

THE ECOLOGICAL IMPACT OF ALMONDS:

Almonds: God of all superfoods, cherished antithesis to dairy and animal protein, flagship food of all vegan/clean-eating/fitness lovers... and all round lovable nuts. Our infatuation with the ingredient has led to a 79% increase in almond milk sales in 2013¹ alone. In the fall of 2015, Waitrose confirmed that almond milk had overtaken sales of its non-dairy counterpart, soya milk, for the first time². The dawn of almonds and almond milk has only just begun.

And not without reason. A Harvard study from late 2013 found that eating almonds for a sustained period of time decreased mortality rates by 20%³. Almonds basically make you immortal. But that's not all, almonds are the perfect food: packed with vitamins, minerals, protein, healthy fats and fibre they fight disease, prevent cancer and help with weight loss – pretty phenomenal.

Ever heard of the phrase “too good to be true?” Well, it applies in the case of almonds to a frightening degree. Producing one almond requires five litres of water, an incredibly high water-price to pay for this little guy⁴. That maybe wouldn't be so egregious, if almond production wasn't based in California – a region that has experienced the worst drought in its recent history. California contributes 80% of the entire world production of almonds⁵, so it's fair to say it runs the market. The reckless agriculture-driven water consumption that took place in California between 2003 and 2010 contributed to a loss of water equivalent to 11 years of water supply to NYC.

“Who gives a shit?”, you may wonder, contentedly drinking almond cappuccino with coconut sugar. Well, unsurprisingly, water is a VERY important part of an ecosystem. The use and abuse of water in California has led to several alarming ecological repercussions.

For one, the water shortage has forced farmers to drill hundreds of meters into the soil in search of untapped aquifers, leading to a drop of the ground surface of around 30 centimetres in some areas⁶. This unnatural and persistent drop could lead to earthquakes⁷, and jeopardises the safety of infrastructure everywhere in the state.

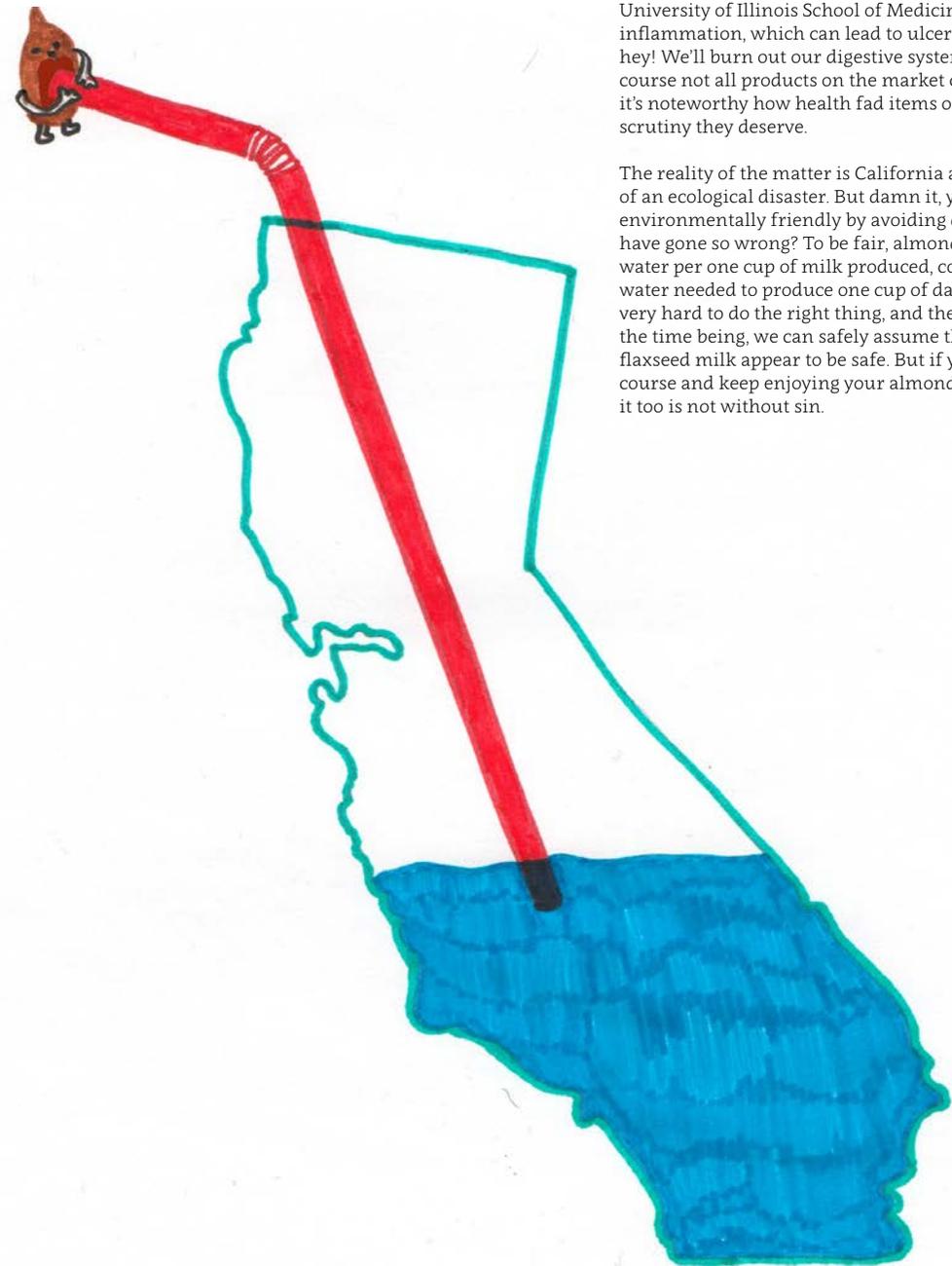
The other worrying aspect of the deep-earth drilling is the quality of the water that is being retrieved. These aquifers contain around three times the amount of arsenic allowed by the US Environmental protection agency. Exposure to increased amounts of arsenic can lead to heart disease and cancer, bad news for the inhabitants of the Sunny State. But that's not even the whole story. This deep aquifer water used to irrigate crops is very heavy in mineral and salts, causing the soil to become saturated, and slowly killing the trees⁸. How's that for a short and long-term ecological catastrophe?

Folks, we haven't even gotten to the meat of the story or literally, the meat of the situation: bees and salmon. Surface water is constantly getting diverged into agricultural lands (remember how much water almonds need?), draining marshes by 90%⁹ and resulting in decreased water depths across California's rivers. The Klamath River in the north is home to thousands of endangered king salmon, which are disappearing at a frightening rate. The nonprofit news organisation Mother Jones reported last year that: “The Sacramento-San Joaquin River Delta, a critical engine of coastal biodiversity, stands at the edge of biological collapse.”

Oh yeah and the bees. Numbers vary, but pollinating the California almond groves requires bringing between 1.4 and 1.6million hives into the State annually.¹⁰ To put that in perspective, that's about 50% of the TOTAL pollinating bee population in the United States. In 2014, about 25% of the imported colonies died due to exposure to insecticides.¹¹ It's worth noting here that bees contribute to producing one in three bites of food we eat.¹² Want to keep munchin'? Need the bees.

Last but not least, some almond milk products on the market contain an additive called carrageenan¹⁴. This additive helps keep the almond particles suspended in the water, basically stopping the ingredients from naturally separating. (i.e. almond milk is only about 2% almonds – gasp!) A researcher from the University of Illinois School of Medicine says the additive “causes inflammation, which can lead to ulcerations and bleeding.”¹⁵ Well, hey! We'll burn out our digestive system to avoid dairy right? Of course not all products on the market contain the additive, but it's noteworthy how health fad items of this kind are spared the scrutiny they deserve.

The reality of the matter is California appears to be on the verge of an ecological disaster. But damn it, you were really trying to be environmentally friendly by avoiding dairy milk! How could it have gone so wrong? To be fair, almond milk needs 23 gallons of water per one cup of milk produced, compared to the 30 gallons of water needed to produce one cup of dairy milk.¹⁶ So yes, you tried very hard to do the right thing, and the failure is truly unfair. For the time being, we can safely assume that the likes of coconut and flaxseed milk appear to be safe. But if you do decide to stay the course and keep enjoying your almond milk, be sure to know that it too is not without sin.



Footnotes

1 theatlantic.com/health/archive/2014/08/almonds-demon-nuts/379244/

2 independent.co.uk/life-style/food-and-drink/news/waitrose-confirm-that-almond-milk-sales-overtake-soya-milk-for-the-first-time-a6701976.html

3 theatlantic.com/health/archive/2014/08/almonds-demon-nuts/379244/

4 theguardian.com/lifeandstyle/shortcuts/2015/oct/21/almond-milk-quite-good-for-you-very-bad-for-the-planet

5 theatlantic.com/health/archive/2014/08/almonds-demon-nuts/379244/

6 motherjones.com/environment/2015/01/california-drought-almonds-water-use

7 theguardian.com/lifeandstyle/shortcuts/2015/oct/21/almond-milk-quite-good-for-you-very-bad-for-the-planet

8 theguardian.com/lifeandstyle/shortcuts/2015/oct/21/almond-milk-quite-good-for-you-very-bad-for-the-planet

9 motherjones.com/environment/2015/01/california-drought-almonds-water-use

10 motherjones.com/environment/2015/01/california-drought-almonds-water-use

11 theguardian.com/lifeandstyle/shortcuts/2015/oct/21/almond-milk-quite-good-for-you-very-bad-for-the-planet

12 theguardian.com/lifeandstyle/shortcuts/2015/oct/21/almond-milk-quite-good-for-you-very-bad-for-the-planet

13 mic.com/articles/104496/ho-your-almond-milk-obsession-is-not-killing-all-the-bees#.kmi8MptQ

14 thekitchn.com/why-i-stopped-drinking-almond-milk-started-drinking-regular-milk-again-197085

15 wellnessmama.com/2925/what-is-carrageenan/

16 motherjones.com/environment/2014/03/california-water-suck