research report

Comparing the soil quality and leaf color of the Hoc Long bamboo species in Yannatakhao Subdistrict with the species of hornbills in Naphonla Subdistrict, Trang Province.

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Title: Comparing the soil quality and leaf color of the Hoc Long bamboo species in Yannatakhao Subdistrict with the species of hornbills in Naphonla Subdistrict, Trang Province..

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Abstractor or summary

Comparing soil quality and leaf color of Caladium bicolor species . Yan Ta Khao Subdistrict with the Red star Caladium bicolor, Na Phala Subdistrict, Trang Province. The objective of this research was to compare the quality of soil and leaf color of two species of Caladium bicolor. Caladium bicolor species and Red star Caladium bicolor, which define the study area as 2 different areas. By studying the physical characteristics of the soil, temperature, fertility ,pH and soil moisture. and the color of the leaves in both areas and those that are different From the study, it was found that physical characteristics of soil at Yan Ta Khao have black clay color, mold soil structure Na Phala have brown clay color ,Sandy soil mixed with

loam and Soil temperature ,pH value ,Displays soil fertility values ,Soil moisture at Yan Ta Khao more than Na Phala. The leaf color of Caladium bicolor species in Yan Ta Khao Subdistrict with the Red star Caladium bicolor in Na Phala Subdistrict, Trang Province, it was found that the green leaf color was 5GY.4/8is the same for both species.

Important words: Bon trees and leaf colors of the Hoklong species Bon trees, color and leaf color, quail breed, soil quality

Introduction

Bonsai is classified as a plant in the Caladium family, which is a plant that is similar to a potato tuber. Every part is succulent. There is a head that collects food underground. There are many different shapes, such as spear-shaped, heart-shaped, striped, oval-shaped, with beautiful colors and patterns, including pink, red, green, white, yellow, and

different bouquet styles. There are male flowers and female flowers. It is classified as a kind of auspicious tree. It is popular to plant it in houses or residences because it is believed that planting bonsai in the house will help the house or residence be happy and prosperous. Add auspiciousness to the house and its inhabitants. and can purify the air

earthNatural materials that arise from decay and decay.ofRocks and minerals and their decompositionofhumus and animals mixed together Influenced by the environment such as climate, area conditions.
and different periods of development, resulting inearthVarious types cover the earth's surface in a thin layer. It is a place to anchor and grow.ofplant

Bonsi breed of quail Imported from abroad since the Ayutthaya period as the capital, around 1882, has a green leaf background. Leaf bones and leaf veins are blurred pink and dark red. White granules float frequently and spread all over the leaves.

Hoklong bonsai has heart-shaped leaves that are pinkish in color but also have green on the leaf edges and It is the color of the veins inside the leaf. Another advantage of growing this type of bonsai is that it has a lifespan of up to 30 years.

Therefore, the researcher is interested in comparing the physical characteristics of soil and its fertility values. Soil, soil temperature, soil acidity and soil nutrients affect growth, color change.
of the leaves of the Quail bonsai tree and the Hoklong bonsai tree in different types of soil. To bring knowledge about relationships to develop the careers of farmers who grow Quail bonsai and Hoklong bonsai trees.

Reserch objectives

1. To compare the quality of soil that affects the growth of two species of bonsai. Hokkien breed with
Quail breed

2. To compare the color of leaves of colored bonsai trees.

Research questions

1. Is the quality of the soil of the two species of bonsi trees, the Hoklong species and the quail species, different?

2. Color of leaves of 2 species of bonnet Are the Hoklong breed and the quail breed different in color?

Research hypothesis

1. The qualit of the soil in which Bon Si is grown in the two areas is different in each area in terms of humidity and acidity and base of the soil. Nutrients in the soil, temperature, soil structure, soil color are different.

2. Color of leaves of 2 species of bonnet Hoklong breed and partridge breed There are different colors.

GLOBE protocol

Methods for measuring soil acidity

Principles and methods for measuring the physical characteristics of soil.

Methods for measuring soil fertility

Methods for measuring soil moisture

Methods for measuring soil temperature

Methods for measuring leaf color change

Determination of study points

The area is Na Phla Subdistrict, Mueang District, Trang Province.

and the area of Thung Khai Subdistrict, Yan Ta Khao District, Trang Province

Results obtained from research

Gain knowledge about Physical characteristics of the soil, moisture, acidity and base of the soil. Soil fertility, temperature, soil structure, soil texture are different in the 2 areas. and studied the color of the leaves

Methods and materials

Materials and equipment

1. pH meter

2.Equipment for preparing soil samples

3.Distilled water

4.Thermometer

5. Test kit for N P K in soil

6.Indicator paper

7. Guide to classifying soil texture

8. Soil moisture meter

9. Pen or pencil

10. Camera

11. cu smart only

12..Leaf color comparison sheet

Experimental method

Part 1wayCompare the quality of soil that affects the growth of two species of bonsai.

1. Measurement of soil acidity

Weigh out 20 grams of dry and sieved soil sample and pour it into a beaker. Then add 20 milliliters of distilled water to get a soil: water ratio equal to 1:1. Use a glass rod to stir the soil for 30 seconds, then leave it for 3 minutes. Do this 5 times. When the soil has been stirred 5 times, leave it until the soil In the sedimentation beaker, you will see clear water at the top. Dip the pH measuring pen that has been adjusted to standard into the clear water area. Do not dip it so that it touches the soil at the bottom. Wait until the value stops and then read the pH value.

2. Physical characteristics of the soil

Study the physical characteristics of the soil by studying the soil structure using CU Smart Len. Study the soil texture and color. Soil picks up soil pellets from a soil sample. At each layer, observe whether the soil pellets are growing, dry or wet. If they are dry, make them grow. a little with water from the prepared bottle, then split the soil into 2 parts and stand for sunlight Look through the flow Soil color comparison book and Sample of soil that is Measure the soil color and record the soil color value. in the record sheet

3.Measurement of soil fertility

Weigh out 20 grams of dry and sieved soil samples from both areas and pour them into a beaker. Then add 20 milliliters of distilled water to get a soil: water ratio equal to 1:1. Use a glass rod to stir the soil for 30 seconds, then let it rest for 3 minutes. Do this 5 times. When the soil has been stirred 5 times, filter it into Another beaker in order to take the filtered water and measure it.

N P K using the N P K meter and recording the obtained values.

4.Measurement of soil moisture value

Measure the moisture content in each type of soil at 3 points. By bringing a multi-purpose measuring device At a depth of 5 centimeters, read the soil moisture value.

5. Measuring soil temperature

By bringing a thermometer to measure soil temperature at a depth of 10 centimeters, 3 areas for each plant, both plants, then reading the soil temperature and recording the results.

Part 2 How to compare the leaf color of the Hoklong bonsai tree and the quail breed.

1. Compare the color of the leaves of the Hoklong species and the quail species.

By studying the leaf color comparison sheets, which were compared with those of the Hoklong species of bonsai trees in Yan Ta Khao Subdistrict, Yan Ta Khao District, with the partridge species in Na Phala Subdistrict, Mueang District, Trang Province. that are available, then look at the colors and record the results in the results recording table

2. Steps for comparing the color of bon leaves.

Take the information from the table in item 1 and compare the color of the leaves of the 2 species of bonnet. Then the results of the experiment were summarized.

Results and data

Part 1 compares the quality of soil that affects the growth of two species of bonsai.

1.1 pH of the soil

From the experiment, it was found that the soil in 2 areas had an average value of 5.5 as shown in the table.

Table 1.1 The pH of the soil

Survey area	1st time	2nd time	3rd time	Average pH value
1	6	6	6	6
2	5	5	5	5

1.2 Physical characteristics of the soil

From studying soil characteristics, soil color, and soil adhesion. soil structure The picture shows the characteristics of the soil.

Show results as shown in the table.

Table 1.2 Table showing physical characteristics of soil

Survey area	Soil characteristics	clay color	soil adhesion	soil structure	The picture shows the characteristics of the soil.
1	round lump	black	crumbly	mold	
2	round lump	Sugar	crumbly	Sandy soil mixed with loam	

1.3 Soil fertility

From a study of soil fertility in 2 areas

1.Nitrogen N

Normal nitrogen measurement found that area 1 had low nitrogen values and area 2 had low nitrogen values. Show values as shown in Table 4.

2. Phosphorus P

Normal phosphorus measurement revealed that Area 1 had low phosphorus values and Area 2 had low phosphorus values. Show values as shown in Table 4.

3.Potassium K

Normal potassium measurement revealed that area 1 had a high potassium value and area 2 had a medium potassium value. Show values as shown in Table 4.

Table 1.3 Displays soil fertility values

Survey area	Nitrogen	phosphorus	potassium
1	Low	Low	high
2	Low	Low	moderate

1.4 Soil moisture

From the study, the soil moisture in area 1 had an average of 313.33 and the soil moisture in area 2 had an average of 283.33.

Table 1.4 Soil moisture in 2 areas

Survey area	1st time	2nd time	3rd time	average
1	310	320	310	313.33
2	280	290	280	283.33

1.5 Soil temperature

From the study of soil temperature in both areas, it was found that the average temperature was 29.67 °C.

Table 1.5 Soil temperature in 2 areas

Survey area	1st time	2nd time	3rd time	Average(degrees Celsius)
1	31 °C	29 °C	30 °C	30 °C
2	29 °C	29 °C	30 °C	29.33 °C

Part 2. Compare the color of the leaves of the bonsai tree.

2.1 Study the color of the leaves of the Hoklong species and the quail species.

From studying the color of the leaves of the Hoklong species and the quail species.

Survey area	leaf color
1	5GY 4/8
2	5GY 4/8

Table 2.1 The table shows the color of the leaves of the Hoklong species and the Quail species.

Discussion and conclusion

Part 1 compares the soil quality of Hoklong bonsi trees and the quail breed.

From a study comparing the soil quality of the Hoklong bonsi tree species in Yan Ta Khao Subdistrict with the Quail species in Na Phala Subdistrict, Trang Province, it was found that normal soil has different soil adhesion and characteristics. In the area of Yan Ta Khao Subdistrict, the soil has a black, round shape. The average soil moisture content is 313.33. The average soil temperature is 30 degrees. Has a low nitrogen value. Low phosphorus High potassium values and has an average soil pH value of 6 In the area of Na Phaldin Subdistrict, it is brown in color and round. Soil moisture has an average of 283.33. Average soil temperature 29.33 degrees. Has a low nitrogen value. Low phosphorus Moderate potassium value and average soil pH value of 5

Part 2. Compare the color of the leaves of the bonsai tree.

From a study comparing the leaf color of Hoklong bonsai trees in Yan Ta Khao Subdistrict with the Quail species in Na Phala Subdistrict, Trang Province, it was found that the green leaf color was 5GY. 4/8 is the same for both species.

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Benefits to the project this time until the project is complete, whether it is choosing to do a writing project

Outlining work, writing project formats, as well as providing various knowledge documents about sample projects and also supporting and helping to inspect the project to help correct errors or defects to make it correct according to the format.

Citations

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