

## Aquarium plant: Utility and propagation

*Introduction:* Being at the base of food chain, plants are important in any ecosystem. Plants help to provide the biological balance, besides creating bio-topic aquarium.

- The presence of different aquatic plant provides a number of houses to the fishes inside the aquarium.
- Most fresh water aquariums can be set up with live plants and whenever possible, it is recommended to do so.

*Types of aquatic plants:*

Plants which float on the surface of water are floating plant. The stem and leaves of plant remain floating on the water surface and their roots hang down in water column. Roots never anchor in soil. e.g., Pistia, Lemna.

### **3) Emergent plants.**

- The roots of the plants are anchored in the bottom soil but their leaves floats on the surface, e.g., Nymphaea.

## **SOME IMPORTANT AQUARIUM PLANTS**

### **(SUBMERSED ROOTED PLANTS)**

**Acorus calamus (sweet flag)**

- It is a very hardy plant when cultivated in the background of the aquarium it will give very natural look.

*Echinodorus paniculatus* (Amazon sword plant)

- ❖ **Family:** Alismaceae
- **Origin:** Central and South America Water.
- **Description:**
- It is the most beautiful plant, with 35 cm long bright green leaves.



- The leaves are dark green, ribbon shaped , narrow and grow unto 45 cm long.
- They form a tightly grown rosette on a rhizome, which produces, long, slender runner.

## Submerged-bunched plants

### Hydrilla sp

- ❖ **Family:** Hydrocharitaceae
- **Description:**
- Submerged weed. It grows under water.



## **Ceratophyllum demersum ( Fox tail)**

- ❖ Family: Ceratophyllaceae
- Origin: South America Water
- Description:
- It is very fragile having no roots.
- Leaves are green and fox tail shape.



## ***Azolla caroliniana***

- **Family:** Azollaceae
- **Origin:** North America Water
- **Description:**
- It is a floating fern, leaves are pale green lie in two row on the thallus whose stem is branched, roots are



- **Family:** Nymphaeaceae
- **Description.**
- This plant produces very attractive and delicate leaves and yellow flower.
- The floating leaves are flat, leathery and sturdy.
- It provides shade and shelter to fishes in garden pools.

## **Nelumbo sp.**

- **Family:** Nymphaeaceae
- **Description:**



## Asexual Propagation:

- Most aquarium plants reproduce asexually, meaning that the offspring are genetically identical to the parent plant. This is also known as vegetative propagation.
- There are three different ways for aquarium plants to reproduce this way

*Runners (slips):* One way is for them to produce runners, which grow out from the base of the parent plant and then produce what are called "slips" at the end of the runners. These slips can eventually anchor themselves in the substrate and survive on their own.

- Sometimes the runners that are between the parent plant and the slips break away from the slips, and sometimes they just continue to grow and produce more slips.

### **Offsets:**

- Offsets also grow off of the main plant, but they grow extremely close to it and do not



## Artificial Propagation:

- It is also often quite easy to artificially propagate many aquarium plants by simply cutting part of it off and replanting it (stem plants are the easiest to do this with); or by dividing the rhizome in two and replanting the two pieces (ferns and mosses can be propagated this way).

**Cuttings:** *The best place to take cuttings is from the top stems, however you can also take cuttings from side shoots and the middle stems as well, they are just not usually as strong as those from the top stems. To take a cutting, cut part of the plant off just above a node and remove any leaves around nodes that are directly above this. This is the area where the new roots will grow. Then plant the cutting into the substrate so that the nodes where you removed the leaves is just covered.*

- Live aquarium plants will help to keep the water quality up by binding organic waste.
- Live aquarium plants will convert carbon dioxide into oxygen.
- Live aquarium plants will prevent algae infestation by competing with algae for nutrients.
- Many aquarium fish species hail from waters where aquatic plants are common. They will therefore feel more at home in a planted aquarium.
- Keeping aquarium plants can reduce stress in several ways for fish. Firstly, they can decrease the amount of fighting between the fishes by forming many small territories instead of one big one in the aquarium. Secondly, they will provide weaker fish a suitable hiding spots .
- Plants are also used to decorate the aquarium.

are used to decorate the front portion. Plant should be disinfected so as to kill harmful germs, parasites, insects and other enemies of fishes.

## **Conclusion:**

Aquatic plants are used in aquarium for various reasons. The fishes feel more at home in a planted aquarium. Plants are used as decorative materials in the aquarium. Besides this plants provide oxygen, food, shelter to the fish.

- So now a day, the use of live plants in the aquarium is very popular worldwide.
- But the use of plastic plants in the aquarium is slightly decreasing the demand of live