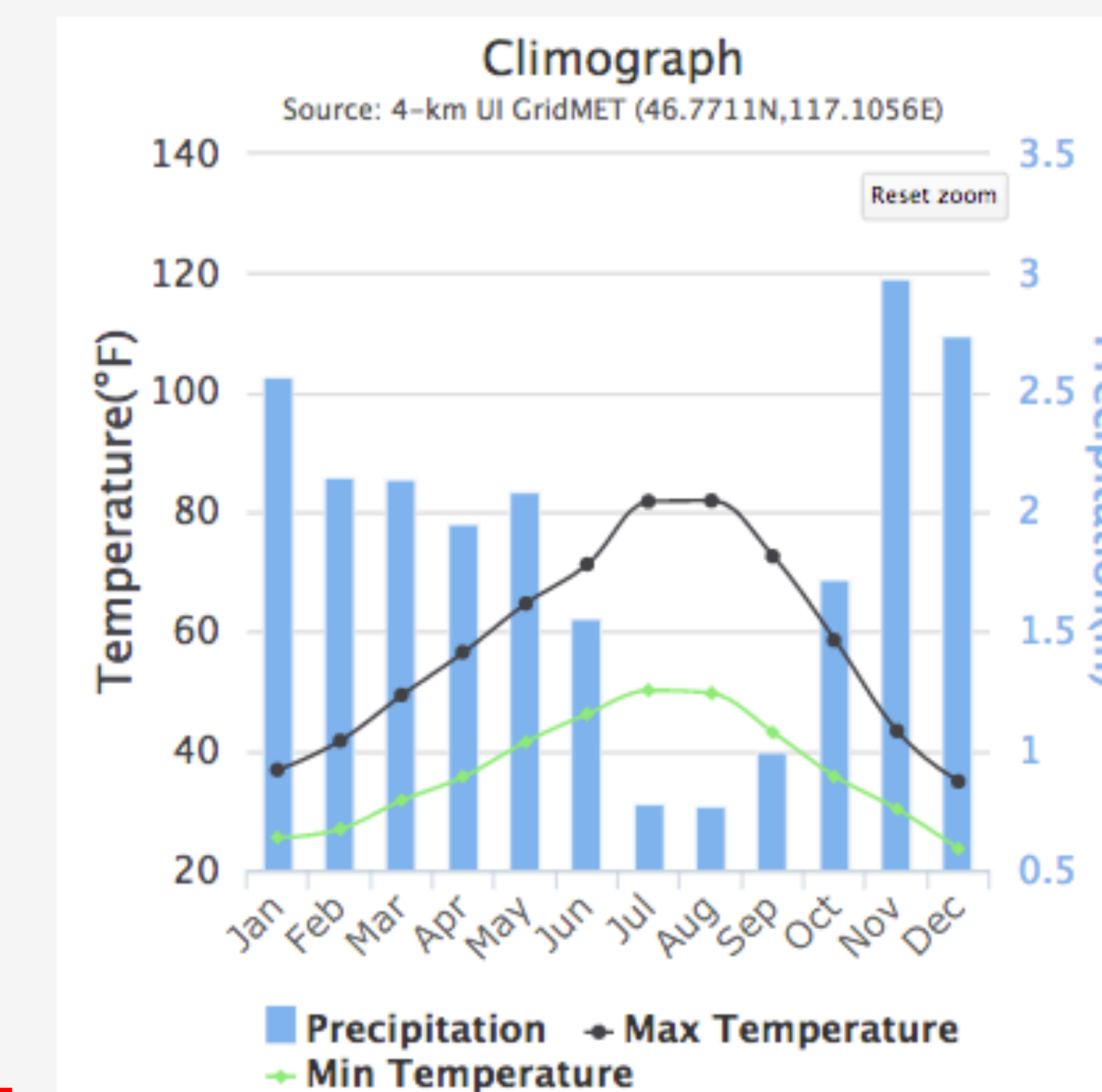


WEATHER VS CLIMATE

Weather is what you get....

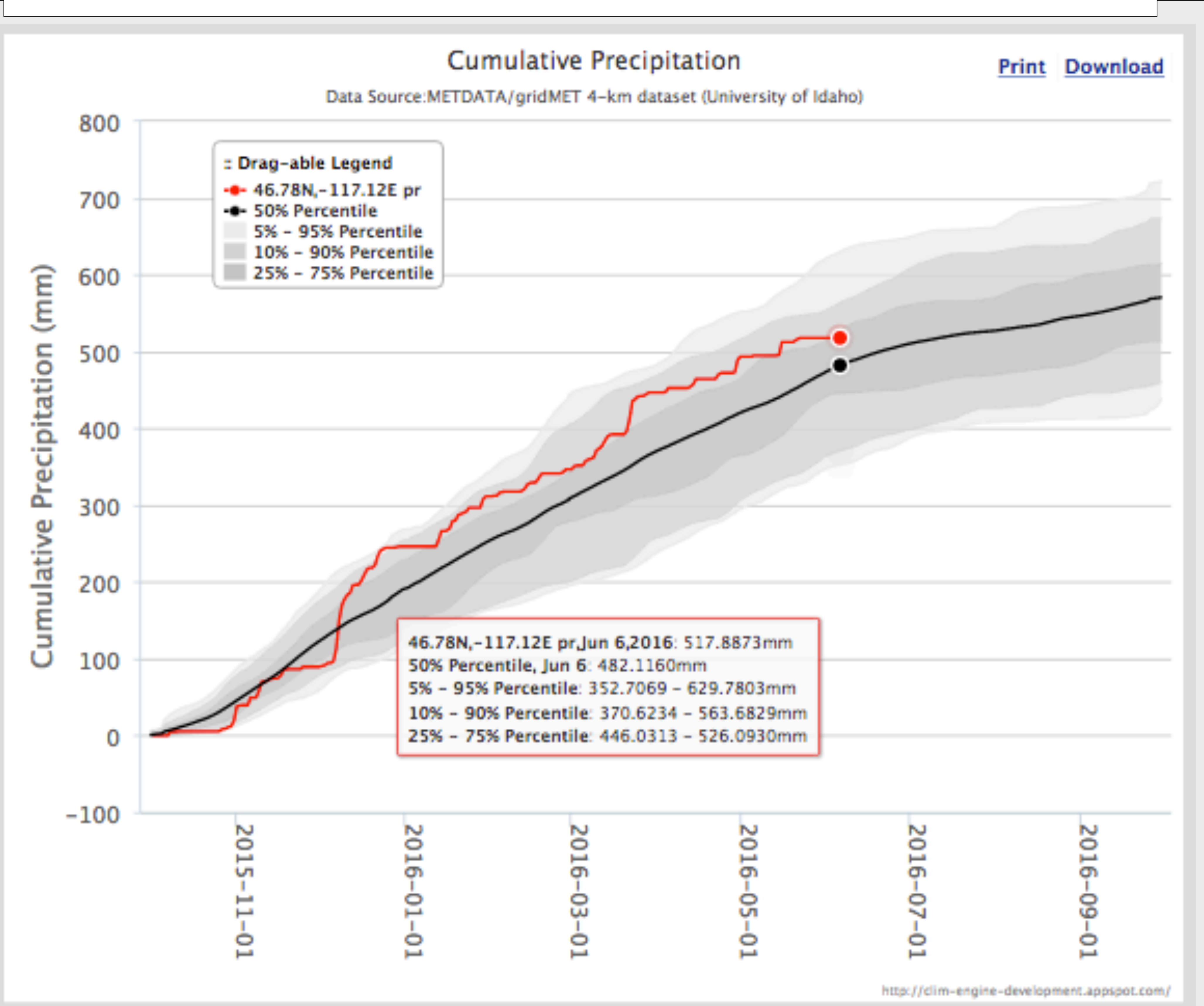
Climate is what you expect

Climatology of Temperature & Precipitation
46.781° N, 117.118° W

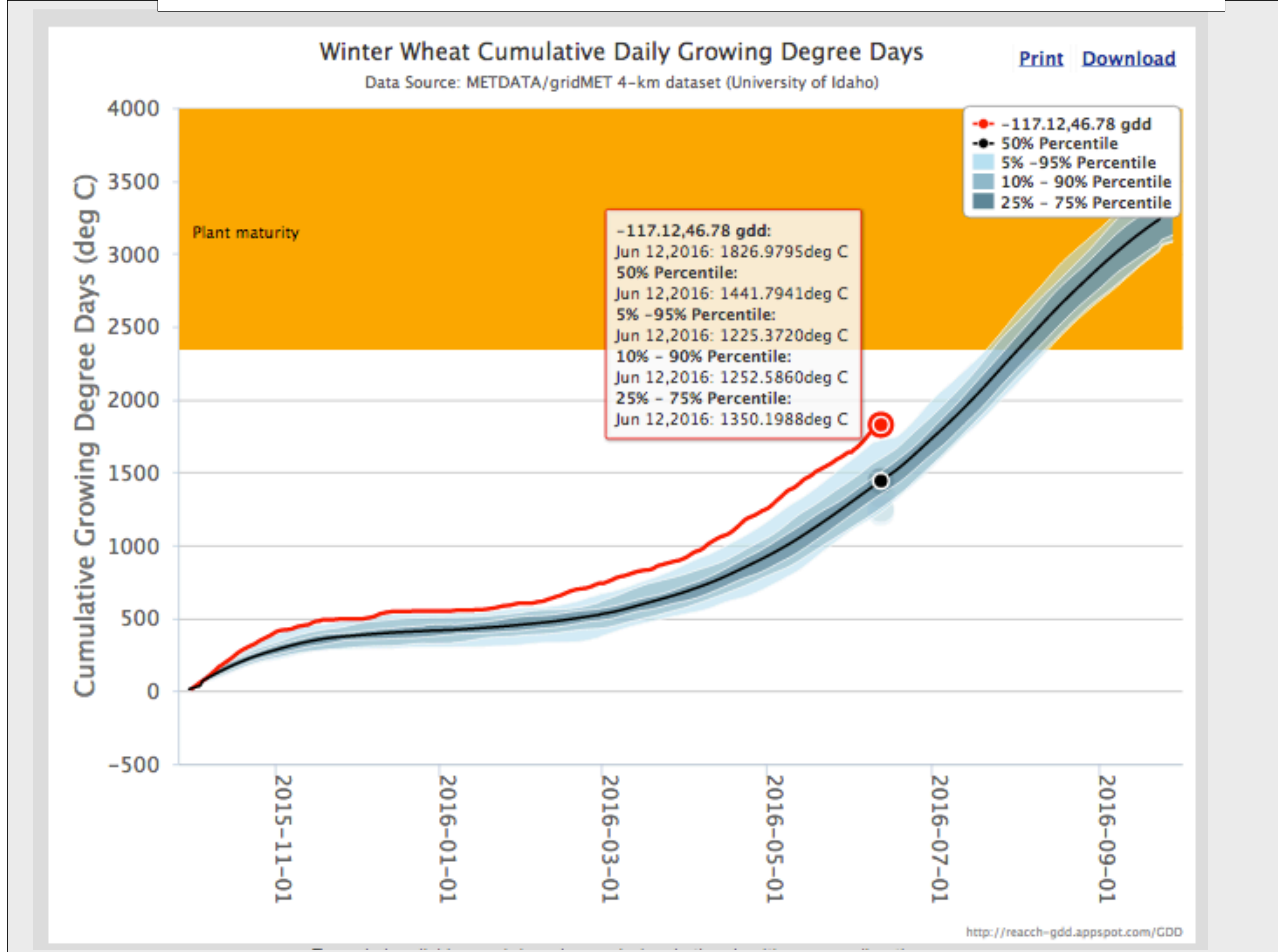


WEATHER VARIABILITY AND AGRICULTURE

CUMULATIVE PRECIPITATION



CUMULATIVE GROWING DEGREE DAYS



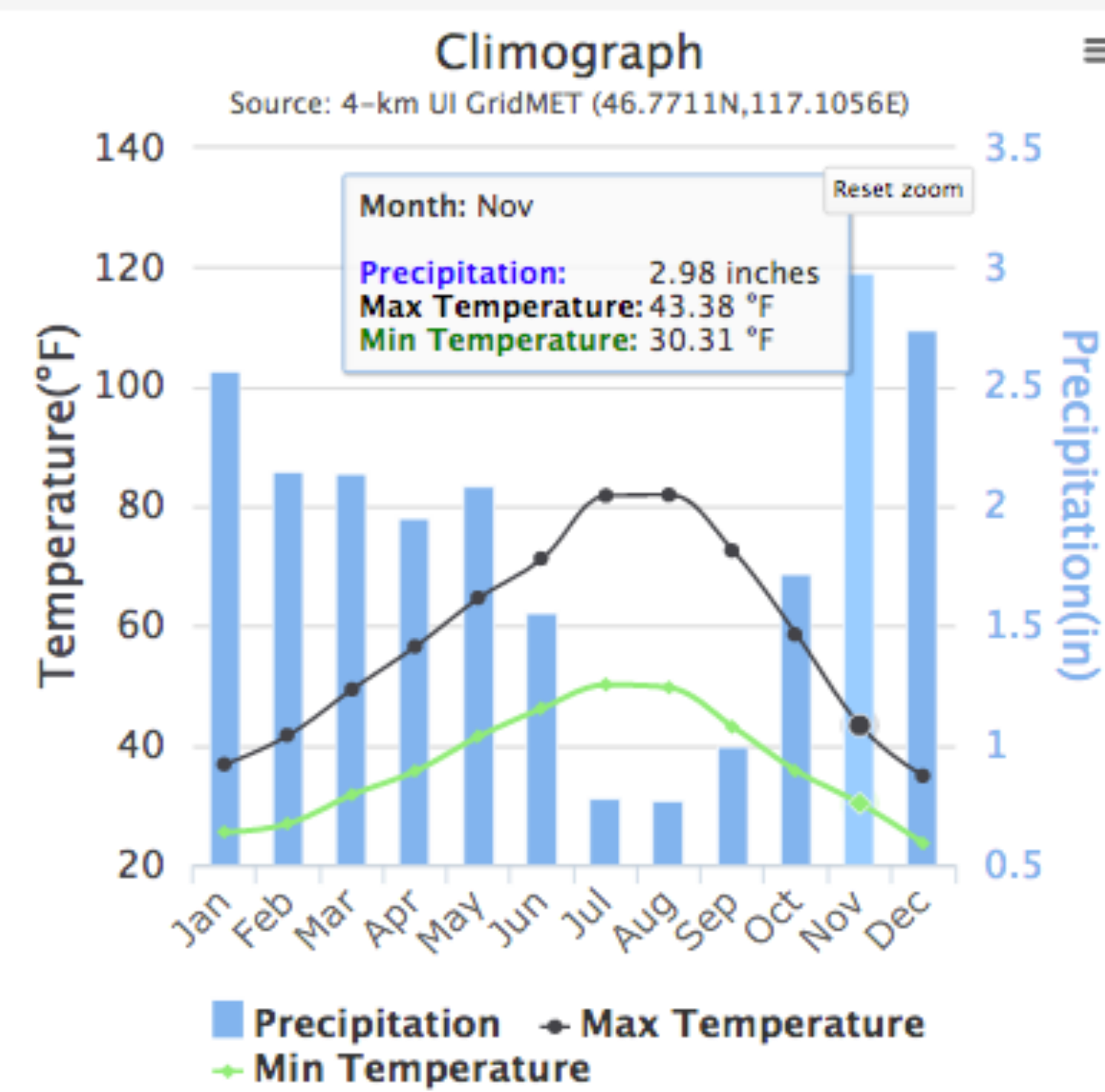


Climate/Weather Tools

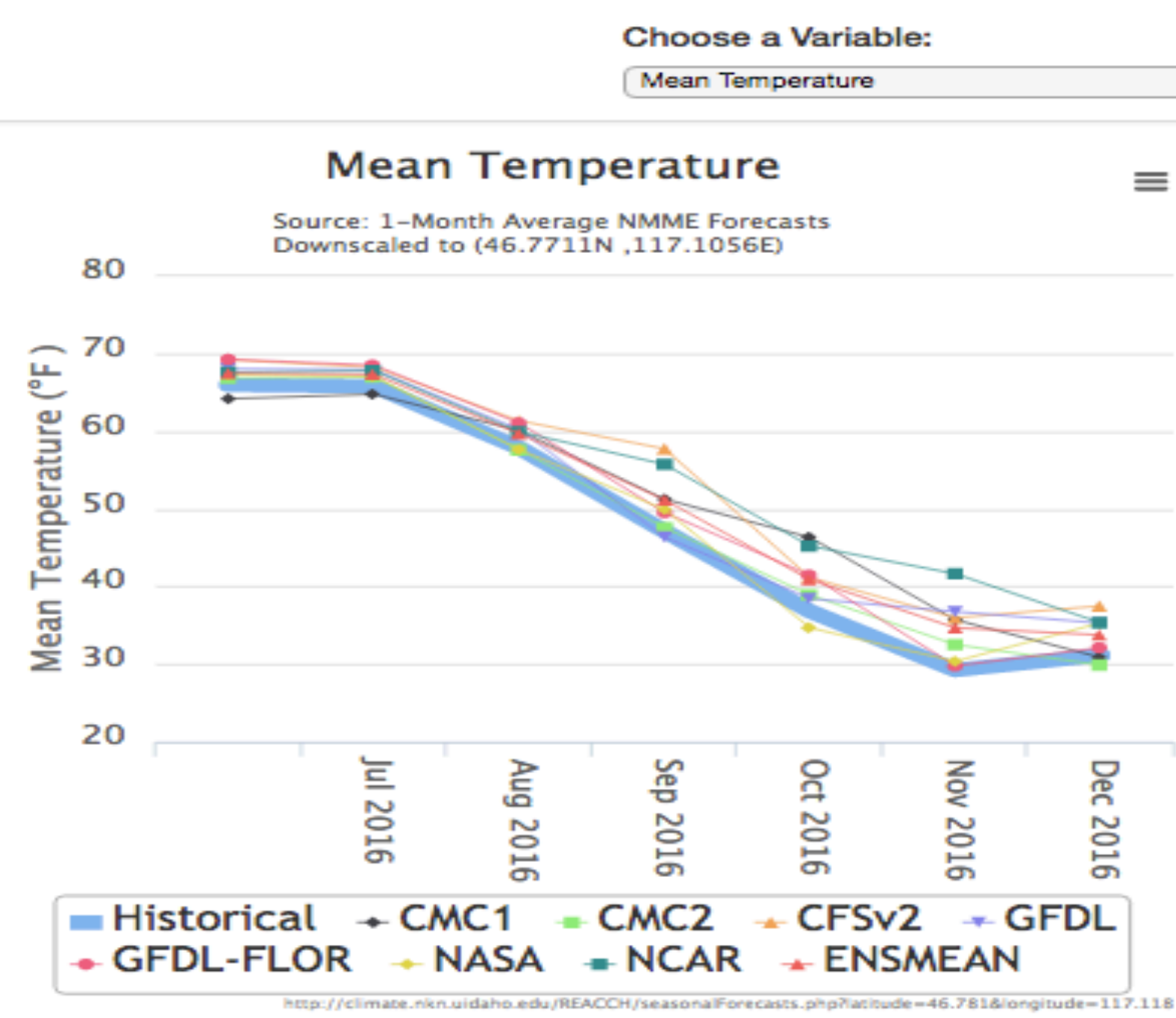
PAST CLIMATE

SEASONAL FORECASTS

Climatology of Temperature & Precipitation
46.784° N, 117.118° W

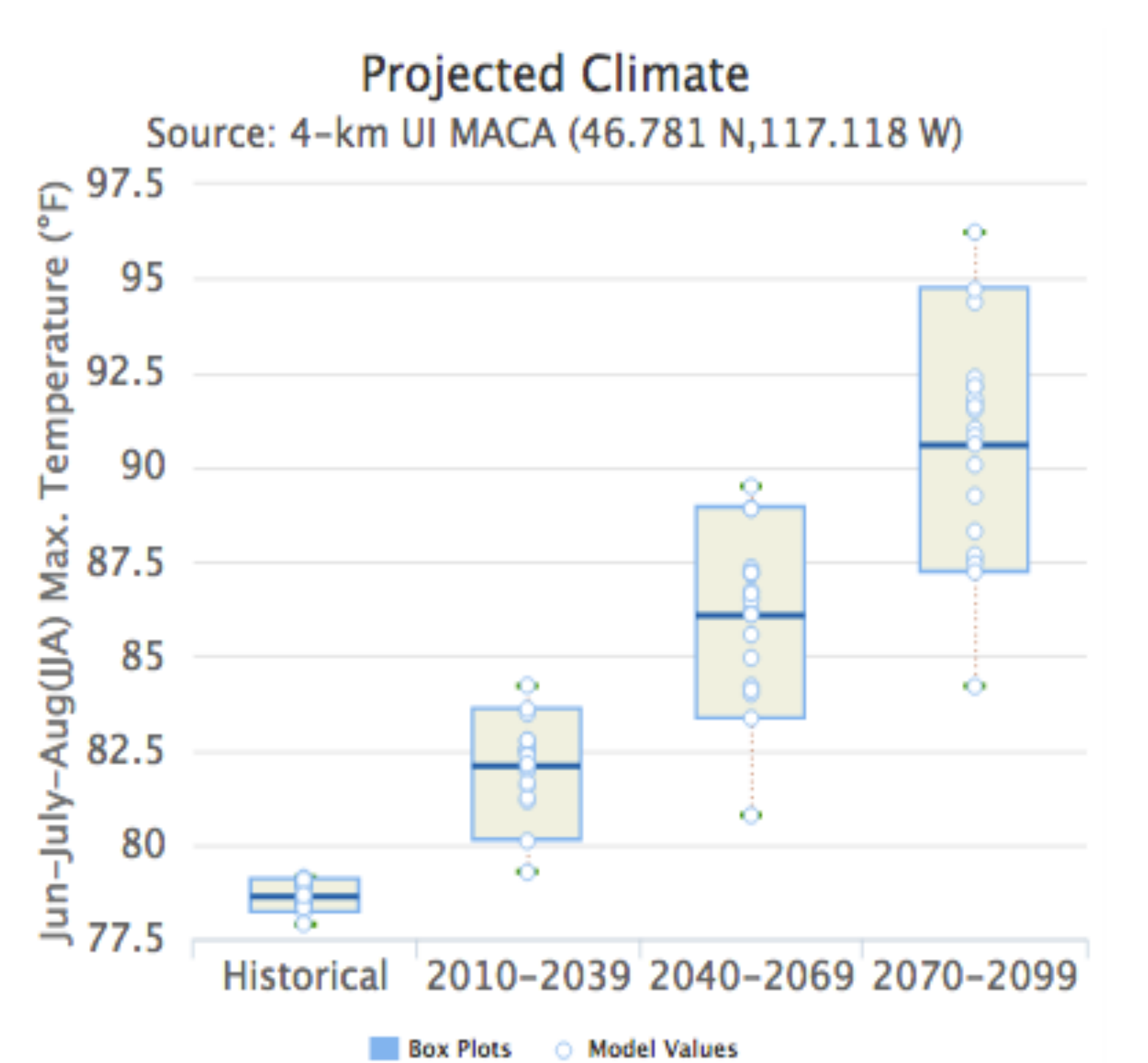
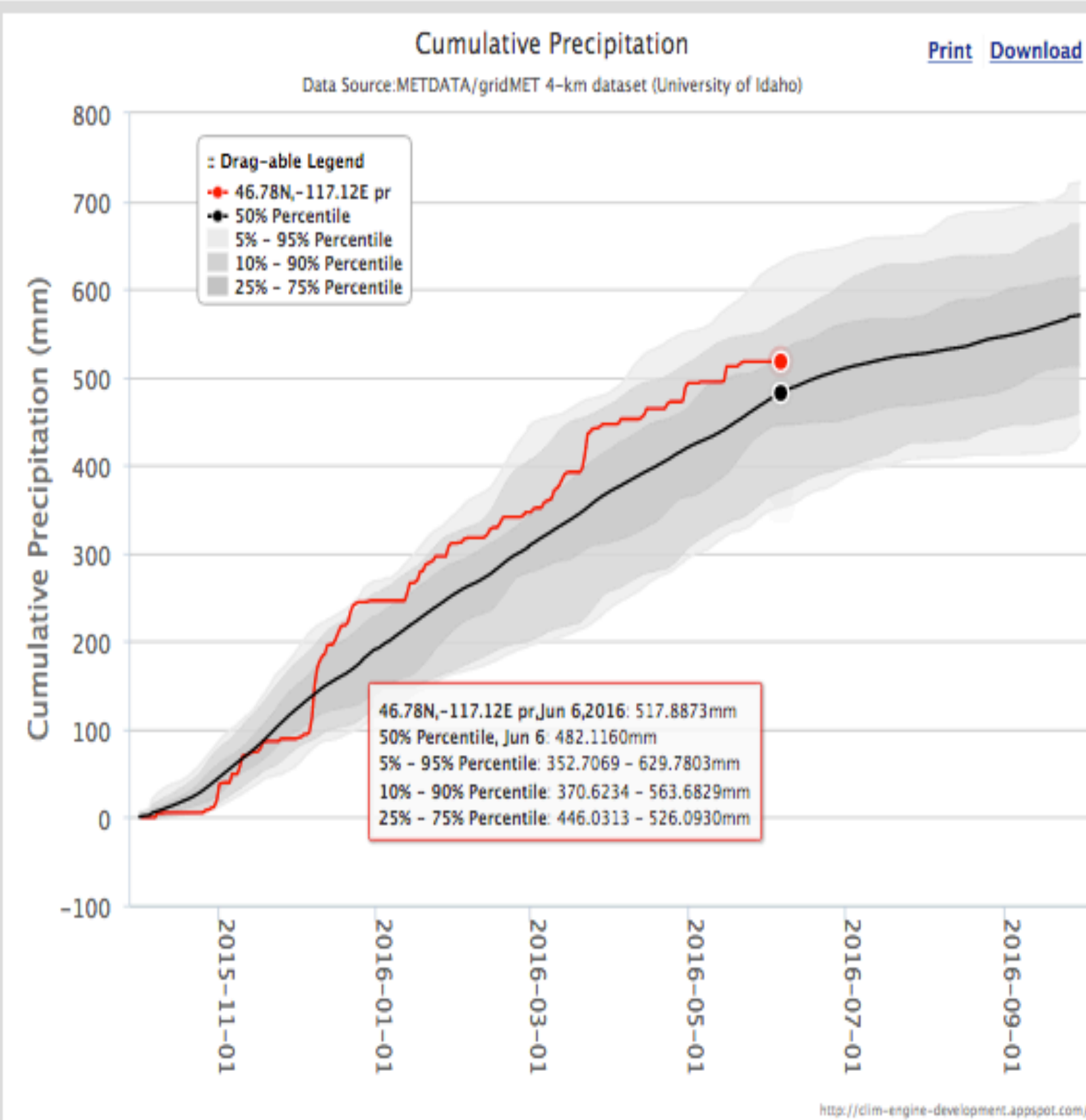


Seasonal Forecasts
46.781° N, 117.118° W



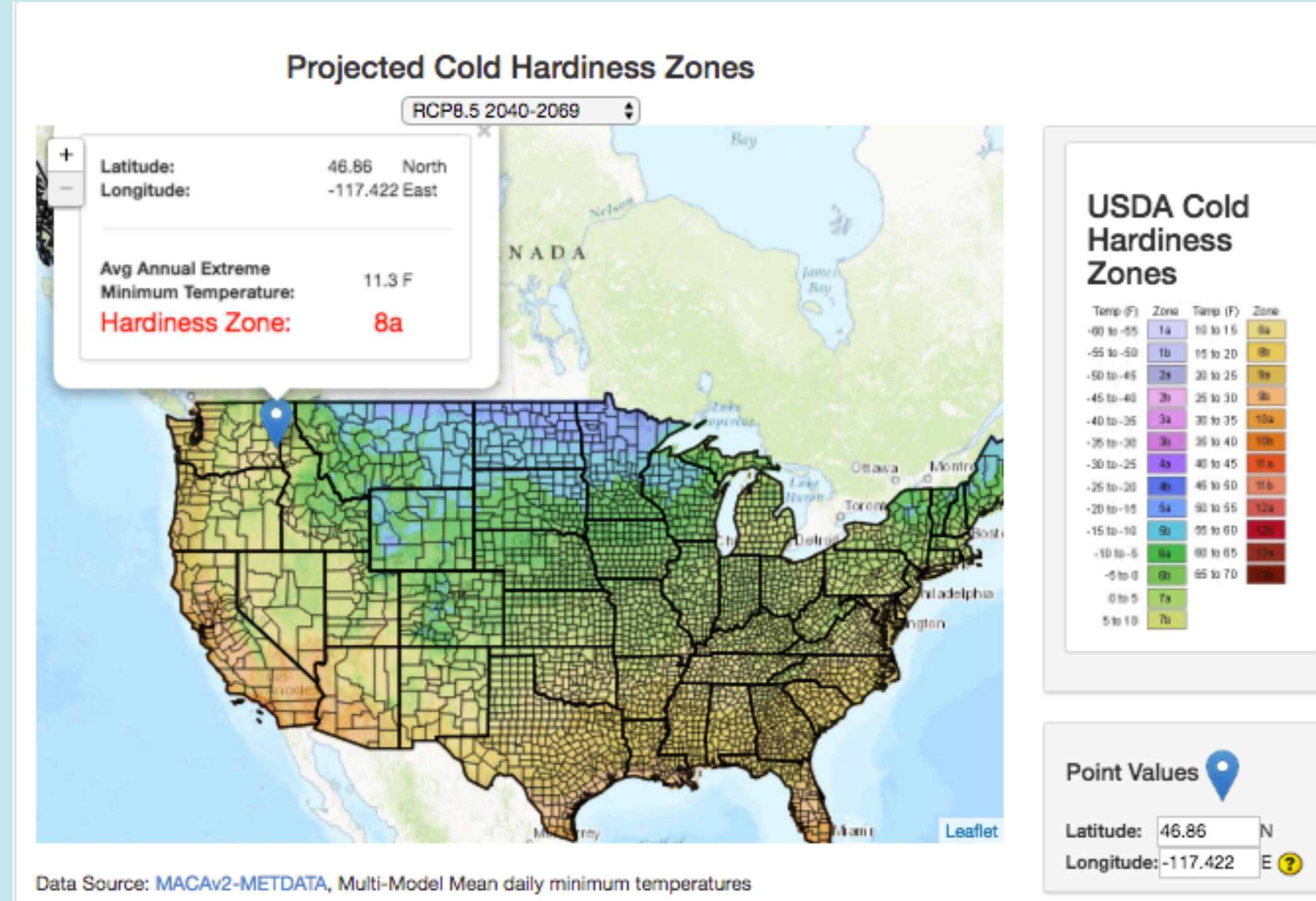
CURRENT WEATHER

FUTURE CLIMATE

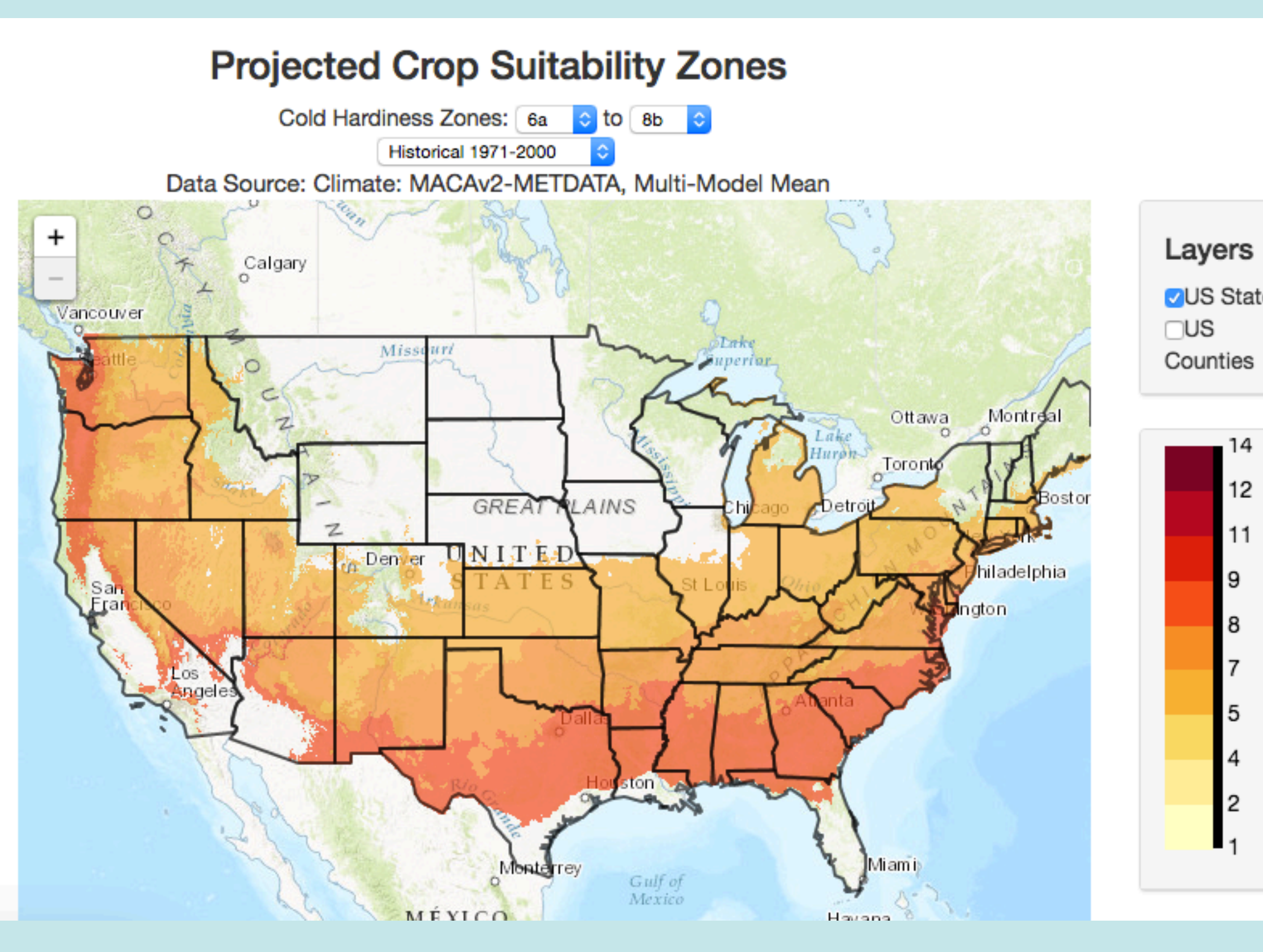


Cold Hardiness Zone Tools

HARDINESS ZONES

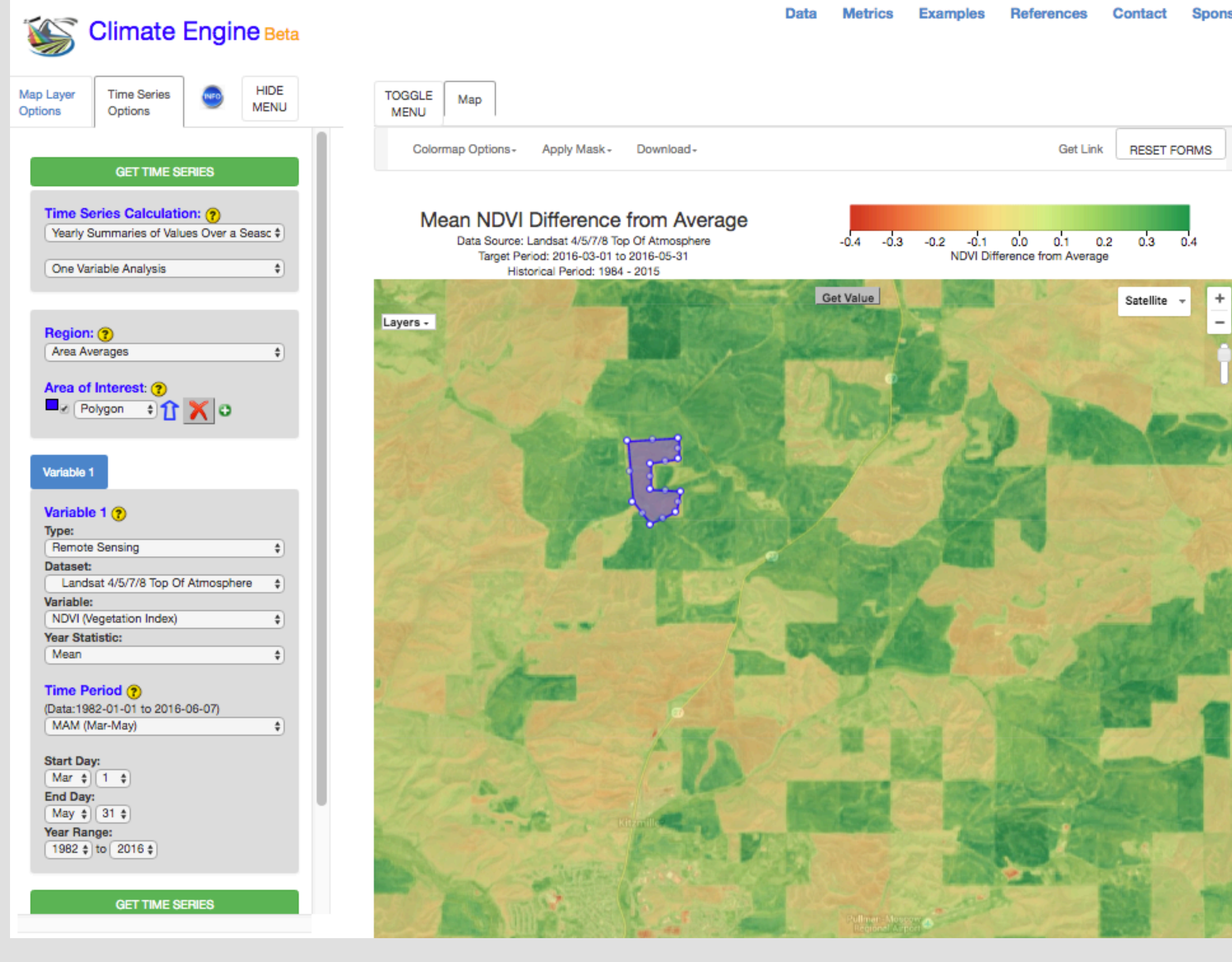


CROP SUITABILITY



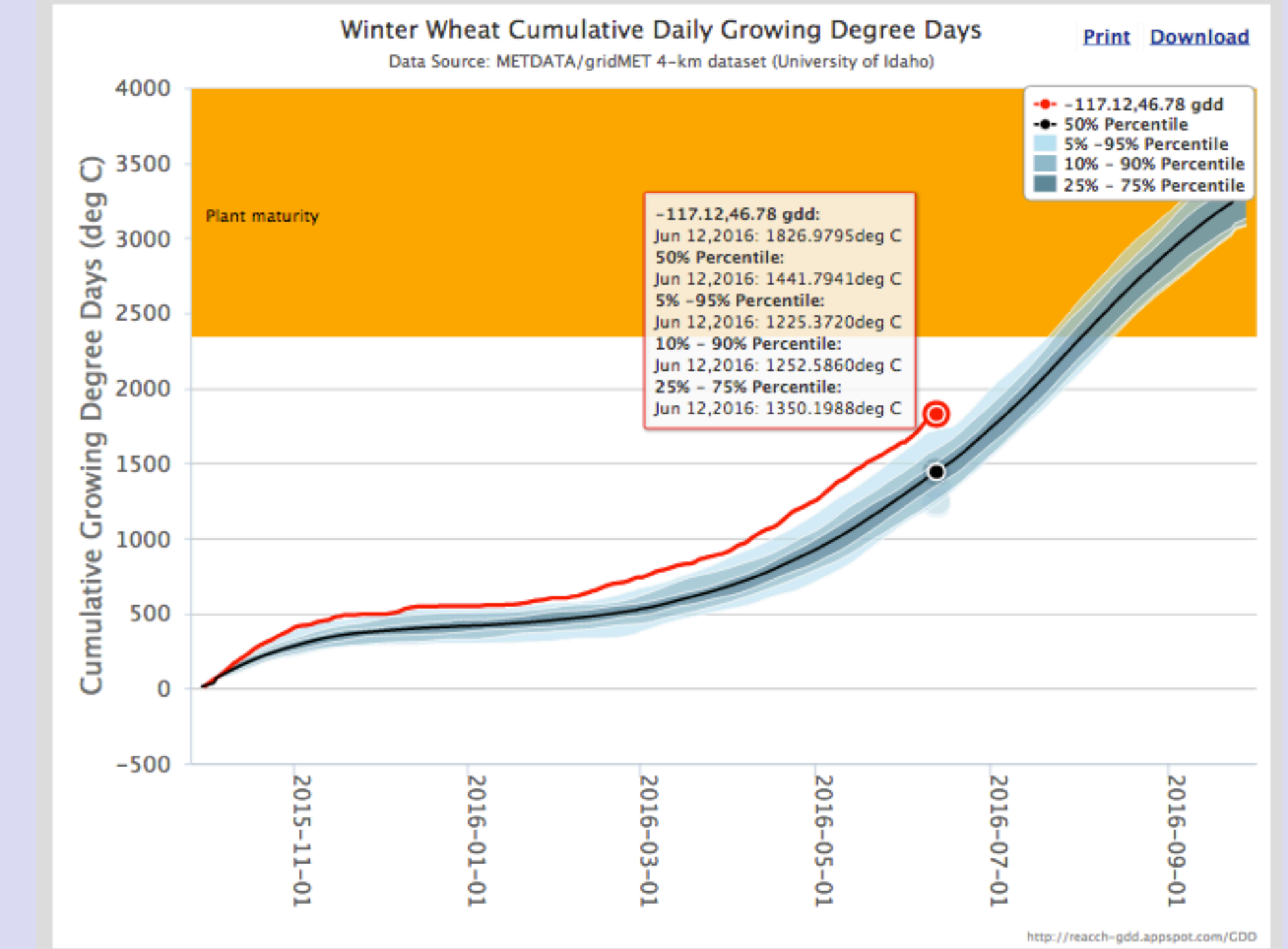
Remote Sensing Tools

VEGETATION CHANGES

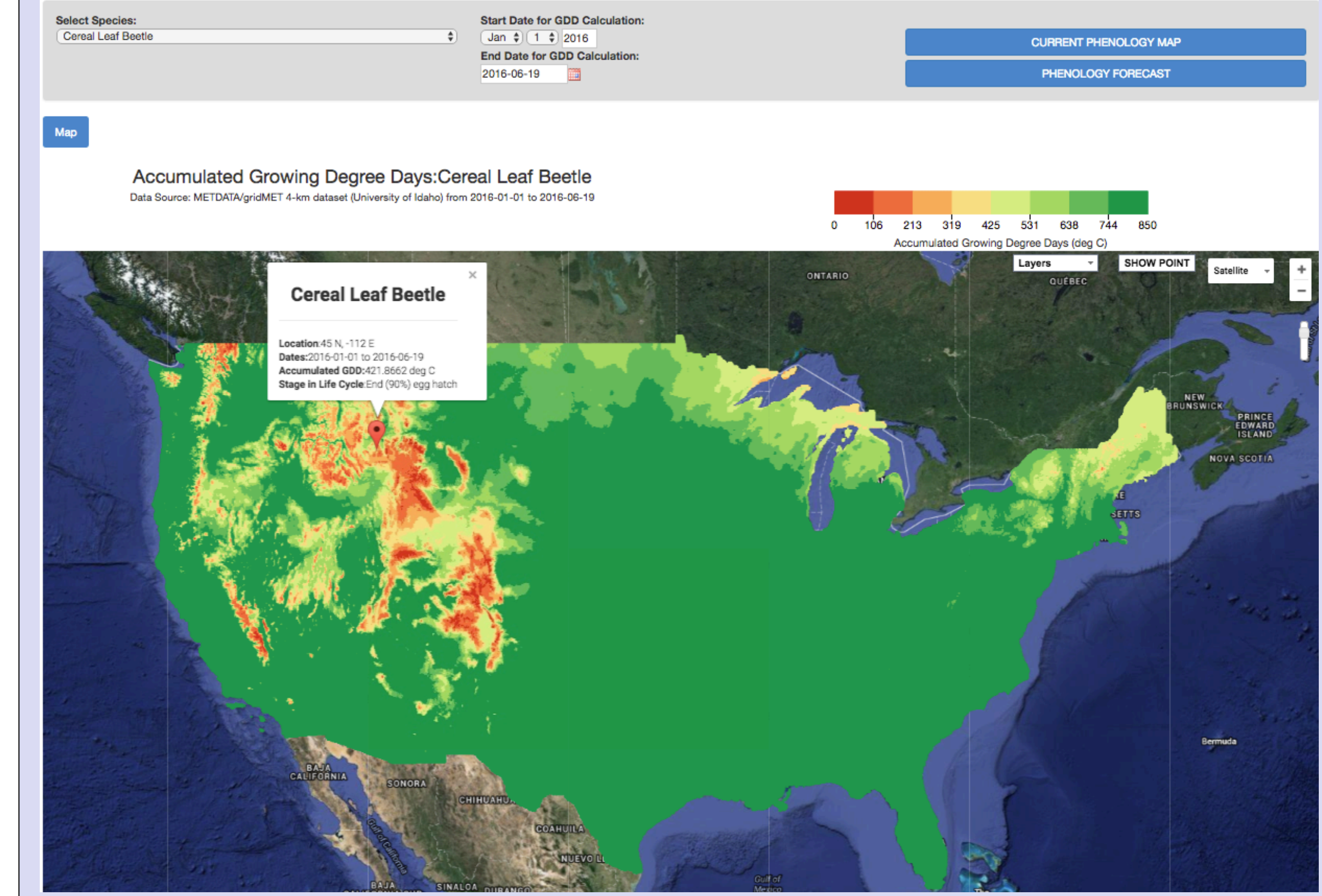


Growing Degree Day Tools

WHEAT STAGE

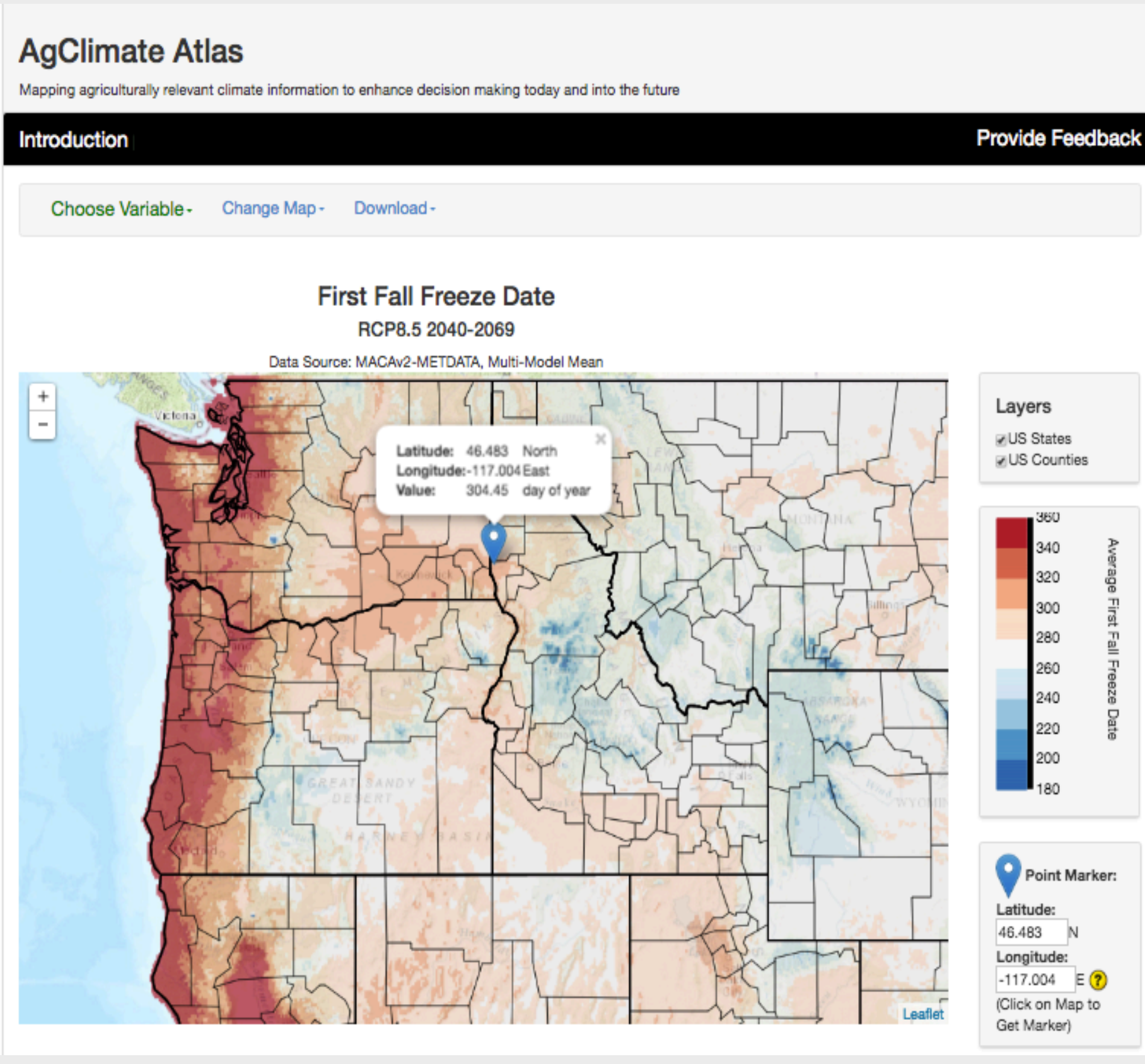
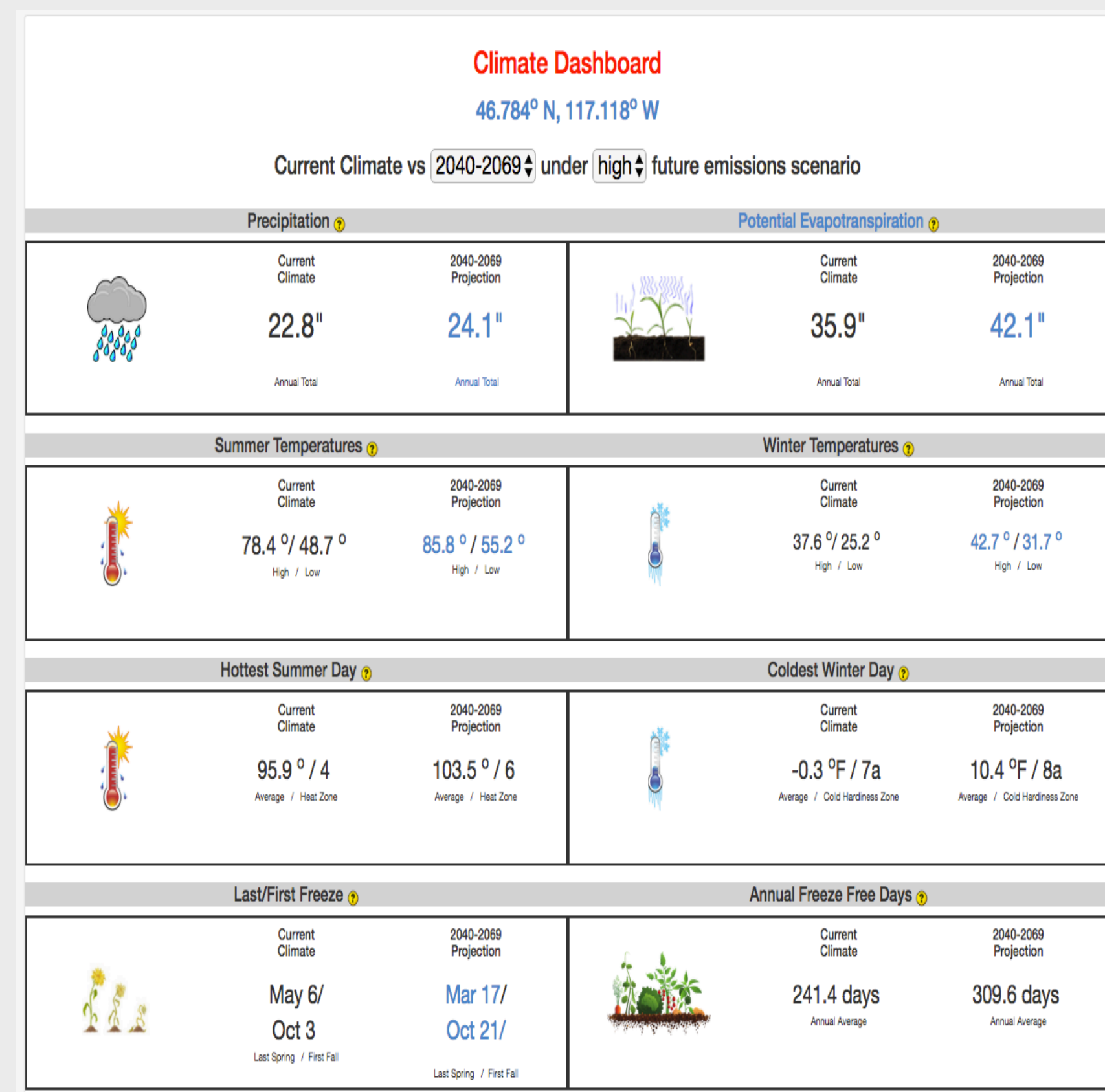


CEREAL LEAF BEETLE STAGE

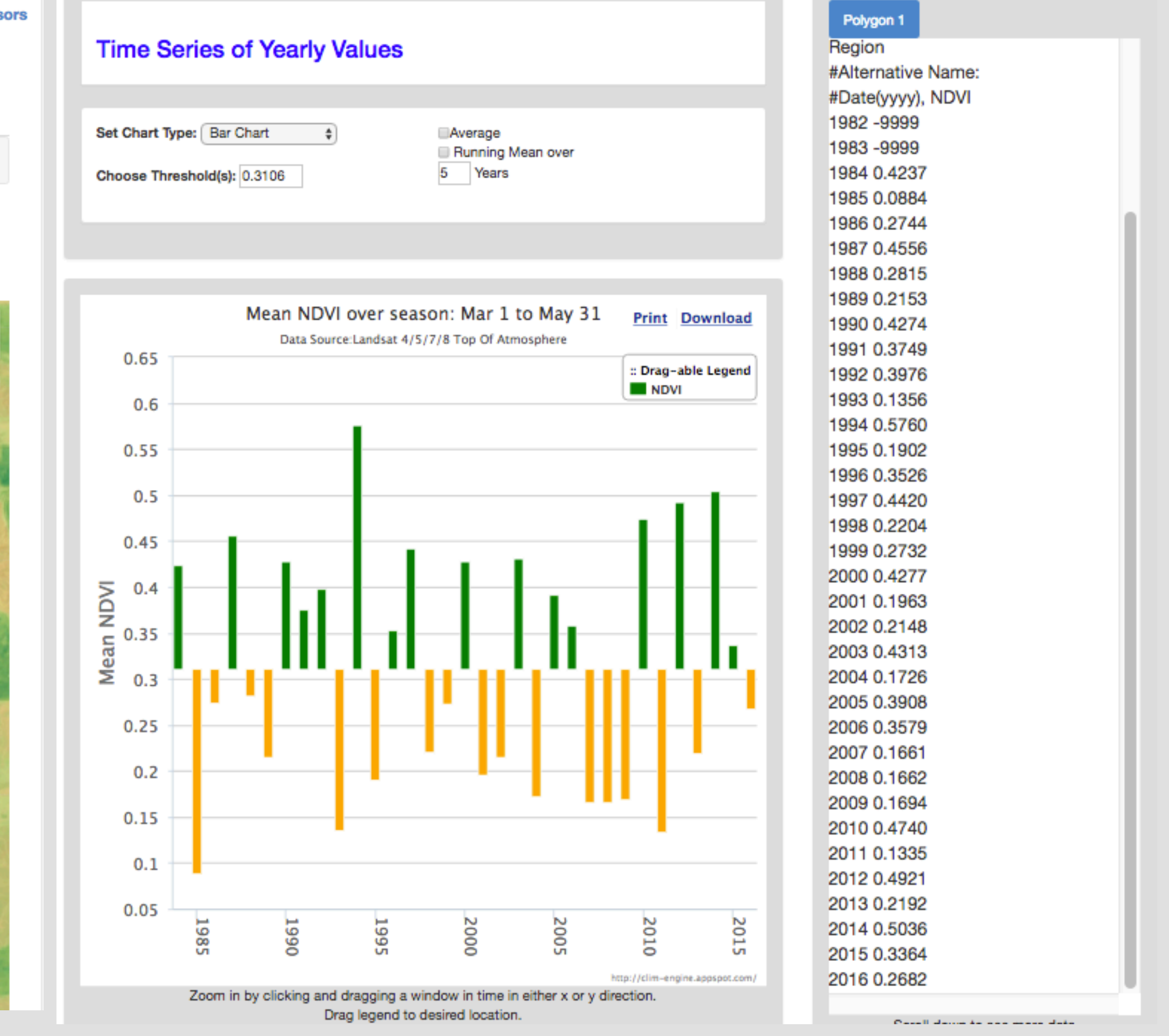


CLIMATE DASHBOARD

AGCLIMATE ATLAS

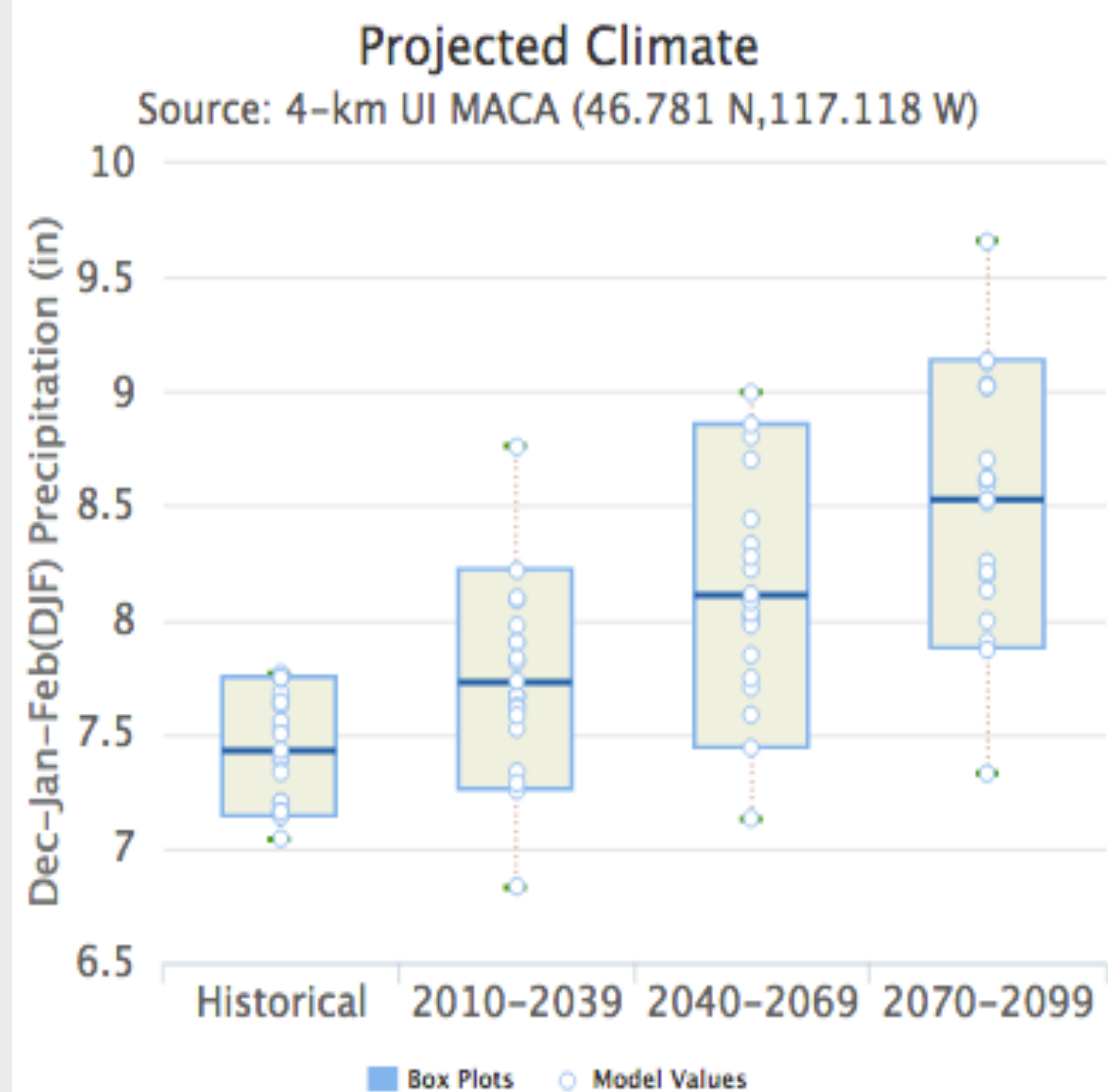


ClimateEngine.org Website

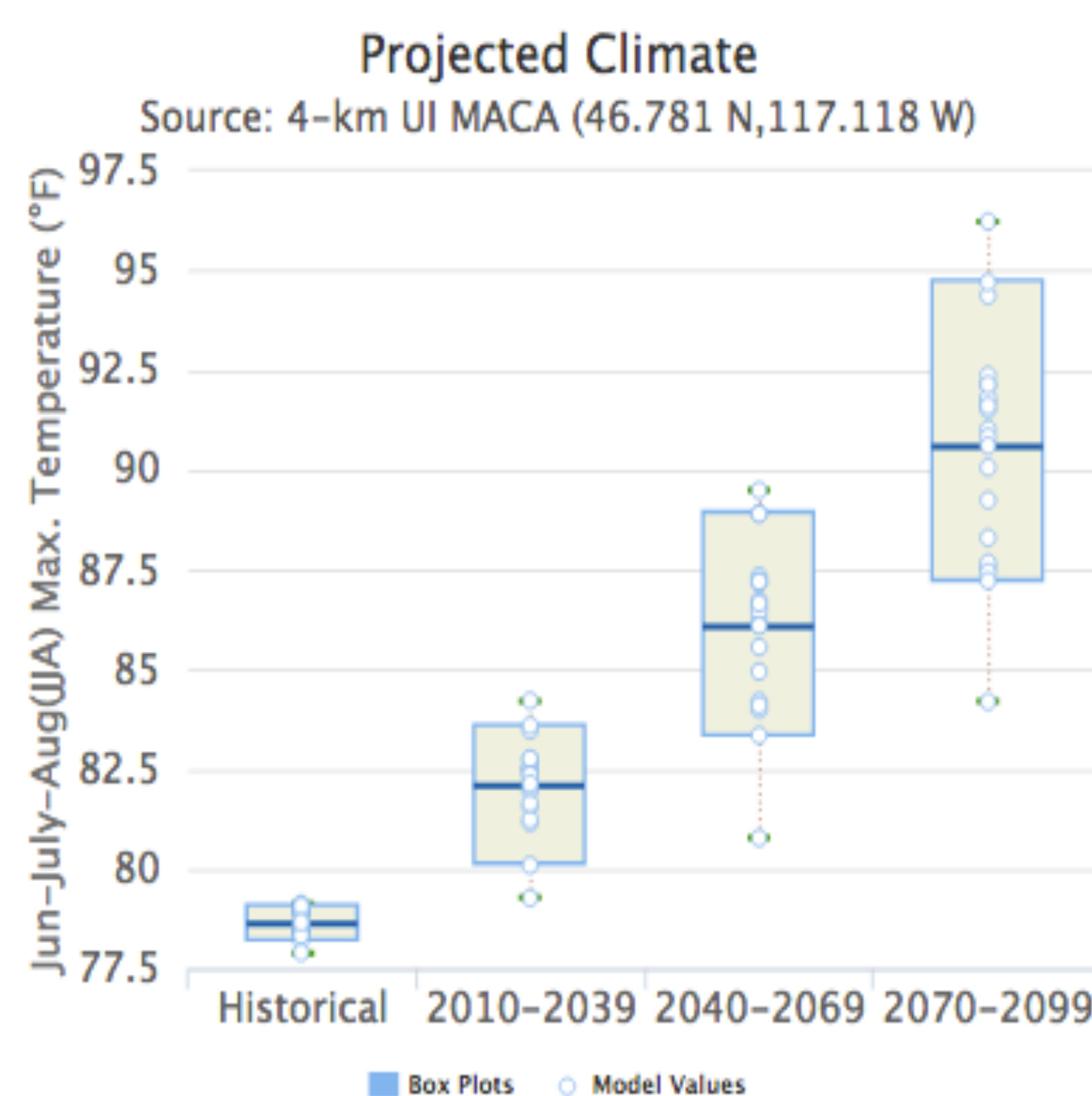


CLIMATE PROJECTIONS

PRECIPITATION



TEMPERATURE



Climate Dashboard

46.781° N, 117.118° W

Current Climate vs 2040-2069 under high future emissions scenario

Precipitation

Potential Evapotranspiration

| Icon | Current Climate | 2040-2069 Projection | Icon | Current Climate | 2040-2069 Projection |
|------|-----------------|----------------------|------|-----------------|----------------------|
| | 22.8" | 24.1" | | 35.9" | 42.1" |
| | Annual Total | Annual Total | | Annual Total | Annual Total |

Summer Temperatures

Winter Temperatures

| Icon | Current Climate | 2040-2069 Projection | Icon | Current Climate | 2040-2069 Projection |
|------|-----------------|----------------------|------|-----------------|----------------------|
| | 78.4° / 48.7° | 85.8° / 55.2° | | 37.6° / 25.2° | 42.7° / 31.7° |
| | High / Low | High / Low | | High / Low | High / Low |

Hottest Summer Day

Coldest Winter Day

| Icon | Current Climate | 2040-2069 Projection | Icon | Current Climate | 2040-2069 Projection |
|------|---------------------|----------------------|------|-------------------------------|-------------------------------|
| | 95.9° / 4 | 103.5° / 6 | | -0.3°F / 7a | 10.4°F / 8a |
| | Average / Heat Zone | Average / Heat Zone | | Average / Cold Hardiness Zone | Average / Cold Hardiness Zone |

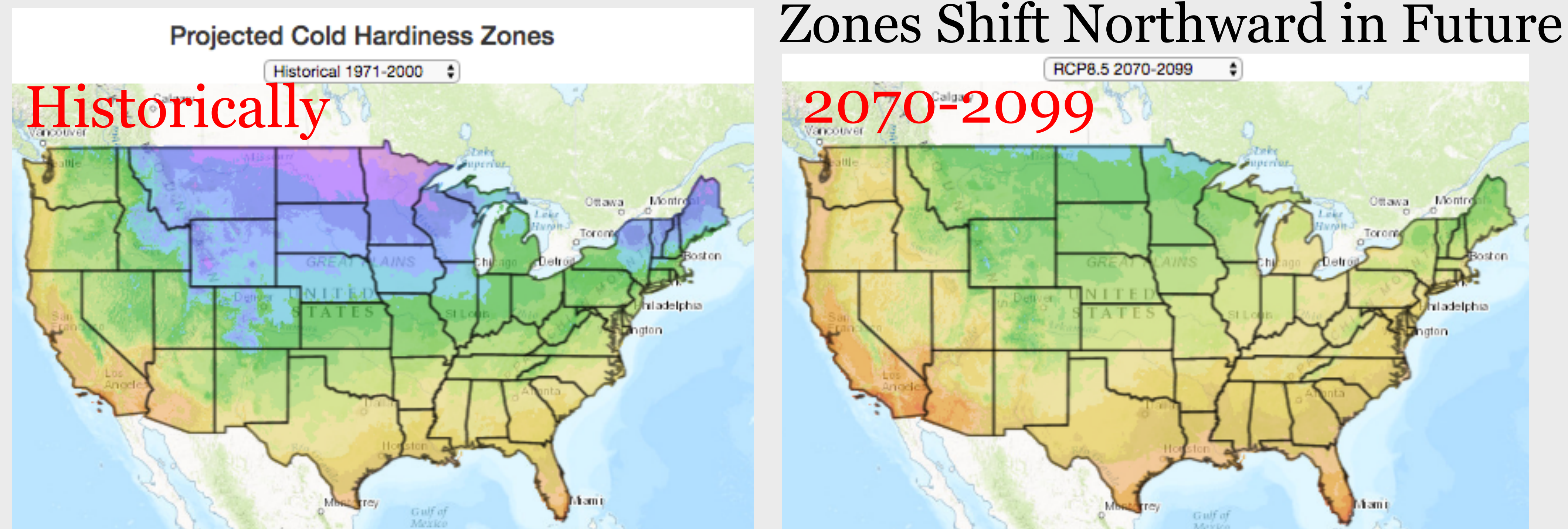
Last/First Freeze

Annual Freeze Free Days

| Icon | Current Climate | 2040-2069 Projection | Icon | Current Climate | 2040-2069 Projection |
|------|--------------------------|--------------------------|------|-----------------|----------------------|
| | May 6/ Oct 3 | Mar 17/ Oct 21 | | 241.4 days | 309.6 days |
| | Last Spring / First Fall | Last Spring / First Fall | | Annual Average | Annual Average |

CLIMATE CHANGE AND AGRICULTURE

COLD HARDINESS ZONES



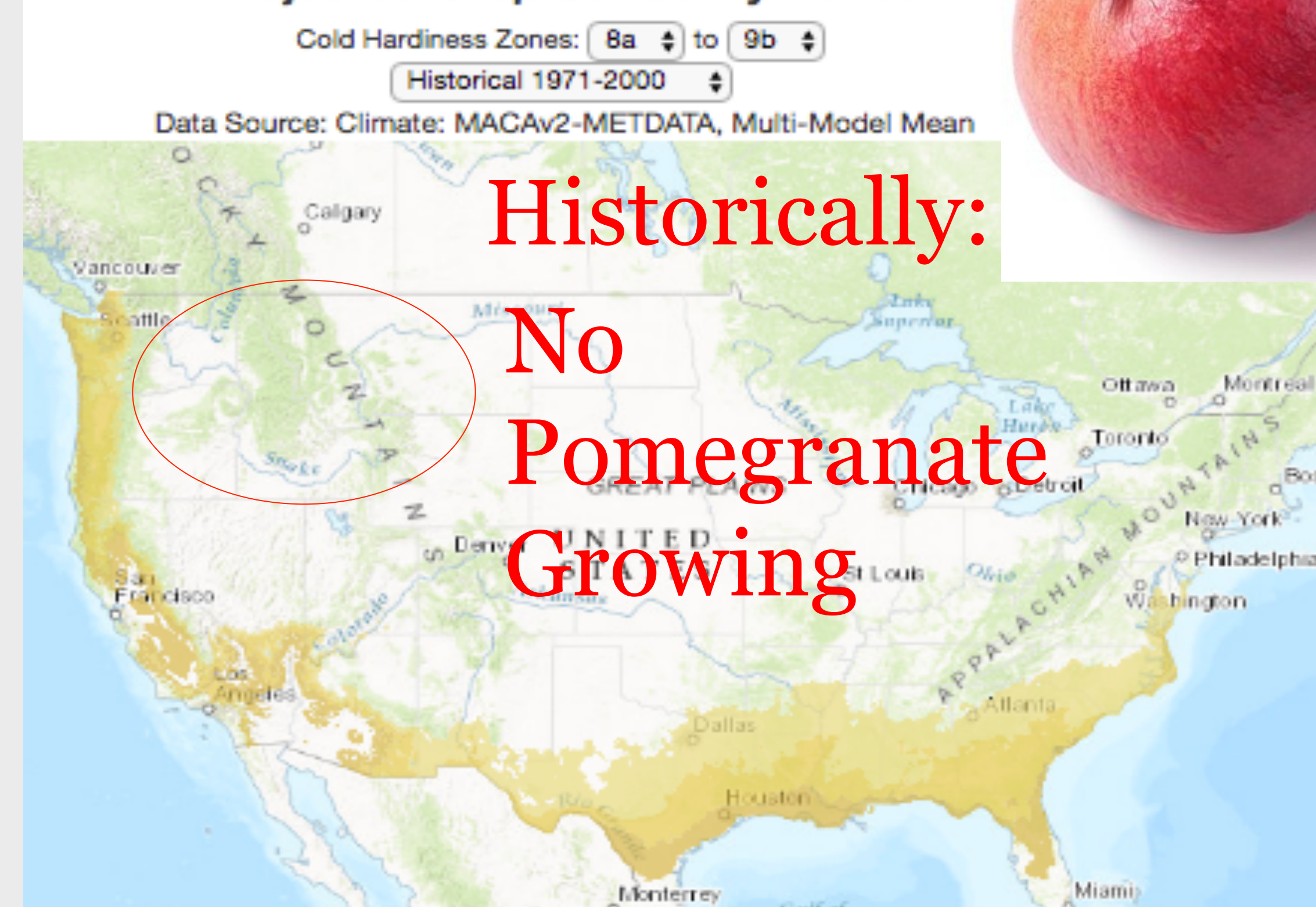
CROP SUITABILITY ZONES

Pomegranate fruits grow best in zones 8a – 9b

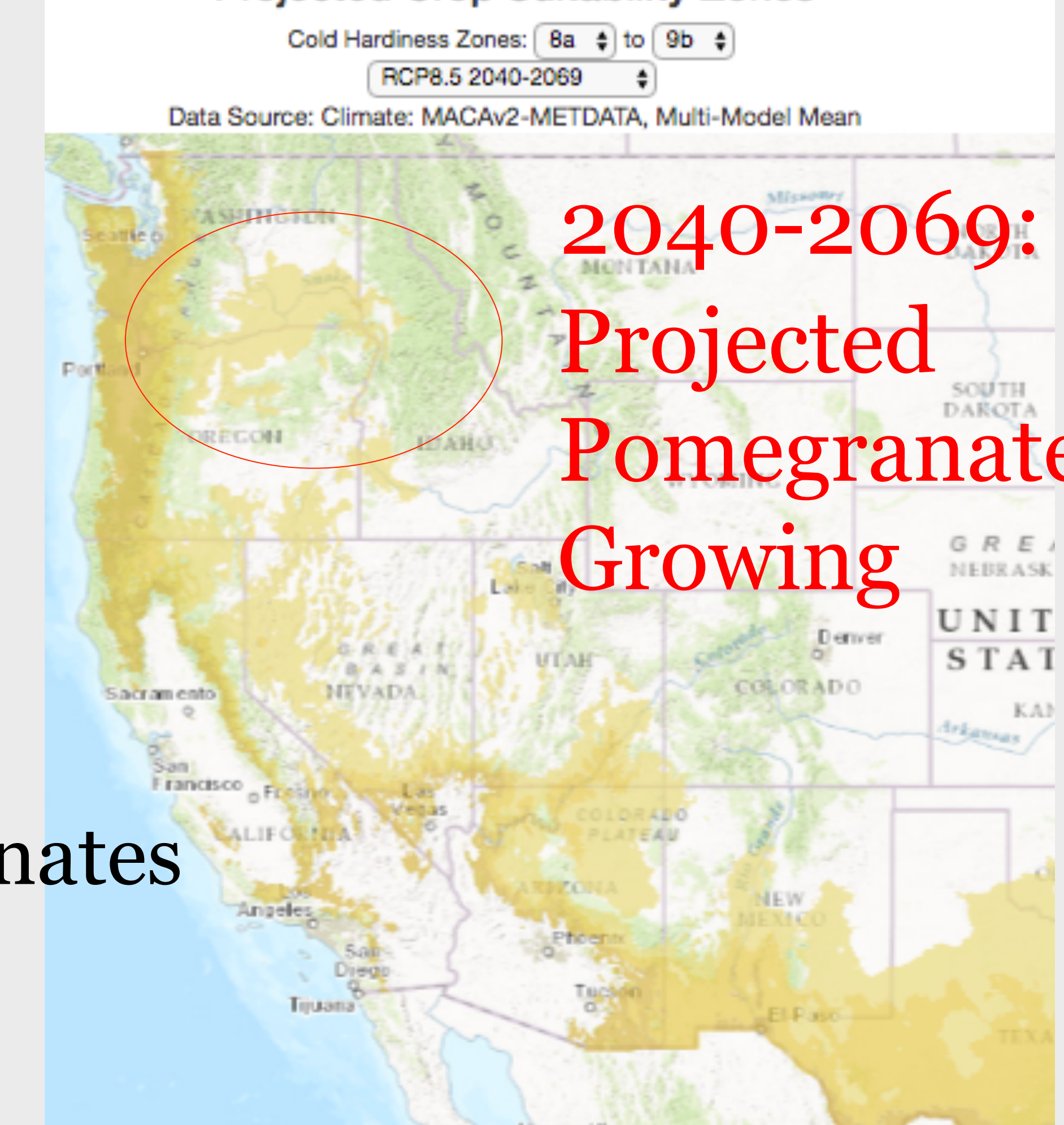


| Temp (F) | Zone | Temp (F) | Zone |
|------------|------|----------|------|
| -60 to -55 | 1a | 10 to 15 | 8a |
| -55 to -50 | 1b | 15 to 20 | 8b |
| -50 to -45 | 2a | 20 to 25 | 9a |
| -45 to -40 | 2b | 25 to 30 | 9b |
| -40 to -35 | 3a | 30 to 35 | 10a |
| -35 to -30 | 3b | 35 to 40 | 10b |
| -30 to -25 | 4a | 40 to 45 | 11a |
| -25 to -20 | 4b | 45 to 50 | 11b |
| -20 to -15 | 5a | 50 to 55 | 12a |
| -15 to -10 | 5b | 55 to 60 | 12b |
| -10 to -5 | 6a | 60 to 65 | 13a |
| -5 to 0 | 6b | 65 to 70 | 13b |
| 0 to 5 | 7a | | |
| 5 to 10 | 7b | | |

Projected Crop Suitability Zones



Projected Crop Suitability Zones



By 2040-2069,

Central Valley, CA: too hot for pomegranates

However, the Palouse is perfect!