

Foundation in Biology I (IDS1102F01)

□ Unit II : PLANT BIOLOGY (1 Credit, 15 Hours)

- General characters of microbes and plants
- Criteria for classification (3 Domain System)
- Mendels laws, hereditary and applications
- Concepts and components of environment
- Cell division

Nitrogen Fixation

Order Nostocales

polar heterocysts

Nitrogen fixation supports
protein synthesis

1. Low N in environment
2. Cell differentiates as a specialized cell, **heterocyst**
3. Creates setting for Nitrogenase enzyme
4. Enzyme converts $N_2 \Rightarrow NH_4^+$



CALOTHRIX

Classification of fungi

- **Zygomycetes (Common Moulds):** which produce through production of zygospores.
- **Ascomycetes (Sac fungi):** which produce endogenous spores called ascospores in cells called asci.
- **Basidiomycetes (Club fungi):** which produce exogenous spores called basidiospores in cells called basidia.
- **Deuteromycetes (Imperfect Fungi):** fungi that are not known to produce any sexual spores (ascospores or basidiospores). This is a heterogeneous group of fungi where no sexual reproduction has yet been demonstrated.