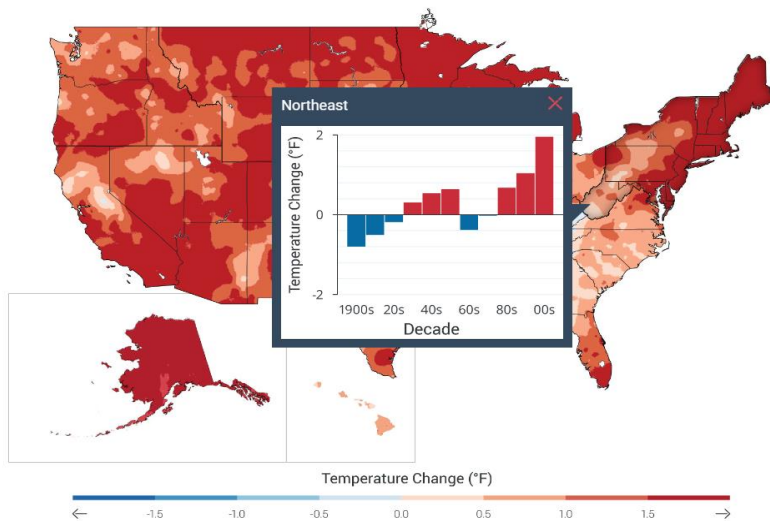
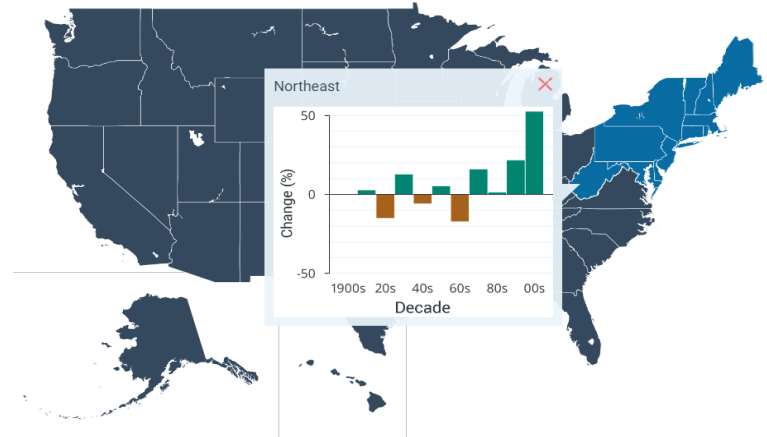


Change in Temperature



Change in Very Heavy Precipitation

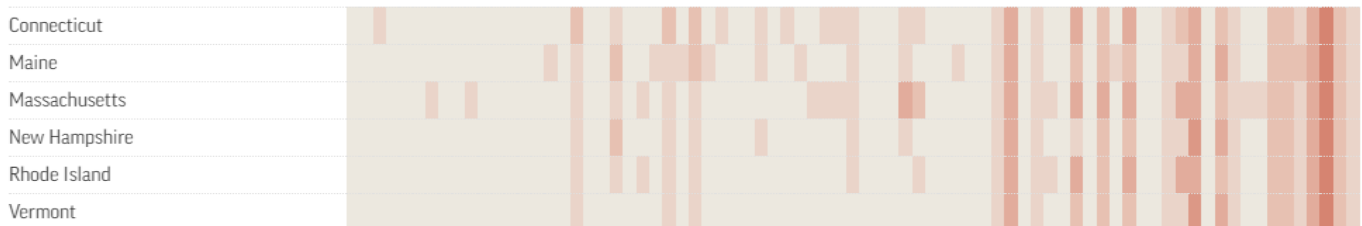


Third National Climate Assessment - <https://nca2014.globalchange.gov/report>

Weather related power interruptions per quarter



New England



Yearly Quarters (2002 Q1 - 2021 Q1)

<https://apnews.com/article/wildfires-storms-science-business-health-7a0fb8c998c1d56759989dda62292379>

Increased likelihood of produce contamination in the field

- Foodborne pathogens tend to grow well in warm, moist conditions; illnesses associated with these pathogens are generally more common when temperatures are higher
- Extreme weather (heavy precipitation, drought) is associated with higher levels of pathogenic microbes in water used for irrigation and crop sprays
- Flooding increases risk of contamination from run-off, unintentional contact between crops and water, soil, or soil amendments
- Behavior of pathogens may be altered—e.g., reproduction rates, die-off rates, distribution, host susceptibility

Use good agricultural practices to reduce risk of produce contamination in the field, including:

- Reduce contact between crop and irrigation water
- Use properly treated/composted animal-based amendments
- Practice good human hygiene – wash hands, wear clean clothes and shoes
- Use berms, buffers that protect crops, fields from runoff

Increased spoilage/reduced product quality risk in storage

- Higher temperatures present challenges with:
 - Initial chilling – may be putting warmer products into storage
 - Transportation – keeping things cool as you move them around the farm and in distribution
 - Storage & retail – maintaining proper storage conditions with higher temperatures and during storms and power outages
- May need to increase refrigeration use where it wasn't necessary before, to help product retain quality for longer
 - Root cellars may have trouble getting to a low enough temperature in time for storage crops
- Likelihood of co-occurrence of spoilage and foodborne pathogens

Storage practices

- Store high quality produce
- Consider post-harvest sanitizers to reduce storage (and foodborne) diseases
- Maintain clean, sanitary facilities – reduce chance that pathogens will contaminate produce in storage (e.g., dripping walls, ceilings)
- More value-added products (e.g., canned) to preserve storability of crops?