

October 15, 2009
PMB102/IB 102

-The Embryo

- Introduction to a GENERALIZED pattern of Embryogenesis
 - demarcation of the embryo proper and the suspensor
 - development of an axis of polarity
 - de novo formation of meristems
- Experimental embryogenesis and what it tells us about normal embryo development and when and how the embryo becomes more independent

-The Seed

- defined as the embryo with associated nutritive tissues surrounded by the seed coat.
- functions to
 - carry plant over periods of unfavorable growth
 - maintain a reserve food supply
 - disseminate plants
- main food reserve is as starch, fats (oils) and proteins
- accumulate secondary plant products
- Dispersal
 - prevent competition
 - dispersal apparatus
 - animals, wind, water, insects
 - autonomous mechanisms
 - depend on creation of tension
- Dormancy
 - characterized by a period of physiological inactivity
 - types of dormancy
 - due to embryo coverings (mechanical)
 - inherent to the embryo (chemical/physiological)
 - ending dormancy
 - cold (stratification) , heat, light, leaching, scarification, exposure to chemicals
 - seed viability
- Germination
- Fruits
 - understanding how they develop depends on
 - structure of flower
 - number of ovaries
 - number of carpels
 - nature of the fruit wall (pericarp)