

December 2013

Agriculture in Hungary, 2010

(Agricultural census) Preliminary data (1) (Based on processing 12.5% of questionnaires.)



Contents

Introduction
Summary
Number of holdings
Type of farming and purpose of production5
Basis of farming5
Type of production
Purpose of farming
Agricultural land use
Livestock
Family labour force of private holdings
Methodology

Tables

Contact details

Introduction

To follow economic and social changes in the Hungarian agriculture is a permanent demand of decision-makers, actors in the sector, different professional organisations and interest groups as well as research units. The information collected through statistics is indispensable for making decisions on the Hungarian agriculture and supports the elaboration of strategies on rural development, agro-environmental management and sustainable agricultural production. To implement the vast majority of statistical surveys of agriculture is based on farm structure surveys (FSS).

The information necessary for the elaboration and implementation of the common agricultural policy (CAP) is ensured through the system of farm structure surveys in the European Union (EU). The system is made up of coherent surveys: censuses every 10 years and representative farm structure surveys repeated every 2 or 3 years in the period in between. Hungary joined the system with the implementation of the agricultural census in 2000 (AC 2000) and the farm structure survey in 2003 (FSS 2003) according to EU standards. The farm structure surveys conducted in Hungary as a member state of the EU were in 2005 and 2007 (FSS 2005, FSS 2007).

In accordance with Regulation (EC) No. 1166/2008 and Act XXIV of 2010, the Hungarian Central Statistical Office (HCSO) conducted an **agricultural census** between 1st and 21st June 2010 (AC 2010) with the reference date of 1st June. The agricultural census in 2010 was already the seventh exhaustive one.

The first and most important task of preparing a census is to determine **respondent units**, i.e. agricultural holdings. In accordance with EU requirements an agricultural census has to ensure that only the smallest production units should be excluded, which together represent 2 per cent or less of total utilised agricultural area and 2 per cent or less of the total number of livestock units.

The target population of an agricultural census in Hungary is made up of agricultural enterprises and households performing agricultural activities.

Business units are subject to a census based on their agricultural activity, irrespectively of their economic size.

Taking into account EU regulations on coverage, in case of households, a threshold should be set for agricultural production under which no household is subject to the survey. In statistical terms production units above the survey threshold are considered as **private holdings** (See methodological notes).

Agricultural enterprises provided the filled-in questionnaires by mail, while private holdings were surveyed by enumerators, who completed the questionnaires via face-to-face interviews with holders.

According to the preliminary data of the census, about **8800 agricultural enterprises** were engaged in agricultural activities in 2010. In addition to them, a number of other organisations and institutions (national parks, water management authorities, the Hungarian State Railways, airports, national defence forces, churches etc.) – passive users of land with no or negligible effective agricultural activity – were operating. The **number of private holdings** carrying out agricultural activities **was nearly 567 thousand** in 2010, in addition to which another almost 1.1 million households performed agricultural activities (in gardens around the house or the holiday home).

The present publication informs on the main results of the census using *preliminary data* on the production structure and main characteristics of the 8800 agricultural enterprises and the nearly 567 thousand private holdings. The results based on the exhaustive and final data stock of AC 2010 – covering all issues of agricultural production – are to be disseminated in further publications from the second half of 2011.

. . . . 2

Summary

Based on **preliminary data** of AC 2010, there were **8800 agricultural enterprises and 567 thousand private holdings** in Hungary this year. After a decrease between 2000 and 2007, the number of enterprises slightly exceeded that in 2000. The number of private holdings decreased continuously – at a varying rate –, it was 40 per cent lower this year than ten years earlier.

In the survey year almost three-quarters (73 per cent) of **agricultural enterprises** utilised agricultural land, their **average agricultural area was 337 hectares**. **Private holdings** utilising agricultural land (93 per cent) cultivated an average **4.6 hectares** of agricultural area. Since 2000, the average farm area of enterprises has decreased by 37 per cent, while that of private holdings has grown by 85 per cent.

The two types of legal forms showed significant differences in farm structure. Nearly 4 per cent of agricultural enterprises and two-thirds of private holdings used a maximum of 1 hectare of agricultural area, accounting for 0.1 per cent and 4 per cent, respectively, of the total agricultural area of the respective group of farms. In case of enterprises a farm size of over 300 hectares was predominant (one-fourth of agricultural enterprises accounted for 84 per cent of the total agricultural area of enterprises), while three-quarters of the total agricultural area of private holdings was used by private holdings with a size of 10–300 hectares (8 per cent of private holdings).

Almost **one-fourth** (24 per cent) **of agricultural enterprises** and the **half** (50 per cent) **of private holdings** were involved in **animal husbandry** in 2010. Three species (cattle, pigs and chickens) in enterprises and five (cattle, pigs, sheep, goats and chickens) in private holdings accounted for 84 per cent of the livestock expressed in livestock units.

The attributes of agricultural enterprises and private holdings show significant disparities by **types of farming**, too. 49 per cent of both agricultural enterprises and private holdings were specialised only in **crop production**, their respective shares increasing by 8 percentage points and 9 percentage points compared to 2000. The proportion of enterprises engaged only in **animal husbandry** dropped by 4 percentage points, while that of private holdings remained unchanged. **Mixed farming** was carried out by nearly 40 per cent of agricultural enterprises (a rise of 3 percentage points), while the corresponding share of private holdings was down by nearly 10 percentage points.

In case of private holdings, data on the **purpose of production** are of importance. The 60% share of private holdings **producing solely for own consumption** (subsistence farming), measured in 2010, was practically the same as in 2000. The proportion of **private holdings producing** specifically **for the market** (commercial farming) increased from 8 per cent to almost 20 per cent between 2000 and 2010. Production solely for own consumption was characteristic of livestock-keeping private holdings (88 per cent), while market-oriented farming was frequent (64 per cent) among crop-farming private holdings.

In private holdings 1.1 million unpaid family members – belonging to holdings – performed agricultural work in 2010, showing a 45 per cent drop compared with the previous census.

The proportion of **male holders** was **74 per cent**, down by 2 percentage points compared to the proportion recorded 10 years earlier. There was a change in the **age structure** of holders in private holdings between 2000 and 2010. The proportion of young farmers (34 years of age or less) and those aged 35–54 years dropped by 2.1 and 5.3 percentage points respectively, while **the proportion of older farmers (aged over 55 years) was 7.5 percentage points higher compared to ten years earlier**.

In case of **private holdings, holders** saw an improvement in proportional terms in **agricultural qualification levels:** 2 per cent of private holders had college or university qualifications in **agriculture** ten years earlier, compared with almost **3 per cent** in 2010, while the proportion of farmers with secondary-level qualifications in agriculture hardly changed. The majority **(77 per cent)** of holders of private holdings managed their holdings using their **practical experiences** of many years.

40 per cent of private holders combined farming with other gainful activities (off-farm income), which proportion was lower for female holders (29 per cent).

3.

Number of holdings

Over the past four decades, there were hectic changes in the **number of agricultural enterprises** involved in agricultural activities. As a result of corporate mergers in the 1970s and 1980s a sharp decrease was characteristic of this period, then the setting up of new types of business units in the 1990s resulted in a manifold increase in the number of enterprises by the turn of the millennium. Following the decrease between 2000 and 2007 their number grew, and **8800 agricultural enterprises performed agricultural activities** on 1st June 2010 according to the preliminary results of the census.



Number of holdings engaged in agricultural activities (1972 = 100)

The number of private holdings decreased continuously over the past four decades. Between 1991 and 2000 this reduction resulted mainly from the cessation of household production and of the use of allotment land areas. The 40 per cent fall in the number of holdings in the first decade following the turn of the millennium was mainly attributed to an unfavourable farm structure as well as to a lack of capital and appropriate skills. The preliminary results of the census indicate that **567 thousand private holdings** were engaged in agricultural activities in 2010.

Type of production and purpose of farming

Basis of farming

87 per cent of **agricultural enterprises** used land while performing agricultural activities, their proportion was 12 percentage points higher compared with 2000. Nearly one-fourth of them had livestock (their proportion was down by 7 percentage points) and – at a decreasing rate – more than one-third of them provided agricultural services.

Neither the proportion of **private holdings** using an area exceeding the threshold of a holding (nearly 78 per cent), nor that of agricultural service providers (nearly 2 per cent) changed compared 2000. The half of holdings held livestock that exceeded the relevant threshold (their proportion decreased by nearly 9 percentage points). Another 16 per cent of private holdings owned productive land area with a size under the threshold, and an additional one-sixth of them kept livestock (first of all poultry) not exceeding the threshold.

Type of production

49 per cent of **agricultural enterprises** were engaged solely in crop farming, their share increasing by over 8 percentage points compared to 2000. The proportion of enterprises keeping only livestock fell by 4 percentage points over the last ten years, so their share was only 5.5 per cent, while those pursuing mixed farming – with a rise of 3 percentage points – accounted for nearly 40 per cent. The proportion of agricultural enterprises offering exclusively agricultural services – following a fall of nearly 8 percentage points – was lower than 6 per cent.

49 per cent **of private holdings** were specialised solely in crop farming, hardly more than 22 per cent only in animal husbandry and 29 per cent in both in 2010. Compared to 2000 this means a 9% growth in the proportion of units performing solely crop farming, and nearly the same proportion of decrease in the share of units pursuing mixed farming. The proportion of those keeping only animals was practically unchanged. The proportion of holdings providing exclusively agricultural services continued to be insignificant. This rather inflexible structure derives from the production purposes of private holdings differing from those of agricultural enterprises.

Figure 2



www.ksh.hu

Purpose of farming

. . . 6

In case of private holdings, data on the purpose of production are of importance. In 2000, about 60 per cent of private holdings produced solely for own consumption, which proportion was practically unchanged in 2010. A significant drop (from 31 per cent to 19 per cent) was seen in the proportion of holders who market the surplus (semi-subsistence). Although the number of holdings decreased, the share of farms producing specifically for the market (commercial farms) – following a trend of growth – was up by 12 percentage points over ten years to reach 19.6 per cent. 88 per cent of farms keeping solely livestock (livestock farms) were farms producing exclusively for own consumption (subsistence farms), which proportion was the lowest among mixed farms (not reaching 50 per cent). Among private holdings producing primarily for sale, the proportion of nearly two-thirds of farms producing crops (crop farms) was dominant in 2010. Livestock farms were the least market-oriented (4 per cent). (See detailed data in tables 2–7.)

Agricultural land use

As in previous years, 99 per cent of holdings with productive land area farmed agricultural area, the average size of which was 337 hectares for agricultural enterprises and 4.6 hectares in case of private holdings in 2010. The average agricultural area of enterprises has decreased by 37 per cent, while that of private holdings has grown by 85 per cent since 2000. No substantial change was observed in the distribution of agricultural area by land use categories.





Distribution of agricultural area by land use categories, 2010

60 per cent of agricultural enterprises and 55 per cent of private holdings cultivated arable land area in 2010, its proportion has gone up by 13 percentage points among agricultural enterprises and has been cut by 7 percentage points in case of private holdings since 2000. The average size of arable land area per holding fell by 30 per cent in case of agricultural enterprises and doubled among private holdings over the past decade.

www.ksh.hu

	Agricultural enterprises		Private	holdings
Denomination	2000	2010	2000	2010
Arable land	506.9	352.3	3.1	6.2
Grassland	161.2	120.4	2.9	4.8
Agricultural area	533.5	336.7	2.5	4.6
Productive land area	663.0	465.8	2.7	5.0

Size of land area per holding, 2000 and 2010

One-sixth of private holdings and nearly 10 per cent of agricultural enterprises cultivated **orchards**, and their proportion has increased by some one and a half percentage points in both groups since the previous agricultural census. The average orchards area per holding dropped by more than 20 per cent in case of enterprises – at present it is 25.5 hectares – and increased by nearly 80 per cent to 0.7 hectare among private holdings.

The cultivation of **vineyards** was more typical of private holdings: 19 per cent of them produced grape, compared with only 8 per cent of agricultural enterprises. The number and the average vineyards area of holdings changed in opposite directions. The number of enterprises engaged in viticulture increased by 80 per cent, while the average area of the vineyards they cultivated decreased by 14 per cent to 20 hectares. In case of private holdings the number of holdings engaged in viticulture was almost halved, while the average vineyards area used grew by 50 per cent, reaching almost half a hectare (0.45 ha).

The use of **grassland** area showed opposite changes in the two groups of holdings compared to 2000. The number of agricultural enterprises using grassland area expanded by 17 per cent, grassland area per farm dropping by one-fourth, while the number of private holdings decreased by almost one-third, grassland area per farm increasing by 65 per cent.

The two types of legal forms showed significant differences in farm structure. Nearly 4 per cent of agricultural enterprises and two-thirds of private holdings used a maximum of 1 hectare of agricultural area, accounting for 0.1 per cent and 4 per cent, respectively, of the total agricultural area of the respective group of farms. In case of enterprises a farm size of over 300 hectares was predominant (one-fourth of agricultural enterprises accounted for 84 per cent of the agricultural area of enterprises), while three-quarters of the total agricultural area of private holdings was used by private holdings with a size of 10–300 hectares (8 per cent of private holdings). *(See detailed data in tables 8–17.)*

Livestock

At present, almost 2080 agricultural enterprises and some 285 thousand private holdings keep animals. The number of enterprises and private holdings with livestock dropped by 15 per cent and nearly half, respectively, compared to the previous agricultural census.

10 per cent of agricultural enterprises and 3 per cent of private holdings keep **cattle**. The number of enterprises holding cattle can be considered as stable since 2000 (900–1000), while that of private holdings keeping cattle decreased by almost two-thirds. The number of the latter is below 19 thousand, though it was above 51 thousand back in 2000.

Cattle population fell from 850 thousand to 685 thousand between 2000 and 2010. Two-thirds of the stock was kept by agricultural enterprises. This proportion was nearly 70 per cent in case of the cow population of 305 thousand, which stock was 22 per cent lower than in 2000.

6 per cent of agricultural enterprises kept pigs in 2010, their number (500) was 38 per cent lower than

Table 1

(hectares/holding)

in 2000. The 184 thousand private holdings with pigs accounted for 32 per cent of private holdings in 2010.

The pig population was below 3.1 million in 2010. Nearly three-quarters of the pig and within this the sow population were kept by agricultural enterprises. Private holders have reduced the number of their pigs by more than 1.5 million – 62 per cent – since 2000.



Cattle and pig populations (1972 = 100)

The **sheep** population has decreased by 20 per cent, to hardly more than one million (1,106 thousand) since 2000. 85 per cent of the stock was kept by private holdings, which proportion was essentially the same as in 2000.

The number of agricultural enterprises with sheep was practically unchanged between 2000 and 2010, however, even so only 4 per cent of the units performing agricultural activities are engaged in keeping this animal species. The number of private holdings with sheep has increased by 5 per cent over the past decade, and nearly 5 per cent of all farms keep sheep.

Private holdings accounted for 44 per cent and 47 per cent of chickens and the goose stock, respectively, 39 per cent of the duck stock and merely 9 per cent of turkeys **out of poultry** in 2010. 4 per cent of agricultural enterprises and 53 per cent of private holdings held **chickens** in 2010, the number of the former was 7 per cent and that of the latter one half lower than a decade earlier.

Based on livestock units, the **structure of livestock by animal species** was dominated by the proportions of pigs (39 per cent) and cattle (25 per cent) in agricultural enterprises, and of chickens (35 per cent) and pigs (22 per cent) in private holdings.

The share of the cattle population within the total livestock population was essentially unchanged (22 per cent), however, that of pigs dropped from 40 per cent ten years earlier to 32 per cent. The proportion of chickens rose from 23 per cent to 27 per cent, while that of sheep and goats accounted for a total of 5 per cent in 2010.

....8

Distribution of livestock by types of holdings, 2010



Figure 6

Distribution of livestock, 2000 and 2010 (based on livestock units, holdings, total), %



Two-thirds of holdings with cattle held fewer than 9 animals, accounting for only 7 per cent of the whole population. Holdings with more than 500 animals accounted for more than half the population. 55 per cent of holdings with pigs kept 1–2, 35 per cent had 3–9 pigs. Holdings with more than 5000 animals accounted for 62 per cent of the population.

9...

62 per cent of sheep farmers had a population of fewer than 10 animals, and 14 per cent of between 10 and 19. 29 per cent of the sheep were kept by holdings with between 200 and 499 animals.

92 per cent of holdings with goats had fewer than 9 animals.

Three-quarters of holdings with poultry held fewer than 50 animals, while holdings with more than 100 thousand animals accounted for nearly half the population.

(See detailed data in tables 18–41.)

Family labour force of private holdings

Based on the preliminary data of AC 2010, some **1.1 million family members** belonging to holdings performed **agricultural work** to various degrees in private holdings.

The **family labour input o**f private holdings decreased by nearly 45 per cent compared to the previous census, mainly as a result of a drop in the number of farms (the number of farms was down by 40 per cent).

The composition of **holders by sex** did not change significantly compared to the findings of the census held ten year earlier: there were approximately 3 male farmers per 1 female farmer this year, too. The ratio of men to women did not change substantially among helping family members either. However, the number of helping family members per 100 farmers was 107 in 2000 compared with only 91 in 2010.

Figure 7



Distribution of private holders by age groups and sex, 2010, %

The average age of farmers was 56 years with women having higher values, which can be explained by the fact that women become holders in many cases only when left alone. The average age of holders increased by one and a half years in the last ten years, in line with which there was a change in the **age structure of farmers** compared to 2000. The share of young farmers (34 years old or less) decreased from 9 per cent to 7 per cent, that of the age group between 35 and 54 from 41 per cent to 36 per cent, while the proportion of older people (over 54 years old) grew from 50 per cent to 57 per cent.





No significant change was recorded in the share of **off-farm income-generating activities compared to 2000.** Nearly 60 percent of farmers had no off-farm income-generating activities (this category includes farmers who have income from other sources than activities, for example pensions), while those with full-time income-generating activities accounted for 37 per cent. **40 per cent of private holders pursued off-farm income-generating activities**, which proportion was lower in case of female holders (29 per cent) than for males (44 per cent).

The two censuses provide comparable data only on farmers with secondary or higher education qualifications. The proportion of those with secondary education qualifications in agriculture saw no substantial change, however, the proportion of those with higher education **qualifications in agriculture** increased from 1.9 per cent to 2.7 per cent. 9 per cent of farmers reported to have no agricultural qualifications, not even practical experiences. This proportion was higher for women (11 per cent) than for men (8 per cent). Three-quarters of farmers had only practical experiences. 17 per cent of male farmers had some kind of agricultural qualifications in formal education, which proportion was 6% in case of women.

Table 2

	Purpose of farming						
Denomination	producing solely for own consumption	selling surplus from production	producing primarily for sale	providing solely agricultural services	Total		
Proportions of holders by sex, per cent							
Females	65.4	17.5	17.0	0.0	100.0		
Males	59.4	20.1	20.5	0.1	100.0		
Average age of holders, years							
	56.9	56.5	53.6	45.2	56.1		
Proportions of farmers with agricultural qualifications, per cent							
Secondary education	3.3	7.5	13.6	6.6	6.1		
Higher education	1.1	2.6	7.8	9.1	2.7		

Some data on private holders by purpose of farming, 2010

60 per cent of private holdings produced solely for own consumption, in case of which female farmers accounted for a somewhat higher proportion.

The holders of farms providing solely agricultural services were younger in general, one-fourth of them were under 35 years of age and merely 2 per cent were aged over 65.

92 per cent of farmers producing solely for own consumption had no agricultural qualifications, they mostly relied on their practical experiences. In case of private farmers producing for sale or providing agricultural services, the proportion of those with higher education qualifications in agriculture was several times higher than the average. Secondary education qualifications in agriculture were the most typical of holders producing for sale.

According to the comparison of the types of production, a higher proportion of female farmers were specialised solely in animal husbandry, while the proportion of mixed farming was higher in case of male farmers.

(See detailed data in tables 42–44.)

Methodology

Data sources:

- *in case of private holdings:* data of the agricultural census (AC) conducted between 1st and 21st June 2010 with the reference date of 1st June. The data of one in eight enumeration districts were used for estimating preliminary data.
- *in case of agricultural enterprises:* data provided by enterprises performing agricultural activities in line with AC requirements.

Holdings: both technically and economically independent units undertaking agricultural activities, which have their own single management.

Private entrepreneurs: households engaged in agricultural activities and private entrepreneurs with tax number.

Private holdings: holdings operated by households performing agricultural activities and private entrepreneurs with tax number.

On 1st June 2010 a household was considered as a private holding if it reached or exceeded at least one of the following thresholds:

- a) on the reference date of the survey
- its total productive land area was 1500 m² or more, or
- its total area of orchards and/or vineyards was 500 m² or more, or
- its greenhouse or other productive area under (high accessible) protective cover was 100 m² or more, or
- its livestock population was at least
 - one larger livestock (cattle, pig, horse, sheep, goat, buffalo, ostrich),or
 - 50 chickens or other poultry (geese, ducks, turkeys, guinea-fowls), or
 - 25 rabbits, 25 furry animals or 25 pigeons for slaughter, or
 - 5 beehives, or
- b) provided agricultural services over the past 12 months.

In case of agricultural enterprises the census covered

- enterprises with legal personality,
- enterprises without legal personality,
- · government organisations and institutions, and
- non-profit organisations

performing main and secondary farming activities in Hungary, irrespectively of their classification by economic branches.

Type of production:

- Crop farm: a farm specialised solely in land cultivation; only the land area it uses is over the threshold of a holding.
- *Animal farm:* a farm specialised solely in animal husbandry; only its livestock population is over the threshold of a holding.
- *Mixed farm:* a farm specialised both in land cultivation and livestock breeding; both its land area and its livestock population exceed the threshold of a holding.

13.

Purpose of farming:

. . . 14

- *Producing solely for own consumption (subsistence):* the holding does not sell the products produced, it performs agricultural activities solely for own consumption.
- Selling surplus from production (semi-subsistence): surplus (products produced less own consumption) is sold on the market. Market sales account for a maximum of 50 per cent of total production.
- *Producing primarily for sale (commercial):* market sales account for over 50 per cent of the products produced.
- *Providing solely agricultural services:* the holding provides solely agricultural services with its available labour force and machinery.

Agricultural area: total area of arable land, kitchen gardens, orchards, vineyards and grassland (meadows and pastures).

Productive land area: total area of the land use categories of agricultural area, forests, reeds and fishponds.

Livestock unit: a coefficient used for making comparable totals of different livestock species and categories (age, sex).

	Categories	LSU coefficient
	less than 1 year old	0.4
Cattle	aged 1–2 years	0.7
	2 years old and over, males	1
Cattle	2 years old and over, heifers	0.8
	dairy cows	1
	other cows, 2 years old and over	0.8
Sheep as	nd goats	0.1
Horses		0.8
Pigs	piglets with a live-weight of less than 20 kg	0.027
	breeding sows with a weight of 50 kg or over	0.5
	other pigs	0.3
Poultry	broilers	0.007
	laying hens	0.014
	ostriches	0.35
	other poultry	0.03
Rabbits,	breeding females	0.02

Family labour force: the private holder and his/her family members in private holdings, who carried out agricultural work over the 12 months prior to the reference date of the census and did not get paid for their activities.

Contact details:

Responsible editor: Gábor Valkó, head of department Contact person: György Benoist Telephone: +36 (1) 345 6801 e-mail: gyorgy.benoist@ksh.hu

Information service

Telephone: +36 (1) 345 6789 Fax: +36 (1) 345 6788

© HUNGARIAN CENTRAL STATISTICAL OFFICE, 2013

All rights concerning the layout, graphics and design work of this publication are reserved for HCSO. Any kind of reproduction of them has to be approved by HCSO. *Any secondary publication is allowed only by the indication of source.* 15

www.ksh.hu