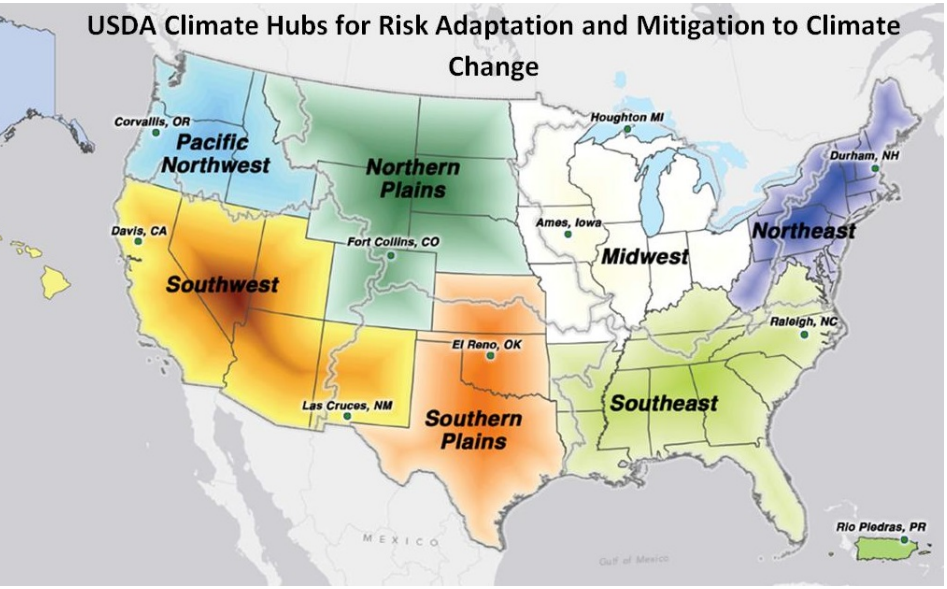
United States Department of Agriculture

Northeast Climate Hub

Agricultural and Fire Impacts

Northeast Drought Outlook Forum

October 11, 2016



Climate Hubs:

- Cross-USDA Efforts in Partnership with Regional Land Grant Universities
- Goal to help farmers and landowners adapt to climate change & extreme weather variability

Contributors

- Katie-Campbell Nelson – UMass Extension
- Richard J. Brzozowski – UMaine Extension
- Peggy Siligato – URI Extension
- Joshua Faulkner – UVM Extension
- Johnathan Lambert - Cornell Institute for Climate Smart Solutions
- Erin Lane, Mary Carey – USDA Climate Hub

- National Agricultural Statistics Service
- Farm Service Agency
- Office of the Chief Economist

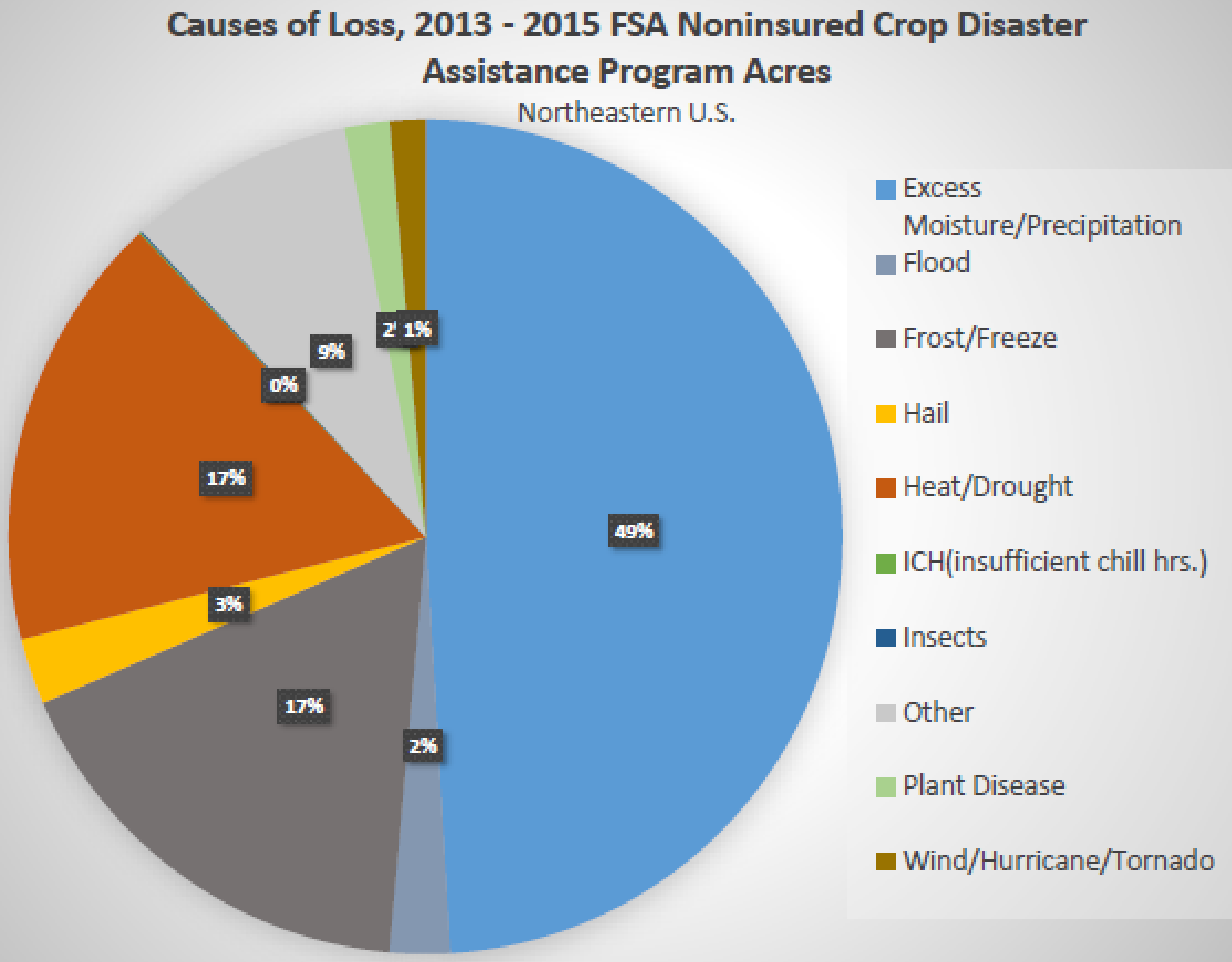
Overview

- Impacts are Variable
- Depend on rainfall
- Soil water holding capacity, management
- Ability to Irrigate

Positive Impacts:

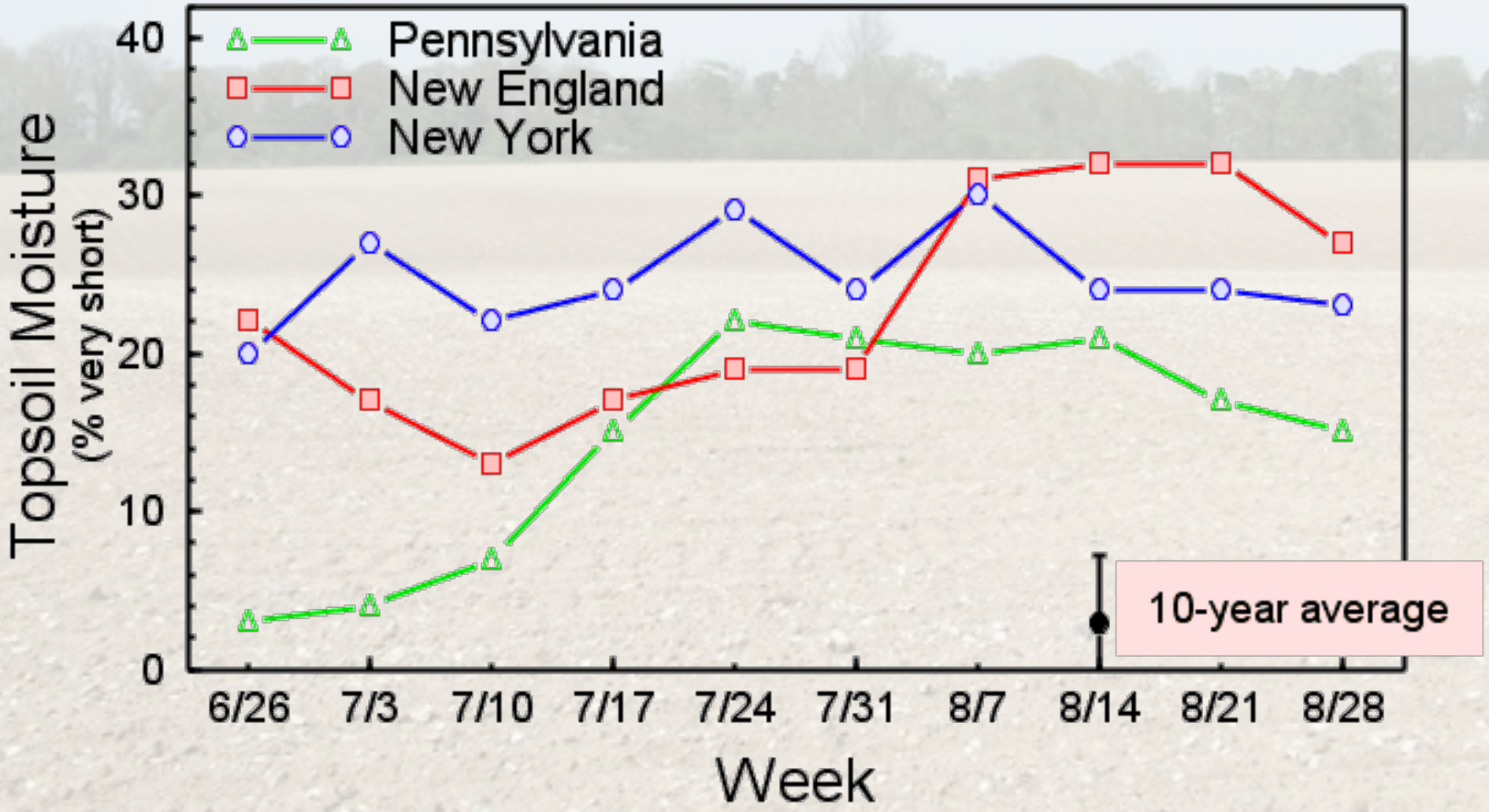
- Less Disease
- Sweeter, more intense flavors
- Crops early, warm crops had a good year

Drought not normally a big cause of crop loss in NE



Mary Carey, FSA Climate Hub Liaison

NASS Soil Moisture – Driest in last 20 years



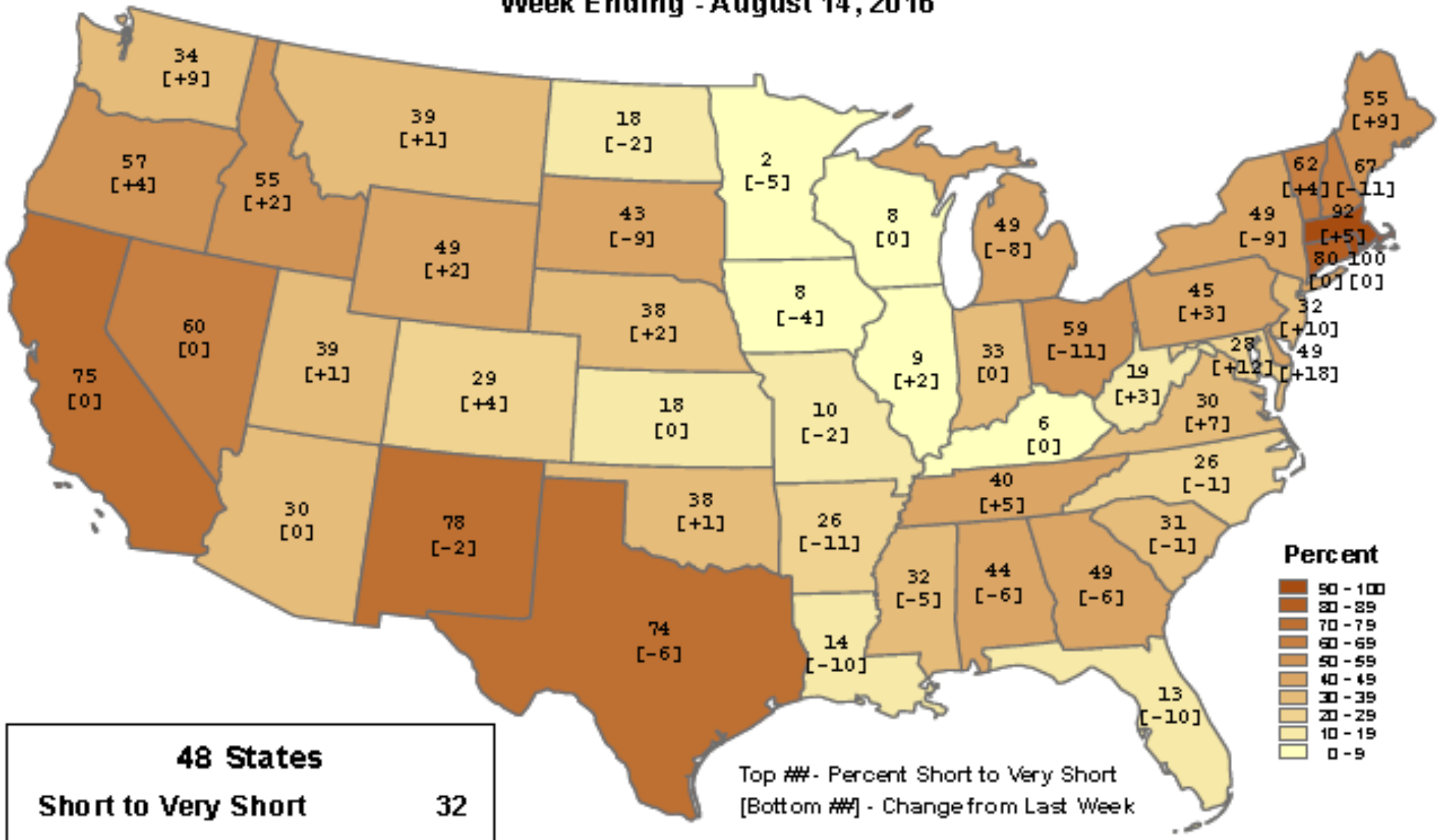
United States Department of Agriculture

This product was prepared by the USDA Office of the Chief Economist (OCE) World Agricultural Outlook Board (WAOB)

Topsoil Moisture

Percent Short to Very Short

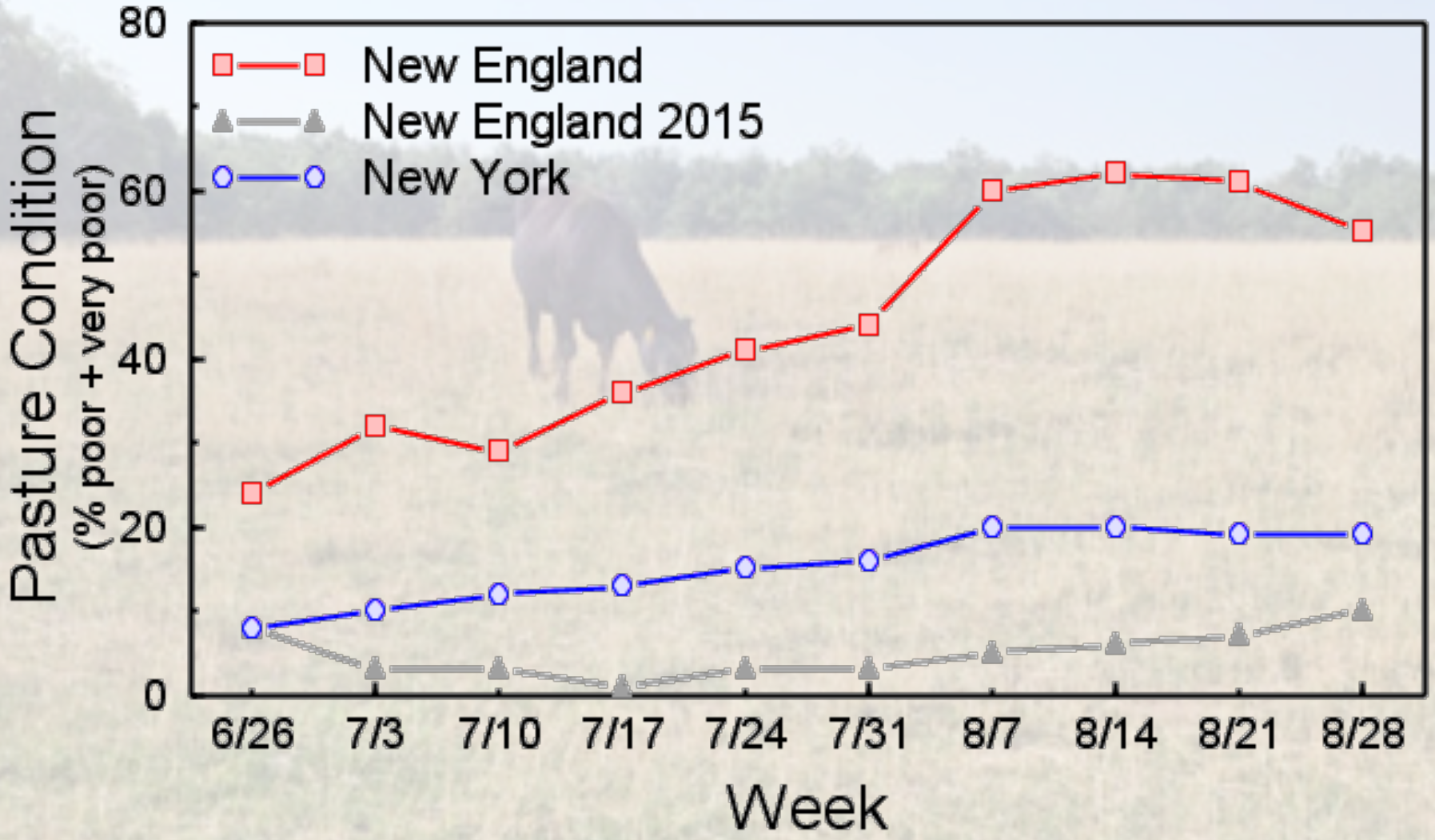
Week Ending - August 14, 2016



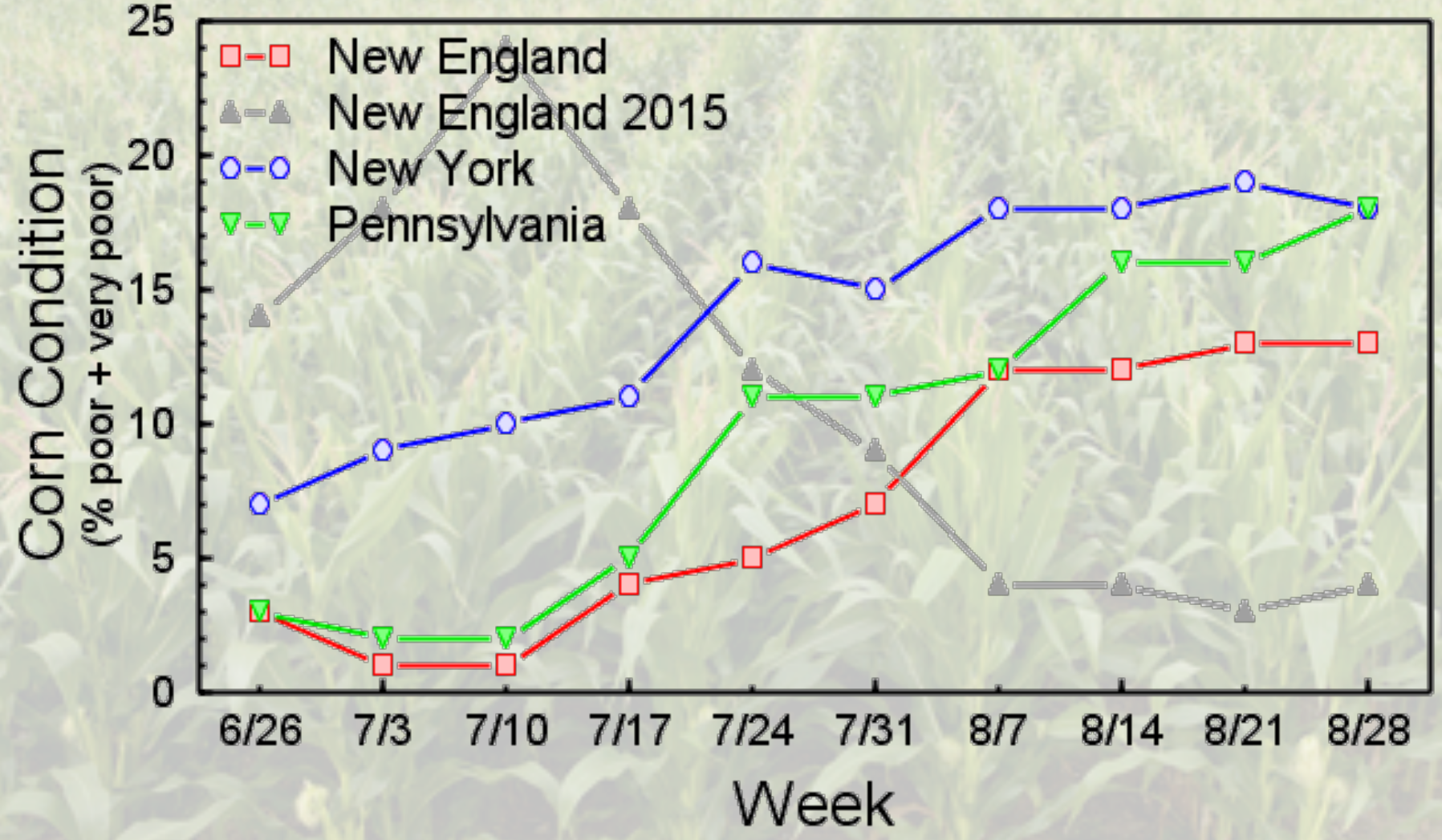
48 States	
Short to Very Short	32
Change from Last Week	-1

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports. These reports are available through http://www.nass.usda.gov/Publications/.

NASS Pasture Condition – Worst on Record (20 yrs)

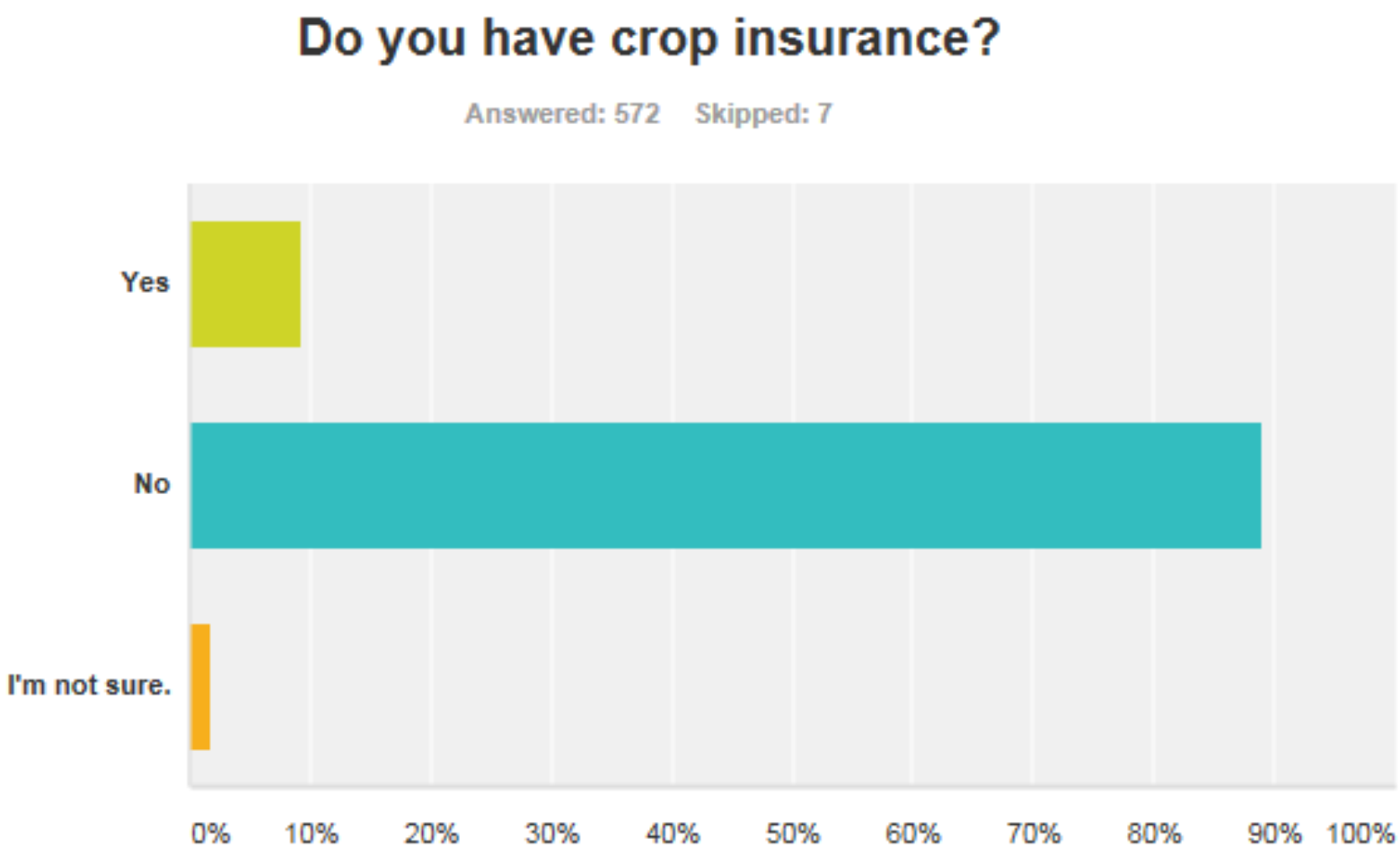


NASS Corn Condition



University of Maine
Maine Farmer Survey 9/16

Richard J. Brzozowski
Food System Program Administrator
University of Maine Cooperative Extension
207-581-3222 desk

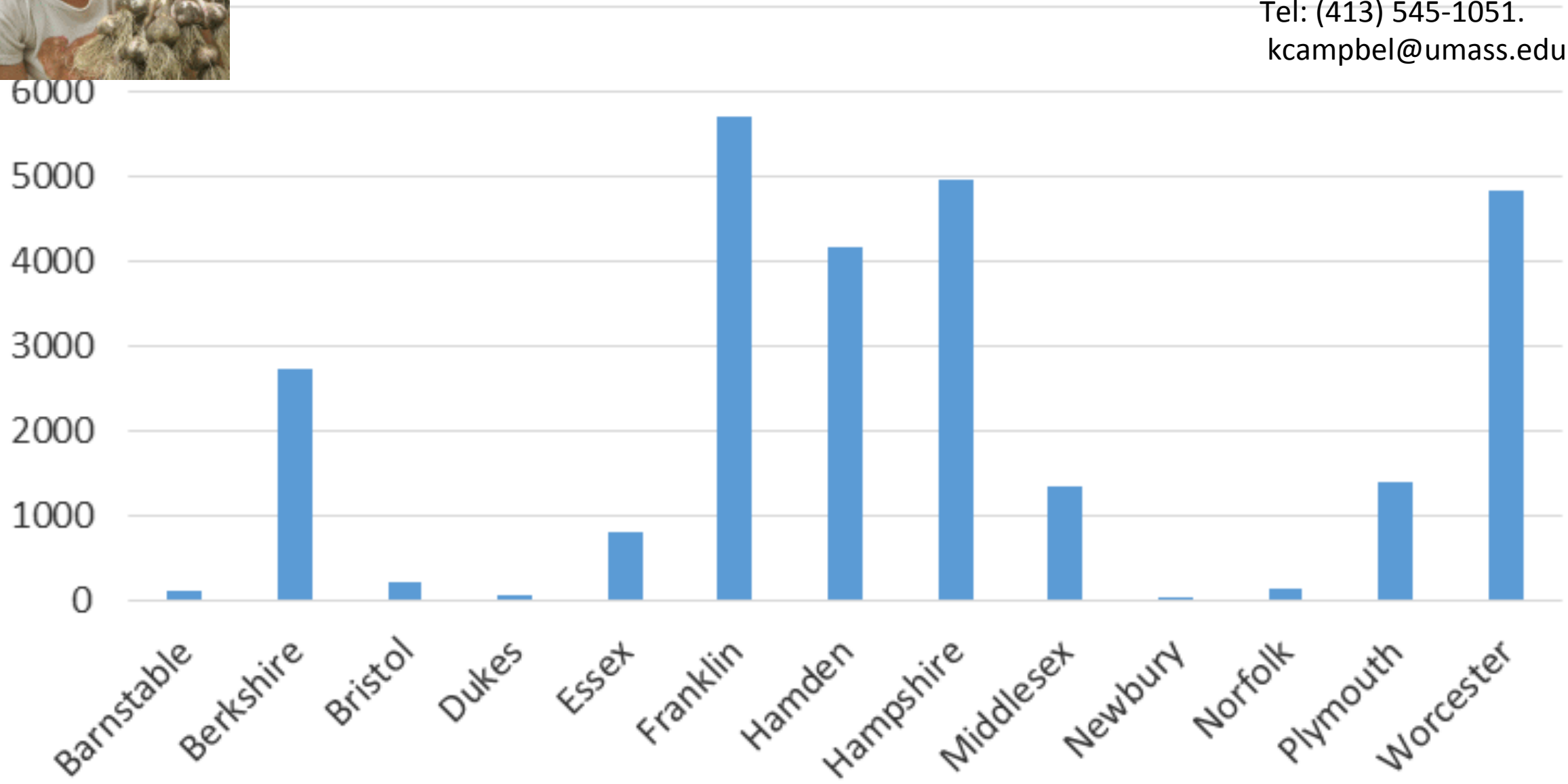


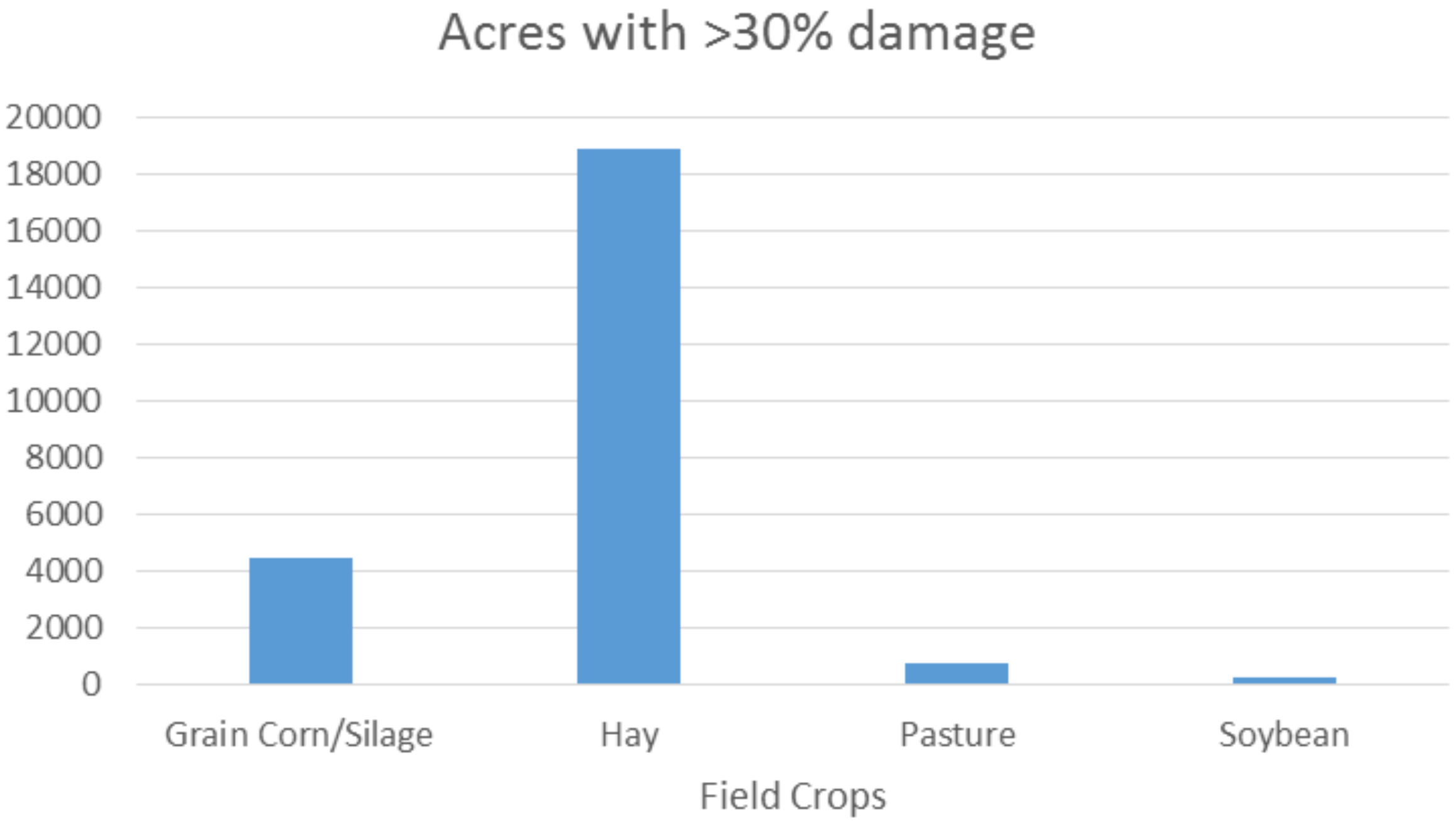
University of Rhode Island (Peggy Siligato):

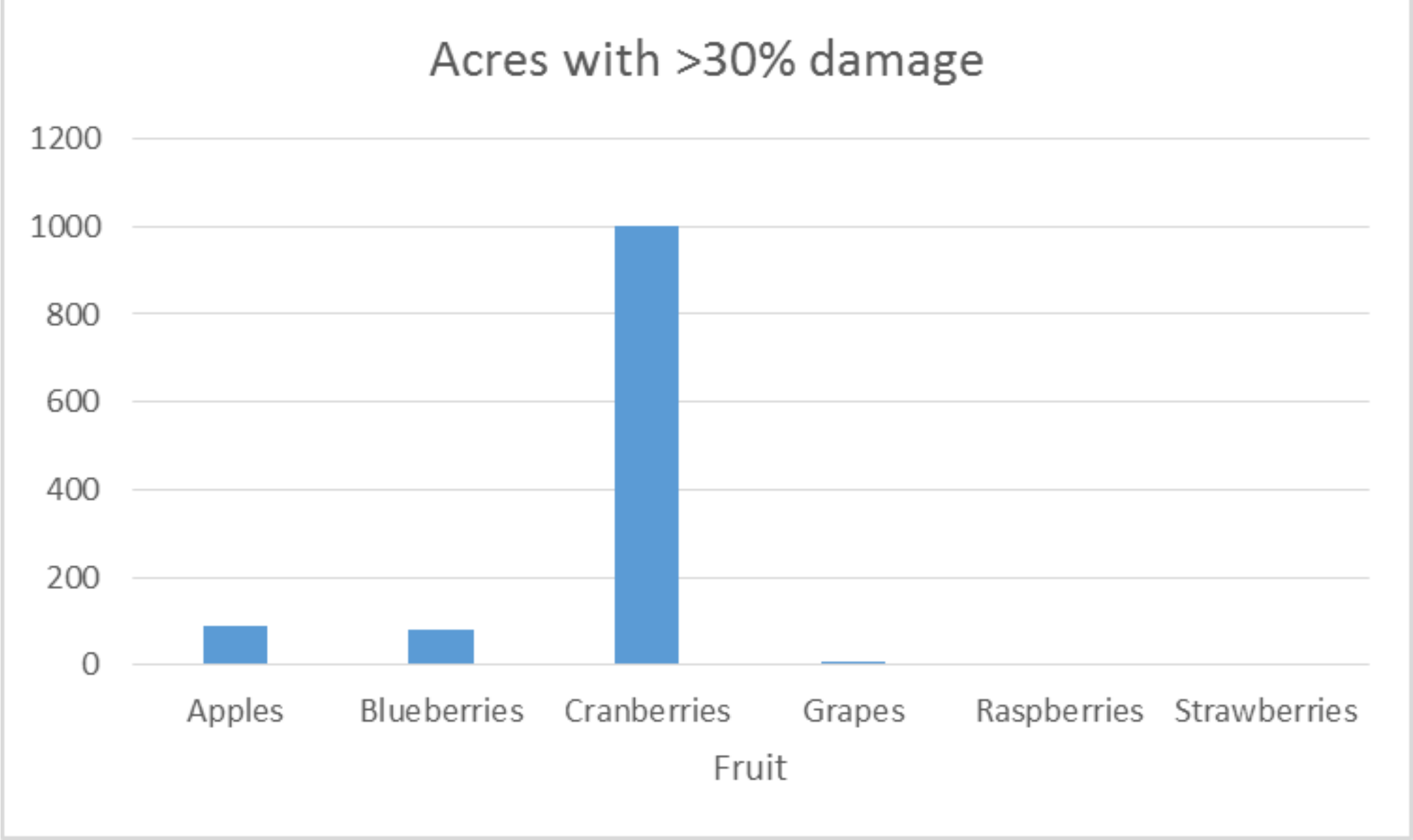
"69 producers with loss claims and 2 wells dried up completely-- we are reaching out to producers- educating them on loss programs available"

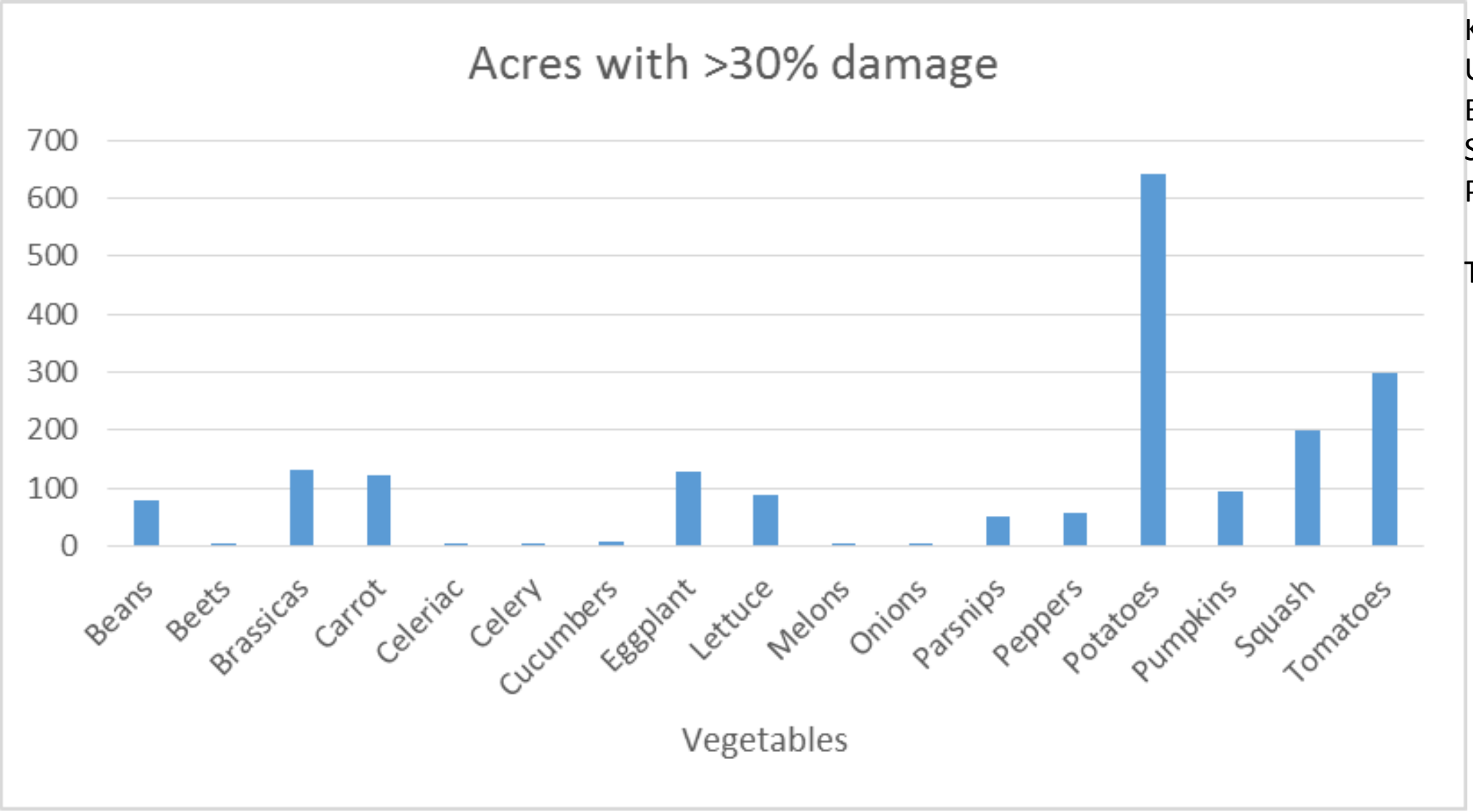
Katie Campbell-Nelson
UMass Extension Educator
Specialty: Vegetable Production.

Tel: (413) 545-1051.
kcampbel@umass.edu




Acres with >30% damage
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Grain Corn/Silage
Hay
Pasture
Soybean
Field Crops


Acres with >30% damage
1200
1000
800
600
400
200
0
Apples
Blueberries
Cranberries
Grapes
Raspberries
Strawberries
Fruit



Katie Campbell-Nelson
UMass Extension Educator
Specialty: Vegetable Production.

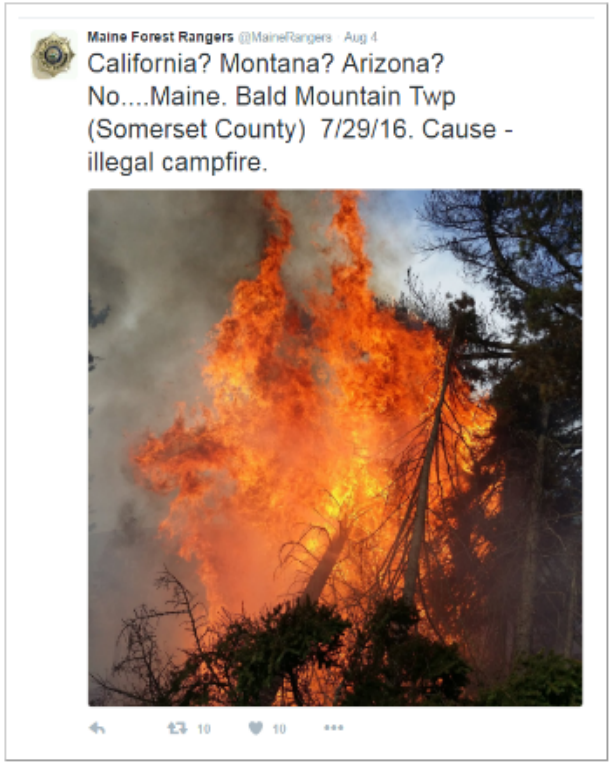
Tel: (413) 545-1051.
kcampbel@umass.edu

"Federal loan assistance should not be commodity based (just potato, just corn, just cotton for example). In MA we need crop insurance that covers acreage, not crop."

Key Impact of Drought on Fire:

Soil and large fuels are very dry meaning any fire that gets started will be harder to control

Erin Lane, USFS



RESOURCES

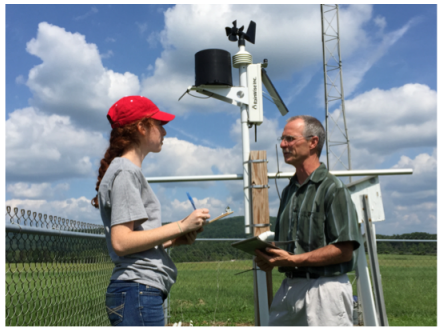
1. The USDA Farm Service Agency has declared multiple counties in the Northeast as USDA Secretarial drought disaster areas for 2016 (the entire states of MA, RI, CT, and NH, and eastern VT, southwestern ME, most of NJ, most of western NY, and north-central PA).
2. Qualified farm operators in the designated drought disaster areas are now eligible for low-interest Emergency Loans, administered by FSA
3. Natural Resources Conservation Services – Programs to lessen the impact of drought.

Allison Chatrchyan, Director
Johnathan Lambert

CICSS

Cornell Institute for Climate Smart Solutions

- Formed in 2013
- Working toward resilient and sustainable agricultural, ecological, and social systems in the face of a rapidly changing climate
- Launched Climate Smart Farming (CSF) Program and CSF Extension Team in 2015



Research

Education/Outreach

Partnerships

climateinstitute.cals.cornell.edu/

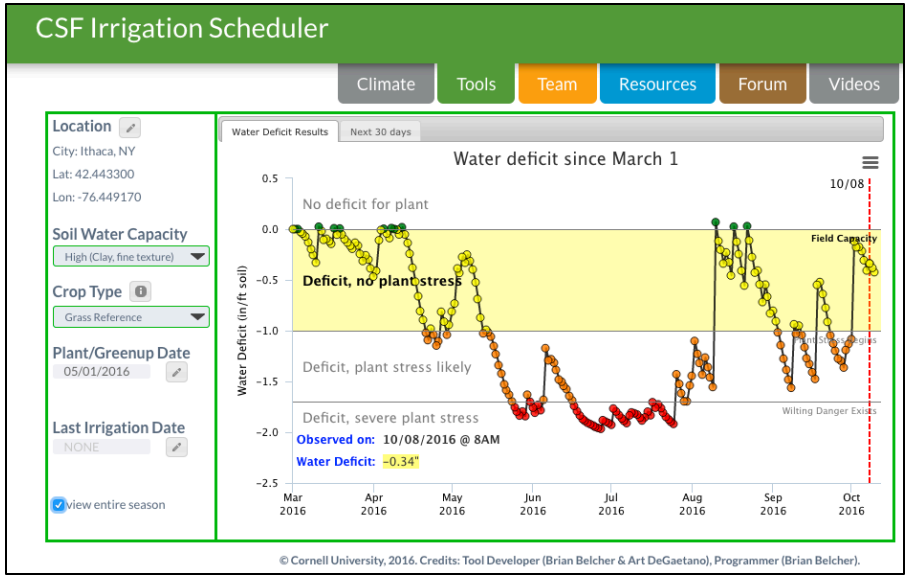
Partnership with the Hub

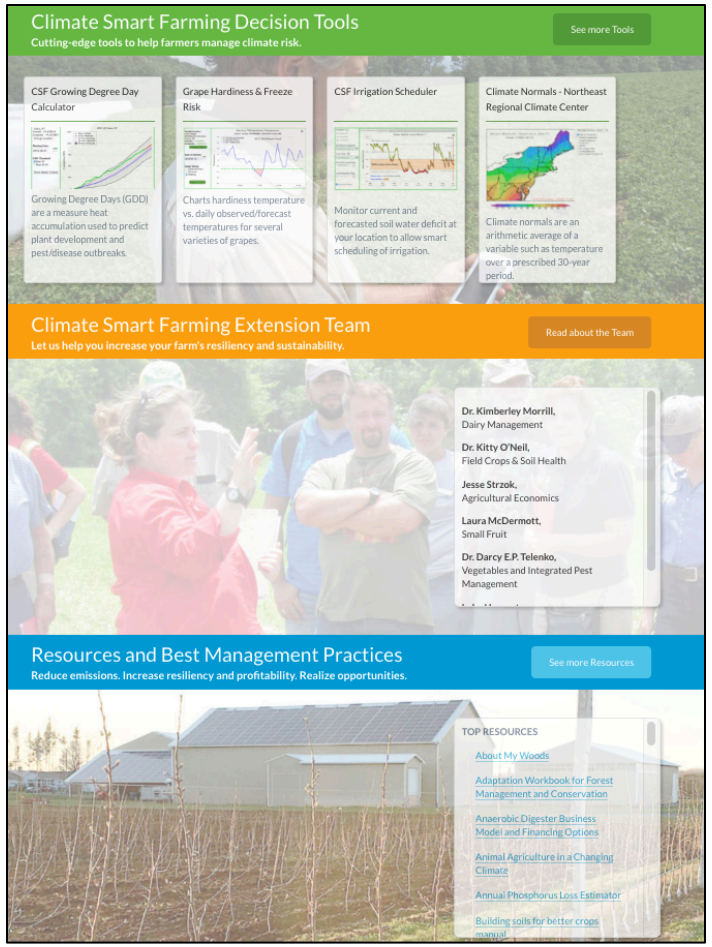
Cornell and Penn State have developed baseline data:

1. Vulnerability Assessment - Synthesis Report
2. Literature review of stakeholder views and actions
3. Regional Survey of Research & Extension Capacity
4. Focus Groups with Producers & Advisors: organic growers, vegetable & field crops, dairy and grapes
5. Cornell has worked with the Hub on Outreach to extension & farmers at Ag Conferences: NOFA, PASA, Empire Farm Days, Fruit & Veg Expo, NE Dairy Producers

CSF
Climate Smart Farming

- Helping NE farmers manage climate risk via:
  - Resources and Best Management Practices
  - knowledgeable CSF Extension Team
  - Climate-based agricultural decision tools such as the **CSF Irrigation Scheduler**
    - Launched summer 2016 & any farmer in NE can use it
    - FREE - Try it out, and give us feedback!

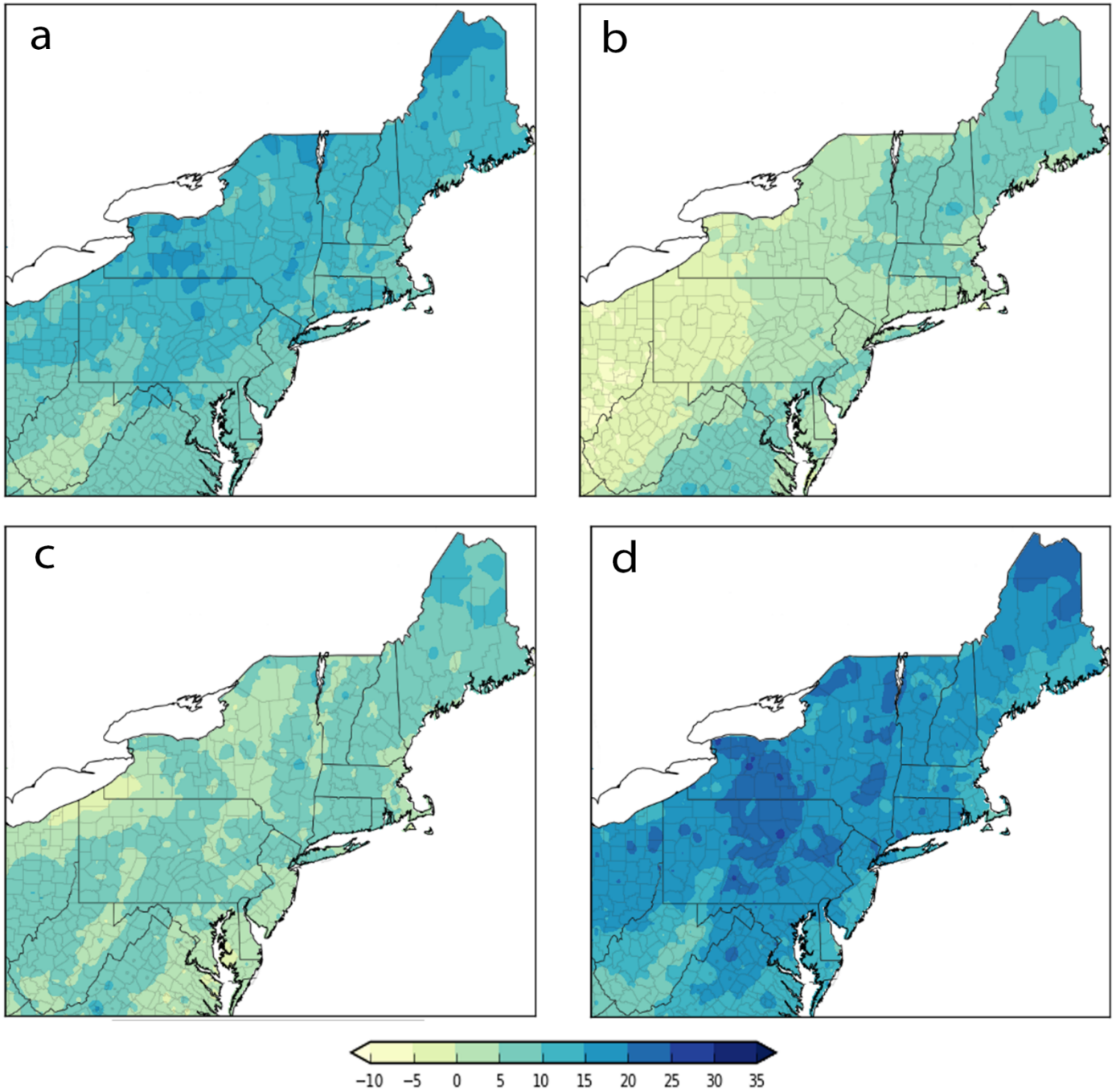




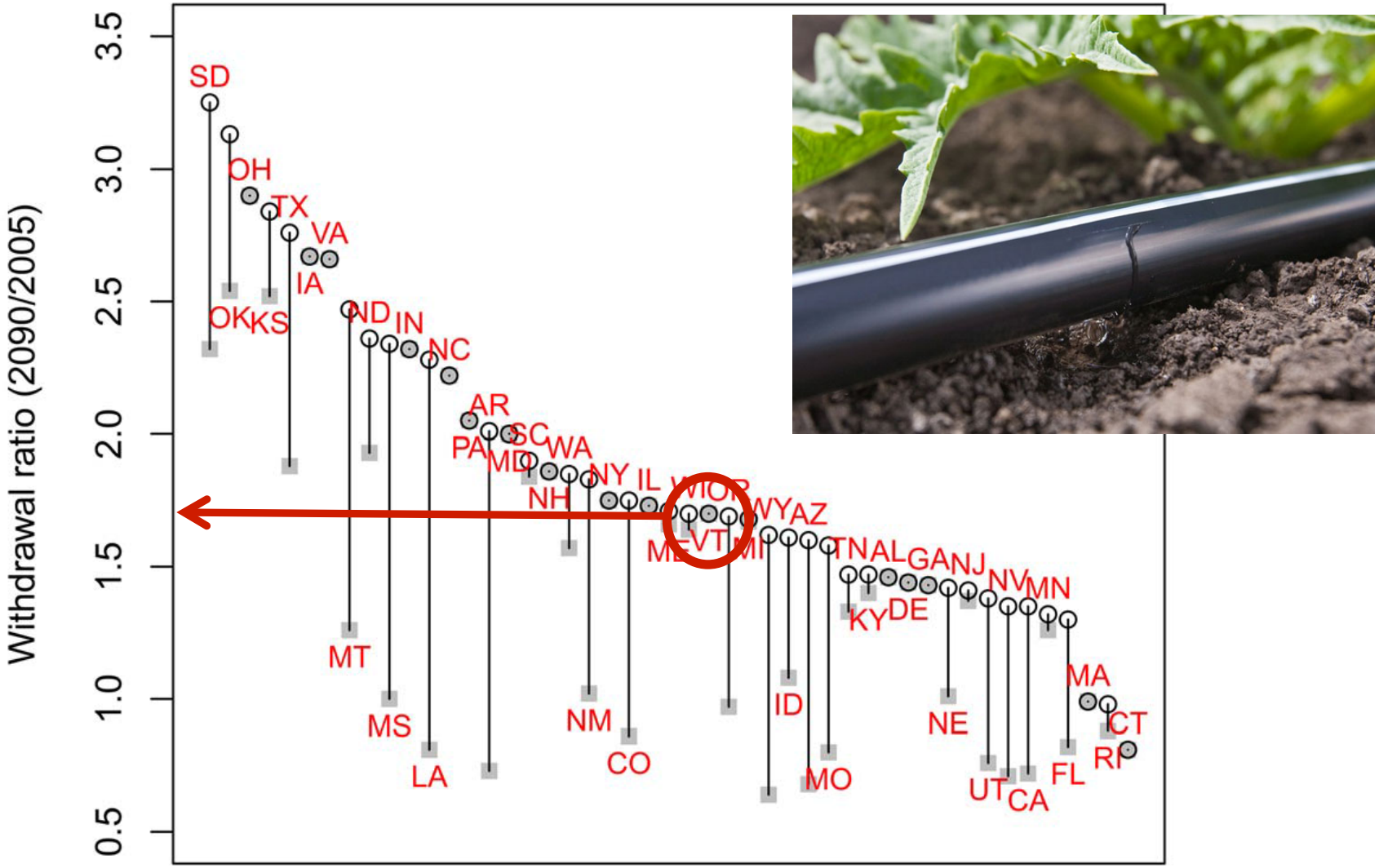
www.climatesmartfarming.org

Northeast Climate Future: Wetter <u>and</u> Dryer

Art DeGaetano, NRCC



Irrigation Needs for Climate Resiliency



Joshua Faulkner, UVM

(McDonald and Girvetz, 2013)

USDA Northeast Climate Hub

http://www.climatehubs.oce.usda.gov/northeast

Next Newsletter will be featuring the drought

- Dave Hollinger, NE Hub Director dhollinger@fs.fed.us

Contributors

- Katie-Campbell Nelson – UMass Extension
- Richard J. Brzozowski – UMaine Extension
- Peggy Siligato – URI Extension
- Joshua Faulkner – UVM Extension
- Johnathan Lambert - Cornell Institute for Climate Smart Solutions
- Erin Lane, Mary Carey – USDA Climate Hub

- National Agricultural Statistics Service
- Farm Service Agency
- Office of the Chief Economist