

Double Fertilisation

1) generative nuclei fuses with diploid polar nucleus

1) generative nuclei fuses with female egg cell to form the diploid zygote.

to open the integumental pore.

Generative nucleus in mature pollen grain divides by mitosis as it travels down the pollen tube to make 2 generative nuclei.

The pollen tube is created by the secretion of hydrolytic enzymes → using the products of digestion to fuel this process.
→ movement of the pollen tube nucleus is controlled by the fact that it is negatively aerotropic and positively chemotropic → this guides the nucleus to the micropyle where fusion of the nuclei can occur after the tube nucleus degenerates.

only 1 pollen grain germinates successfully; others disintegrate.

• When a compatible pollen grain lands on the stigma, it germinates in the sucrose solution secreted by the stigma and produces a pollen tube, which grows through the style.

NOTE:

Ovary wall develops into → Fruit

Orule develops into → Seed

Integument → Testa

Micropyle → remains a pore in the Testa (for water uptake during germination).

