

## RESEARCH NOTE

**Rosellinia Rot: A New Record of Potato Disease in Nepal**

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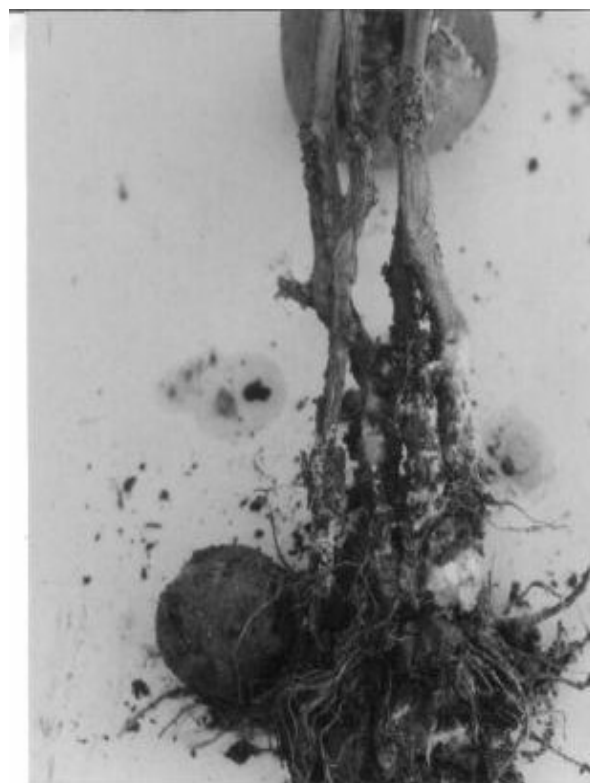
Rosellinia rot disease of potato has been reported from Latin American countries such as Bolivia, Columbia, Peru and Chili, Costa Rica and Ecuador (Turkensteen 1990). The disease is reported to be common in places where temperate and humid climate are prevalent during potato growing season.

Potato, which is grown from March/April to Aug/Sept, is the main crop in hills (2000-3000 masl) of Nepal. In 1997 and 1998, potato crop was surveyed for diseases during growing and harvesting periods in the farmer's fields at Rolkhani (ca. 2700 masl), Dolakha district. Besides blight and wart diseases, a new disease was observed at Rolkhani and it was a serious problem in potato in some farmer's fields. At Rolkhani, the prevailing climate is temperate and humid during potato growing season.

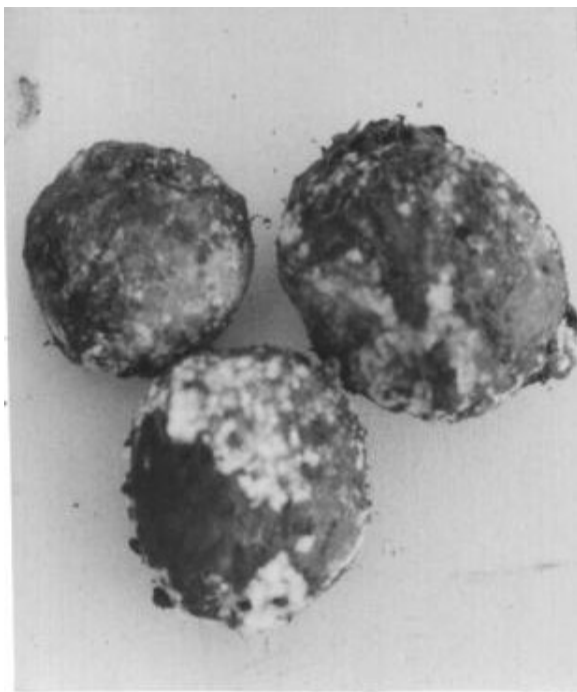
The disease symptoms were quite different from other known diseases. The farmers named the disease as "Sogtle", because it caused potato plants stunted, flaccid and ultimately wilted. While removing the diseased plants from soil, the underground parts were observed brownish to black covered with whitish mats of loose mycelia (Figure 1). The soil was rhizomorphs like white strands of fungal hyphae at the site of infection. The infected tubers were partially or completely covered with whitish mats of loose mycelia (Figure 2). Early infected tubers were observed rotting. In some farmer's fields, the estimated rotted tubers were 10-30 percent. According to farmers of Rolkhani, non-infected tubers also gradually rotted at storage place.

Infected plants, tubers and the infested soil with whitish strands of the fungal mycelia were

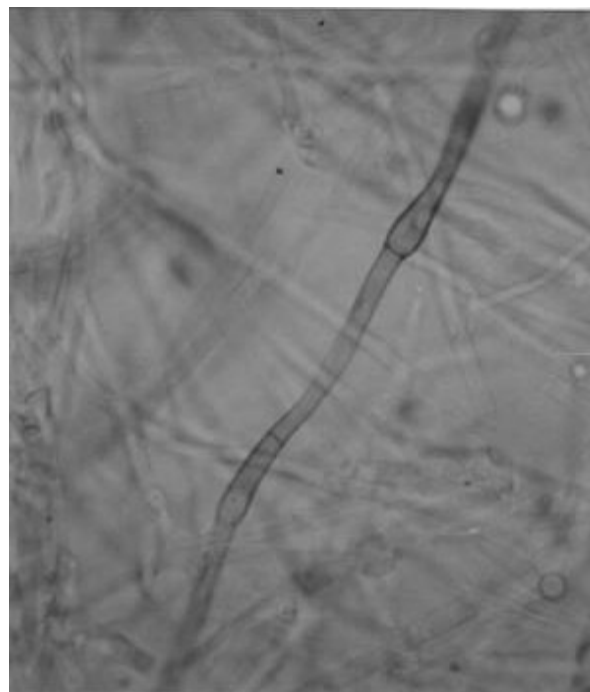
collected and examined at the laboratory of Plant Pathology Division, Nepal Agricultural Research Council, Khumaltar, Lalitpur Nepal. The symptoms and signs were studied with the help of cited literatures, and the diseased tissues were examined through stereo and compound microscopes. The morphology of mycelium was keenly noted. A characteristic pyriform swelling of hyphae at septa was recorded (CAB, 1972, Figure 3) and this pyriform swelling is the most characteristic feature of the genus *Rosellinia* spp. and the disease was identified as *Rosellinia* rot.



**Figure 1. Underground parts of potato plants covered with whitish loose mycelium**



**Figure 2. Potato tubers covered with whitish loose mycelium**



**Figure 3. Hypha of *Rosellinia* sp. showing pyriform swelling at septa**

#### REFERENCES

CAB. 1972. *Rosellinia necatrix*. Common Wealth Mycological Institute (CMI). *Descriptions of pathogenic fungi and bacteria*, No 352. Common Wealth Agricultural Bureaus (CAB). Ferry Lane, Kew, Surey, England.

Turkensteen LJ. 1990. *Rosellinia* black rot. In: *Compendium of Potato Diseases* (WJ Hooker, ed). American Phytopathological Society (APS), St. Paul, Minnesota 55121, USA. Pp. 51-52.