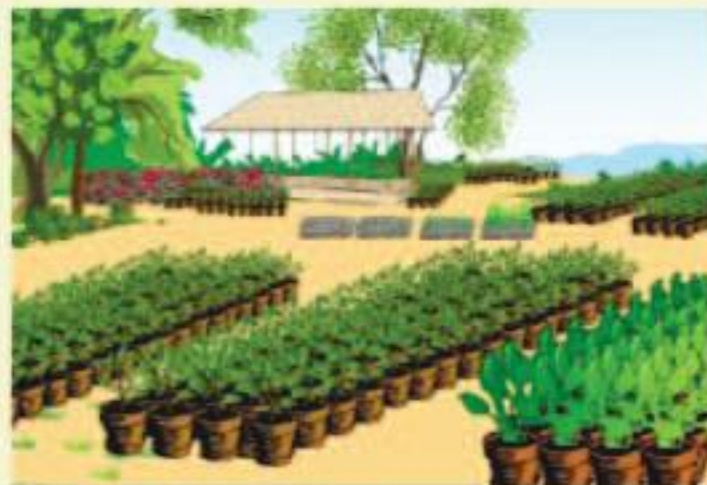




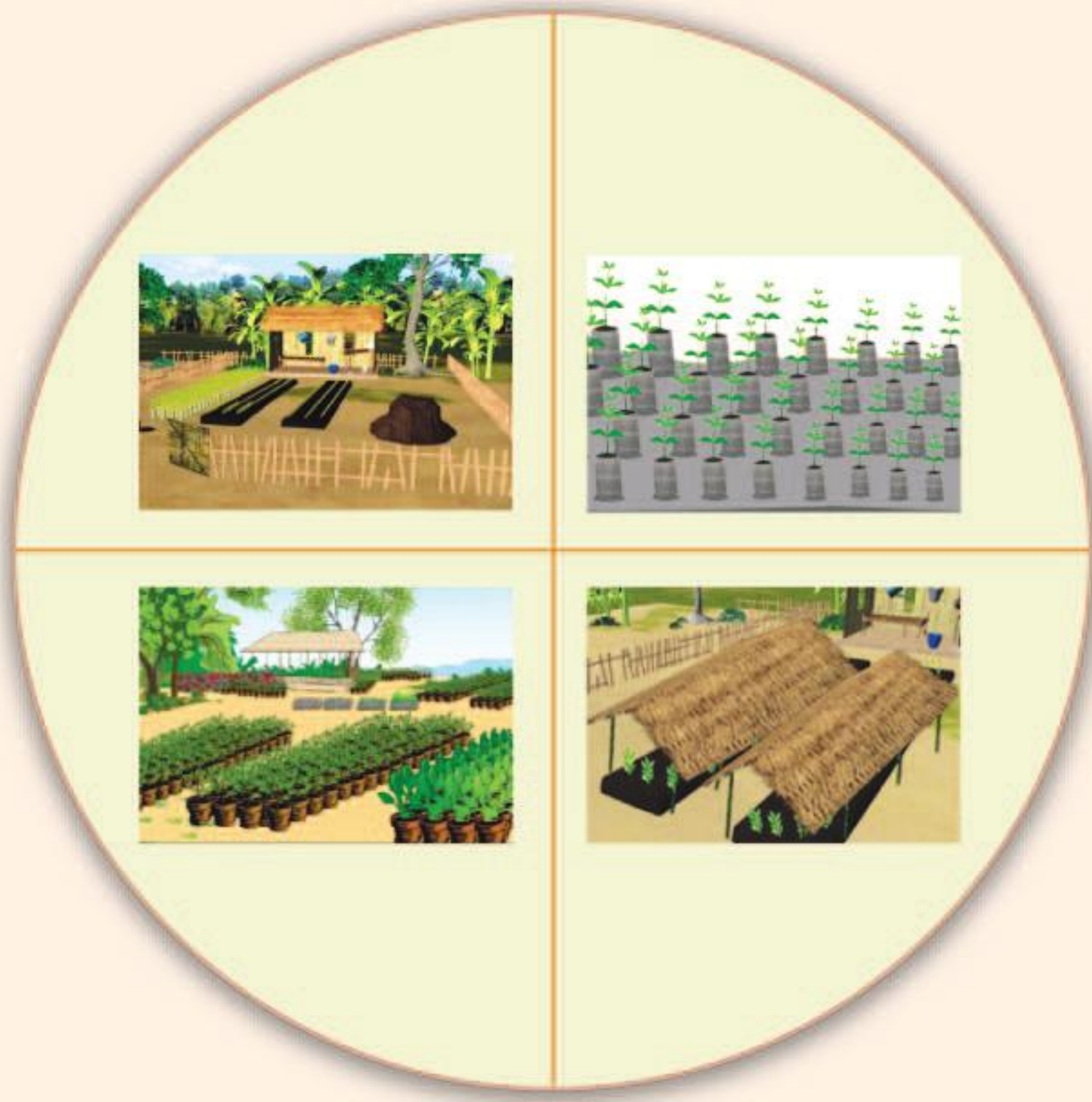
Nursery





Learning material for the enhancement of livelihood skills
for people with limited reading skills

Nursery



Dhaka Ahsania Mission
Commonwealth of Learning



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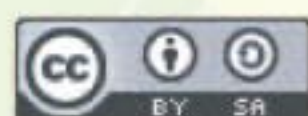
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Preface

Bangladesh is a country of enormous possibility. Yet, the majority of its people live in poverty, suffering from malnutrition, unemployment, superstition and many other forms of deprivation including natural disasters. Development workers, however, think that this situation can be changed by providing people with education and enhanced skills for livelihoods.

With this prospect in mind, Dhaka Ahsania Mission (DAM), since the early onsets of its development drive has focused on education, and has operated various non-formal education programs for different groups of people. DAM has taken up the initiative to impart skills development training to those people and thus create a pool of human resource. Considering the prime tool to execute all these activities, DAM has consistently prepared education materials of various types and merit as per the needs of different groups of people for their basic and continued education. Presently, Dhaka Ahsania Mission has, to its credit, more than 400 basic and continuing education materials of different titles.

In line with the previous publications, during 2003 - 2004, DAM developed a series of 21 books on skills enhancement and income generating activities. Later, in 2009, three more materials were developed for the workers in the Ready Made Garments (RMG) sector. Basing on that experience, DAM's 'Center for International Education and Development' (CINED) has taken an initiative to develop one more series of livelihood skills enhancement education material with the heading 'let's work and build our lives'. In this series, 5 booklets have been developed on 5 different topics. Each book in this series is complemented with an animation video. The users of these booklets will benefit from the videos as they can better understand the learning content after watching the videos alongside reading the booklets.

A list of competences that the learners would achieve after reading this booklet has been given at the end of this book. The organizations that are providing training on skills development will play an effective role in imparting competency-based training to the informal sector using the booklets and animated videos of this series. We hope that these materials will be used extensively in the topic-based training of the post-literacy and continued education activities under the non-formal education programs.

The booklet '**Nursery**' is one of the vital books in this series. The other booklets in this series are: Vermi Compost, Poultry Rearing, Batik Print and Flower Gardening. In the booklet '**Nursery**', it is succinctly discussed in an easy to understand language about land selection, bed preparation, seedling production and how to sell and market those.

Chief Executive Officer of CINED Mr. Shahnewaz Khan was responsible for the overall coordination of the planning & development of the booklets and the animation videos of this series. "I like to convey my gratitude and thanks to all who were involved in the development of this booklet. We are sincerely grateful to Commonwealth of Learning (COL) for their generous financial assistance to develop the series."

We believe that, after reading these booklets, watching the animated videos and using the information, rural women and men will be able to build their home-based small businesses. As a result, their quality of their life will be improved, and they can contribute effectively to the process of national development. We would consider would welcome any suggestions for improvement regarding the booklets and the animation videos.

December, 2012

Kazi Rafiqul Alam
President
Dhaka Ahsania Mission

Nursery

In plain words, a nursery is a place where seedlings are available for sale. In other words, a nursery is a place where flower, fruit and vegetable bearing, as well as timber tree seedlings are grown and supplied. Seedlings are grown in nurseries and kept there until they are sown on land.



Why should we establish a nursery?

To get good quality trees, we need good quality seedlings. It is important for any nursery, either small or big, to produce healthy and strong seedlings. Many of us have unutilized land around our houses. These lands can be easily used to establish nurseries. A small piece of land is needed to establish a nursery. One can earn a healthy profit by investing only a small amount of capital. One can work in their nursery alongside their other work. Moreover, all members of the family can take part in this activity. It is a great initiative to eradicate unemployment. Nurseries can also encourage general people to involve in plantation, which will in turn contribute to the environment as a whole. So, in simple terms we can say:



- This business can be done independently.
- All members of the family can participate in this activity.
- A nursery can be established on a small piece of land.
- One can earn a quick and healthy profit investing a small amount of capital.
- Seedlings can be supplied according to the demands to plant trees.
- People can be encouraged to plant trees.
- Contributions can be made to conserve the environment.

Materials required to establish a Nursery

Two types of materials are needed to establish a nursery. They are: 1. Fixed materials, and 2. Current or variable materials

1. Fixed materials

2. Current or variable materials

Materials that can be used for a few consecutive years once they are obtained or collected are called fixed materials. For example, spade, sickle, weeding spade etc. There are materials that are needed as well but only during the actual production process. These are called current or variable materials. For example, fertilizer, seeds, insecticides etc. We will now learn the names of the fixed materials that are needed to establish a nursery.

Fixed materials



These materials can be bought from the shops in the district or sub-district towns. Many of them are already readily available at our homes. As per current market price, these items would cost Tk. 4,500 approximately, and the cost of constructing the shed would be roughly Tk. 2,000.

It is very important to know a few things before establishing a nursery. We will learn all these things step by step.

Selection of land to establish a nursery

One has to select an appropriate land to establish a nursery. The right choice of land is-

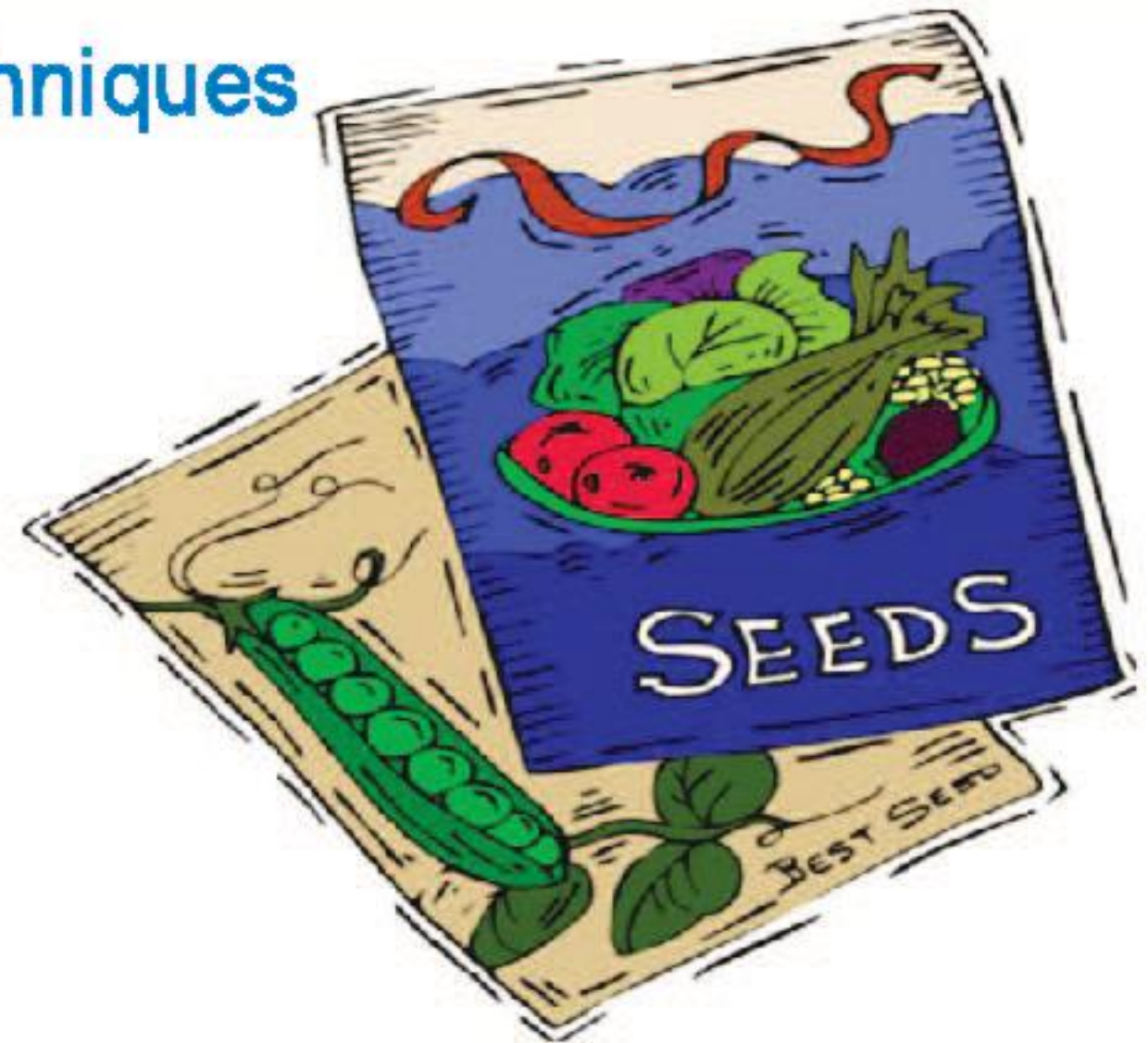
- Land having loamy or sandy loamy soil.
- Land that is not prone to perennial flooding.
- Land where rainwater never clogs, or even it happens, can be unclogged immediately.
- Land that can be irrigated as needed.
- Land that receive plenty of sunlight and air.



Seeds purchase and collection techniques

Collecting seeds on time is a vital activity in running a nursery. You can collect seeds for your nursery in three different ways, such as:

1. Seeds purchase: Some seed providers provide seeds of very good quality while others do not. You have to consider this while buying seeds.



2. Collecting seeds from ground: Some trees shed their seeds to the ground once they have ripened. Those seeds have to be collected from the ground. The seeds that fall at the very beginning or at the end of the falling period are not of good quality. So, you should collect the seeds that fall in between the period. Example of such category of seeds are- seeds of timber trees like *shal*, *segun* (teak), *garjan*, *chopalish*, *kodom* etc.

3. Collecting seeds from the tree: There are some trees whose seeds are difficult to collect when they fall on the ground after being ripened. So, when the seeds of those trees are ripening, you have to collect those from the tree directly. For example, seeds of timber tree like Mahogany, *koroj*, cotton plant, *babool*, *champa*, and pine etc.



Preserving seeds at nursery

Nursery owners have to continually preserve seeds. If the seeds are not preserved, insects would destroy them and seedlings would not germinate from them.

Seeds can be preserved or stored in a number of ways. They are:.

1. Stored in a plastic bag: Seeds stay well if preserved in plastic bags or in sacks. It is because air cannot pass through the plastic bags or sacks.

2. Stored in plastic or glass jars: It is better to store smaller seeds in plastic or glass jars.

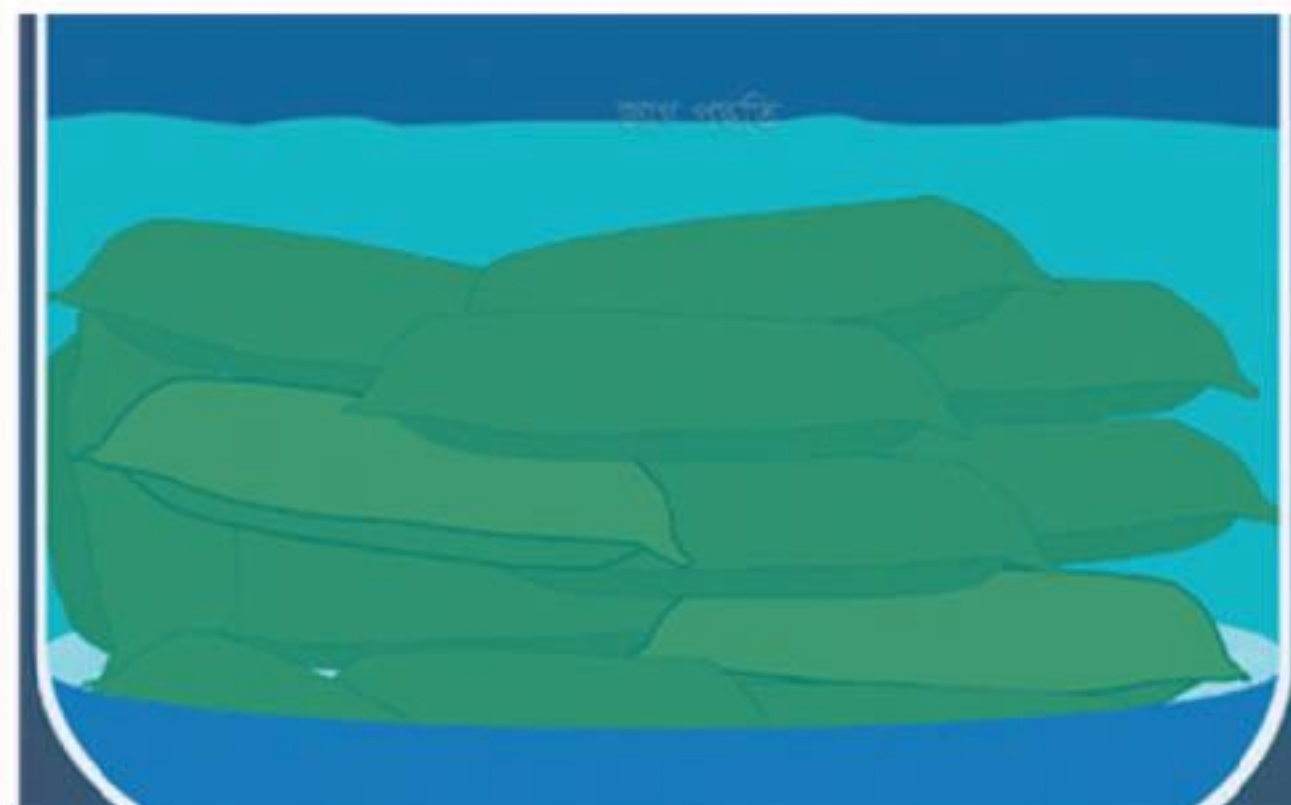
3. Stored in a polythene bag: Seeds stay good if stored in polythene bags. It is because air cannot enter through the polythene bags. Apart from that, polythene bags are widely available anywhere and can be carried easily.



Seed processing before sowing

Production of good quality seedling depends on how the seeds are processed. If processed properly, seeds would not get damaged easily and hence the probability of seedlings sprouting increases. There are a number of methods of processing seeds, such as:

1. Heap or brew method: In this method, you have to fill a sack with seeds and keep the sack soaked in water for 72 hours. Then you have to sundry the sack. Afterwards, heap the seeds at a place and cover them with straw or leaves. You have to keep the seeds wet and hence sprinkle water on them at regular intervals. The seeds will be ready to be sowed after 7 - 10 days, when you see cracks on them. One such seed is Teak.



2. Soaking method in water: To soften the skin of the seeds, they have to be kept soaked in water for 12 - 48 hours. The seeds will soak enough water this way and become ready to be germinated. Bean, *gamar* and pine seeds are prepared in this method.

3. Refining method in hot water: Some seeds have peels or skins that are too hard. Those seeds need to be processed in hot water. Example: seeds of *akashmoni*, *ipil ipil* tress etc.



4. Grooving method: Larger seeds have to be processed by the grooving method. Notching the skin of a seed would allow a part of the seed to get air and light. Mango seed is an example.

5. Soaking and cracking method: You have to fill a gunny bag with the seeds and leave them soaked in water for 12 hours. Afterwards you have to sundry the seeds. During this process, some seeds get cracked, and those are the ones that should be sowed. *Arjun*, *koroi* are such kind of seeds

Seed collection, sowing, and seedling germination time

Different varieties of fruits ripen at different times. Seeds should be collected when the fruits ripen. After collecting the seeds, different seeds have to be sowed at different times. Some seeds need more time to germinate while others germinate immediately after sowing. Therefore collection, sowing, and seedling germination time of different trees also vary. The collection, sowing, and seedling germination time of different trees are given below in a table.

Seeds collection, sowing, and seedling germination time of timber trees.

Name of tree	Seed collection time	Seed sowing time	Seedling germination time
Mahogany	December – April	April	20 – 30 days
Sirish /Shishu	October – February	February – March	15 – 20 days
Shal	June – July	June – July	4 – 10 days
Arjun	December – March	February – March	7 – 20 days
Rain Tree	February – March	March – May	5 – 10 days
Koroi	January – March	January – April	4 – 15 days
Neem	June – July	June – July	7 – 10 days
Chambol	March – April	April – May	7 – 10 days
Akashmoni	March – April	April – May	10 – 20 days
Ipil Ipli	October – November	March – April	4 – 15 days
Debdaru	July – August	February	7 – 15 days
Nageshwar	October – November	February	10 – 20 days

Seeds collection, sowing, and seedling germination time of fruit trees

Name of tree	Seed collection time	Seed sowing time	Seedling germination time
Jack Fruit	May – June	May – June	5 – 7 days
Olive	December	February	30 – 45 days
Hog Plum	August – September	September – October	30 – 45 days
Guava	July – August	February	15 – 20 days
Lemon	July – August	October – November	7 – 20 days
Shaddock	September – October	February	7 – 20 days
Pomegranate	July – August	March	7 – 15 days
Emblic Myrobalan	November – December	February	10 – 20 days
Coconut	July – August	August – September	30 – 80 days
Star Fruit / Carambola	July – August	August	7 – 12 days
Papaya	December – January	February	7 – 15 days
Black Berry	June	June – July	7 – 15 days

You should select the seeds of specific trees as per the needs of the area and sow those seeds only. This way, it would be easy to sell the seeds as they are in demand.

Land preparation of nursery

- The land has to be prepared and ploughed before sowing the seeds.
- You have to apply cow dung, oil cake dust and other organic fertilizers in the land before sowing seeds.
- Diseases can outbreak if the same kinds of seedlings are grown every year on the same piece of land. For this reason, it is not wise to produce same kinds of seedlings every year. You can cultivate dhonche (a kind of herbal plant) sometimes to increase the amount of green fertilizer in the soil.



Bed preparation for the nursery

The hardest job at a nursery is to produce healthy and strong seedlings. For this, a separate special bed should be prepared at one side of the nursery. It is called a Nursery Bed. Two kinds of beds can be prepared at a nursery, they are: bed on the land and beds in poly bags.



Guidelines for preparing bed on land

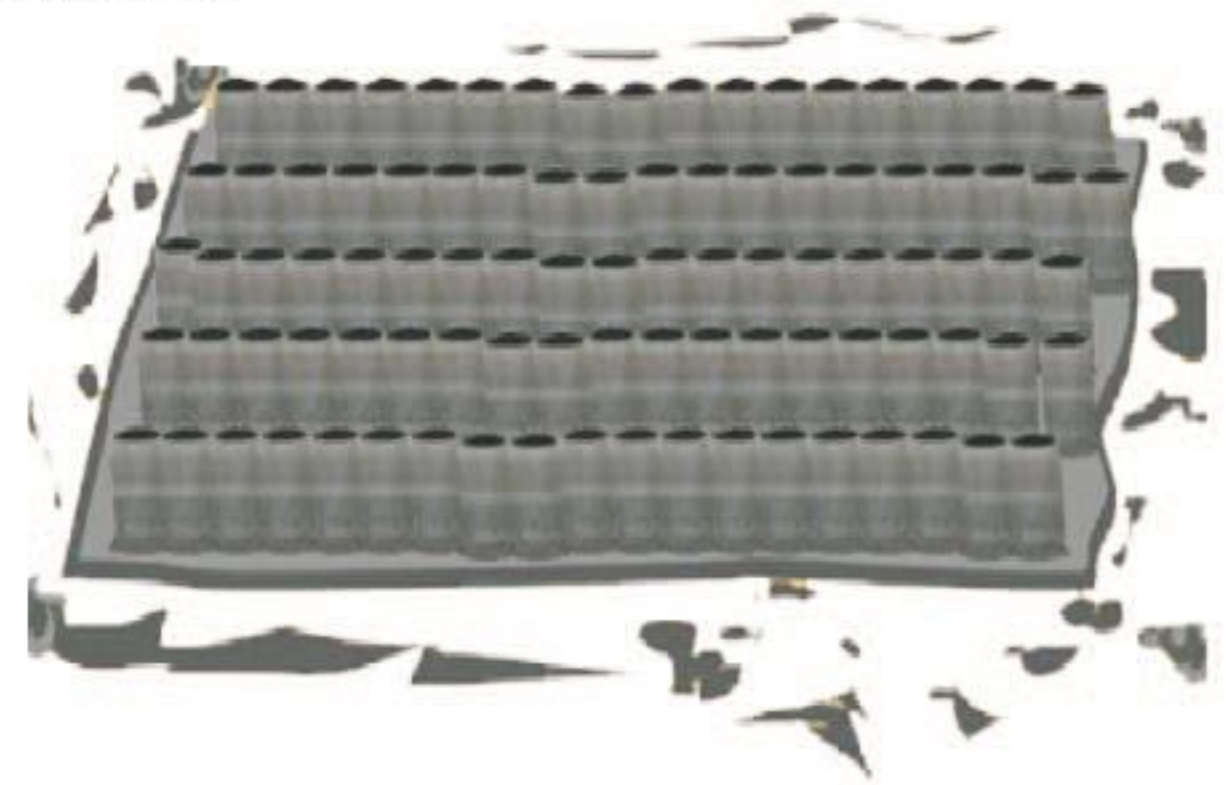
1. Firstly, trenches and side trenches have to be dug in the land in order to prepare a bed. Thereafter, taking soil from the dug trenches, a bed should be raised to a height of 4 - 6 inches.
2. The trenches of the bed have to be dug at a measurement of 8 - 12 inches in breadth and 4 - 6 inches in depth.
3. You have to keep a distance of 16 - 20 inches between the beds.
4. It is better to fence the beds with bamboos or bricks.
5. A bed can be of 20 ft in length and 4 ft in breadth (for your convenience of calculation).
6. The beds should be prepared with a north - south orientation in length. This will allow the bed to receive maximum sunlight during the day.
7. The soil of the land should be made loose and granular by spading it well digging up to 8 ft and 12 feet deep.



8. Any grasses, roots, brick chips, wooden flakes or stone particles present in the soil of the land should be carefully picked up and thrown away.
9. If the quality of the soil is not good enough at your own land, then you may need to obtain good quality soil from somewhere else.
10. You have to put the granular dusty soil on the land, 4 inches high, where you choose to prepare the bed. Then, you have to apply cow dung on that soil at a thickness of one and quarter inch so that the entire soil is covered. After that, you have to apply chemical fertilizer on that soil as per specified quantity and mix everything applied very well with the soil, with the help of a spade / shovel. You have splatter water on every layer of the soil so that cow dung, soil and chemical fertilizers putrefy well. Finally, you have to cover the bed with muddled water and tendrils. Your bed is now complete.

Preparing beds in poly bags

1. You have to select a land measuring 4 ft in breadth and 20 ft, 30 ft or 40 ft in length to keep the poly bags.
2. You have to buy PP poly bag or thick poly bags of different size from your local or makeshift bazaar.



3. You have to perforate the poly bags in two rows. Depending on the size of the poly bags, it is essential to have 8 - 16 holes on each bag.

4. You have to put the soil mixture slowly into the poly bags. The soil has to be prepared as mentioned before, with granular or dusty soil, rotten cow dung, rotten tendrils and chemical fertilizers. After the soil mixture is put into the poly bags, press it down inside the bags, either by pressing with your palm or by using a bamboo stick. Then hold the bags by their top and shake them 2 - 3 times so that the soil settles inside the bag. If there is any remaining space inside the bags after that, more soil mixture should be put in. Seedling may die if the poly bags have any cavity inside them.



5. You have to keep the poly bags at a designated place and neatly line them up. You have to position all the poly bags so they are straight and attached to one another. Be careful that the bags don't lean. If the bags lean, then the seedlings will incline to one side and become weak.
6. The poly bags should be arranged in a fashion so that they are packed together and remain straight and erect.
7. Bamboo poles should be erected around the place where the poly bags are kept.
8. Slice bamboo slivers longitudinally to make a fence around the bamboo poles.



Seedling production at a nursery

Seedlings can be produced in two ways, either by grafting or producing seedling from the mother tree, or by producing seedlings on land. Seedling production by grafting is a rather difficult job and one needs to be trained well to do it. Besides, grafting is not possible without having all the mother trees available on your land. For this reason, grafting may not be a good idea at the starting phase of your nursery. Therefore, the best choice is to produce seedlings by sowing seeds in the soil. Later, when you have gathered enough skills and expertise, you can plant mother trees on your own land and produce graft seedlings. However, you can buy graft seedlings and sell them later after nursing them at your nursery for a period of time. This will give you a good profit.

Seed sowing

The health of the seedlings depends on their proper sowing. Let us now learn the methods of sowing seeds on both land and in poly bags.



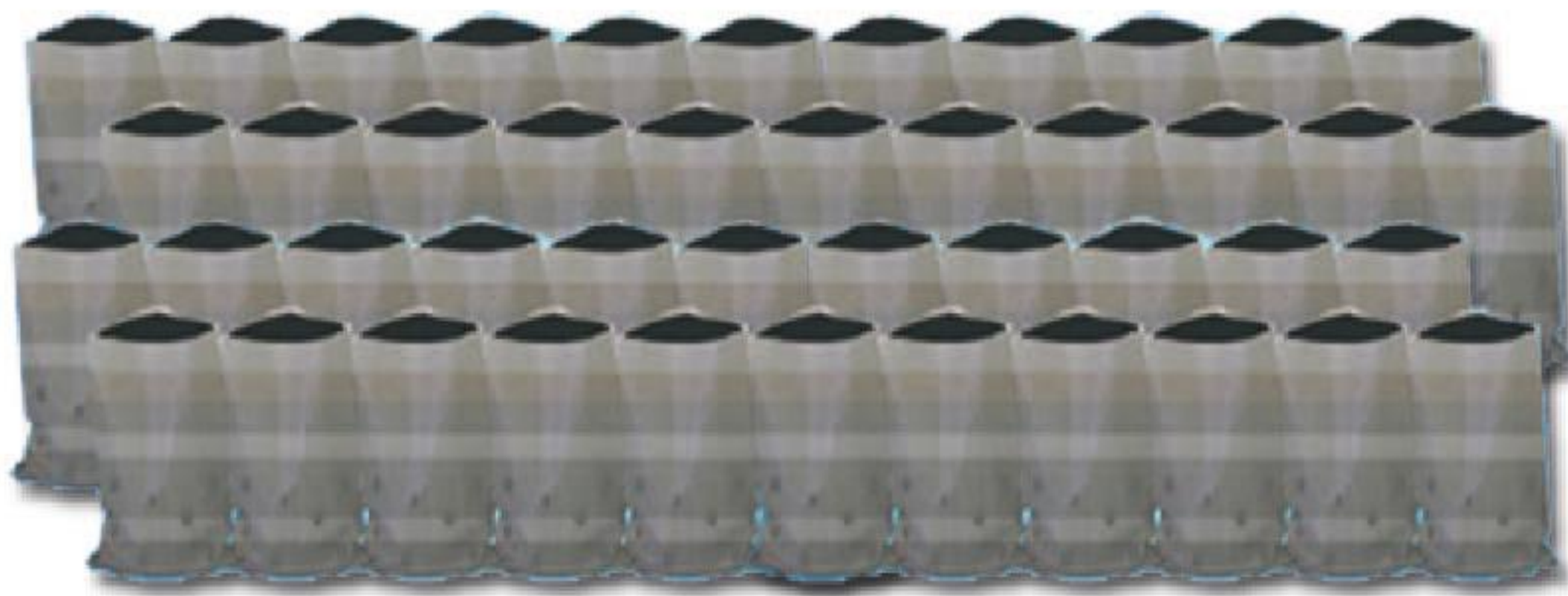
Sowing seed in land bed

1. First you have to mix compost and ash fertilizers with the soil of the bed.
2. After the bed is prepared, seeds can be sowed either by spreading seeds throughout the bed or by sowing them in lines.
3. Seeds have to be spread out on the bed equally. Then, you have to take a piece of wooden plank and press the seeds lightly so that they lie beneath the soil.
4. The distance between the seeds should be 2 inches from one another in case of short term seedling production. For long term seedling production, the distance should be 4 inches. The distance in between two lines should be 8 inches.
5. You have to take good care of the seeds once they are sowed in the nursery bed. For example-
 - You should be careful so that the seeds do not get buried deep into the soil.
 - You have to irrigate the bed regularly after you have sown the seeds.
 - You have to build a shed on the bed to make arrangement for a shady place, if needed.



Sowing seed in poly bags

1. The soil in the poly bags should be watered before seeds are sowed.
2. Wait until the soil in the poly bag dries and loosens.
3. Create small holes in the soil with your finger and put two seeds in each hole.
4. Press the seeds lightly with your fingers to insert them into the soil. Place the seeds in a vertical alignment.
5. After the seeds are planted, they need to be covered with more soil. However, putting too much soil would delay the sprouting of seedlings. Proper care should be taken after the seeds are sown in the poly bags.



6. The poly bags need to be watered in small quantities 1-2 times everyday after the seeds are sown. It is better to water the poly bags with a small-holed watering can. Seedling may die if water accumulates in the poly bags.



7. You have to build a shed over the bed so that excessive sunlight or rain cannot harm the seedlings. You have to keep the place shady until the seedlings sprout.

8. If multiple seedlings sprout in one poly bag, some of them should be uprooted and replanted in another poly bag.

9. Weeds must be cleared out from the poly bags, if they appear. Growing seedlings in poly bags involve uncertainties. It takes much time and sometimes seedlings do not sprout. In such cases, you have to pour more soil into poly bags. On the other hand, producing seedlings on land bed is much easier and cost effective. So, it is better to grow seedlings on land beds initially. When the seedlings grow a bit taller, they can be uprooted from the soil and replanted in poly bags. The seedlings should be nursed after they are replanted. This method is less risky. However, we can produce seedlings in poly bags as well after we learn how to do it properly.



Application of fertilizers

Seedlings do not grow well if fertilizers are not applied to their beds. Therefore, sufficient fertilizers should be applied and this matter should be given much importance. Two kinds of fertilizer need to be applied into the beds for the quick growth of seedlings. They are- organic and inorganic fertilizers. But it is better to use organic fertilizers in the seed beds.

a. Organic fertilizer

It is better to use organic fertilizers in the seed beds during the production of seedlings. This improves soil fertility and also enhances the soil's water retention capacity.

Seedlings get better nutrition and grow healthy as a result. It also increases seedlings' strain sustenance capacity.

Organic fertilizers are produced using decaying materials. We will now learn which fertilizers help us in what ways.

1. Cow dung: It works as an adhesive and capacitates the soil to increase its fertility and keeps the soil healthy.

2. Decomposed waste materials: Increases soil fertility. This fertilizer is highly beneficial for the production of seedlings.

3. Oil cakes: This fertilizer destroys or drives away the harmful microbes in the soil and plant infections. It also increases soil fertility.

4. Bone dust: Helps the plant grafts to attach quickly and also helps in increasing the soil fertility.



b. Chemical fertilizers

It helps the seedlings grow quicker and healthier and look strong and radiant. Chemical fertilizers help seedlings to grow healthy, strong and disease-free. Examples of this fertilizer are: phosphates and urea fertilizers.



Disease control

Plant diseases and microbe attacks in a nursery can lead to great losses if they are not prevented or controlled. Common plant diseases in a nursery are:

a. Fungal diseases

This disease leads to the decomposition of plants. Plants or its leaves begin to rot if this disease breaks out. Fungal diseases can be controlled by:

1. Removing the nursery shed quickly.
2. Reducing the nursery bed seedlings.

3. Not watering the seedlings too much.
4. Removing the affected seedlings.
5. Spraying the plants with a mixture of a liter of water and 5 ml of Cupravit or Dithene.
6. Changing the bed soil after every 2 - 3 years.

b. Spots on leaves, rotting roots and dying tip diseases of the plants

When these symptoms appear you should-

1. Spray a mixture of 1 liter water and 25 grams of Blixton or Dithene on the seedlings twice week.
2. Clear weeds regularly.
3. Keep your nursery clean.
4. Uproot the affected seedlings and burn them off.
5. Reduce the number of seedlings on the bed.
6. Keep an arrangement to regularly drain out excess water clogged on the beds.
7. Make arrangements for easy passage of air.



c. Leaf perforation or wrinkling diseases

You may often observe that the leaves of the seedlings start having perforations or wrinkles. When this disease starts to spread, immediate actions have to be taken. You have to prepare a mixture of a liter of water and 3 ml of Cupravit and spray the mixture twice a week. This will treat the disease.

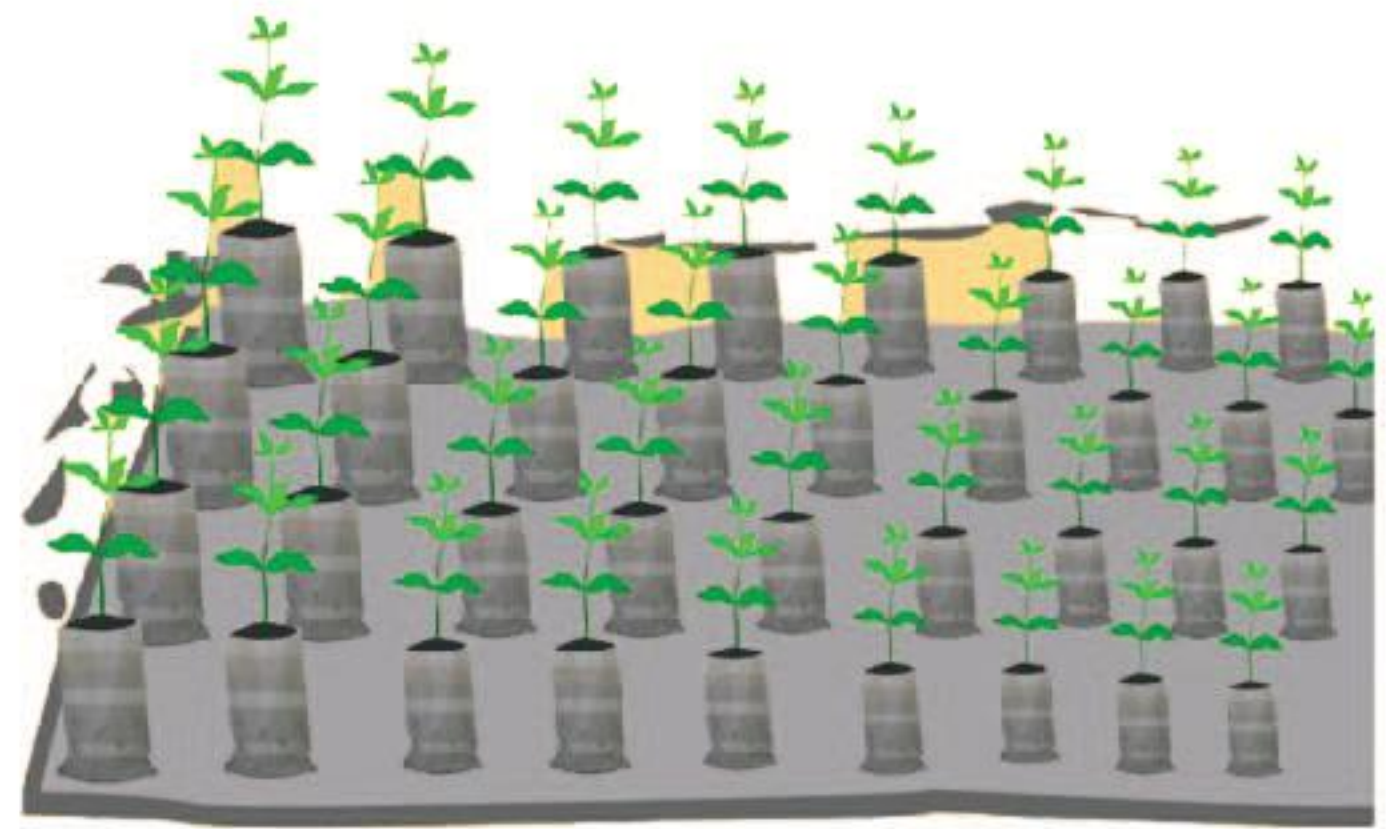
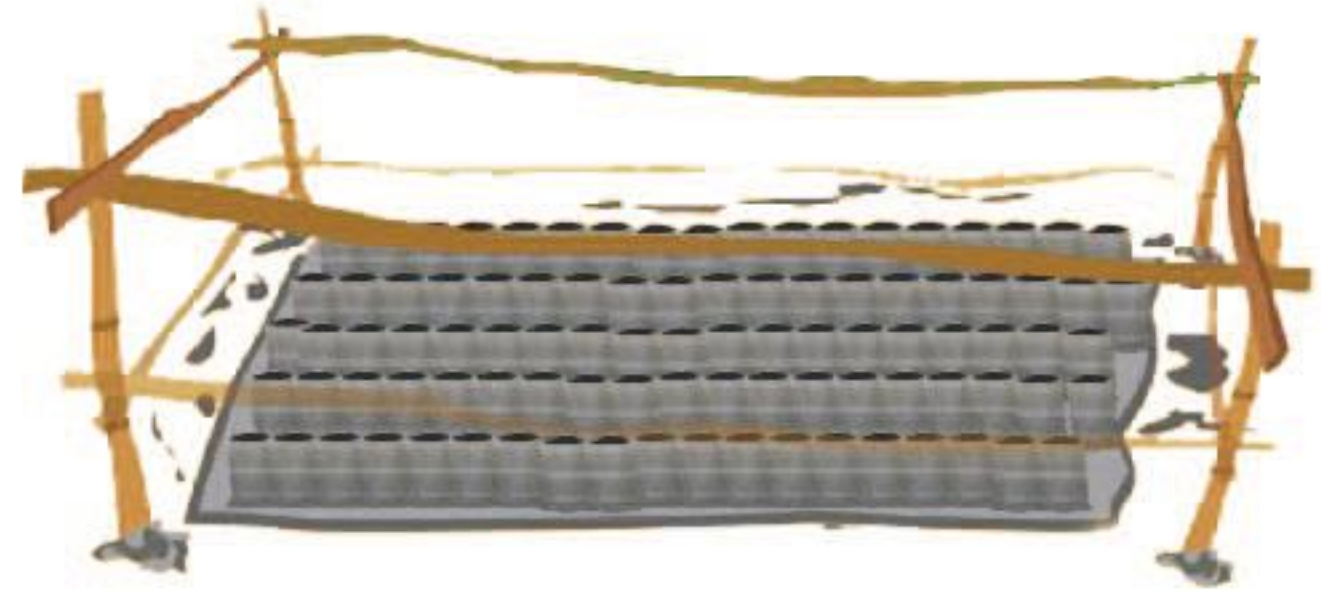
Many diseases can break out among the seedlings of your nursery. You may not be able to treat all the diseases on your own. Sometimes you need to consult a local agriculture officer from your locality.



Nursing and growing seedlings in poly bags

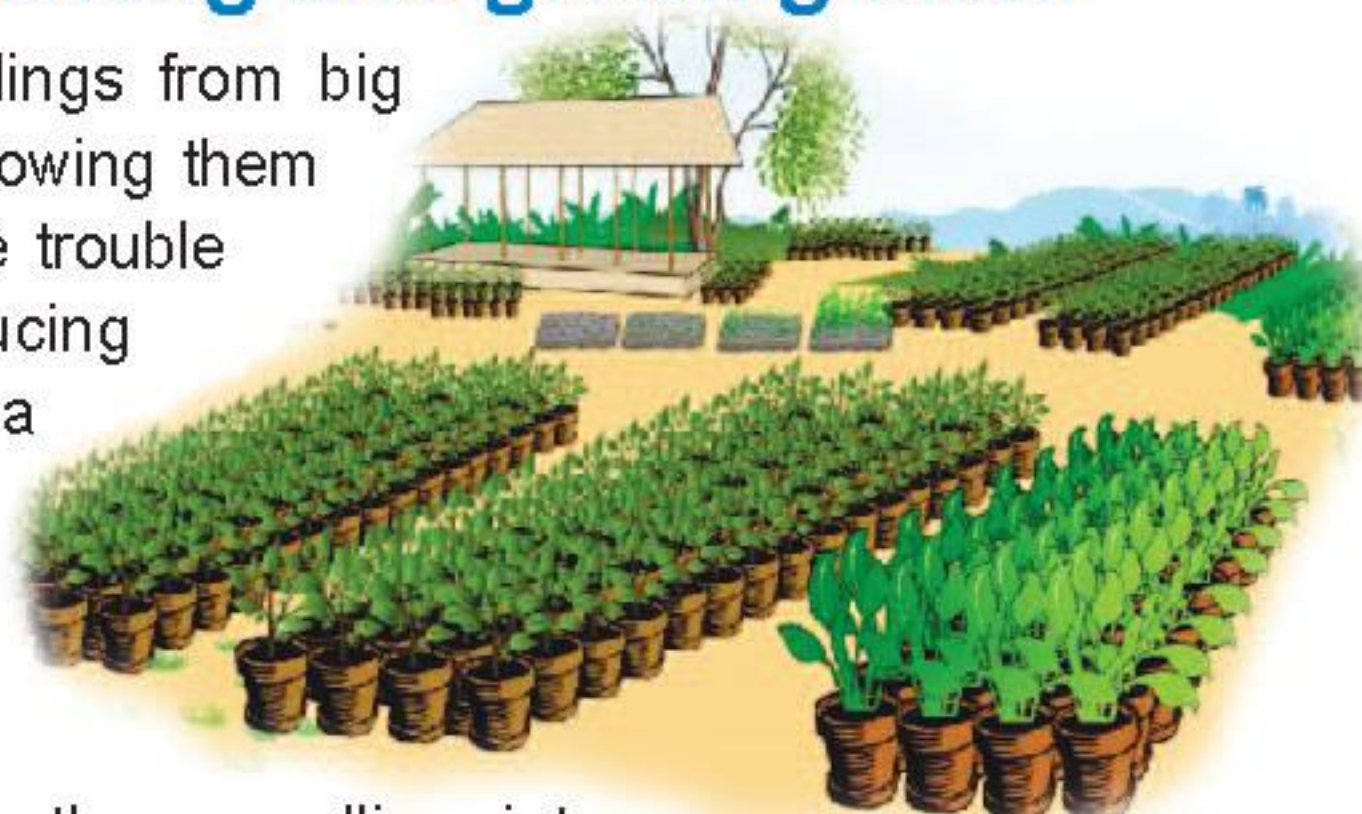
Some of the seedlings grown at your nursery can be sold when they are still very young. For example, flower seedlings, croton plants, cactus etc. However, there are some seedlings that cannot be sold unless they are grown enough. These are different kinds of fruit bearing trees or pricey timber trees. These seedlings can only be sold once they are nursed and groomed well. In order for your seedlings to grow well, you have to nurture them at your nursery for a long time. The techniques for nursing and growing seedlings in poly bags are given below.

1. To produce seedlings, please follow the instruction given on page 10 titled "Preparing beds in poly bags," and prepare the poly bags accordingly.
2. Use poly bags, sized 10 inches in height and 6 inches in width.
3. Mix some urea and phosphate with the soil of each poly bag.
4. When the seedlings in the bed grow a little, replant them in the poly bags.
5. Nurse the seedlings in the poly bags for 6 - 7 months, and in some cases, up to a year.
6. Keep the poly bags in a fashion so that they are distant from one another at a distance of 6 - 8 inches.
7. Keep the poly bags facing east - west in longitudinal direction. Keeping them like this will ensure that the bags receive sunlight the entire day.
8. Arrange the seedlings so that the taller seedlings are in front of the smaller ones.
9. Prune the roots if any protrudes from the poly bags.
10. Water the poly bags regularly.
11. Clear the weeds.
12. If any disease breaks out, for example, fungus, spot on the leaves; rotting roots, dying tips and leaf wrinkling etc, apply insecticides immediately.



Selling smaller seedlings after nursing and growing them

You can buy smaller seedlings or grafted seedlings from big nurseries and then sell those after nursing and growing them into bigger seedlings. This will spare you from the trouble and risk of collecting quality seeds and producing seedlings. This activity will allow you to enjoy a healthy profit. Smaller seedlings and small grafted seedlings are sold at the big nurseries at a much lower price. You can earn a good amount of profit after buying such seedlings from other nurseries and selling those off again after nursing and growing those seedlings into



bigger ones. For example, rose seedlings are sold at a price ranging from Tk. 1,000 - Tk. 2,000 per hundred at a big nursery. Those seedlings can be resold at a price ranging from Tk. 50 to Tk. 100 per seedling after growing them into bigger ones. Similarly, it is also profitable to buy smaller and grafted seedlings of different varieties of plants and trees and selling them off after they have grown up.

Profit one can make from the sales of nursery seedlings

Profit can be calculated after deducting the relevant costs of producing the goods from the amount received from selling the goods. The remaining money is the profit. We will now look into how much profit we can make after producing seedlings on a 5 cotta land in one year.

Fixed cost

From our previous knowledge we know that the tentative price of the fixed materials needed to produce seedlings is Tk. 4,500. If we consider 20 percent depreciation of the materials per year, the cost of fixed materials in a year is	Tk. 900
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Current or variable cost

Cow dung purchase (4 vans of cow dung @ Tk. 125 per van)	Tk. 500
Soil purchase (5 vans of sandy loamy soil @ Tk. 80 per van)	Tk. 400
Fertilizer purchase	Tk. 500
Insecticide / pesticide purchase	Tk. 500
Seed purchase	Tk. 1,000
Polythene purchase (3,000 polythene @ Tk. 0.75 per van)	Tk. 2,100
Land rent (rent of 5 cotta land per year)	Tk. 500
Total current or variable cost	Tk. 5,500

Total cost

Fixed cost	Tk. 900
Current or variable cost	Tk. 5,500
Total cost	Tk. 6,400

Profit

Sales of seedlings (3,000 seedlings @ Tk. 15 per piece)	Tk. 45,000
Total cost (fixed and current or variable cost)	Tk. 6,400
Profit of tuberose flower cultivation in a year	Tk. 38,600

However, some of the seedlings produced in the first year may not be sold. Those can be sold at a higher price the next year. In this way, every year, some of the unsold seedlings will be sold in the following year at a higher price. On the other hand, the costs incurred the current year will keep getting lower from the preceding. So, you will get an incremental profit every year. Your profit will keep rising if you increase the size of the nursery over time.

Creating market for your seedlings and its sales

Earning a profit from your nursery depends on creating a market for your seedlings and its sales. In order to market and sell your nursery's products, you need to popularize your nursery by building relationships with your customers. The following can be done to increase your sales:

1. Contacting and maintaining relationships with different schools and colleges.
2. Contacting and maintaining relationships with different organizations or NGOs those are working on social forestry programs.
3. Contacting and maintaining relationships with different sub-district level offices those are involved with social forestry programs. They are, for example, Sub-District Executive Officer's Office (UNO, or *Upa-zila Nirbahi Officer's Office*), Sub-District Agriculture Officer's Office etc.
4. Contacting and maintaining relationships with all the nearby Union Councils (*Union Parishad*). They can help in selling your nursery's products.
5. Participating in different fairs or exhibitions/demonstrations.
6. Arranging for sales of your seedlings at different bazaars or makeshift bazaars.

Last words

So far, we have learnt how to produce seedlings at a nursery and how to sell them. A nursery business can be operated alongside other things. Many people are taking interest in nursery business for this particular benefit. While setting up a nursery, it is better if you start a nursery on a small piece of land. If you expand your nursery business later, taking more land, and learn how to produce grafted seedlings, then you can increase your profits over time. We can improve our economic conditions by establishing a nursery. We can improve our environment by cooperating with others in social forestry development as well. There are nursery owners' associations everywhere in our country. We can improve our professional skills and can prosper by signing up with one such association as a member.



Achievable competence

After reading this book, the readers:

1. Would be able to say about the opportunities of establishing a nursery as a small business;
2. Would be able to select appropriate land for a nursery;
3. Would be able to say the names, amount and places of their availability and possible prices of the materials necessary to establish a nursery;
4. Would be able to narrate the bed preparation techniques and how many types of beds are prepared in a nursery.
5. Would be able to explain as to where good quality seeds are available, when to sow which seeds, and how much times different seeds need to grow;
6. Would be able to narrate the methods of seed preservation and processing;
7. Would be able to narrate the techniques of sowing seeds in land based beds a in poly bags;
8. Would be able to narrate about the techniques of sowing small seedlings in poly bags and how to nurse and grow them into bigger seedlings;
9. Would be able to say regarding nursing seedlings and how to apply fertilizers;
10. Would be able to explain the types of diseases those usually outbreak at nurseries and about heir remedies;
11. Would be able to explain how to maximize profit after buying smaller seedlings and selling those off after growing them as bigger seedlings;
12. Would be able to narrate the techniques of seedling marketing;
13. Would be able to narrate the possible income and expenditure accounts of a nursery.

Readers would be able to grasp the above mentioned competence more skillfully after watching the Nursery related animated video.



Learning material for the enhancement of livelihood skills for people with limited reading skills

