Handout 2

REPRODUCTION IN PLANTS

1. In vegetative propagation new plants are produced from different vegetative parts such as leaves, stem, roots.

2. Vegetative propagation from roots : In asparagus and dahlia plants the roots are swollen.They store food. They also bear buds towards the stem to which they are attached . New plants come out of buds when swollen tuberous roots are placed in the soil.

3. Vegetative propagation by underground stem: stem tuber in potato ,rhizome in ginger ,corm in gladiolus and alocasia ,bulb in onion and eye in sugarcane all bear buds on their food laden underground stem.

4.Vegetative propagation by stems : Sub aerial stems grow at soil level bearing outgrowths which may give rise to new plants .Examples are : runner , sucker, offset and stolon .

a.Runner of grass and pennywort : Runner is the stem which comes out at the level of the soil and runs along the surface,giving out roots into the soil and an aerial shoot which may later develop into independent plant.

b.sucker of plants such as mint and chrysanthemum are the shoots coming out of the parent plant at soil level.suckers grow horizontally along the ground,giving out fibrous roots and then coming out forming a new aerial shoot.

c.Stolon : is the sub-aerial arched stem growing along the surface of the soil bearing branches at the nodes. On breaking away each plant coming out of a node may grow as an independent plant .

examples are strawberry, jasmine ,taro, vallisnaria.

d. Offset : is a branch which comes out from the axil of a leaf at the surface of water level in water like Eichhornia.

5.Vegetative propagation by leaf

In bryophyllum buds come out along the margin of a mature leaf .These buds also bear roots.Each bud gives out a new plant .

6.Induced vegetative propagation

a.cutting b.layering c.grafting