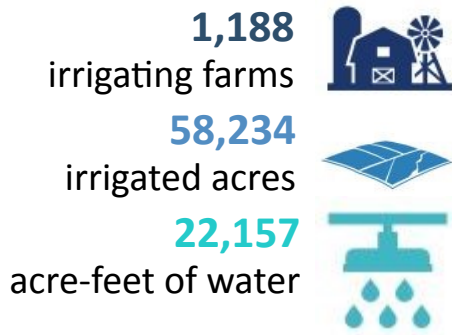


**In 2018, Kentucky farms irrigated 58,234 acres with 22,157 acre feet of water. The number of farms irrigating in 2018 decreased by 24 farms from the 2013 survey, while the total number of acres increased in 2018 by 7,106 acres. Additionally, the total amount of water applied increased 7.4 percent between 2013 and 2018.**



**Kentucky Farms that Irrigated, 2013 and 2018**

	2013	2018	% change
Number of farms	1,212	1,188	-2.0
Land in farms (acres)	421,519	332,495	-21.1
Irrigated acres	51,126	58,234	13.9
Acre-feet applied	20,631	22,157	7.4
Average per acre	0.4	0.4	

**Water Sources and Distribution Systems**

Producers relied on three sources of water for irrigation: ground water from on-farm wells, surface water on the farm, and off-farm water from a variety of sources and suppliers. They relied on sprinkler systems, gravity systems and a variety of drip, trickle, or other low-flow micro systems to distribute the water.

**Water Sources, Acres in the Open, 2018**

	Irrigated Acres	Acre-feet Applied	% of Total Water
Ground water from wells	33,504	11,870	54
On-farm surface water	24,730	8,652	39
Off-farm water	2,479	1,469	7
Total	58,234 <sup>a</sup>	21,991	100

**549 Wells**

285 Kentucky farms used 549 wells in 2018 for irrigation. The average well depth in 2018 was 150 feet. Also the average depth to water at the beginning of the irrigation season was 74 feet.

Of the wells in Kentucky:

- 5 percent had flow meters to measure the amount of water supplied
- 81 percent had backflow prevention devices to prevent cross contamination

**Distribution Systems, Acres in the Open, 2018**

	Farms number	Irrigated Acres
Sprinkler	285	56,154
Drip, trickle, and low-flow micro	576	7,604
Gravity	63	2,992
Total	1,188 <sup>a</sup>	58,234 <sup>a</sup>

<sup>a</sup>Total is less than sum of individual sources because some irrigated acres have more than one water source.

## Irrigation Expenses

Water purchased in Kentucky from off-farm sources amounted to \$2.49 million; the average cost per farm was \$4,811.

Expenses for hired and contract labor work pertaining to irrigation was \$2.34 million. Infrastructure costs for equipment, facilities, land improvement and computer technology were \$1.19 million. Energy costs for pumping well and surface water amounted to \$861,000.

### Irrigation Expenses, Kentucky Total and Average per Farm, 2018

	Kentucky Total	avg per farm w/ the expense (\$)
Water purchased	\$2,492,000	4,811
Labor (hired and contract)	\$2,344,000	16,863
Infrastructure	\$1,187,000	2,403
Energy for pumping	\$861,000	1,239

## Horticulture Operations

Horticulture operations irrigated both fields in the open and areas under protection. In 2018, Kentucky had 167 horticulture operations irrigate 1,092 acres in the open; a 419 acre increase from 2013. Kentucky also had 686 horticulture operations irrigate 9,068,660 square feet under protection, a decrease of 1,849,657 square feet from 2013. Some types of horticulture crops, such as sod, are grown almost exclusively in the open.

### Top Crops Irrigated by Horticulture Operations, 2018

In the Open (acres)		Under Protection (square feet)	
Nursery Crops	761	Floriculture and bedding	4,057,832
Floriculture and bedding	80	Food under protection	4,328,328
Propagative materials	43	Propagative materials	597,140
		Nursery crops	463,080

## About the Survey

The 2018 Irrigation and Water Management Survey (IWMS) was conducted with producers who indicated in the 2017 Census of Agriculture that they had irrigated sometime during the past five years. It is the successor to the 2013 Farm and Ranch Irrigation Survey.

For more information on the IWMS and the Census of Agriculture, go to:

[www.nass.usda.gov/AgCensus](http://www.nass.usda.gov/AgCensus)