

# Employed persons and labour input on agricultural holdings in the period of 12 months – preliminary results of the Agricultural Census 2020

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25,4%

A drop in labour input on agricultural holdings (AWU – Annual Work Units) compared with Agriculture Census 2010.

The results of the Agricultural Census 2020 compared with the results of the Agricultural Census 2010 indicate a decrease by ¼ in the number of employed persons working over a year on agricultural holdings in agricultural production recalculated into full-time workers (data on labour input expressed by Annual Work Unit – AWU).

The data in the news release present the results of the Agricultural Census 2020 (AC 2020) in respect to the results of the Agricultural Census conducted in 2010.

## 1. Employed persons and labour input in agriculture

The analysis on the data on employed persons and labour input during a year on agricultural holdings should be carried out in close connection with characteristics of agricultural holdings and conducted on them agricultural production. Compared with the results of the Agricultural Census 2010 (AC 2010), in the census conducted in 2020, there were observed changes concerning agricultural holdings<sup>1</sup> closely connected with labour input presented in the further part.

- There is observed a tendency towards decreasing in the number of agricultural holdings with simultaneous increasing in their average area.
- The share of the largest in respect to the area holdings as well as the smallest ones increased (including the ones conducting intensive plant and animal production, e.g. greenhouses, rearing and breeding of pigs and poultry).
- There is observed the ongoing process of specialisation of holdings maintaining rearing/breeding of livestock and concentration the stock on the farms dealing with rearing of livestock.
- The process of mechanisation of agricultural holdings is being continued and targeted at rational usage of equipment.
- According to the results of the Agricultural Census 2020, the majority of agricultural holdings in Poland are maintained by natural persons.
- Still only 1/3 of households with a private farm holder obtains the main income from the conducted agricultural activity, albeit an increase in the area of private farms is followed by an increase in the share of households obtaining over 50% of income from agricultural activity increases.

**Each activity, including agricultural one, requires the participation and input of human labour.**

On 1310.0 thousand private holdings, there were employed persons counted among family labour force (the holder, holder's spouse, other family members working without formal remuneration) and hired by these holdings permanent and temporary workers, supported by employees of external companies providing paid services for agricultural holdings (contracted workers) and neighbourly assistance.

<sup>1</sup> Based on the report with the hitherto presented results of Agricultural Census 2020: [Główny Urząd Statystyczny / Obszary tematyczne / Rolnictwo. Leśnictwo / PSR 2020 / Powszechny Spis Rolny 2020. Raport z wyników](#)

Permanent, temporary and contracted workers and other persons (among this group are included persons working on selected types of agricultural holdings without formal remuneration, e.g. members of agricultural production cooperatives) were employed on the other 7.5 thousand agricultural holdings.

**Table 1. Private holdings conducting agricultural activity using over a year labour of different groups of employed persons**

AC	Total number of private farms in agriculture	Of the total number of holdings, the number of the ones using the work of					
		holders	holder's family	permanent employees	temporary workers	contracted workers (providing paid services for a holding)	neighbourly assistance
		in thousands					
2010	1505,0	1485,0	1144,5	13,1	242,8	92,6	208,8
<b>2020</b>	<b>1310,0</b>	<b>1292,3</b>	<b>859,5</b>	<b>20,5</b>	<b>166,6</b>	<b>332,9</b>	<b>437,3</b>
		The share in the overall population of private agricultural holdings (in %)					
2010	100,0	98,7	76,0	0,9	16,1	6,2	13,9
<b>2020</b>	<b>100,0</b>	<b>98,7</b>	<b>65,6</b>	<b>1,6</b>	<b>12,7</b>	<b>25,4</b>	<b>33,4</b>

The changes in agricultural holdings were followed by shifting involvement of various groups of workers in agricultural production.

The results of the Agricultural Census 2020 indicate that the number of private agricultural holdings, with working on them holders comprised 1292.3 thousand, the holder's family worked on 859.5 thousand farms, 187.2 thousand private holdings hired employees, mainly temporary/seasonal ones. In addition, 332.9 thousand private agricultural holdings used agricultural services, while 437.3 thousand – neighbourly assistance, albeit it should be indicated that in both latter cases it was rather occasional work (performed sporadically).

Compared with the situation of 10 years ago, in the economic year 2019/2020, private agricultural holding used family labour force on a smaller scale, while more holdings used labour of non-family employees, including external services. The COVID-19 pandemic and problems with hiring workers may be the reason that there were observed fewer holdings employing temporary workers, whereas the number and percentage of holdings taking advantage at least on a minimal scale from neighbourly assistance significantly increased (over twice).

According to the results of the Agricultural Census 2020, during the 12 months preceding 1st June 2020, 2625.0 thousand persons constituting family labour force on private agricultural holdings worked various working hours, of which almost a half (49%) comprised holders – 1292.3 thousand. They were supported by 78.6 thousand permanent employees and other groups of workers engaged to work on agricultural holdings occasionally if it was necessary.

**EMPLOYED PERSONS** – persons providing any labour input in the activity of an agricultural holding during the economic year (during the 12 months preceding 1st June 2020).

**LABOUR INPUT** – the data on employed persons expressed in Annual Work Units (AWU), i.e. persons who during 12 months worked different number of hours on the basis of full-time equivalent job over a year (minimum of 2120 hours a year).

ON AGRICULTURAL HOLDINGS TOTAL in thousands					persons	X
					AWU	1 427.7
of which on PRIVATE AGRICULTURAL HOLDINGS						X 1 381.7
HOLDER'S FAMILY MEMBERS:			2 625.0 1 274.7	EMPLOYEES:	X 85.0	CON-TRACTED WORKERS
HOLDERS	HOLDER'S SPOUSES	OTHER FAMILY MEMBERS	PERMANENT	TEMPORARY		
1 292.3 710.3	645.6 331.8	687.0 232.6	78.6 55.4	X 29.6	X 7.7	NEIGHBOURLY ASSISTANCE X 14.2

X – lack of data in number of persons (data available in AWU only).

Over a year, not all persons work the same number of working hours (it may be also work performed during only a few months alternatively by various groups of workers), therefore, in order to fully express labour input, the conversion unit in a form of Annual Work Unit is used, which is the equivalent of full-time work. It is calculated through dividing the number of hours worked per year by the annual number of hours corresponding to full-time work. Labour input expressed in such way is the base of the below presented census results.

According to the Agricultural Census 2020, overall labour input in the economic year 2019/2020 on all agricultural holdings comprised – 1427.7 thousand AWU; 1381.7 thousand AWU – on private holdings, where a decided majority (92.3%) constituted labour input of the holder and his/her family – jointly 1274.7 thousand AWU, of which slightly bigger part – 710.3 thousand (55.7%) constituted labour input of the holders. A drop in labour input in agricultural production on agricultural holdings by 1/4 compared with the Agricultural Census 2010 results from both: a decrease in the number of agricultural holdings, as well as described earlier changes in these holdings.

## 2. The share of family and hired labour force in labour output on private farms

The changes which took place on private agricultural holdings resulted in the fact that compared with the situation of 10 years ago, family labour input decreased slightly (by 4 percentage points, from 96.3% to 92.3%), whereas the shares of each other group of the employed increased: permanent and temporary employees, contracted workers and neighbourly assistance, although their joint shares in labour input constituted according to the Agricultural Census 2020 less than 8%.

**Table 2. Labour input on private holdings**

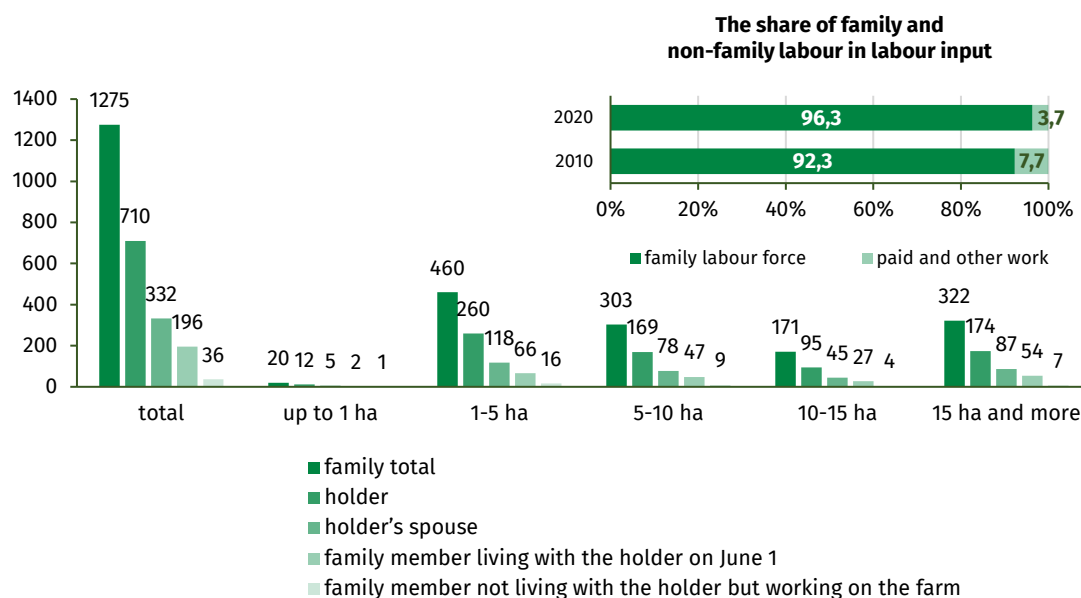
Labour input	Total	Family labour force	Permanent employees	Temporary workers	Contracted workers	Neighbourly assistance
	Thousand AWU	%				
AC 2010	1866.0	96.3	1.9	1.3	0.1	0.3
AC 2020	1381.7	92.3	4.0	2.1	0.6	1.0

The volume of labour input on agricultural holdings obviously depends on many factors, including the type and character of production, as well as the size of a holding.

In case of the total volume of the family labour input it is the highest in the holdings of the area up to 5 ha of agricultural land (with is directly connected with the number of these holdings).

Nevertheless, generally, irrespective from the area of agricultural land, the largest labour input on agricultural activity is provided by the holders (almost a half of the total input), the second most significant labour input (albeit by about 1/2 lower than the holders' one) is provided by the holders' spouses. Relatively smallest labour input, irrespective of the holding area, is provided by family members not living with the holder.

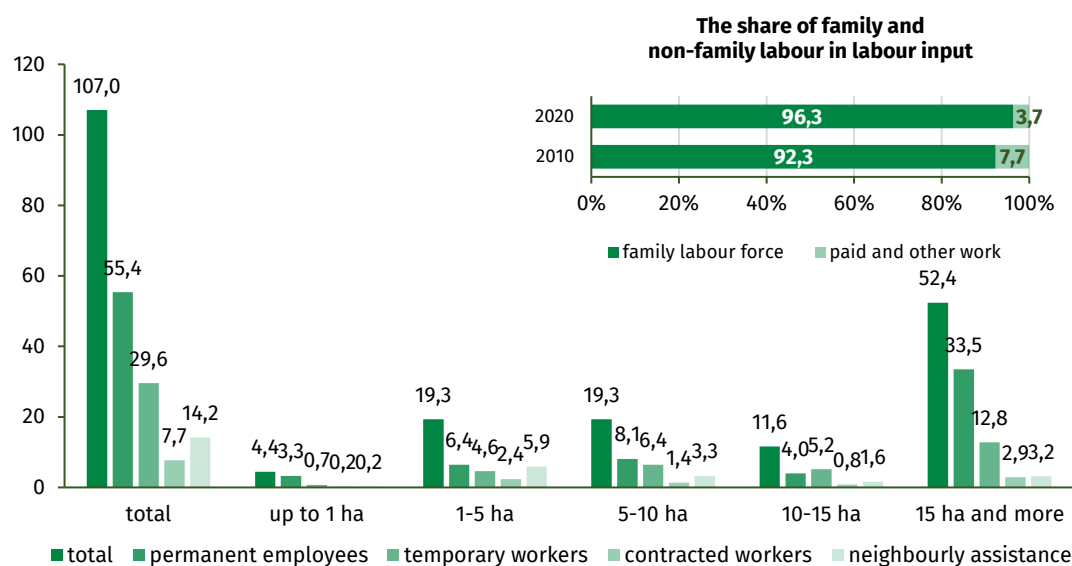
**Chart 1. Labour input in a holder's family (thousand AWU)**



The labour of holders and members of their families accounted for 92.3% of the total labour input on agricultural production on private holdings.

Employment of non-family workers on private agricultural holding is evident on the largest farms – with the area exceeding 15 ha of agricultural land (52.4 thousand AWU), although it is also observed on the smallest holdings, up to 1 ha of agricultural land, a large part of which carries out intensive plant and animal production also requiring relatively large labour input. The share of the smallest in respect to their area holdings in the total number of private holdings is not high, therefore the total number of AWU on these holdings does not exceed 4.5 thousand.

**Chart 2. Non-family labour input (thousand AWU)**



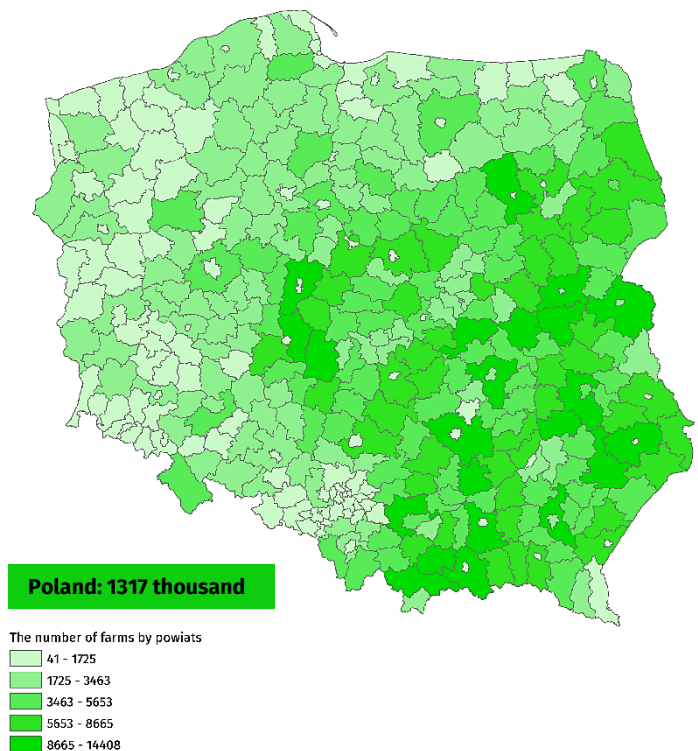
The share of non-family labour in labour output on private agricultural holdings increased by 4 percentage points compared with 2010.

Labour input of non-family workers is based mainly on employment of paid workers on both: the largest as well as the smallest private agricultural holdings.

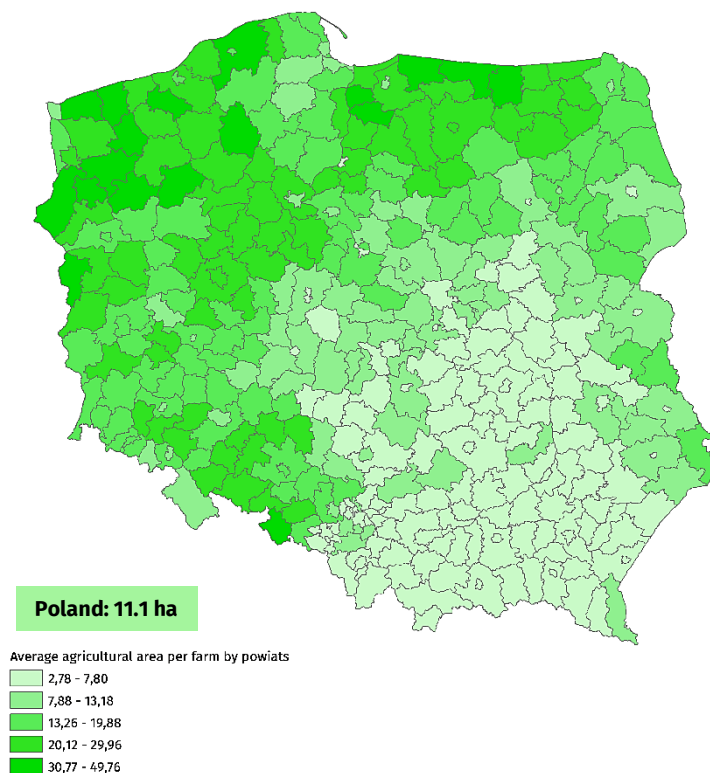
In case of holdings with the area 1-5 ha, the use of hired paid labour was at a similar level than unpaid neighbourly assistance.

Territorial distribution of labour input in agriculture depends strictly on the number of agricultural holdings in powiats and the average area of these holdings, which is presented in maps. The darker is the colour the higher is the number of holdings (Map no. 1) or the larger is agricultural land (Map no. 2). South-eastern voivodships characterise a scattered structure of agricultural holdings, while the largest in respect to the area holdings are situated in northern voivodships.

**Map 1. The number of agricultural holdings by powiats**

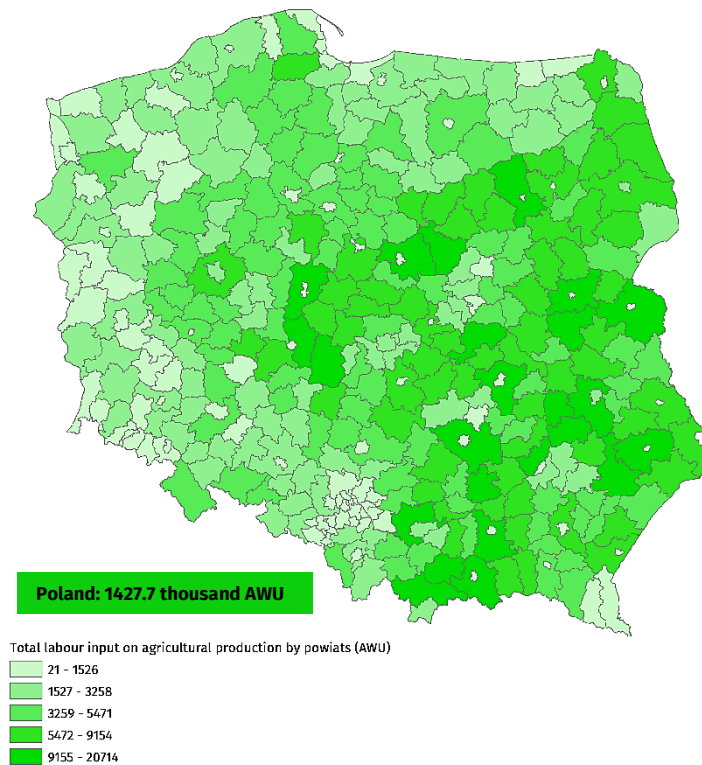


**Map 2. Average area of agricultural land total in farm by powiats**



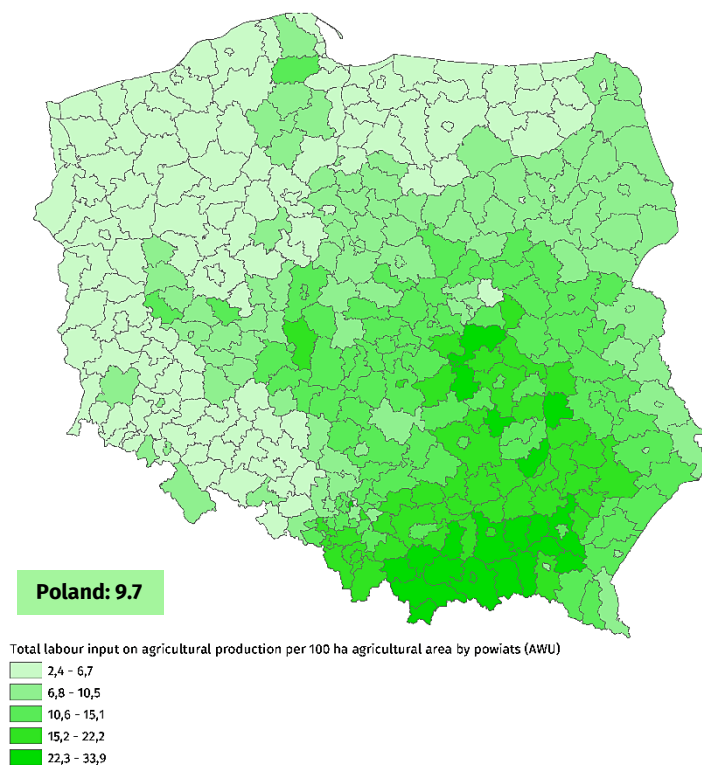
Map no. 3 presents labour input (in AWU) in all agricultural holdings in powiats by the holder's seat. There is observed evident concentration in the central Poland and in almost entire eastern part of the country.

**Map 3. Labour input in agricultural holdings total**



Distribution of labour input (AWU) per 100 hectares of agricultural land (Map no. 4) presents differentiation of powiats in Poland with evident concentration in south-eastern part of the country, shaped similarly to territorial distribution of the number of agricultural holdings in powiats.

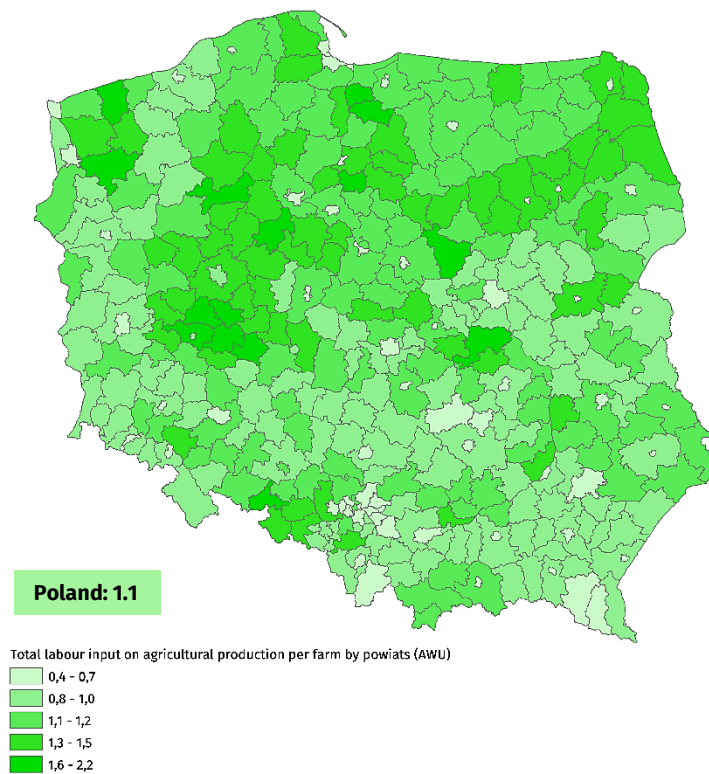
**Map 4. Labour input per 100 ha**





Then, Map no. 5 showing labour input (AWU) recalculated per one agricultural holding presents another picture of evident concentration of labour input in powiats of voivodships: Wielkopolskie, Kujawsko-Pomorskie, partially Mazowieckie, surrounding large urban agglomerations or in regions with more specialised production, e.g. fruit farming – horticulture or animal production.

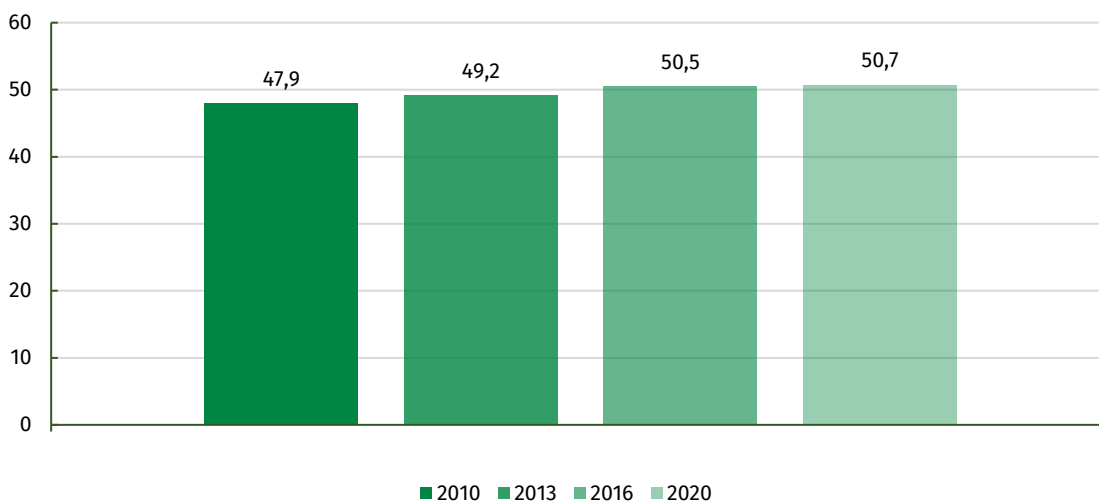
**Map 5. Labour input per 1 agricultural holding**



### 3. Holders of private farms

Already a few years ago, the average age of a working farm holder exceed 50 years, while the results of the Agricultural Census 2020 indicated the ageing process of this group is progressing. In 2020 as compared with 2010, the average age of a farm holder increased by almost 3 years.

**Chart 3. Average age of a private farm holder**

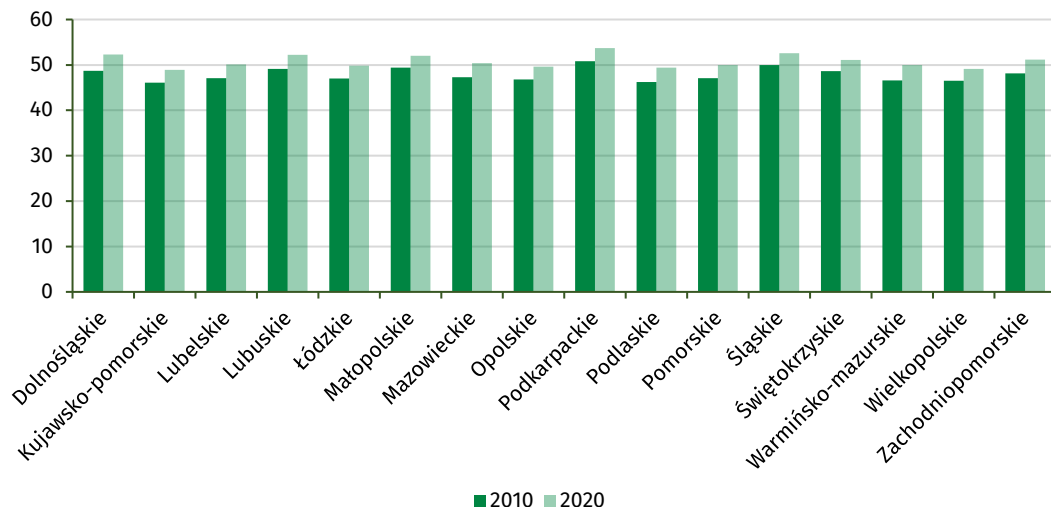


Average age of agricultural farm holders exceeded 50 years.

Data sources: Agriculture Census 2010, Farm Structure Survey 2013 and 2016, Agriculture Census 2020.

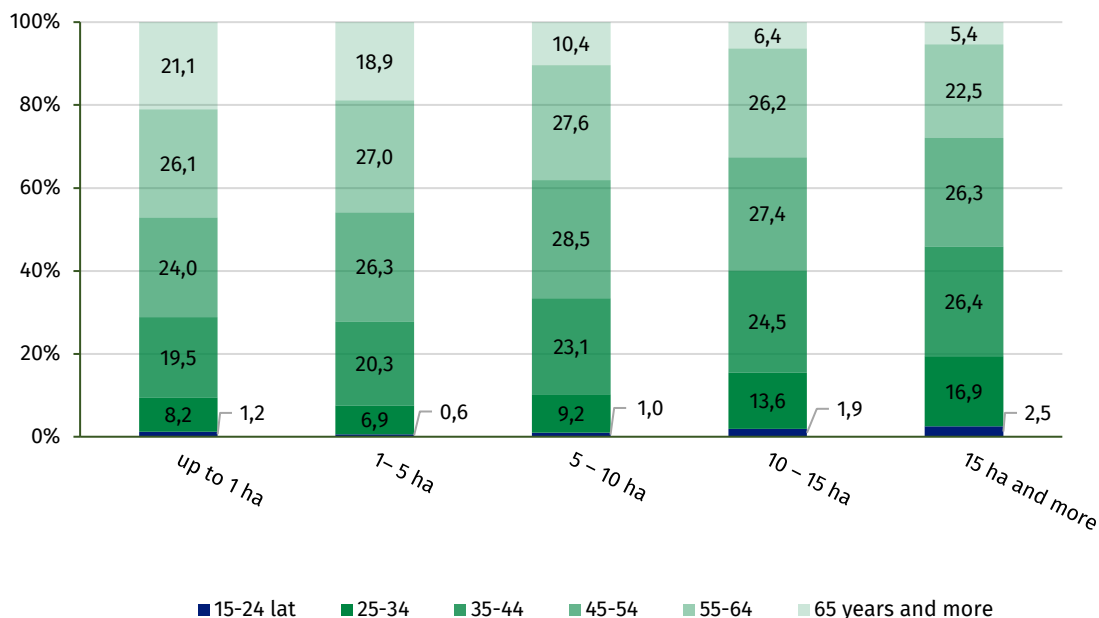
The ageing process of farm holders is observed in each voivodship. Compared with 2010, the average age of farm holder increased to the greatest extent in Dolnośląskie Voivodship – by 3.6 years, while the lowest increase was observed in Świętokrzyskie Voivodship – by 2.5 years.

**Chart 4. Average age of a private farm holder in voivodships**



The age of holders correlates with the area of an agricultural farm. The largest the farm is in respect to its area the younger is the holder. Among all private holdings, the farms with the area of agricultural land up to 5 ha account for 52%. Slightly more than 2/5 (about 46%) of them is cultivated by persons aged 55 years and more. On holdings with the area of agricultural land 15 ha and more, the share of holders at the same age group decreases to 28%. Young holders aged up to 34 years comprise a relatively small group and more often maintain holdings with the area exceeding 10 ha of agricultural land.

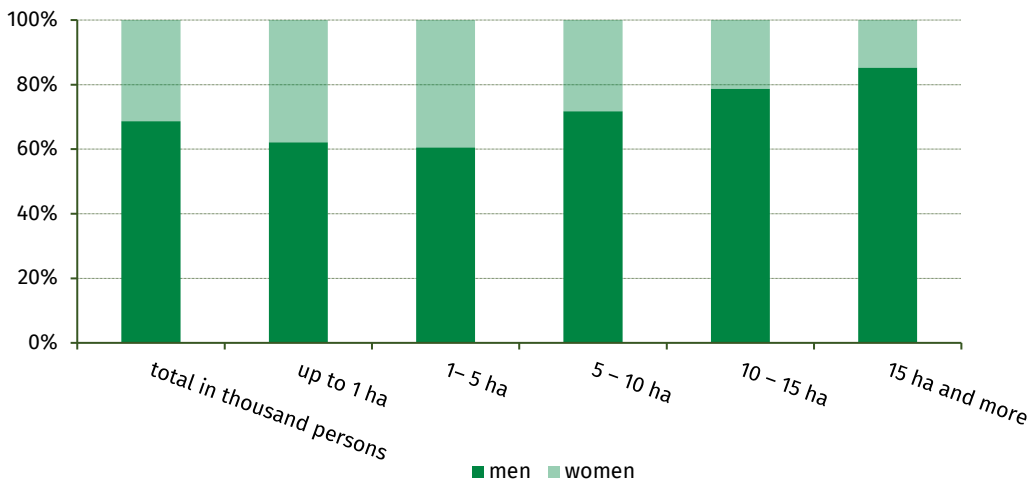
**Chart 5. Structure of farms holders by age according to the groups of agricultural land area**



Men comprised 887.8 thousand (68.7%) of the total number of 1.3 million of working holders. The sex distribution among the private farm holders is similar according to the Agricultural Census 2010, as well as the 2020 census. The percentage of women holders of agricultural holdings accounts for 31.3% and increased by only 0.4 percentage point. compared with 2010. The data indicate that women are more often holders of smaller farms – with the area up to 10 ha.

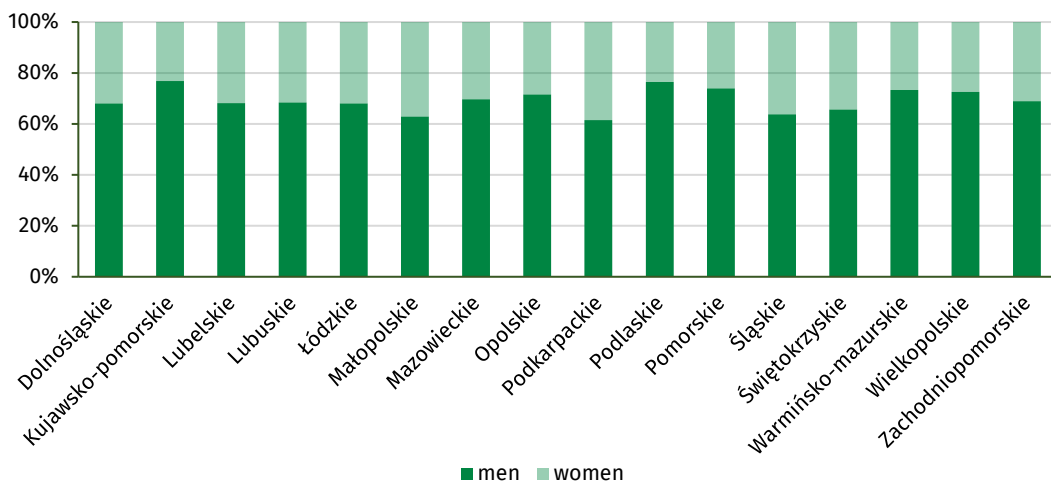


**Chart 6. Structure of farm holders by sex according to the size of a holding**



On the voivodships scale, the share of women and men among farm holders varies and by about 15 percentage points. The highest percentage of male holders is observed in Kujawsko-Pomorskie Voivodship, while female – in Podkarpackie Voivodship.

**Chart 7. Structure of the private farm holders by sex in voivodships**



68.7 % of the farms' holders are men.

**4. List of the Agricultural Census 2020 tables included in the Local Data Bank (preliminary data to the powiat level)**

- Employed persons on agricultural holdings by categories of persons, sex and area groups
- Labour input on agricultural holdings by categories of persons, sex and area groups
- Holders and members of their families employed in agriculture by age, sex and area groups
- Labour input of the holders and members of their families employed in agriculture by age, sex and area groups
- Holders working on private farms by age, sex and area groups

Prepared by:  
**Labour Market Department**  
**Director Agnieszka Zgierska**  
Office: tel. (+48 22) 608 30 15

Issued by:  
**The Spokesperson for the President**  
**of Statistics Poland**  
**Karolina Banaszek**  
Mobile: (+48) 695 255 011

**Press Office**

Office: tel. (+48 22) 608 38 04

**e-mail: [obslugaprasowa@stat.gov.pl](mailto:obslugaprasowa@stat.gov.pl)**



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**Related information**

[Characteristics of agricultural holdings in 2016.](#)

[Agricultural Census 2010 \(AC 2010\) - Employment on agricultural farms](#)

[Methodological report. Statistics on labour market, wages and salaries.](#)

**Data available in databases**

[BDL – AGRICULTURAL CENSUSES](#)

**Terms used in official statistics**

[Day's work](#)

[Neighbourly assistance](#)

[Non-family labour employed on a non-regular basis](#)

[Contract workers](#)

[Non-family labour regularly employed](#)

[Annual Work Unit](#)

[Family labour force](#)

[The holder of an agricultural holding](#)