# pratylenchus india

**Pest:** Pratylenchus loosi (root lesion nematode)

**Country/area at risk:** India

**Date created:**

**Last modified:** 20 July 2021

**PRA number:** P06852

|  |
| --- |
| **Scope of PRA** |
| Airlines |
| **PRA Area** |
| UK |
| **Reason for PRA** |
| Demo or test PRA |
| **Do previous PRAs exist for this pest?** |
| No |
| **Details of previous PRAs for the pest in the PRA area** |
| Not applicable |
| **Details of other previous PRAs for the pest** |
| Not applicable |

## Pest Categorization

### Identity

identity  
*Taxonomic*  
**Preferred Scientific Name:** Pratylenchus loosi Loof, 1960  
**Preferred Common Name:** root lesion nematode  
**International Common Names:** **(English)** Loos' root lesion nematode; meadow nematode; nematode, Loos' root lesion; **(French)** anguillule de racines du theier  
**Phylum**: Nematoda; **Family**: Pratylenchidae

### Presence or absence in the PRA area

xyz

### Regulatory status of the pest

Regulated non-quarantine pest, present in the country/area but whose presence in plants for planting affects its intended use

### Regulatory status of the pest elsewhere

xyz

### Distribution summary

xyz  
Distribution from the Crop Protection Compendium (20/07/2021)  
**Africa:** Kenya, Senegal  
**Asia:** Bangladesh, China (Sichuan), India (Delhi, Himachal Pradesh, Kerala, Rajasthan, Sikkim, West Bengal), Iran, Japan (Honshu, Kyushu, Ryukyu Islands, Shikoku), South Korea, Sri Lanka, Taiwan, Turkey  
**Europe:** Bulgaria  
**North America:** Guadeloupe, United States (Florida)  
**Oceania:** American Samoa, Australia (New South Wales), Cook Islands  
**South America:** Brazil (Mato Grosso), Chile

### Association with host plants

xyz

### Potential for establishment

xyz

### Potential for economic, social and environmental impact

xyz

### Summary of categorization of Pratylenchus loosi (root lesion nematode)

|  |  |
| --- | --- |
| **Does the pest have the potential to qualify as a quarantine pest?** | Yes |
|  |

## Risk Assessment

### Probability of entry

#### Pathway: Plants for planting

abc

|  |  |  |
| --- | --- | --- |
| **1. What is the probability of the pest being associated with the pathway at origin?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **2. What is the probability of the pest surviving during transport?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **3. What is the probability of the pest surviving or evading existing pest management procedures?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **4. What is the probability of transfer to a suitable host or, in the case of potential weeds, habitat?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

#### Probability of entry summary: Plants for planting

|  |  |  |
| --- | --- | --- |
|  | **Rating:** | Medium |
|  | **Confidence:** | High |

xyz

|  |  |
| --- | --- |
| **Is this a major or minor pathway?** | Major |
|  |

|  |  |
| --- | --- |
| **Does this pathway require management measures?** | Yes |
|  |

#### Pathway: Seeds for planting

abc

|  |  |  |
| --- | --- | --- |
| **1. What is the probability of the pest being associated with the pathway at origin?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **2. What is the probability of the pest surviving during transport?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **3. What is the probability of the pest surviving or evading existing pest management procedures?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

|  |  |  |
| --- | --- | --- |
| **4. What is the probability of transfer to a suitable host or, in the case of potential weeds, habitat?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | High |

xyz

#### Probability of entry summary: Seeds for planting

|  |  |  |
| --- | --- | --- |
|  | **Rating:** | Medium |
|  | **Confidence:** | High |

xyz

|  |  |
| --- | --- |
| **Is this a major or minor pathway?** | Major |
|  |

|  |  |
| --- | --- |
| **Does this pathway require management measures?** | No |
|  |

#### Probability of entry summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Summary rating | Summary confidence level | Major/minor pathway? | Pathway requires management  measures |
| **Probability of entry: Pathways** |  |  |  |  |
| Plants for planting | Medium | High | Major | Yes |
| Seeds for planting | Medium | High | Major | No |

### Probability of establishment

|  |  |  |
| --- | --- | --- |
| **1. What is the probability that suitable hosts or, in the case of potential weeds, habitats are available in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **2. If transmitted by vectors, what is the probability that suitable vectors are available in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **3. What is the probability that climatic conditions and other abiotic factors will allow the pest to establish in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **4. What is the probability that existing control measures for other pests in the PRA area are unable to prevent establishment?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **5. What is the probability that existing natural enemies in the PRA area are unable to prevent establishment?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **6. What is the probability that other biological characteristics of the pest will enable establishment?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **7. What is the probability of establishment under foreseeable climate change conditions?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

#### Probability of establishment summary

|  |  |  |
| --- | --- | --- |
|  | **Rating:** | Medium |
|  | **Confidence:** | High |

xyz

### Probability of spread

|  |  |  |
| --- | --- | --- |
| **1. What is the expected rate of natural spread in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **2. If transmitted by vectors, what is the expected rate of spread by vectors in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **3. What is the expected rate of spread with commodities or conveyances in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **4. What is the probability of the pest spreading to an area of higher economic importance than the area of introduction?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **5. If a commodity pathway has been identified as one of the pathways of entry, what is the probability that the intended use of the commodity increases the rate of spread?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **6. What is the potential rate of spread under foreseeable climate change conditions?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

#### Probability of spread summary

|  |  |  |
| --- | --- | --- |
|  | **Rating:** | Medium |
|  | **Confidence:** | High |

xyz

### Potential economic, environmental and social consequences

|  |  |  |
| --- | --- | --- |
| **1. What is the level of economic loss to agriculture, forestry or horticulture associated with this pest in its existing geographic range?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz  
  
The following summary is from the Crop Protection Compendium datasheet (20/07/2021)  
  
P. loosi is the most serious pest of tea in Sri Lanka (Gadd, 1939; Gadd and Loos, 1946; Loos, 1953; Sivapalan, 1972) and is a serious pest of tea in Japan (Kaneko and Ichinohe, 1963; Takaji, 1969).Almost all detailed assessments of crop losses in tea, caused by plant parasitic nematodes, have been conducted in Sri Lanka. Although P. loosi has been recovered from several locations, significant damage to tea has been observed mainly at altitudes between 900 and 1800 m. Approximately 40-50% of the high altitude tea areas in Sri Lanka, covering about 55,000 to 60,000 hectares, is known to suffer obvious damage caused by P. loosi. Although decline in yield in such areas has been estimated at around 225-350 kg made tea/hectare/year (Gadd, 1939; Visser, 1959), this can vary from about 4 to 40% depending on the type of cultivar planted, prevailing climatic conditions, population density of nematode, age and vigour of plant, type and pH of soil, etc. (Gnanapragasam, 1988). The extent of damage is greater in young infested tea clearings and nurseries where damage ranging from 60 to 100% can occur if the proper sanitary measures are not followed.In experiments conducted under controlled conditions in the greenhouse, the damage threshold of P. loosi was estimated to be 40 nematodes per 100 g soil at 24°C; this is the average temperature of areas between the altitude range of 900-1800 m in Sri Lanka (Gnanapragasam and Manuelpillai, 1984).Populations of P. loosi are highest in areas with high and well distributed rainfall; this determines the severity of damage within the same altitude (Hutchinson and Vythilingam, 1963).In Sri Lanka, P. loosi is widely distributed in tea fields at all altitudes but damage to tea is confined mainly to altitudes between 900 and 1800 m (Hutchinson and Vythilingam, 1963). In contrast, P. loosi damages tea throughout Japan, where the crop is cultivated at altitudes between 0 and 300 m, because Japan is located in the cooler temperate zone (Takaji, 1969).In Bangladesh, P. loosi only causes damage symptoms to tea grown in nurseries.Nematode damage varies with the type (texture) and physical condition of the soil. Damage caused by P. loosi is most severe in ill-drained, clay-type soils (Sivapalan, 1971).

|  |  |  |
| --- | --- | --- |
| **2. What is the level of potential economic loss to agriculture, forestry or horticulture in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **3. What is the level of negative impact on native biodiversity associated with this pest in its existing geographic range?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **4. What is the level of potential negative impact on native biodiversity in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **5. What is the level of negative impact on ecosystem patterns and processes associated with this pest in its existing geographic range?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **6. What is the level of potential negative impact on ecosystem patterns and processes in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **7. What is the level of negative social impact associated with this pest in its existing geographic range?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **8. What is the level of potential negative social impact in the PRA area?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

|  |  |  |
| --- | --- | --- |
| **9. What is the level of potential negative impact in the PRA area (for all sectors) under foreseeable climate change conditions?** |  |  |
| **Rating:** | Medium |
| **Confidence:** | Medium |

xyz

#### Potential consequences summary

|  |  |  |
| --- | --- | --- |
|  | **Rating:** | Medium |
|  | **Confidence:** | High |

xyz

## Risk assessment summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Summary rating | Summary confidence level | Major/minor pathway? | Pathway requires management  measures |
| **Probability of entry:Pathways** |  |  |  |  |
| Plants for planting | Medium | High | Major | Yes |
| Seeds for planting | Medium | High | Major | No |
| **Probability of establishment** | Medium | High |  |  |
| **Probability of spread** | Medium | High |  |  |
| **Potential economic, environmental and social consequences** | Medium | High |  |  |

|  |  |
| --- | --- |
| **Does the pest require phytosanitary measures?** | Yes |
|  |

summary notes

## Risk Management

### Pathway of entry

|  |  |
| --- | --- |
| Management option | Notes |
| **Plants for planting** |  |

### After entry

|  |  |
| --- | --- |
| Management option | Notes |
| **Inspection or testing in post-entry quarantine** | xyz |

### Other

### Risk management summary

summary

## Pest Risk Analysis Summary

abc

### Next Steps

abc

### Contact Details

abc

## References

Text entered -First reference

This report was generated using the CABI PRA tool <https://www.cabi.org/PRA-Tool/>