

Food Waste from California Farms

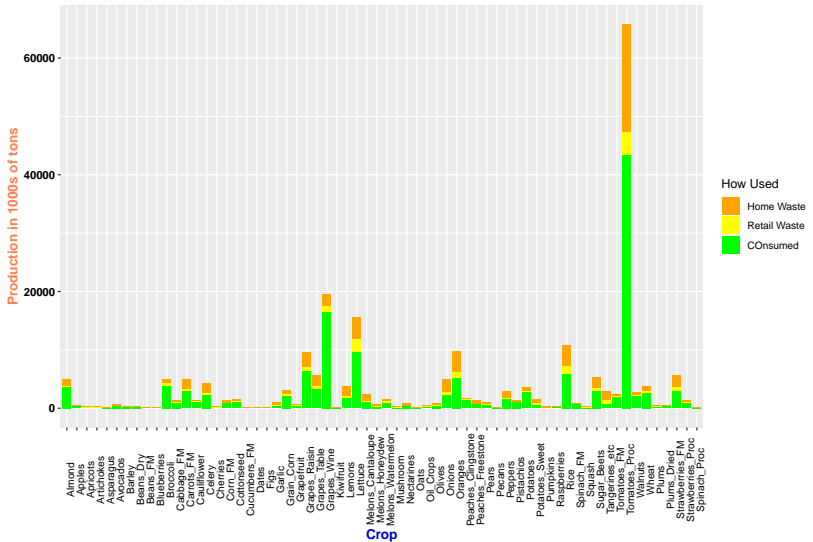
Warren Watts

October 3, 2018

Food Waste from California Food Production

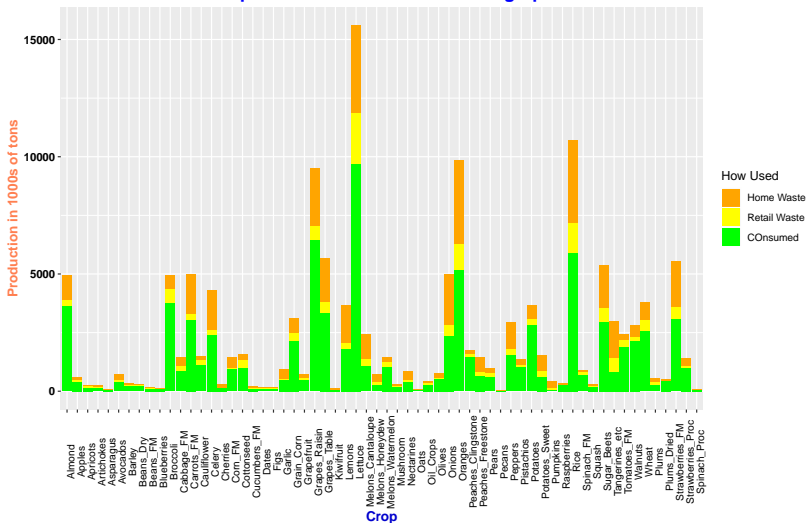
The following slides show food waste at the retail and home level for the last 5 years of available data, 2012-2016, for California food production. The food production numbers are from *California Agricultural Statistics Review*, which is produced yearly by the California Department of Food and Agriculture, except for 2013 which was not available and was pulled from the USDA report. Yearly reports can be found at **USDA's California Statistical Reports Website**. Food waste percentages at the retail and consumer level were pulled from the USDA's *ERS Food Availability (Per Capita) Data System (FADS)*, in particular the *Loss Adjusted Food Availability (LAFA)* tables. **Link to FADS Webpage**.

California Food Crop Production 2012–2016



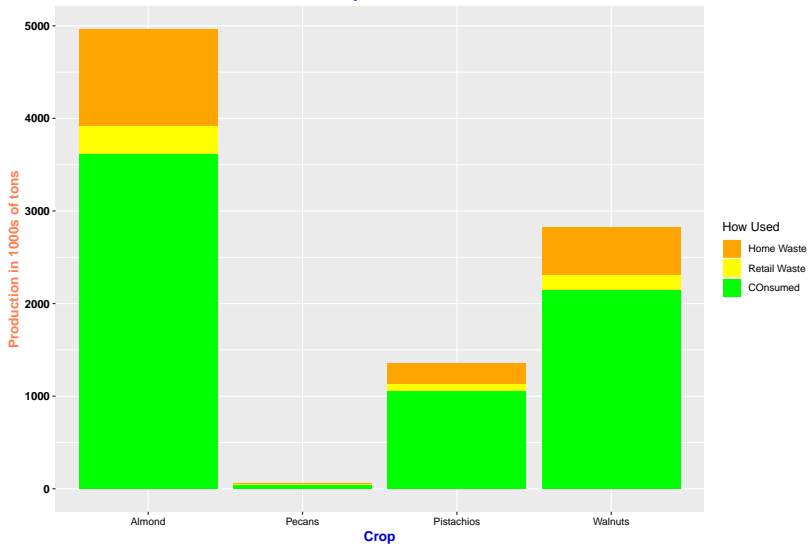
_FM is Fresh Market, _Proc is processed (canned etc.), _Dry and _Dried are dry/dried

California Food Crop Production 2012–2016 w/o processed tomatoes and wine grapes

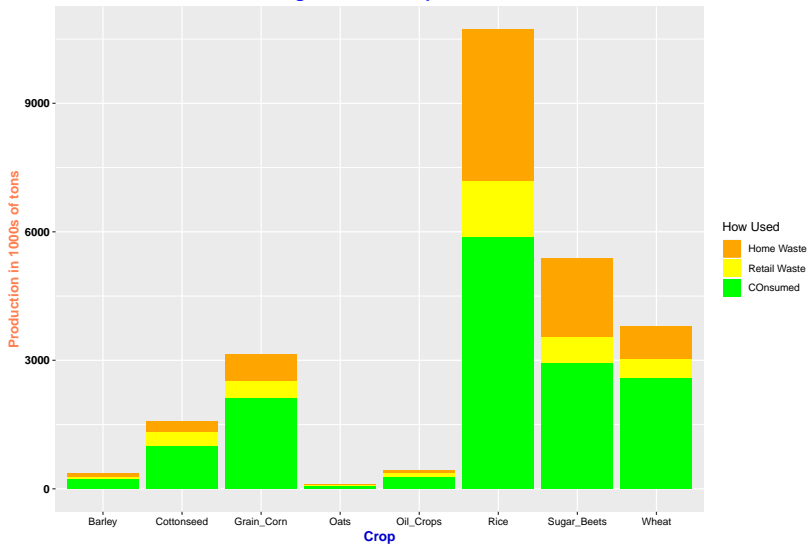


High volume crops removed for better detail on others

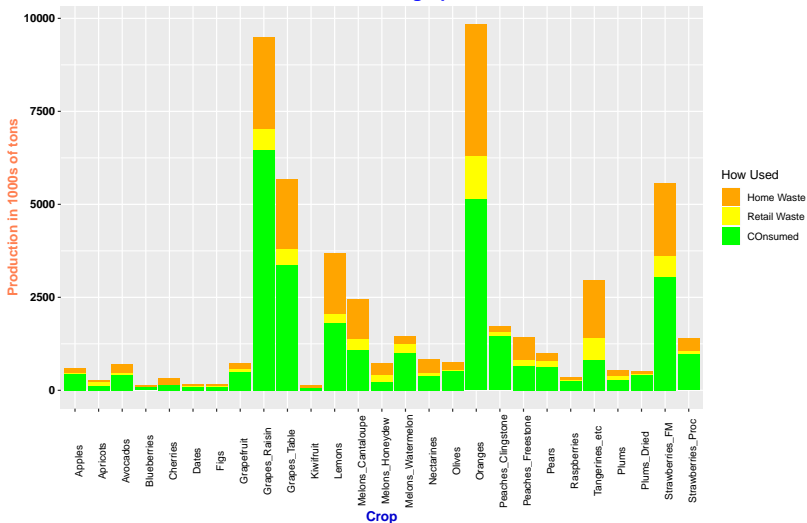
California Nut Crop Production 2012–2016



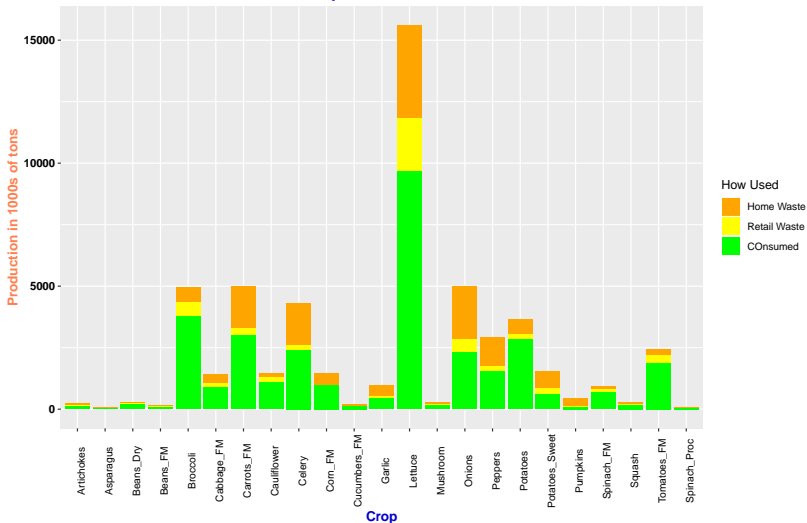
California Grain, Sugar and Oil Crop Production 2012–2016



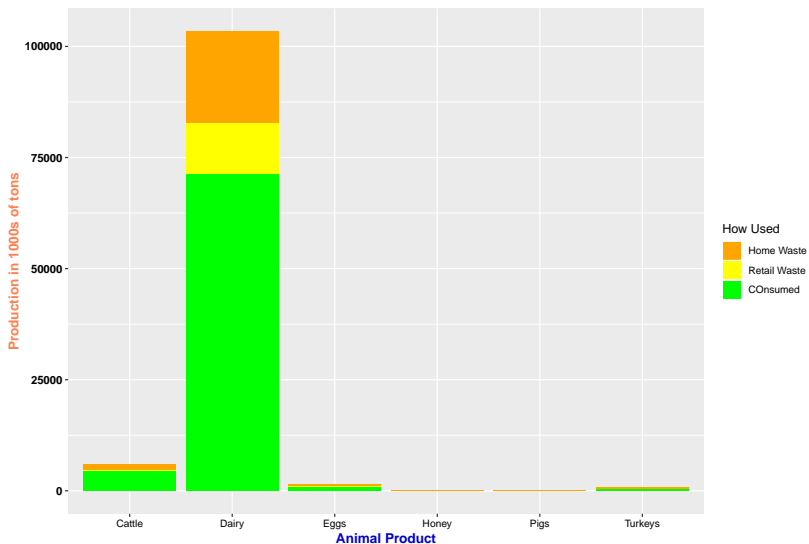
California Fruit Crop Production 2012–2016 without wine grapes



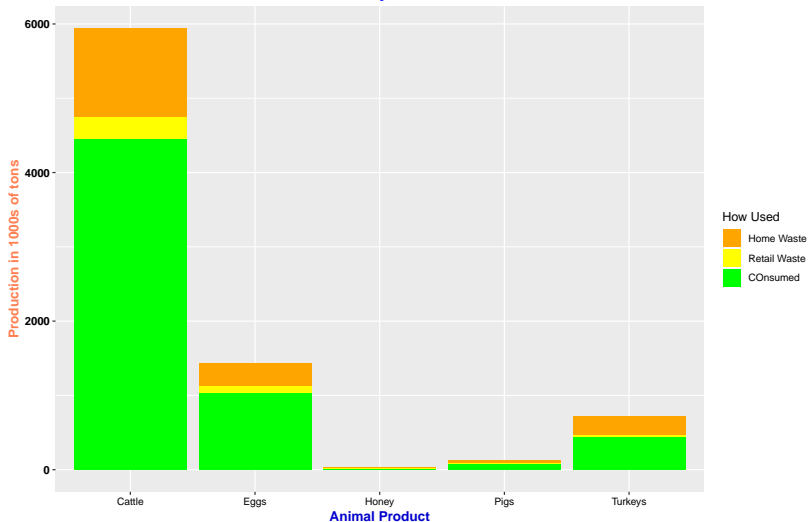
California Vegetable Crop Production 2012–2016 without processed tomatoes



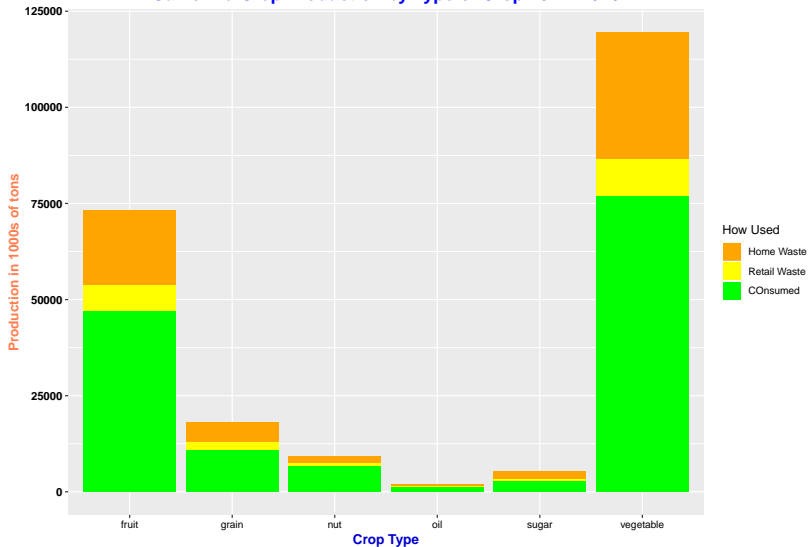
California Animal Production 2012–2016



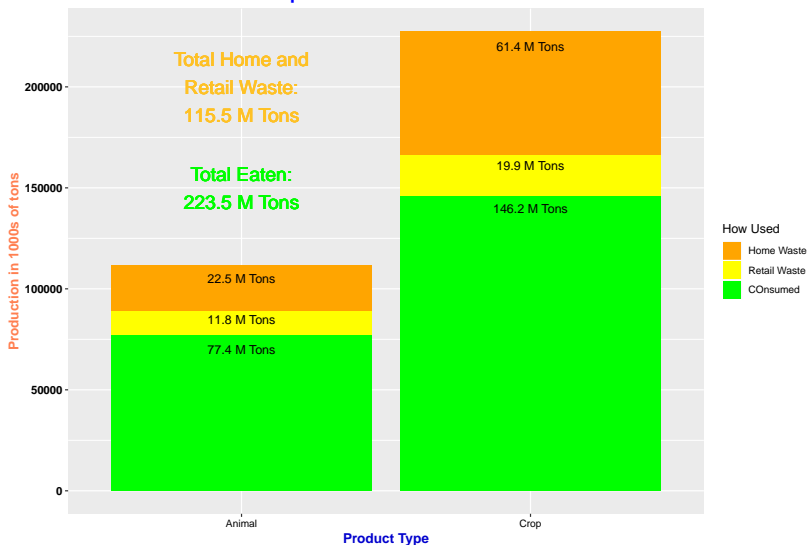
California Animal Production 2012–2016 without Dairy Production



California Crop Production by Type of Crop 2012–2016



California Crop and Animal Production 2012–2016



Cost of Producing Food from Animals vs. Plants

Food produced from animals takes more resources than plants.

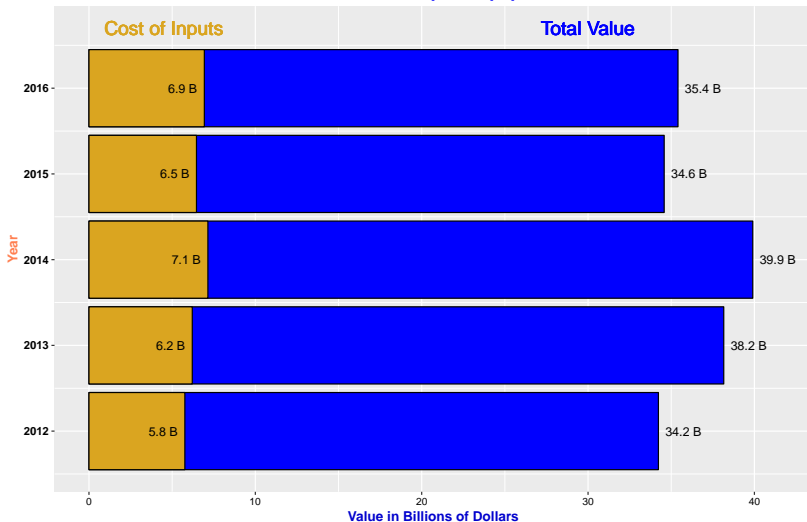
The following slides show the value of food produced in California and resource costs for the last 5 years for which data is available.

Labor and capital equipment costs were not included because the available numbers were not separable for animal and plant production.

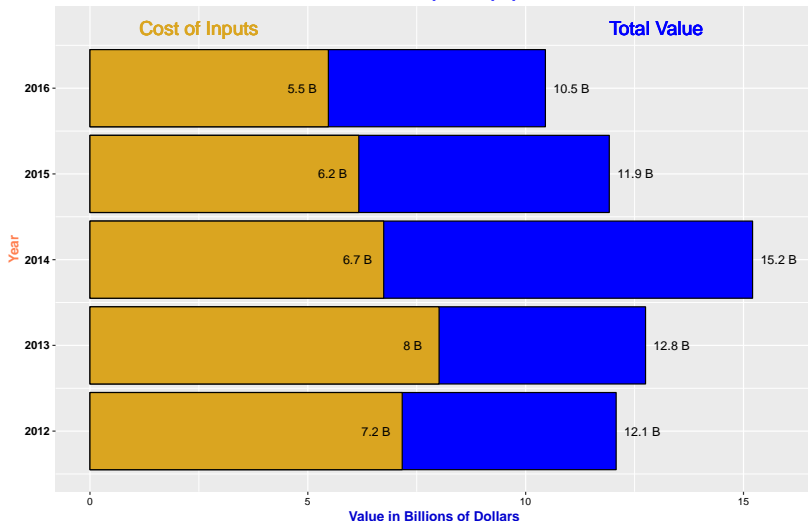
Total costs for California in seed, fertilizer, pesticides and fuel were assigned to crops, costs for purchased livestock, feed and electricity were assigned to animals.

- ▶ Numbers from *California Agricultural Statistics Review*.

California Crop Value and Cost of inputs 2012–2016
without labor and capital equipment costs



**California Animal Product Value and Cost of inputs 2012–2016
without labor and capital equipment costs**



Wasted Produce Due to Ugliness, Blemishes or Size

Produce is often rejected by retail buyers due to weird shapes, blemishes or the desire to have a standard size.

Estimates of how much produce is wasted range from 10-15% not harvested and 20-30% rejected by retailers.

Conservative figures of 10% unharvested and 20% rejected by retailers were used for the following slides.

Explanation of Data

Numbers from 2015 were used because more recent years don't separate fresh market vegetables from processed vegetables.

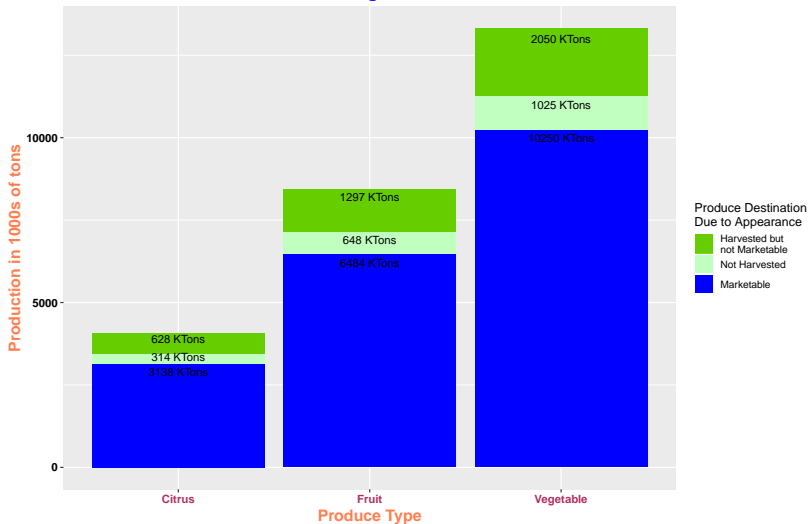
Only the numbers for fresh market vegetables were used because tomatoes are the majority of processed vegetables and are used for things that don't require perfect produce like tomato based sauces.

Only fresh market citrus was used because processed citrus is mostly used for juice.

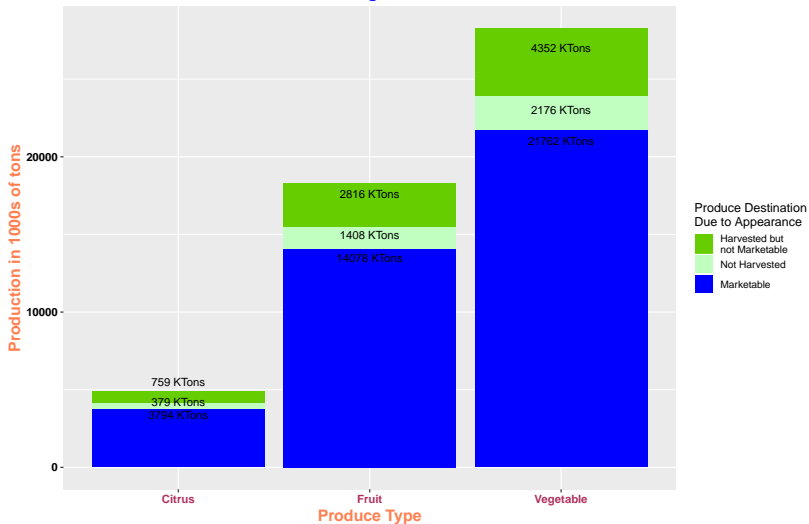
For other fruits, processed and fresh market were combined as canned and dried fruits are often held to appearance standards and separate numbers were not available.

USDA annual crop reports were used for the US numbers and the *California Agricultural Statistics Review* was used for California numbers.

California Produce Discarded or Unharvested due to Blemishes, Ugliness or Size, 2015



US Produce Discarded or Unharvested due to Blemishes, Ugliness or Size, 2015



Total Produce Discarded or Unharvested due to Blemishes, Ugliness or Size, 2015

