

# KARC

Kyushu Okinawa Agricultural Research Center,  
National Agriculture and Food Research Organization



## Research to be carried out and the mission and vision of KARC

# Increasing production of agricultural and live-stock products and expanding exports from Kyushu region by fully utilizing farmland.

The Kyushu–Okinawa region in southern Japan is suitable for both agricultural production, because it is blessed with warm, rainy weather, and the exchange of business with other Asian countries, because of its geographical and historical advantages. In this region, we are performing research and development, as well as social implementation, of technologies that will improve agricultural productivity by mitigating weather risks and fully utilizing farmland, including technologies that will increase farmers’ incomes by expanding the export of agricultural products.

Our goals are to:

- strengthen the ability to export high-quality, low-cost Japanese beef (Wagyu) through the seamless management of reproduction, feeding, and fattening.
- construct a data-driven production system by using sweetpotato and other vegetables as core crops.
- implement highly profitable paddy farming through the full utilization of paddy fields and optimization of cropping.

## Organization Chart

President Auditor

Senior Vice President•Vice President

NARO Headquarters

2021.4.1

•RCAIT/NARO

•RCAR/NARO

•NGRC

•NAAC

•NFRI

•NILGS

•NIAH

•HARC/NARO

•TARC/NARO

•CARC/NARO

•WARC/NARO

•**KARC/NARO**

•IAM/NARO

•NICS

•NIFTS

•NIVFS

•NIAS

•NIAES

•NIRE

•NIPP

NCSS

BRAIN

Director

Department of Research Promotion

•Business Promotion Office

•Research Promotion Office

•Technology Application Research Team

Coordinator, Kurume

Coordinator, Kyushu-Okinawa Fruit Tree Research

Coordinator, Tanegashima

Division of Livestock Research

•Beef Cattle Production and Reproduction Group

•Feed Production Group

Division of Field Crop and Vegetable Research

•Sweetpotato and Sugarcane Breeding Group

•Field Crop and Vegetable Cultivation Group

•Greenhouse Vegetable Production Group

Division of Crop Rotation Research for Lowland Farming

•Smart Lowland Crop Rotation Group

•Advanced Lowland Farming Group

•Crop Breeding Group

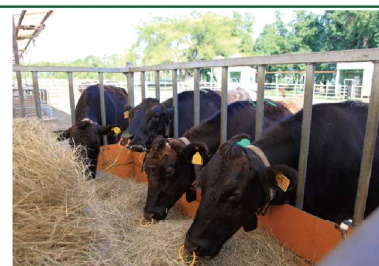
## Division of research

### Division of Livestock Research

To expand the export of Japanese beef, we aim to build a seamless management system for reproduction, feeding, and fattening that will reduce the production cost of high-quality Japanese beef by shortening the production cycle.

We are working on:

- building of techniques for shortening the calving interval and accelerating fattening.
- development of a cropping system for low-cost production of high-quality roughage that supports the Japanese beef industry.



Low-cost production technology for expanding exports of Japanese beef

### Division of Field Crop and Vegetable Research

We aim to develop crop and vegetable cultivars, as well as production management technologies, that will facilitate the sustainable production of field crops and vegetables and the expansion of their export.

We are working on:

- developing foot-rot-resistant cultivars of sweetpotato and smut-resistant high-yielding cultivars of sugarcane.
- establishing a crop-production management system to reduce sweetpotato foot-rot, as well as postharvest technologies to reduce losses of sweetpotato during transportation.
- developing strawberry and asparagus cultivars that will extend the supply period, and establishing a local CO<sub>2</sub> enrichment system that will increase strawberry yields.



Sweet potato cultivar 'Michishizuku'



Strawberry cultivar 'Koiminori'

### Division of Crop Rotation Research for Lowland Farming

We aim to develop a highly profitable paddy-crop rotation farming system that will give 200% land-use efficiency by optimizing planting and reducing weather risk. As part of this research, we are introducing grain corn, in addition to wheat and soybean, to improve productivity and increase incomes in paddy crop rotations; this system will take advantage of the characteristics of warm regions.

We are working on:

- sophisticating crop rotation technology for warm paddy fields and developing an organic matter utilization technology.
- developing a weather-risk-responsive warm-season paddy cultivation technology and optimizing advanced systems for its use.
- developing cultivars of paddy rotation crops that are resistant to pests and diseases-common problems in warm regions.



Northern Kyushu's 2-yearss four-crops system

### Technology application research team

We aim to promote the social implementation of NARO-sended innovative technologies to actual agricultural practices through optimization and systemization.

We are working on:

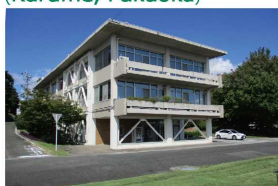
- developing a technology for supplying healthy slips through the vapor heat treatment of sweetpotato tuberous roots, as well as the reductive soil disinfection of nursery beds to reduce sweetpotato foot-rot disease.
- extending the dry direct-seeding rice cultivation method, which uses two key techniques, namely water-leak prevention by vibratory roller compaction of the ground and effective weed control in the dry field period.



(Left) Sweetpotato tuberous roots affected by foot-rot disease  
(Right) Water-leak prevention by using a vibratory roller in dry direct-seeding rice cultivation

# Location Map

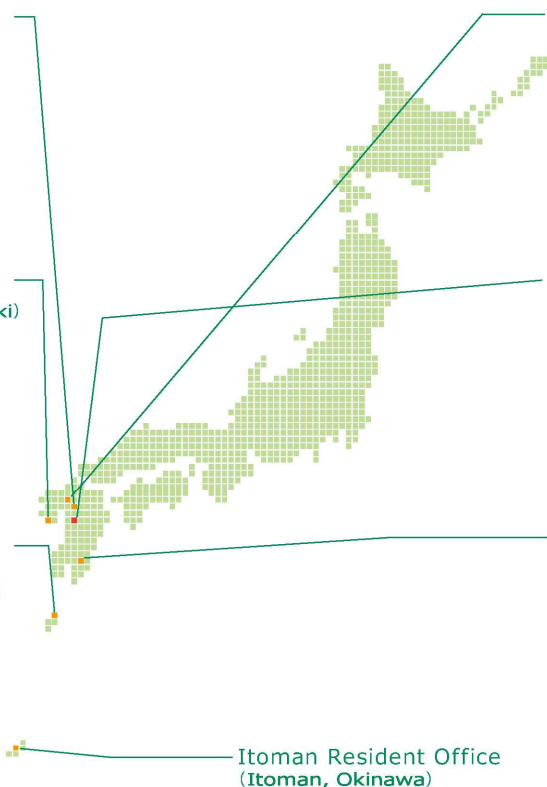
Kurume Research Station  
(Kurume, Fukuoka)



Kuchinotsu Citrus  
Research Station  
(Minamishimabara, Nagasaki)



Tanegashima Sugarcane  
Breeding Site  
(Nishinoomote, Kagoshima)



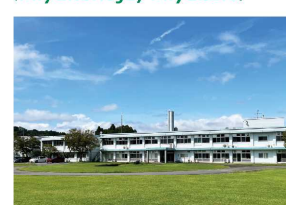
Chikugo Research Station  
(Chikugo, Fukuoka)



Koushi Research Station  
(Koshi, Kumamoto)



Miyakonojo Research Station  
(Miyakonojo, Miyazaki)



Itoman Resident Office  
(Itoman, Okinawa)

## Location

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## Contact

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