Ag-Analytics

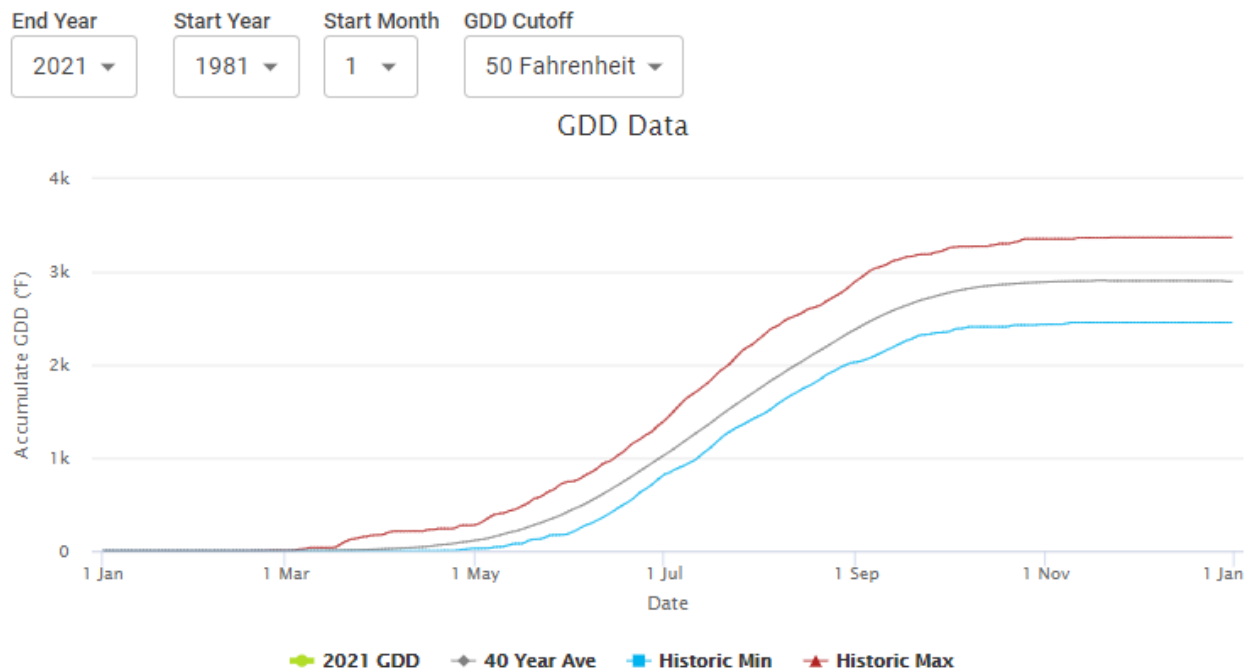# PRISM GROWING DEGREE DAYS

API Documentation 2021

 API Portal | GitHub Repo | Jupyter Notebook | Purchase

Service Overview

Growing degree days (GDD) are an important unit for tracking and predicting plant growth that represent the accumulated degrees above a specified temperature cutoff. The Ag-Analytics PRISM Growing Degree Day API uses data from Oregon State University's PRISM Climate Group to produce accumulation-to-date and historical growing degree days - the cumulative sum of days above 50°F.

PRISM GDD in DataLayers

GET Request

GET Request Example – application/json

https://ag-analytics.azure-api.net/prismgdd/?day={day}&month={month}&year={year} &coordinateX={coordinateX} &coordinateY={coordinateY}&startYear={startYear}

```
{
"year": "2019", "month": "3", "day": "1",
"coordinateX": "-88.9893385940128", "coordinateY": "40.010959177421654",
"startYear": "2009"
}
```

Header Parameters

Ocp-Apim-Subscription-Key: Subscription keys are given upon purchase -   Purchase APIs ⬈

Request Parameters

Parameter	Data Type	Required?	Options	Description
year	int	Yes	"2018", "2019"	The year of which you would like to receive data up to
month	int	Yes	"5","6","7"	Data end date refinement
day	int	Yes	"1","2","3"	Data end date refinement
startYear	int	Yes	"1980", "1981"	The year you would like the historical range to start
coordinateX	float	Yes	-88.98933	X coordinate for desired location
coordinateY	float	Yes	40.010959	Y coordinate for desired location

GET Response

GET Response Example (Snippet) – application/json

```
[{"CumGDD":[{"Date":"3-1","Accumulated GDD":0.0}, {"Date":"3-10","Accumulated
GDD":0.0}, {"Date":"3-11","Accumulated GDD":0.0}, {"Date":"3-12","Accumulated
GDD":0.0}, {"Date":"3-13","Accumulated GDD":0.0}, {"Date":"3-14",
"AccumulatedGDD":2.6054999999999993}, {"Date":"3-15","Accumulated
GDD":3.461399999999976}, {"Date":"3-16","AccumulatedGDD":3.461399999999976},
{"Date":"3-17","Accumulated GDD":3.461399999999976},{"Date":"3-18","Accumulated
GDD":3.461399999999976}, {"Date":"3-2","Accumulated GDD":0.0}, {"Date":"3-
3","Accumulated GDD":0.0}, {"Date":"3-4","Accumulated GDD":0.0}, {"Date":"3-
5","Accumulated GDD":0.0}, {"Date":"3-6","Accumulated GDD":0.0}, {"Date":"3-
7","Accumulated GDD":0.0}, {"Date":"3-8","Accumulated GDD":0.0}, {"Date":"3-
9","Accumulated GDD":0.0}]]}, {"AveGDD": [{"AccumulatedGDD":0.3359076923076923,
"Date":"3-1"}, {"Accumulated GDD":0.62760000000000027,"Date":"3-2"}, {"Accumulated
GDD":1.0639846153846158,"Date":"3-3"}...
```

Citations:

- Oregon State University PRISM Climate Group: **http://prism.oregonstate.edu/**

- Michigan State – Growing Degree Day Info:
  https://www.canr.msu.edu/news/understanding_growing_degree_days

Ag-Analytics

Please contact **support@analytics.ag** or **josh@ag-analytics.org** with any comments or questions.

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