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## **HISTOCHEMICAL AND BIOCHEMICAL PATHOLOGY OF ALFALFA ROOTS INFECTED BY *HOPLOLAIMUS* *GALEATUS* (COBB, 1913) THORNE (1935).**

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### **Abstract**

*Hoplolaimus galeatus* has been observed feeding on cortical and vascular tissues. A brownish discoloration occurs at the site of feeding which spreads to many cells in the vicinity from the point of nematode puncture. Cross and longitudinal sections of the lesions showed that the walls of the affected cells were thicker than normal and stained darkly with safranin.

Histochemical studies of alfalfa roots parasitized by *H. galeatus* under monoxenic conditions revealed positive reactions for lignin and peroxidase tests in fresh tissues. phenylalanine, Coumarin and two unidentified fluorescent compounds were detected by paper chromatography in diseased roots. Only phenylalanine and coumarin were found in healthy roots.

It is considered that the injury by *H. galeatus* causes changes in host metabolism resulting in the lignification of the diseased tissues; red staining of the affected parts may account for the lignification.