

Disease Note.

Detection of Pea Cyst Nematode (*Heterodera goettingiana*) in Pea in Western

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In 1992, a cyst nematode was discovered on roots of pea (*Pisum sativum* L.) growing in western Washington. In 1993, its identity was confirmed as pea cyst nematode, *Heterodera goettingiana* Liebscher, based on the morphology of cysts and second-stage juveniles, and on host range. Nematode-infested areas in fields appeared as well-defined, circular or irregular spots that often turned a brilliant yellow before harvest time. Severely affected plants from an area in an infested field with approximately two cysts per gram of soil were pale green and stunted, had poorly developed roots, lacked *Rhizobium* nodules, and produced only a few pods and seeds. Light-colored cysts were obvious on plant roots before flowering; but as the cysts matured and darkened, their ease of detachment impeded visual observation on the roots. Invasion, discoloration, and rotting of roots by secondary organisms, particularly *Fusarium*, further complicated late-season detection. Growers indicated that pea plants in some infested fields had shown similar symptoms for the last several years, indicating that these fields may have been infested by *H. goettingiana* for some time. The pea cyst nematode has a limited host range. It is widespread throughout Europe and the Mediterranean Basin, and also occurs in Japan. Although *H. goettingiana* has been reported in a greenhouse in Illinois and in a single field each in Pennsylvania and Idaho, this species has never become established in commercial pea fields in the United States. The distribution of this nematode in pea fields throughout North America should be determined.