

- **Phytopathology** : Plant +Ailment +Knowledge
- **Microscope** - Leewenhock
- **Father of Mycology (Fungi Study)** – De Barry
- **Father of Modern Plant Pathology** – Julious Koon
- *Prof Millardet of France discovered Bordeaux mixture for the control of Downey mildew disease*

### Bunt/ Smut – by Fungi



### Late Blight of Potato



- **Blakeslee - Heterothallic** species have sexes that reside in different individuals
- Virus – Nucleic Acid + Protein
- Fig - Tobacco Mosaic →
- Lipo Virus
- Animal Virus
- Plant Virus
- Viroid – Potato Spindle Tuber
- Plant Viroid

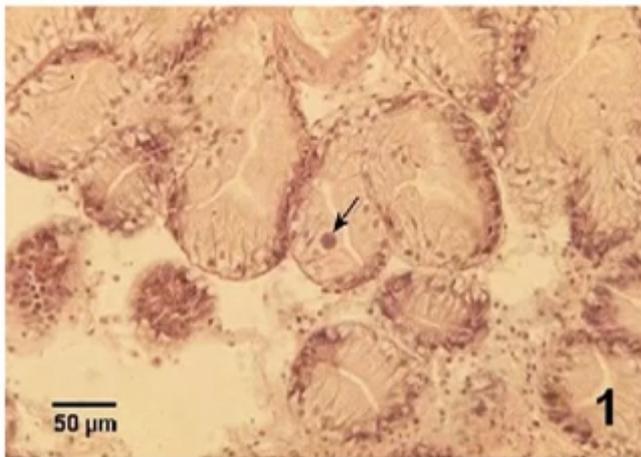


- Plasmid/Episome
- MLO
- Most of the yellow diseases of plants are caused by Mycoplasma ( a Genus of Bacteria)
- **Father of Modern Plant Pathology in India – E J Butler**
- *B B Mundkur established Indian PhytoPathological Institute and started the Publication of Indian Phytopatholgy in 1948*

## CANKER



## RICKETTSIALIKE ORGANISMS



## SPOT



## HYPERPLASIA



# SCORCH



Barberis, Thalictrum, Bromus sp,  
Agropyron



# SMUT



- Masked Symptoms
- Spot
- Haustorium
- Biotype
- Toxin
- Bacteriostatic
- Bacteriophage
- Scorch
- Blotch
- Exudate
- Heterotrophic
- Host
- Etiolation
- scab

## VEIN CLEARING



## VEIN BANDING



- Antagonistic symbiosis
- Endemic disease
- **Shot hole**
- Heterothallic fungi
- **Vein clearing**
- **Vein banding**
- **Die back**
- Anthracnose
- Quarantine
- Syndrome
- Transmission
- Conjugation
- Culture
- Homothallic fungus
- Pustule
- **Chlorosis**

- **Witches Broom, Aster Yellows by Mycoplasma**



- Tetracyclin Antibiotic

# RING SPOT



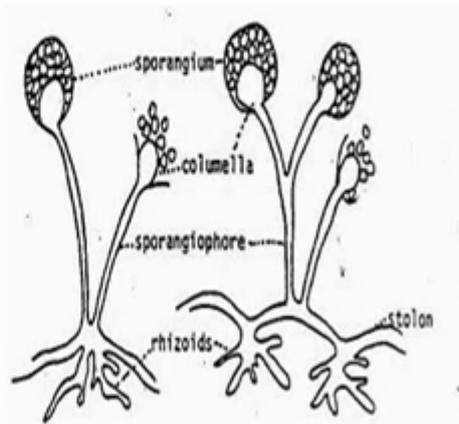
# TECHNICAL TERMS

1. Blight
2. Hyperplasia
3. Hypertrophy
4. Parthenogenesis
5. Rogueing
6. Obligate Parasite
7. Facultative Parasite
8. Facultative Saprophyte
9. Damping Off
10. Mildew
11. Virulent
12. Incubation Period
13. Ination
14. Eradication
15. Necrosis

# SHOT HOLE



- Gall
- Yellows
- Antigen
- Antibiosis
- Antibody
- Race
- Phytoalexin
- Foliocellosis/ freching
- Exclusion
- Pleomorphism
- Heteroecious fungus
- Epidemic disease
- Rhizoids
- Downey mildew
- Mosaic



- 4 stages in life cycle of rust organism

- I. Aecial
- II. Uredial
- III. Telial
- IV. Basidial
- O. Picnial

- Biotypes - 1, 2, 3

- Races – a, b, c, d

## BRIZA MINOR



# RUSSETTING



- Antagonistic symbiosis
- Endemic disease
- Shot hole
- Heterothallic fungi
- Vein clearing
- Vein banding
- Die back
- Anthracnose
- Quarantine
- Syndrome
- Transmission
- Conjugation
- Culture
- Homothallic fungus
- Pustule
- Chlorosis

- Wilt
- Rugose
- Russetting
- Rickettsialike organisms
- Pathogen
- Resistance
- Vector
- Disinfectant
- Immunity
- Ring spot
- Virion
- Viroid
- Carrier
- Lesion
- Rot
- Disinfestant

## CANKER



## ANTHRACNOSE



## ETIOLATION



# SOOTY MOULD



## thallus

/ˈθaɪləs/ 

noun BOTANY

a plant body that is not differentiated into stem and leaves and lacks true roots and a vascular system. Thalli are typical of algae, fungi, lichens, and some liverworts.

# WITCHES BROOM



- Alternate host
- Autaceous fungus
- Agar
- Smut
- Sooty mould
- Witches broom
- Mycorrhiza
- Fungistatic
- Rust
- Canker
- Plasmogamy
- Physiologic race



## NECROSIS



## SCAB



## RUST IN INDIA

- Two rusts infesting crop
  - Wheat Leaf Rust and
  - Stripe Rust
- Three types of hosts
  - Alternate
  - Collateral
  - Primary



## RUGOSE



## FOLLIOCELLOSIS



## BLIGHT



## MOSAIC



## DAMPING OFF



# DIE BACK

