

2. KINGDOM MONERA

It is a kingdom of Prokaryotes. Moneran cells are microscopic without a nucleus and rigid cell wall. . Monerans are important decomposers and mineralisers in the biosphere.

Eg : BACTERIA

Bacteria were discovered by Leeweenhock (1676). They are omnipresent (present every where)

Based on their shape bacteria were divided into four types.

- (i) Coccus - Spherical bacterium
- (ii) Bacillus - rod shaped bacterium
- (iii) Spirillum - Long and spirally coiled bacterium
- (iv) Vibrio - Bacterium with a slight bent cell and appears like, comma.

Bacteria are considered as plants due to the presence of rigid cell wall (A cell wall is invariably found in all plant cells). There is no definite nucleus in bacterium. DNA is in the form of circular chromosome. Bacteria are divided into "Gram Positive" and "Gram Negative" types based on "Gram Staining Technique". The reagent used in this staining is "crystal violet dye". Those bacteria which take crystal violet dye during gram staining technique are called gram positive, those which do not take are gram negative.

ECONOMIC IMPORTANCE OF BACTERIA :

Uses :

1. Nitrifying and nitrogen fixing bacteria increase soil fertility

2. Bacteria decompose dead bodies of plants & animals, thus acting as natural scavengers.
3. A number of drugs like streptomycin, terramycin are extracted from the genus streptomyces.
4. Bacteria are useful for curdling of milk, tanning of leather, curing of tea & tobacco leaves.
5. Many organic compounds & Vit B are manufactured industrially with the help of bacteria.
6. Bacteria are used to clean water, polluted with oil because these break down hydrocarbons.

Harmful effects : They are responsible for rot of fruits & Vegetables during storage.

Plant diseases

1. Blight of Paddy .
2. Citrus canker
3. Angular leaf spot of cotton
4. Tumors in Plants
5. Rot: of vegetables
7. Tuberculosis
8. Leprosy
9. Diphtheria
10. Plague
11. Wound infection
12. Syphilis

Human diseases

1. Pneumonia
2. Throat infection
3. Whooping cough
4. Tetanus
5. Typhoid
6. Cholera

