

ผลงานทางวิชาการ

เรื่อง

แบบฝึกเสริมทักษะการอ่านภาษาอังกฤษเพื่อความเข้าใจโดยใช้บริบทท้องถิ่น

ของ

นางจงดี้ ทิพย์เพ็ง

ครูชำนาญการ

วิทยาลัยเกษตรและเทคโนโลยีสตูล

สำนักงานคณะกรรมการการอาชีวศึกษา

กระทรวงศึกษาธิการ

Shadow Play

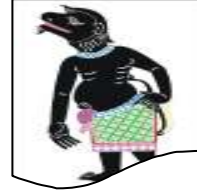


Talung (shadow play) is a regional performance of southern Thailand that is as popular as Nora. Like Nora, Phatthalung is also regarded as the birthplace of Talung. Each shadow play figure is made from raw cowhide that has been dried and then cut into shapes. Each figure is ornately printed with designs, with black usually covering the entire figure. Thinner hides will have colouring. The figures are held up by bamboo sticks, with the mouth and hands movable in tune with the narration. The Talung hall has a thatched roof and three walls. It has a white cloth screen. Behind it is where the figures are kept. The entire troupe of musicians and puppeteers number not more than 8 persons. Musical instruments include pipe, drum and gong. The figure performance is the duty of the head of the troupe who both operate the figures and narrate. The stories are from literature or newly written tales.

Read the story “Shadow play” and choose the best answer.

1. What are the shadow play figures made of?

- a. raw bufalohide.
- b. raw cowhide.
- c. raw sheephide.
- d. a piece of cloth



2. Where is the origin of the shadow play?

- a. Trang province
- b. Nakornsrihammarat province
- c. Satun. province
- d. Phatalung province



3. Which part of the shadow play figures can move?

- a. mouth and eyes.
- b. feet and hands.
- c. head and face.
- d. mouth and hands.



4. What kind of stick hold up the figures?

- a. bamboo stick.
- b. pararubber stick.
- c. chopstick.
- d. tamarind stick.

5. Who is the narrator in the shadow play stories?

- a. the musicians.
- b. the dancers.
- c. the head of the troupe.
- d. the audience.



6. Which musical instrument isn't in the shadow play troupe?

- a. Piano.
- b. Pipe.
- c. Drum
- d. Gong.

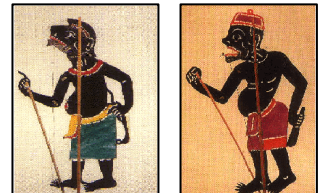


7. What is the screen of the shadow play made of?

- a. white paper.
- b. white glasses.
- c. white clothes.
- d. white cowhide.

8. When is the suitable time to watch the shadow play in Satun?

- a. In the morning.
- b. In the afternoon.
- c. In the evening.
- d. At night.



9. Who is the head of the troupe in the shadow play?

- a. Narong Talung Bandit.
- b. Sornram Teppilak.
- c. Nattawut Sakidjai.
- d. Tongchai Macintai.

10. What are the names of the jokers in the shadow play troupe?

- a. Teng/ Kings.
- b. Queen / Tong
- c. Teng / Tong / Nui
- d. The King / Queen.



Manora



Manora is a traditional dance of South Thailand (in South Thai language called the "Chatri"), whose origins lie in various legends of which there are different versions. The choreography of the Nora dance varies from region to region, but is generally composed of 12 positions and 17 movements.

Tua Oon · This very refined version of the Nora requires great interpretive skills and experience. To learn this Nora it must be studied from a very young age, so that the body can achieve the flexibility necessary to execute the complicated movements. The female dancers, in fact, follow a demanding exercise regime and a strict discipline.

Ram taeng Kae · This is another elaborate Nora dance that requires great interpretative gifts. On the stage the protagonist launches a harpoon at the crocodile, whose back, lit by candles, is made from the trunk of a banyan tree. The female dancer moves round the writhing crocodile, poised to pierce its head at the right moment.

Ram Nora Son Ram · This is a basic posture, which is executed by concentrating on hand arm and shoulder movements, and on the balance and movement of various parts of the body, and is accompanied by rather long lyrics.

Ram Nora Bot Pratom · This choreography uses another basic posture, in which hand, arm and shoulder movements are synchronized with those of the head.

Ram Ooak Pran* · In the company that performs a Nora, the pran or hunter plays the part of the fool. He usually wears a hunter's mask or headdress. His movements are often amusing, and designed to make the audience laugh. Each position is in harmony with the dynamic rhythm of the music.

Ram Nora Klong Hong · This advanced level of Nora is performed only on important occasions. The female protagonist plays the role of Hong or Kinnaree - a legendary creature who is half woman and half bird. According to a celebrated Nora teacher, this episode is partly based on the legend of Prasuton-Manora. The seven Kinnaree are playing in the lake in the middle of a wood. Struck by their beauty and lightheartedness, Pran Boon, the hunter, chases the maidens in an attempt to catch the youngest. The lively harmonious movements perfectly evoke Pran Boon's pursuit of the Kinnaree as she tries to escape.

Ram Nora Tam Bot - Ram Ooak Pran* · In this dance the hand movements evoke the beautiful scenery of Songkla Province, in South Thailand. The verses of the song are accompanied by a very lively rhythm.



http://en.wikipedia.org/wiki/Dance_of_Thailand

Read the Manora story and choose the best answer.

1. What are the names of Manora positions?

- a. Tua – on / Son Ram
- b. Reckae / Ballet
- c. Slow / Begin
- d. Rock and Roll . Aerobic



2. What is the other name of Nora?

- a. Thai dancing
- b. Ramwong
- c. Chatri
- d. Likay

3. If you are interested in Nora Composition and you are so young, what is the best composition for you?

- a. Nora Son Ram
- b. Nora Bot Pratom
- c. Nora Oak Pram
- d. Nora Tua On

4. What does “Pran” mean in a Manora troupe?

- a. Hunter
- b. Kind man
- c. Director
- d. The head of the troupe



5. When is Ram Taeng Kae continues?

- a. general Show
- b. interpretative time
- c. thank you party
- d. make merit time

6. Which composition makes the audience laugh?

- a. Nora Tua on
- b. Ram Ooak Pran
- c. Ram Nora Klong Hong
- d. Nora Trang Kae



7. What do we call the woman who is half woman and half bird?

- a. Hong
- b. Kinaree
- c. Bird
- d. a , b are correct



8. is the advanced level composition?

- a. Nora Kling Hong
- b. Nora Tam hot
- c. Nora Tua on
- d. Nora Ooak Pran

9. You usually see Manora performance in these provinces.

- a. Chonburi / Ratchaburi / Makornpratom.
- b. Chieng – mai/ Lampang / Prae
- c. Rayong / Ayudhya / Nakornpanom
- d. Nolornsrithamrat / Trang / Satun / Phatalung.



10. How many kinaree's does Pran Boon follow up?

- a. six
- b. seven
- c. nine
- d. ten



Kaeng Tai Pla



Main Ingredient

Cotton fish	1 fish
Fish viscera sauce	30 g.
Kaffir lime leaves	3 leaves

Chilli paste ingredient

Sliced turmeric	3 bulbs
Slice galangal	16 g.
Shallot	8 g.
Garlic	4 g.
Chopped lemon grass	24 g.
Fresh hot chilli	30
Pepper seed	5 g.
Shrimp paste	7 g

Cooking Method

Chilli paste cooking

Pound all the mixture until ground

Leave until warm then peel (edible amount is half of the original weight).

Cut shrimps in one-centimeter pieces for mixing with Nam Phrik.

Prepare Nam Phrik by pound grilled (or by microwave) shrimp paste with garlic until fine, add hot chilli and bash.

Put pieces of shrimps paste, seasoning with lime juice, palm sugar, fish sauce

.....Clean the fish, grill and take the meat

.....Heat 2 cups of water until boiling, mix viscera sauce until boiled, strain and heat

.....Mix chilli paste, fish meat, after boiling add shredded kaffir lime leaves, serve with fresh vegetables; parkia, cha-om, yard-long bean, wing bean, cucumber

.....Serve with side dish; cucumber, wing bean, white turmeric and crispy catfish according to proportion.

<http://www.thaifoodtoworld.com>

Read the story “Thai pla” and choose the best answer.

1. What is the local southern food?
 - a. Soup / curry
 - b. Tomyam / Chinese noodle
 - c. Fried Chickom with sticky rice . salad
 - d. Kaeng Tai Pla / Khao Yam



2. Which is not a Kaeng Tai pla ingredient?
 - a. Chicken
 - b. Pepper seeds.
 - c. Cotton fish
 - d. Garlic

3. What is the most important ingredient of Kaeng Tai pla?
 - a. Cotton fish
 - b. Fish visera sauce
 - c. Slice galangal
 - d. Garlic



4.1..... ,.....2..... and.....3..... are main materials in Kaeng Tai pla.
 - a. Cotton fish / fish visera sauce . kaffir linme leaves.
 - b. Cotton fish / Garlic / Shallot
 - c. Fresh visera sauce / pepper seed / shrimp paste
 - d. Fresh hot chilli / Kaffir lime leaves / slice turmeric



5. What is the first step to cook Kaeng Tai pla?

- a. Mix chilli paste.
- b. Grill the fish.
- c. Clean the fish.
- d. Take the grill fish meat



6. The second step to cook Kaeng Tap pla is.....?

- a. Clean and grill the meat of fish
- b. Mix chilli past , fish meat
- c. Heat two cups of water until boiling , mix viscera sauce until boiled strain and heat
- d. Wash and clean shrimps

7. What are the vegetable served with Kaeng Tai pla?

- a. cucumbers , wing beans , white turmeric
- b. long beans , egg plants , cucumber .
- c. cabbage , wing beans , egg plants.
- d. all of them are correct



8. You can eat Kaeng Tai pla with

- a. Cooked Rice
- b. Chiness noodles
- c. Sticky Rice
- d. a and b are correct

9. What is the taste of Kaeng Tai pla?

- a. Sweet
- b. Hot
- c. Spicy
- d. b and c are correct

10. Which region is Kaeng Tai pla the most popular in Thailand?

- a. North
- b. South
- c. East
- d. Central



Khao Yam



Main Ingredient

cooked rice	120 g.
Ground dried shrimp	30 g.
Roasted chopped coconut	20 g.
nut	20 g
Roasted ground chillies	5 g.
Vegetables Ingredient	
Bean sprouts	67 g.
Sliced lemon grass plants	3
Sliced kaffir lime leaves	30 g
Chopped green mango	50 g
Chopped yard-long bean	90 g
Lime	1 fruit

Budoo sauce Ingredient

Budoo sauce	100 g
Water	350 g
Salted fish	1 piece
Palm sugar	320 g
Shallot	16 g
Lemon grass plant	1
Shredded kaffir lime leaves	3 leaves
Galangal	1 piece

Cooking Method

Boil salted fish, take the meat, add budoo sauce and water, boil

Mix shallot, lemon grass, galangal, kaffir lime leaves, palm sugar, boil until sticky, taste for salty and sweet

Serve with rice, roasted coconut, ground dried shrimp and vegetables, topping with budoo sauce and seasoning with lime

http://www.thaifoodtoworld.com/home/recipe_detail.php?recipe_id=29

Read the story “ Khao yam” and choose the best answer.

1. In Satun which meals do people eat Khao yam?

- a. breakfast
- b. lunch
- c. dinner
- d. all of time



2. The main ingredient of Khao Yam is.....?

- a. Coconut meat
- b. Cooked rice
- c. Roasted ground chillies
- d. Ground dried Shrimp

3. What is the most important ingredient of Khao yam?

- a. lime
- b. Bean sprouts.
- c. Galangal
- d. Boodoo

4. Which is not a “Khao yam” ingredient?

- a. lime
- b. mango
- c. beam sprouts
- d. Mayongness



5. What is Boodoo made of?

- a. Shrimp and salt.
- b. Fish and salt.
- c. chicken and sugar.
- d. cattle fish , sugar and salt

6. If budoo is the popular food in the south which is the popular food in the North east?
- pla rah.
 - somtam.
 - grill chickens.
 - bamboo shoots soup.

7. Which vegetables give khoa yam a sour taste?

- lime and long bean.
- lime and green mango.
- sprout and cucumbers.
- fish and shrimp.



8. Which khao yam ingredients give the spicy taste?

- roasted ground chillies.
- slice kaffir lime leaves.
- palm sugar.
- salted fish

9. Khao Yam is the popular food in.....

- Sukhothai , Prae , Tak
- Rayong , Jantaburi , Udonthani
- Pattani , Yala , Satun
- Kanchanaburi , Supanburi , Roi et



10. Which month do Muslim people in Satun province eat khao yam in the evening ?

- Rormordon Month
- Maolid Day
- Edilfittri
- Edilauddah

Tradition and culture of people in Satun.

International kite- Flying Festival. The International Kite-Flying Festival is held annually in February at the Satun Airport. Buffalo Kite Satun symbolic kite, Buffalo kite(wow khwai) In Thailand symbolizes the kite of Satun province as it is widely flied here in nearby province. It has been told that rice farmers usually make the kite after the harvest season as thanksgiving to buffaloes for their great contribution.



The buffalo kite looks very much similar to Malaysia's crescent kite but the farmers has two curved horns and ears in the lower part and a buffalo head at the end. Buffalo kite are usually made of either " Sa" or straw paper attached on bamboo frame and equipped with a crossbar slightly? Decorated with colors which make a sound when swerving against the wind.

The popular size is 1.20-1.50 meters in width, it is controlled by a string of some 150-200 meters long A buffalo kite does not fly smoothly. It swerves fiercely so that the crossbar get the wind and makes sound.

Source : The Tourism Authority of Thailand.

Read the story “kite- Flying Festival” and choose the best answer.

1. Which kite is symbolic of Satun province?

- a. Chula
- b. Thai kites
- c. Wow khwai
- d. Pakpao



2. When do the people usually fly kites?

- a. before harvest.
- b. while harvest.
- c. after harvest.
- d. every seasons

3. Buffalo kite is the same as kite.

- a. Indonesia’s
- b. Malaysia’s
- c. Singapore’s
- d. Philipine’s



4. What kind of paper are kite usually made of?

- a. Sa paper
- b. Straw paper
- c. Recycle paper
- d. a and b are correct

5. What weather is suitable for flying kites?

- a. windy
- b. snowy
- c. cloudy
- d. rainy



6. Which size is suitable for kites?

- a. 1.20 – 1.05 meters.
- b. 1.20 – 1.50 meters.
- c. 1.30 – 1.50 meters.
- d. 1.50 – 2.05 meters.



7. Why does it make a sound when a kite is flying?

- a. The kites follow the wind.
- b. The kites against the wind.
- c. The kites follow the sun light
- d. The kites against the heavy rain.

8. How long is the string to control the kites?

- a. 100 – 200 meters long.
- b. 120 – 200 meters long.
- c. 130 – 200 meters long.
- d. 150 – 200 meters long.



9. Does a buffalo kite fly smoothly ?

- a. Yes , it does.
- b. No , it doesn't
- c. Yes, it is
- d. No , it isn't

10. Which month is suitable for flying kites in Satun?

- a. January
- b. February
- c. March
- d. April



Marriage



The custom of eating glutinous rice

(Nigaha or eating glutinous rice custom) According to Islamic commandments, ,
“Nigaha” means to create legal relation between a man and a woman soon to be husband
and wife. Wedding does not mean or women with different religions, according to
Islamic commandments such as performing divine worship five times a day, practicing
a fast and sacrifice, Muslim does not mean only taking an cath and circumcision. During
the wedding , they will instruct the bridegroom about the way of married life. There are
two witnesses and a Ma-hulr before the bridegroom and the master of ceremonies, all are
sited. The master of ceremonies holds the bridegroom’s hand and says “ I declare to “
Niga ha” You to Miss a daughter of with Ma-hulr costs”

The bridegroom will say “ I and willing to Niga ha to Miss with the Ma-hulr as mentione”’ The bridegroom must speak clearly and loudly enough for Nigaha and the two witnesses to hear every word or he has to repeat again and again

Exercise 1. Write “T” if the sentence is true and write “F” if the sentence is false.

-1. Nigaha means to create regulation between a man and a woman to be a husband and a wife by wedding.
-2. Nigaha or eating glutinous rice custom are different.
-3. The bridegroom is a woman
-4. According to Islamism, performing divine worship three times a day , practicing a fast , sacrifice.
-5. The bride will answer about the way of married life.
-6. There is one Ma –hulr before the bridegroom and the master of the ceremonies.
-7. Two witnesses and a Ma-hulr are sitting in the ceremonies.
-8. The bride holds the bridegroom and says “I declare to” “Nigaha”
You to miss a daughter of with Ma-hulr costs”
-9. The bride and the bridegroom must speak clearly and loudly in the ceremonies.
-10. Nigaha ceremonies will hold at the bride’s house.



Boat floating festival

This festival is held by Chao Ley (Sea gypsy) at Lipe Island, between **the** 13th and 15th of the sixth (May) and eleventh (November) months of the year. This is the time of the waxing moon to banish bad luck and to foretell the economic future of the community.



Procedures of boat floating festival

The first day of the festival is the 14th day of a new moon of the 6th or the 12th month . In the morning, every family will provide some sweetmeats such as yellow glutinous rice, white sweetmeat, Thai glutinous rice cake to make offerings or sacrifice to the spirits.

At about 3p.m., the village chief and all the villagers will come to the spirit house near the cemetery (called La-Tuad). Every one will put the offerings and a candle for each family and the village chief will see the candle flame that indicates the condition of each family. The village chief has to prepare a special set offerings, consisting of

consumers, foods and a set of seven- color rice so as offer a sacrifice to the god and the bad things, After finishing the ceremony, they perform a tambourine show with at least 7 songs so as to beg for blessings.

The second day , the 15th day of a new moon of the 6th or the 12th months, they will prepare 2 teams of workers . The first team is responsible for cutting some Zalacca fronds and the second team, cutting a mast and a keel must come out of the forest to the place of ceremony before the first team with some Zalacca fronds. Both teams will be leading by a “rong-ngeng” procession – dinging and dancing into the place of ceremony and the committee of the ceremony will begin to build a boat. People of all ages will be amused and happy with Rong-ngeng doming and Ram Wong until the boat constructions finished. During the night, the performance of cha to a tambourine show around the boat, the dancing continues until 4-5 a.m. and the chief of the village with all the villager pray together, light the candles, fixed in the boat (one candle / one family). At the auspicious time, they let the boat float away.

The third day, the first day of the waning moon, after the boat has floated away in the morning, there will be another team of the committee who go into the forest and cut some sticks to build something like a cross , leading by “rong –ngeng procession walking out of the forest. The cross will be stuck in the place of the ceremony while the villagers are singing and dancing with Rong-ngeng and Ram Wong. When night falls, the villagers perform a tambourine play around the cross, the villagers will bring some containers, filled with water to put around or near the cross, the magician will light candles among the water containers so as to make

“holy water” for face washing in the morning after the ceremony.

F:\Satu File://n province\culture_culture_files\eng_satun_culture.htm.

Exercise 1. Read the story (Boat –floating festival) and choose the best answer.

1. How long does the boat –floating festival take?

- a. one day
- b. two days
- c. three days
- d. four days

2. When will the boat – floating be held?

- a. March and November
- b. April and November
- c. May and November
- d. June and November



3. In the morning of the first day every family will provide some sweetmeats such as yellow glutinous rice, while sweetmeat offerings to the.....

- a. spirits.
- b. god.
- c. the leader of the village.
- d. the old woman of the village.

4. What does the chef of the village mean?

- a. spirits.
- b. god.
- c. the leader of the village.
- d. the old man of the village.



5. What is a special set offering?

- a. consumers , foods and a set of seven – color rice.
- b. consumers , water and a set of seven – color rice.
- c. consumers , fruits and a set of seven – color rice.
- d. consumers , dressed and a set of seven – color rice.

6. When does the magician with all the villagers pray together?
- the first day.
 - the second day.
 - the third day.
 - the fourth day.



7. What does “rong-nheng” mean?
- a martial art fought with bare hands.
 - a kind of lullabies of the south.
 - a form of dance consists of singing and music.
 - a form of folk dance of Thai Muslims
8. What is the purpose of the boat –floating festival?
- floating good things.
 - floating bad things and predict the future of the family.
 - floating the spirit house.
 - floating the magician of the village.



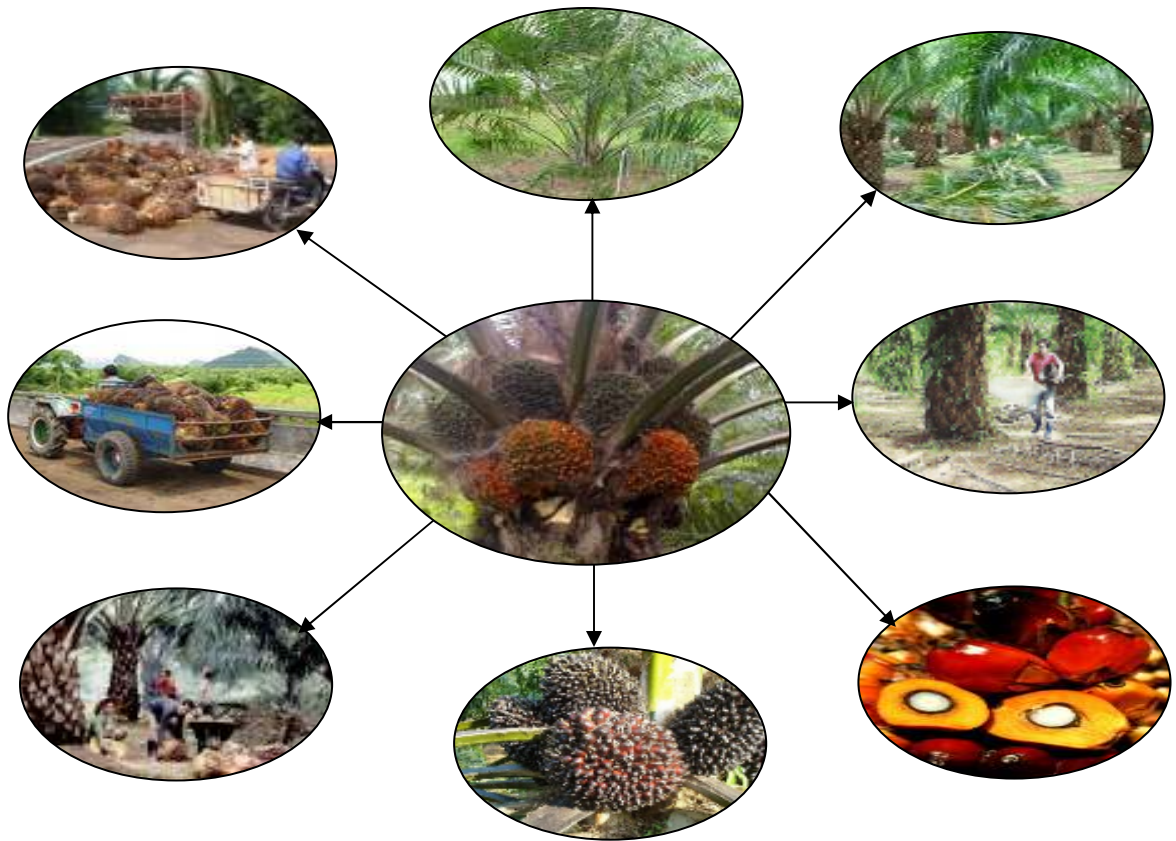
9. How many candles for one family are fixed in the boat?
- one candle.
 - two candles.
 - three candles.
 - four candles.

10. What does “holy water” mean?
- good water blessed by a priest.
 - good water for good future.
 - pure water for good and bad things
 - pure water for bad things.



Read the story and answer some questions

Oil palm plantation



Most people in Satun province earn their living from making oil palm plantation.

Growing selected oil palms is not just a matter of picking the fruit; it is a modern crop. The grower must learn how to do his work well, and ask for advice, so that he learns to do better and better. The grower must think about his work and plan it, so that he can always do his work at the right time. An oil palm begins to produce 3 or 4 years after it has been planted. During that time the grower must spend money and work hard, without harvesting any fruit or earning any money. To make a modern oil palm plantation takes money. Most often you will have to pay workmen for clearing the site of the plantation and removing tree stumps. Then you must buy seedlings and fertilizers. Unless you apply fertilizers to the oil palms when they are still young, they will not grow well and you will have to wait a longer time before you can begin to harvest.

You may also have to pay workers to help you look after the young plantation. Weeds must not be allowed to get in the way of the oil palms, and the trees must be protected from damage by rats and agoutis. When the oil palms have begun to produce the fruit must be harvested at the right moment. If you can not pick the fruit at the right moment it becomes too ripe, many clusters will drop and the quality of the fruit will be less good.

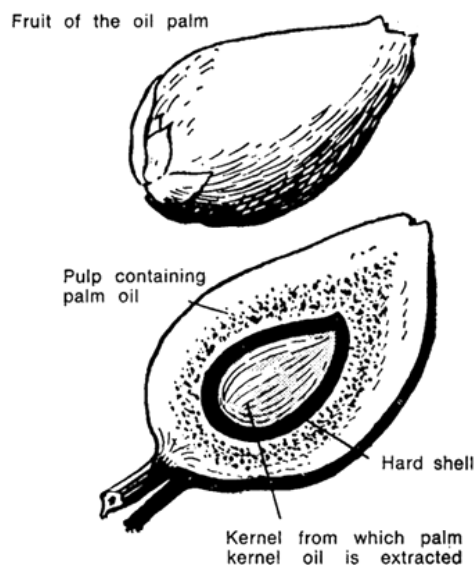
The oil palm grows well and produces a lot in regions where it is very hot, where the sun is very strong, and where it rains a great deal.

The fruits of the oil palm consist of the following parts:

Pulp: the pulp is yellow; when the pulp is crushed it yields palm oil.

Seed: inside the shell of the seed is the kernel; when the kernel is crushed, it yields palm kernel oil.

☀ The kernel also contains the germ.



The fruits of all oil palms are not the same.

They are not all of the same size.

The pulp is not equally thick in all of them.

The shell is not equally thick.

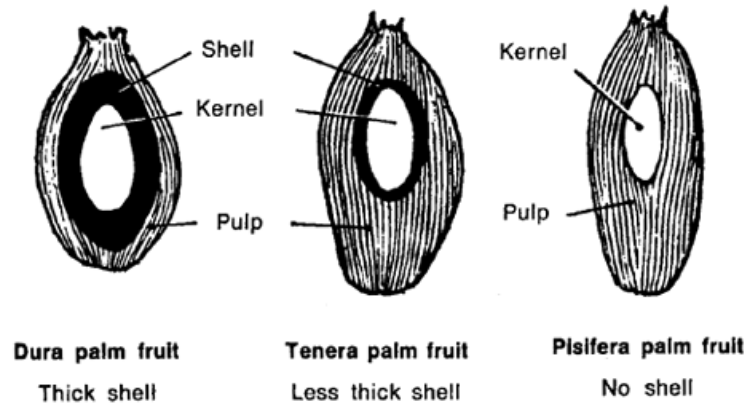
Some kernels have no shell at all.

☀ There are different varieties of oil palm:

dura palms have kernels with a thick shell;

pisifera palms have kernels with no shell;

tenera palms have kernels with a thin shell.



☀ These are selected oil palms.

In order to get a lot of oil, the female flowers of a dura palm are fertilized with the pollen from a pisifera palm.

Once they are fertilized, the female flowers turn into fruits.

These fruits are of the tenera variety.

The fruits of the tenera palm have a lot of pulp, a thin shell and a big kernel.

The clusters of fruit are sold to mills which extract all the oil from the pulp and the kernels.

☺ oil palm plantations bring in money

for the growers who sell the fruit,

for the workers who work in the mills,

for the government which can sell the oil to foreign countries.

☺ It takes much money and work to make an oil palm plantation.

The grower must use modern methods in order to pay for his expenses and earn money.

He will need advice on:

- ☺ how to choose the site for his plantation
- ☺ how densely to plant it
- ☺ how to look after the plantation
- ☺ how to apply fertilizers
- ☺ how to protect the oil palms against disease

Source:

http://209.85.175.104/search?q=cache:JUPky7MU_vOJ:www.fao.org/docrep/006/t0309

9e...



Exercise 1. Read the story oil palm plantation and choose the best answer for each item

1. How many years until oil palm begins to produce?

- a. 2 – 3 years.
- b. 3 – 4 years.
- c. 4 – 5 years.
- d. 4.5 – 5 years.



2. What kind of animal damages oil palm ?

- a. rats and snake.
- b. rats and cows.
- c. rats and sheeps.
- d. rats and agoutis.

3. Who is the grower?

- a. the worker in oil palm plantation.
- b. the owner of the oil palm plantation.
- c. the owner of the mills.
- d. the government.



4. What colour is oil palm when it ripe?

- a. brown , orange and red.
- b. green , orange and red.
- c. brown , orange and black.
- d. green , yellow and orange

5. What kind of weather does oil palm grow well?

- a. very cold.
- b. very dry.
- c. very wet.
- d. very hot.



6. Where do owners of oil palm plantation sell their produce?

- a. at the open market.
- b. at the mills.
- c. at the supermarket.
- d. at the department store.

7. What are the varieties of oil palm?

- a. Tenera , dura , pisifera.
- b. Tenera , shell pulp.
- c. dura pisifera kernel.
- d. pisiferda , dura , pulp.



8. Which is the variety of oil palm when have kernels with a thick shell?

- a. pisifera
- b. tenera
- c. dura
- d. dura and pisifera



9. Can you raise beef cattle in the adult oil palm plantations?

- a. Yes, you can.
- b. Yes, you do.
- c. No, you can not.
- d. Yes , you did

10. What is the variety of oil palm have kernels with thin shell?

- a. pisifera
- b. tenera
- c. dura
- d. dura and pisifera



Occupation

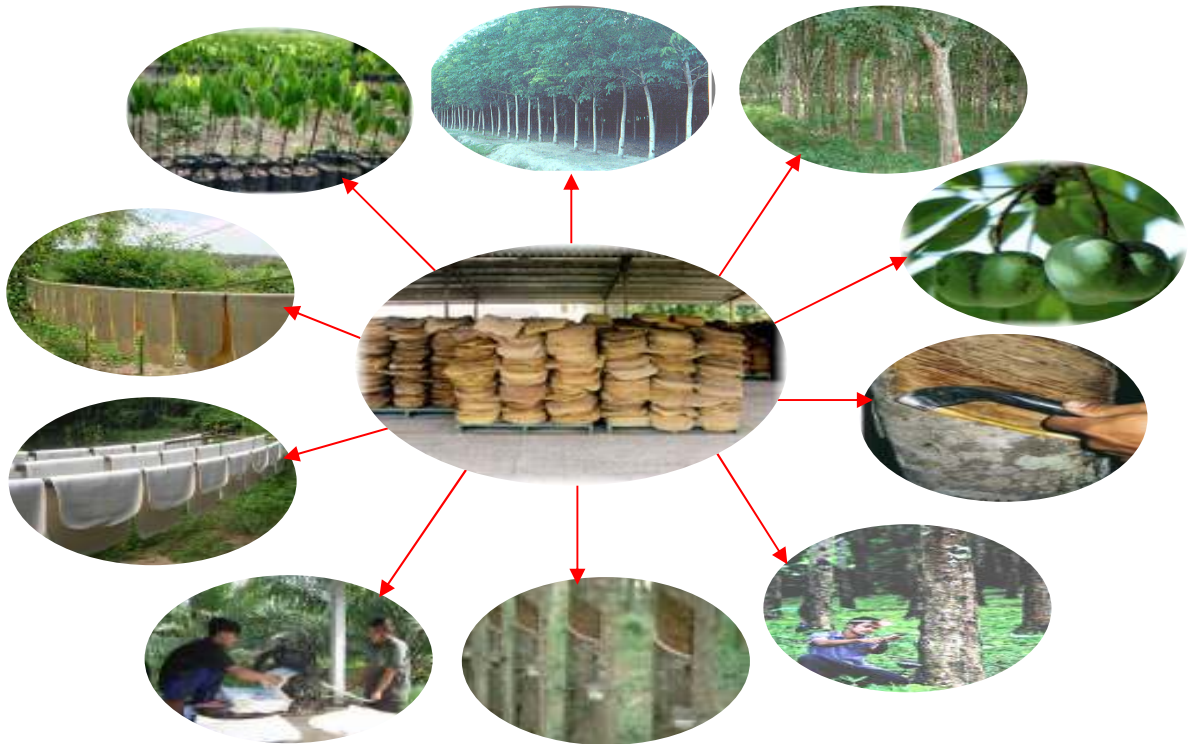
The major occupation of people in Satun is concerning agriculture that are oil-palm, rubber, rice farming, fishery and industry.

Fishery

Most people in Satun earn their living by fishing along the coast which is fertile with aquatic animal some of them produce local handicrafts from natural raw material. The coast of Satun is 144.80 kilometres long with 1,434 kms area for fishing. There are 4,675 families who live on fishing with their own tools produced by local wisdom.

Read the story and answer some questions

Para rubber tree



The **Pará rubber tree** (*Hevea brasiliensis*), often simply called **rubber tree**, is a tree belonging to the family Euphorbiaceae and the most economically important member of the genus *Hevea*. It is of major economic importance because its sap-like extract (known as latex) can be collected and is the primary source of natural rubber.

Description

The tree can reach a height of over 30m (98.4 feet). The white or yellow latex occurs in latex vessels in the bark, mostly outside the phloem. These vessels spiral up the tree in a right-handed spiral which forms an angle of about 30 degrees with the horizontal.

Harvest

Once the trees are 5-6 years old, the harvest can begin: incisions are made orthogonal to the latex vessels, just deep enough to tap the vessels without harming the tree's growth, and the sap is collected in small buckets. This process is known as rubber tapping. Older trees yield more latex, but they stop producing after 26-30 years.

History

The Pará rubber tree initially grew only in the Amazon Rainforest. Increasing demand and the discovery of the vulcanization procedure in 1839 led to a boom in that region, enriching the cities of Belém and Manaus. The name of the tree derives from Pará, the second largest Brazilian state, that contains Belém as capital, mainly city and tech-financial centre.

Uses

The wood from this tree, referred to as parawood or rubberwood, is used in the manufacture of high-end furniture. It is valued for its dense grain, minimal shrinkage, attractive colour and acceptance of different finishes. It is also prized as an "environmentally friendly" wood, as it makes use of trees that have been cut down at the end of their latex-producing cycle



Rubber tree leaves

latex

rubber tree seeds

Rubber tree plantation in Satun

Read the story “ Para rubber tree” and choose the correct answer.

1. Where did para rubber tree originated?

- a. U.S.A
- b. Britain
- c. China
- d. NewZeland



2. We can harvest para rubber trees when the trees are.....years old.

- a. 4 – 5 years old.
- b. 5 – 6 years old.
- c. 7 – 9 years old.
- d. 9 – 10 years old.

3. How tall are para rubber trees?

- a. 80 – 10 ft.
- b. 90 – 110 ft.
- c. 100 – 125 ft.
- d. 105 – 125 ft.



4. When do para rubber tree stop producing?

- a. After 19 – 20 years.
- b. After 20 – 21 years.
- c. After 24 – 26 years.
- d. After 29 – 30 years.

5. What do we call the wood from this tree?

- a. parawood.
- b. rubberwood.
- c. latex wood.
- d. a and b are correct.



6. The process “incisions are made orthogonal to the latex vessels just deep enough to tap the vessels without harming the tree’s growth, and the sap is collected in small buckets is called.....

- a. vessels tapping.
- b. rubber tapping.
- c. latex tapping.
- d. latex produce.



7. The.....of para rubber trees yield more latex?

- a. Very young tree.
- b. young trees.
- c. older trees.
- d. oldest trees.

8. What is the colour of para rubber leaves?

- a. white and green.
- b. black and brown.
- c. green and brown.
- d. green and blue



9. We can make flower from pararubber

- a. seed.
- b. wood.
- c. latex.
- d. leaves.

10. The wood of the rubber tree can make.....

- a. furniture.
- b. paper.
- c. food.
- d. basket.



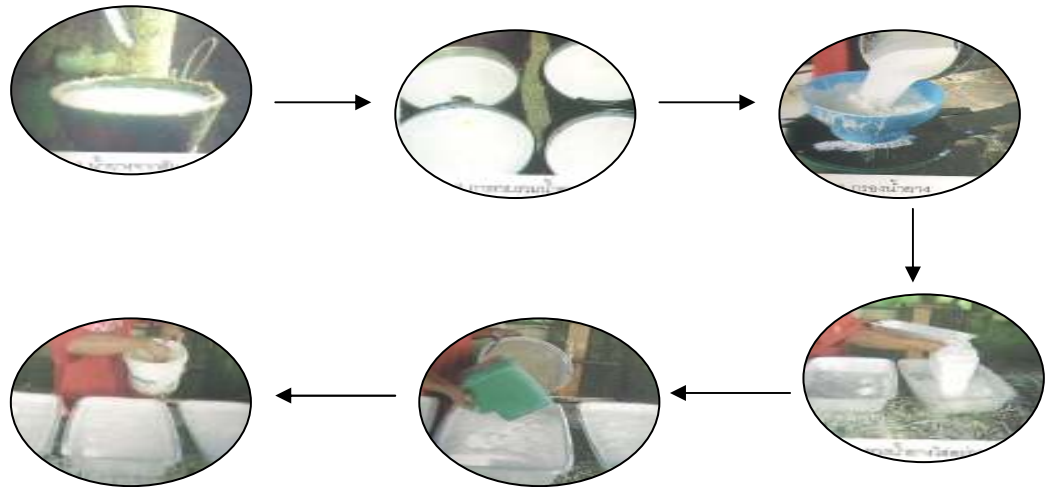
How to make rubber sheets

The quality of rubber sheets is dependent on the production method. . The quality of the rubber sheet determines the price the rubber farmer will get for his products. If the rubber farmer is able to produce high quality rubber sheets he will get a higher price.

To produce quality sheets is not that difficult. Clean the latex, press the sheets to the appropriate thickness, the sheets should have a uniform colour, use the right amount of water and acid.

The farmer should closely stick to the following steps.

Step1 The collection of the latex

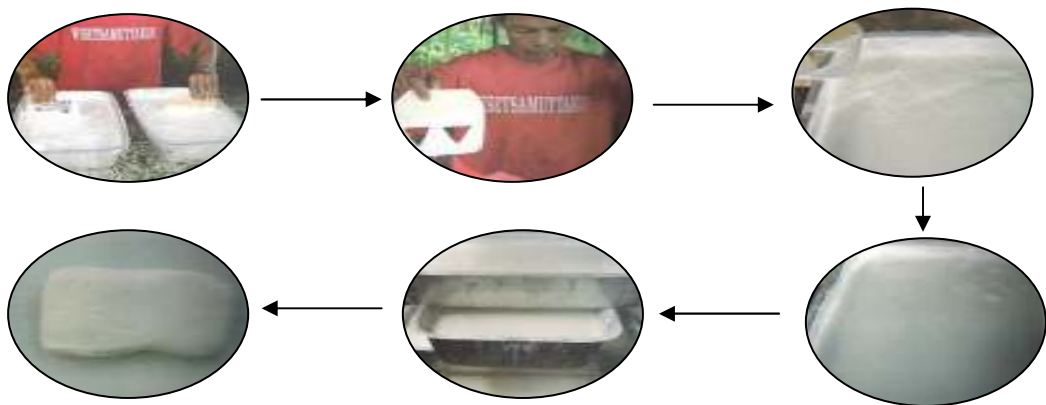


1. Clean the cup that collects the latex carefully before using it
2. Clean the bucket that is used to collect the latex every time before use
3. Do not place rubber residue of leaves in the bucket that is used to collect the latex. This will make the rubber dirty and the latex will coagulate faster and it will be more difficult to filter the latex.
4. The tank that is used to transport the latex the place where the rubber sheets should be sealed in order to prevent spilling over during transport.

Step 2 The cleaning of the equipment

Cleanness is very important in the production of high quality rubber sheets. All equipment should be cleaned before and after use. If the equipment that is used to make rubber sheets is made wet it is easier to clean after production is finished.

Equipment that is used to make rubber sheets



1. A filter number 40 and 60
2. Trays
3. A tank for water and a tank for the latex
4. A table to knead the rubber
5. A press with smooth rollers and lined rollers
6. A place with a roof to work under
7. A can to measure the quantity of latex and water
8. A spatula to stir the latex
9. Containers to mix the acid

Step 3 To filter the latex

The latex should be filtered to remove dirt and particles . Two filters will be used, first a number 40 filter and the second filter should be a number 60 filter

Step 4 To measure the quantity of latex per tray

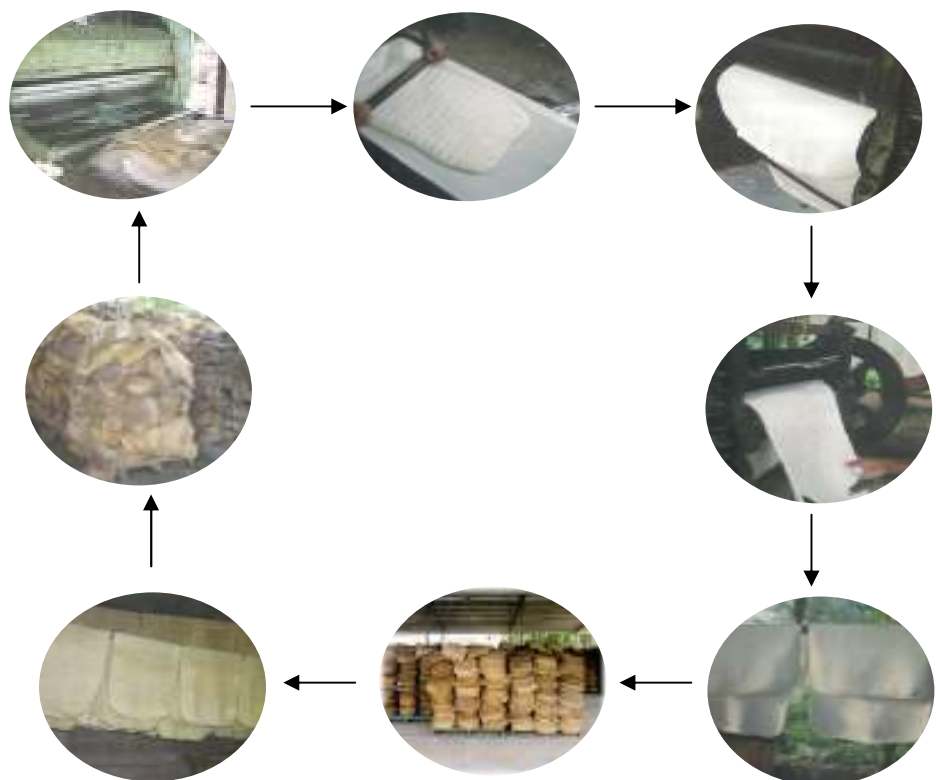
For each tray 3 liters of filtered latex should be used

Step 5 The mixing of latex and water

The farmer should add 2 liters of water to each tray, so that latex and water are mixed in a 3 :2 ratio. This ratio can be changed in case the latex has been diluted by rain for example

Step 6 The choice of acid and the mixing of acid

In order to have the latex coagulate and produce quality rubber sheets, that are in demand by middle man and the industry the farmers should choose formic acid with a concentration of at least 90 %. Formic acid differs from other acids that is colourless, has a strong pungent smell that will give a burning feeling to the nose and will dissolve very well in water .



Read the story and answer some questions.

1. How many steps is able to produce high quality rubber sheets?
 - a. four steps.
 - b. five steps.
 - c. six steps.
 - d. seven steps.

2. If the rubber farmer is able to produce high quality rubber sheets he will get a..... price.
 - a. low
 - b. median
 - c. high
 - d. higher price

3. How many equipment is used to make rubber sheets?
 - a. seven
 - b. eight
 - c. nine
 - d. ten

4. Why does to filter the latex?
 - a. to remove dirt and particles
 - b. to remove water
 - c. to remove acid
 - d. to remove rubber sheets

5. What is the first number of the filter will be used?
 - a. a number thirty – five filter.
 - b. a number forty filter.
 - c. a number sixty filter.
 - d. a number sixty five filter.



6. What does 3:2 ratio mean?
- a. three liters of filtered latex : two liters of water.
 - b. three liters of water : two liters of filtered latex.
 - c. three tray of filtered latex : two liters of water.
 - d. three tray of water : two liters of filtered latex.
7. The farmers should choose..... with a concentration of at least 90%.
- a. formic water.
 - b. formic latex.
 - c. formic rubber.
 - d. formic acid.
8. A table to knead the rubber is that used to make rubber sheets.
- a. lined rollers.
 - b. a measurement.
 - c. equipment.
 - d. Containers
9. Formic acid is from other acid.
- a. same
 - b. different
 - c. similar
 - d. as same as
10. Good formic acid will give to the nose and will dissolve very well in the water.
- a. burning felling
 - b. good felling
 - c. bad felling
 - d. sweet filling

