Research name: Compare the soil quality between Khuan Pring Subdistrict, Mueang District, and Thung Krabue Subdistrict, Yan Ta Khao District, Trang Province.

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Abstract

study aimed to compare soil quality in Yan Ta Khao District, Trang Province and Mueang District, Trang Province, Thailand. The instruments used were pH, light intensity, soil moisture, and soil temperature using a garden soil moisture tester, light lux meter, and pH meter. The GLOBE method was used. The results showed that soils from both sources in Tambon Khuan Pring, Mueang District, Trang Province, Thailand, and soils in Tambon Thung Krabue, Yan Ta Khao District, Trang Province, Thailand, were very different. This can be seen from the experiments and the comparisons were made in tables and the average values were found.

Introduction

Background and significance of the problem

Soil quality comparison is an important process in studying and analyzing natural resources. In particular, soil is an important resource for living, which is an important factor in agriculture and environmental conservation. Each type of soil has different properties, such as acidity-alkalinity, soil moisture, soil light intensity, soil temperature of the soil where plants grow, and soil with various forms. Therefore, the researcher is interested in conducting research on the soil quality comparison project in Khuan Pring Subdistrict, Mueang District and Thung Krabue Subdistrict, Yan Ta Khao District.

Research Question

Is the quality of soil in Yan Ta Khao District and Mueang District different?

Hypothesis 1: Soil quality in Yan Ta Khao District and Mueang District is different.

Independent variable : Soil in Yan Ta Khao District and Mueang District

Dependent variable : Soil quality

Controlled variables : Number of times of soil pH measurement, soil light intensity, soil temperature and soil moisture , study period.

Materials and equipment

1. pH paper or pH pen or pH meter

2 . Light intensity meter

3 **.** Needle or digital soil thermometer

study point

The land area studied is at Khuan Pring Subdistrict, Mueang District, Trang Province, Thailand, 7°31'21.7" N 99°36'13.2"E.

Land area in Tung Krabue Subdistrict, Yan Ta Khao District, Trang Province, Thailand 7°25'11.0"N 99°37'57.6"E

How to conduct research

Chapter 1

3.1 Methods for measuring pH in soil

How to measure soil pH using a multi-purpose meter 1. Dig up about 5 cm of soil on top of the seedling. Slide the measuring button to the pH point. 2. Place the meter and use gentle pressure to push the electrode (sensor head) into the soil. Wait for reading and record the measurement results 3 times to find the average.

3.2 Light intensity in soil

How to measure light intensity in soil using a multi-purpose meter 1. Dig up the top layer of soil about 5 cm. Slide the measuring button to the LIGHT point. 2. Place the meter by pressing it down gently into the soil. Read the reading and record the measurement results 3 times to find the average.

3.3 Soil moisture measurement

The method for measuring soil moisture directly is as follows: 1. Dig up the top layer of soil about 5 cm. Slide the measuring button to the MOIST point. 2. Place the measuring device and apply gentle pressure. Read the reading and record the measurement results 3 times to find the average.

3.4 Soil temperature measurement

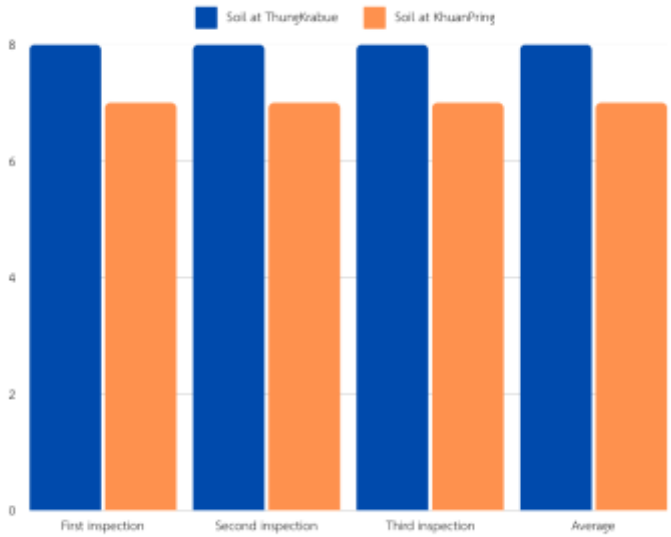
Immerse the thermometer into the ground and read the readings. Record the average values of the readings three times.

3.5 Examine the soil texture.

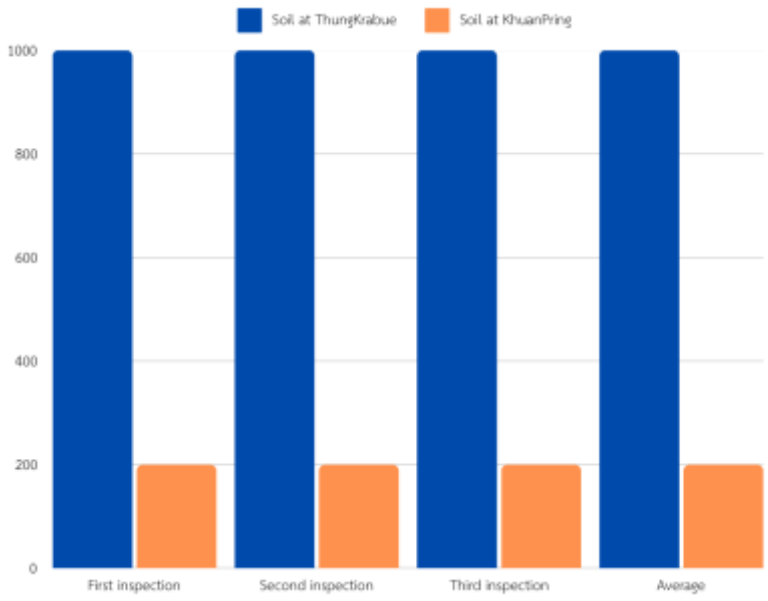
A guide to soil texture classification using the field contact method

Research results

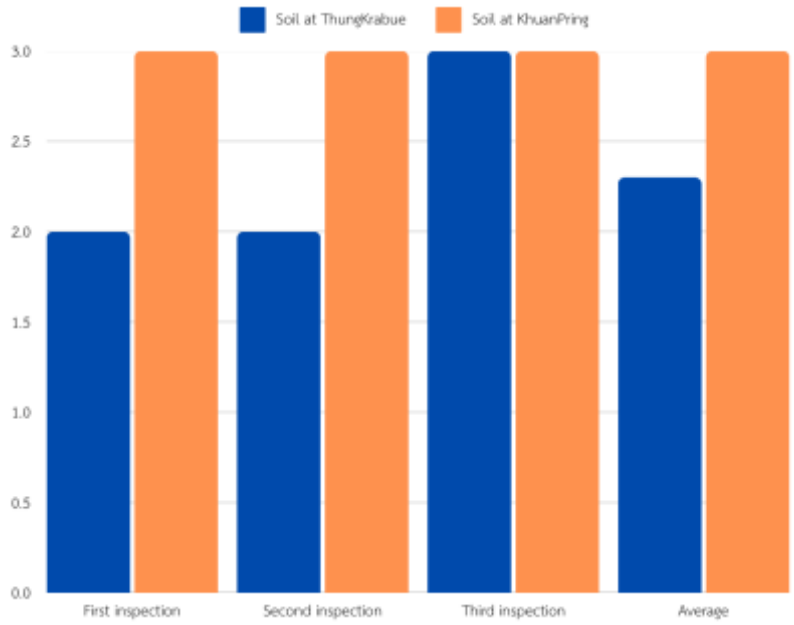
Figure 1. Bar chart showing the summary results of soil pH testing.



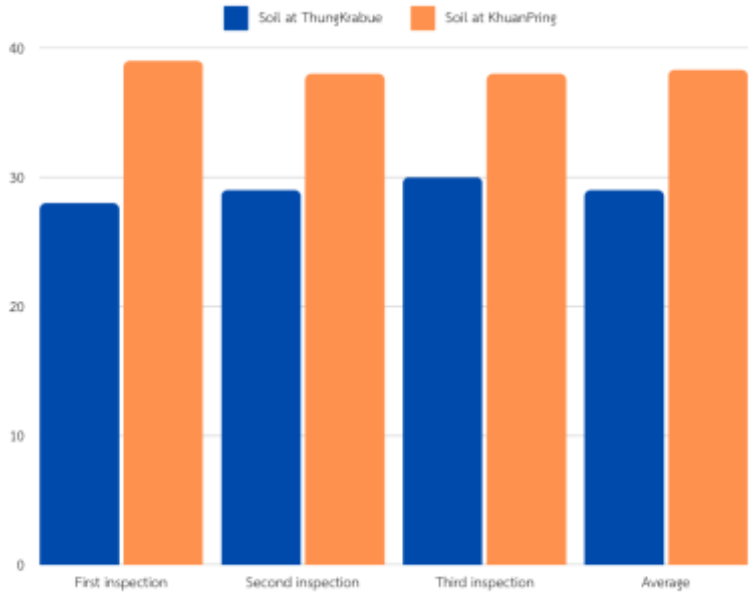
Picture 2 Bar chart showing the results of soil light intensity measurements



Picture 3 Bar chart showing the results of soil moisture measurements.



Picture 4 Bar chart showing the summary results of soil temperature measurements.



Summary of soil texture measurement and observation results

The soil in Tambon Khuan Pring, Mueang District, Trang Province, Thailand is a mixture of clay, loam and sand. It is soft but not too compact and drains well, not too fast or too slow.

The color is brown or grayish brown, depending on the amount of organic matter and minerals in the soil. There may be slightly different shades such as dark brown or light brown.

The soil in Tung Krabue Subdistrict, Yan Ta Khao District, Trang Province, Thailand is clay soil, loose and reddish-black in color. It is a fine-textured soil. In dry conditions, the soil breaks into round lumps.

Summary and discussion of research results

This study aimed to study and compare the soil quality in Tambon Khuan Pring, Mueang District, Trang Province, Thailand and Tambon Thung Krabue, Yan Ta Khao District, Trang Province, Thailand.
Soil in Tambon Khuan Pring, Mueang District, Trang Province, Thailand and soil in Tambon Thung Krabue, Yan Ta Khao District, Trang Province, Thailand are very different. In Tambon Khuan Pring, the average pH is 7, in Tambon Thung Krabue, the average pH is 8, in Tambon Khuan Pring, the average soil light intensity is 200, in Tambon Thung Krabue, the average soil light intensity is 1000, in Tambon Khuan Pring, the average soil moisture is 3, in Tambon Thung Krabue, the average soil moisture is 2.3, in Tambon Khuan Pring, the average soil temperature is 38, in Tambon Thung Krabue, the average soil temperature is 29. The soil area in Tambon Khuan Pring, Mueang District, Trang Province, Thailand is a mixture of clay and loam soil, soft and not too compact, well drained, not too fast or too slow, brown or grayish brown, depending on the amount of organic matter and minerals in the soil. There may be slightly different shades, such as dark brown or light brown. And the soil area in Tambon Thung Krabue Yan Ta Khao District, Trang Province, Thailand has a clay soil that is loose and red-black in color. It is a fine-textured soil. In dry conditions, the soil breaks into round lumps.

Suggestions

From the study, the following recommendations are made: Further study of soil minerals.

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Appendix