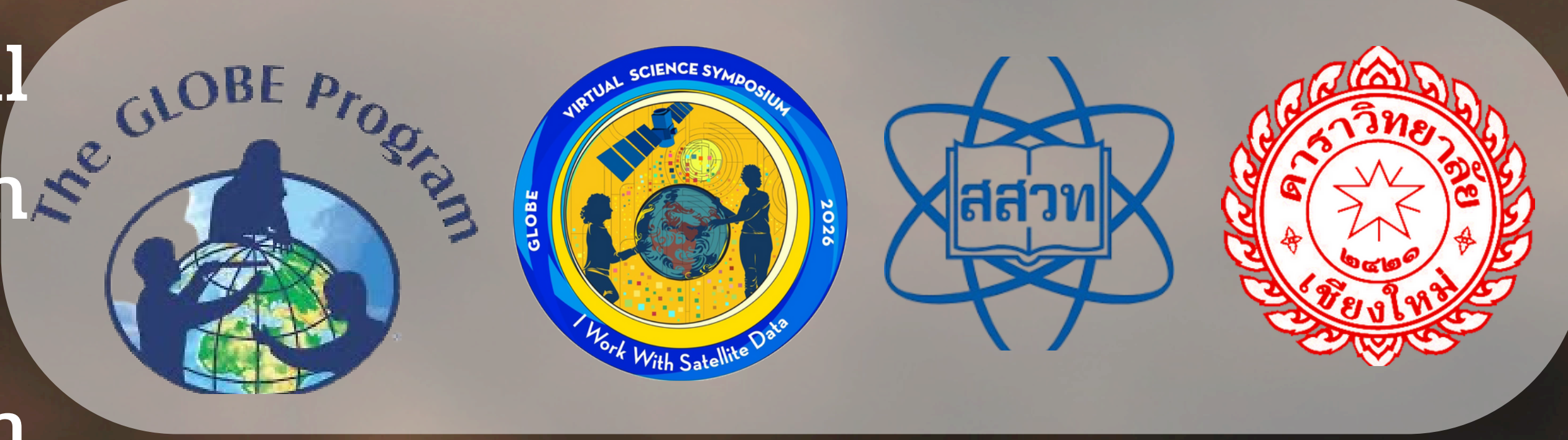


The study examined the relationship between soil moisture, soil temperature, and soil cover type in the area of Dara Academy School and in areas of Mueang District, Mae Rim District, San Sai District, Sarapee District, and Mae Jo District.



RESEARCH TEAM

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Summary of results

The study of soil pH levels in Mae Rim, Mae Jo, Saraphi, Mueang, and Dara Academy School shows that soil pH varies from slightly acidic to alkaline. These differences directly affect nutrient availability and the ability of plants to grow properly in each area. Soils with pH values close to neutral are generally more suitable for plant growth, while soils that are too acidic or too alkaline may require improvement before use. Therefore, understanding soil pH is essential for effective land-use planning, soil management, and plant selection, helping to ensure sustainable and efficient use of soil resources.

Objectives of the Study:

This research aims to study soil acidity-alkalinity (pH) values and soil color within Dara Academy School and selected sample areas in Chiang Mai Province in order to assess soil quality and its suitability for use. Soil samples were collected from areas with different types of land use and analyzed for acidity-alkalinity (pH) using a soil pH meter. Soil color was classified using the standard Munsell Soil Color Charts. The results showed that soil pH values and soil color varied according to land use characteristics and environmental conditions, reflecting differences in soil composition. The data obtained from this study serve as important indicators for assessing soil quality and can be used as guidelines for soil management and improvement to ensure suitability for cultivation and effective land use within the school and other areas.

Keywords: Soil pH, Soil color, Soil quality, Dara Academy School, Chiang Mai Province

Research Preparation Phase

- | | |
|-------------------------------|---|
| 1. Study Area | 2. Prepare and calibrate the pH meter before conducting the experiment. |
| Area of Daravittayalai School | |
| Area of San Sai District | 3. Prepare the equipment for recording pH values. |
| Area of Saraphi District | |
| Area of Mae Rim District | |

Research Questions ?

1. Do soils vary from place to place, and what are they suitable for?
2. How can data from soil quality studies be used in agriculture?
3. What crops can be grown on these soils?

Background and Significance of the Problem

Soil is an important natural resource for agriculture and daily use. Soil quality directly affects plant fertility and the environment. Darawittayalai School has areas for agricultural activities as well as general use, and the soil in each area may differ in terms of acidity-alkalinity and nutrient content. Therefore, studying soil quality is important in order to understand the soil conditions in different areas and to use the information to improve the soil so that it is suitable for plant cultivation.

Dara Academy SCHOOL



- Agricultural plots
- Dararatsami Building courtyard
- Herb garden
- Sophia flower and plantgarden
- Rock garden

THE AREA AROUND

THE RESEARCHER'S HOUSE

- Football field
- Rice field
- Flower garden
- Tree-lined area
- Globe inpection area

- MAE JO DISTRICT 18.908244,99.025631
- MUEANG DISTRICT 18.804987,98.9852
- SARAPHI DISTRICT 18.713323,99.03641
- SAN SAI DISTRICT 18.848641,99.045099
- MAE RIM DISTRICT 18.914137,98.944728



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Discussion

Soil pH is an important factor affecting soil quality and plant growth. It influences the availability of nutrients in the soil and determines how well plants can absorb them. Studying soil pH in different areas helps in understanding soil conditions and planning proper land use and agricultural management.

The study examined soil pH levels in five areas: Mae Rim (pH 8), Mae Jo (pH 6), Saraphi (pH 7), Mueang (pH 6), and Dara Academy School (pH 6.9). Mae Rim soil is alkaline, which may limit the availability of some nutrients. Mae Jo and Mueang soils are slightly acidic and suitable for most crops. Saraphi soil is neutral, making it ideal for a wide variety of plants, while the soil at Dara Academy School is close to neutral and suitable for planting and landscaping.

In conclusion, soil pH levels vary across different areas, ranging from slightly acidic to alkaline. These differences affect plant growth and land use suitability. Understanding soil pH is essential for improving soil quality and selecting appropriate plants for each area

The result

Within the school grounds of Dara academy School, the soil has a pH value that is mostly neutral and similar.

However, the pH values vary across different districts, making them suitable for cultivating unique crops specific to each area.

Average values for each area.

