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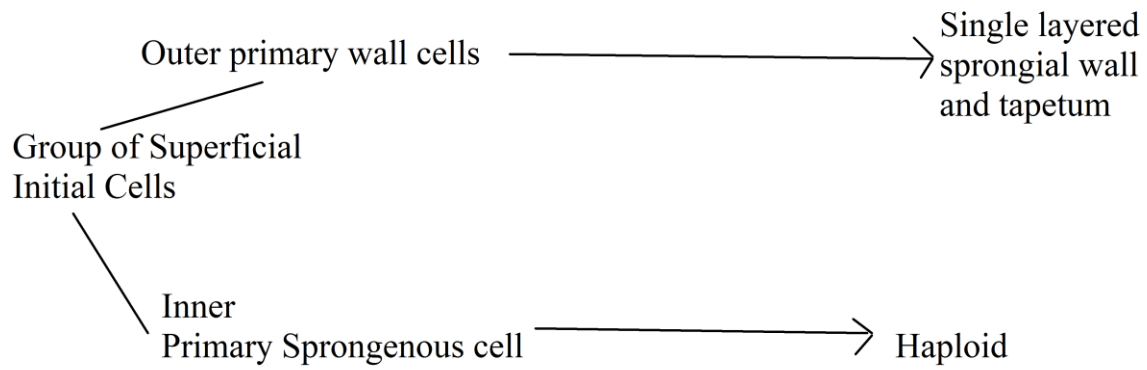
### **Development of Sporangium in Pteridophyte**

In the cusporangiate type the sporangium originates from a group of superficial cells which divide periclinally into outer primary wall cells and inner primary sporogenous cells. The primary wall cells develop into several layered wall of sporangium the inner most of which is tapetum. The sporogenous cells divide meiotically and give rise to haploid spores. Such type of sporangium is called eusporangium. The wall of the mature eusporangium is single layered and all its other layers degenerate at maturity. Eg. *Lycopodium selagineera*, *Equisetum*

**Lepto sporangiate** In the lepto sporangiate type the sporangium develops only from a single superficial cell. It divides transversely into an outer and an inner wall.

The entire sporangium develops from the outer cell. The outer cell divides by three divisions and thus a tetrahedral apical cell is formed. The cells are being cut off from this apical cell on its three lateral faces. Thus formed upper segments from the wall of sporangium. While lower segments contribute to three rowed sporangial stalk. Finally a periclinal division takes place. Apical cell and thus form outer jacket cell and inner primary sporogenous cell. The outer jacket cell divides by anticlinal divisions and forms upper half of the sporangium wall and which is single layered. The primary sporogenous cells divide into tapetal initial and sporogenous tissue. The tapetal initial forms two layered tapetum. While the sporogenous tissue divides meiotically to give rise to haploid spores.

## Eusporangiate types



## Leptosporangiate Types

