# THE BEES KNEES

**HONEY BEES CONTRIBUTE OVER 15 MILLION DOLLARS** TO THE VALUE OF U.S. CROP PRODUCTION.

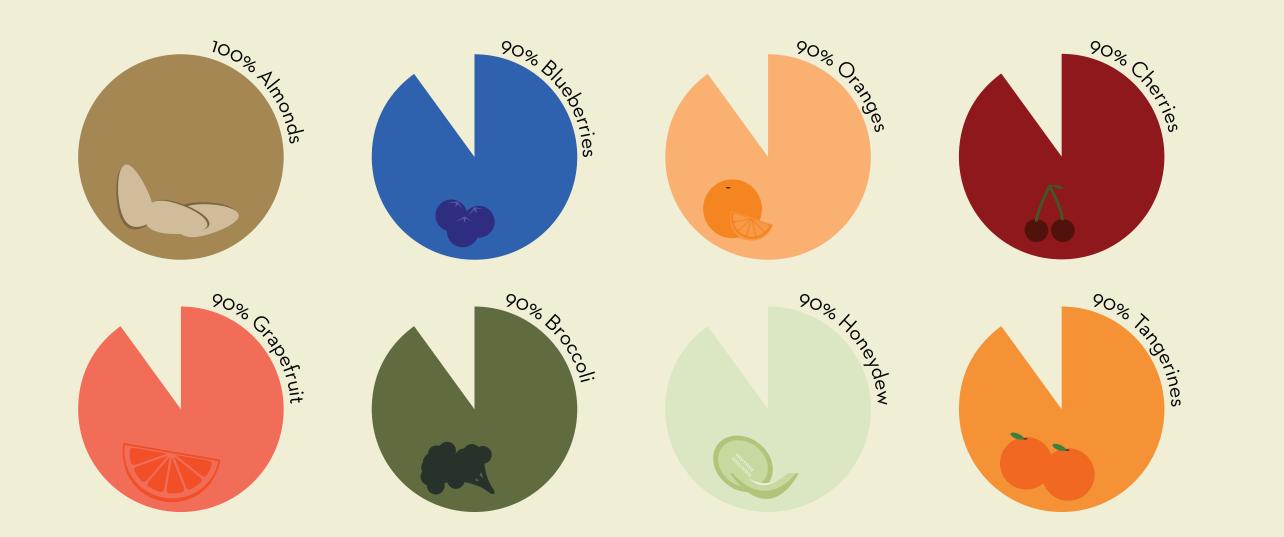


THERE ARE OVER 90 CROPS IN THE U.S (120 WORLDWIDE) THAT DEPEND ON HONEY BEE POLLINATION FOR GROWTH AND SUBSTANCIAL CROP YIELD. HERE IS A SELECTION OF CROPS THAT HOLD THE HIGHEST PERCENTAGES OF DEPENDENCY

TOTAL POLLINATED CROPS ACRES **BY STATE** 

OR

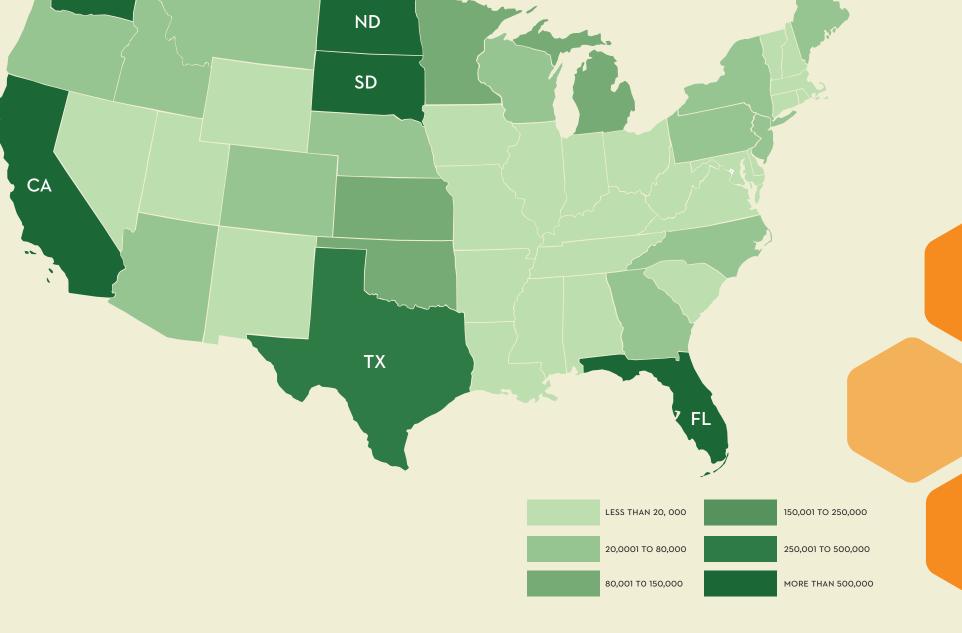
#### ON BEE POLLINATION.



ALTHOUGH THE BEE POPULATION IS SLOWLY **GROWING FROM 2006 WHEN CCD WAS** INTRODUCED, MANY FACTORS HAVE AFFECTED BEE POLLINATION IN THE UNITED STATES.

COLONY COLLAPSE DISORDER (CCD) HAS EFFECTED AT LEAST HALF OF ALL U.S COMMERCIAL HONEY BEE COLONIES.

"ONE OUT OF EVERY THREE BITES OF FOOD AMERICANS EAT IS POLLINATED BY BEES."

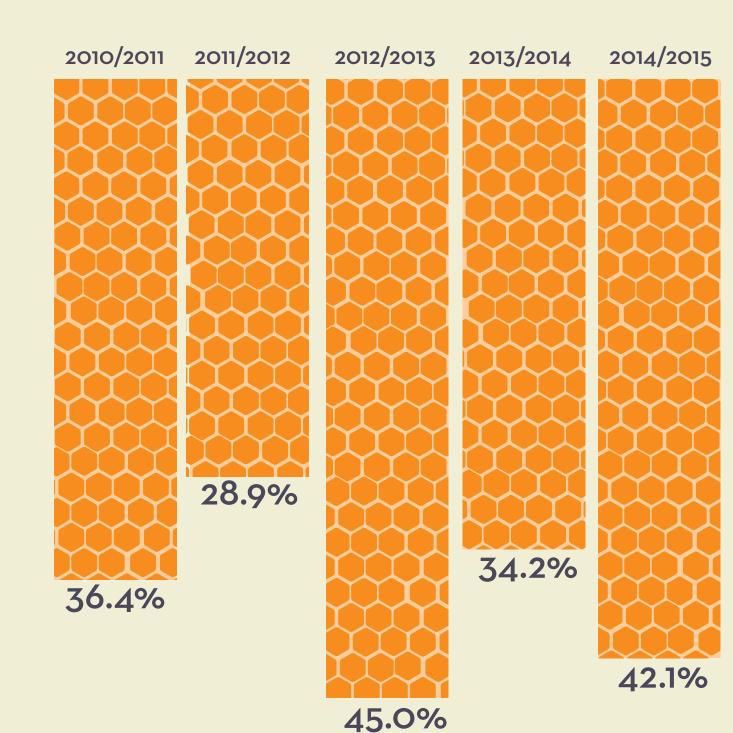


## ANNUAL COLONY LOSS 🚸

TOTAL ANNUAL MANANGED HONEY BEE COLONY LOSSES INCREASE FROM 2010-2015

BEEKEEPERS ACROSS THE UNITED STATES LOST MORE THAN 40 PERCENT OF THEIR HONEY BEE COLONIES DURING THE YEAR SPANNING APRIL 2014 TO APRIL 2015, ACCORDING TO THE LATEST **RESULTS OF AN AWNNUAL NATIONWIDE SURVEY.** 

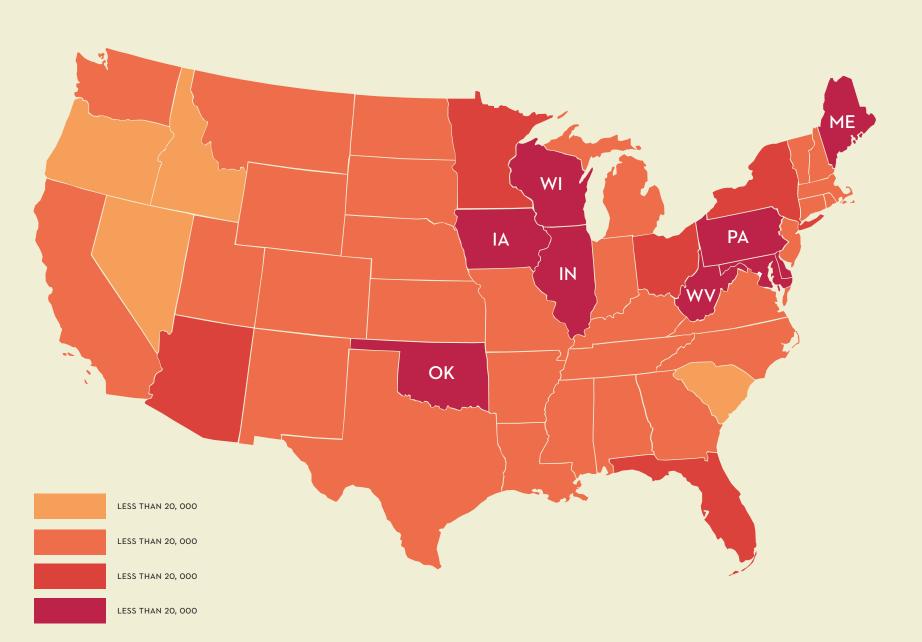
"THE U.S. DEPARTMENT OF AGRICULTURE SAYS **BEEKEEPERS HAVE BEEN** LOSING APPROXINMATELY 30 PERCENT OF THEIR HONEY BEES EACH YEAR."



TOTAL ANNUAL LOSS 2014-2015 ANNUAL MANAGED HONEY BEE COLOY LOSSES BY STATES

WHILE WINTER LOSSES WERE LOWER, SUMMER LOSSES-EXCEEDING THOSE OF WINTER FOR THE FIRST TIME-RESULTED IN AN INCREASED ANNUAL LOSS OF 42.1 PERCENT FROM APRIL '14 TO '15.

CAUSES OF LOSS



• PARASITES • EXPOSURE TO PESTICIDES WE PUT IN • BEEHIVES TO CONTROL PARASITIC MITES; • POOR NUTRITION DUE TO LOSS OF FLORAL • FOOD SOURCES; PESTICIDES IN THE BEES' ENVIRONMENT; • AT LEAST 14 OTHER DISEASES, FUNGI, AND PARASITES.

### CALIFORNIA HONEY BEES 16

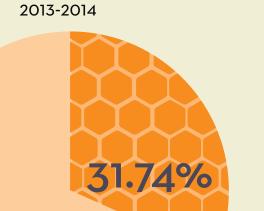
### CALIFORNIA TOTAL ANNUAL LOSS FROM 2011-2014

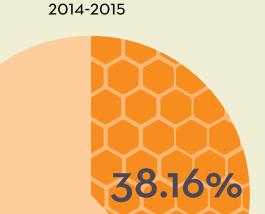
THE PIE CHARTS ON THE SHOW THE LOSS OF BEE POPULATION OVER THE LAST FEW YEARS.

HONEYBEES IN CALIFORNIA ARE EXTREMELY IMPORTANT FOR POLLINATING CALIFORNIA CROPS. CALIFORNIA'S ALMOND INDUSTRY ALONE REQUIRES THE POLLINATION SERVICES OF APPROXIMATELY 1.4 MILLION BEEHIVES ANNUALLY-60% OF ALL U.S. BEEHIVES-YIELDING 80% OF THE WORLDWIDE ALMOND PRODUCTION WORTH 4.8 BILLION DOLLARS EACH YEAR.

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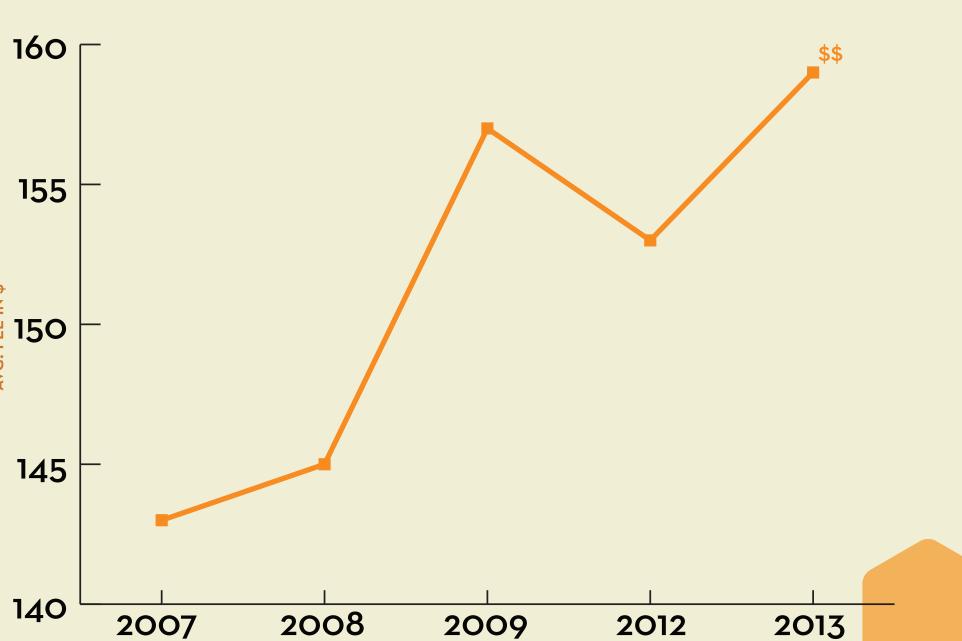






### TOTAL CALIFORNIA ALMOND FEE 160 PER YEAR ALMOND FEES FOR CALIFORNIA HAVE SIGNIFICANTLY RISEN SINCE 2007. IN 2007 THE FEE FOR ALMONDS WAS \$143, NOW THE PRICE EXCEEDS OVER \$159. 155 THIS PROBLEM LEADS TO ALMONDS BECOMING MORE EXPENSIVE IN SUPERMARKETS. UNLIKE SOME PLANTS, ALMOND TREES ARE NOT SELF-POLLINATING, SO THEY NEED SOME EXTRA HELP TO 150 FERTILIZE FLOWERS AND START THE PROCESS OF GROW-ING NUTS. HONEY BEES PROVIDE THE ESSENTIAL LINK FROM ONE BLOSSOM TO ANOTHER.

"ABOUT 1.6 MILLION COLONIES OF HONEY BEES ARE PLACED IN CALIFORNIA ALMOND ORCHARDS AT THE BEGINNING OF THE BLOOM PERIOD TO POLLINATE THE CROP."



YEAR

/beeinformed.org /www.californiastatebeekeepers.com/resources/2013-Pollination-Survey%20.pdf https://bip2.beeinformed.org/geo/ http://www.takepart.com http://e360.yale.edu/feature/declining\_bee\_populations\_pose\_a\_threat\_to\_global\_agriculture/2645/