Introduction

Research question

Is the quality of soil in the area before shrimp farming and after shrimp farming, Hat Samran Subdistrict, Hat Samran District different?

Materials

pH paper

Termometern.

Clay spoon

N P K inspection kit

chemical experiment equipment

weighing machine

Research method

1) Set up study issues and choose the desired topic
2) Study research, collect knowledge and theories related to research
3) Determine the objectives of the study
4) Determine sampling points in the study area

Acid-base value of the soil

Weigh 20 grams of dry and sifted soil samples, pour them into the beaker and add 20 or 100 milliliters of distilled water to get the soil ratio: water is 1:1 and use a glass stick to stir the soil for 30 seconds and let it rest for 3 minutes. Do this 5 times.

Leave it until the soil in the beaker. When stirring the soil 5 times, leave it until it settles. You will see clear water at the top. Dip the pH paper or pH pen that adjusts the standard value into the clear water area. Do not dip it into the soil below. Wait until the value stops. Then read the pH.

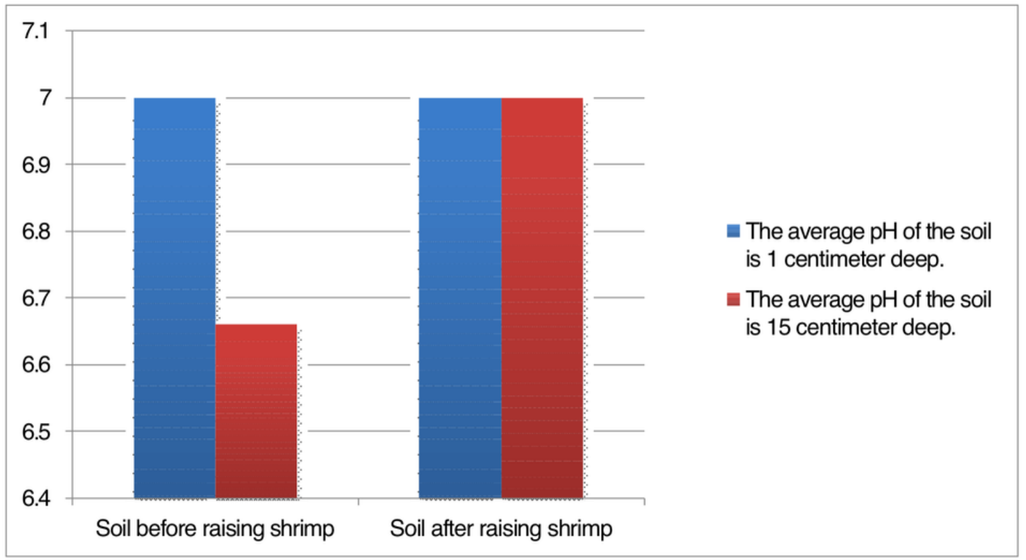
Soil fertility (Nitrogen (N), Phosphorus (P) Potassium (K))

- Soil fertility measurement With the soil test kit (nitrogen, phosphorus, potassium), use a pipette to suck 2.5 ml of soil solution into the test tube and add 1 sachet of HI 3895-N reagent to the high soil solution. Then close the test tube lid and shake for about 30 seconds. Let the chemical dissolve. Then compare the pink color that occurs with the nitrate color comparison sheet. And then compare the blue that occurs with the phosphorus color comparison sheet Then compare the turbidity that occurs with the potassium content comparison sheet.

Research results

Table 1 shows the pH in the soil around the news shrimp pond (degrees Celsius).

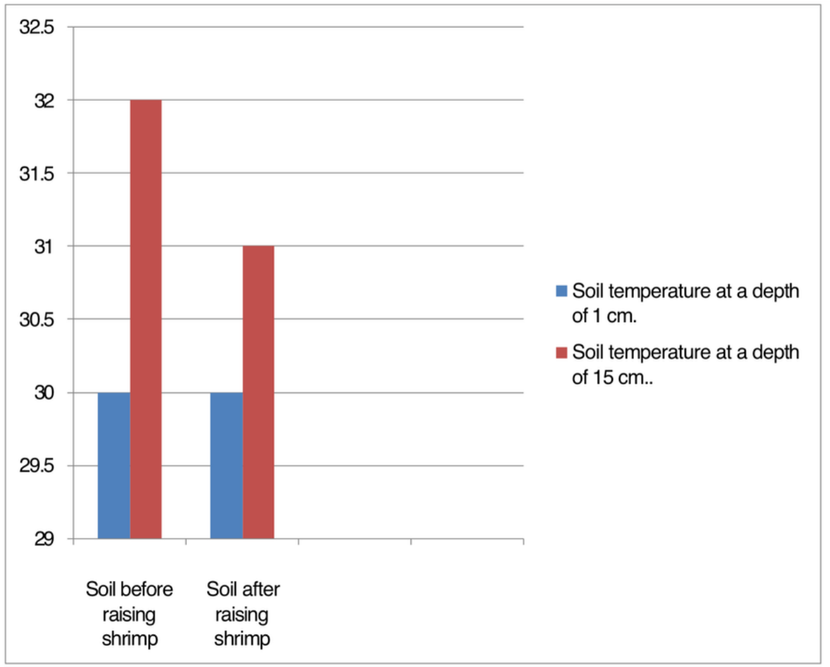
White shrimp pond area	Final Depth (cm)	Average pH of the soil
Soil before raising shrimp	1	7±0.00
	15	6.66±0.00
Soil after raising shrimp	1	7±0.00
	15	7±0.00



From Table 1, the pH value of the soil around the white shrimp pond In conclusion, the soil before raising shrimp at the soil The average pH value is 7 and 15 centimeters deep. The average is 6.66 and the soil after raising shrimp at the soil and 15 centimeters deep. The average pH value is 7.

Table 2. Soil temperature in each soil depth.

White shrimp pond area	Final Depth (cm)	Soil temperature(degrees Celsius)
		Average value
Soil before raising shrimp	1	30±0.00
	15	32±0.00
Soil after raising shrimp	5	30±0.00
	15	31±0.00



From Table 2, the soil temperature around the white shrimp pond It can be concluded that the soil temperature before raising shrimp in the soil area is about 30-32 degrees Celsius. The soil temperature after raising shrimp at the soil area is about 30-31 degrees Celsius.

Soil fertility

Table 3. Soil fertility in each N P K

White shrimp pond area	Final Depth (cm)	Soil fertility		
		Nitrogen	phosphorus	Potassium
Soil before raising shrimp	1	Medium	Medium	high
	15	high	Medium	high
Soil after raising shrimp	1	low	Medium	low
	15	low	Medium	Medium

From Table 3 Soil Fertility The main nutrients of the soil consist of nitrogen, phosphorus, potassium. Found that the soil before raising shrimp There is a medium nitrogen value. Medium phosphorus, high potassium and the soil depth of 15 centimeters High nitrogen, medium phosphorus, high potassium and soil after shrimp farming in the soil. Low nitrogen Medium phosphorus, medium potassium In conclusion, the main nutrients in the soil area before Shrimp farming has better soil quality because it has a high nitrogen value. Moderate phosphorus And high potassium Therefore resulting in more fertility than the soil before raising shrimp.

Conclution

According to the study of the quality of white shrimp pond soil before and after shrimp farming, Hat Samran Subdistrict, Hat Samran District, Trang Province. According to the study of the pH of the soil around the white shrimp pond, it was found that the average pH is similar and only the soil before raising shrimp, 15 centimeters deep, with an average of 6.66. Which the above soil will have properties as the middle temperature in the white shrimp pond From the study of the temperature of the soil in the white shrimp pond, it was found that the soil before raising white shrimp The area is 15 centimeters deep with the highest temperature. Because the soil in that area has accumulated the most heat, the fertility of the soil in each area of the shrimp pond (N PK) from the study of soil fertility, the main nutrients of the soil consists of nitrogen, phosphorus, potassium. It was found that the soil before shrimp farming contains nutrients. The main nutrients are more fertile than the soil after shrimp farming.From the discussion, it was found that the soil before raising and the soil after shrimp has a pH with neutral soil properties. And the soil before raising shrimp Will have a temperature that is in the range of 30-32 degrees Celsius And the soil after shrimp farming is in the range of 30-31 degrees Celsius. The soil before shrimp farming has a higher temperature than the soil after shrimp farming. The soil before shrimp farming has the main nutrients. High nitrogen value Medium phosphorus High potassium As a result, the soil in the area before shrimp farming is more suitable and effective than the soil after shrimp farming.