

ORGANOGENESIS. →

Organogenesis refers to the process whereby explants, tissues or cell can be induced to form root and/or shoot and even whole plantlets. In other words, the formation of organs is called organogenesis.

Organogenesis may be categorised into 2 groups -

(1) RHIZOGENESIS. →

The process of root formation is called Rhizogenesis.

According to Street (1977) root initiation is the type of organogenesis which occurs in cultured tissues most frequently.

The root initiation begins after the formation of buds on the cultured tissues.

(2) CAULOGENESIS. →

The process of shoot initiation is known as caulogenesis.

(i) Histological study of

shoot organogenesis from embryos derived callus revealed that leaf primordia originated within minute indentations on the surface of the callus.

- (i) When transferred to shoot induction medium, organogenesis can be detected within 3 days by radial divisions in the callus.
- (ii) Within 9 days, procambial and provascular tissues are visible in radial divisions in the callus tissue.
- (iii) The outermost
- (iv) Leaf primordia develop from the surface of cells.

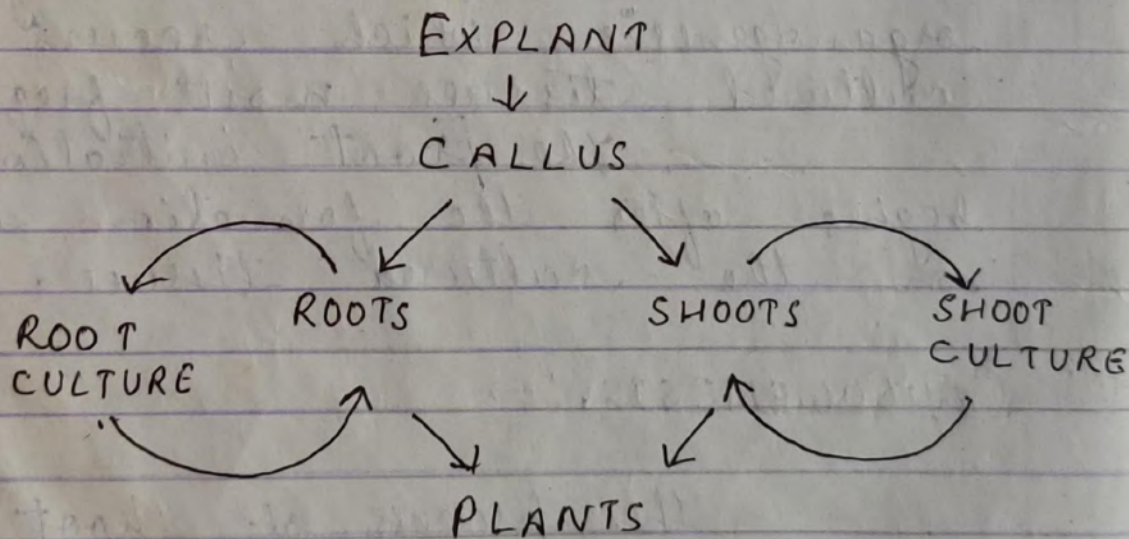


FIG: Steps in organogenesis