Chapter 12
MINERAL NUTRITION

Biological Nitrogen Fixation:

Biological N_2 fixers

- **Free living N_2 fixers**
  - **Aerobic organisms**
    1. Azatobacter
    2. Beijernckia
    3. Cyanobacteria
       anbena, Nostoc.

    Cylindraspermum
    Sugarcane, Wheat, Maize
  - **Anaerobic organisms**
    Rhodospirillum
- **Symbolic fixers**
  - **Heterotrops**
    Rhizobium - Roots of legume plants

    Frankia - Roots of non-legume
    Ex. Alnus, myrica,casurina, zinko.

    Xanthomonas - Leaves of Ardisia & Pavetta.
  - **Autotrops**
    Blue Green Algae

    Anabena - Azolla (Fern leaf)

    Cycade - Corollaid roots of cycas