

EVERWIN MATRIC. HR. SEC. SCHOOL

STD: XII Bio-Botany – Material

Terminologies & Examples:

Conidia	-	Aspergillus and Penicillium
Budding	-	Yeast and Hydrilla
Fragmentation	-	Spirogyra
Gemma	-	Marchantia
Regeneration	-	Planaria
Binary Fission	-	Bacteria
Buds in Roots	-	Murraya, Dalbergia and Millingtonia
Tuberous Roots	-	Ipomoca batatus and Dahlia
Rhizome	-	Musa paradisiacal, Zingiber officinale and curcuma longa
Corm	-	Amorphophallus and Colocasia
Tuber	-	Solanum tuberosum
Bulb	-	Allium cepa and Lilium
Runner	-	Centella asiatica
Stolon	-	Mentha and Fragaria
Offset	-	Pistia and Eicchornia
Sucker	-	Chrysanthemum
Bulbil	-	Diascorea and Agave
Epiphyllous Bud	-	Bryophyllum
Root Cutting	-	Malus
Stem Cutting	-	Hibiscus, Bougainvillea and Moringa
Leaf Cutting	-	Begonia and Bryophyllum
Grafting	-	Citrus, Mango, Apple
Layering	-	Ixora and Jasminum
Pollinium	-	Calotropis

Compound Pollen grain-	Drosera and Drymis
Pollen-10 micrometer-	Myosotis
Pollen-200 micrometer-	Cucurbitaceae and Nyctaginaceae
Orthotropous Ovule-	Piperaceae and Polygonaceae
Anatropous Ovule -	Dicot and Monocot
Hemianatropous Ovule-	Primulaceae
Campylotropous Ovule	- Leguminosae
Amphitropous Ovule	- Alismataceae
Circinotropous Ovule	- Cactaceae
Monosporic Megaspore	- Polygonum
Bisporic Megaspore	- Allium
Tetrasporic Megaspore	- Peperomia
Cleistogamous flowers	- Commelina, Viola and Oxalis
Homogamy	- Mirabilis jalapa, Catharanthus Roseus
Monoecious flower	- Coconut and Bitter gourd
Dioecious flower	- Borassus and Carica papaya
Protandry	- Helianthus and Clerodendrum
Zootogyny	- Scrophularia nodosa and Aristolochia bracteata
Diatyly	- Primula
Tristyly	- Lythrum
Self sterility	- Abutilon and Passiflora
Haemophily	- Grasses, Sugarcane, Bamboo, Coconut, Palm and Maize
Hydrophily	- Vallisneria and Hydrilla
Epihydrophily	- Vallisneria spiralis and Elodea
Hypohydrophily	- Zostera marina, Ceratophyllum

Ornithophily	-	Erythrina, Bombax, Syzygium, Bignonia and Strelitzia	Phenotype	-	Observable character of an Organism
Perianth (Fleshy and Edible)-		Jack fruit	Homozygous	-	Genes are alike [TT, tt]
Funiculus – fleshy structure-		Myristica and Pithecellobium	Heterozygous	-	Genes are dissimilar [Tt]
Nuclear Endosperm	-	Coccinia, Capsella and Arachis	Allele	-	Gene exists in alternative forms called alleles
Cellular Endosperm	-	Adoxa, Helianthus and Scoparia			
Helobial Endosperm	-	Hydrilla and Vallisneria	Dihybrid test cross	-	1 : 1 : 1 : 1
Ruminate Endosperm	-	Myristica	Trihybrid cross	-	27 : 9 : 9 : 9 : 3 : 3 : 3 : 1
Endospermous Seed	-	Wheat, Maize, Barley and Sunflower	Incomplete dominance	-	(eg) <i>Mirabilis jalapa</i> 1 : 2 : 1 Carl Correns
Non-Endospermous Seed	-	Bean, Mango and Cucurbits	Codominance	-	(eg) <i>Camellia</i> , <i>Gossypium</i> , ABO Blood group
Bulbil	-	<i>Fritillaria imperialis</i>			
Adventive Embryony	-	Citrus and <i>Mangifera</i>	Lethal gene	-	1907 – F.Baur (eg) Snapdragon
Diplospory	-	<i>Eupatorium</i> and <i>Aerva</i>	Polygenic Inheritance	-	(eg): Kernel coloured wheat H.Nilson – Ethle (1909) Ratio 1 : 4 : 6 : 4
Apospory	-	<i>Hieracium</i> and <i>Parthenium</i>			
Parthenocarpic fruits	-	Banana, Grapes and Papaya			
Genetic parthenocarpy	-	Citrus and cucurbita	Chloroplast inheritance	-	<i>Mirabilis jalapa</i>
Environmental parthenocarpy-		Pear	Mitochondrial Inheritance-		<i>Hordeum vulgare</i>
Monohybrid cross	-	Mendel – <i>Pisum sativum</i> – 3:1	Atavism	-	<i>Hieracium pilosella</i>
Dihybrid cross	-	Mendel – <i>Pisum sativum</i> - 9 : 3 : 3 : 1			
Dominant Epistasis	-	Sinnot – summer squash - 12 : 3 : 1			
Gregor Johann Mendel	-	Father of Genetics			
Mendel's paper	-	Experiments on Plant Hybridisation			
Emasculation	-	Removal of Anthers			
Genotype	-	Gene constitution of an organism			