Wander Kinmen Farmland and Trail

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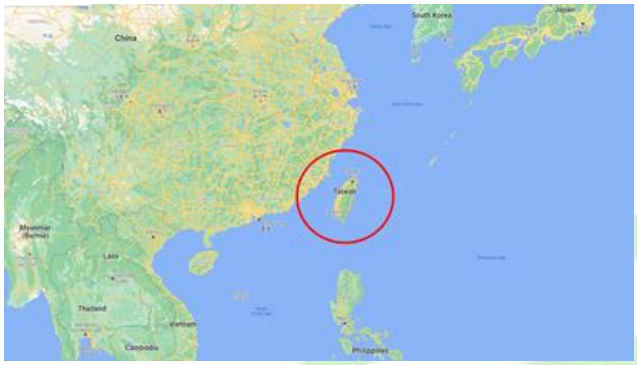
Team Photo

Abstract

Sorghum is the major economic crop of Kinmen. Because Sorghum plants’ growth increments are mainly in summer and autumn, the farmlands are in the fallow period in winter and spring as a result, which may cause income losses.Besides, the soil needs to rest, which makes local people plant wheat that originated in the west more, although the profit is not high to them, it is abnormal profit-preserved abroad, resulting in locals planting wheat.
After we made improvements to the wheat, it became one of the ingredients for Kinmen to produce wine and export them.Wheat and Sorghum respectively account for about half of the crops grown in Kinmen. Most of the wheat grown in Kinmen is "Triticum aestivum L. em Thell".This type of wheat is not very sensitive to air temperature and the amount of sunshine. What's more, they can stand excessive fertilizer, are more suitable for heavy rain, not easily disturbed by diseases. Furthermore, the time for this wheat ripe is between 120 and 125 days, producing 3,700 kilograms per hectare on average.

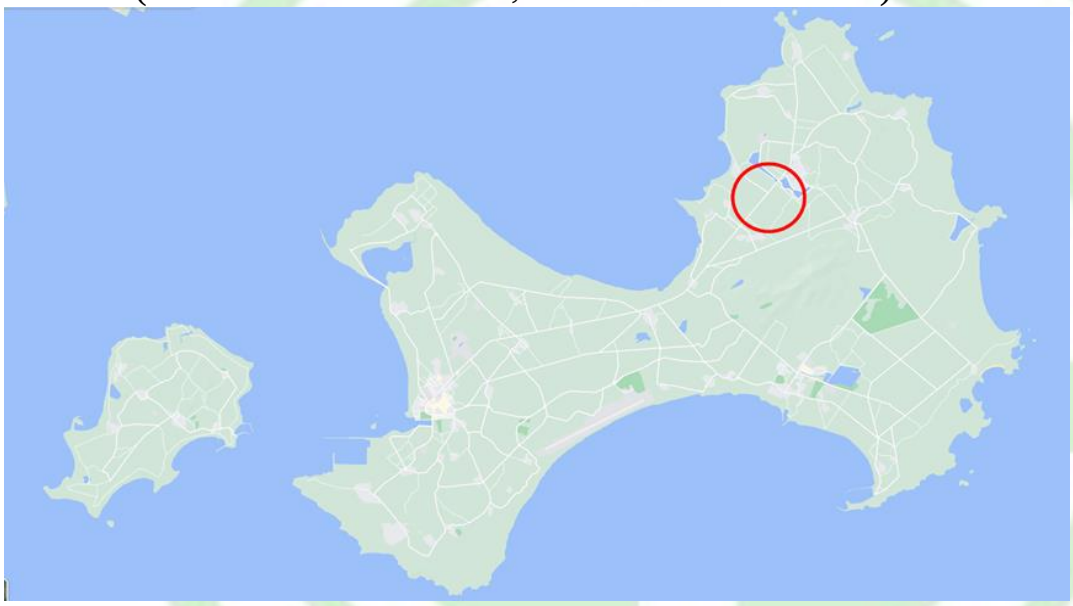
Observation Location

Asia



Taiwan

Kinmen (118.40442254220001°E, 24.48067133699624°N)



Research Motivation

In addition to sorghum wine, there is another kind of wine called "tachu liquor"(jiuqu wine) in Kinmen, so we wanted to explore how "koji", which is wheat, grows in Kinmen, and what the difference is between it and sorghum? The same plants that can be made into wine will not make a big difference. In addition, the roads that farmers take every day will vary with the weather and the seasons, and the scenery every day is also different, so we want to study the growth of wheat and the scenery of the small roads that farmers pass through every day

Research Purpose

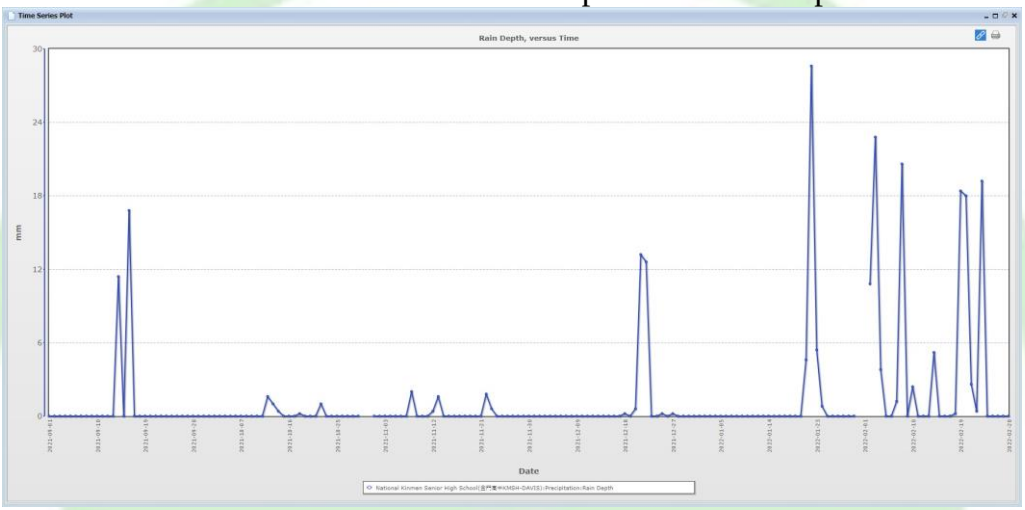
1. To understand the growth condition of Triticum in Kinmen, and how they look at every different time of the year.
2. Study the changing scenery of the trail every day.

Research Method

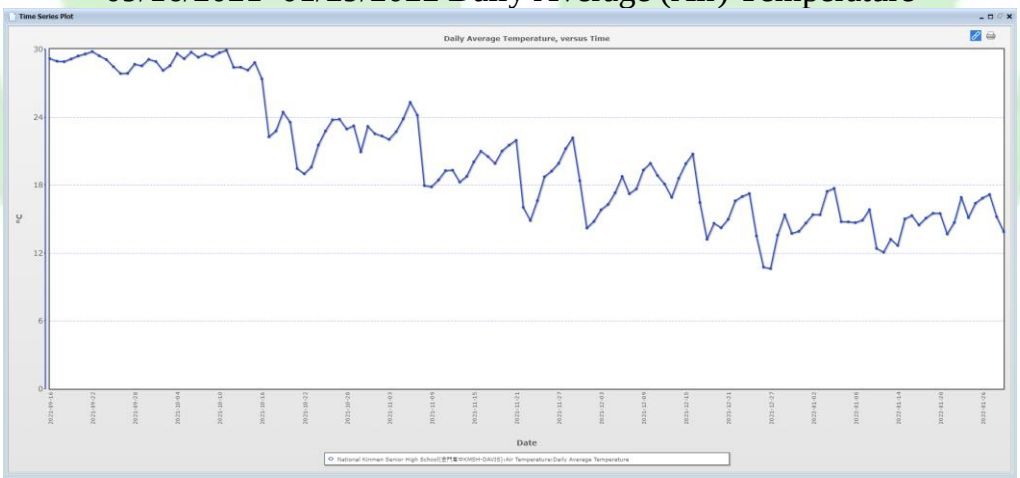
Every member of our team will take a photo in the area chosen by ourselves, and we compare the photos we shot with the changes in the graphs of precipitation, air temperature, and relative humidity.

Research Process

09/01/2021~02/01/2022 Precipitation-Rain Depth



09/16/2021~01/29/2022 Daily Average (Air) Temperature

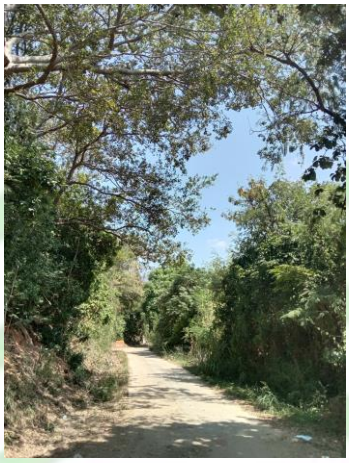
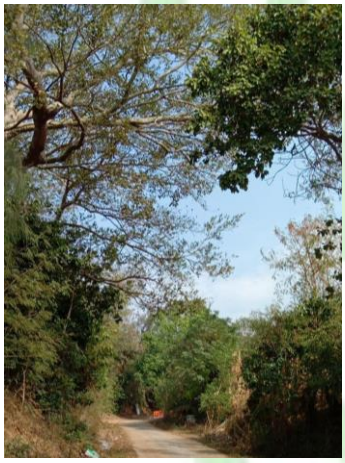
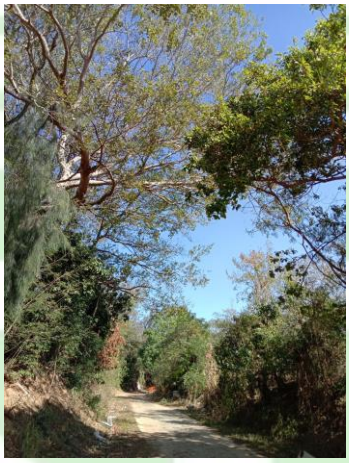
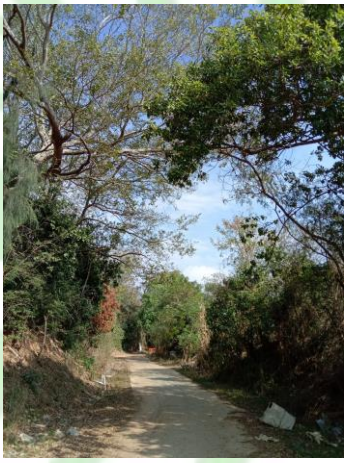
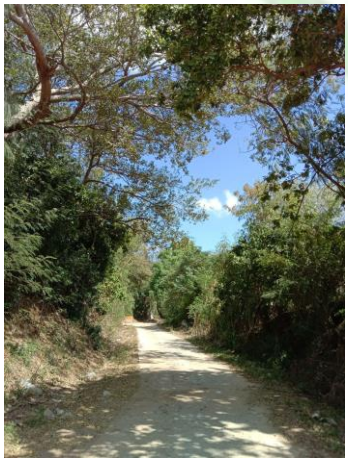
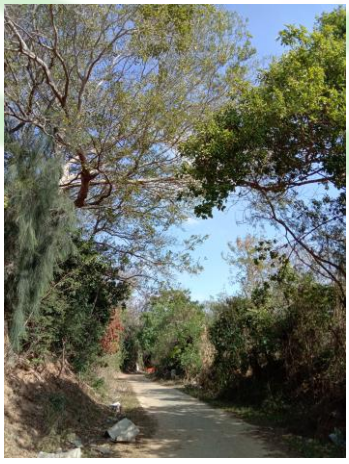
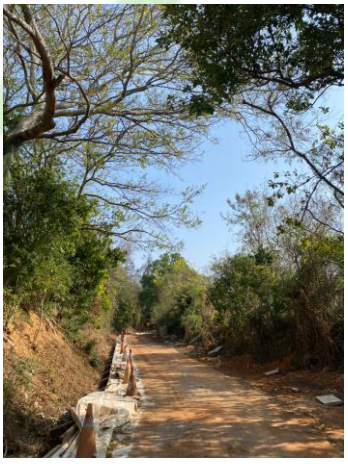


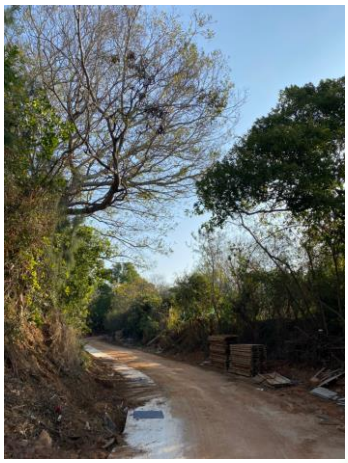
Photos of Triticum Field

9/15/2021	9/26/2021	10/3/2021
		

10/10/2021 (Harvesting Sorghum)	10/15/2021	10/23/2021
		
11/23/2021	**11/26/2021**	**12/5/2021**
		
12/18/2021 (Planting Triticum)	**12/25/2021**	**1/1/2022**
		
1/8/2022	**1/15/2022**	**1/22/2022**
		

Photos of the Trial of Gleditsia Triacanthos

9/19/2021	9/26/2021	10/3/2021
		
10/10/2021	**10/31/2021**	**11/14/2021**
		
11/21/2021	**11/27/2021**	**12/31/2021**
		
1/8/2022	**1/22/2022**	**1/29/2022**

		
2/4/2022		
		

Discussion

1. Will relative humidity and air temperature take effect on the growth of Triticum?
Half a month after the germination of wheat, it entered the tiller period, which requires a lot of water, and the rain. on Jan. 22 made the wheat grow rapidly.

2022/01/15 2022/01/22

2. Does the rain help plants grow along the trail in winters?
No, the acacia trees' leaves fall faster and the road becomes muddier.

Conclusion

1. After we collate the air temperature and precipitation, except for rain in mid-September, most of the time is consistent with the growth of sorghum.
2. There was no crop in the soil from mid-October to December, proving that sorghum is not hardy enough to be harvested in October.
3. The sudden drop in temperature has caused many fewer leaves on both sides of the path, and the plants along the path are also not cold-resistant.

References

1. Cultivation and management of sorghum in Kinmen area: https://reurl.cc/Npbj66
2. GLOBE: https://globe.gov
3. Management of Wheat Cultivation in Kinmen Area: https://reurl.cc/Lpebn3
4. Triticum aestivum L. em Thell: https://reurl.cc/3jZOXX