

The Agricultural Census 2020 – final results in Mazowieckie Voivodship

29 April 2022


9.1%

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

According to the final results of the Agricultural Census 2020¹, the downward trend in the number of agricultural farms recorded for many years was maintained. Compared to the results obtained in the AC 2010, the total area of land and the area of agricultural land, including those kept in good agricultural condition, increased. In the analysed period, the total number of poultry significantly increased, there was also an increase in the number of cattle and pigs.

Agricultural holdings

According to the results of the Agricultural Census carried out in 2020, the total number of agricultural holdings in Mazowieckie Voivodship amounted to 208.1 thousand and accounted for 15.8% of the total number of agricultural holdings in Poland. Compared to the Agricultural Census 2010, the number of agricultural holdings decreased by 20.7 thousand, i.e. 9.1%.

In the structure of agricultural holdings, the largest group were agricultural holdings with an area of 1 to 5 ha of agricultural land (44.0% of the total number of agricultural holdings) and 5 to 10 ha of agricultural land (27.2%). The smallest number was recorded for the smallest agricultural holdings with an area of up to 1 ha of agricultural land inclusive (1.5%) and the largest agricultural holdings of 50 ha of agricultural land and more (1.6%).

Table 1. Structure of agricultural holdings

Area groups of agricultural land	2010		2020	
	In thousands	In percent	In thousands	In percent
TOTAL	228,8	100,0	208,1	100,0
Up to 1 ha inclusive	2,9	1,3	3,1	1,5
1-5	101,8	44,5	91,6	44,0
5-10	66,4	29,0	56,7	27,2
10-15	29,0	12,7	25,9	12,5
15-20	12,8	5,6	11,9	5,7
20-50	14,0	6,1	15,4	7,4
50 ha and more	1,9	0,8	3,3	1,6

¹ NOTE. Final data at the voivodship level are presented according to the seat of the holder of an agricultural, while data at the GMINA level - by the seat of the agricultural holding.

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

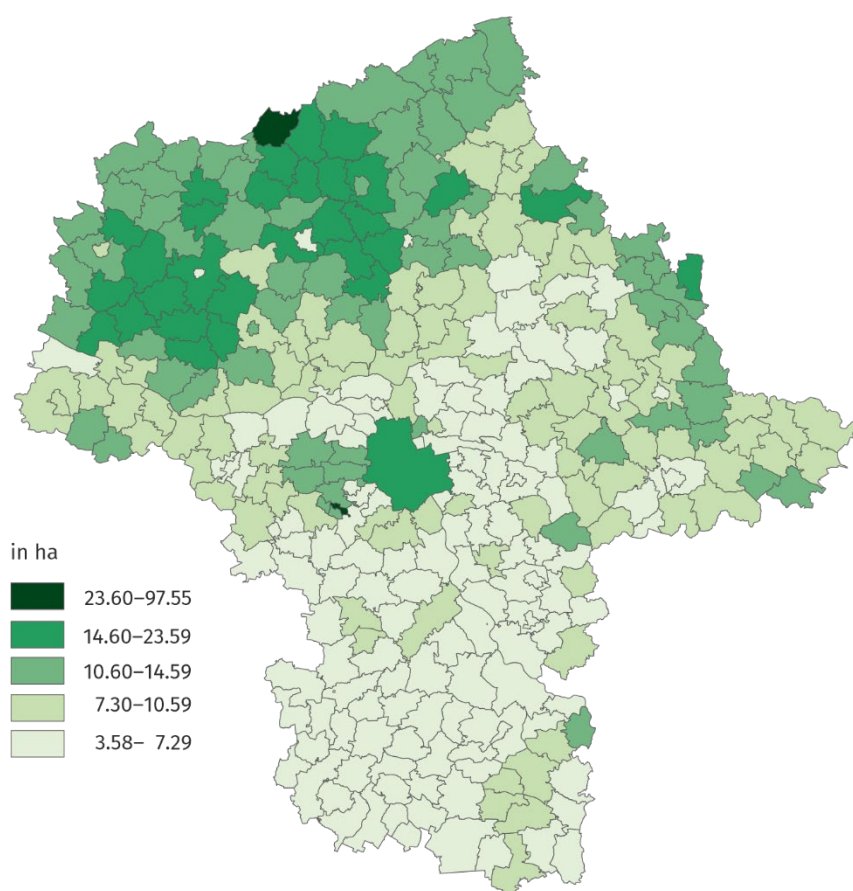
The Agricultural Census, as a complete survey, covered agricultural holdings whose users were natural persons (private farms) as well as legal persons and organisational units without legal personality.

The largest decrease in the number of agricultural holdings compared to 2010 was recorded among agricultural holdings with an area of 5 ha to 10 ha of agricultural land (by 14.6%), and then in the area group of 10-15 ha of agricultural land (by 10.6%) and in the group of 1-5 ha of agricultural land (by 10.0%). On the other hand, the number of the largest agricultural holdings with an area of 50 ha of agricultural land and more increased significantly (by 75.1%). An increase was also recorded in the group of agricultural holdings with an agricultural land area of 20-50 ha (by 9.9%), and in the group of the smallest agricultural holdings up to 1 ha inclusive (by 9.2%).

The observed decrease in the number of agricultural holdings, with a slight increase in the area of agricultural land, was reflected in the increase (by 11.8%) of the average area of agricultural land per 1 agricultural holding from 8.5 ha in 2010 to 9.5 ha in 2020.

Among the agricultural holdings listed in 2020, the dominant ones were those with only plant production, constituting 61.9%. Compared to 2010, their share in the total number of agricultural holdings increased by 17.5 pp. Agricultural holdings running only animal production accounted for 0.5% (the same as in 2010), while the share of agricultural holdings running both plant and animal production decreased by 17.5 pp up to 37.6%.

Map 1. Average area of agricultural land in agricultural holdings in 2020



The largest average area of agricultural land was in the urban gmina of Podkowa Leśna (97.55 ha), and the smallest in the urban gmina of Żyrardów (3.58 ha)

Land use and sown area

According to the results of the Agricultural Census 2020, the total area of land used by agricultural holdings amounted to 2291.1 thousand ha and accounted for 13.7% of the area of agricultural land in Poland, and in the last 10 years, i.e. since the Agricultural Census 2010, it increased by 24.6 thousand ha (by 1.1%).

Agricultural land in agricultural holdings occupied 1,984.9 thousand ha (13.3% of the national agricultural land area), constituting 86.6% of the total area. Compared to 2010, the area of this land increased by 40.7 thousand ha (by 2.1%). Agricultural land in good agricultural condition occupied 1955.0 thousand ha, i.e. 98.5% of the agricultural land area, while the area of other agricultural land amounted to 29.9 thousand ha. Compared to 2010, the area of such land increased by 2.9% and decreased by 33.1%, respectively.

In the internal structure of agricultural land, the largest area was sown land – 1,286.9 thousand ha (11.7% of the national acreage), and then permanent grassland – 520.5 thousand ha, with

The majority of the agricultural land area was occupied by sown area

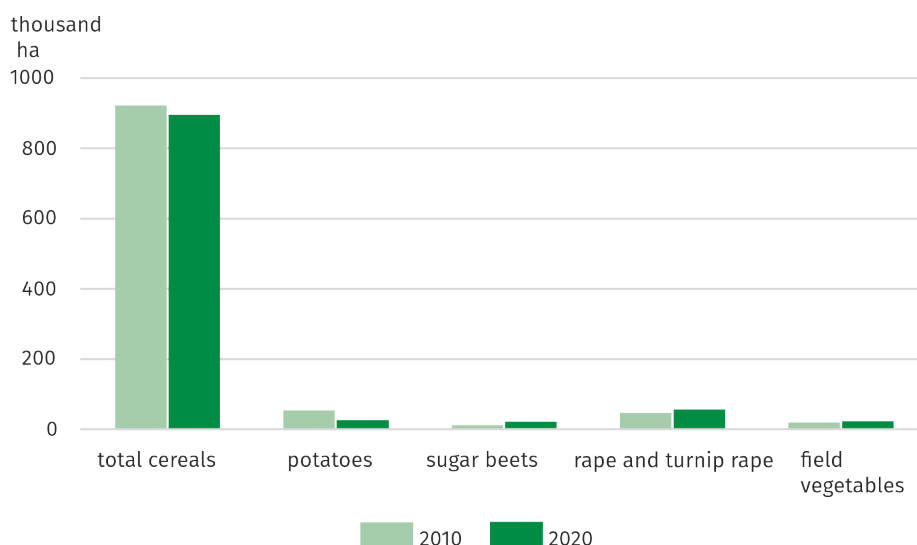
permanent meadows being cultivated on an area of 462.8 thousand ha, and permanent pasture on the area of 57.7 thousand ha. 115.8 thousand ha were designated for permanent crops, and the fallow land occupied 29.7 thousand ha.

Table 2. Land use in agricultural holdings

Years	Area of agricultural land					
	grand to- tal	of which agricultural land in good agricultural condition				
		total	of which			
			sown area	fallow land	perma- nent crops	perma- nent gras- sland
In thousand ha						
2010	1944,2	1899,4	1205,6	58,7	108,4	523,7
2020	1984,9	1955,0	1286,9	29,7	115,8	520,5
2010=100						
2020	102,1	102,9	106,7	50,5	106,9	99,4
In percent of total agricultural land						
2010	100,0	97,7	62,0	3,0	5,6	26,9
2020	100,0	98,5	64,8	1,5	5,8	26,2

Compared to 2010, the area of sown area increased (by 6.7%) and permanent crops (by 6.9%), at the same time their share in the total area of agricultural land increased by 2.8 pp and 0.2 pp, respectively. On the other hand, the area of fallow land (by 49.5%) and permanent grassland (by 0.6%) decreased and their share in the total area of agricultural land also decreased by 1.5 pp and 0.7 pp, respectively.

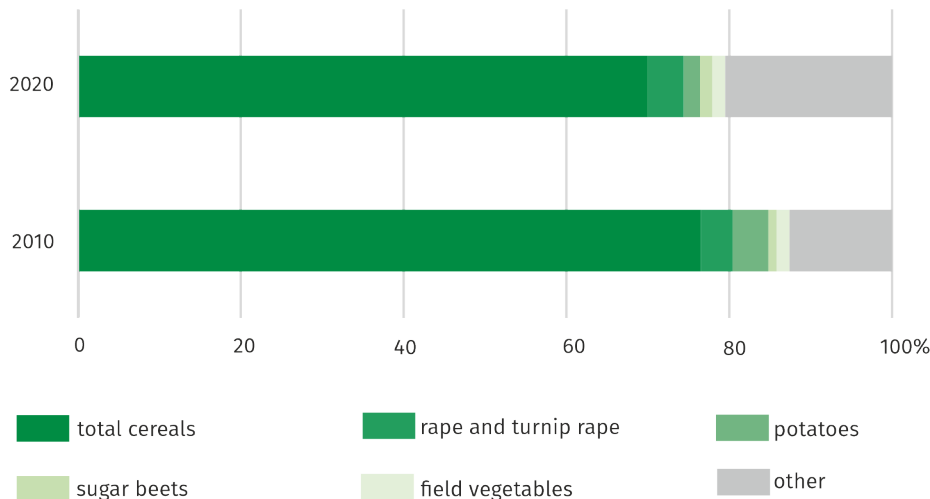
Chart 1. Sown area by crop groups



In the structure of sown area, total cereals were the dominant crop, the area of which amounted to 900.6 thousand ha. The share of the total cereal area in the Voivodship in the

total area of these crops in the country was 12.1%. In 2020, the cultivation area of rape and turnip rape was 6.5 thousand ha, potatoes – 25.6 thousand ha, and sugar beet – 19.7 thousand ha. Vegetables were grown on an area of 21.0 thousand ha. Compared to 2010, the sown area of cereals in total (by 2.4%) and potatoes (by 52.2%) decreased, while the sown area of sugar beets, rape and turnip rape and field vegetables increased by: 67.7%, 19.0% and 6.4%, respectively.

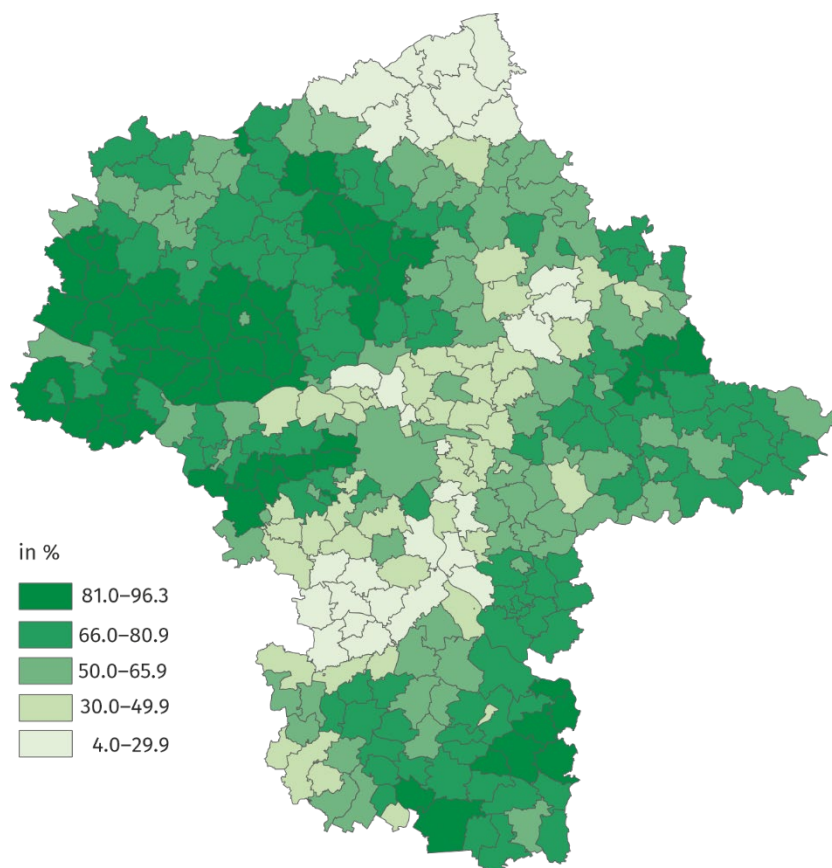
Chart 2. Share of the main agricultural crops in the total sown area



In the structure of sown crops, the share of total cereals and potatoes decreased, while the share of sugar beets as well as rape and turnip rape increased

Comparing the data for 2020 to the data from 2010, we can observe changes in the structure of sowing individual crops. The share of total cereal acreage decreased (by 6.5 pp) to 70.0% in the total area of crops and potatoes (by 2.4 pp) to 2.0%, while the share of sugar beets acreage increased and rape and turnip rape (0.5 pp each) to 1.5% and 4.4%, respectively. Over the 10 years, the share of field vegetable area did not change and amounted to 1.6%.

Map 2. Share of sown area in the area of agricultural land in 2020



The largest share of the sown area in the total agricultural area was recorded in the gmina of Podkowa Leśna (96.3%), and the lowest in the rural gmina of Błędów (4.0%)

Fertilising crops

In Mazowieckie voivodship, according to the results of the AC 2020, the consumption of mineral fertilisers containing nitrogen (N), phosphorus (P) and potassium (K) amounted to 231.7 thousand tonnes per pure component and increased by 19.0% compared to the AC 2010. During this period, the consumption of nitrogenous fertilisers increased by 5.3%, phosphatic fertilisers by 14.5%, and potassic fertilisers by 59.6%. The Voivodship's share in the national consumption of mineral fertilisers was 11.9% and was one of the highest in the country, after Wielkopolskie Voivodship.

In 2020, a total of 116.7 kg of NPK was used per 1 ha of agricultural land, i.e. 16.5% more than in 2010. In relation to the national average consumption of mineral fertilisers of 130.5 kg per 1 ha of agricultural land, the level of fertilisation in Mazowieckie Voivodship was lower by 10.6%.

Table 3. Consumption of mineral and lime fertilisers

Years	Fertilisers per pure ingredient				
	mineral				lime
	total	nitrogenous	phosphatic	potassic	
In thousand tonnes					
2010	194,7	113,1	39,3	42,3	45,9
2020	231,7	119,2	45,0	67,5	140,3
2010=100					
2020	119,0	105,3	114,5	159,6	305,8
Per 1 ha of agricultural land in kg					
2010	100,2	58,2	20,2	21,8	23,6
2020	116,7	60,0	22,7	34,0	70,7

In 2020, agricultural holdings used 140.3 thousand tonnes of lime fertilisers under sowing and it was 3 times more than 10 years ago. Per 1 ha of agricultural land, 70.7 kg of lime fertilisers were used, also three times more than in 2010. The average national consumption of lime fertilisers per 1 ha of agricultural land was 89.6 kg and was 21.1% higher than in Mazowieckie Voivodship.

Farm animals

According to the results of the Agricultural Census in 2020, the number of major farm animals on agricultural holdings was:

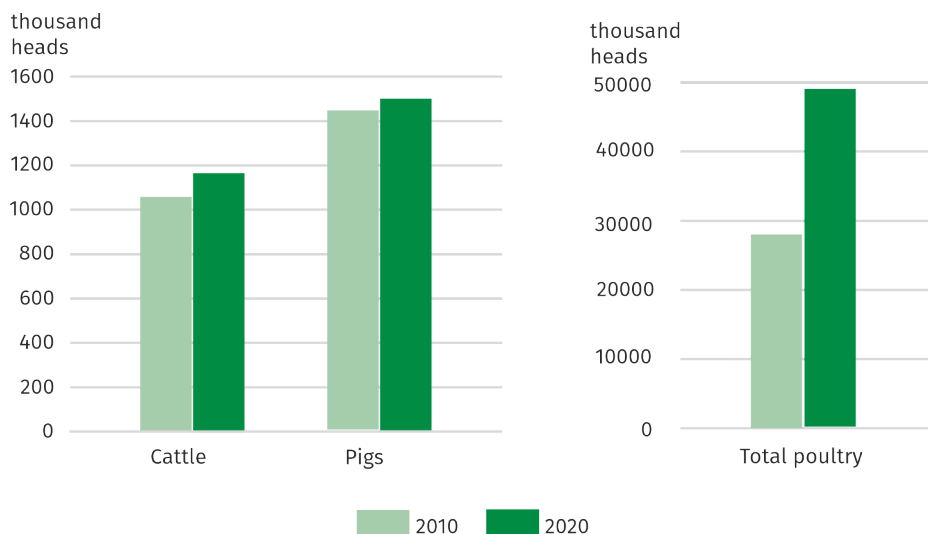
- cattle – 1,168.2 thousand heads, of which cows – 524.1 thousand heads,
- pigs – 1,496.2 thousand heads, of which sows – 61.2 thousand heads,
- poultry, total – 48,831.7 thousand heads, of which laying hens – 9,892.1 thousand heads.

Compared to the results of the 2010 census, there was a significant increase in total poultry – by 74.1%. There was also an increase in the number of cattle and pigs, by 10.4% and 4.0%, respectively.

The results of the AC 2020 showed that farms in Mazowieckie Voivodship maintained 18.5% of the domestic cattle and 21.6% of the domestic poultry, taking first place in both cases. On the

other hand, the Voivodship's share in the domestic pig population was 13.4%; second place in the country after Wielkopolskie Voivodship.

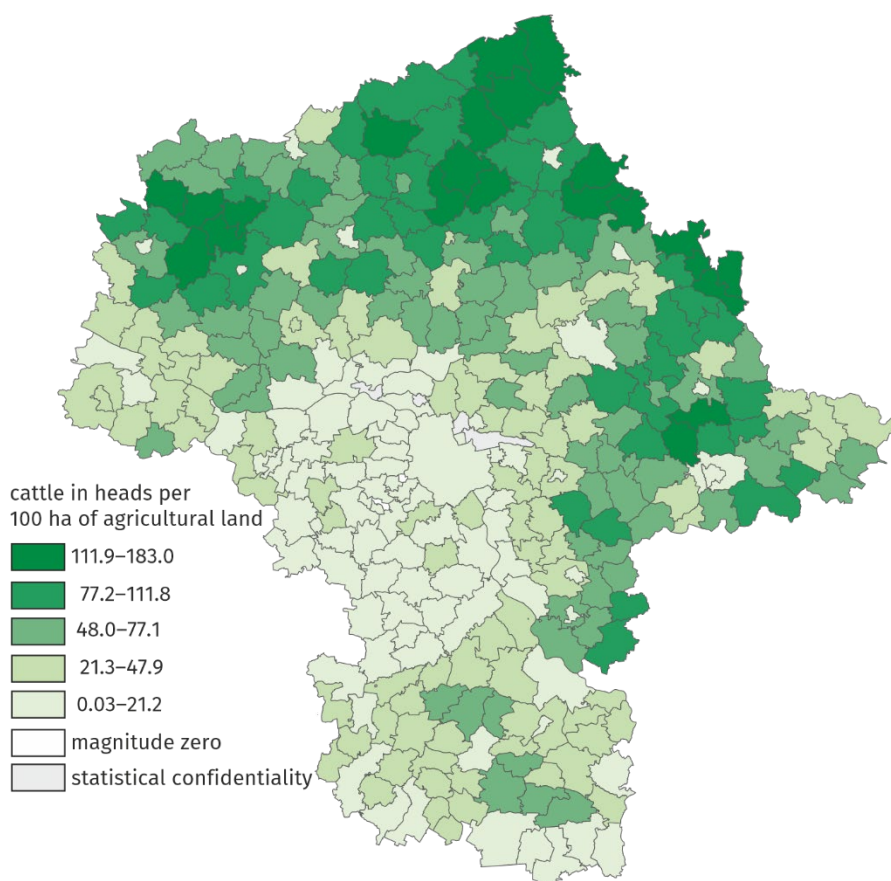
Chart 3. Livestock population



In 2020, the number of cattle per 100 ha of agricultural land was as follows: for cattle – 59 heads, for pigs – 75 heads, and for poultry – 2460 heads. Compared to 2010, this indicator was higher, respectively: for cattle by 5 heads, for pigs by 1 head and for poultry by 1017 heads.

On average in the country, the number of cattle per 100 ha of agricultural land in 2020 was 42 heads and was lower by 17 heads than that recorded in Mazowieckie Voivodship. In the case of pigs, the discussed indicator for the country amounted to 75 heads (the same as in the Voivodship), while for poultry, 1511 heads, i.e. 949 heads fewer.

Map 3. Number of cattle per 100 ha of agricultural land in 2020



The largest number of cattle per 100 ha of agricultural land was recorded in the rural gmina of Stary Lubotyń (183.0 heads), and the lowest in the rural gmina of Belsk Duży (0.03 heads)

Tractors and agricultural machinery

According to the results of the Agricultural Census 2020, there were 230.5 thousand tractors, i.e. by 9.3% more than in 2010. With the continuing advantage of cereals in the structure of the sown area and the simultaneous increase in the cultivation area of rape and turnip rape in 2020, there were 20.0 thousand units of combine harvesters, i.e. by 15.9% more than in 2010. Despite a large increase in the area of sugar beets cultivation and at the same time a large decrease in the area of potato cultivation, the number of combine harvesters for harvesting these crops decreased by 70.1% and 32.1% respectively. The number of forage harvesters also significantly decreased – by 62.7%.

The total number of tractors and combine harvesters increased, while the number of beet and potato harvesters decreased

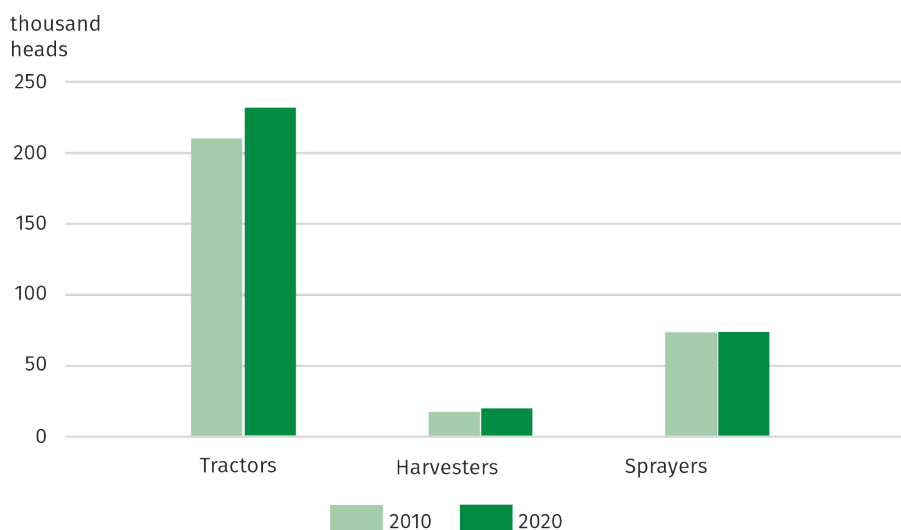
Table 4. Tractors and agricultural machinery

Years	Tractors	Harvesters			Forage harvesters
		cereal	beet	potatoes	
In thousand units					
2010	211,0	17,2	1,4	13,1	1,6
2020	230,5	20,0	0,4	8,9	0,6
2010=100					
2020	109,3	115,9	29,9	67,9	37,3
Per 100 agricultural holdings					
2010	92,2	7,5	0,6	5,7	0,7
2020	110,8	9,6	0,2	4,3	0,3

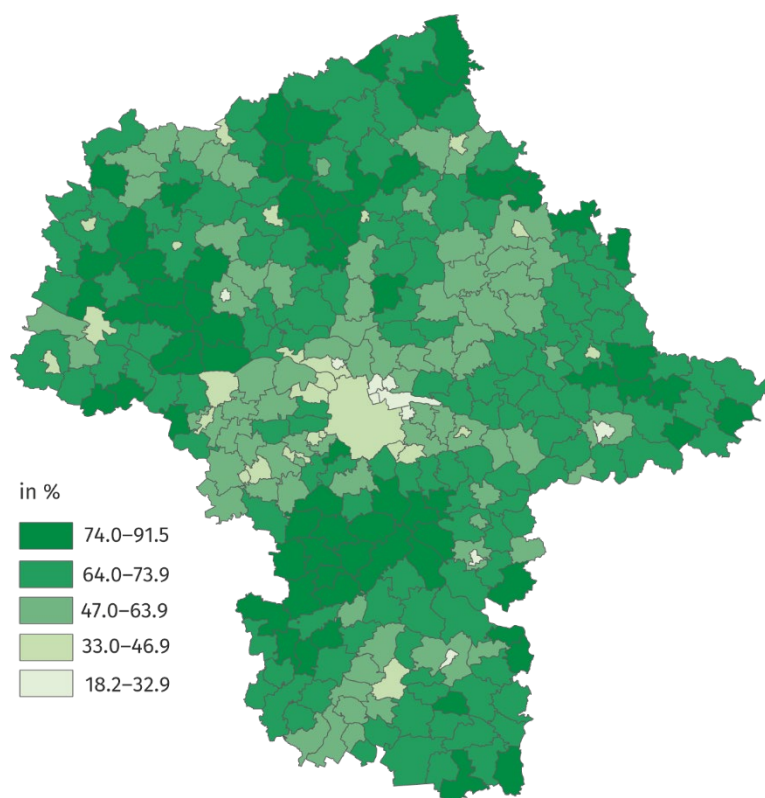
In 2020, there were on average 1.1 tractors per 1 agricultural holding, compared to 0.9 in 2010.

On the national scale, similarly to 2010, the largest number of tractors was in Mazowieckie Voivodship, in 2020 their share amounted to 15.9% and increased by 1.0 pp compared to 2010.

Chart 4. Tractors and agricultural machinery



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

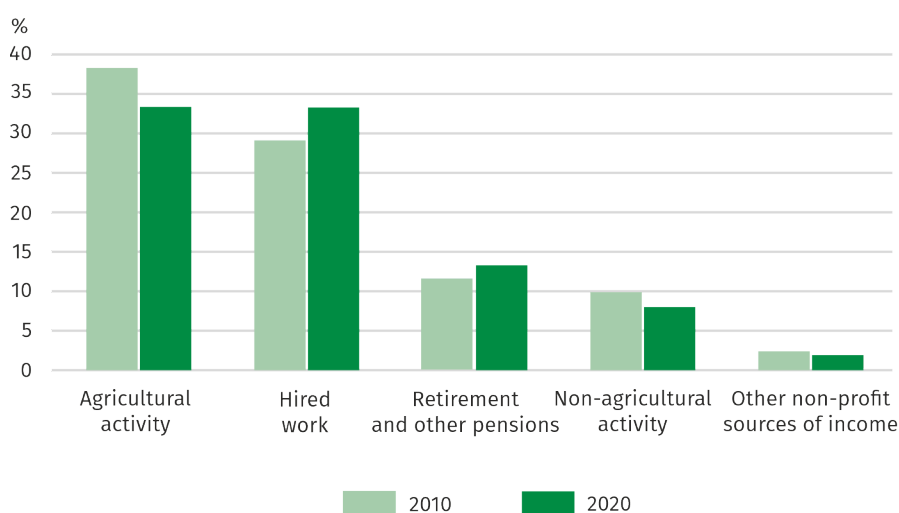


The largest share of agricultural holdings owning tractors in the total number of agricultural holdings was recorded in the rural gmina of Belsk Duży (91.5%), and the lowest in the urban gmina of Ząbki (18.2%)

Sources of income of households with a holder of an agricultural holding

In the period from 2 June 2019 to 1 June 2020, inclusively 207.3 thousand of households with a farm holder obtained income from agricultural activity. In comparison to 2010, it was by 21.2 thousand, i.e. 9.3% less agricultural holdings. Income from contract work was reported by 91.2 thousand households, and from non-agricultural activities – 28.5 thousand households, i.e. respectively less than the income reported in 2010 by 12.3% and 34.0%. Retirement and other pensions as a source of income were shown by 50.2 thousand households with a farm holder, i.e. 1.5% more than in 2010, while the number of households obtaining income from other non-profit sources of income increased 2 within 10 years, 5 times – up to 32.4 thousand.

Chart 5. Structure of households with a holder of an agricultural holding by the main source of income



Agricultural activity constituted the main source of income, i.e. a source of income exceeding 50% of total income, for only one third of households with a farm holder. The percentage of households living mainly from agriculture decreased over the years 2010–2020 from 38.3% to 33.3%. In the case of other households using agricultural holdings, the main sources of income were: contract work (33.1%), retirement and other pensions (13.2%), non-agricultural activities (7.9%) and other unearned sources of income (1.9 %). In 2010 it was respectively: 29.1%, 11.3%, 9.9% and 2.4%. There should be noted a decrease in the percentage of households earning the main income from non-agricultural activities and an increase in the percentage of households earning the main income from contract work and retirement and other pensions.

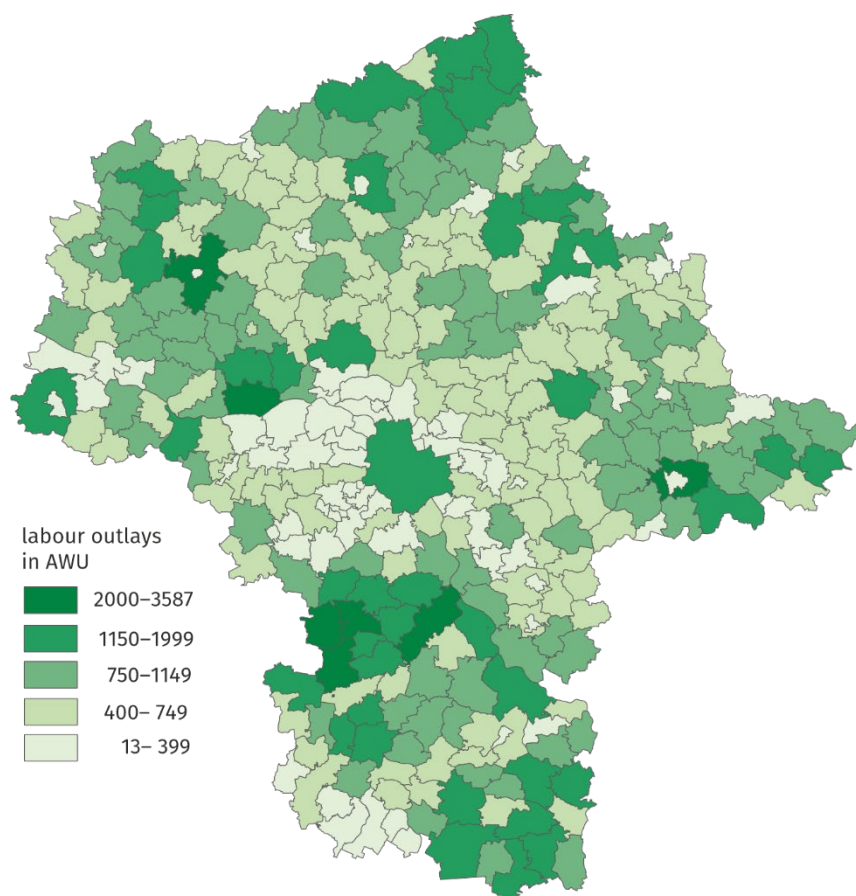
Nationally, the highest percentage of households with a holder of an agricultural holding earning the main income from agricultural activity was recorded in Kujawsko-Pomorskie Voivodship (50.3%); Mazowieckie Voivodship took the eighth position.

Labour outlays and structure of persons working in agricultural holdings

The results of the AC 2020 showed that in Mazowieckie Voivodship, labour outlays for running agricultural activity on private farms amounted to 232.9 thousand. AWU², including the vast majority (88.4%), were labour inputs of the user and his family – a total of 205.9 thousand AWU, while the labour outlays of permanent employees is 5.4%. Compared to the AC 2010, the share of these outlays decreased by 7.2 pp, respectively. and increased by 3.7 pp.

Compared to 2010, there was a decrease by 18.9% in total labour outlays in agricultural production, including a decrease in labour outlays of the contributing family workers by 25.0% and a 2.5-fold increase in labour outlays of hired employees.

Map 5. Labour outlays on private farms incurred on agricultural production in 2020



One third of households with a farm holder obtained the main income from agricultural activity

The highest labour outlays on private farms for agricultural production were recorded in the urban-rural gmina of Warka (3587 AWU), and the lowest in the urban gmina of Zielonka (13 AWU)

² A conventional unit of labour outlays in agriculture, meaning the equivalent of a full-time job.

When quoting the data from the Statistics Poland, please do include information: “Data source Statistics Poland”, while in case of publishing the calculations done with the use of the data published by Statistics Poland, please do include information: “Own elaboration based on the Statistics Poland data”.

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Related information:

The publication of the Statistics Poland entitled National Agricultural Census 2020. Methodology and organisation of the survey

<https://stat.gov.pl/obszary-tematyczne/rolnictwo-lesnictwo/psr-2020/powszechny-spis-rolny-2020-metodologia-i-organizacja-badania,3,1.html>

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

Data available in databases:

Local Data Bank – National Censuses – the AC 2020

<https://bdl.stat.gov.pl/BDL/start>

Evaluate
the study

