm holder obtained income from conducted agricultural activity.

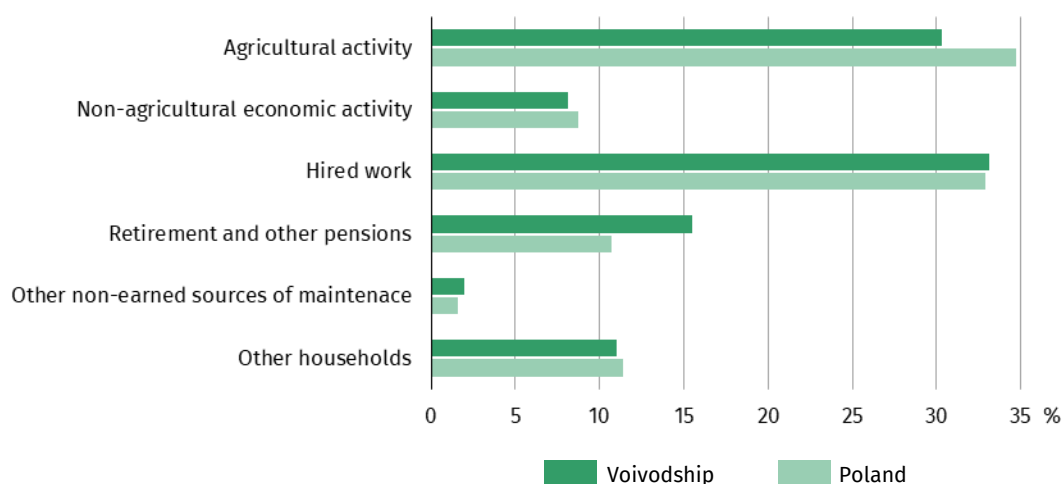
For 8.7 thousand households with a farm holder, an agricultural activity was a main source of maintenance, i.e. a source of income exceeding 50% of total income. In other households using agricultural holdings, main sources of income were:

- hired work – for 8.3 thousand discussed agricultural holdings,
- retirement and other pensions – for 2.7 thousand,
- non-agricultural economic activity – for 2.2 thousand,
- other non-earned sources of income (except retirement and other pensions) – for 0.4 thousand.

In relation to 2010, similarly as country's average, there was a decrease in the number of households with a farm holder obtaining over 50% income from agricultural activity, non-agricultural activity, retirement and other pensions as well as other non-earned sources of income. On the other hand there was an increase in the number of households, for whom the main source of income was hired work (on average in the country the number of these households remained at the similar level).

Every third agricultural holding obtained over 50% of income from agricultural activity

Chart 5. Structure of households with a farm holder by the main source of income in 2020



Labour input in agricultural holdings

Final results of AC 2020 have also provided information on labour inputs incurred in agricultural holdings over the 12 months preceding 1 June 2020. During the year persons contributing labour input into activity of an agricultural holding work at different times.

Hence, to fully illustrate labour inputs, a conversion factor in the form of Annual Work Unit (AWU) was used, which translates the working time of all employed persons into full-time employees per year (min. 2120 working hours per year).

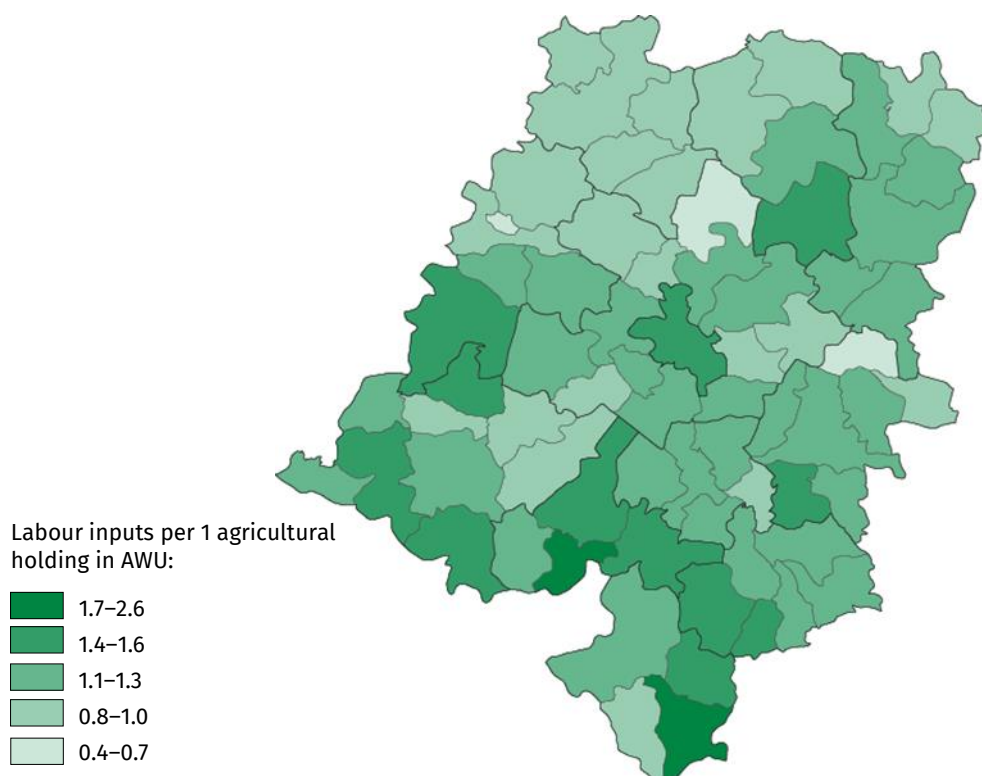
According to AC 2020, total labour inputs in the 2019/2020 farming year in all agricultural holdings amounted to 29.9 thousand AWU, i.e. by 24.0% fewer in relation to 2010 (on average in the country – by 25.5%). Decrease of labour inputs can be attributed to, i.a. a drop in the number of agricultural holdings and ongoing process of their mechanisation.

Close to 90% of total labour inputs were incurred on private farms (26.4 thousand AWU). A vast majority of labour inputs on these farms were family labour inputs, i.e. users and their families (94.2%; in 2010 – 97.5%). Share of labour inputs of permanent, hired employees on private farms amounted to 3.3% (in 2010 – 1.6%).

In the territorial cross-section, a percentage of family labour inputs ranged from 83.9% in Zachodniopomorskie Voivodship to 97.2% in Podkarpackie Voivodship, with a country's average of 92.3%. A significant differentiation was also observed in the percentage of labour inputs of permanent employees, which reached the level of 0.8% in Świętokrzyskie Voivodship, and in Zachodniopomorskie Voivodship surpassed 10% (on average in the country – 4.0%).

In relation to 2010, a decrease in labour inputs in agricultural production in agricultural holdings was recorded

Map 5. Labour input in total agricultural holdings incurred on agricultural output in 2020



Final results of AC 2020 showed that the highest labour inputs per 1 agricultural holding in Opolskie Voivodship were incurred in gminas: Lubrza (2.6 AWU), Kietrz (1.9 AWU) Otmuchów (1.6 AWU), and the lowest in gminas: Brzeg (0.4 AWU) then Kolonowskie and Murów (0.7 AWU each).

When citing data from the Statistics Poland please provide the following information: "Statistics Poland's data".


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Related information:

The publication of Statistics Poland titled *Information on the preliminary results of the Agricultural Census 2020*

Terms used and methodological explanations are included in the above-mentioned study.

Data available in databases:

Local Data Bank – Agricultural Censuses – AC 2020