

12 July 2010

**Survey on the use of water in the agricultural sector.
Year 2008**

**The amount of irrigation water used in the agricultural sector in
2008 decreases 5.5% as compared with the previous year**

Water use in farms reached 15,313 cubic hectometres in the year 2008, indicating a decrease of 5.5% as compared with the previous year.

By type of crop, herbaceous crops, representing 44.8% of the total amount of irrigation water used in the agricultural sector, reduced their water use by 6.5%. *Other types of crops* (industrial crops, kitchen gardens, ornamental flowers and plants and non-fruit trees) decreased their water use 16.1%, as compared with 2007, while potatoes and vegetables did so by 12.7%.

Conversely, water use in olive groves and vineyards increased 1.3% in 2008.

**Use of irrigation water by type of crop and irrigation
technique**

Unit: thousands of m³

	Year 2008	Percentage of the total	Percentage variation compared with 2007
By type of crop			
Herbaceous	6,870,115	44.8	-6.5
Fruit trees	2,887,141	18.9	-1.2
Olive grove and vineyard	3,060,428	20.0	1.3
Potatoes and vegetables	1,279,287	8.4	-12.7
Other types of crop	1,216,536	7.9	-16.1
Total	15,313,507	100.0	-5.5
By irrigation technique			
Sprinkler	3,759,811	24.5	-5.5
Trickle	5,140,023	33.6	-6.0
Gravity and others	6,413,673	41.9	-5.2
Total	15,313,507	100.0	-5.5

By irrigation technique, the amount of water applied to crops via localised or trickle techniques decreased 6.0%, by 5.5% in sprinkler techniques and 5.2% in gravity techniques.

Origin of irrigation water

78.6% of the water available for irrigation came from surface water sources, 20.4% from groundwater sources and 1.0% from other water sources, such as desalinated water (marine or salubrious) or reused water (from waste water treatment plants).

Origin of irrigation water

Unit: thousands of m³

	2008	%
Surface water	13,629,292	78.6
Groundwater	3,542,803	20.4
Other water resources	174,152	1.0
TOTAL	17,346,247	100.0

Use of irrigation water by Autonomous Community

The Autonomous Communities which used the most water in 2008 were Andalucía, representing 23.1% of the total, Aragón, with 14.2% and Castilla y León (13.2%). At the other end of the scale, were La Rioja (1.6%), Comunidad Foral de Navarra (2.8%) and Región de Murcia (3.4%).

Water use for irrigation decreased 11.1% in Castilla-La Mancha, 8.5% in Castilla y León and 7.5% in Cataluña, as compared with the year 2007.

It is important to highlight the 7.4% increase in La Rioja, due to the significant increase in the irrigation area in this Community.

Use of irrigation water by Autonomous Community

Unit: thousands of m³

	Year 2008	Percentage of total	Percentage variation compared with 2007
Andalucía	3,536,892	23.1	-4.7
Aragón	2,178,977	14.2	-5.4
Castilla y León	2,016,646	13.2	-8.5
Castilla-La Mancha	1,561,411	10.2	-11.1
Cataluña	1,337,067	8.7	-7.5
Comunitat Valenciana	1,509,509	9.9	-0.4
Extremadura	1,552,412	10.1	-1.8
Murcia (Región de)	521,744	3.4	-5.4
Navarra (Comunidad Foral de)	433,454	2.8	-4.7
Rioja (La)	240,860	1.6	7.4
Rest of Autonomous Communities*	424,535	2.8	-8.2
Spain	15,313,507	100.0	-5.5

* All Autonomous Communities with an irrigation area less than 1% of the national total are grouped under the heading "Rest of Autonomous Communities".

Methodological note

The INE has been carrying out this survey annually, in order to estimate the volume of irrigation water used by farms. The survey for 2008 is aimed at 756 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 and the Autonomous Communities.

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.

To refer the final results to the total irrigation land in each Autonomous Community (granted that the irrigation communities account for the distribution of water in approximately two thirds of the irrigation area of Spain), we first carry out a correction of the volume of groundwater captured by the farms affiliated to irrigation communities, used to complement the water supplied by them. Second, we perform the expansion of the estimated consumption per hectare for the sample, using the information on the irrigation area by technique and type of crop, provided by the Survey on Crop Areas and Yields carried out by the aforementioned Ministry.