CHS3403 Principles of Plant Pathology in Cannabis and Medicinal Plant

Plant disease from protozoa, algal, phanerogams

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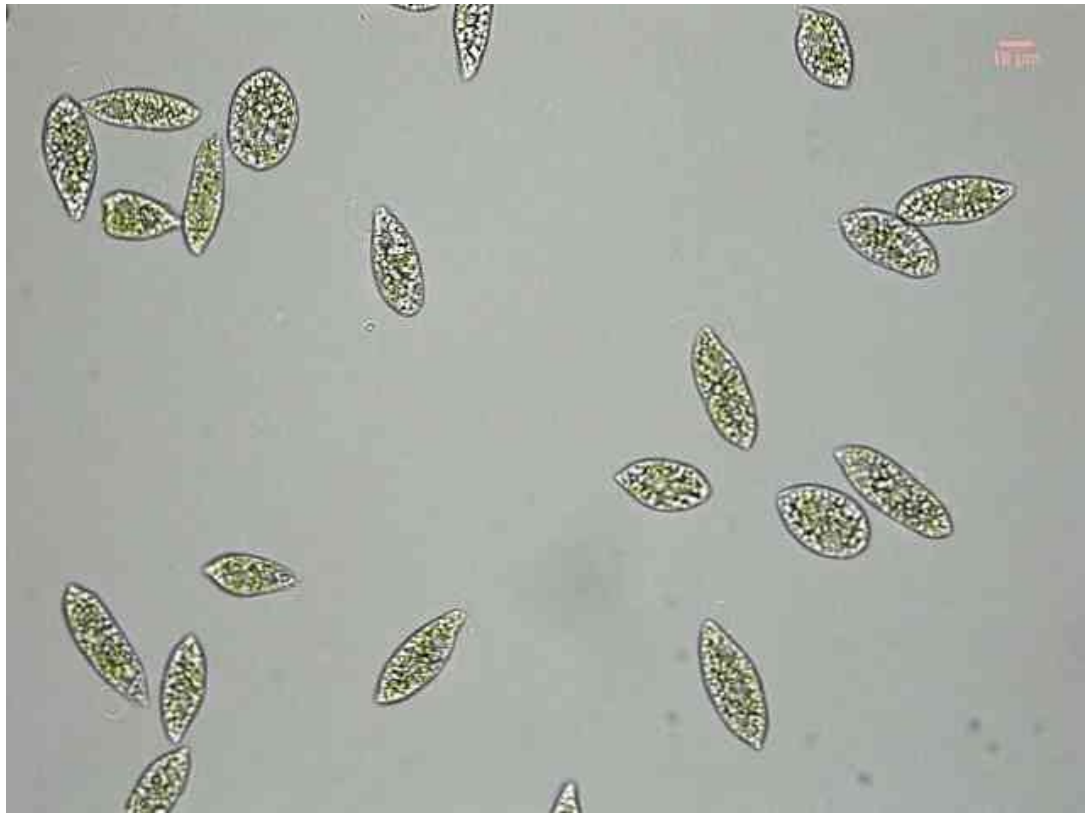
…Topics…

1. Plant disease from protozoa
2. Plant disease from algal and phanerogams

1. Plant disease from protozoa

1.1 characteristics

- Body externally ciliated in at least some lifecycle stages
- Have the highest degree of subcellular specialization and are considered advanced protozoans



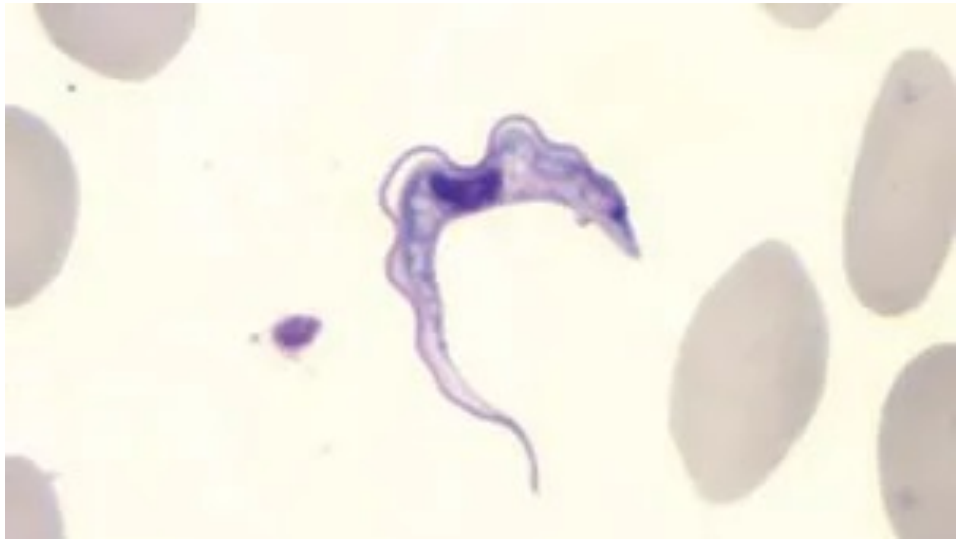
1. Plant disease from protozoa

1.2 classification of protozoa

Protozoa was classified into 4 types by moving structure

1) flagellum

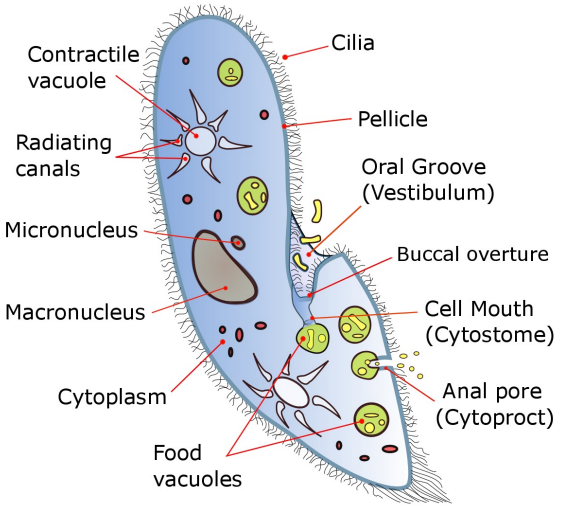
- a cell or organism with one or more whip-like appendages called flagella
- The word flagellate also describes a particular construction (or level of organization) characteristic of many prokaryotes and eukaryotes and their means of motion



1. Plant disease from protozoa

2) cliiate

- ciliates are a group of alveolates characterized by the presence of hair-like organelles called cilia
- Cilia occur in all members of the group (although the peculiar Suctoria only have them for part of their life cycle) and are variously used in swimming, crawling, attachment, feeding, and sensation.



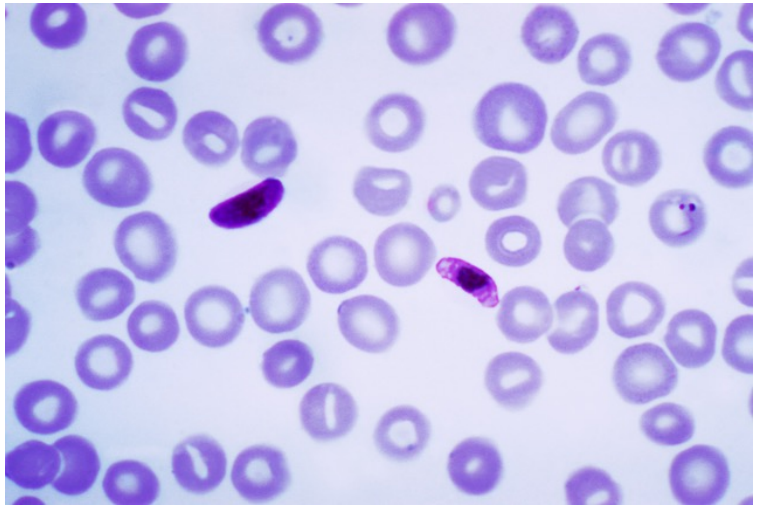
1. Plant disease from protozoa

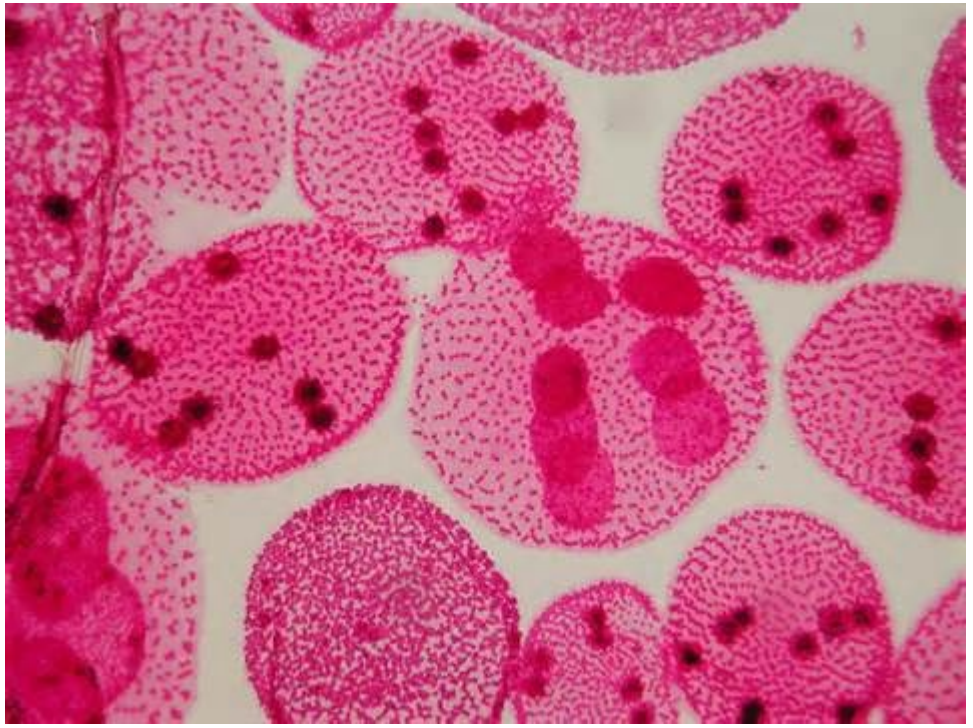
3) sarcodina

- sarcodine, any protozoan of the superclass (sometimes class or subphylum) Sarcodina.

- These organisms have streaming cytoplasm and use temporary cytoplasmic extensions called pseudopodia in locomotion (called amoeboid movement) and feeding. Sarcodines include the genus Amoeba

1. Plant disease from protozoa





4) sporozoa

- No structure for moving
- Reproduction by sporulation

1. Plant disease from protozoa

1.4 Plant disease from protozoa

Disease	Symptom	Host	Pathogen
1. phloem necrosis disease of coffee	- leaves begin to yellow and fall off But the young leaves at the top and the end of the branch and the end of the root begin to die. - Trees may wither and die in 3-6 weeks.	coffee	*Phytomonas teptovasorum*
2. Blossom blight	- Cells die and rot at the tip of the inflorescence - Yellow, stunted and withered plants	coconut palm	*Phytomonas* sp.

2. Plant disease from algal and phanerogams

2.1 Algal diseases

2.1.1 Characteristic of Algal

1) Order Trentepohliales

- It is a species that only takes branches.
- Contains prohibited pigments, light carotenoids
- Lives a semi-terrestrial life that can grow sometimes in wet, rocky, bark, trunk, leaves.

2. Plant disease from algal and phanerogams

2.1.1 Characteristic of Algal

2) Genus *Cephaleuros*

- It is an orange to brown velvet-like lesion.
- Contains hematochrome pigments
- Mycelial cells radiate outward from the center, making them somewhat round.

2. Plant disease from algal and phanerogams

2.1.2 Plant disease from algal

Algal	Infection	Effect
Cephaleuros minimis	stems and petioles	The infestation of algae causes swelling or break and die
Cephaleuros vireseens	leaves and fruit	-Damage will cause damage to plants. -If it enters the mouth, the leaves will fall off. -If the leaves grow, photosynthesis will decrease. -If there is a fungus, it will turn into moss

2. Plant disease from algal and phanerogams

2.1.3 Disease management

1. Trim trees and do not shade too much.

2. Wash and protect trees and leaves with diluted Junse solution.

3. Partly trim the leaves of plants and adjust the soil to obtain good drainage. This will help plant growth and avoid algae coverage.

2. Plant disease from algal and phanerogams

2.2 Phanerogams

2.2.1 Characteristics of parasitic higher plants

1. Chlorophyll is a kind of plant with roots, which can cook by itself with carbon dioxide and water in the air. But use minerals and some organic substances from living plants, such as orchids.

2. Plant disease from algal and phanerogams

2. Chlorophyll is a rootless plant that can cook and produce carbohydrates on leaves and stems, but it needs water and other minerals. All come from living plants, including various parasites.

2. Plant disease from algal and phanerogams

3. It is a plant without chlorophyll and roots. It obtains successful food from all living plants. If it is a complete parasite, it will have no green. No leaves. If there is a leaf, it will be very small. The part attached to the living plant will grow out of all the tissues of the living plant, that is, dodders, which are considered permanent parasites.


THANK
YOU