

PRISM GROWING DEGREE DAYS

API Documentation 2020

[API Portal](#)

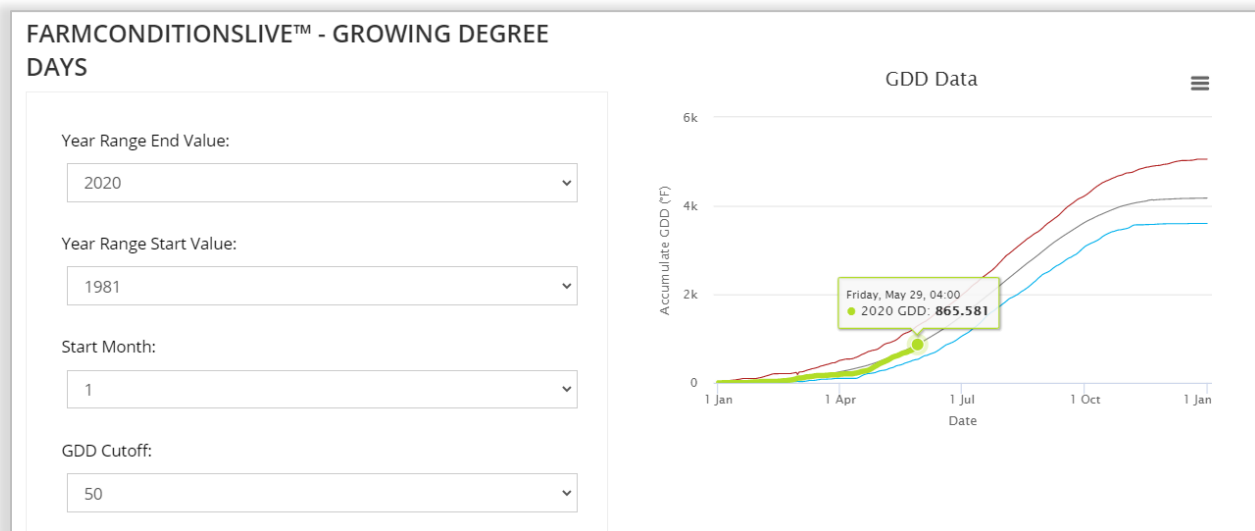
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Service Overview

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 a certain temperature cutoff.




PRISM GDD API in FarmScope

GET Request

GET Request Example

`https://ag-analytics.azure-api.net/prismgdd/?day={day}&month={month}&year={year}&coordinateX={coordinateX}&coordinateY={coordinateY}&startYear={startYear}&gddCut=50`

Header Parameters

Ocp-Apim-Subscription-Key: Subscription keys are given upon purchase - [Purchase APIs](#) 

Request Parameters

Parameter	Data Type	Required?	Example	Description
year	int	Yes	"2018", "2019"	Cumulative GDD year
month	int	Yes	"5", "6", "7"	GDD start month
day	int	Yes	"1", "2", "3"	GDD start day
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
gddCut	int	No	32, 50	GDD threshold temperature, default is set to 50



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":3.4613999999999997}, {"Date":"3-16","AccumulatedGDD":3.4613999999999997}, {"Date":"3-17","Accumulated GDD":3.4613999999999997}, {"Date":"3-18","Accumulated GDD":3.4613999999999997}, {"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":0.6276000000000002, "Date":"3-2"}, {"Accumulated GDD":1.0639846153846158, "Date":"3-3"}, ... {"MinGDD": [{"Accumulated GDD":0.0, "Date":"1-1"}, {"Accumulated GDD":0.0, "Date":"1-3"}, ... {"MaxGDD": [{"Accumulated GDD":0.0, "Date":"1-1"}, {"Accumulated GDD":0.0, "Date":"1-3"}, {"Accumulated GDD":0.0, "Date":"1-4"}] ...
```

Returns cumulative growing degree days for the given year, average GDD for the desired date range, minimum GDD for the given date range, and maximum GDD for the given date range.

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



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

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