

15 October 2015

Survey on the use of water in the agricultural sector
Year 2013

The amount of irrigation water used in the agricultural sector in 2013 decreases 8.2% as compared with the previous year

Water use in farms reached 14,534 cubic hectometres in the year 2013, indicating a decrease of 8.2% as compared with the previous year.

By irrigation technique, the amount of water in techniques applied to crops via localised techniques decreased 0.1%. In turn, gravity techniques decreased by 15.3% and the use of water in sprinkler did so by 7.7%.

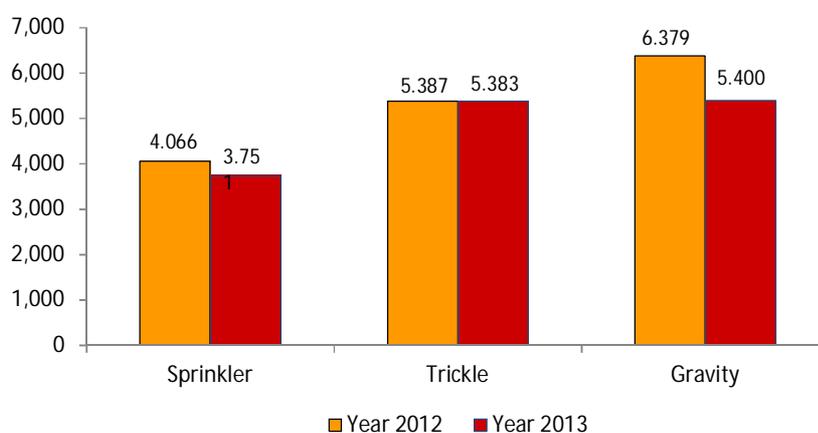
Use of water by irrigation technique

Unit: thousands of m³

	Year 2013	% of the total	% of the annual variation
1 Sprinkler	3.751.399	25,8	-7,7
2 Trickle	5.382.827	37,0	-0,1
3 Gravity	5.400.337	37,2	-15,3
National Total	14.534.563	100	-8,2

Use of irrigation water by irrigation technique

(in cubic hectometers)



By type of crop, *herbaceous crops* (cereals, leguminous plants, rice, corn and fodder crops), representing 56.5% of the total amount of irrigation water used in the agricultural sector, decreased their water use by 10.2%.

Conversely, water use in *potatoes and vegetables* registered the greatest decrease, 14.7% below that registered the previous year, representing 8.4% of the volume of irrigation water used in 2013.

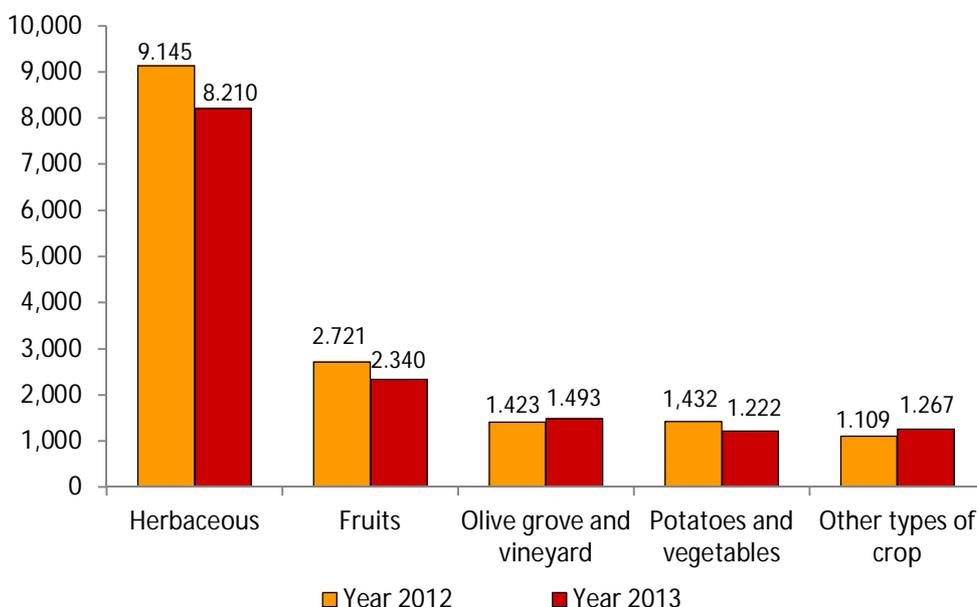
Use of irrigation water by type of crop

Unit: thousands of m³

	Year 2013	% of the total	% of the annual variation
1 Herbaceous	8.210.964	56,5	-10,2
2 Fruit trees	2.340.731	16,1	-14,0
3 Olive grove and vineyard	1.493.381	10,3	4,9
4 Potatoes and vegetables	1.222.372	8,4	-14,7
5 Other types of crop	1.267.115	8,7	14,2
National Total	14.534.563	100	-8,2

Use of irrigation water by type of crop

(in cubic hectometers)



Results by Autonomous Community

The only Autonomous Communities that increased the volume of irrigation water in 2013 was Andalucía (2.9%).

Conversely, the Autonomous Communities that decreased the most the volume of irrigation water were Cataluña (-22.3%), La Rioja (-19.6%) and Comunitat Valenciana (-11.2%).

Use of irrigation water by Autonomous Community

Unit: thousands of m³

	Year 2013	% of total	% of annual variation
Andalucía	3.763.249	25,9	2,9
Aragón	2.003.752	13,8	-10,3
Castilla y León	1.802.612	12,4	-10,9
Castilla-La Mancha	1.594.521	11,0	-10,1
Cataluña	1.110.239	7,6	-22,3
Comunitat Valenciana	1.038.620	7,1	-11,2
Extremadura	1.620.829	11,2	-10,1
Murcia, Región de	531.099	3,7	-9,6
Navarra, Comunidad Foral de	515.313	3,5	-0,1
Rioja, La	264.971	1,8	-19,6
Rest of communities ¹	289.358	2,0	-5,9
National Total	14.534.563	100	-8,2

The Autonomous Communities that used the most water in 2013 were Andalucía (25.9% of the total), Aragón (13.8%) and Castilla y León (12.4%).

At the other end of the scale were La Rioja (1.8%), Comunidad Foral de Navarra (3.5%) and Región de Murcia (3.7%).

Percentage distribution of the amount of irrigation water by Autonomous Community



¹ All the Autonomous Communities with an irrigating area below 1% of the national total are grouped under the heading "Rest of the communities".

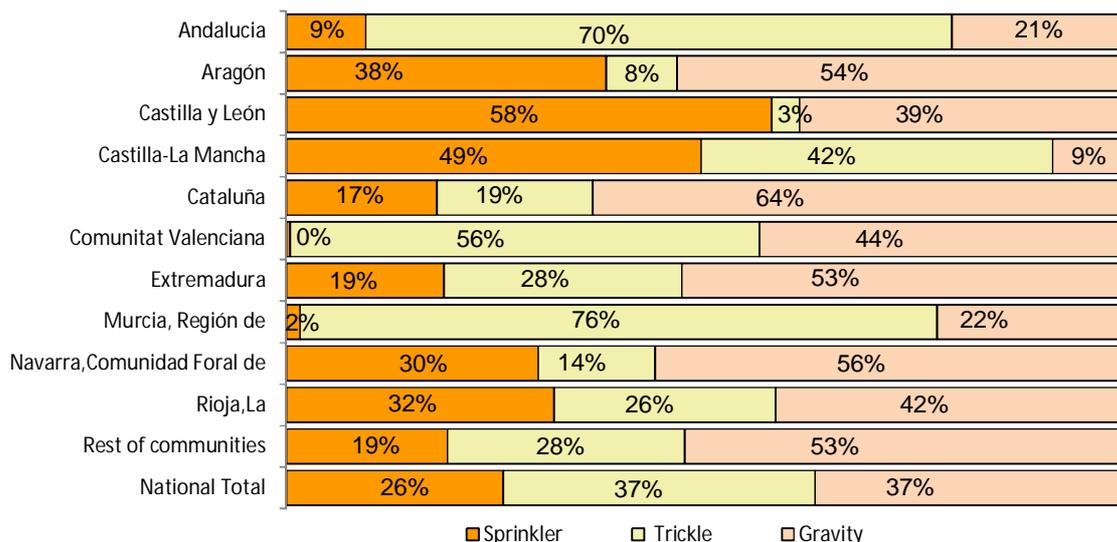
By irrigation technique, Castilla y León was the Autonomous Community that used the greatest volume of water in sprinkler. Regarding trickle irrigation, Andalucía registered the greatest volume of water. Finally, regarding gravity irrigation, Aragón registered the greatest use of water.

Amount of irrigation water by Autonomous Community and irrigation technique. Year 2013

Unit: thousands of m³

	Sprinkler	Trickle	Gravity	Total
National Total	3.751.399	5.382.827	5.400.337	14.534.563
Andalucía	354.657	2.621.383	787.209	3.763.249
Aragón	761.425	168.315	1.074.012	2.003.752
Castilla y León	1.040.107	59.487	703.018	1.802.612
Castilla-La Mancha	785.879	666.195	142.447	1.594.521
Cataluña	198.314	205.690	706.235	1.110.239
Comunitat Valenciana	4.535	579.219	454.866	1.038.620
Extremadura	303.740	457.769	859.320	1.620.829
Murcia, Región de	8.799	402.008	120.292	531.099
Navarra, Comunidad Foral de	154.210	71.483	289.620	515.313
Rioja, La	84.290	69.761	110.920	264.971
Rest of communities ²	55.443	81.517	152.398	289.358

Percentage distribution of the amount of irrigation water by Autonomous Community and irrigation technique



¹ All the Autonomous Communities with an irrigating area below 1% of the national total are grouped under the heading "Rest of the communities".

Availability of water

76.8% of the water available for irrigation and other uses in 2013 came from surface water sources.

In turn, 21.4% came from groundwater sources and 1.8% from other water sources, such as desalinated water (marine or salubrious) or reused water (from waste water treatment plants).

Amount of irrigation water by origin

Unit: thousands of m³

Origin	Year 2013	% of total
Surface water	14.066.146	76,8
Groundwater	3.919.820	21,4
Other water resources	333.747	1,8
TOTAL	18.319.713	100

Methodological note

The INE has been carrying out the *Survey on the use of water in the agricultural sector* in order to estimate the volume of irrigation water used by farms. The survey for 2013 is aimed at 623 irrigation communities.

The INE Central Companies Directory (CCD) is used as a reference framework, along with other supplementary information from administrative registers of the Ministry of the Environment, and Rural and Marine Environment.

The selection is exhaustive for those irrigation communities that include farms with a total area greater than 2,000 hectares. The irrigation communities with an area less than this magnitude are studied by sample, selecting a quota of entities previously stratified by size, using a commitment allocation that is either uniform or proportional.

Worth noting is that the results obtained in the Modelling project for the consumption of irrigation water (*Survey on Production Methods in Agricultural Operations- Agrarian Census 2009*) has enabled improving the estimation of the available volume of irrigation water of the resource, in particular as related to groundwater.

For further information see INEbase-www.ine.es/en/welcome_en.htm All press releases at: www.ine.es/en/prensa/prensa_en.htm

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