California farmers reminded to use their limited water wisely

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Irrigation water runs along a dried-up ditch between rice farms to provide water for the fields in Richvale, California, May 1, 2014. Photo: AP Photo/Jae C. Hong

California is the nation's top producer of fruits and vegetables, but the state is also in the middle of a serious drought.

In 2014, the drought forced California farmers to stop using 500,000 acres of land. Farmers rested the soil to try to boost moisture levels. Now experts say that farmers might need to rest twice as much land in 2015.

Richard Howitt is an agriculture expert at the University of California in Davis. He says “2015 is going to be significantly worse than 2014.”

Other States Can Step In With Crops

Winter is California's wet season, but this year, it did not bring any relief. California covers a huge amount of land, but even its wettest areas are still abnormally dry right now.
The state has spent the last few years in different levels of drought. "It doesn't look like it's going to be ending anytime soon," meteorologist Jason Meyers said.

Wendy Fink-Weber is in charge of communications at Western Growers Association, a California-based trade group. She says about 17,000 farm jobs were lost in 2014.

Fink-Weber says that other states can start growing some of the crops California will not be able to produce, but not everything. It only makes sense for them to grow the ones that they will be able to sell right away. Crops like almonds will not work because they can take three to seven years of work before the first harvest is ready.

If California farmers decide to rest the land where almonds are grown, they might have to rip out the trees and start over from scratch.

Fink-Weber says farmers will try to avoid doing anything that extreme. She says that farmers can just work on keeping the trees alive. They won't push them to produce lots of big, healthy fruit. They will just let them grow a few small pieces. Still, some of the trees will have to be destroyed.

**Drought Is Dragging On**

California is not new to droughts. Thomas Harter, a professor at UC Davis says the state has gone through several recent dry periods, but this one has gone on longer than most.

That's why California has started using pools of water located below the Earth's surface. These natural storage places are known as groundwater reservoirs and they are very difficult to restore.

Farmers can usually count on two other natural water sources: surface reservoirs and melting layers of snow called snowpack. Both sources are running very low, so California has created laws limiting how much water people can use. The limits do not apply to farmers.

**More Groundwater Is Being Used Up**

Professor Harter says that the snowpack and surface reservoirs could bounce back with just one good season. Groundwater reservoirs take much longer to return to normal levels, especially since California is using up so much of them.

In an average year, farmers use about 32 million acre-feet of water. An acre-foot is a way to measure water. Seeing 32 million acre feet would be like seeing 32 million acres of water (slightly less than the state of Alabama) that is 1-foot deep. Another 8 million acre-feet of water goes to cities. Groundwater usually
makes up 12 million to 15 million acre-feet of those totals, but Harter says he has seen a big jump in recent years. Now groundwater makes up 20 million to 25 million acre-feet of total water use.

It does not look like that’s going to change anytime soon.

“We have a significant amount of groundwater left in the state,” Harter said. But, he added, “We’ll have additional thousands of wells dry out this year because of this additional drought.”

**Use The Water Wisely**

Howitt says drilling new wells could reach extra pockets of groundwater, but it is an expensive process. A new well could cost $250,000 and the wait could be months.

Farmers must think differently about water for both the short term and long term, Howitt says. He reminds farmers not to put all of their eggs in one basket.

Howitt says it's OK for farmers to raise some crops that need a lot of water to be able to make a living. They just need to balance things out by raising other crops that require less water. That way, they will still be able to make money as droughts come and go.