

## NARO-FAO/IAEA International Symposium

### Remediation of Radioactive Contamination in Agriculture: Next Steps and Way Forward

#### 1. Scope

The National Agriculture and Food Research Organization (NARO) developed decontamination technologies and countermeasures for the transfer of radioactive cesium from soil to crops after the accident at TEPCO's Fukushima Daiichi Nuclear Power Plant following the Great East Japan Earthquake that occurred in March 2011. Over the past decade, a collaboration agreement was signed with the Joint FAO / IAEA Centre in 2016, and a workshop was co-sponsored in Vienna. Since then, research exchanges have been continued through joint research (Coordinated Research Project) and mutual dispatch of researchers.

At this symposium, we will introduce the results of radiation countermeasure researches, including a project commissioned by the Ministry of Agriculture, Forestry and Fisheries for the reconstruction of the disaster area, from NARO, the countermeasures after the Chernobyl nuclear accident from IAEA, and advanced technologies such as ICT from both organizations. The research findings discussed and shared at this symposium will contribute to the countermeasures for radioactive cesium contamination in the areas affected by the nuclear power plant accidents.

#### 2. Organizers

National Agriculture and Food Research Organization (NARO)  
Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture

#### 3. Sponsorship

Japanese Society of Soil Science and Plant Nutrition

#### 4. Date

Monday, October 4, 2021

#### 5. Time

16:00 to 20:00 (Japan time)  
9:00 to 13:00 (Austria time)

#### 6. Venue

Online Streaming via Video System  
(URL provided to registered participants only)

#### 7. Timetable (Japan time)

##### 1) Opening (16:00)

Mitsuru Watanabe, Manager, Agricultural Radiation Research Center, Tohoku Agricultural Research Center, NARO, Japan

##### 2) Opening Statement (16:05~16:25)

Makita Hajika, Director, Tohoku Agricultural Research Center, NARO, Japan

Qu Liang, Director, IAEA, Austria

##### 3) Session 1: Countermeasures for the Accidents in Fukushima and Chernobyl (16:25~18:10)

Moderator: Shigeto Fujimura, Tohoku Agricultural Research Center, NARO, Japan

##### (1) Progress on the Agricultural Activities and Remaining Problems in Fukushima after 10 Years from the Fukushima Accident

Takuro Shinano, Hokkaido University, Japan

##### (2) Agrochemical Countermeasures for Remediating Contamination by Chernobyl Fallout: Belarussian Experience

Yuri Putyatin, Belarussian Research Institute for Soil Science & Agrochemistry, Belarus

##### (3) Effectiveness of Remediation Measures in Crop and Fodder Production and Animal Husbandry in Different Periods after the Chernobyl Accident

Vyacheslav Anisimov, Russian Institute of Radiology and Agroecology, Russia

##### (4) Influence Potassium Application and Ammonium Application on Soil Solution Caesium-133

Tetsuya Eguchi, Tohoku Agricultural Research Center, NARO, Japan

(5) Behaviors and Management of Radioactive Cesium and Potassium in Agricultural Water Environment

Tatsuhiro Nishikiori, Tohoku Agricultural Research Center, NARO, Japan

(6) Radiocesium Interception Potential as a Parameter Predicting Radiocesium Behavior in Soil-Water-Crop System

Noriko Yamaguchi, Institute for Agro-Environmental Sciences, NARO, Japan

4) Break (18:10~18:20)

5) Session 2: Researches on Radiation Countermeasures using ICT Technologies (18:20~19:20)

Moderator: Takuro Shinano, Hokkaido University, Japan

(1) A Simple Estimation Technique of the Radioactive Contamination of Farmland by using KURAMA-II

Minoru Tanigaki, Kyoto University, Japan

(2) Optimizing Remediation Efforts on Where and How to act in Response to Large-Scale Nuclear Emergencies Affecting Food and Agriculture

Floris Abrams, KU Leuven, Belgium

(3) Mapping Cropland Use Dynamics for DSS4NAFA: A Case Study in Southern China

Lazar Adjigogov, Edusoft Ltd., North Macedonia

(4) Prediction of Exchangeable Potassium in Soil through Mid-Infrared Spectroscopy and Deep Learning: from Prediction to Explainability

Franck Albinet, Independent spatial data science consultant

6) General Discussion (19:20~19:55)

Moderator: Gerd Dercon, IAEA, Austria

7) Closing Remarks (19:55~20:00) Lee Kheng Heng, Section Head, IAEA, Austria

8. Language

English

9. Registration

Please register using the NARO symposium [Online registration form here](#).

The personal information received will be handled appropriately according to the NARO Privacy Policy (<https://www.naro.go.jp/english/contents/privacy-policy.html>) and will not be used for any purpose other than for the organizing of this symposium.

Registration: <https://prd.form.naro.go.jp/form/pub/naro01/jointsympo>

10. Registration deadline

Wednesday, September 29, 2021

11. Capacity

300

12. Participation

The participation fee is free

13. Contact Information

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