seed crop rust of India. It is found in all the states where linseed is grown. The disease causes reduction in seed yield and the weak and difigu-ring of fibre in flax.

Symptom:- Diseased plants become very conspicuous in the field because of the bright orange of the affected parts. This is due to the uredia which occur in large numbers on both the surfaces of the leaves and other aerial parts of the plant. The leaves die pre-maturely. At a later stage, as the crop ripens, the spots of telia on the stem are mostly dark brown turn-ing to black and are crust like. The pycnia are inconspicuous. They are small yellow spots appear very easly on the upper surface of the leaf. The aecia are orange yellow appearing on the lower surface.

Causal Organism:- The disease is caused by Melampsora lini which belongs to

Basidiomycetes

Uredinales

Melampsoraceae.

It is an autoecious rust. Its mycelium is intercellular, branched, septate, dikaryotic and subepidermal and usually

They are usually flask shaped but occassionaly diffused spermatiophores without a definite structure appear. Aecia lack peridium or paraphyses (caemoid type characteristics of Melampsora) Aeciospores are polygonal with verrucose epispore) 15 - 25 μ in diameter.

Uredia are circular on leaves but elongated on stem. Uredospores are ovate stalked and intermingled with capitate hyaline paraphyses. Telia amphigenous consists of a palisade layer of brown black, sessile and cylindrical teliospores. The teliospores germinate only when subjected to freezing temperature.

Disease Cycle :- The disease is air borne. In India, linseed is a winter crop sown in October and harvested in March/ April. Teliospores fail to survive the high summer temprature and thus have no role in the recurrence of the disease. The rust outbreak takes place 2-3 months later from the date of sowing in the plains. This suggests that there is no local source of infection in the plains from previous crops. Prasada suggested that the crops in the hills get infected first and then fresh uredaspores are blown by the wind

investigation.

Control:- The only method of controlling this disease is to grow resistant varities.

Another important control measure for this rust is the avoidance of exceessively nitrogenous manures which favour lush growth.