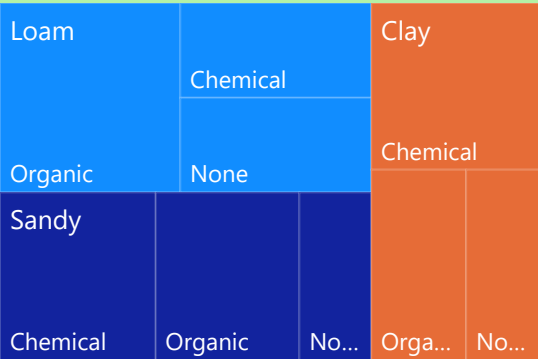


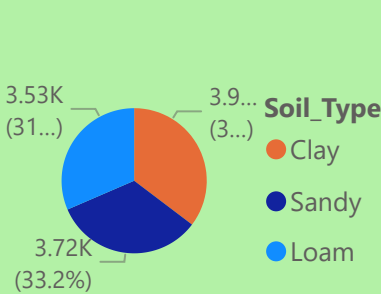
# Predicting Plant Growth Stages with Environmental and Management Data

## Using Power BI

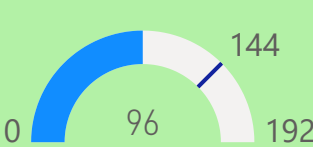
Sum of Growth\_Milestone by Soil\_Type and Fertilizer\_Type



Sum of Humidity by Soil\_Type



Sum of Growth\_Milestone and Target value of Growth

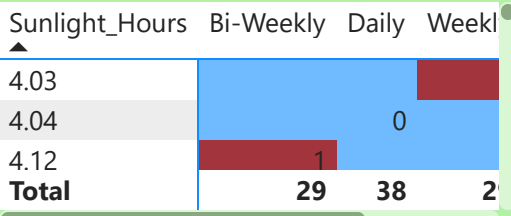


25.08

AverageTemperature

58.10

AverageHumidity



1.32K

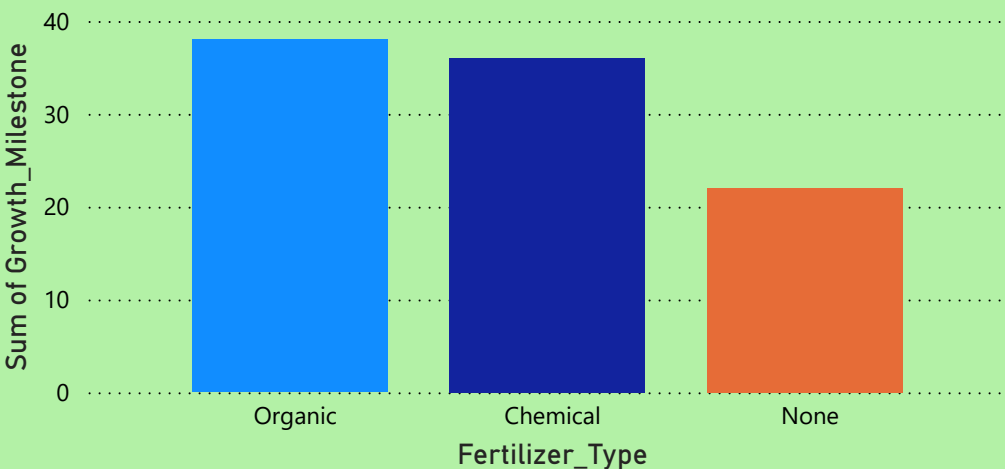
TotalSunlightHours

96

MilestoneCount

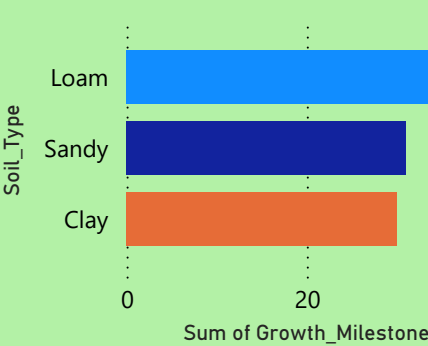
Sum of Growth\_Milestone by Fertilizer\_Type and Fertilizer\_Type

Fertilizer\_Type ● Organic ● Chemical ● None



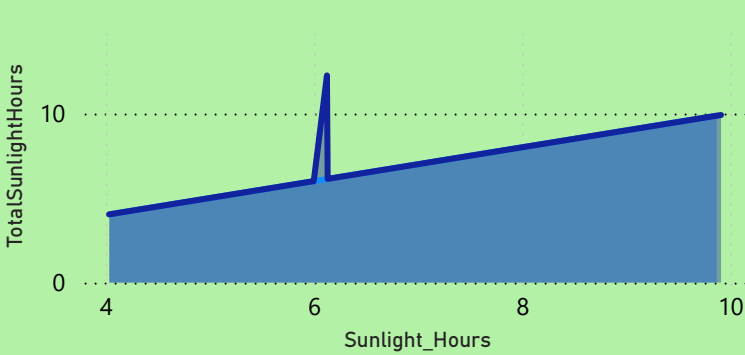
Sum of Growth\_Milestone by Soil\_Type and Soil\_Type

Soil\_Ty... ● Loam ● Sandy ● Clay



TotalSunlightHours by Sunlight\_Hours and Growth\_Milestone

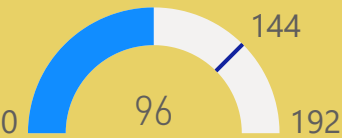
Growth\_Milest... ● 0 ● 1



# Correlation Between Sunlight, Watering, and Growth

At 96, Sum of Growth\_Milestone is currently only 33.33% away from the target goal of 144.

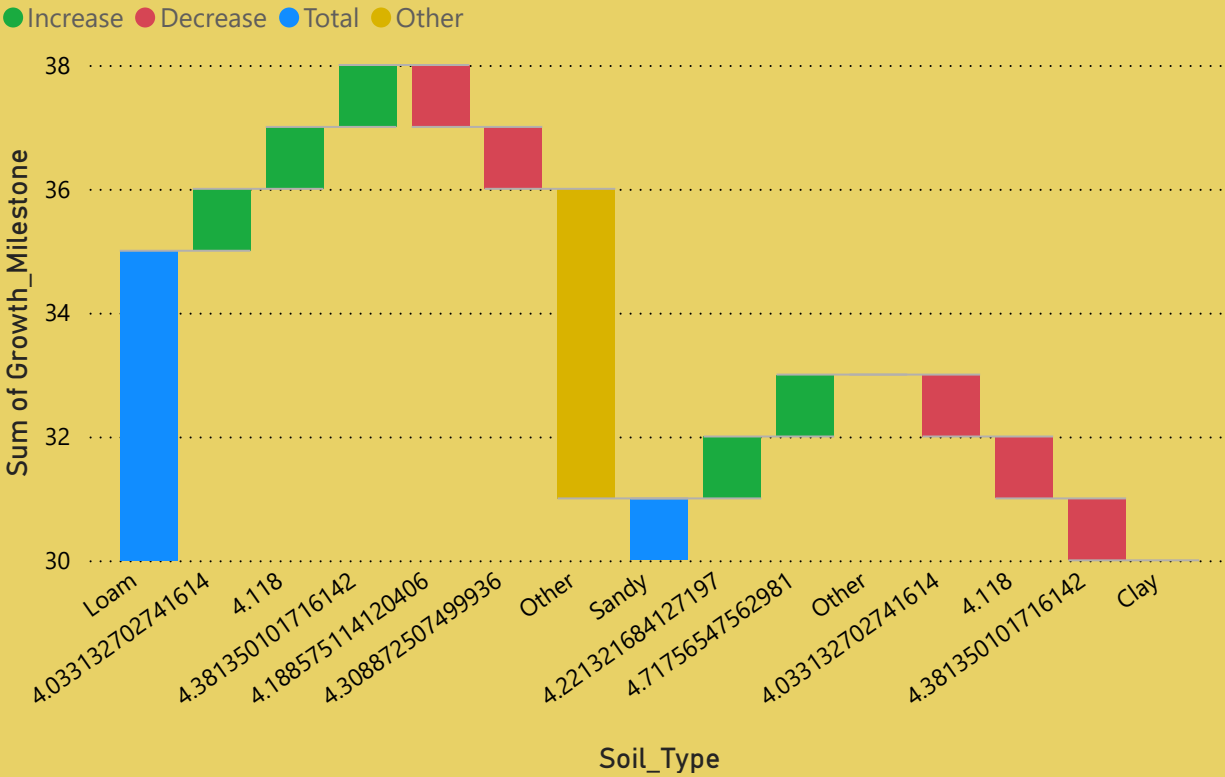
Sum of Growth\_Milestone and Target value of Growth



Sunlight\_Hours

Sunlight_Hours	Bi-Weekly	Daily	Weekly	Total
4.03			1	1
4.04		0		0
4.12	1			1
4.15		0		0
4.19	1			1
4.22	1			1
4.24		0		0
4.31	1			1
4.37			0	0
4.38		1		1
4.44		1		1
4.46	0			0
4.54		1		1
4.55		1		1
4.57	1			1
4.65		1		1
4.65			0	0
4.66			0	0
4.67		0		0
Total	29	38	29	96

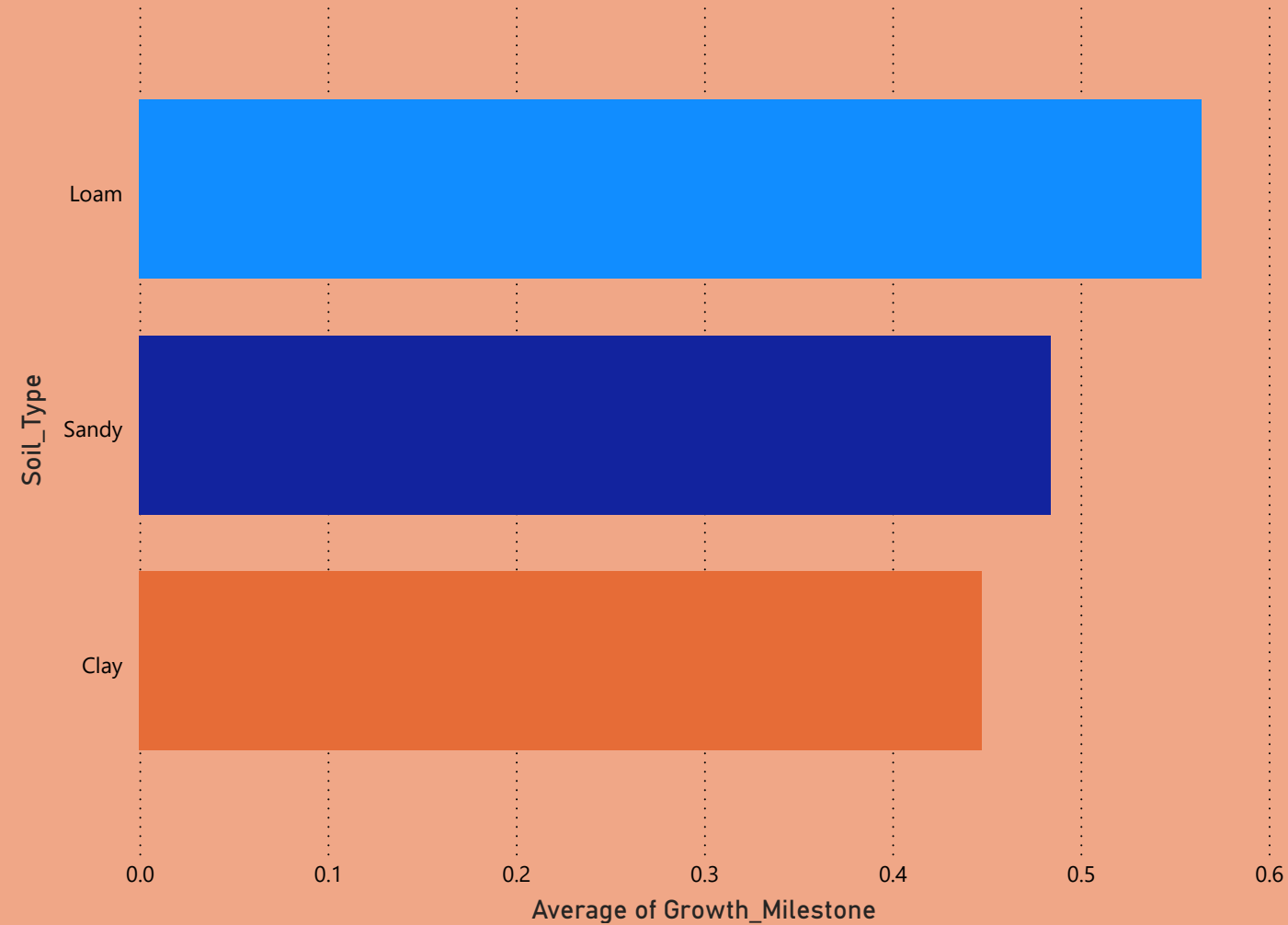
Sum of Growth\_Milestone by Soil\_Type and Sunlight\_Hours



# *Effect of Soil Type on Growth*

Average of Growth\_Milestone by Soil\_Type and Soil\_Type

Soil\_Type ● Loam ● Sandy ● Clay



Growth\_Milestone



0

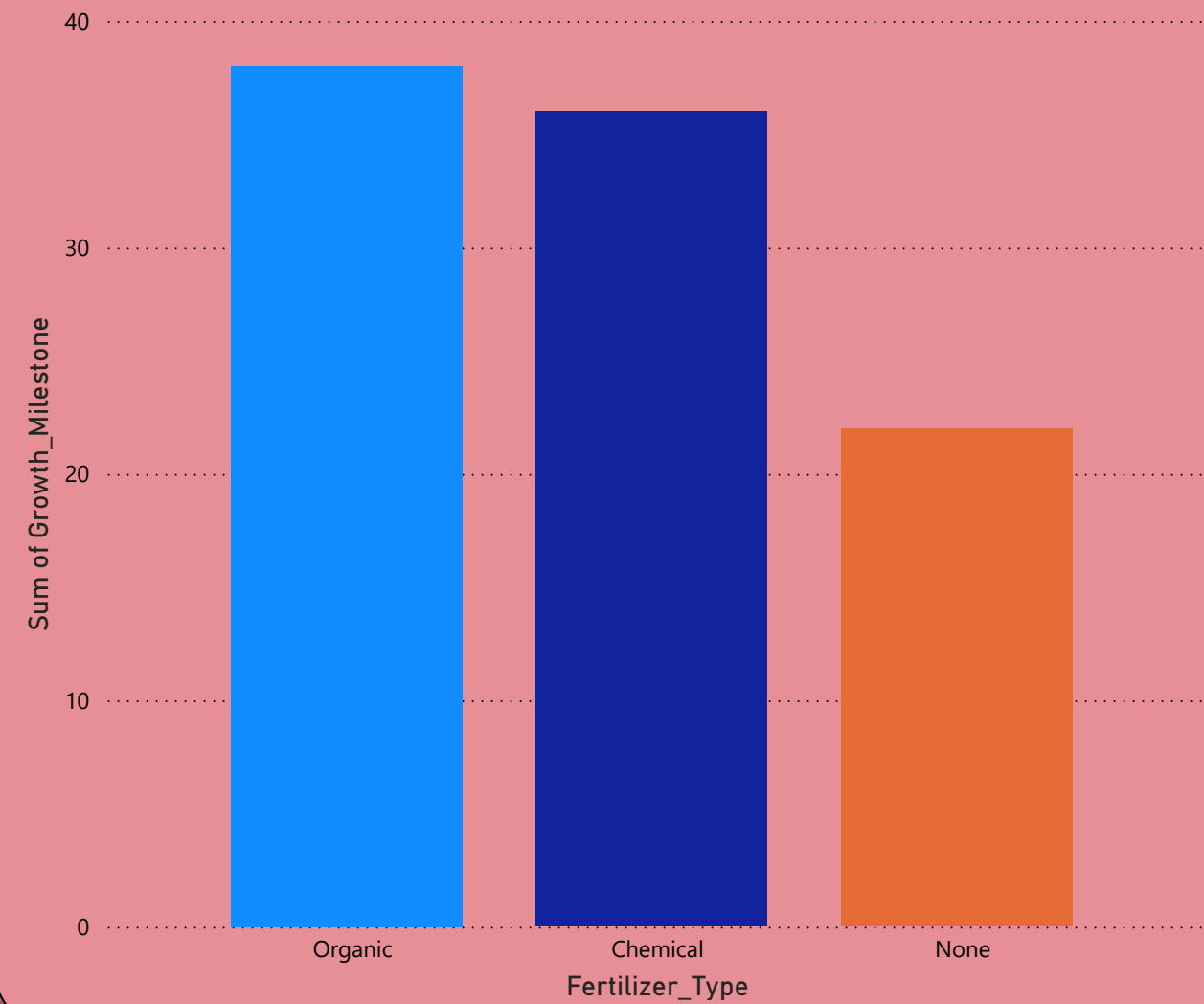
1



# Fertilizer Effectiveness

Sum of Growth\_Milestone by Fertilizer\_Type and Fertilizer\_Type

Fertilizer\_Type ● Organic ● Chemical ● None



Fertilizer\_Type



Chemical

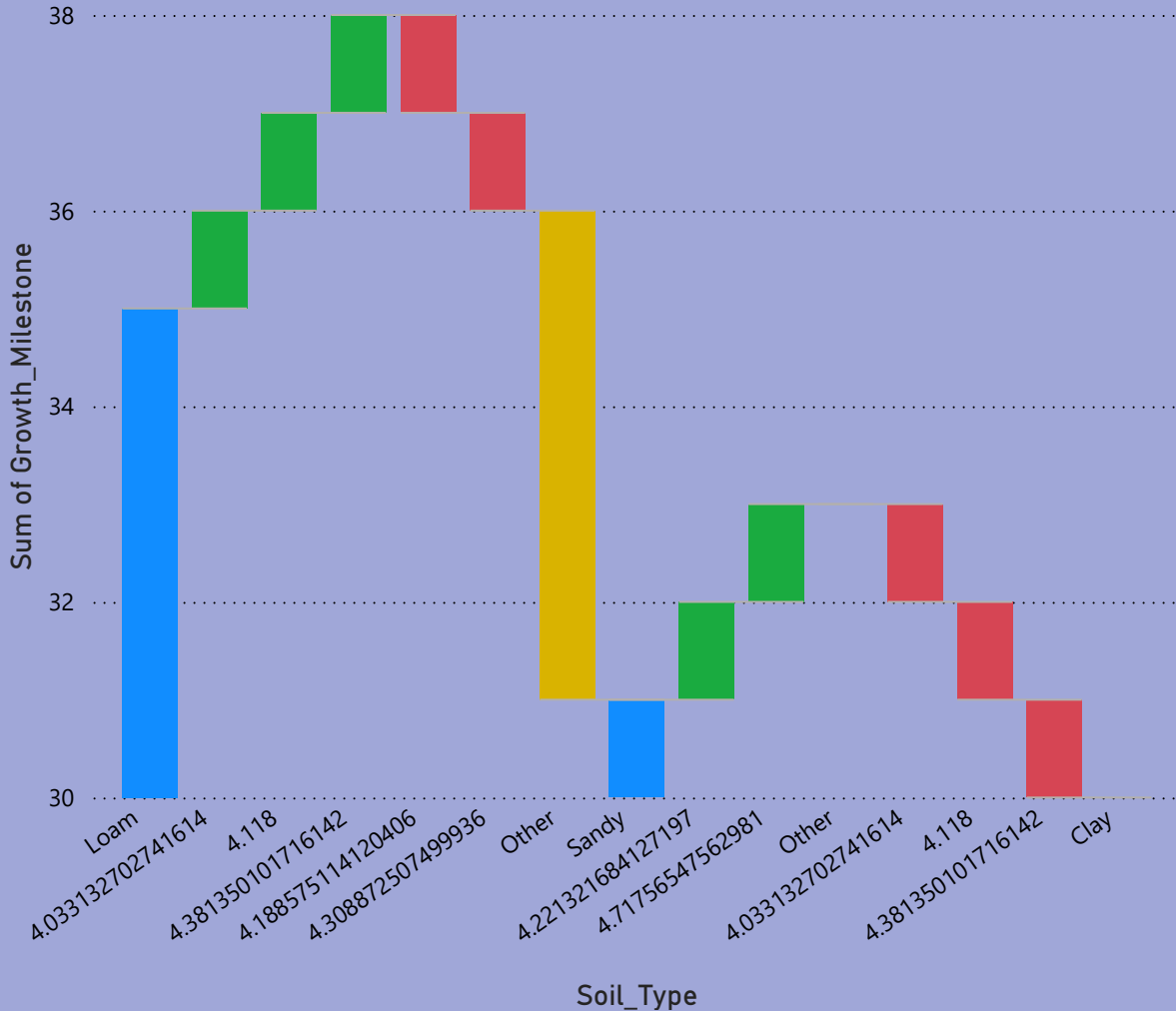
None

Organic

# Impact of Environmental Factors on Growth

Sum of Growth\_Milestone by Soil\_Type and Sunlight\_Hours

● Increase ● Decrease ● Total ● Other



Soil\_Type

Clay

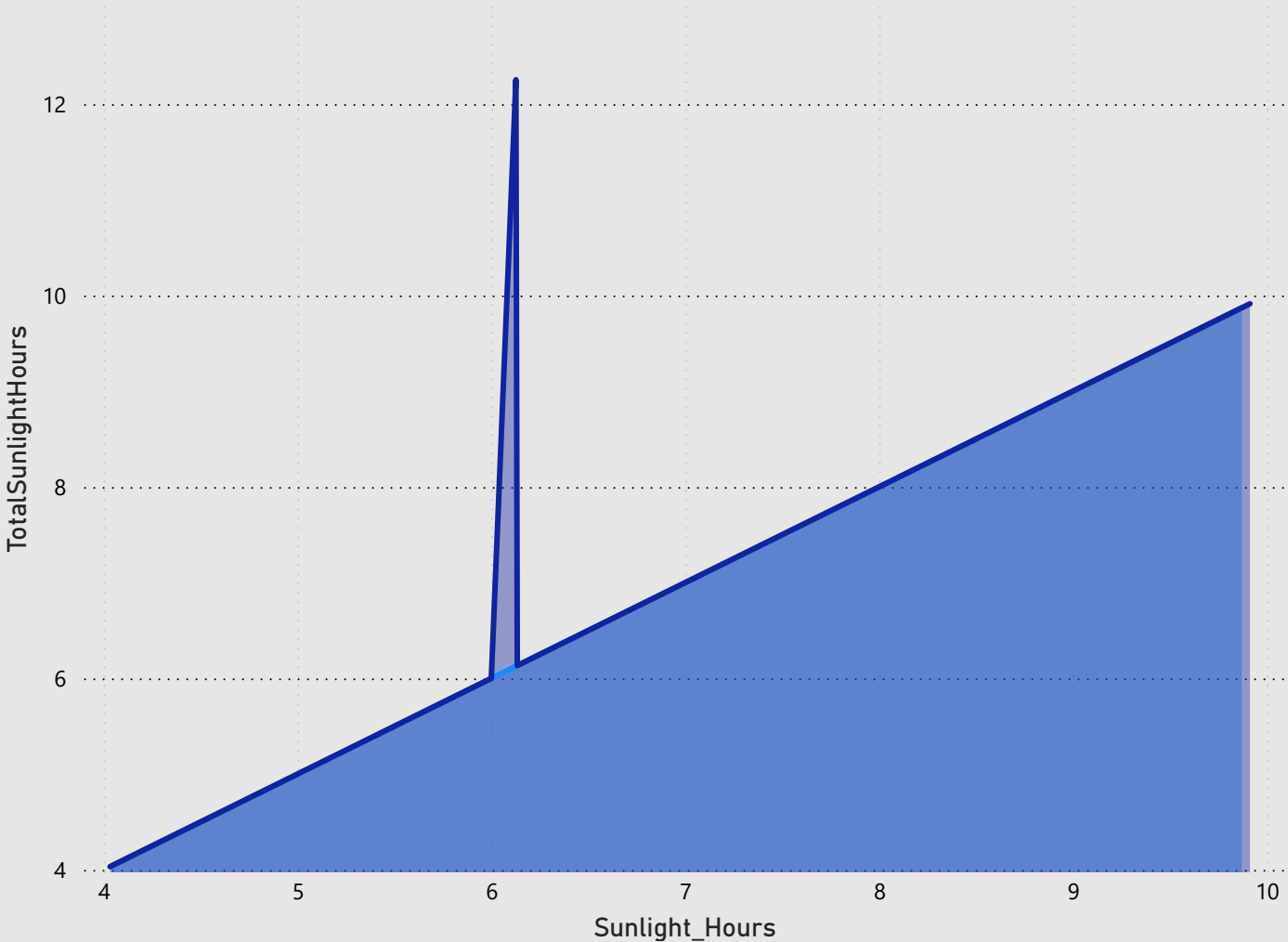
Loam

Sandy

Cumulative Sunlight and Watering Impact on Growth

TotalSunlightHours by Sunlight\_Hours and Growth\_Milestone

Growth\_Milestone ● 0 ● 1



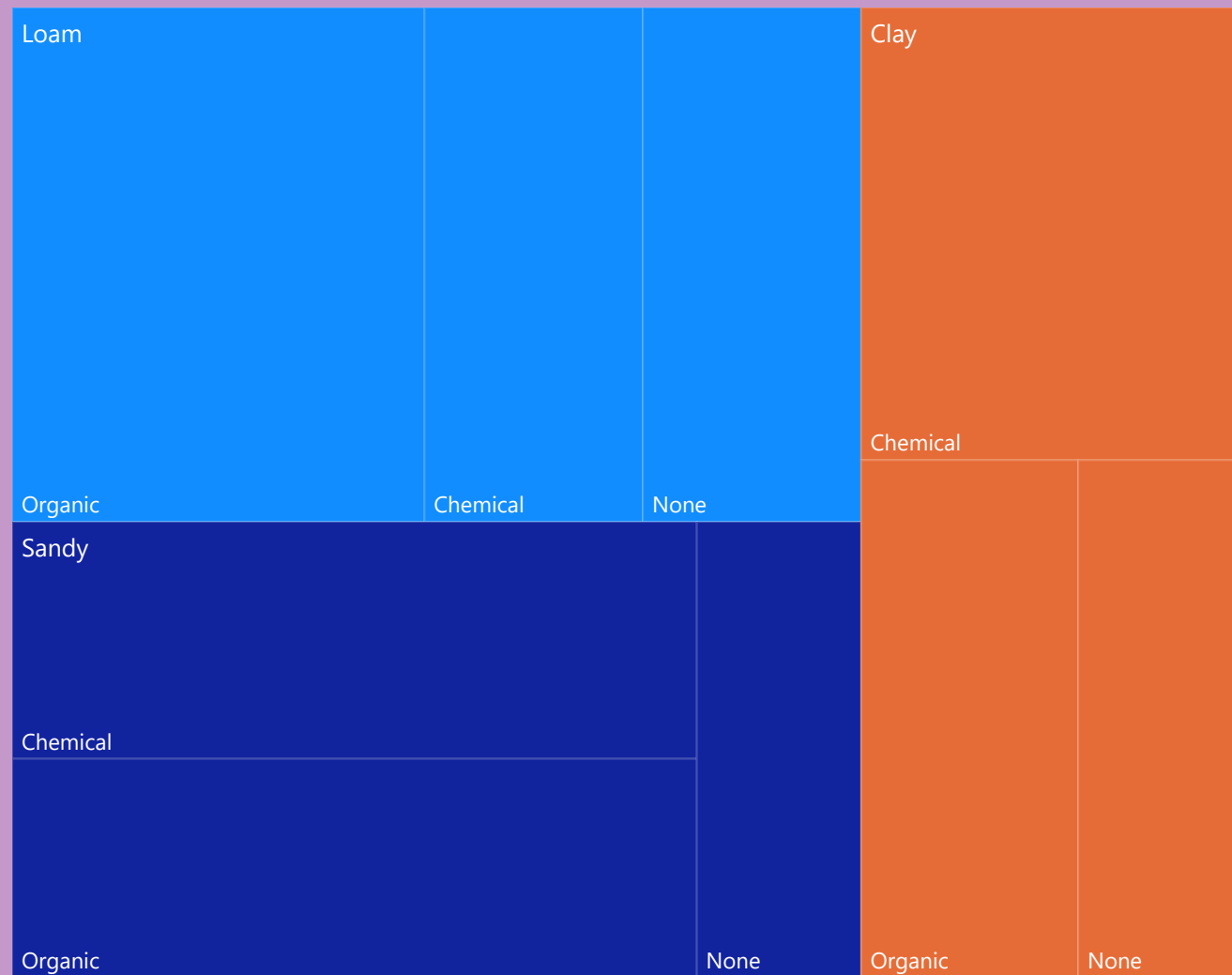
Growth\_Milestone

☐ 0

☐ 1

# *Distribution of Growth Milestones Across Soil and Fertilizer Types*

Sum of Growth\_Milestone by Soil\_Type and Fertilizer\_Type



Soil\_Type

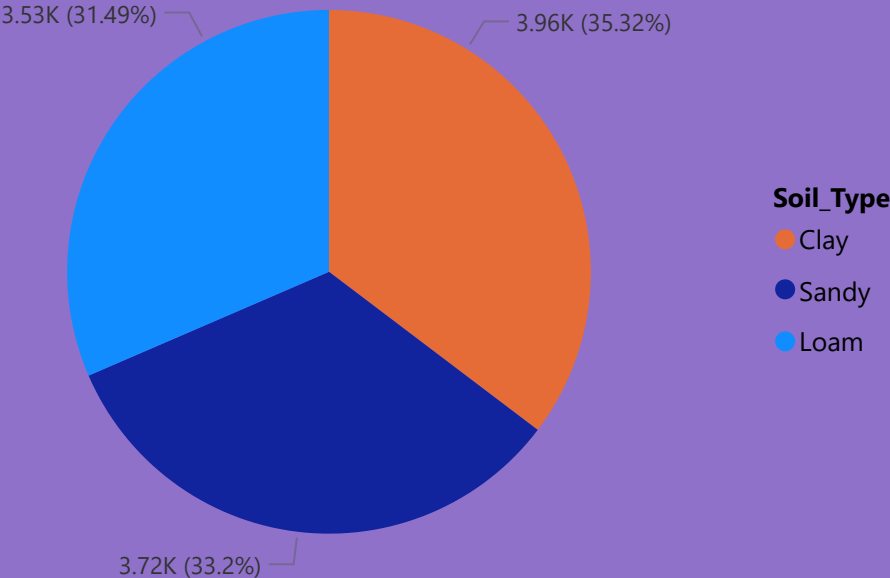
☐ Clay

☐ Loam

☐ Sandy

# Humidity Trend by Soil type

Sum of Humidity by Soil\_Type



Humidity

