Instituto Nacional de Estadística

Press Release

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Survey on the use of water in the agricultural sector. Year 2007

The amount of irrigation water used in the agricultural sector in 2007 increases 2.2% as compared with the previous year

Water use in farms reached 16,211 cubic hectometres in the year 2007, indicating a increase of 2.2% as compared with the year 2006.

By type of crop, herbaceous crops reached 45.3% of total use. Considering irrigation techniques, the sprinkler and trickle techniques accounted for 58.3% of the total water.

Use of irrigation water by type of crop and irrigation technique

Unit: thousands of m^3

	Year 2007	Percentage of the total	Percentage variation compared with 2006
By type of crop			
Herbaceous	7,349,976	45.3	3.7
Fruit trees	2,923,017	18.0	- 3.7
Olive grove and vineyard	3,022,368	18.7	12.7
Potatoes and vegetables	1,466,053	9.0	16.0
Other types of crop	1,449,465	9.0	- 19.3
Total	**16,210,879**	**100.0**	**2.2**
By irrigation technique			
Sprinkler	3,977,185	24.5	16.7
Trickle	5,466,678	33.7	3.9
Gravity and others	6,767,016	41.8	- 5.9
Total	**16,210,879**	**100.0**	**2.2**

By type of crop, potato and vegetable operations increased their water use 16.0% as compared with the year 2006. Conversely, other types of crop (including industrial crops, family faros, decorative crops and non-fruit woody crops) decreased their use of water 19.3%.

By irrigation technique, the amount of water applied to crops by sprinkler and gravity techniques in 2007 increased 16.7% and 3.9%, respectively. In turn, the amount of water applied to crops via gravity techniques decreased 5.9%.

Origin of irrigation water

77.9% of the water available for irrigation in 2007 came from surface water sources, 21.1% 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 m^3

	2007	%
Surface water	13,853,234	77.9
Groundwater	3,744,314	21.1
Other water resources	182,648	1.0
TOTAL	**17,780,196**	**100.0**

Use of irrigation water by Autonomous Community

The Autonomous Communities which used the most water in 2007 were Andalucía, representing 22.9% of the total, and Aragón, with 14.2%. At the other end of the scale, always considering Communities with an irrigation area greater than 1.0% of the national total, were La Rioja (1.4%) and Comunidad Foral de Navarra (2.8%).

Water use for irrigation decreased 2.1% in Comunitat Valenciana and 1.7% in Andalucía, as compared with the year 2006. In La Rioja and Extremadura, increases of 18.2% and 11.9%, respectively, were recorded.

Use of irrigation water by Autonomous Community

Unit: thousands of m^3

	Year 2007	Percentage of total	Percentage variation compared with 2006
Andalucía	3,712,376	22.9	- 1.7
Aragón	2,302,335	14.2	2.2
Castilla y León	2,204,145	13.6	2.6
Castilla-La Mancha	1,756,765	10.8	2.0
Cataluña	1,445,284	8.9	1.7
Comunitat Valenciana	1,514,996	9.3	- 2.1
Extremadura	1,581,234	9.8	11.9
Murcia (Región de)	551,803	3.4	4.6
Navarra (Comunidad Foral de)	454,851	2.8	3.8
Rioja (La)	224,332	1.4	18.2
Rest of Autonomous Communities	462,758	2.9	8.1
Spain	**16,210,879**	**100.0**	**2.2**

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 of 2007 is aimed at 661 irrigation communities.

The 1994 General Irrigation Communities Catalogue is used. It is published by the Ministry of Public Works, Transport and Environment, updated with information from the INE Central Companies Directory (CCD) as well as 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 that are 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 underground water 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.

The structure, by type of crop, in 2007, has been affected by a methodological change, due to the inclusion, by the Ministry of the Environment, Marine and Rural Affairs, of a new territorial stratification model based on information provided by the SIGPAC (System of Geographical Information of Agricultural Plots) for estimating cultivated surfaces, as is indicated in the methodological note of the Survey on Crop Surfaces and Yield 2007, compiled by said Ministry. This fact must be considered when calculating the variations between the years 2006 and 2007.

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