

Unit B: Plants for Food and Fibre



Topic 3: Plant Reproduction and Breeding



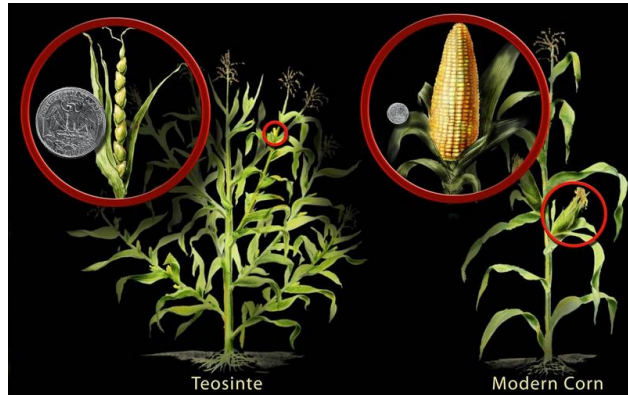
Canola

A. Intro

1. Selective _____

- a) People choose specific plants with particular _____ and encourage these plants to reproduce.

Example: _____



B. New Genes?

1. Canola

- a) Developed using selective breeding, originated from _____

2. Genetic Modification

- a) Removing the genes of one plant and combining them with the genes of another plant to create a _____.

Example: Tomatoes modified to ripen slowly



C. Types of Plant Reproduction

1. Sexual Reproduction

a) Requires specialized seeds of _____ plants

2. Asexual (_____) Reproduction

a) Parent _____ new plants from its roots, stems or leaves

b) Young plants are _____ to parent

3. Types of Vegetative Reproduction

a) Cutting - Cutting off part of desired plant and _____ it

b) Runners - _____ sends out runners, which when covered by soil will be a new strawberry plant

4. Seed Plant Reproduction

a) Ovules - female _____

b) Sperm - located in _____ grains (male)

c) Pollination - sperm goes down the pollen tube and _____ the egg

d) Reproduction in flowers

i. Petals - _____ part of flower

ii. Sepal - green part under the flower that _____ the flower before it opens.

iii. Female part - Pistil

- Stigma - sticky _____

- Style - connects _____ and ovary

- Ovary - bottom of style, has the _____

iv. Male part - Stamen

- Filament - supports the _____
- Anther - _____ pollen

D. Pollination

- a) Self-pollinate - sperm fertilizes egg in the _____ plant
- b) Cross-pollinate - eggs in one plant fertilized by sperm of _____ plant (wind or animals)
- c) How pollination occurs:
 - i. Pollen grain _____ on stigma
 - ii. Pollen tube _____ down the style into ovary
 - iii. Sperm travels down the tube to fertilize _____ egg



PRACTICE:

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