

27 October 2014

**Survey on the use of water in the agricultural sector
Year 2012**

**The amount of irrigation water used in the agricultural sector in
2012 decreases 3.1% as compared with the previous year**

Water use in farms reached 15,833 cubic hectometres in the year 2012, indicating a decrease of 3.1% as compared with the previous year.

By irrigation technique, the amount of water in techniques applied to crops via localised or trickle techniques increased 7.2%, while in gravity techniques decreased by 11.5% and the use of water in sprinkler did so by 1.1%.

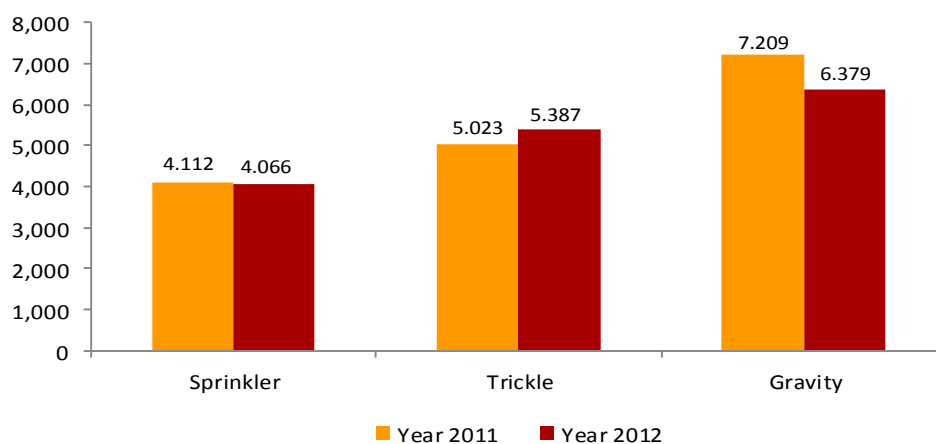
Use of irrigation water by irrigation technique

Unit: thousands of m³

	Year 2012	Percentage of the total	Percentage of the annual variation
By irrigation technique			
1 Sprinkler	4,066,180	25.7	-1.1
2 Trickle	5,387,090	34.0	7.2
3 Gravity	6,379,445	40.3	-11.5
National Total	15,832,715	100	-3.1

Use of irrigation water by irrigation technique

(in cubic hectometres)



By type of crop, *herbaceous crops* (cereals, leguminous plants, rice, corn and fodder crops), representing 57.8% of the total amount of irrigation water used in the agricultural sector, decreased their water use by 1.8%.

Conversely, water use in *olive groves* and *vineyards* registered the greatest decrease, 19% below that registered the previous year, representing 9.0% of the volume of irrigation water used in 2012.

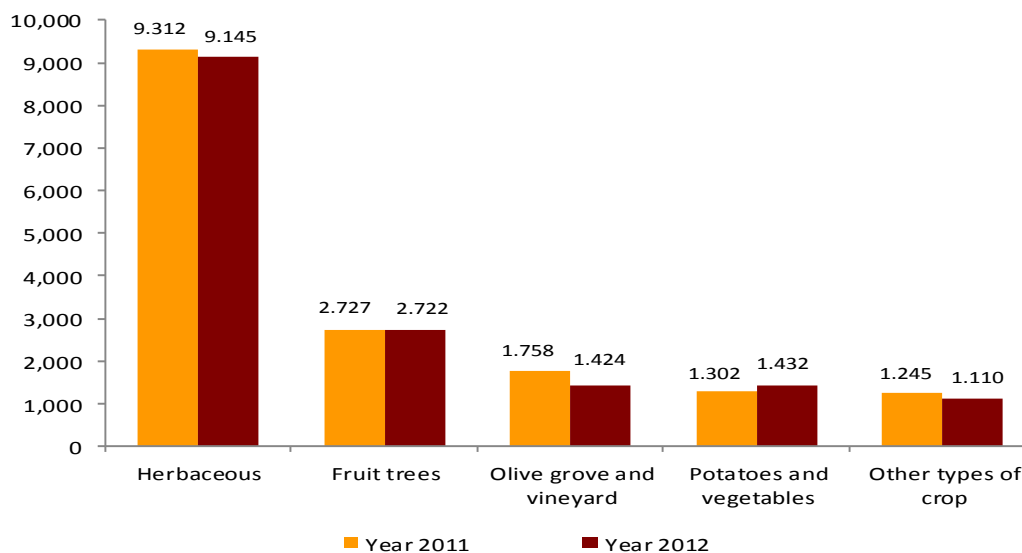
Use of irrigation water by type of crop

Unit: thousands of m3

	Year 2012	Percentage of the total	Percentage of the annual variation
By type of crop			
1 Herbaceous	9,145,114	57.8	-1.8
2 Fruit trees	2,721,754	17.2	-0.2
3 Olive grove and vineyard	1,423,888	9.0	-19.0
4 Potatoes and vegetables	1,432,206	9.0	10.0
5 Other types of crop	1,109,753	7.0	-10.9
National Total	15,832,715	100	-3.1

Use of irrigation water by type of crop

(in cubic hectometres)



Results by Autonomous Community

The Autonomous Communities that increased the most the volume of irrigation water in 2012 were Castilla-La Mancha (21.7%), La Rioja (7.4%), and Región de Murcia (2.3%).

Conversely, the Autonomous Communities that decreased the most the volume of irrigation water were Cataluña (-17.4%), Aragón (-14.0%) and Extremadura (-8.5%).

Use of irrigation water by Autonomous Community

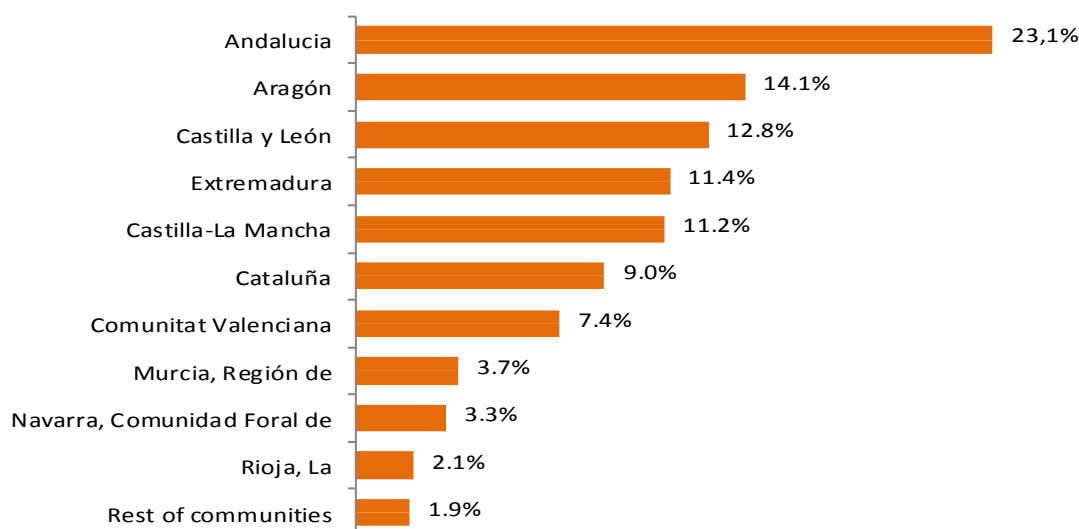
Unit: thousands of m³

	Year 2012	Percentage of total	Percentage of annual variation
Andalucía	3,658,241	23.1	1.8
Aragón	2,234,915	14.1	-14.0
Castilla y León	2,023,903	12.8	0.4
Castilla-La Mancha	1,774,425	11.2	21.7
Cataluña	1,428,834	9.0	-17.4
Comunitat Valenciana	1,169,453	7.4	-5.8
Extremadura	1,802,378	11.4	-8.5
Murcia, Región de	587,658	3.7	2.3
Navarra, Comunidad Foral de	515,902	3.3	-6.8
Rioja, La	329,528	2.1	7.4
Rest of communities	307,478	1.9	1.3
National Total	15,832,715	100.0	-3.1

The Autonomous Communities that used the most water in 2012 were Andalucía (23.1% of the total), Aragón (14.1%) and Castilla y León (12.8%).

At the other end of the scale were La Rioja (2.1%), Comunidad Foral de Navarra (3.3%) 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.

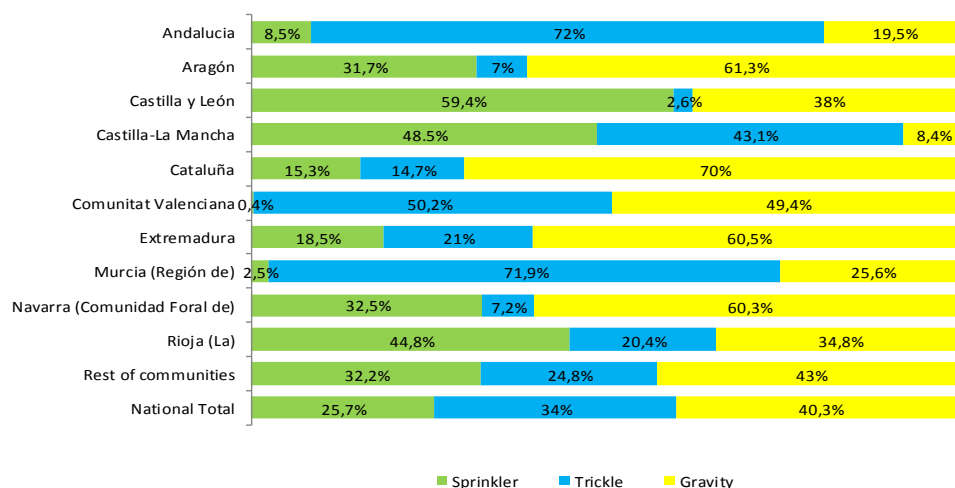
Amount of irrigation water by Autonomous Community and irrigation technique. Year 2012

Unit: thousands of m³

Unidad: miles de m³

	Sprinkler	Trickle	Gravity	Total
National Total	4,066,180	5,387,090	6,379,445	15,832,715
Andalucía	309,192	2,634,495	714,554	3,658,241
Aragón	708,468	156,444	1,370,003	2,234,915
Castilla y León	1,202,198	52,623	769,082	2,023,903
Castilla-La Mancha	860,596	764,777	149,052	1,774,425
Cataluña	218,613	210,038	1,000,183	1,428,834
Comunitat Valenciana	4,677	587,065	577,711	1,169,453
Extremadura	333,440	378,499	1,090,439	1,802,378
Murcia (Región de)	14,692	422,526	150,440	587,658
Navarra (Comunidad Foral de)	167,668	37,145	311,089	515,902
Rioja (La)	147,628	67,224	114,676	329,528
Rest of communities	99,008	76,254	132,216	307,478

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

76.9% of the water available for irrigation and other uses in 2012 came from surface water sources.

In turn, 21.5% came from groundwater sources and 1.6% 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 2012	Percentage of total
Surface water	15,120,576	76.9
Groundwater	4,225,883	21.5
Other water resources	312,090	1.6
TOTAL	19,658,549	100.0

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 2012 is aimed at 705 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, so that for each Autonomous Community, the irrigation area studied is approximately 60% of the total.

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.