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Farm Structure Survey





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mentioning the INE, as the author, the title of the work, the year of publication, and the reference Lisboa-Portugal.

Statistics Portugal (INE, IP) makes available the publication with the analysis of the results of the Farm Structure Survey 2016 (FSS 2016), comparing, whenever appropriate, with retrospective information from 2013 and 2009.

FSS 2016 completes the life time of structural surveys provided in Regulation (EC) No 1166/2008 and precedes the next agricultural census.

It is expected that this publication could be a reference for a better understanding of the Portuguese agriculture and help to promote discussion and reflection on this sector, particularly convenient as the results are one of the main data sources for the monitoring and evaluation of the measures implemented by the current Common Agricultural Policy (CAP), contributing to the CAP first report, which the Commission is required to submit to the European Parliament and the Council by 31 December 2018.

Users are strongly encouraged to send their comments and suggestions, with a view to continuously improve the quality of agricultural statistics.

To all those who cooperate in the conception, design and conduction of this operation and especially to the willingness of farmers in responding to the survey, we address our thanks.





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EXECUTIVE SUMMARY

The farm structure continues to evolve positively: since 2013, the average size of farms has increased by 0.3 hectares of Utilized Agricultural Area (UAA) (14.1 hectares in 2016), the Economic Size per holding increased by 2.8 thousand Euros of Standard Output (SO) (19.9 thousand Euros in 2016), the number of agricultural enterprises increased by 1.4 thousand and the labour force indicators, related labour productivity and efficiency, improved significantly.

The analysis of agricultural holdings according to the farm type points to the specialization of Portuguese agriculture, given that 70.2% of the farms in 2016 were specialized (one activity provides more than 2/3 of the SO), with highlight to grazing livestock specialization (34.3% of the national SO) and permanent crops specialization (21.1% of the national SO).

Large-scale and entrepreneurial agriculture, formed mostly by agricultural enterprises, although it represented only 4.4% of total holdings in 2016, managed almost 1/3 of the UAA and produced 44.6% of the livestock. In this context, it should be stressed that farms which irrigated most of its UAA, despite representing less than ¼ of the total holdings and 10.9% of the UAA in 2016, generated 36.2% of the national SO.

One negative aspect is the aging of agricultural holders, the oldest in the EU28, whose average age has increased from 63 in 2009 to 65 in 2016.

Despite the positive evolution of national agriculture, the comparison of labour force indicators with those of the EU28 is still unfavourable. The average productivity of the agricultural labour force was 16.2 thousand Euros of SO per Annual Work Unit (AWU), less than half of the value in the EU28 in 2013. Similarly, the efficiency of the agricultural labour force, expressed in UAA per AWU, is lower than the European average.



CONVENTIONAL SIGNS, ACRONYMS AND INFORMATION TO USERS

Conventional signs:

- // Null or not applicable
- x Not available
- P Less than half of the unit used

Acronyms:

- % Percentage
- LSU Livestock unit
- SO Standard output
- ha Hectares
- FSS Farm Structure Survey
- IFAP Integrated Administration and Control System (IACS)

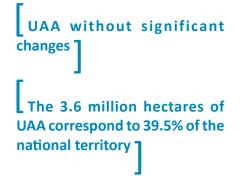
- No. Number
- NUTS Nomenclature of Territorial Units for Statistical Purposes, 2013 Version

- AWU Annual work unit
- p.p. Percentage points
- CAP Common Agricultural Policy
- PDR 2020 Rural Development Programme 2014-2020
- PRODER Rural Development Programme
- NUAA Unutilised agricultural land
- UAA Utilised agricultural area
- EU 28 European Union
- INE Statistics Portugal
- I. P. Public Institute
- EC European Commission





>> Agricultural holdings: decrease in farmland abandonment



According to the results of the Farm Structure Survey (2016 FSS), there were 259 thousand farms, i.e. -5.4 thousand farms than in 2013 and -46.3 thousand than in 2009, with a slowdown in farmland abandonment in the last three years. Even though a significant number of holders have ceased their agricultural activity since 2009 (-15.2%), the UAA did not undergo significant changes, remaining at 3.6 million hectares (39.5% of the land area). The land structure of agricultural holdings continued to evolve positively, with an increase in the average size (UAA per holding) from 12.0 hectares in 2009 to 14.1 hectares in 2016.

_Table 1 >> Number of holdings, UAA and average size, by NUTS II (change 2009-2016)

NUTS II	Holdings UAA		Average UAA per holding	Chan	ige 20(09-2016	Chan	ge 200	9-2013	Change 2013-2016				
	(No.)	(%)	(ha)	(%)	(ha/ hold.)	No. hold. (%)	UAA (%)	ha/ hold. (%)	No. hold. (%)	UAA (%)	ha/ hold. (%)	No. hold. (%)	UAA (%)	ha/ hold. (%)
Portugal	258 983	100,0	3 641 691	100,0	14,1	-15,2	-0,7	17,0	-13,4	-0,7	14,6	-2,1	0,0	2,1
Continente	235 774	91,0	3 513 006	96,5	14,9	-15,2	-0,8	17,0	-13,5	-1	14,8	-2,0	-0,1	1,9
Norte	95 879	37,0	653 134	17,9	6,8	-13,5	1,4	17,2	-10,8	0,4	12,6	-3,0	1,0	4,1
Centro	87 044	33,6	585 904	16,1	6,7	-17,2	2,8	24,1	-17,9	-2,1	19,2	0,9	5,0	4,1
AM Lisboa	5 458	2,1	77 636	2,1	14,2	-28,2	-11,4	23,5	-19,4	-15,1	5,3	-10,9	4,4	17,2
Alentejo	35 666	13,8	2 100 762	57,7	58,9	-15,5	-2,4	15,5	-10,6	-0,3	11,5	-5,5	-2,1	3,5
Algarve	11 728	4,5	95 570	2,6	8,1	-5,3	8,2	14,3	-6,7	4,5	11,9	1,5	3,6	2,1
Açores	11 580	4,5	123 793	3,4	10,7	-14,5	2,8	20,2	-12,7	-1,5	12,8	-2,1	4,4	6,6
Madeira	11 628	4,5	4 893	0,1	0,4	-14,6	-9,9	5,5	-11,3	-3,1	9,3	-3,7	-7,0	-3,5



In regional terms, developments in the agricultural area and in the number of holdings were quite different. Área Metropolitana de Lisboa was in relative terms the region with the highest farmland abandonment, its agricultural area declining between 2009 and 2016 by almost 10 thousand hectares and the number of holdings by 28.2%.

The average size of holdings recorded great regional variability, with the average size of holdings in the Alentejo region four times the national average. By contrast, holdings in the Norte and Centro regions were on average smaller than 7 hectares of the UAA, i.e. less than half of the national value (14.1 hectares of the UAA per holding).

Average size of agricultural holdings exceeds 14 hectares

Since 2009, the Área Metropolitana de Lisboa was the region that registered the highest abandonment of agricultural activity, in relative terms

<< agricultural holding: a single unit both technically and economically, which uses its own labour and production factors and which compulsorily complies with the following four conditions:

- 1. it produces 1 or more agricultural products;
- 2. it has or exceeds a certain size (area, head of livestock, etc.);
- 3. it has single management;
- 4. it is located at a specific and identifiable location.

<< utilised agricultural area (UAA): the area of the holding, which includes: arable land (cleared and under cover of scrub and forests), kitchen garden, land under permanent crops and permanent pasture.

>> Land structure: 2.4% of holdings managed 58% of the UAA

High concentration of UAA, with the 1,000 largest farms managing almost 1 million hectares of UAA

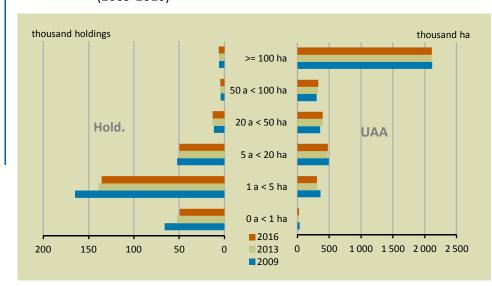
In 2016 holdings with 100 or more hectares managed more than half of the UAA (58.0%), accounting for only 2.4% of agricultural holdings. A reduced number of large-sized holdings (261 farms with 1,000 or more hectares of the UAA) managed 12.3% of the national UAA. By contrast, small-sized holdings (less than 1 hectare), although corresponding to 19.0% of the total, only farmed 0.7% of the UAA.

– Table 2 >> Number of holdings and UAA, by UAA classes

	Holdin	gs	UAA		Change 20	09-2016	Change 20	009-2013	Change 20	13-2016
UAA classes	(No.)	(%)	(ha)	(%)	No. hold. (%)	UAA (%)	No. hold. (%)	UAA (%)	No. hold. (%)	UAA (%)
Total	258 983	100,0	3 641 691	100,0	-15,2	-0,7	-13,4	-0,7	-2,1	0,
< 1 ha	49 301	19,0	26 528	0,7	-25,3	-24,3	-20,7	-21,4	-5,8	-3
1 a < 5 ha	135 827	52,4	304 459	8,4	-17,6	-15,9	-15,8	-13,9	-2,1	-2
5 a < 20 ha	49 942	19,3	478 763	13,1	-4,2	-2,8	-4,8	-3,6	0,6	0
20 a < 50 ha	12 999	5,0	395 056	10,8	10,8	10,4	9,9	11,1	0,7	-0
50 a < 100 ha	4 697	1,8	326 304	9,0	7,9	7,7	6,9	6,5	0,8	1
100 a < 500 ha	5 159	2,0	1 121 887	30,8	3,6	2,2	-1,2	-3,9	4,8	6
500 a < 1 000 ha	798	0,3	538 972	14,8	-6,9	-7,1	-1,4	-0,8	-5,6	-6
≥ 1 000 ha	261	0,1	449 723	12,3	-1,8	2,1	3,4	8,4	-5,1	-5

(Change 2009-2016)

_Figure 1 >> Holdings, by UAA classes (2009-2016)



Farmland abandonment occurred mainly in small holdings. The decline in the number of large-sized holdings was limited to less than 100 holdings, probably related to land and business fragmentation.

Once again, the abandonment of agricultural activity focused on small-scale agriculture



>> Legal nature: number of agricultural enterprises continued to rise

Agricultural enterprises managed 1/3 of UAA and 44.6% of livestock

Those with legal and economic responsibility in agricultural holdings were mostly individual holders (95.0%), the 11.4 thousand enterprises accounting for only 4.4% of the total. However, in large-sized holdings (100 or more hectares of UAA) enterprises played a more important role (39.9%). Since 2009 the number of enterprises rose by 68.2%.

(Change 2009-2016) Change 2009-2013 Change 2009-2016 Change 2013-2016 2016 Sole Legal Sole Legal Sole Legal **UAA classes** Sole holder Other Legal person Other Other Other holder person holder person holder person (No.) (%) (%) (%) (%) (No.) (No.) Total 246 149 95,0 11 397 4,4 1 437 0,6 -17,2 68,2 29,6 -14,8 47,1 -13,6 -2,9 14,3 49,9 65,1 -100,0 Without UAA 693 55,6 553 44,4 0 0,0 -34,3 -50,2 -5,0 -100,0 32,0 73,7 0 < 1 ha47 250 98.3 577 1.2 226 0.5 -26,5 126,5 128,6 -21,0 155,5 -21,0 -6,9 -11,3 189,3 -18,7 191,1 -16,6 131,6 25,7 1 a < 5 ha 133 122 98,0 2 253 1,7 452 0,3 56,3 24,7 -2,6 25,4 5 a < 20 ha 89,1 60,5 46 956 94,0 2711 5,4 274 0,5 43,7 -16,1 -0,5 17,8 71,3 -7,1 -6,6 52,1 2,1 20 a < 50 ha 11 086 85,3 1 757 13,5 156 1,2 5,8 55,3 23,5 5,6 -10,3 0,2 37,7 50 a < 100 ha 27,6 6,3 16,1 3 541 75,4 1 067 22,7 90 1,9 3,4 -5,5 -51,5 -2,7 9,9 94,7 ≥ 100 ha 3 501 56,3 2 479 39,9 239 3,8 -7,7 23,3 -20,6 -4,3 10,0 -33,3 -3,6 12,0 19,1

Table 3 >> Legal personality of the holding, by UAA classes

The size of farms managed by enterprises is much higher than those managed by sole holders The high representativeness of family farming, formed by small holdings, thus co-existed with large-scale and entrepreneurial agriculture, mostly composed of agricultural enterprises that, although accounting for only 4.4% of holdings in 2016, managed almost one-third of the UAA and produced 44.6% of livestock. In fact, on average, each agricultural enterprise managed 105 hectares of UAA (11 times that of individual holders) and produced 87 livestock units (18 times that of individual holdings).

Table 4 >> UAA and livestock units (LSU), by legal personality and UAA classes

(2016)

		Sole h	older			Legal p	oerson			Oth	er	
UAA classes	UAA		LSU		UAA		LSU		UAA		LSU	
	(ha)	(%)	(No.)	(%)	(ha)	(%)	(No.)	(%)	(ha)	(%)	(No.)	(%)
Total	2 273 881	62,4	1 214 573	54,6	1 195 004	32,8	992 368	44,6	172 807	4,7	16 775	0,8
Without UAA	0	0	72 772	3,3	0	0	259 089	11,7	0	0	0	0,0
< 1 ha	26 116	0,7	61 114	2,7	294	0,0	7 934	0,4	119	0,0	199	0,0
1 a < 5 ha	298 066	8,2	217 695	9,8	5 465	0,2	36 836	1,7	928	0,0	293	0,0
5 a < 20 ha	445 817	12,2	275 902	12,4	30 446	0,8	78 113	3,5	2 499	0,1	1 009	0,0
20 a < 50 ha	334 803	9,2	201 647	9,1	55 222	1,5	70 368	3,2	5 031	0,1	2 660	0,1
50 a < 100 ha	243 172	6,7	108 501	4,9	76 748	2,1	50 349	2,3	6 384	0,2	1 889	0,1
≥100 ha	925 907	25,4	276 943	12,5	1 026 829	28,2	489 679	22,0	157 846	4,3	10 726	0,5

<< holder: the holder of the holding is that natural person or the legal person on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding. The holder reaps the benefits and bears any losses, takes the strategic decisions regarding the production system, investment loans, etc.

<< legal personality of the holding: the legal personality of the holding depends on the status of the holder.</p>

The question whether a holder is a "natural" or a "legal" person is important for the classification of holdings into the following groups: Holdings where the holder is:

(a) a natural person and the sole holder of an independent holding.

A single individual and natural person who is the holder of a holding which is not linked to any holdings of other holders, either by common management or similar arrangements.

(a) with major use of family members on farm work;

(b) with major use of non-family labour;

(c) a legal person.

A legal entity other than a natural person but having the normal rights and duties of an individual, such as the ability to sue or to be sued (a general legal capacity of its own).

(a) companies, constituted according to commercial and civil codes.

Other legal natures:

(a) common land managing party;

(b) others (State and legal persons, whether the holding is subordinated to the central or local administration, directly or through a body (eg agrarian stations, agricultural schools, public institutes, public enterprises, forest administrations, barracks, prisons, etc.).

<< livestock unit, (LSU or sometimes LU): is a reference unit which facilitates the aggregation of livestock from various species and age, via the use of specific coefficients established initially on the basis of the nutritional or feed requirement of each type of animal. The reference unit used for the calculation of livestock units (=1 LSU) is the grazing equivalent of one adult dairy cow.

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>> Economic size of holdings: positive developments vis-à-vis 2013

((2016)											
				Total							ll holdings 00 Euros)	
NUTS II	Holdings	6		SO			Economic s	ize	Holding	S	SO	
	(No.)		(1 000 Euros)		(%))	(1000 Euros/ I	nold.)	(No.)	(%)	(1000 Euros)	(%
Portugal	258	8 983	5 144	4 213		100,0		19,9	188 652	72,8	488 733	ç
Mainland	23	5 774	4 584	4 374		89,1		19,4	174 306	73,9	445 257	ç
Norte	9	5 879	1 122	2 815		21,8		11,7	71 846	74,9	204 236	18
Centro	87	7 044	1 217	7 146		23,7		14,0	69 477	79,8	156 857	12
AM Lisboa	!	5 458		3 640		5,6		52,9	3 420	62,7	10 602	
Alentejo	35	35 666		1 719 736		33,4		48,2	22 467	63,0	51 362	
Algarve	11	1 728	236 037			4,6		20,1	7 098	60,5	22 200	9
Açores	11	1 580	474	4 606		9,2		41,0	5 590	48,3	13 964	2
Madeira	11 628		85	5 233		1,7		7,3	8 755	75,3	29 513	34
			oldings				sized holdings				oldings	
			o < 25 000 Euro	os)			000 to < 100 0	00			000 Euros)	
-	Holdings		SO		Holdi	<u> </u>	SO		Holding		SO	1
	(No.)	(%)	(1000 Euros)	(%)	(No.)	(%)	(1000 Euros)	(%)	(No.)	(%)	(1000 Euros)	(%
Portugal	40 291	15,6	560 489	10,9	20 598	8,0	1 011 332	19,7	9 441	3,6	3 083 659	59
Mainland	35 577	15,1	496 952	10,8	17 894	7,6	865 874	18,9	7 997	3,4	2 776 291	60
Norte	16 267	17,0	222 072	19,8	5 972	6,2	271 075	24,1	1 795	1,9	425 433	3
Centro	9 846	11,3	138 457	11,4	5 557	6,4	271 891	22,3	2 165	2,5	649 941	53
AM Lisboa	960	17,6	14 374	5,0	610	11,2	30 275	10,5	468	8,6	233 389	80
Alentejo	5 431	15,2	78 852	4,6	4 549	12,8	236 682	13,8	3 219	9,0	1 352 840	78
Algarve	3 074	26,2	43 198	18,3	1 205	10,3	55 951	23,7	351	3,0	114 688	48
Açores	2 160	18,7	31 685	6,7	2 432	21,0	134 224	28,3	1 398	12,1	294 733	62
Madeira	2 554	22,0	31 852	37,4	273	2,3	11 235	13,2	46	0,4	12 634	14

- Table 5 >> Number of holdings, by economic size classes and NUTS II

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The national total SO for 2016 exceeded €5.1 billion (+14.1% than in 2013), with the Alentejo region contributing over one-third of this value. On average, each agricultural holding generated €19.9 thousand of total SO, i.e. more than €2.8 thousand compared to 2013, corresponding to a 16.5% increase in the average economic size of holdings.

On average, each farm generated 19.9 thousand Euros of SO

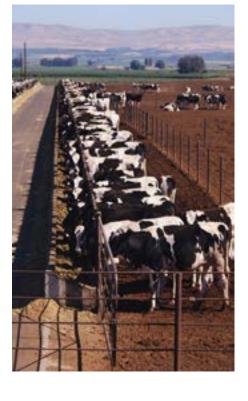
An analysis of holdings by economic size class shows that large holdings (over ≤ 100 thousand of total SO), although accounting for only 3.6% of agricultural holdings, originated 59.9% of the national total SO in 2016. By contrast, almost three-quarters of holdings were quite small, generating less than ≤ 8 thousand a year and contributing 9.5% to the national total SO.

Large agricultural holdings contributed with almost 60% of the SO

In regional terms, there was a great asymmetry in the economic size per holding, with holdings in Área Metropolitana de Lisboa generating on average €52.9 thousand of total SO, i.e. almost five times the value achieved by holdings in the Norte region.

<< standard output of an agricultural product (crop or livestock), (SO): is the average monetary value of the agricultural output at farm-gate price, in euro per hectare or per head of livestock. There is a regional SO coefficient for each product, as an average value over a reference period. The reference period for FSS 2016 covered a five years period from 2011 to 2015.

<< total SO: the sum of all SO per hectare of crop and per head of livestock in a farm is a measure of its overall economic size, expressed in euro.</p>



Almost 3/4 of the holdings are

very small, generating less than

8 thousand Euros per year

>>Farm Type: most agricultural holdings were specialised (70.2%)

- Table 6 >> Number of holdings, SO and UAA, by farm type (2016)

(2016

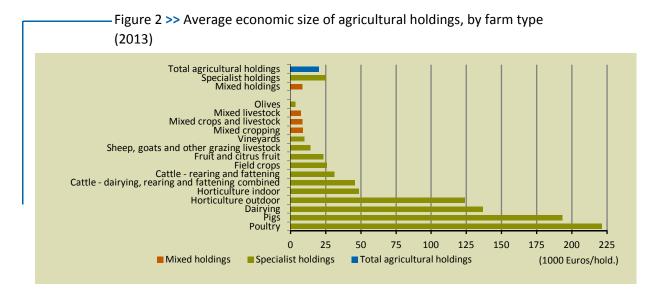
	Holding	gs		SO		UAA		
Farm type	(No.)	(%)	(1000 euros)	(%)	(1000 Euros /hold.)	(ha)	(%)	
Total	258 983	100,0	5 144 213	100,0	19,9	3 641 691	100,0	
Specialist holdings	181 901	70,2	4 531 055	88,1	24,9	2 897 497	79,6	
Field crops	25 019	9,7	643 761	12,5	25,7	513 902	14,1	
Of which: Outdoor horticulture	1 620	0,6	200 122	3,9	123,5	42 335	1,2	
Indoor horticulture	8 467	3,3	408 355	7,9	48,2	23 626	0,6	
Of which: Under glass	1 695	0,7	173 473	3,4	102,4	4 301	0,1	
Permanent crops	97 935	37,8	1 085 442	21,1	11,1	681 874	18,7	
Of which: Vineyard	28 826	11,1	275 095	5,3	9,5	153 674	4,2	
Fruit and citrus fruits	27 382	10,6	638 548	12,4	23,3	240 168	6,6	
Olives	22 131	8,5	70 062	1,4	3,2	155 631	4,3	
Grazing livestock	45 588	17,6	1 766 853	34,3	38,8	1 654 255	45,4	
Of which: Dairying	6 594	2,5	899 466	17,5	136,4	164 086	4,5	
Cattle - rearing and fattening	17 661	6,8	547 871	10,7	31,0	918 732	25,2	
Cattle - dairying, rearing, fattening combine	738	0,3	33 613	0,7	45,5	19 497	0,5	
Sheep, goats and other grazing livestock	20 596	8,0	285 902	5,6	13,9	551 941	15,2	
Granivores	4 892	1,9	626 643	12,2	128,1	23 840	0,7	
Of which: Pigs	1 507	0,6	290 667	5,7	192,9	17 598	0,5	
Poultry	1 492	0,6	330 220	6,4	221,3	4 048	0,1	
Mixed holdings:	75 854	29,3	613 158	11,9	8,1	719 420	19,8	
Mixed cropping	27 100	10,5	230 083	4,5	8,5	194 100	5,3	
Mixed livestock	10 974	4,2	78 285	1,5	7,1	77 992	2,1	
Mixed crops and livestock	37 780	14,6	304 790	5,9	8,1	447 329	12,3	
Non-classified holdings	1 228	0,5	0	0,0	0,0	24 774	0,7	

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An analysis of holdings according to Farm Type points to the Portuguese agriculture's specialisation, given that 70.2% of holdings were specialised (more than two-thirds of the total SO originated in a single activity), with mixed holdings contributing only 11.9% of the national total SO.

Agricultural holdings specialised in animal production generate higher SO



Holdings specialised in livestock showed the highest economic sizes, with poultry farms generating on average €221.3 thousand, industrial pig farms €192.9 thousand, and dairy farms €136.4 thousand. The horticulture sector was also formed by holdings of large economic size. Conversely, and although large-sized holdings were included, olive-growing and viticulture specialised farms recorded low economic sizes per holding.

Despite the dynamics of the olive sector, small holdings still prevail

- << farm type of a holding: is determined by the relative contribution of the standard output of the different characteristics of this holding to the total standard output of this one:</p>
 - Stage 1: The total SO is calculated by valuing the areas of agricultural crops and farm animals, based on the SO established regionally for the different crops and animals.
 - Stage 2: A holding is allocated to a type of farming class, depending on the relative contribution weighted in value of each plant and animal production to total SO.



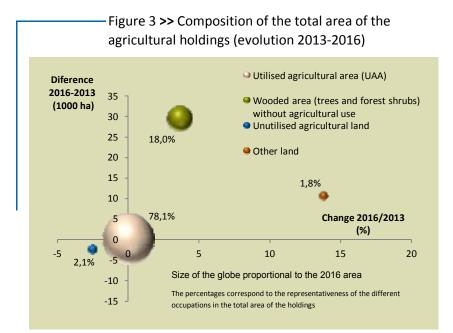
>> Area of holdings: agricultural holdings managed half of the national territory

Wooded area (trees and forest shrubs) without agricultural use represent 18% of the total area of agricultural holdings Agricultural holdings took up an area of 4.6 million hectares, corresponding to approximately half of the national territory. The UAA accounted for 78.1% of the total area of agricultural holdings, followed by wooded area (trees and forest shrubs) without agricultural use (18.0%). The Unutilised Agricultural Area (NUAA) of holdings (area with agricultural potential, but not utilised) took up 2.1% of the area of holdings.

— Table 7 >> Composition of the total area of the agricultural holdings, by NUTS II

					Unit: (ha)
NUTS II	Utilised agricultural area (UAA)	Wooded area (trees and forest shrubs) without agricultural use	Unutilised agricultural area (NUAA)	Other land	Total area
Portugal	3 641 691	837 067	98 452	85 962	4 663 173
Mainland	3 513 006	822 722	96 491	83 671	4 515 890
Norte	653 134	281 922	18 219	17 092	970 367
Centro	585 904	247 608	35 334	14 813	883 659
AM Lisboa	77 636	15 094	1 550	2 706	96 985
Alentejo	2 100 762	229 734	16 826	46 902	2 394 224
Algarve	95 570	48 364	24 563	2 158	170 655
Açores	123 793	12 870	1 213	1 924	139 799
Madeira	4 893	1 476	748	367	7 484

(2016)



Agricultural holdings took up approximately the same area as in 2013 (+0.8%), and there was an increase in wooded area (trees and forest shrubs) without agricultural use and a slight decline in areas with potential that were not utilised for agricultural purposes.

<< total area: the total used agricultural area, woods and forests without under-planting, unused agricultural area and other areas of the holding.</p>
</ utilised agricultural area (UAA): the area of the holding, which includes: arable land (cleared and under cover of scrub and forests), kitchen
garden, land under permanent crops and permanent pasture.

<< unutilised agricultural land: an area of a holding previously used as an agricultural area but which is no longer used for economic, social or other reasons. It is not used in crop rotation. It may be used again with the help of the resources generally available at the holding.

<< other land: areas occupied by buildings, threshing floors, yards, paths, dams, reservoirs, gardens, woodland and forests laid out exclusively to protect the environment or for recreation.

Of the 3.6 million hectares of UAA, more than half were permanent grassland (51.5%), followed by arable land (28.6%) and permanent crops (19.4%).

— Table 8 >> Composition of UAA, by NUTSII

(2016)

		Arable land		Kitchen	Permanent	crops	Permanent		
NUTS II	Temporary crops	Fallow land	Total	gardens	Total excluding stone pine	Total	grassland ¹	UAA	
Portugal	791 538	251 759	1 043 298	16 331	639 952	705 120	1 876 943	3 641 69	
Continente	767 442	251 744	1 019 186	15 690	635 186	700 353	1 777 776	3 513 00	
Norte	133 624	38 680	172 305	7 025	218 719 Rc	218 773	255 032	653 13	
Centro	154 324	34 126	188 450	6 387	146 045 Rc	148 470	242 597	585 90	
Lisboa	29 477	4 054	33 532	137	10 335 Rc	14 715	29 252	77 63	
Alentejo	438 691	159 860	598 551	1 561	220 096 Rc	270 548	1 230 103	2 100 76	
Algarve	11 326	15 023	26 349	581	39 991 Rc	47 847	20 792	95 57	
Açores	22 223	0	22 223	526	2 400	2 400	98 643	123 79	
Madeira	1 873	15	1 888	114	2 367	2 367	524	4 89	

¹Excluding permanent grassland associated with permanent crops

* Table updated in April 2018

\$

- << arable land: land often ploughed for annual or multi-annual (less than 5 years) plant production. It also includes fallow land, land kept in good agricultural and environmental condition and land occupied by greenhouses or covered by fixed or mobile structures.</p>
- << fallow land: land included in crop rotation, which may be worked, not providing crops at any time in the season in order to improve it. It may take the form of a) land with no crops, b) land with spontaneous vegetation sometimes used by animals or buried or c) land sowed for the exclusive production of green matter for burying to increase soil's fertility.
- << permanent crops: crops which occupy the soil for a long period and provide repeated yields of crops over several years and do not rotate with other crops. They do not include permanent grasslands and pastures. In relation to fruit trees, only regular plantations with a minimum density of 100 trees, or 45 trees in regard to olive, fig and nut trees, are considered.
- << permanent grassland and meadow total: sowed or spontaneous, usually herbaceous plants for livestock to eat at the site where they grow but that can also be cut at certain times of the year. They are not included in rotation and occupy the land for more than five years.
- << kitchen garden: a cultivated area less than 20 ares, devoted solely to growing products such as vegetables, fruits and flowers, primarily for use by the cultivator and not for sale.

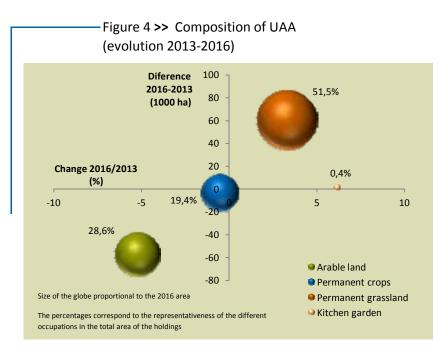
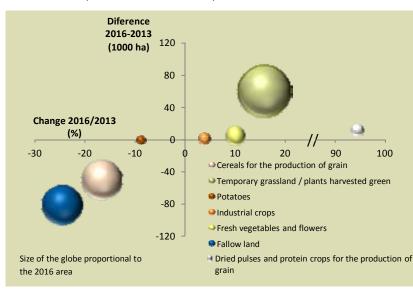


 Figure 5 >> Composition of arable land (evolution 2013-2016)



The cultivation area has not changed significantly since 2013, with arable land declining (-5.2%, due to a decrease in fallow land) and permanent crops undergoing almost no change (-0.5%). By contrast, permanent grassland with or without forest cover increased by 3.3%. This reinforced the downward trend of arable land (-130 thousand hectares than in 2009) and the upward trend of permanent grassland (+92 thousand hectares than in 2009).

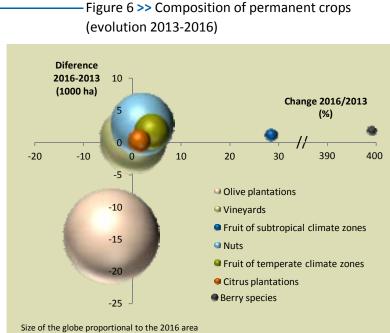
The decline in arable land was due to a decrease in fallow land (-24.4%), since the area of temporary crops increased (+3.1%), especially as a consequence of an upsurge in the area of temporary grassland and forage crops.

The decrease in arable land was mainly due to the decrease in fallow land

The considerable increase in the area of pulses for grain (+94.3%) was due to crop diversification, an eligible crop practice within the scope of the greening component, complementary to the basic payment.

The increase in the vegetable area resulted from the sector's buoyancy in the past few years. By contrast, due to market volatility and low competitiveness, the area of cereals for the production of grain continued to follow the downward trend observed in the past few decades.

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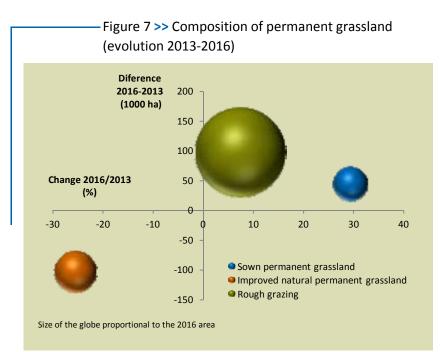


In spite of investments in the olive-growing sector (8.7 thousand hectares of intensive oil groves planted since 2013), the area of oil groves decreased (-4.3%) as a result of the abandonment of around 15 thousand hectares of traditional oil groves (less than 100 trees per hectare).

In vineyards, probably due to the new authorisation scheme for planting vineyards in force since 1 January 2016, there was a slight increase of 0.5 thousand hectares, i.e. a 0.3% rise in the wine-growing area.

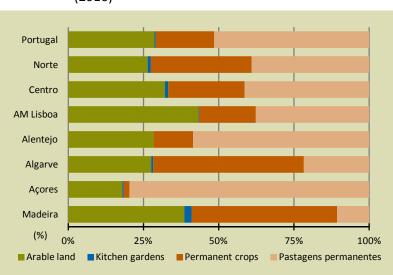
There was a broadly based increase in the fruit area, in particular remarkable growth in the production of berries, whose area rose almost fivefold in three years (+392.3%). The subtropical fruit area also grew considerably (+28.5%), particularly kiwi crops. This seems to have been due to the incentive from ProDeR and PDR 2020 to fruit growing, which was one of the most relevant sectors as regards measures to support investment.

> Significant increase of the area of berry species and also of kiwi



The permanent grassland area increased due to growth in rough grazings (+7.5%) and sowed pastures (+29.4%), and there was a decline in technical interventions to improve grassland (fertilisation, irrigation, sewerage, reseeding).

The regional composition of the UAA reflected the specificities of national agriculture in a rather synthetic manner, with arable land, permanent crops and permanent grassland showing an equitable distribution in the Norte but also in the Centro regions, while in the Algarve and Região Autónoma da Madeira permanent grassland predominated. In Região Autónoma dos Açores permanent grassland was virtually always monoculture, also taking up most of the UAA in the Alentejo region.



— Figure 8 >> Composition of UAA, by NUTS II (2016)

>> Irrigated land: standard output per hectare of irrigated land exceeded €5 thousand, i.e. six times the value reached for rainfed land

In 2016, 126.5 thousand holdings with irrigation accounted for 48.9% of the total, with 474 thousand irrigated hectares corresponding to 13.0% of the UAA and 86.5% of the irrigable area.

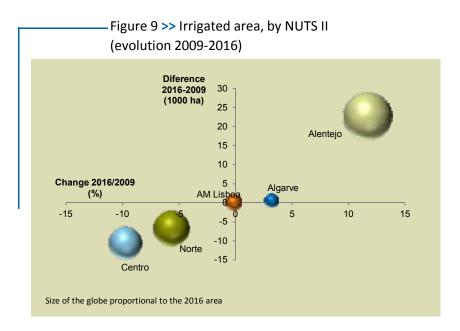
	I	rrigatio	on in the cr	op year 201	5/2016		luuine le le le			
Classification of holdings by	Holding	S	Irrigate	ed area	UAA		Irrigable a	rea	SO	
irrigated area in the crop year 2015/2016	(No.)	(%)	(ha)	(% on irrigable area)	(ha)	(%)	(ha)	(% na UAA)	(1000 euros)	(%)
Total	258 983	100	474 061	86,5	3 641 691	100	547 838	15,0	5 144 213	100
Exclusively rainfed	131 220	50,7	0	0	2 162 973	59,4	26 164	1,2	1 793 304	34,9
Predominantly rainfed	42 481	16,4	66 365	72,8	871 288	23,9	91 165	10,5	740 825	14,4
Mainly rainfed	24 882	9,6	75 736	85,4	210 388	5,8	88 639	42,1	456 575	8,9
Mainly irrigated	18 912	7,3	78 302	91,9	126 317	3,5	85 243	67,5	455 716	8,9
Predominantly irrigated	40 241	15,5	253 657	98,8	270 725	7,4	256 628	94,8	1 404 390	27,3
Without UAA	1 247	0,5	-	-	-	-	-	-	293 404	5,7
NUTS II										
Norte	95 879	37,0	115 078	85,3	653 134	17,9	134 891	20,7	1 122 815	21,8
Centro	87 044	33,6	98 743	77,8	585 904	16,1	126 979	21,7	1 217 146	23,7
AM Lisboa	5 458	2,1	23 016	89,3	77 636	2,1	25 778	33,2	288 640	5,6
Alentejo	35 666	13,8	216 781	90,7	2 100 762	57,7	238 941	11,4	1 719 736	33,4
Algarve	11 728	4,5	16 690	97,3	95 570	2,6	17 158	18,0	236 037	4,6
Açores	11 580	4,5	334	-	123 793	3,4	-	-	474 606	9,2
Madeira	11 628	4,5	3 418	83,5	4 893	0,1	4 092	83,6	85 233	1,7

 Table 9 >> Irrigable area, irrigated area and SO, by type of holding (irrigation) and NUTSII (2016)

Farm Structure Survey | 2016

Farm Structure Survey | 2016

The classification of holdings according to the proportion of irrigated UAA points to a predominance of rainfed land, since in 2016 holdings of exclusively rainfed land accounted for 50.7%, managed 59.4% of the UAA and generated 34.9% of total SO, with the majority of earnings originating in livestock production. However, holdings that irrigated most of their UAA, although accounting for less than one-fourth of total holdings and 10.9% of the UAA, generated 36.2% of the national total SO.



In the last 7 years, Alqueva irrigation system has promoted an increase of 22.7 thousand hectares of irrigated land in Alentejo region

The total SO per hectare of UAA in holdings of predominantly irrigated land reached €5.2 thousand in 2016, i.e. four times the national average and six times the value reached by holdings of exclusively rainfed land.

Since 2009 and especially due to the Alqueva infrastructure, irrigated land in the Alentejo region increased by 22.7 thousand hectares.

<< irrigable area: the maximum area in a holding that could be irrigated if necessary by the holding's own equipment and with an amount of water normally available.

<< irrigated area: an agricultural area of a holding occupied by main temporary crops, permanent crops and permanent meadows and pastures that have been irrigated at least once in the agricultural year.

- << farms of exclusively rainfed land: farms that do not have irrigation areas.
- << farms with predominantly rainfed land: farms whose irrigated areas account for less than 25% of their UAA.</p>
- << farms with mainly rainfed land: farms whose irrigated areas account for between 25% and less than 50% of their UAA.</p>
- << farms with mainly irrigated land: farms whose irrigated areas account for between 50% and less than 75% of their UAA.</p>
- << farms with predominantly irrigated land: farms whose irrigated areas exceed 75% of their UAA.</p>

>> Livestock: reduction in the number of holdings and increase in the average size of livestock per holding

(20)16)									
		l	Bovine anim	nals				Pigs		
NUTSII	Holdings		Head		Average size	Holdin	gs	Head		Average size
	(No.)	(%)	(1000 No.)	(%)	(head/holding)	(No.)	(%)	(1000 No.)	(%)	(head/holding)
Portugal	43 384	100	1 567	100	36,1	39 672	100	1 875	100	47,3
Mainland	35 251	81	1 301	83	36,9	35 695	90	1 841	98	51,
Norte	20 487	47,2	365	23,3	17,8	12 154	30,6	65	3,4	5,
Centro	9 689	22,3	181	11,6	18,7	19 696	49,6	697	37,2	35,
AM Lisboa	444	1,0	57	3,6	127,2	224	0,6	131	7,0	586,
Alentejo	4 374	10,1	690	44,0	157,7	2 499	6,3	933	49,8	373,
Algarve	257	0,6	8	0,5	29,8	1 121	2,8	15	0,8	13,
Açores	7 466	17,2	263	16,8	35,2	2 274	5,7	31	1,7	13
Madeira	666	1,5	3	0,2	4,4	1 703	4,3	3	0,2	1,
			Sheep					Goats		
NUTSII	Holdings		Head		Average size	Holdin	igs Head			Average size
	(No.)	(%)	(1000 No.)	(%)	(head/holding)	(No.)	(%)	(1000 No.)	(%)	(head/holding)
Portugal	45 778	100	2 200	100	48,1	26 635	100	390	100	14,
Mainland	44 266	97	2 190	100	49,5	23 312	88	378	97	16
Norte	15 465	33,8	434	19,7	28,1	5 138	19,3	116	29,8	22
Centro	18 258	39,9	510	23,2	27,9	15 008	56,3	145	37,1	9
AM Lisboa	1 128	2,5	38	1,7	33,6	212	0,8	5	1,4	25
Alentejo	8 623	18,8	1 162	52,8	134,8	2 325	8,7	97	24,9	41
Algarve	791	1,7	46	2,1	57,8	628	2,4	15	3,8	23
Açores	589	1,3	5	0,2	8,1	1 202	4,5	5	1,3	4
Madeira	923	2,0	5	0,2	5,3	2 121	8,0	7	1,8	3,

- Table 10 >> Livestock, by NUTS II

\$

Farm Structure Survey | 2016

The livestock sector's productive structure did not record significant changes, with sheep accounting for 36.5% of total livestock (2,200 thousand heads), followed by pigs (1,875 heads), cattle (1,567 thousand heads), and goats (390 thousand heads).

Cattle was the only species that recorded an increase vis-à-vis 2009 (+9.5%). There were declines in livestock units in goats (-7.2%), pigs (-2.0%), and sheep (-0.9%).



The number of agricultural holdings decreased sharply for all species, notably -20.8% pigs, -18.1% goats, -13.3% cattle, and -11.6% sheep, especially due to the disappearance of small-sized farms.

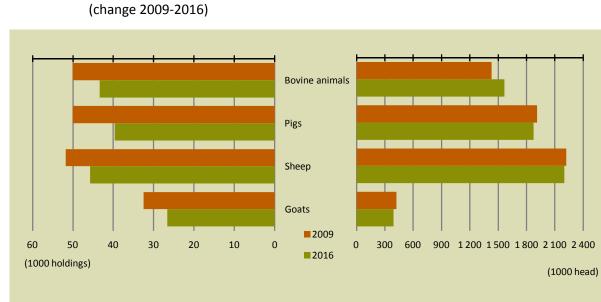
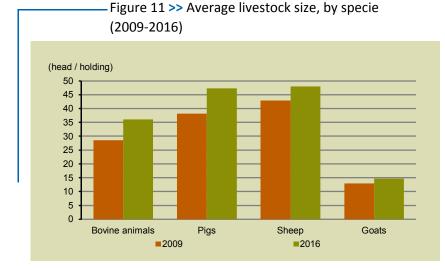


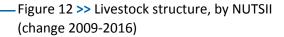
Figure 10 >> Number of holdings and livestock, by specie

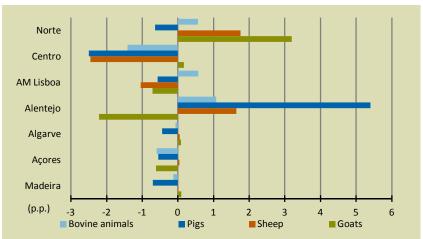


In regional terms, the Alentejo is the country's main livestock region, concentrating more than half of the sheep, 49.8% of pigs and 44.0% of cattle. Goats were predominant in the Centro region, where 37.1% of this livestock was produced nationally.

From 2009 to 2016 the proportion of pig production increased by 5.4 p.p. in the Alentejo (from 44.3% in 2009 to 49.8% in 2016), mainly to the detriment of the Centro region, which lost 2.5 p.p. of its importance at national level. It is also worth mentioning a rise in the proportion of goats in the Norte (+3.2 p.p.), especially to the detriment of the Alentejo region. This resulted in an increase in the average size of livestock per holding. The average number of cattle per holding went up from 28.6 heads in 2009 to 36.1 heads in 2016 (+7.5 heads per holding on average). Holdings with pigs had an average of 47.3 heads (+9.1 heads), with sheep 48.1 heads (+5.2 heads) and with goats 14.7 heads (+1.7 heads).







>> The agricultural household declined, accounting for 6.1% of the resident population

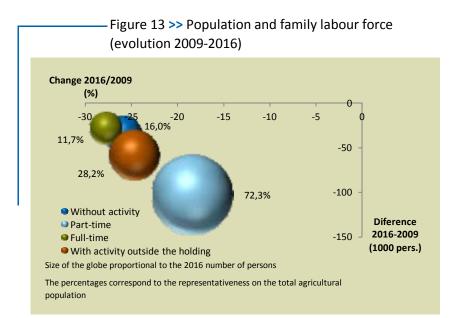
—— Table 11 >> Resident population, agricultural household and family labour force, by NUTSII (Change 2009-2016)

NUTS II	Resident popul estimates (fourth 2016)	Agricultural household									
	(1000 No.)	(%)	(No.)	(%)	Change (2009-2016)	Change (2009-2013)	Change (2013-2016)	In the resident population			
							(%)				
Portugal	10 294	100,0	627 825	100,0	-20,8	-15,0	-6,9	6,3			
Mainland	9 796	95,2	564 670	89,9	-20,5	-14,8	-6,7	5,8			
Norte	3 577	34,8	242 479	38,6	-19,7	-12,9	-7,8	6,			
Centro	2 244	21,8	213 519	34,0	-20,3	-16,9	-4,2	9,			
AM Lisboa	2 818	27,4	11 753	1,9	-34,4	-17,0	-21,0	0,			
Alentejo	715	6,9	71 583	11,4	-22,8	-14,0	-10,2	10,			
Algarve	442	4,3	25 336	4,0	-13,3	-16,3	3,6	5,			
Açores	245	2,4	28 094	4,5	-33,9	-18,4	-19,0	11,			
Madeira	254	2,5	35 061	5,6	-14,0	-14,2	0,2	13,			

	Agricultural			Fa	mily agricult	ural labour fo	rce	
NUTS II	household without farm work	Part-time	Full-time	Change (2009-2016)	Change (2009-2013)	Change (2013-2016)	With othe	r activity outside the holding
	(No.)	(N	o.)		(%)		(No.)	In agricultural household (%)
Portugal	100 355	454 049	73 422	-19,8	-14,0	-6,8	177 017	28,2
Mainland	85 125	412 193	67 352	-20,4	-14,0	-7,5	156 677	27,7
Norte	37 992	169 466	35 021	-19,8	-11,4	-9,5	62 568	25,8
Centro	23 937	170 215	19 368	-18,6	-15,4	-3,8	61 828	29,0
AM Lisboa	2 946	6 555	2 252	-41,5	-23,4	-23,5	3 225	27,4
Alentejo	16 903	46 186	8 493	-26,4	-16,0	-12,4	21 103	29,5
Algarve	3 347	19 771	2 218	-12,6	-15,6	3,7	7 952	31,4
Açores	9 306	14 530	4 258	-27,0	-14,7	-14,4	7 500	26,7
Madeira	5 924	27 325	1 812	-1,9	-13,6	13,6	12 840	36,6

In 2016 the agricultural household was composed of 627.8 thousand persons, i.e. 6.1% of Portugal's resident population. Since 2009 the agricultural household declined by 20.8%.

The agricultural household played a more relevant role in the autonomous regions and in the Alentejo region, while in Área Metropolitana de Lisboa it only accounted for 0.4% of the resident population.



28,2% of the agricultural household has other gainful activity outside the holding

The 527.5 thousand persons forming the family labour force carrying out agricultural activities in farms in 2016 (-19.8% than in 2009) accounted for 84.0% of the total, with only 13.9% working full time. A significant share of the family labour force (28.2%) carried out activities unrelated to the agricultural holding (as employees or entrepreneurs).

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<< resident population: the persons who regardless of the fact that at the moment of observation '0:00 a.m. of the reference day ' are present or absent in a given housing unit, this unit being where they live during most of the year with their family, or where they have all or most of their belongings.
<< agricultural household: members of the (sole) holder's domestic household, no matter whether they work on the holding or not, as well as other family members that regularly carry out farm work on the holding but who do not belong to the household.

>> Agricultural sole holders: older and still low skilled

About 2/3 of the sole holders are men

In 2016 agricultural sole holders were mostly men (66.2%) aged 65 on average, with 54.6% aged 65 and over. A large majority of sole holders only completed primary education (71.4%) and only 5.8% had an educational level equivalent to tertiary education.

Table 12 >> Sole holder, by gender, age classes and education level (2016)

Sole holder profile	Total		Age classes								
			< 40 years old			From 40 to < 65 years			≥ 65 years old		
	(No. pers.)	(%)	(No. pers.)	(%)	In total (%)	(No. pers.)	(%)	In total (%)	(No. pers.)	(%)	In total (%)
Total	246 149	100,0	9 143	100,0	3,7	102 496	100,0	41,6	134 510	100,0	54,6
Men	162 850	66,2	6 844	74,9	4,2	66 193	64,6	40,6	89 814	66,8	55,2
Women	83 299	33,8	2 299	25,1	2,8	36 303	35,4	43,6	44 696	33,2	53,7
Educational level											
None	40 090	16,3	0	0,0	0,0	4 017	3,9	10,0	36 073	26,8	90,0
Basic education	175 848	71,4	4 600	50,3	2,6	81 024	79,1	46,1	90 223	67,1	51,3
Secundary education	15 939	6,5	2 902	31,7	18,2	9 653	9,4	60,6	3 383	2,5	21,2
Tertiary education	14 273	5,8	1 641	17,9	11,5	7 801	7,6	54,7	4 830	3,6	33,8
Agricultural training											
Only practical agricultural experience	134 062	54,5	3 296	36,1	2,5	49 245	48,0	36,7	81 520	60,6	60,8
Basic agricultural training	108 949	44,3	5 152	56,3	4,7	51 350	50,1	47,1	52 448	39,0	48,1
Full agricultural training	3 138	1,3	695	7,6	22,1	1 901	1,9	60,6	542	0,4	17,3
Working time											
Full-time	47 295	19,2	2 026	22,2	4,3	22 787	22,2	48,2	22 481	16,7	47,5
Part-time	198 855	80,8	7 117	77,8	3,6	79 709	77,8	40,1	112 029	83,3	56,3
Other gainful activities											
Not directly related to the holding	58 092	23,6	5 684	62,2	9,8	46 227	45,1	79,6	6 180	4,6	10,6

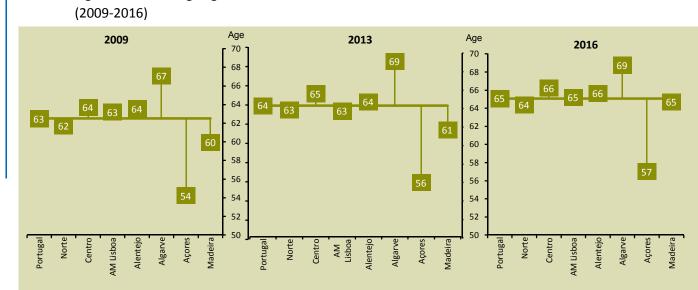
In 2016 most holders stated having no professional agricultural training (54.5%), carrying out their activity based solely on their experience (only practical experience). Attendance of agriculture-related professional training courses increased significantly (30.3 p.p. compared to 2013). This was due to compulsory attendance of the application of plant protection products course for obtaining the professional use and application certificate. Only 1.3% of them completed higher education in the field of agroforestry sciences.

Less than 1/5 of the holders works full time on their holding

Sole holders worked on average 17.8 hours a week in 2016, and at least one-fifth worked full time in the holding (225 days or 1,800 hours/year or 40 hours/week). Almost one-fourth of sole agricultural holders (23.6%) stated having a gainful activity other than in the holding. This was more noticeable for younger holders (62.2% of holders aged less than 40 carried out activities complementary to agriculture), while for the older the performance of other activities was virtually residual (4.6%).



The average age of holders increased from 63 to 65 between 2009 and 2016. In regional terms, holders from the Algarve region were the oldest (at an average age of 69) and those from Açores the youngest (57).



— Figure 14 >> Average age of the holder

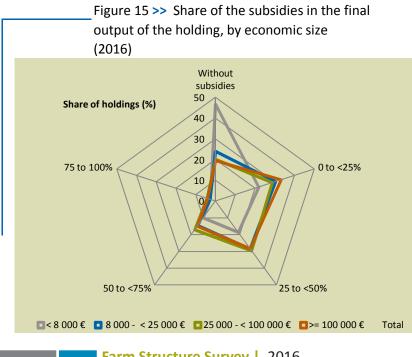
- << holder: the holder of the holding is that natural person or the legal person on whose account and in whose name the holding is operated and who is legally and economically responsible for the holding. The holder reaps the benefits and bears any losses, takes the strategic decisions regarding the production system, investment loans, etc.</p>
- << sole holder: a holder that as a natural person encompasses both the autonomous and entrepreneurial facets of ownership. Collective entities, such as companies, cooperatives, the State, etc., are excluded.
- << primary education: this level consists of education provided for children, the customary age of entrance being six years, covering nine-years of full-time schooling. Its educational aim is to prepare all participants for further education, or to provide them with a labour-market relevant qualification. It is divided into three sequential cycles of education of four, two and three years respectively. This education level is universal, compulsory and free of charge.</p>
- << secondary education: education level corresponding to a three-year cycle (Portuguese 10th, 11th and 12th school years), following the primary education. Its educational aim is to prepare students for further (additional) education or to provide them with a labour-market relevant qualification. In Portugal, it is organised into education-oriented courses/programmes and other more work-oriented courses/programmes.
- << tertiary education: education level that comprises university and polytechnic education, for persons with a secondary or equivalent course and those aged 23 and over, who if not having the qualifications referred to, may apply through special examinations.

>> Grants and subsidies: over 40% of agricultural holders did not receive subsidies

Holders stated that in 2015/16 around 105 thousand (40.3%) did not gualify for the payment of subsidies from the Agriculture and Fisheries Financing Institute (Portuguese acronym: IFAP), most of them small farmers (85.5% with an economic size equal to or below €8,000).

> 46.8% of the very small farms did not receive any subsidy

However, for more than 154 thousand holders who stated benefiting from the Common Agricultural Policy - CAP (direct payments and/or rural development measures), subsidies, regardless of the economic size, played an important role in the holding's income (one-third stated that subsidies accounted for 25% to 75% of the farm's income). For 2.9% of holders, covering the whole economic size spectrum, grants and subsidies paid by the IFAP accounted for a share of more than 75% of the farm's income.



2.9% of the holders declared that the subsidies weight more than 3/4 in the income of the holding

>> Income of the agricultural holder's household: few lived exclusively of agriculture

Sole holders stating that household income came exclusively from the agricultural holding's activity accounted for only 6.1%. By contrast, in 81.1% of the holder's households income came mostly from a source other than the holding.

— Table 13 >> Sources of the sole holder's household income, by economic size classes (2016)

Economic cize classes	Income exclusiv holding a		Income mainly holding ac		Income mainly from a source other than the holding		
	(No. holdings)	(%)	(No. holdings)	(%)	(No. holdings)	(%)	
Total	15 122	6,1	31 463	12,8	199 565	81,	
Very small (< 8 000 Euros)	4 618	2,5	12 467	6,6	170 550	90,	
Small (8 000 - < 25 000 Euros)	4 348	11,8	9 641	26,2	22 845	62,	
Medium-sized (25 000 - < 100 000 Euros)	4 174	25,1	7 073	42,6	5 363	32,	
Large (≥ 100 000 Euros)	1 982	39,1	2 281	45,0	807	15,	

In very small holdings, with a total SO of less than €8,000, only 2.5% of households received income exclusively from the holding, and most persons (90.9%) stated that income came mainly from sources other than the holding. Conversely, in large holdings, with a total SO of more than €100,000, 39.1% of the holder's households stated receiving income exclusively from the holding, and only 15.9% stated that income other than from the holding's agricultural activity was the most important.



The importance of retirement pensions - naturally related to the advanced age of the agricultural population - in the holder's household income was very high. Virtually two-thirds of the holder's households stated receiving pensions, while 7.1% claimed to complement their agricultural income with another business activity.

2/3 of the holder's households received pensions

Table 14 >> Sources of the sole holder's household¹
 (2016)

Sources of the sole holder's household income	Income exclus the holding		Income mainly holding ac		Income mair source other holdi	Total	
	(No.	(%)	(No. holdings)	(%)	(No.	(%)	(%)
Agricultural holding's activity	15 122	6,1	31 463	12,8	199 565	81,1	100,0
Primary sector salaries	-	-	1 892	0,8	10 020	4,1	4,8
Secondary sector salaries	-	-	2 924	1,2	24 770	10,1	11,3
Tertiary sector salaries	-	-	6 515	2,6	46 551	18,9	21,6
Another business activity	-	-	2 232	0,9	15 170	6,2	7,1
Retirement pensions	-	-	19 092	7,8	143 198	58,2	65,9
Other sources	-	-	2 188	0,9	13 196	5,4	6,3

¹ Each sole holder's household may have several sources of income other than the holding activity

>> Non-family labour force accounted for around one-fourth of the agricultural labour volume, which relied mostly on the family structure

24 thousand farms employed 77 thousand agricultural workers

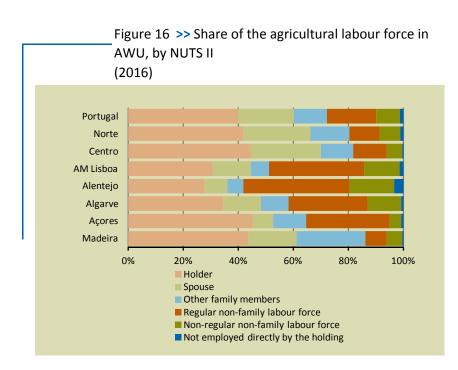
In 2016 around 77 thousand regular employees (+53.3% than in 2009 and +20.5% than in 2013) performed regular tasks in 24 thousand holdings (9.3% of the total). Most of these employees worked full time (53.5%) and 14 thousand performed management tasks.

——— Table 15 >> Non-family labour force, by role, amount of time worked and NUTSII (2016)

	Decider	Regular non-family labour force						Other non-family labour force					
NUTSII	Kegular n	on-tamily	labour force	Non-family m	anagers	Total (No. pers.) (%)		Full-time	Part-time				
	(No. pers.)	AWU	(No. holdings)	(No. pers.)	(%)			(No. pers.)	(No. pers.)				
Portugal	77 041	57 027	24 040	13 956	100,0	63 085	100,0	41 248	21 837				
Mainland	71 015	52 488	21 648	13 357	95,7	57 658	91,4	37 566	20 092				
Norte	21 041	14 082	8 620	4 739	34,0	16 301	25,8	8 348	7 954				
Centro	14 132	11 112	4 581	2 889	20,7	11 243	17,8	7 961	3 281				
AM Lisboa	3 685	3 233	1 195	859	6,2	2 826	4,5	2 523	304				
Alentejo	28 062	20 288	6 479	4 495	32,2	23 567	37,4	15 392	8 174				
Algarve	4 095	3 773	774	374	2,7	3 721	5,9	3 342	379				
Açores	4 147	3 703	1 334	495	3,5	3 652	5,8	3 247	405				
Madeira	1 879	836	1 057	104	0,7	1 775	2,8	435	1 340				

¹ Includes the non-family managers of the sole holders and all the managers of the other legal personalities (enterprises, common land, state and public persons and other).

The agricultural labour force was mostly composed of the family labour force (72.2% of AWUs in 2016), with sole holders contributing the greatest work volume (39.8% of AWUs in 2016).



Use of contractual agricultural services is still residual (1.3% of the total agricultural labour force)

The non-family agricultural labour force included regular employees, which contributed 17.9% of AWUs, and non-regular employees, which accounted for 8.5% of the volume of farm work. 1.3% of farm work in 2016 resorted to the provision of services (persons not directly employed by the holding).

In the Alentejo region the agricultural labour force was predominantly composed of employees, with 58.2% of AWUs in 2016.

<< family labour force: people belonging to the household of a producer who work on the holding and members of the producer's family who do not belong tohis/her household but work regularly on the holding.</p>

<< non-family labour force: all persons doing farm work for and paid by the agricultural holding other than the holder and members of his/her family.</p>
<< labour not employed directly by the holder: persons not directly employed by the holder that perform farm work on the holding, either as self-employed workers or employed by third parties (such as cooperatives or piece-work companies).</p>

- << regular non-family labour force: persons who carried out farm work every week on the holding during the 12 months ending on the reference day of the survey, irrespective of length of the working week.
- << farm manager: a person responsible for the current, daily management of an agricultural holding and who must have a regular job there. Daily management of the holding is understood to be making decisions every day on work to be done on the holding and operations without any great economic repercussions on the operation of the holding.
- << annual work unit (a.w.u.): a unit of measure corresponding to the work performed by 1 person on a full-time basis over a year, measured in hours (1 AWU = 225 working days of 8 hours each).

>> Labour indicators: increase in agricultural labour force productivity and efficiency

	AWU	Average AWU per holding	Average SO per AWU	Average AWU per UAA	Average AWU per LSU
		(AWU/holding)	(10 ³ Euros/AWU)	(AWU/100 ha)	(AWU/100 LSU
otal					
2009	367 393	1,2	12,6	10,0	16,
2013	328 658	1,2	13,7	9,0	16
2016	318 292	1,2	16,2	8,7	14
Change 2009 -2016 (%)	-13,4	2,1	28,0	-12,7	-14
Change 2009 -2013 (%)	-10,5	3,3	8,6	-9,9	-3
Change 2013 -2016 (%)	-3,2	-1,1	17,8	-3,2	-11
AA classes					
Without UAA	2 912	2,3	100,7	-	C
>0a <1ha	39 214	0,8	4,5	147,8	56
1 a < 5 ha	137 312	1,0	5,7	45,1	53
5 a < 20 ha	71 469	1,4	16,0	14,9	20
20 a < 50 ha	25 981	2,0	31,1	6,6	g
>= 50 ha	41 404	3,8	46,8	1,7	4
conomic size classes					
Very small (< 8 000 Euros)	165 408	0,9	3,0	28,5	
Small (8 000 - < 25 000 Euros)	57 555	1,4	9,7	11,1	
Medium-sized (25 000 - < 100 000 Euros)	42 702	2,1	23,7	4,4	
Large (≥ 100 000 Euros)	52 626	5,6	58,6	3,3	3
egal personality					
Sole holder	261 540	1,1	11,8	11,5	
Legal person	52 167	4,6	38,4	4,4	
Other	4 585	3,2	21,7	0,3	27
UTS II					
Norte	129 193	1,3	8,7	19,8	
Centro	91 216	1,0	13,3	15,6	
AM Lisboa	9 335	1,7	30,9	12,0	
Alentejo	52 455	1,5	32,8	2,5	
Algarve	13 117	1,1	18,0	13,7	
Açores	12 183	1,1	39,0	9,8	5

-Quadro 16 >> Labour indicators, by UAA classes, economic size and legal personality (2009-2016)

∛ 41 The work volume in the agricultural sector declined (-13.4% between 2009 and 2016) and there was a simultaneous improvement in labour indicators related to productivity (expressed in total SO per AWU) and labour efficiency (measured in AWU per ha of UUA and per LU). Each holding resorted on average to 1.2 AWUs, and each AWU generated a total SO of €16.2 thousand (+28.0% than in 2009). On the other hand, 8.7 AWUs were needed, on average, to manage 100 hectares of UAA (against 10.0 AWUs in 2009) and on average 14.3 AWUs were necessary to produce 100 LUs (-14.1% than in 2009).

Productivity in larger holdings was naturally higher than in small farms, each AWU of holdings with 50 hectares or more of UAA generating on average a total SO 10 times that of holdings with less than 1 hectare. When comparing productivity across large holdings with over €100 thousand of total SO, in 2016 each AWU generated a total SO 20 times that of very small holdings. Holdings without UAA have intensive livestock production as agricultural activity, notably poultry farms and industrial pig farms, which was why productivity was very high (€100.7 thousand of total SO per AWU).

Agricultural enterprises, due to their greater size and professionalization, showed more competitive labour indicators, for generating higher total SO per AWU and for resorting to fewer workers for identical activities.

Regionally, holdings in Região Autónoma dos Açores and the Alentejo region recorded the most favourable labour indicators, as opposed to those in the Norte region and Região Autónoma da Madeira, where productivity was lower. Each AWU generates an average of 16.2 thousand Euros (+3.5 thousand Euros than in 2009)

It takes 8.7 AWU to work 100 hectares of UAA

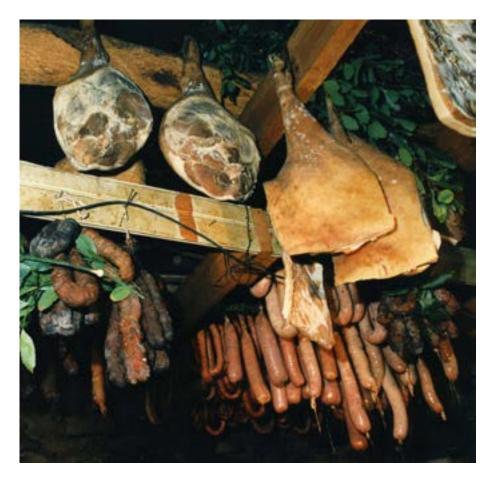


>> Other gainful activities of the holding: forestry is the main complement to holdings' activities

(2009-2016)						
	ŀ	Holdings			Change (2009-2013)	Change (2013-2016)
	(No.)	(%)	In total (%)	(%)	(%)	(%)
Total	15 905	100,0	6,1	4,1	1,8	2,2
Tourism, accommodation and other leisure activities	848	5,3	0,3	40,0	11,7	25,3
Handicraft	78	0,5	0,0	0,3	-67,7	210,1
Processing of farm products	2 387	15,0	0,9	107,9	32,1	57,4
Forestry ¹	10 471	65,8	4,0	-3,4	5,3	-8,3
Cork production	1 282	8,1	0,5	-34,1	4,3	-36,9
Other	9 332	58,7	3,6	2,0	3,7	-1,6
Contractual work	1 808	11,4	0,7	3,9	-4,9	9,3
Agricultural (for other holdings)	1 527	9,6	0,6	1,7	-9,0	11,8
Non-agricultural	416	2,6	0,2	18,5	18,6	-0,1
Wood processing	72	0,5	0,0	-39,3	181,3	-78,4
Aquaculture	1	0,0	0,0	-91,6	-91,9	3,8
Production of renewable energy	580	3,6	0,2	473,9	200,6	90,9
For the holding's own use	154	1,0	0,1	257,2	72,4	107,2
For the market	470	3,0	0,2	646,3	304,5	84,5
Other gainful activities	608	3,8	0,2	-53,4	-72,4	68,6
NUTS II						
Norte	2 236	14,1	0,9	-25,7	5,8	-29,8
Centro	10 627	66,8	4,1	29,2	19,5	8,1
AM Lisboa	197	1,2	0,1	20,7	-11,7	36,7
Alentejo	2 021	12,7	0,8	-1,4	-10,5	10,1
Algarve	586	3,7	0,2	-63,3	-73,3	37,8
Açores	220	1,4	0,1	6,3	-37,7	70,6
Madeira	18	0,1	0,0	-43,4	-48,1	9,1

— Table 17 >> Other gainful activities of the holding, by NUTS II (2009-2016)

¹ Excludes forestry that doesn't use the farm labour force and/or the machinery and equipment of the holding generally used for agricultural purposes.



15.9 thousand holdings carry out gainful activities complementary to the agricultural activity

Only 6.1% of holdings carried out complementary activities to agriculture, namely tourism, accommodation and other leisure activities, processing of farm products, forestry, contractual work, production of renewable energy, etc.

Forestry resorting to the holding's labour force, machinery and equipment stood out as the main complementary activity to the holding's agricultural activity, followed by processing of farm products and agricultural and non-agricultural contractual work, with recourse to the holding's equipment. Production of renewable energy was the holding's other gainful activity that evolved the most vis-à-vis 2009 (+473.9%). Production of renewable energies with significant growth in the agricultural activity

^

>> Continuity of agricultural activity: few want to abandon agriculture

Almost half of the sole holders mention affective reasons to continue the agricultural activity

Only 9.3% of the holders state that economic viability is the main reason for maintaining the activity Most sole agricultural holders stated their intention to continue on with their agricultural activity in the next two years (95.1%). The main reasons given for the continuity of agricultural activity were the emotional value (49.3%) and the complement to the family income (31.3%), economic viability having been mentioned by 9.3% of farmers. Motivations naturally varied depending on the economic size, with economic viability assuming a more significant role in larger holdings (61.9%).

— Table 18 >> Sole holders that intent to continue on with their agricultural activity in the next two years (2016)

				Main	reason fo	or the	continuit	y of a	gricultur	al acti	vity	
	Continuity of agricultural activity		Economic viability income		Emotional value		No other professional alternative		Other			
	(No. pers.)	In total	(No. pers.)	(%)	(No. pers.)	(%)	(No. pers.)	(%)	(No. pers.)	(%)	(No. pers.)	(%)
Total	233 978	95,1	21 679	9,3	73 247	31	115 325	49,3	20 043	8,6	3 684	1,6
Economic size classes												
Very small (< 8 000 Euros)	177 109	94,4	6 480	3,5	56 268	30,0	102 177	54,5	9 309	5,0	2 875	1,5
Small (8 000 - < 25 000 Euros)	35 647	96,8	5 629	15,3	13 010	35,3	10 508	28,5	5 986	16,3	514	1,4
Medium-sized (25 000 - < 100 000 Euros	16 236	97,7	6 434	38,7	3 517	21,2	2 290	13,8	3 790	22,8	205	1,2
Large (≥ 100 000 Euros)	4 985	98,3	3 137	61,9	452	8,9	350	6,9	957	18,9	90	1,8
NUTSII												
Norte	86 370	94,4	6 527	7,1	28 336	31,0	39 673	43,4	10 166	11,1	1 668	1,8
Centro	80 434	95,4	4 565	5,4	24 763	29,4	44 492	52,8	5 647	6,7	966	1,1
AM Lisboa	4 876	96,8	701	13,9	1 453	28,8	2 230	44,2	408	8,1	84	1,7
Alentejo	29 784	95,0	4 819	15,4	6 711	21,4	16 042	51,2	1 681	5,4	532	1,7
Algarve	11 112	97,8	725	6,4	2 971	26,2	6 733	59,3	453	4,0	230	2,0
Açores	10 324	93,0	3 858	34,7	3 010	27,1	2 326	20,9	965	8,7	164	1,5
Madeira	11 078	96,0	484	4,2	6 003	52,0	3 830	33,2	723	6,3	39	0,3

>> Portuguese agriculture in the European context: the size of holdings did not account for the low productivity of national agriculture

			Stru	utural indicat	ors			Socia	indicators
Countries	Average UAA per holding	Holdings with less than 2 ha of UAA	UAA of the holdings with more than 100 ha	Average economic size (SO per holding)	Agricultural labour input per holding	SO per AWU	UAA per AWU	Manager with 65 years old or more	More than 50% of producion self- consumed by the holder
	(ha/ holding)		(%)	(Euro/ holding)	(AWU/ holding)	(Euro/ AWU)	(ha/AWU)		(%)
EU-28	16,1	44,1	52,0	30 550	0,9	34 830	18,4	31,1	11,0
Germany	58,6	4,3	57,0	162 271	1,8	88 482	31,9	6,5	0,0
Austria	19,4	10,4	16,4	40 385	0,8	51 018	24,5	8,6	0,0
Belgium	34,6	4,3	24,4	222 634	1,5	148 187	23,1	21,2	//
Bulgaria	18,3	75,0	83,6	13 111	1,3	10 416	14,5	36,7	33,2
Cyprus	3,1	74,9	16,9	14 003	0,5	29 934	6,6	40,0	55,0
Croatia	10,0	38,6	40,1	12 888	1,1	11 592	9,0	30,3	51,8
Denmark	68,4	0,8	69,0	250 267	1,4	180 181	49,3	24,2	0,0
Slovakia	80,7	26,8	90,4	76 887	2,1	35 815	37,6	21,6	51,4
Slovenia	6,7	25,4	7,0	13 943	1,1	12 241	5,9	25,3	59,4
Spain	24,1	26,8	55 <i>,</i> 5	37 284	0,8	44 225	28,6	33,3	0,4
Estonia	49,9	9,4	73,5	35 243	1,1	30 658	43,4	30,4	31,4
Finland	42,0	1,6	30,3	62 464	1,1	59 045	39,7	10,2	0,0
France	58,7		61,9	120 527	1,5	78 536	38,3	12,4	2,4
Greece	6,8	51,0	34,8	11 421	0,7	17 469	10,5	31,3	18,0
Netherlands	27,4	10,5	20,0	303 765	2,3	133 703	12,1	21,0	0,0
Hungary	9,5	73,9	64,4	11 352	0,9	12 861	10,7	30,3	64,4
Ireland	35 <i>,</i> 5	1,7	23,2	35 906	1,2	30 622	30,3	26,5	0,0
Italy	12,0	27,5	26,9	43 346	0,8	53 609	14,8	39,7	13,1
Latvia	23,0	21,8	53,1	12 103	1,0	12 060	22,9	30,0	68,1
Lithuania	16,7	14,1	46,6	11 171	0,8	13 257	19,8	34,0	56,3
Luxemburg	63,0	8,7	53,7	150 871	1,7	88 899	37,1	14,4	//
Malta	1,2	84,4		10 341	0,5	21 751	2,4	25,1	32,3
Poland	10,1	22,9	21,1	15 254	1,3	11 361	7,5	9,6	37,7
Portugal (2016)	14,1	45 <i>,</i> 8	58,0	19 863	1,2	16 162	11,4	51,9	42,0
United Kingdom	94,7	2,2	74,8	119 201	1,5	79 479	63,1	30,5	//
Czech Republic	133,0	10,4	87,8	169 408	4,0	42 320	33,2	23,0	19,2
Romania	3,6	72,7	48,3	3 303	0,4	7 722	8,4	41,0	87,6
Sweden	45,2	1,1	55,2	69 674	0,9	78 870	51,2	30,0	0,0

- Table 19 >> Strutural and social indicators in EU-28 (2013)

Source: Eurostat

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Farm Structure Survey | 2016

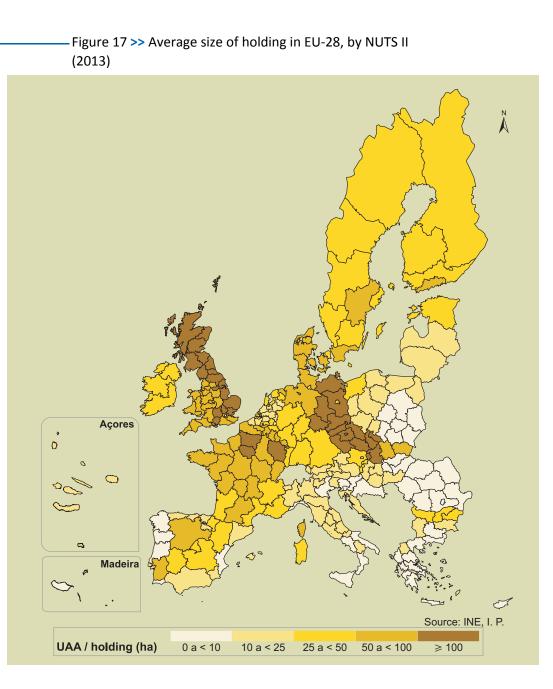
The average size of national agricultural holdings (14.1 hectares of UAA/holding in 2016) was lower than holdings in the EU28 on average (16.1 hectares of UAA/holding in 2013). Small holdings, with less than 2 hectares of UAA, accounted for 45.8% in Portugal, i.e. slightly more than in the EU28 in 2013 (44.1%). However, in Portugal large holdings with over 100 ha of the UAA, accounted for 58.0% of the UAA, i.e. 6 p.p. than in the EU28.



Average size of the Portuguese holdings (14.1 hectares) below the European average (16.1 hectares)

The concentration of UAA in the very large farms is more pronounced in Portugal that in the EU28 Most of the Portuguese territory (Norte, Centro, Algarve and Região Autónoma da Madeira) had one of the lowest average sizes of holdings in Europe (< 10 hectares per holding). By contrast, the Alentejo region had larger-sized holdings that rivalled those in Spain and northern and central Europe.

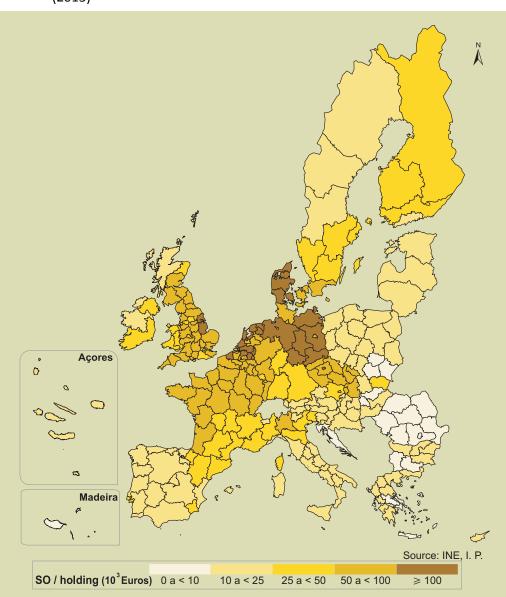
Agricultural holdings from the Alentejo region far in excess of the European average



48

\$

 Figure 18 >> Average economic size of the holdings in EU-28, by NUTS II (2013)



An analysis of the average economic size of national holdings in the European context showed a similar scenario to that of the physical size. The average total SO of Portuguese holdings was considerably lower than that of holdings in the EU28 (-35.0%), but the economic sizes in Área Metropolitana de Lisboa, the Alentejo region and Região Autónoma dos Açores were higher than the European average. The difference in the size of holdings between countries in central Europe and those in the periphery of Europe was more marked in terms of economic size than of physical size.

Average economic size of Portuguese farms is less than 2/3 of the EU28 average

Portuguese agriculture is unproductive compared to the EU28 average. In 2013 average agricultural labour force productivity in the EU28 was €34.8 thousand of total SO per AWU, i.e. more than double the value reached in Portugal in 2016. In addition, agricultural labour force efficiency, expressed in UAA per AWU, although depending on the type of productive system, was higher in the EU28, where each AWU farmed on average 18.4 hectares of UAA, i.e. 7 hectares more than in Portugal.

L Productivity of the Portuguese agricultural labour force (16,100 Euros/AWU) well below the European average (34,800 Euros/ AWU)

The managers of holdings in Portugal are the oldest of the EU28. More than half were aged 65 and over, i.e. a much higher representativeness than that of the EU28 in 2013 (31.1%).



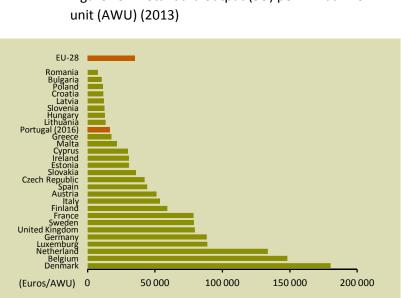
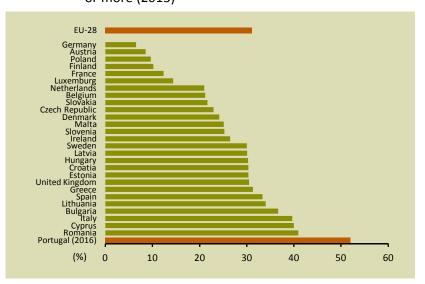


Figure 19 >> Standard output (SO) per Annual work

Figure 20 >> Share of farm managers aged 65 years or more (2013)



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