May 2019

Bees and Trees: The ecological ramifications of our "honey-nut" agriculture

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Larreau, Becci, "Bees and Trees: The ecological ramifications of our "honey-nut" agriculture" (2019). Scholars Week. 16.
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Do You Love BEES?
(Of course you do!!!)
- They produce all of the Honey/Beeswax/Propolis that we humans enjoy.
- We share a cultural connection with honey bees that spans thousands of years.
- Commercially-managed honey bees provide vital pollination services for a number of agricultural crops.

Almonds too?
- Nutritious, delicious AND a valuable crop.
- Honey bees are the only economically reliable pollinator of California almonds.

But, over 80% of the world’s almonds come from California and there aren’t enough endemic bees to pollinate the existing orchards.

In 2018 alone, beekeepers moved 1,800,000+ honey bee colonies in and out of California!
Annually, bee transport accounts for “eight million road miles of fully-loaded semi-truck greenhouse gas emissions...”
(also, we have an almond problem...)
- Surface water restrictions and drought
- Land subsidence from groundwater withdrawal
- Permanent damage to the underlying aquifer

CLIMATE CHANGE
- Almond trees require a chill period of 300-600 hrs below 45°F for their buds to break dormancy

Almond polliner (Varroa destructor): Proximal vector for Varroa (400 hives/truck)
Migratory Beekeeping
GHG emissions

Oh, no!!! VARROA DESTRUCTOR
(bee problem)
- An ectoparasitic mite that is a direct threat to colony health and a known vector for viral pathogens
- Crowding of bee hives within apiaries and of apiaries within landscapes have been shown to increase mite transmission.
- Commercial beekeepers keep pace with losses by splitting colonies after the almond pollination
- Successful advertising influences consumer choice, increasing the market demand which compels farmers to plant more almond acreage.
- Purchasing preference may impact production decisions that affect the environment.
- As consumers, we have an opportunity to live by our values.
- Therefore, we may consider reducing our almond consumption (and/or signaling a preference for self-pollinating almond varieties).

As bee-lovers, we could... RETHINK ALMONDS

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