



# **Technology and Livelihood Education Agri-Fishery** Arts **Module 1: Importance of Planting Trees** TERNATIVE DELIVERY MODE COVERNMENT PROPERTY &

CO\_TLE-AFA6\_Module1

#### TLE – Agri-Fishery Arts – Grade 6 Alternative Delivery Mode Module 1: Importance of Planting trees First Edition, 2020

**Republic Act 8293, section 176** states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this module are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

Published by the Department of Education Secretary: Leonor Magtolis Briones Undersecretary: Diosdado M. San Antonio

| Development Team of the Module   |  |  |  |
|--|--|--|--|
| Writer: Phoebe L. Navales  |  |  |  |
| Editor: Reynaldo P. Evangelio  |  |  |  |
| Fatima M. Solis  |  |  |  |
| Reviewer: Roselyn V. Geñega  |  |  |  |
| Illustrator and Layout Artist: Jarrett Irvin C. Gayosa, Richie C. Blasabas |  |  |  |
| Management Team: Ramir B. Uytico   |  |  |  |
| Pedro T. Escobarte, Jr.  |  |  |  |
| Elena P. Gonzaga   |  |  |  |
| Donald T. Genine   |  |  |  |
| Reynaldo G. Gico   |  |  |  |
| Michell L. Acoyong   |  |  |  |
| Grace T. Nicavera  |  |  |  |
| Mylene D. Lopez  |  |  |  |
| Reynaldo P. Evangelio  |  |  |  |
| Jarrett Irvin C. Gayosa  |  |  |  |
| Helen Grace S. Poderoso  |  |  |  |

#### Printed in the Philippines by \_\_

#### **Department of Education – Region VI**

| Office Address: | Duran Street, Iloilo City      |
|-----------------|--------------------------------|
| Telefax:        | (033) 336-2816, (033) 509-7653 |
| E-mail Address: | region6@deped.gov.ph           |

# 6

# Technology and Livelihood Education **Agri-Fishery Arts** Module 1: Importance of

### **Planting Trees**



#### **Introductory Message**

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-bystep as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



#### What I Need to Know

Planting and propagating trees and fruit-bearing trees is a source of livelihood and additional income for daily needs of many Filipino families nowadays. Fruit-bearing trees can also be planted in your backyard, but it depends on several factors: the space in your backyard, the kind of soil, and the type of climate in your own community.

This module will teach you the importance of planting and propagating trees and fruit-bearing trees and marketing seedlings.

After going through this module, you are expected to:

- 1. Discuss the importance of planting and propagating trees and fruit bearing trees and marketing seedlings
  - 1.1Explain the benefits derived from planting trees and fruit-bearing trees
  - 1.2Identify ways in marketing seedlings



What I Know

In this activity, you are tasked to match the word/s in Column A with the given statement in Column B. Then, write the letter of the correct answer you have chosen on a separate sheet of paper.

|    | Column A       | Column B |   |  |
|----|----------------|----------|---|--|
| 1  | tree           | A.       | considered as one of the several factors in planting fruit-bearing trees  |  |
| 2  | wood           | В.       | it is derived from the sap of some trees  |  |
| 3  | lumber         | C.       | product of refined rubber and resins  |  |
| 4  | firewood       | D.       | an erect plant with a single woody stem   |  |
| 5  | rubber         | E.       | it is naturally present in the air that is given<br>off during respiration and is absorbed by<br>plants & trees in photosynthesis |  |
| 6  | Turpentine     | F.       | major source of fiber in the production of pulp and paper   |  |
| 7  | soil erosion   | G.       | a colorless gas present in the air that is given off by trees   |  |
| 8  | kind of soil   | H.       | it is a processed wood used to construct houses for both man and animals  |  |
| 9  | carbon dioxide | I.       | gradual reduction of soil that is prevented by the root system of trees   |  |
| 10 | oxygen         | J.       | one of the valuable products of trees many people are using everyday  |  |
|    |                | К.       | improving the quality of air in the environment   |  |

## Module Importance of Planting Trees



<sup>1</sup>Pili Trees

<sup>2</sup>Rambutan



What's In

Trees are important to the environment where we live. In this activity you are tasked to put a check (  $\checkmark$  ) on the space provided if the tree or fruit bearing tree is found in your community.

| 1. Santol   | 6. Narra       |
|-------------|----------------|
| 2. Mango    | 7. Pine Tree   |
| 3. Rambutan | 8. Mahogany    |
| 4. Lanzones | 9. Ipil-Ipil   |
| 5. Avocado  | 10. Star Apple |

<sup>&</sup>lt;sup>1</sup> Alma Gamil, Free Royalty, https://www.flickr.com/photos/alma\_philippinesimages/14918631134

<sup>&</sup>lt;sup>2</sup> Zaqqy, Free Royalty, https://www.flickr.com/photos/zaqography/3667207273/



#### What's New



*₃Trees* Harry Behn

Trees are the kindest things I know, They do no harm, they simply grow, And spread a shade for sleepy cows, And gather birds among their bows.

They give us fruit in leaves above, And wood to make our houses of, And leaves to burn on Halloween And in the spring new buds of green,

They are the first when day's begun To tough the beams of morning sun, They are the last to hold the light When evening changes into night.

And when a moon floats on the sky They hum a drowsy lullaby Of sleepy children long ago... Trees are the kindest things I know.

After reading the poem, answer the following questions to deepen your understanding:

- 1. What do trees give us according to the poem?
- 2. What is the material used to make our houses?
- 3. What are the benefits we can get from trees?

<sup>&</sup>lt;sup>3</sup> Johannes Plenio, Free Royalty, https://www.pexels.com/photo/two-brown-trees-1632790/



In this activity, you are going to learn the content of this module to better understand how you will benefit from planting trees and fruit-bearing trees and marketing of seedlings.



#### I. Benefits Derived from Planting Trees and Fruit-Bearing Trees to Families and Communities

Trees are valuable to the family and the community for the products they give such as:

- 1. Food like fruits, vegetables, and nuts which are essential to our health and of great help even in the economy.
- 2. Firewood used as fuel for cooking and heating.
- 4. Construction materials that are necessary in the building industry such as lumber, plywood, and board.
- 5. Fiber which are needed to produce pulp and paper.
- 6. Chemical products such as resin, rubber, and turpentine that are used as raw materials in the production of varnish, adhesives, tires and paint thinners.

<sup>&</sup>lt;sup>4</sup> Trees for the Future, Free Royalty, https://www.flickr.com/

Aside from what have been stated, here are the other benefits that can be derived from trees:

- Trees provide shade and fresh air around the house, along the streets, and surroundings. They are very much needed by people as we experience climate change.
- Trees protect the soil from erosion. Their roots hold the soil, preventing it from eroding during heavy rains and floods.
- They help maintain high quality water supply. The roots of plants and trees help strain the dirt and cleanse the water as it passes through it.
- The root system of the tree promotes soil stability. This means that the soil held by the roots remain there and do not erode.
- Trees serve as valuable wildlife habitats. Wild animals live in places with many trees like that of the forest.
- Trees serve as windbreakers during typhoons and storms, thus, reducing damages of houses, buildings and agricultural crops.
- They help reduce pollution in congested urban areas. Remember that trees take in carbon dioxide emitted from vehicles and factories. The more trees present, the less amount of carbon dioxide is in the air.
- Trees contribute to the beautiful landscapes in the city and countryside. A land with plenty of trees, grasses and flowers of different colors gives a refreshing sight.
- Trees prevent river and lake sedimentation by preventing soil erosion. With the presence of plant roots, the land is not exposed to direct rainfall that causes soil runoff towards bodies of water.
- Planting trees can be a great recreational activity for families. Trees can also provide income.



#### II. Marketing of Seedlings

Seedling Marketing is one of the most vital components of seedling technology, from it depends on the size and scope of the seedling industry. Generally, it includes production, processing, storage, and quality control of seedlings. Specifically, seedling marketing refers to the actual acquisition and selling of seedlings, intermediate storage, delivery, and sales promotional activities.

Marketing seedlings serves as source of additional income and livelihood of Filipino families. Stated below are some of the importance in marketing seedlings:

- 1. to secure the variety of seedlings
- 2. to preserve the quality of seedlings
- 3. to increase the number of plant species
- 4. to ensure the physical condition of seedlings
- 5. to serve as income generating in the part of seedling growers
- 6. to increase the production of trees and fruit-bearing trees

<sup>&</sup>lt;sup>5</sup> Steven Lilley, Free Royalty, https://www.flickr.com/photos/sk8geek/3439123595/

After knowing the importance of marketing seedlings, here are some ways of selling seedlings to the market:

1. Seedlings in nurseries are usually sold in earthenware or plastic bags. The bigger seedlings are sold in big metal containers like drums.

2. Seedlings are grouped according to kind and according to size. This arrangement makes it easy to price the products. Hence, prices are largely dependent on the size, health condition, and variety of the seedlings.

3. Seedlings in the nursery are sold in retail or wholesale basis. Some customers go to the nursery to pick their choice of seedlings.

It is important that the plants are orderly arranged to be attractive to customers who are picking the seedlings they want. Well-arranged plants are also a way of attracting passers-by to stop and look at the wide range of varieties available.

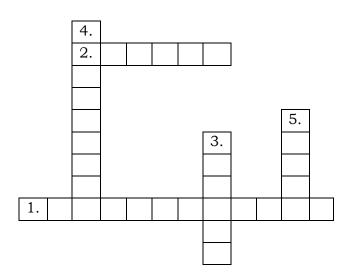
Today, an effective and popular strategy in marketing products is online marketing via Facebook or any social media that spreads information widely within a short period of time.



What's More

#### **Independent Activity**

In this activity, you need to complete the puzzle by answering the questions found in the Independent Assessment. Use a separate sheet of paper for your answers.



#### **Independent Assessment**

Here are the hints that will lead you to complete the puzzle above.

#### Cross

- 1. slows down speed of typhoons or storms
- 2. this is what trees give off that is beneficial to human beings

#### Down

- 3. seedlings that are sold by piece to the buyer
- 4. to contaminate the environment with man-made waste making it unclean
- 5. product made from fiber harvested from wood pulp of trees



#### What I Have Learned

- are valuable to the family and the community for the products they give.
- Give at least three (3) products of trees which every individual is benefited from \_\_\_\_\_, \_\_\_\_, and \_\_\_\_\_.
- are products of tree that are used as raw materials in the production of varnish, adhesives, tires, and paint thinners.
- is one of the most vital components of seedling technology and serves as source of additional income and livelihood for Filipino families.
- Seedlings in nurseries are usually sold in \_\_\_\_\_ or plastic bags and it can be done through retail or \_\_\_\_\_ basis.



What I Can Do

Below is a checklist that a student like you can do about propagation of trees. Rate yourself on how well you practice such activities for future improvement.

Put a check (  $\checkmark$  ) in the column that you do most.

| Some practices being done at home and in school  | Always | Sometimes | Never |
|--|--------|-----------|-------|
| 1. I love going to school and playground with plenty of trees because of the shade it gives.         |        |           |       |
| 2. I help plant trees at home and at school.   |        |           |       |
| 3. I feel that planting seedlings of trees even in pots and cans is a worthwhile activity.           |        |           |       |
| 4. I join in beautifying our neighborhood by planting trees and fruit-bearing trees.                 |        |           |       |
| 5. I help in replanting trees at home or in school placing them on their proper area.                |        |           |       |
| 6. I join a tree planting activity in school and in our community.                                   |        |           |       |
| 7. I help in forest conservation by encouraging others to plant trees.                               |        |           |       |
| 8. I help preserve our environment by planting trees and telling others to clean their surroundings. |        |           |       |
| 9. I consider trees planted on a vacant space as helpful to our environment.                         |        |           |       |
| 10.I take care of my small garden at home<br>because it helps us in our daily needs.                 |        |           |       |

How much do you care for trees and for your surroundings? Find out your score. Give yourself 3 points for <u>Always</u> answers, 2 points for <u>Sometimes</u> answers, and 1 point for <u>Never</u> answers. Total your points and find out below how good you are in taking care of trees.

| 25-30 | - Very Good         |
|-------|---------------------|
| 20-24 | - Good              |
| 15-19 | - Fair              |
| 10-14 | - Needs Improvement |

If your score is below "Very Good", you can strive to be better by improving your practices in taking care of trees and your surroundings.



Assessment

Choose the letter of the best answer then write it on a separate sheet of paper.

1. A substance in the air that is given- off by trees and is beneficial to human beings.

- a. carbon dioxide
- b. carbon monoxide
- c. erosion
- d. oxygen

2. Kim wanted to gain more profit in selling his seedlings from his nursery by piece. What method of marketing seedlings Kim used?

- a. cooperatives
- b. middleman
- c. retail
- d. wholesale

3. This is one of the products of trees made from fiber and harvested from wood pulp.

- a. paper
- b. rubber
- c. turpentine
- d. wood

4. The following are some importance of marketing seedlings. Which among the choices are correct?

- I. to ensure the physical condition of seedlings
- II. to preserve the quality of seedlings
- III. to decrease the number of plant species
- IV. a way of increasing the production of trees and fruit-bearing trees a. I, III, IV
- a. 1, 111, 1V 15 11 111 11
- b. II, III, IV
- c. I, II, IV
- d. I, II, III

5. Processed wood from planted trees that is used to construct houses for man and animals.

- a. lumber
- b. paper
- c. pulp
- d. rubber

6. \_\_\_\_\_\_ are erect plants with single woody stem and it plays a very important role in our ecological balance.

- a. flower
- b. shrub
- c. tree
- d. vine

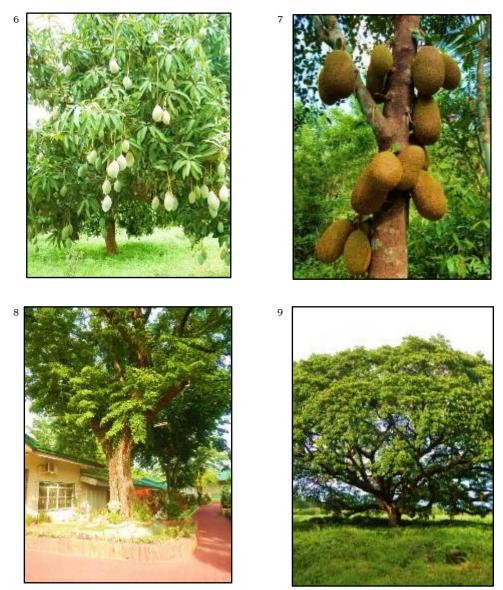
7. The following are benefits in planting trees and fruit-bearing trees except one.

- a. They serve as valuable wildlife habitat.
- b. Trees cause erosion.
- c. They prevent lake and river sedimentation.
- d. They provide shade and fresh air around the house and along the streets and surroundings.
- 8. Trees take in \_\_\_\_\_\_ from factories and motorized vehicle emissions.
  - a. carbon dioxide
  - b. oxygen
  - c. soil erosion
  - d. sulfur dioxide
- 9. The root system of the trees holds water in the soil that prevents
  - a. carbon dioxide
  - b. noise pollution
  - c. soil erosion
  - d. strong winds
- 10. Trees are valuable to people and community. Which of the following is not a product from trees?
  - a. food like fruits, vegetables, and nuts
  - b. fiber to produce pulp and paper
  - c. wood used as fuel for cooking and heating
  - d. chemical products such as pesticide and insecticide



#### Additional Activities

Here are some trees and fruit bearing trees that are commonly found in some communities.



- 1. Are these trees also present in the place where you live?
- 2. Write down the names of trees and fruit-bearing trees present in your community. Describe the trees and where they are located. How do you feel having trees around you? Write your feelings and thoughts in your personal journal.

<sup>&</sup>lt;sup>6</sup> Thotapuri Mango Tree in Kolar, Free Royalty, https://commons.wikimedia.org/wiki/

<sup>&</sup>lt;sup>7</sup> Jack Fruit Tree Bearing Fruits, Free Royalty, https://commons.wikimedia.org/wiki/

<sup>&</sup>lt;sup>8</sup> Holy cross fiesta Narra Philippines School, Free Royalty, https://commons.wikimedia.org/wiki/

<sup>&</sup>lt;sup>9</sup> Acacia Philippines Centennial Road Avenue, Free Royalty, https://commons.wikimedia.org/wiki/

| 1. d<br>2. c<br>3. a<br>4. c<br>5. a<br>6. c<br>7. b<br>8. a<br>9. c<br>10.d | 1. windbreakers<br>2. oxygen<br>4. pollution<br>5. paper<br>5. | 10.G<br>5. E<br>2. B<br>6. C<br>2. B<br>6. C<br>7. I<br>7. J<br>7. J<br>7. J<br>7. J<br>7. J<br>7. J<br>7. J<br>7. J |
|--|--|--|
| fnəmzsəzzA   | Ућаť's Моге  | What I Know  |
|  |  |  |

16



Answer Key

#### References

Behn, Harry. "Trees Poem By Harry Behn - Poem Hunter". *Poemhunter.Com*. https://www.poemhunter.com/poem/trees-100/.

Learning and Living in the 21st Century 6, pp. 101-107

The Basics of Better Family Living 6, pp. 53-59.

#### For inquiries or feedback, please write or call:

Department of Education - Bureau of Learning Resources (DepEd-BLR)

Ground Floor, Bonifacio Bldg., DepEd Complex Meralco Avenue, Pasig City, Philippines 1600

Telefax: (632) 8634-1072; 8634-1054; 8631-4985

Email Address: blr.lrqad@deped.gov.ph \* blr.lrpd@deped.gov.ph