



Sultanate of Oman

The Ministry of education

Directorate General of education in sharpish north

AlHawari Bin Mohamed Al-Azdi primary school – grades (5_10).

Search by address:

Effect of cutting alsamar trees on the environment and production of hone.

for Shan prepare students:

Hamad bin Saif Bin Saleh Al-Busaidi.

AbdAllah bin Suleiman al-rhipu

belarb bin Sultan Bin Saud Barwany.

under the supervision of:

supervision:

Teacher: Ishaq bin Humid Al jabri

Sultanate of Oman-North East

March 2019

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Effect of cutting alsamar trees on the environment and production of hone.

prepare students:

Hamad bin Saif Bin Saleh Al-Busaidi. _ Abdullah bin Sulaiman Al-Rahbi _ belarb
bin Sultan Al barwani.

Al-Hawari School Bin Mohamed Al-Azdi primary grades (5-10) boys

Oman Sultanate _ North East March 2018 m

Research Summary

The aim of this research to study the impact of logging Brown on honey production and its impact on water and soil that Leno, we are GLOBE interactive students in Al-Hawari Bin Mohamed Al-Azdi school .as aresult of our primary scan in our surrounding environment and observing the area we live in and we discovered that cutting the trees have a lot of damages and we provide many questions . Questions are as follows:

what is the effect of logging Brown on the environment?

What is the effect on harvesting Brown on honey production?

What is the relationship between Brown and honey production?

The objectives of our reality in which we live to face very day environmental problems:

Find out the reason for logging.

Knowing the reason of cutting some trees on honey production.

Appropriate solutions to address the problem of effects of logging. Knowing the result of cutting the trees on honey product

Find solutions to treat the side effect on cutting the trees

According to the groups committed to the problem.

The project was on the way and plan minutes place began to set the sampling sites and supporting protocols such as soil and ground cover protocol protocol for action and expertise assistance in testing and extraction results and completion recommendations and reviews research .and collecting photos and end tables And graphs. Search show TA

- **Search terms:**

Brown trees: Brown or twisted Acacia, is tree plants that belong to the legume species, also called balakasia, or umbrella sticking allusion to his Crown. Honey: honey is viscous syrup with multiple colors by type of nectar plants.

Research questions:

what is the effect of logging Brown on the environment?

What is the effect on harvesting Brown honey?

How soil affected by cutting Brown trees?

Objectives of the study:

Learn why cut Brown trees in communities.

Know the effects of logging on honey Brown.

-appropriate solutions to address the problem of the implications of cutting

.trees according to the groups committed to the problem

Introduction and literary references

Consider the Sultanate from States which have a suitable environment for raising honey bees, as the industry works known from ancient to geographically diverse Sultanate contributes to creating a suitable environment for apiculture, biodiversity also plays an active role in the March of farming and raising honey bees, Past and present, and has managed the Ministry of agriculture and fisheries in creating this type of tree species which claim (Brown) and that helped in the production of honey bees as this tree blossoms were important food source for honeybees an thesis, this type of honey from the finest Omani honey for his ability of Healing and ability to overcome certain diseases, this season is honey from the beginning of the summer time entering the spring, has got a British schoolteacher Sultanate in 2014 of the finest honey Brown in the world, but because of several reasons that led to my little brown trees in danger by citizens and the Government for several m Reason: cut wood for their trade particularly festive time, build military buildings, hospitals, schools and other reasons which had become required on this beautiful tree that adorned only in .Sahara

Uses of Al-Samar Plant:

- For the treatment of certain diseases. •
- Honey production by bees, and its flowers. •
- Timber (fire-wood industries) •
- off food for animals •

:Benefits of hone

Calms stomach, relieves pain, it calms her pain.

.Strengthens muscles, and helps to build and maintain. Eliminates menstrual pain

Action research:

1) research plan:

put the table (1) schedule for the research plan

History	And the implementing parties	Action
October	Hamad, and Belarab	Set the samples to be scanned
November	Hamad and Abdullah	Gather information from specialists
November	Hamad and the supervisor	Locate the samples by GPS device
December	Hamad, Belarab and Abdullah	Examine samples using GIOBE protocols
December	Hamad, Belarab and Abdullah	Drawing conclusions and writing them
January	Hamad, Belarab and Abdullah	Making recommendations and suggestions

Table 2 shows the distribution of roles

And the implementing parties	Action
Hamad, and Belarab	Set the samples to be scanned
Hamad and Abdullah	Gather information from specialists
Hamad and the supervisor	Locate the samples by GPS device
Hamad, Belarab and Abdullah	Examine samples using GIOBE protocols
Hamad, Belarab and Abdullah	Drawing conclusions and writing them
Hamad, Belarab and Abdullah	Making recommendations and suggestions

Table (3) research plan application sites and the appropriate protocols for use.

Appropriate protocol	Business	Region
Soil Protocol	Studying the properties of the affected soil in the affected areas	Areas affected by cutting
Land Cover Protocol	Study the properties of the earth cover in the affected areas	Areas affected by cutting

Table (4) mechanism protocols to collect plants.

Application mechanism	Appropriate protocol	research question
We examined two types of soil soil with broken plant foliage and vegetation uncut and we examined vegetation with areas that have been cut from trees	<ul style="list-style-type: none">• Soil protocol•Vegetation Protocol	The first question
We compared areas with Brown trees felled and amount of honey production and areas with uncut trees and honey .production	<ul style="list-style-type: none">• Vegetation Protocol	second question
We examined soil in terms of machining characteristics affected properties	<ul style="list-style-type: none">• Soil protoco	The third question

Location: search mode

using the GPS device.

Targeting work site experiencing the problem to collect samples.

Using the soil and vegetation to collect samples for analysis.

Sampling using a laboratory and environmental GLOBE Program Tools.

. Interviews with those involved in the problem

Protocols used in conducting the screening process:

- Soil protocol
- Vegetation Protocol

Study site:

the Sultanate of Oman.

North Eastern province.

The whereabouts of the Brown trees on behalf of Shan.

The month of April.

Hot weather.

. Been using soil and vegetation Protocol Protocol

Height	Latitude	Longitude
571	58.1706776.348	22.8283.278



Data collection and analysis:

two sample samples were collected 1 a soil affected by tree cutting and eye 2 ttathrbalkata no tree and soil was compared between samples through the following measures:

soil pH.

The amount of roots.

Temperature.

The amount of rock.

Soil color.

Consistency.

The amount of bicarbonate.

. The type and length of plants

Soil Protocol: this Protocol has been using several metrics to work as follows:

soil thermometer (10-5) cm.

The amount of bicarbonate in the soil

Temperature		the sample
10cm	5 cm	
34c	38c	First location
32c	3535c	Second location

. Color of soil through the soil color book globe

. Soil pH meter for samples collected

. Soil properties (amount of roots, rocks, soil consistency).

Land cover Protocol:

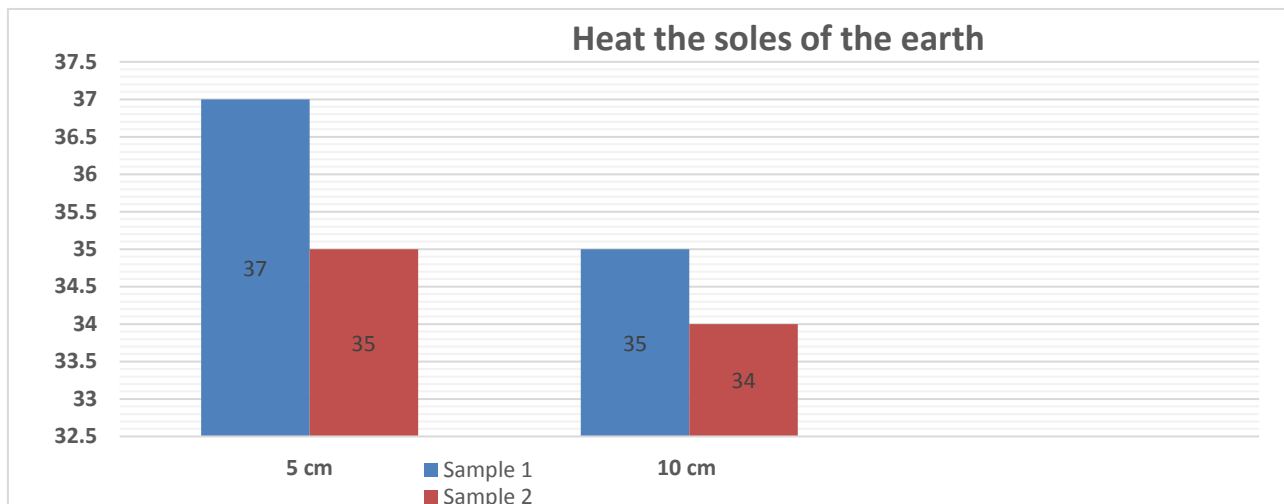
- plant species.
- Height.
- Density.

Soil thermometer:

after locating GPS device samples we take measurements of soil temperature by the thermometer for your protocol to different depths in different locations and the result was as follows:

Form (1) diagram of underground temperatures under my depth (5 and 10) cm

Sample 1 represent a soil sample 2 pieces affected tree represents a tree soil unaffected .by pieces



• The amount of bicarbonates in the soil •

second	First	the sample ¹
Medium	FeW	Quantity of bicarbonate

• Soil acidity •

PH				the sample
Average	Experience 3	Experience 2	Experience 1	
6.73	6.6	6.6	7	1
6.76	6.8	6.9	6.5	2

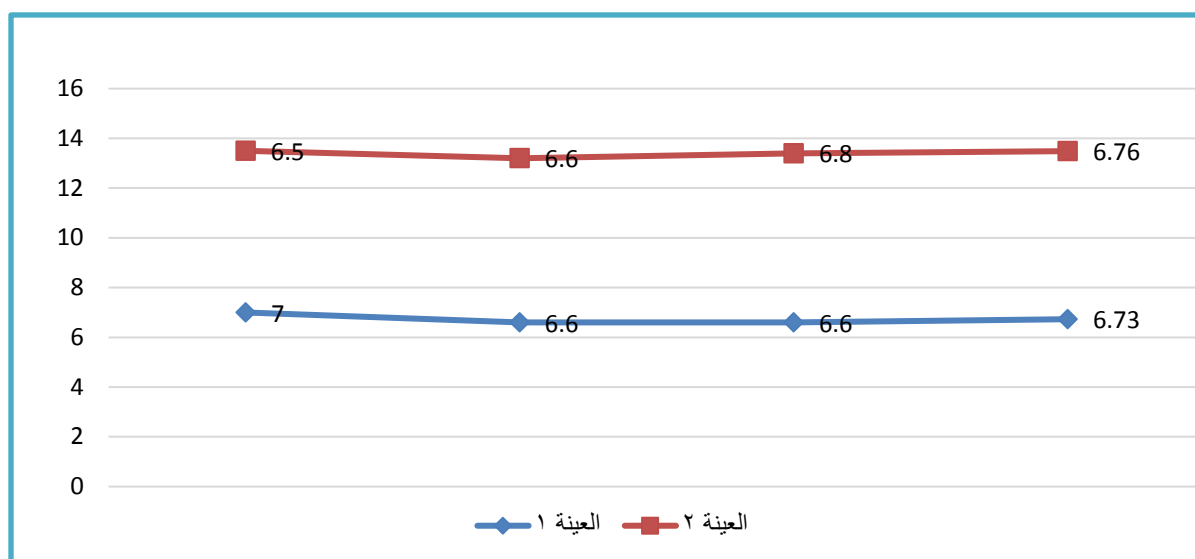


Figure (2) shows the soil pH

second 10YR 4\3	First 10YR 2\2	the sample Color code

Soil salinity:

Salinity				the sample
Average	Experience 3	Experience 2	Experience 1	
1058.3	1261	1231	683	1
714	831	723	588	2

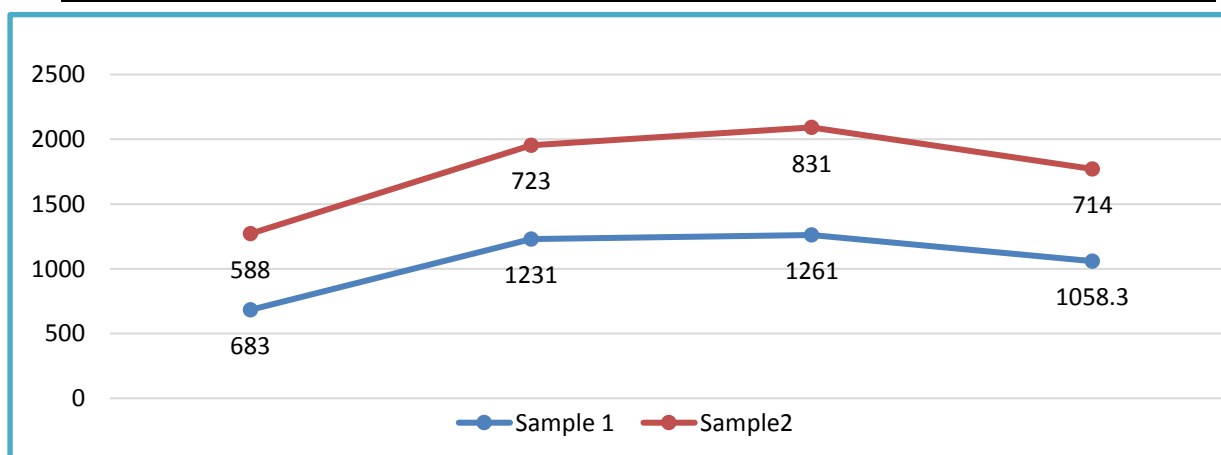


Figure (3) shows soil salinity

•Characteristics of soil samples

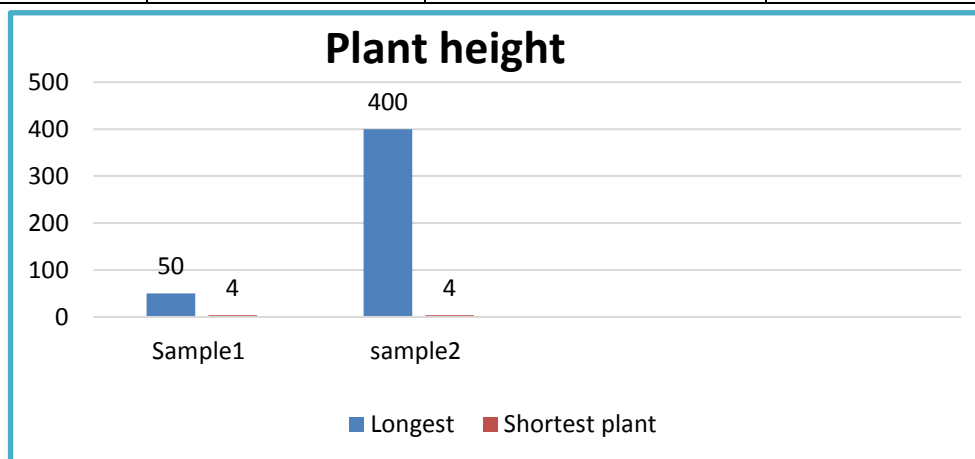
second	First	the sample
Fluid	(Easy to disassemble (fragile	Consistency
Medium	FeW	Quantity of roots
a lot	a lot	Quantity of rocks

•Plant type:

the sample	the sample
Desert plants + herbs	Desert plants + herbs

:High plants •

the sample		the sample1	
shorter plant	Longest plant	shorter plant	Longest plant
4cm	400cm	4cm	50cm



.Figure (4) shows plant height

Discussion of the results:

through soil reached Protocol:

Soil color	Temperature acidity				Temperature acidity		Timing	
	Average	Experience 3	Experience 2	Experience 1	10cm	5cm		
10YR 2\2	6.73	6.6	6.6	7.0	34c	38c	:Local Time 8:00am :UTC 4:00am :History April 13 2018	the sample
10YR 4\3	6.76	6.8	6.9	6.5	32c	35c	Local 8:30:Time am UTC am 04:30 History: April 13 2018	the sample

Answer the first question:

losing a manifestation of human entertainment, forest uses for hiking and entertain himself with something called a mountain or forest treks but with better parts become barren sites and no room for road trips.

Damage to the economy because of the limited availability of raw material for many industries such as timber and fibre.

Causing soil lacks important elements as a result of drought. Increase chance flood forest surroundings.

Loss of a manifestation of human entertainment, forest uses for hiking and entertain himself with something called a mountain or forest treks but with better parts become barren sites and no room for road trips.

Damage to the economy because of the limited availability of raw material for many industries such as timber and fibre.

Causing soil lacks important elements as a result of drought. Increase chance flood forest surroundings

- **And the answer to the second question:**

was there a negative impact on honey
ftsbbktaasnavashgaralsmrbklhaddalnhlalmtrddalihaozelkladmtwafralrhikallaz
mlantagalaslwadi to severe shortage of honey per year rate of logging and
that was evident in interviews with parents

As for the answer to the third question:

the temperature affected because logging Brown mountain, where natural temperature dropped into the soil.

Increased acidity of the soil due to imbalance of water in the soil and is having a negative impact on the soil.

Tell the cohesion soils due to lack of sufficient plants.

Tamla soil more due to the presence of water and irrigation methods. Soil became fragile and unsuitable for agriculture.

Conclusion

-This research sought to explore that the cutting of trees Alshamr adversely affect the soil and the production of honey and its effect on the soil is:

-The temperature was affected by the cutting of mountain boulders so that the natural temperature in the soil decreased.

-Soil acidity has increased due to water imbalance in the soil and has negatively affected the soil.

-Soil cohesion decreased due to lack of adequate vegetation.

-Soil is more saline because of the lack of water and irrigation methods.

-The soil has become fragile and invalid

-The effect of cutting trees Alshamr honey production, which is the reason for the cut of varieties of trees Alshamr few bee number, because of the lack of nectar necessary for the production of honey and led to a severe shortage of honey by one year of logging and was evident in interviews with the people

Recommendations:

- we recommend the Ministry of fisheries to develop strict rules to prevent logging.
- Recommend climate Affairs Ministry of environment to create special reserves Brown tree.
- Recommend citizens uprooting trees Brown and not significantly and maintain them.

Thanks and appreciation:

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Annex (1)



