

# THE BIGGER PICTURE: CALIFORNIA, ALMONDS + WATER



**OVER  
50%**  
of the nation's  
**FRUITS  
VEGETABLES  
+ NUTS**  
are  
grown in  
**CALIFORNIA**

## Why Grow Food In California?

**CALIFORNIA IS NOT A DESERT—IT FALLS MOSTLY WITHIN  
① OF THE WORLD'S ⑤ MEDITERRANEAN CLIMATE ZONES.**

### GLOBAL MEDITERRANEAN CLIMATES



California's cool, wet winters and hot, dry summers offer ideal growing conditions for many diverse crops, including almonds.



Prolonged drought affects all Californians.  
**BUT IT'S IMPORTANT TO REMEMBER THAT  
THE STATE IS NO STRANGER TO DROUGHT.**

Some have suggested that the shift toward higher value permanent crops has led to an increase in ag water use. But according to the Department of Water Resources, the total amount of ag water has held steady since 2000 and actually declined over a longer period.<sup>1</sup>

**CALIFORNIA'S MEDITERRANEAN CLIMATE  
MEANS IT EXPERIENCES BOTH**



**THE KEY IS HOW THOSE EXTREMES ARE MANAGED.**

## DID YOU KNOW...

Water grows more than just the almond kernels we love to eat. Almond hulls are used as livestock feed, shells are used as livestock bedding and the trees themselves clean the air and generate alternative energy at the end of their productive lives.

**Almonds are unique in so many ways,  
except one: the amount of water they use.**

Most fruit and nut trees in California use about the same amount of water as almonds<sup>2</sup>



## Research, Innovation + Efficiency

California Almond growers are leaders in water-use efficiency, largely due to years of Almond Board-funded research and innovation.

**WATER-SAVING  
MICRO-IRRIGATION  
TECHNOLOGIES**

have helped farmers

**REDUCE**

the amount of water it takes to grow

**1LB** of  by

**33%**  
**SINCE 1994<sup>3</sup>**

Almond Board has funded nearly  
**100 IRRIGATION RESEARCH  
PROJECTS, OVER 30 YEARS**

—BY INDEPENDENT THIRD PARTIES—

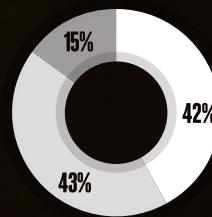


Almond growers have adopted efficient micro-irrigation FAR ABOVE THE AVERAGE RATE REPORTED FOR CALIFORNIA.

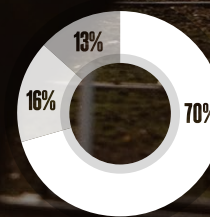
**70%** OF ALMOND GROWERS use micro-irrigation

**83%** use DEMAND BASED irrigation scheduling<sup>5</sup>

**CALIFORNIA FARMER<sup>4</sup>**  
irrigation method



**CALIFORNIA ALMOND GROWER<sup>5</sup>**  
irrigation method



■ micro-irrigation

■ flood

■ sprinkler

1. California Department of Water Resources. California Water Plan Update 2013: Volume 4. February 2015. 2. Larry Schwankl, et al. Understanding Your Orchard's Water Requirements. University of California, Division of Agriculture and Natural Resources. Publication 8212. February 2010. 3. University of California, 2010. Food and Agriculture Organization of the United Nations, 2012. Almond Board of California, 1990-94, 2000-14. 4. California Department of Water Resources. California Water Plan Update 2013. October 2014. January 2014. 5. California Almond Sustainability Program.

## Next-Generation Sustainable Solutions

Almond growers are part of the fabric of their local communities, often living on the land that their families have farmed for generations. They understand and share the concerns of all Californians about the sustainability of our vital water resources.

To support the future generations of almond growers and Californians alike, Almond Board of California has launched forward-thinking initiatives to spur advancements, not just in growing almonds, but in agriculture as a whole.

**1**

**Water Management + Efficiency:** To accelerate the adoption of even more efficient and precise irrigation practices, ABC is working with growers to fine-tune techniques and adopt cutting-edge technologies, moving irrigation management in almonds into the next century.

**2**

**Sustainable Water Resources:** To address the sustainability of California's groundwater resources, ABC is in collaboration with Sustainable Conservation, University of California and Lawrence Berkeley National Laboratory researchers and others, investigating the potential of using almond orchards to recharge vital groundwater aquifers.