2024 Korea-Japan Joint Symposium On Nematology
2024 韓日共同線蟲學 Symposium

Exploring Solutions to Nematode Problems and Advancing Research through Korea-Japan Collaboration

5-6 September 2024, Busan, Korea

Organized By

(사)한국식물병리학회 The Korean Society of Plant Pathology — **The Korean Society of Plant Pathology**

국립농업과학원 — **National Institute of Agricultural Science**

농림축산검역본부 — **Animal and Plant Quarantine Agency**

국립산림과학원 — **National Institute of Forest Science**

부산대학교 PUSAN NATIONAL UNIVERSITY — **Nematode Research Center Pusan National University**

Co-organized by

Korea Nematology Research Forum

Japanese Nematological Society

Preface

Nematodes are microscopic organisms, yet their existence significantly impacts agriculture, forestry, fisheries, medicine, and all natural ecosystems on Earth. Their ability to cause extensive damage to crops, seafood, livestock, and human health necessitates a thorough understanding and effective management strategies. In today's globalized industry, the introduction and spread of harmful parasitic and pathogenic nematodes pose significant challenges for both countries.

To address these challenges, this symposium will feature a variety of presentations and poster sessions covering diverse academic fields related to nematodes. Through these activities, we aim to share knowledge and foster collaboration among researchers from both countries.

The symposium serves as a platform for the exchange of knowledge and the formation of lasting research partnerships between Korea and Japan. And, through the symposium, we hope to find innovative solutions and advance research in nematology.

We appreciate your participation despite your busy schedules and hope that you have a fruitful and meaningful time.

Organizing Committee

Chairpersons

Dr. Byeong-yong Park	President of Korea Nematology Research Forum, National Institute of Agricultural Sciences, RDA, Korea
Dr. Koichi Hasegawa	President of Japanese Nematological society, Professor, Chubu University, Department of Environmental biology

Korean committee members

Dr. Insoo Choi	Pusan National University, Korea
Dr. Jaeyong Jeon	QIA, Plant Quarantine Technology Center
Dr. Hyerim Han	NIFoS, Forest Entomology and Pathology Division
Dr. Heonil Kang	Pusan National University, Korea
Mr. Hyoung-Rai Ko	National Institute of Agricultural Sciences, RDA, Korea
Mr. Sekeun Park	National Institute of Agricultural Sciences, RDA, Korea

Japanese committee members

Dr. Toyoshi Yoshiga	Saga University, Japan
Dr. Kazuki Sato	The University of Tokyo, Japan
Dr. Taisuke Ekino	Meiji University, Japan
Dr. Yudai Kitagami	Mie University, Japan

Abstract submission

Abstracts for the invited speakers and poster session

- Please send your abstract to Sekeun Park (psgbabo@korea.kr)
- Please use the format in this announcement. Submit by August 2, 2024.

* If you are not invited for oral presentation, your abstract will be in poster session.

* Poster size: ca. 118.9cm high X ca. 84.1cm wide.

Symposium venue and Hotel

- Symposium venue: Guerinnarae Hotel, Haebyun-ro 233, Busan, Korea.
- All the symposiums and poster session will be held at the hotel meeting room.
- Due to the limited space, posters will be put on the wall inside the room. Please find your poster number at the registration desk.
- If you want to make a reservation, please contact to Korean local committee via Japan local committee. The Korean committee secured hotel rooms for the symposium participants. Please notice Korean committee by indicating the number of rooms you need on the registration form attached in this announcement. The hotel and the local committee will assign the rooms on your arrival.
- If the reservation of rooms in Guerinnarae hotel is full, Korean committee will introduce and make reservation on another hotel.
- If you arrive earlier than Sep 4, please ask the hotel for your room at the same official fare. Room extension after the symposium is also available.
- In case of Korean participants, individual reservation is needed.

Registration

- Please make registration form and submit by 31th, July, 2024 (Fri) to Sekeun Park (psgbabo@korea.kr, FAX +82-63-238-3838)
- Registration fee: 250,000 KRW/person. Please make payment on tour arrival (On-site payment). Credit card will be available.
- The cost of the banquet is included in the registration fee

Official visit

- The local committee will organize an official visit to quarantine work place related to plant parasitic nematodes. (supported by QIA, Korea)
- The official tour is free of charge for all the meeting participants.

If you have any questions or need a help, please contact by e-mail of Sekeun Park (psgbabo@korea.kr)

5 Sep, 2024 (Thursday)

09:30 Registration

10:00 Opening address: Byeong-yong Park

- Opening ceremony: administrator of NAS, administrator of QIA, The chief of Japanese Nematological society

10:20 Key note speech Ⅰ

- Dr. Byeong-Yong Park (Former president, Korea Nematology Research Forum, Senior researcher, National Institute of Agricultural Science, RDA, Korea)

11:00 Key note speech Ⅱ

- Dr. Koichi Hasegawa (Present President, Japanese Nematological Society, Professor, Chubu University, Department of Environmental biology)

13:00 Plenary lecture Ⅰ

- 5 persons in Korea and Japan

14:40 Poster presentation

16:40 Plenary lecture Ⅱ

- 5 persons in Korea and Japan

18:20 Summary & Discussion

19:00 Banquet

6 Sep, 2024 (Friday)

09:30- Official visit to quarantine work related to Plant parasitic nematodes

Abstract Form (example)

☐ Oral ☐ Poster

Control effect of systemic application of pesticides and cover crops to *Heterodera trifolii*

(Title / Font: Times New Roman, Size & Style: 14 (Bold), Line space: 1.5)

Sekeun Park, Hyoung-Rai Ko, Heonil Kang and Byeong-Yong Park*

Crop Protection Division, National Institute of Agricultural Sciences, Rural Development Administration, Wanju 55365, Korea

(Institution / Font: Times New Roman, Size & Style: 12 (Bold), Line space: 2)

Since firstly reported in 2017, Clover cyst nematode (CCN, *Heterodera trifolii*) has caused severely economic loss on Kimchi cabbage industry in Korea. There are many management means to control CCN on Kimchi cabbage; pesticides, cover crops.....

Two types of pesticide, fumigant (Dazomet, GR) and non-fumigant (Fluopyram, GR), were selected based on initial density of CCN eggs (1,000 eggs/500cm3 soil; threshold level)

Another……..

(Contents / Font: Times New Roman, Size & Style: 12 (Bold), Line space: 1.5)

(maximum 1 page)

Registration form

REGISTRATION FORM*		
2024 Korea-Japan Joint Symposium on Nematology September 05-06, 2024, Guerinnarae Hotel, Busan, Korea		
1. Name (Family name, given name)		
2. Position and Organization		
3. Mailing Address		
4. Phone, Fax, e-mail address	Phone & Fax:	e-mail :
5. Title of Presentation		
6. Type of presentation	Oral / Poster	
7. Did you book hotel room in advance? (Guerinnarae Hotel)	Yes/No This is to check if the hotel was booked in advance to avoid double booking.	
- Number of room	Type : double / twin / condo	
- Check in / Check out	Check in : Sept. , check out : Sept.	
8. Date and time of arrival		
9. Date and time of departure		
10. I will participate the banquet - Sep 5th (Thu)	Yes / No	
11. I will participate the official visit - Sep 6th (Fri)	Yes / No	
- Number of participants		
12. Signature	Date:	

*** Please fill out this form and send to Sekeun Park (psgbabo@korea.kr) by Jul. 31, 2024.**

How to come to the symposium avenue

1. Location

- Name: Guerinnarae Hotel, Haeundae
- Address: Haeundae-Gu, Haebyun-ro 233
- Tel: +82-51-744-8160 (Reservation information center)

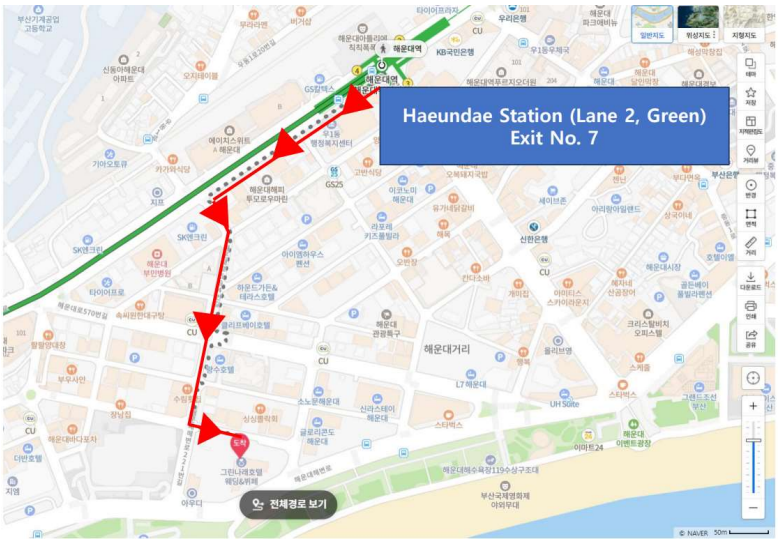
2. From Airport (Kimhae International Airport)

1) By bus

- Express bus is available
- Bus No.: 2029 (60 mins interval)
- Location on board: 1st floor of Kimhae international Airport
  * Detailed boarding location: In front of Gate 2 (No. of bus flatform: 2)
- Bus stop: Haeundae beach (Travel time: 70~80 min)
- Travel time: 70~80 mins
- Notification: Limitation about baggage
  * Total weight below 10kg or based on size (50 x 40 x 20 cm)
  * Please refer to the baggage regulations and choose appropriate transportation method.

2) By subway

- Boarding location: Gimhae international airport (Busan Gimhae light rail, Purple Lane)
- Moving 3 stations for transfer
- Transfer location: Sasang station (Busan subway, line 2, Green Lane)
- Moving 24 stations and dropping off in Haeundae station
- Move to Exit No. 7
- Walking by about 10 minutes (Please refer the map attached below)



3. From Busan Station

- Express bus is available.
- Bus No.: 1003 (8~11 min interval)
- Location on board: Move to Exit No. 4 → Near side of train station
- Bus stop: Haeundae beach (Travel time: 70~80 min)

4. Using taxi

- From Kimhae International Airport: 45~75mins, cost range: 27,000~36,000 KRW
- From Pusan Station: 40~70 mins, cost range: 18,000~20,000 KRW

* Time and cost are depending on traffic situation.

5. Electricity

- The standard voltage in Korea is 220 volts.

6. Contact when you need help in Korea

- If you need additional helps after you arrive in Korea, please call or leave messages (Cell. Phone No.: +82-10-3067-1306; Kakaotalk ID: psgbabo).

Ⅱ. Program at glance

❑ 1st Day (Sep 5th, Thur)

Time Table		Contents	ETC
09:30-10:00	′30	Registration	
10:00-10:20	‘20	Opening Remarks	Byeong-Yong Park
		Congratulatory Address	Koichi Hasegawa
			Seon woo Lee
10:20-11:00	‘40	Key Note Speech Ⅰ * Dr. Byeong Yong Park (NAAS)	Insoo Choi
11:00-11:40	‘40	Key Note Speech Ⅱ * Dr. Hasegawa Koichi (Chubu University)	
12:00-13:30	‘90	Lunch	
13:00-14:40	‘100	Plenary lecture Ⅰ	Heonil Kang
14:40-16:40	‘60	Poster Presentation	
16:40-18:20	‘100	Plenary lecture Ⅱ	Toyoshi Yoshiga
18:20-19:00	′40	Discussion	Byeong-Yong Park

❑ 2nd Day (Sep 6th, Fri)

Time Table		Contents	ETC
08:30-16:00		Official Visit to Quarantine Work Place	Jaeyong Chun

Ⅲ. Program

No.	Theme	Presenter
Key note Speech		
1	The Occurrence and Control of Root lesion Nematodes in Perilla Crop Fields in Korea	Byeong-Yong Park
2	Evolution of animal parasitism in nematodes of the suborder Spirurina	Koichi Hasegawa
Plenary Lecture: Session Ⅰ (13:00~14:40)		
1	New frontiers in the biology of Bursahphelenchus nematodes	Ryoji Shinya
2	Ultrastructural characterization of sensory neurons of plant parasitic nematode, *Bursaphelenchus xylophilus*	Taisuke Ekino
3	Management of pine wilt disease caused by *Bursaphelenchus xylophilus* in South Korea	Hyerim Han
4	Biology of *Ditylenchus destructor* associated with garlic and new approaches for its control	Toyoshi Yoshiga
5	Current status of molecular diagnostic kit development for major plant parasitic Nematode	Moon Nam
Poster Presentation (14:40~16:40)		
Plenary Lecture: Session Ⅱ (16:40~18:20)		
1	Impact of *Heterodera sojae* on Soybean Cultivation in Korea: A Rising Threat	Heonil Kang
2	Host range of the sugar beet cyst nematode recently detected in Japan	Hiroaki Okada
3	Management of cyst nematodes in Kimchi-cabbage fields in Korea	Hyoung-Rai Ko
4	Proposal for standardizing Phyosanity: Measures for Plant parasitic nematodes in International trade	Jaeyong Chun
5	Induction of secondary metabolite biosynthesis is a defense response to nematode infection in the resistant plant *Solanum torvum*	Kazuki Sato

Poster Presentation

No.	Title	Presenter
A: Diagnosis		
A-1	Analysis of *Radopholus similis* Detection in Air-maild Imports at Incheon Airport	Minkyoung Kim
A-2	Morphological and Molecular Characterization of the Potato Rot Nematode, *Ditylenchus destructor*, Parasitizing Garlic in Korea	Sungchan Huh
A-3	Meloidogyne and Pratylechus species Intercepted in Quarantine of Korea	Hwayeun Nam
A-4	Hybrids detection between *Bursaphelenchus xylophilus* and *B. mucronatus* using MIG-seq	Yuzuki Ikeda
A-5	SYBR Based qPCR method in Species-Specific Detection, Identification and Quantification of *Pratylenchus penetrans* in soil.	Natesan Karthi
A-6	Morphological and molecular characterization of root-lesion nematode, *Pratylenchus hippeastri* from Korea	Sungchan Huh
A-7	A New Foliar Nematodes, *Robustodorus subtenuis* from Garlic	Sungchan Huh
B: Ecology		
B-1	Distribution of B*ursaphelenchus okinawaensis* and related fungi from vector's body surface	Takumi Kimura and Ryoji Shinya
B-2	Nematode community structures in the rhizosphere soil of four coniferous tree species	Yudai Kitagami
B-3	Geographic patterns of symbiont species in Heterorhabditis indica	Reiji Ohashi
B-4	Migration and attacking ability of pine wood nematodes in Pinus thunbergii stem cuttings	Jounga Son
B-5	Attraction behavior of Meloidogyne incognita to plant root grown under light or dark conditions.	Oshima Mito
B-6	The influence of insect-associated cues on the jumping behavior of Steinernema siamkayai	Puping Ta-oun
C: Biology		
C-1	Clover Cyst Nematode and Sugar Beet Cyst Nematode Cause Damage in Kimchi Cabbage Fields in Highland of Korea	So-Hee Park
C-2	Isolation of Some Endoparasitic Nematophagous Fungi	Hakyeong Kim

C-3	Identification of Candidate Genes Associated with Resistance to *Heterodera sojae* in Soybean	Heonil Kang
C-4	Time Efficient Extraction methods for Endoparasitic *Pratylenchus* spp. from plant roots	Sungchan Huh
C-5	Analysis of sweet potato genes expressed in response to distinct root-knot nematode pathogenic races	Takumi Kohyama
C-6	The effect of disease complex of plant parasitic nematode and soil fungal pathogen	Se-Keun Park
C-7	Molecular mechanisms regulating sex differentiation of Meloidogyne incognita	Kosuke Manabe
C-8	The invasion pathway of *Ditylenchus destructor* into the garlic clove	Dai Mori
C-9	Susceptibility of potato cyst nematode resistant starch potato varieties to *Meloidogyne chitwoodi* tested by plastic bag bioassay	Hiromichi Sakai
C-10	Evaluation of the Baermann funnel technique efficiency for detecting pine wood nematodes in pine tissue	Yeon-Jeong Lim
D: Management		
D-1	Effects of rotation crops for control of both *Heterodera trifolii* and *Plasmodiophora brassicae* in cabbages	Sungchan Huh
D-2	Management of an atypical *Meloidogyne arenaria* (*M. arenaria* A2-J) in Japan	Gaku Murata
D-3	Influences of Fosthiazate on Soil Microorganisms	Hakyung Kim
D-4	Hot water immersion method for controlling *Pratylenchus penentrans* in *Syngonium podophyllum* and *Perilla frutescens*	Ga-eul Lim
D-5	Hot water treatment for control of *Meloidogyne javanica* in *Allium hookeri* roots	Hwee-Seung Ji
D-6	Efficacy of Two Nematicides Against Southern Root-Knot Nematode in Cucumber Greenhouses During the Winter Fallow Season	Hyoung-Rai Ko
D-7	Nematode fauna analysis in green manure-applied field	Atsuya Sudo1
E: Biological Control		
E-1	Geographical distribution and breeding season of Japanese mole crickets, along with their parasitic nematodes in the superfamily Thelastomatoidea.	Koshiro Kaga
E-2	Synergistic interactions of symbiotic bacteria modulate the insecticidal potency of entomopathogenic nematode *Steinernema monticolum* KHA701	Taiki Sugiyama,