



15 December 2010

2009 AGRICULTURAL CENSUS

PRELIMINARY DATA

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What has changed in Portuguese agriculture over the last ten years

Statistics Portugal publishes the first results of the 2009 Agricultural Census (Portuguese acronym: RA09), and compares them with data from the 1999 Agricultural Census. This is the 2nd largest census held in Portugal, involving a team of 2,100 staff and an estimated cost of €16.9 million.

Agricultural holdings still occupy half the geographical area of the country. However, over the last ten years 112 thousand holdings have been disappeared and the respective surface has declined by more than 450 thousand hectares. The average size of agricultural holdings has risen by 2.5 hectares in terms of Utilised Agricultural Area (UAA), reaching 11.9 hectares. Nonetheless, around 75% of holdings still use less than 5 hectares of UAA.

The agricultural landscape has changed considerably, and has been reoriented to extensive production systems: arable land has declined, permanent grassland have increased, now covering half of UAA, and the number of livestock has decreased.

The portrait of the typical farmer stresses the social importance of this occupation, in which 80% of the volume of farm work is carried out by family labour force. However, the holdings being a legal entity, which account for only 2% of all farms, today manage 25% of UAA.

Organisation and logistics

The RA09 is a decennial statistical operation addressed to all agricultural holdings in Portugal, which shall be binding pursuant to Regulation (EC) 1166/2008, and will seek to meet national and international statistical requirements, in particular:

- Characterisation of farm structure;
- Acquaintance with agricultural production systems;
- Acquaintance with some production methods;
- Characterisation of family labour population and farm labour force;
- Collection of data related to rural development and other non-farm gainful activities.



The RA09 is a statistical operation of the responsibility of Statistics Portugal, with the active participation of the Ministry of Agriculture, Rural Development and Fisheries, in particular the Regional Directorates of Agriculture and Fisheries, in the collection, validation and data analysis, and the Office of Planning and Policy in liaison and technical support. In the Autonomous Regions, the RA 09 had the participation of the Regional Statistical Office of the Azores, the Regional Directorate of Statistics of Madeira and also the Regional Directorate for Community Agricultural Affairs of the Azores and the Regional Directorate for Agriculture and Rural Development of Madeira.

The organisation of the RA 09 involved more than 2,100 staff, including experts from participating entities, staff with fixed-term contracts and service providers. The field structure comprised 49 section management distributed across the country, 279 staff with supervisory functions and a team of 1,700 interviewers who, during approximately one year (November 2009-October 2010) have covered the national territory contacting 509 thousand potential agricultural holders.

The costs of the operation are estimated to have reached €16.9 million, financed by State budget appropriations (€14.9 million) and Eurostat funds (€2 million). The collection of on-site information from holdings absorbed nearly 70% of costs. As regards information and communication systems (application development and IT equipment), investments reached approximately €1.2 million.

First results

The first results of the RA 09 derive from preliminary findings at the national level, wherefore no regional specificities are shown, but merely some highlights. Also, the particular characteristics of the different types of products will not be presented.

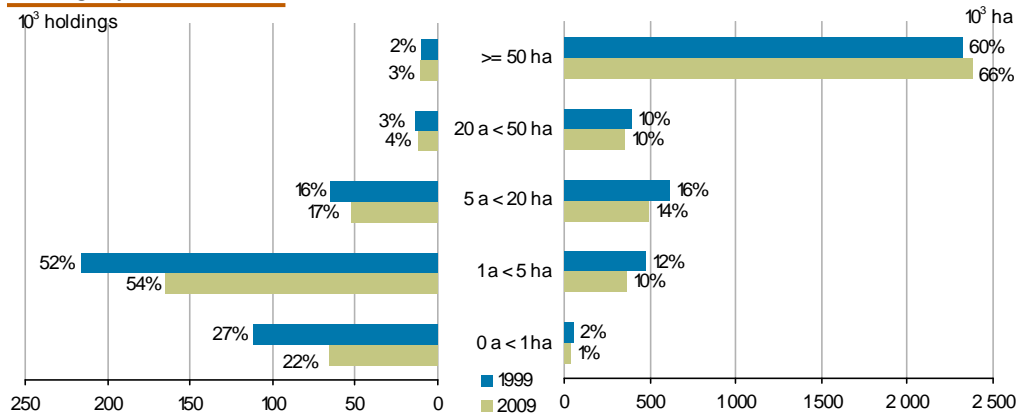
At the end of May 2011 the final results will be published, broken down to the parish (*freguesia*) level, through 600 indicators, as well as a analytical publication, to be released on the Official Statistics website.

Number of holdings: over the last ten years the number of agricultural holdings declined by 27%

In 2009, 304 thousand agricultural holdings were enumerated, i.e. 112 thousand less than in 1999, corresponding to disappear of one out of every four holdings during a ten-year period.

Small-sized agricultural holdings were the most affected, with the biggest declines touching holdings with less than 1 hectare (-41%) and 1 to 5 hectares of UAA (-24%). In turn, the number of holdings with over 50 hectares of UAA increased by around 4%. However, small-sized units continue to predominate in the land-ownership structure, where approximately 3/4 of holdings have less than 5 hectares of UAA.

Holdings by size class of UAA



The fall in the number of agricultural holdings, although broadly based, is more marked in Beira Litoral (38%), Ribatejo e Oeste (36%) and Algarve (35%). Abandonment of farming activities was less sharp in Trás-os-Montes and Alentejo, where the number of holdings declined by around 12%.

Farm structure: the average size of holdings rose by 2.5 hectares; only 3% of agricultural holdings correspond to more than 2/3 of UAA

The fall in UAA (-6%) was lower than the number of holdings (-27%), translating into an increase of more than 2.5 hectares in the average UAA of holdings, from 9.3 hectares in 1999 to 11.9 hectares. This land concentration is evinced by a rise in the relative weight of holdings with 50 hectares of UAA and over, which currently correspond to 2/3 of UAA.

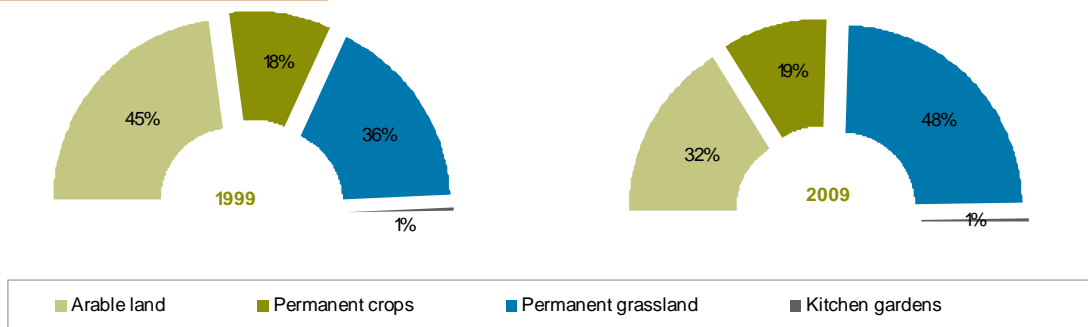
It is worth noting that a small number of holdings (approximately 260) with over 1,000 hectares use 12% of UAA. These include some common land, mostly grassland, managed by counterparts or commissions entitled to their use.

Land use: agricultural holdings still occupy half of the national territory. Grassland and meadow are predominant in the agricultural landscape, with nearly half the UAA

The area of agricultural holdings corresponds to 50% of the country's territory, i.e. around 4.6 million hectares, 450 thousand hectares less than in 1999.

Land cover has changed considerably, with a decline in arable land and an increase in permanent grassland both in relative and absolute terms, occupying nearly half of UAA. Arable land saw a broadly based decline, particularly in industrial crops (-67%), potato (-63%), dried pulses (-49%) and cereals for grain (-43%); by contrast, forage land saw a relative increase, as well as fresh vegetables, flowers and ornamental plants either outdoor and under glass.

Agricultural Land Use

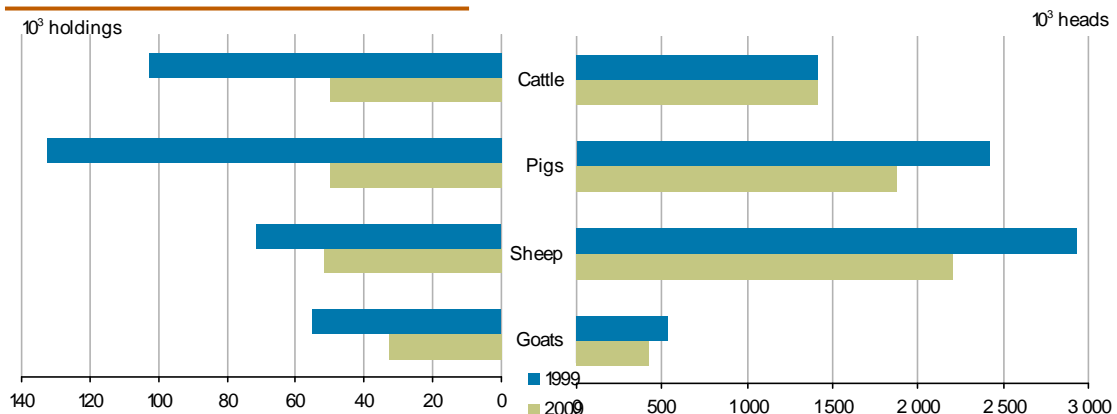


Worthy of note in permanent crops are declines of 25% in fruit of temperate climate zones orchards, 28% in citrus plantations and 19% in vineyards. By contrast, fruit of subtropical zones orchards saw an increase (+17%), in particular kiwi. Olive plantations remained virtually unchanged, but their characteristics have changed considerably, with more than 30 thousand hectares showing a density of planting of over 300 olive trees per hectare. Permanent grassland and meadow occupy about 1.8 million hectares, 75% of which without any type of improvement (seeding, fertilisation, irrigation, sewerage, etc.).

Livestock: the number of livestock farms declined sharply, and the average number of cattle and pigs per holding more than doubled in ten years

From 1999 to 2009 the number of livestock farms declined sharply, chiefly due to the disappearance of smaller units with livestock.

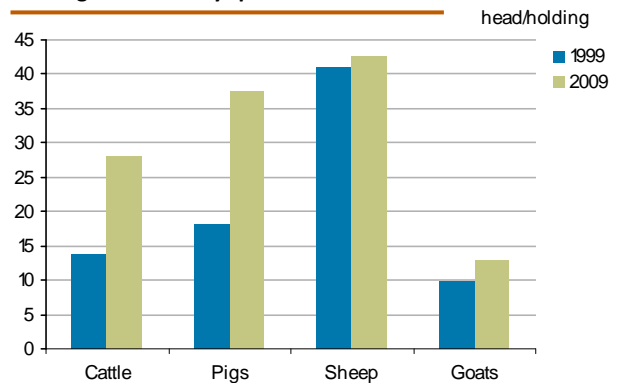
Holdings and livestock by specie



As regards total livestock numbers for the main species, cattle underwent virtually no change from 1999, whereas the number of pigs, sheep and goats declined (between 20% and 25%), albeit less markedly than the number of holdings.

As a result of these developments, the number of animals per livestock holding has increased. By way of example, the average number of cattle per holding has more than doubled, rising from 13.8 units to 28.2, similarly to pigs, which increased, on average, from 18.2 on average to 37.5 units.

Average herd size by specie



Characterisation of the holder: the typical agricultural holder is a man aged 63, who has only completed the 1st stage of primary education; his training is only practical and he works in the agricultural activities of the holding for approximately 22 hours/week; his household is composed of 3 persons and his income is mainly derived from retirement and pension benefits

Over the last 10 years, the profile of agricultural holders has undergone some changes:

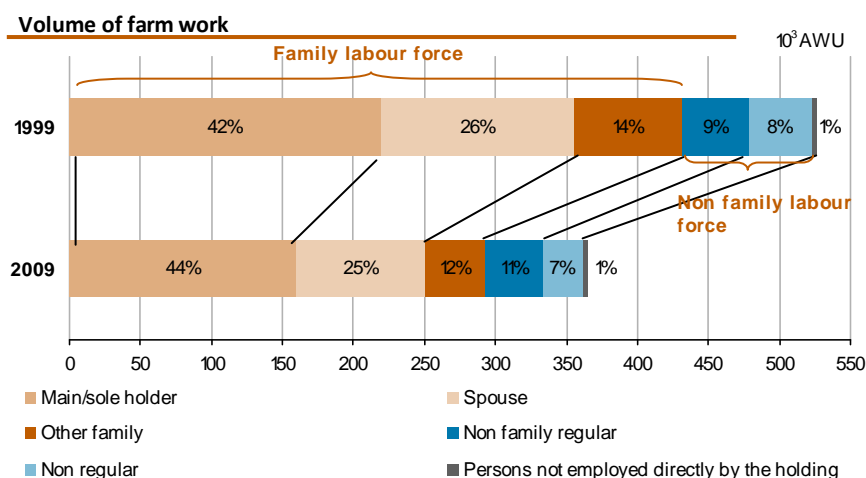
- In spite of an 8 p.p. increase in their relative weight, women still account for around 1/3 of holders;
- On average, holders have aged 4 years, 48% of them being aged 65 and over;
- The share of holders having attained more than the 1st stage of primary education rose from 15% to 25%. Despite this improvement, more than half of the holders have only completed the above-mentioned level (52%);
- Agricultural training has also improved slightly, which is confirmed by an increase in the number of holders who have attended agricultural-related vocational training courses. However, a large majority of them have only practical agricultural experience (89%);
- Approximately 1/5 of the holders work full time in the agricultural activities of the holding, which accounts for an increase of 5 p.p.;
- Family labour force, comprising the holder and the members of the respective household, covers approximately 790 thousand persons, i.e. 445 thousand less than in 1999;

- Only 6% of the holders derive their income exclusively from the activity of their agricultural holdings (2 p.p. less than in 1999), while 84% indicate that their income is obtained chiefly from other sources (14 p.p. more than in 1999). In addition, 64% of agricultural holders receive pension and retirement benefits.

Agricultural labour force: family labour is responsible for 80% of farm work

The agricultural labour force is based on the holder's family structure, which undertakes around 4/5 of farm work, with the holder contributing with slightly more than half the work. Non-family agricultural labour, including permanent labour-force and non-family labour regularly employed, contribute only 19% to the volume of farm work, while the contribution of persons not employed directly by the holding is only residual (1%).

As the result of a combination of factors promoting efficiency and a reduction of labour needs, such as the abandonment and downsizing of holdings, as well as improvements in mechanisation indices and the reorientation of some livestock production systems towards extensification, evinced by a decline in livestock and an increase in forage area, the last ten years saw a decrease in the volume of farm work (-31% of annual work units (AWUs) = 1,800 hours).



Mechanisation: agricultural holdings have become more mechanised. In 2009 six out of ten holdings owned a tractor

Between 1999 and 2009 mechanisation increased, which can be confirmed by the fact that six out of ten holdings had their own tractor, two more than in 1999. Another indicator pointing to improved mechanisation conditions was an increase in the number of tractors per 100 hectares of UAA, which rose from four to five units in 2009.

As regards holdings with less than 1 hectare of UAA, only two out of ten holdings owned a tractor. This number rose to five when considering farms with 1 to 5 hectares of UAA. Holdings with over 10 hectares had, on average, more than one tractor per holding, whereas holdings with over 200 hectares of UAA owned more than two tractors.

Agricultural holdings being a legal entity: a different reality

The high weight of small-sized holdings coexists with the reality of agriculture undertaken by agricultural enterprises having the legal status of companies, corresponding to around 7 thousand units (only 2% of agricultural holdings as a whole) but using $\frac{1}{4}$ of UAA. Agricultural enterprises are characterised by the following:

- Their average size is 142 hectares of UAA, i.e. 12 times higher than the national average;
- The average age of the holding managers is 50, i.e. 12 years younger than the national average;
- Approximately 40% of managers have attained tertiary education, half of whom have special training in agricultural sciences;
- They employ approximately 30 thousand workers, i.e. 2/3 of agricultural labour regularly employed;
- They only use 3.5 AWUs per 100 hectares of UAA, whereas the national average stands at 10 AWUs per 100 hectares of UAA;
- The use of tractors is more efficient, given that, in order to farm 100 hectares of UAA only one tractor is required, whereas five tractors would be necessary, on average.

Key indicators: holdings being a legal entity vs. Total Holdings

	Legal entities	Total Holdings
Technical indicators		
Average herd size (LSU*/holding)	278	22
Tractors per 100 ha of UAA (n./100 ha)	1	5
Structural indicators		
UAA per holding (ha)	142	12
Volume of farm work per holding (AWU/holding)	5	1
UAA per annual work unit (ha/AWU)	29	10
Social indicators		
Average age of the manager	50	62
Manager with 65 years and more (%)	15	47
Female manager (%)	12	29

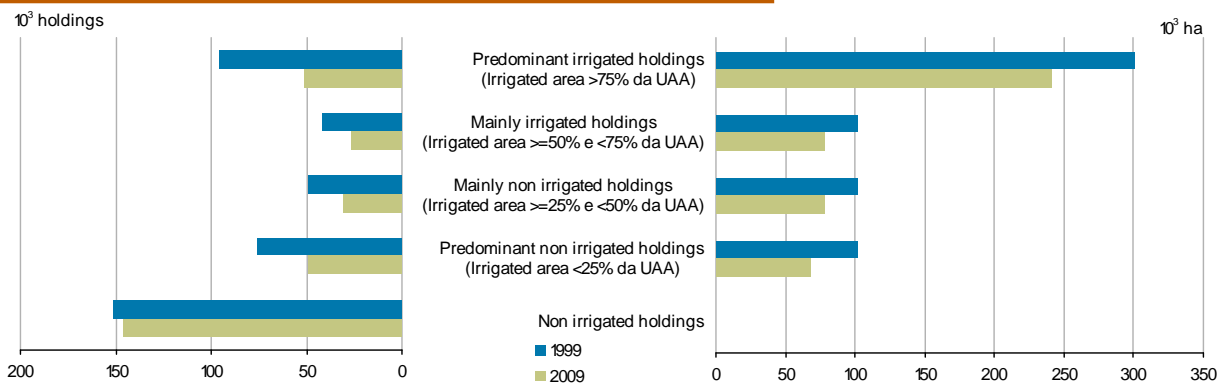
* LSU - Livestock Unit

Irrigated land: potentially irrigated area dropped by 6 p.p. over the last ten years and occupies 15% of UAA

Irrigated land has declined over the last ten years. This is shown by the decreasing importance of the number of holdings using irrigation systems, which fell from 69% to 53%, and by the representativity of irrigable area in the UAA, which dropped from 21% to 15%. Behind this factor is a decline in arable land, land cover where irrigation is more significant (1/4 of this area was irrigated in 2009), and a rise in permanent grassland, which is mostly non-irrigated land (only 3% is irrigated). Irrigated land in permanent crops corresponds to 20%, standing at around 60% in fruit of temperate climate zones orchards, 90% in citrus plantations, 20% in olive plantations and 15% in vineyards. Mention should be made to the importance of non-irrigated land in apple tree (24%), pear tree (39%) and cherry tree orchards (48%).

The typology of holdings according to irrigated land indicates that 48% of holdings (approximately 146 thousand) correspond exclusively to non-irrigated land. In turn, 51 thousand holdings are predominantly irrigated and correspond to more than half the irrigated land in the country.

Holdings and irrigated area by holding type



Organic farming: represents 3% of UAA

Approximately 1,300 productive units have been enumerated and certified in organic farming production methods, 37% of which are livestock oriented. The UAA of these holdings accounts for 3% of national UAA, most of it occupied with permanent pasture. In effect, only 1% of fresh vegetables and vineyards, 2% of orchards and 3% of olive plantations are organic. This production method is more meaningful in Beira Interior.



Farming practices: the RA09 releases farming practice indicators

In addition to information on irrigated land and organic farming, the RA09 also releases farming practice indicators related to soil conservation and improvement, landscape features, fertilisation, destination of the waste, sub-products and plant residues, as well as livestock effluents. Against the background of this relationship between farming practices and structural information, the RA09 also releases agro-environmental information, in particular the following:

- Direct seeding is performed in 4% of arable land;
- During the winter, 10% of arable land does not have green cover;
- Over the last three years, 1/5 of arable land has had the same crop;
- Weeding between rows is common practice in 10% of orchards, vineyards, and olive plantations;
- Fields in around 5% of holdings are delimited by hedges and 4% by lines of trees;
- Approximately 8% of holdings have made analyses of their land in the last three years;
- About half of the holdings resort to manure application.



Agriculture of the Regions





Did you know that:

Agricultural holdings in Castro Verde have, on average, 156 hectares; in Pampilhosa da Serra they do not exceed 1 hectare;

In Maia, nearly the whole UAA is irrigable (97%); in Barrancos, irrigated land is virtually non-existent (0.1%);

In Caminha, 3/4 of agricultural holders are women; in Porto Santo, they do not exceed 4%;

In São Brás de Alportel holders are aged 70 on average; in Santa Cruz das Flores, they are 20 years younger;

Montemor-o-Novo shows the highest share of holders having attained tertiary education;

Odemira has the highest share of agricultural holdings engaging in rural tourism-related activities;

Moura has the highest number of holdings using renewable energy;

In Vila do Conde there are more than two tractors per holding; in Madeira there is only one tractor for 60 holdings;

In Chaves one out of every five holdings breeds donkeys;

Ponta Delgada and Barcelos have the highest number of dairy cows.

Statistical unit: agricultural holding

Geographical coverage: Portugal

Census period collection: November 2009 to November 2010

Reference period: 1 November 2008 to 31 October 2009

Operation method: exhaustive

Type of collection: face-to-face interview

Frequency: decennial

(www.ine.pt/temas.asp?ver=por&temas=F).