

# Plant Health and YOUR KITCHEN TABLE

Plant health  
is **your** health.



## BANANAS

- Bananas are a favorite fruit in many countries and **an important diet staple**. In the United States, people eat an average of 28 pounds of bananas per year. In parts of rural Africa, bananas can account for 25% of daily calories.
- The highly destructive Panama disease is spreading globally because of a new pathogen variety that kills the most popular type of banana.



## ORANGES

- **Citrus greening, or huanglongbing, is a devastating disease** of nearly all types of citrus. It has decreased citrus production in Brazil by 31% and in China by 25%.
- Between 2007 and 2018, this disease reduced orange juice production in Florida by 72% and fresh orange production by 21%. It has since moved into four other states.



## Disease Management

Growers worldwide are facing new and severe diseases in their crops. Research in plant pathology helps growers manage diseases, prevent crop losses, maintain profits, and continue producing the foods consumers want. This research includes:

- Developing disease-resistant varieties using traditional and molecular methods
- Developing and improving the use of pesticides
- Investigating soil and environmental conditions that affect plant health
- Identifying integrated pest management approaches that use diverse techniques

Sources: Bananas: United Nations FAOSTAT, n.d. ([www.fao.org/faostat](http://www.fao.org/faostat)); Stokstad, 2019 (doi: 10.1126/science.aay7681); Ploetz, 2015 (doi: 10.1094/phyto-04-15-0101-rvw); Statista, 2019 ([www.statista.com/statistics/257188/per-capita-consumption-of-fresh-bananas-in-the-us/](http://www.statista.com/statistics/257188/per-capita-consumption-of-fresh-bananas-in-the-us/)); and United Nations FAOSTAT, n.d. ([www.fao.org/economic/est-commodities/bananas/bananafacts/en/#.XsZ162hKg2w](http://www.fao.org/economic/est-commodities/bananas/bananafacts/en/#.XsZ162hKg2w)). Coffee: Arneson, 2000 (doi: 10.1094/PHI-I-2000-0718-02); Avelino et al., 2015 (doi: 10.1007/s12571-015-0446-9); MyFriendsCoffee, 2020 (<https://myfriendscoffee.com/usa-coffee-statistics/>); and PBS, 2013 ([www.pbs.org/food/the-history-kitchen/history-coffee/](http://www.pbs.org/food/the-history-kitchen/history-coffee/)). Oranges: Dala-Paula et al., 2019 (doi: 10.3389/fpls.2018.01976); USDA Foreign Agricultural Service, 2020 ([apps.fas.usda.gov/psdonline/circulars/citrus.pdf](https://apps.fas.usda.gov/psdonline/circulars/citrus.pdf)); Court et al., 2017 ([https://fred.ifas.ufl.edu/pdf/economic-impact-analysis/Economic\\_Impacts\\_of\\_the\\_Florida\\_Citrus\\_Industry\\_2015\\_16.pdf](https://fred.ifas.ufl.edu/pdf/economic-impact-analysis/Economic_Impacts_of_the_Florida_Citrus_Industry_2015_16.pdf)); and Zhang, 2019 (<https://cen.acs.org/biological-chemistry/biochemistry/Citrus-greening-killing-worlds-orange/97/i23>). Chocolate: Zion Market Research, 2018 ([www.globenewswire.com/news-release/2018/10/22/1624439/0/en/Global-Chocolate-Market-Expected-toReach-USD-161-56-Billion-By-2024-ZionMarket-Research.html](http://www.globenewswire.com/news-release/2018/10/22/1624439/0/en/Global-Chocolate-Market-Expected-toReach-USD-161-56-Billion-By-2024-ZionMarket-Research.html)); Opoku et al., 2000 (doi: 10.4314/gjas.v33i2.1876); Ploetz, 2007 (doi: 10.1094/PHYTO-97-12-1634); Guest, 2007 (doi: 10.1094/phyto-97-12-1650); and Djiekpor et al., 1981 ([www.cabi.org/ISC/abstract/19820305097](http://www.cabi.org/ISC/abstract/19820305097)).

## COFFEE



- Can you imagine your day without coffee? In the United States, people drink around 400 million cups of coffee each year. Approximately **2.25 billion cups are consumed globally each day**.
- Coffee rust, a disease of the coffee plant, is reducing yields throughout Latin America. A recent increase in the disease has resulted, in part, from warmer temperatures.

## CHOCOLATE

- Chocolate is loved around the world! Most of the chocolate produced is consumed in Europe and the United States.
- Black pod disease destroys the cacao pods used to make chocolate and is lethal to cacao trees. This disease causes **annual yield losses up to 30%** and kills up to 10% of trees each year, thus threatening chocolate shortages in the near future.



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