

## **Quadrant II- Transcript and Related Materials**

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**Unit** : 2  
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### **Notes:**

#### **Palms:**

- Straight, unbranched stem, but sometimes a branching stem, or even a creeping vine, such as the rattan.
- Large evergreen leaves that are either 'fan-leaved' (palmate) or 'feather-leaved' (pinnate) and arranged in a spiral at the top of the trunk.
- There are about 2600 species of palm trees, most of them living in tropical, subtropical, and warm temperate climates.
- In the past palms were symbols of victory, peace, and fertility.
- Today palms are a popular symbol for the tropics and for vacations.
- Palms are the best known and most cultivated plants in India,
- There are 12 different types of palm trees found in the Indian subcontinent.

## ***Caryota urens***

Classification:

Botanical name: ***Caryota urens***

Common name: Fishtail palms

Family: Arecaceae

- They are often known as **fishtail palms** because of the shape of their leaves.
- There are about 13 species native to Asia (China, India, Indonesia, etc.), northern Australia, and the South Pacific.
- It is a species of flowering plant native to Sri Lanka, India, Myanmar and Malaysia, where they grow in fields.
- Grows up to 12 m tall and 30 cm wide.
- It has white unisexual flowers that form into pendent clusters, and red round fruits.
- Cultivated as an ornamental tree in tropical and sub-tropical climates.
- Leaves bipinnate, 4-6 m long; pinnae 5-7 pairs, to 1.5 m long; leaflets broadly cuneate, fan-shaped, 12-20 cm long, 7-10 cm wide at wider portion, raemorse at apex, many ribbed. Trunk smooth with annular leaf scars.

**Propagation:** 1. By offshoot

- Separate the offshoot with a knife - Examine the base of the palm to find any offshoots that are growing from the main branch. Use a sharp knife to split this offshoot away from the main plant.
- Pull the separated offshoot from the soil by the root - Grip the offshoot with both hands and try to free it from the soil. Pull on the plant slowly to loosen it from the roots, then tug it out of the soil completely.

- Soak the roots in a bowl of water for 1 hour - Fill a bowl halfway with lukewarm or cool tap water, then submerge the exposed roots. Let the plant soak for around an hour so the roots are ready to be replanted.
- Transplant the seedling into a pot - Choose a planting pot that's large enough to fit your palm offshoot. Fill this pot with a commercial soil mixture (Peat 6: sand 1:Pine bark 3), then place your seedling inside. Check to make sure that the roots are fully buried in the soil so the offset can grow on its own.

## 2. By Seed germination

- Scrub the seeds against a mesh screen to get rid of the outer skin. Process is known as cleaning of seeds.
- Soak the palm seeds in a cup of lukewarm water for up to 1 week.
- Sow the palm so the top of the seed is slightly visible.
- Plant the seeds 3 to 6 feet (0.91 to 1.83 m) apart if you're planting outside.

## **Asparagus:**

- Asparagus is a herbaceous, perennial plant growing to 100–150 cm (40–60 in) tall, with stout stems with much-branched, feathery foliage.
- The "leaves" are in fact needle-like cladodes (modified stems) in the axils of scale leaves; they are 6–32 mm long and 1 mm ( $\frac{1}{32}$  in) broad, and clustered four to 15 together, in a rose-like shape.
- The root system is adventitious and the root type is fasciculate.
- The flowers are bell-shaped, greenish-white to yellowish, 4.5–6.5 mm long, with six tepals partially.

- It is usually dioecious, with male and female flowers on separate plants, but sometimes hermaphrodite flowers are found.
- The fruit is a small red berry 6–10 mm ( $\frac{1}{4}$ – $\frac{13}{32}$  in) in diameter, which is toxic to humans.
- *Asparagus* can be grown on soil, which has a salt content, too high for many other crops.

### ***Asparagus racemosus***

Classification:

Botanical name: *Asparagus racemosus*

Common name: Sparrow grass

Family: Asparagaceae

#### **Propagation: 1. By root crowns**

- Asparagus root crowns must be one year old before they'll produce any stems.
- Plants started from seed will need an extra year before they reach that point.
- Established asparagus plots yield even more plants when you dig up the crowns, divide and replant them.
- All three methods of propagating asparagus plants are simple ways to introduce asparagus to your home garden.

#### **Propagation: 2. By seeds**

- Older asparagus plants produce red berries, which contain seeds.
- These come from the spears after they are allowed to turn into ferns at the end of the season.
- Collect the berries, crush them and separate out the seed.
- Soak the seed to remove the rest of the pulp and then dry it out for a few days.

- Store the seed in a cool, dry location and then plant in spring.
- The best results are from seeds started indoors and then transplanted out.
- Asparagus propagation by seed is cheap but requires time.