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Survey on the use of water in the agricultural sector
Year 2010

The amount of irrigation water used in the agricultural sector in 2010 increases 1.3% as compared with the previous year

Water use in farms reached 16,118 cubic hectometres in the year 2010, indicating an increase of 1.3% as compared with the previous year.

By type of crop, *herbaceous* crops (cereals, leguminous plants and fodder crops), representing 49.1% of the total amount of irrigation water used in the agricultural sector, increased their water use by 4.3%. *Other types of crops* (industrial crops, kitchen gardens, ornamental flowers and plants and non-fruit trees) increased their water use 2.2%, as compared with 2009, whilst the amount of water use in *Potatoes and vegetables* decreased 16.0%.

Use of irrigation water

Use of irrigation water by type of crop and irrigation technique

Unit: thousands of m³

	Year 2010	Percentage of the total	Percentage variation compared with 2009
By type of crop			
Herbaceous	7,910,245	49.1	4.3
Fruit trees	2,804,078	17.4	-0.4
Olive grove and vineyard	2,861,517	17.8	1.7
Potatoes and vegetables	987,488	6.1	-16.0
Other types of crop	1,554,562	9.6	2.2
Total	16,117,890	100.0	1.3
By irrigation technique			
Sprinkler	3,894,582	24.2	-4.4
Trickle	5,299,185	32.9	4.8
Gravity	6,924,123	42.9	2.3
Total	16,117,890	100.0	1.3

By irrigation technique, the amount of water in techniques applied to crops via localised or trickle techniques increased 4.8%, while in gravity techniques increased 2.3%. In contrast, water in sprinkler decreased 4.4%.

Amount of irrigation water by Autonomous Community

Unit: thousands of m³

	Year 2010	Percentage of total	Percentage variation compared with 2009
Andalucía	3,757,731	23.3	2.5
Aragón	2,386,205	14.8	3.7
Castilla y León	2,122,312	13.2	-2.2
Castilla-La Mancha	1,679,912	10.4	-6.9
Cataluña	1,520,902	9.4	5.1
Comunitat Valenciana	1,447,492	9.0	-0.2
Extremadura	1,630,566	10.1	9.1
Murcia, Región de	507,840	3.2	-3.5
Navarra, Comunidad Foral de	507,027	3.2	1.6
Rioja, La	280,174	1.7	2.3
Rest of Autonomous Communities*	277,729	1.7	1.1
Spain	16,117,890	100.0	1.3

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

The Autonomous Communities which used the most water in 2010 were Andalucía, representing 23.3% of the total, Aragón, with 14.8% and Castilla y León (13.2%). At the other end of the scale were La Rioja (1.7%), Comunidad Foral de Navarra (3.2%) and Región de Murcia (3.2%).

Regarding the year 2009, the amount of water use for irrigation decreased 6.9% in Castilla-La Mancha, 3.5% in Región de Murcia and 2.2% in Castilla y León. Conversely, it increased 9.1% in Extremadura, 5.1% in Cataluña and 3.7% in Aragón.

Availability of water

Amount of irrigation water by origin

Unit: thousands of m³

	2010	%
Surface water	14,474,666	81.1
Groundwater	3,168,585	17.7
Other water resources	208,710	1.2
TOTAL	17,851,961	100.0

81.1% of the water available for irrigation, livestock and other uses came from surface water sources, 17.7% from groundwater sources and 1.2% from other water sources, such as desalinated water (marine or salubrious) or reused water (from waste water treatment plants).

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 2010 is aimed at 710 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.