Course Specifications

Valid as from the academic year 2018-2019

Tropical Plant Nematology (C003952)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size (nominal values; actual values may depend on programme)

Credits	Study time	Contact hrs
3.0	90 h	40.0 h

Course offerings and teaching methods in academic year 2020-2021

A (semester 2)	English	Gent	lecture	15.0 h
			lecture: response lecture	15.0 h

Lecturers in academic year 2020-2021

Elsen, Annemie	WE11	lecturer-in-charge

Offered in the following programmes in 2020-2021	crdts	offering
International Master of Science in Agro- and Environmental Nematology	3	A

Teaching languages

English

Keywords

Tropical agriculture, nematology, abiotic and biotic environmental conditions, damage, yield loss, importance

Position of the course

The course is given in the second semester after the course on the Systematics of plant parasitic nematodes: Tylanchomorpha.
It is the objective of the course to provide the students with a profound knowledge of a) the most important nematode species causing damage to agricultural crops in the (sub) tropics and b) the effects of abiotic and biotic environmental conditions characteristic of the (sub)tropics on the interactions between these nematodes and their host plants.

Contents

- Description of the agro-ecological differences between temperate and tropical agricultural systems and the effects of these differences on the occurrence of plant-parasitic nematodes.
- Importance of injury and disease caused by plant-parasitic nematodes to agricultural crops in the (sub)tropics.
- Geographical distribution, reproductive and damage potential, host plant interactions and economic importance of the most important nematode species associated with:
- - cereals (rice, maize, sorghum, millets)
  - root and tuber crops (cassava, sweet potato, yam)
  - food legumes (bean, cowpea, chickpea, pigeon pea, groundnut soybean)
  - fruit crops (banana and plantain, pineapple, citrus)
  - oil palm, coconut, cotton, rubber
  - tobacco, sugarcane, coffee, cocoa, tea
  - vegetables and spices.
- Emerging diseases caused by plant-parasitic nematodes in the (sub)tropics.
- Challenges facing tropical nematology.

Initial competences

The students should have an academic knowledge of botany and zoology, and should have followed the courses "Systematics of plant-parasitic nematodes: Tylenchomorpha" and "Life cycle biology of the principle groups of plant-parasitic nematodes".

Final competences

1 Understand the effects of abiotic and biotic environmental conditions on nematode-

host interactions, characteristic of the tropics.
2 Knowledge of the nematode species found on the different tropical crops and the symptoms they cause.
3 Identify nematode species found on tropical crops using microscopic methods and by evaluating the observed symptoms.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, lecture: response lecture

Learning materials and price

English written notes (Syllabus); Power point presentations, relevant scientific papers.
Teaching book: Luc, M., Sikora, R. & Bridge, J. 2005. Plant parasitic nematodes in subtropical and tropical agriculture. 2nd edition. CAB International (€ 150)
Cost: 150 EUR

References

Luc, M., Sikora, R. & Bridge, J. 2005. Plant parasitic nematodes in subtropical and tropical agriculture. 2nd edition. CAB International.

Course content-related study coaching

Lecturer Annemie Elsen

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Oral examination

Examination methods in case of periodic evaluation during the second examination period

Oral examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

oral + written preparation

Calculation of the examination mark

100% score of oral exam