



Lecture No.: 21

Date: 28th April, 2020

CORE CONCEPT OF
Group B - Mycology

HONOUR'S PART 1
Paper - 1

LIFE HISTORY AND ECONOMIC IMPORTANCE OF CYSTOPUS (ALBUGO) - I

Systematic position :

Fungi

Phycomycetes

Oomycetes

Peronosporales

Albuginaceae

Albugo (Cystopus)

Cystopus or **Albugo** - The genus Albugo is also known as Cystopus. It is a complete obligate parasite. They mainly spend their life upon plants of Cruciferae, Convolvulaceae and Compositae families. About 30 species of these parasites are available in the world. Albugo Candida is most popular among them. They cause white rust disease upon their host plant, in which they cause white or light white irregular spots on their host plant's leaves, fruits and flowers etc. Thus they harm to plants.

Structure - Species of Albugo possess very fine Coenocytic mycelium which is strictly intercellular, small globular haustoria developed by the hyphae pierce the host cell-wall. Mycelium of Albugo is aseptate branched and completely developed. The hypha of Cystopus always enters in host through stomata.

Reproduction - Reproduction of Cystopus takes place by two methods :-

1. Asexual Reproduction

2. Sexual Reproduction



1. Asexual Reproduction - This reproduction takes place by Conidiophore. In this method hyphae ramify along the intercellular spaces and collect beneath the epidermis, branch profusely. After that maturity produce numerous club-shaped Sporangiophores. Sporangia are abstricted from the tips of the Sporangiohores. During the development of sporangium cytoplasm accumulates in the apex of the Sporangiohores, the apex becomes multinucleate and cut off by a Septum. The entire process is repeated. Large number of Sporangiohores are developed in clusters. Both the growth of the fungus and production of Sporangia exerts a pressure below on the host epidermis causing it to bulge producing a white blister like appearance that is sorus bearing sporangia and sporangiophores. The sporangia are normally globuse. The sporangia are thin-walled multinucleate filled with Cytoplasm. Depending on the temperature, the sporangia germinate by germ-tubes, which develop into hyphae of new individuals.

