

Nuts Over Water

As California deals with its multi-year drought, stakeholders are looking for solutions, and, some say, for scapegoats. Farmers feel put upon. Residents feel put upon. Industry feels put upon. Certainly the Almond Board of California feels that their favorite nut is being maligned unfairly.

The acclaimed 1974 movie *Chinatown* documented California water wars in the beginning of the Twentieth Century, but the state has been plagued by water shortage for much longer. Today, huge population and industrial growth, complex water rights laws, fertile farmland and good growing weather, plus unrealistic definitions of beauty (green lawns in a desert) complicate and exacerbate an escalating problem.

California Governor Jerry Brown has called for a 25% reduction in urban water usage. Critics claim the solution is inadequate because the 80% of California water that is used for farming is exempt from such rulings. Further, despite huge population increases, urban usage has actually decreased in recent decades due to effective conservation measures. Many people are reluctant to criticize farming in California. The state's climate is ideal for many crops, we need food, and farming is integral to the economy of California and the United States. Critics, though, argue that farming should not receive conservation exemptions. They point out that farming water-intensive crops in a desert is incongruous, that we could get many of the crops grown in California from elsewhere, that farming contributes just 2% to the California GDP, and that exporting California crops exacerbates the worsening water shortage.

More arcane arguments are concerned with the allocation of surface water rights. These rights protect access to surface water in streams and canals for senior water rights holders whose land was granted those rights before 1914. Junior water rights holders have already had some or all of their allotment taken away. In a promising 2015 development, a small number of farmers with senior water rights saw that cuts are inevitable and voluntarily offered 25% cutbacks in exchange for assurances of no further reductions. State officials hope peer pressure will result in more farmers voluntarily making such cuts. In contrast, groundwater has historically been largely unprotected, consequently when deprived of surface water, farmers dig deeper wells, if they can afford it. Groundwater depletion has resulted in a lower water table, salination of water sources, and, in some areas, sinking ground levels. A new law intended to close this groundwater loophole has been passed, but the industry has influenced rule makers to seriously delay implementation.

The Almond Board of California has been the center of a media maelstrom since an article in *Mother Jones* in February 2014 revealed that production of each almond requires a gallon of water, the almond industry uses three times more water annually than Los Angeles does, and profit margins are high. California, except for its water situation, has ideal conditions for growing almonds. The state produces 100% of the US supply of almonds, and still exports 70% of the crop globally, thus supplying 80% of the earth's almonds. This exportation especially riles critics. They say California is, in essence, "exporting" precious California water to places like China for commercial profit while leaving Californians fighting over water for their yards, golf courses, showers, drinking water, industry, and farming operations. The Almond Board points to other high water consuming crops and industries, claiming that almonds are being unfairly vilified.

Although almonds are not the highest water-using crop, they do present some special issues. Many other crops can be laid fallow in drought years, but almond trees live for 20–25 years and must be watered every year. The recent recognition of almonds as a healthy food gives almond farmers a profit margin that allows buying water at higher prices, drilling for groundwater, and developing conservation methods. Critics claim profits should not be driving decisions about who gets the limited supply of water.

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