

[Separate table] Recruitment of Permanent research scientists

No.	Centers·Institutes	Research Division	Location	Research Title	Research Program *
P1	Hokkaido Agricultural Research Center, NARO (HARC/NARO)	Wheat Breeding Group, Division of Field Crop Research and Development	Memuro, Kasai, Hokkaido	Genetic research on hard wheat quality and development of new breeding lines	(1) Identification of valuable genes conferring high and stable yield contributing to low-cost production of bread-quality wheat (2) Development of selection methods for stable bread-making quality in bread wheat (3) Development of new bread-quality wheat breeding lines with high-yielding ability and stable quality Keywords: Breeding, Genetic resources, Nitrogen use efficiency, Metabolomic analysis
P2	Tohoku Agricultural Research Center, NARO (TARC/NARO)	Field Crop Management Group, Division of Crop Production and Management Research	Morioka, Iwate	Development of high-yielding and labor-saving soybean culture using such as vacuum seeder for large scale paddy rotation	(1) Development of tillage and seed bed preparation technologies suited to vacuum seeders or double plate seeders, and development of non-intertillage culture under rice-wheat-soybean paddy rotation systems (2) Selection of varieties suited for non-intertillage soybean culture and elucidation of the high-yielding soybean growth pattern (3) Fam trial and extension of rice (dry seeded rice) -wheat-soybean paddy rotation systems using vacuum seeders or double plate seeders Keywords: Soybean culture, Paddy rotation, Vacuum seeder, Double plate seeder
P3	Tohoku Agricultural Research Center, NARO (TARC/NARO)	Plant Protection Group, Division of Agro-Environment Research	Morioka, Iwate	Insecticide resistance management and development of practical pest control methods for stable production of open-field vegetables in cold weather region	(1) Analysis and evaluation of risk factors for development of insecticide resistance management strategies on open-field vegetables in cold weather regions (2) Development of efficient pest management systems for low cost and high quality production of open-field vegetables in cold weather regions (3) Basic survey of plant pathogen-transmission by insect pests for development of practical control methods of vegetable diseases Keywords: Insect damage, Insecticide resistance, Range expansion, Integrated Pest Management, Genetic diagnosis
P4	Central Region Agricultural Research Center, NARO (CARC/NARO)	Biological Control Research Group, Division of Applied Entomology and Zoology	Tsukuba, Ibaraki	Improvement of efficiencies and robustness of biological-based pest control programs with the understanding of the interactions among technological factors	(1) Optimization methods to achieve the development and transfer of new farming technologies: Implementation of insect pest control systems with natural enemies (2) Research collaboration and statistical consultation for efficient progress of agricultural technologies and advanced on-farm experiments Keywords: Applied statistics, Mathematical model, Experimental design, Parasitoid, Banker plant systems
P5	Western Region Agricultural Research Center, NARO (WARC/NARO)	Wildlife Management Group, Division of Japanese Black Cattle Production and Wildlife Management Research	Ohda, Shimane	Development of techniques for prevent damage and farm management based on behaviour characteristics of sika deer	(1) Analysis of sense and learning ability of sika deer (2) Development of techniques for prevent damage based on sense and learning ability of sika deer (3) Development of techniques for rural environmental management based on techniques for prevent damage Keywords: Animal behaviour, Damage management, Environmental management

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P6	Western Region Agricultural Research Center, NARO (WARC/NARO)	Upland Crop Breeding Group, Division of Regional Crop Research	Zentsuji, Kagawa	Identification of genes controlling yield potential in soybean and breeding of extremely high-yielding soybean lines adapted to south-west Japan	(1) Breeding of high yielding soybean cultivars which adapted to south-west Japan (2) Identification of the maturity genes which related to soybean yielding ability and development of the extremely high-yielding soybean lines using these genes (3) Identification and utilization of the other gene for high yielding potential in soybean Keywords: Soybean, Crop breeding, High-yielding ability, Genome, DNA marker
P7	Kyushu Okinawa Agricultural Research Center, NARO (KARC/NARO)	Crop Science Group, Division of Lowland Farming Research	Chikugo, Fukuoka	Elucidation of mechanism for spikelet sterility caused by high temperatures and development of technique to reduce it in rice	(1) Molecular biological elucidation of mechanism for spikelet sterility caused by high temperatures in rice (2) Selection of breeding materials for resistance to spikelet sterility caused by high temperatures in rice (3) Improvement of risk information and development of culture technique to reduce spikelet sterility caused by high temperatures in rice Keywords: Rice, Spikelet sterility, High temperatures, Breeding materials, Culture technique
P8	Institute of Fruit Tree and Tea Science, NARO	Genome Research Unit, Division of Citrus Research	Shizuoka, Shizuoka	Development of DNA selection markers linked to citrus canker resistance and their application for breeding of novel resistant lines	(1) Development of DNA markers for the selection of citrus canker resistant lines (2) Breeding of novel citrus lines with highly citrus canker resistance by fast-track breeding system incorporated with marker associated selection Keywords: Fruit tree, DNA marker, Genome research
P9	Institute of Fruit Tree and Tea Science, NARO	Tea Chemistry and Health Benefits Unit, Division of Tea Research	Shimada, Shizuoka	Evaluation of the quality and bioactive ingredients of tea	(1) Evaluation of the beneficial effects of tea cultivars rich in bioactive ingredients on brain functions (2) Analysis of bioavailabilities of tea ingredients, including tea polyphenols Keywords: Green tea, Analytical chemistry, Animal experiment, Behavioral pharmacology, Histochemistry
P10	Institute of Vegetable and Floriculture Science, NARO	Production Technology Unit, Division of Vegetable Production System	Tsukuba, Ibaraki	Development of technique of monitoring and diagnosis of fruits vegetable plants for next generation greenhouse horticulture	(1) Development of 3D real time monitoring system with spectrophotometry for fruits vegetables production (tomato, cucumber, paprika and so on) (2) Establishment of advanced plant production system by using real time growth monitoring and diagnosis of fruits vegetables Keywords: Spectrophotometry, Non-destructive monitoring, Image analysis, ICT
P11	National Institute of Animal Health, NARO	Animal Influenza Unit, Division of Transboundary Animal Disease	Tsukuba, Ibaraki	Development of novel vaccines against animal influenza	(1) Development of a novel avian paramyxovirus-based vaccine against avian influenza (2) Exploration of universal vaccines against influenza viruses Keywords: Reverse genetics, Negative-stranded RNA virus, Notifiable animal diseases, Novel containment strategy
P12	Institute of Rural Engineering, NARO	Facilities Maintenance and Management Unit, Division of Facilities and Geotechnical Engineering	Tsukuba, Ibaraki	Clarification of mechanical properties of soil-concrete composite structure, and development of technologies for extending life of the composite structure	(1) Numerical analyses of seepage and deformation in soil-concrete composite structure by using geosynthetic and improved materials (2) Development of the reinforcing technology of soil-concrete composite structure by using geosynthetic and soil improving materials Keywords: Improved soil, Reinforced soil, Bank body for small reservoir, Spillway, Intake works on bank body

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P13	Food Research Institute, NARO	Food Process Engineering Unit, Division of Food Processing and Distribution Research	Tsukuba, Ibaraki	Development of drying, freezing, and thawing technologies for high-quality preservation of foods and agricultural products	(1) Application of vacuum-microwave radiation to the manufacturing process for high-quality dried food (2) Evaluation of the quality change of foods and agricultural products during freeze-thaw processes, and development for its applications to keep quality (3) Development of the new drying technology by applying conventional drying technologies involving freeze-thaw operations Keywords: Food engineering, Vegetables and fruits, Ice crystal, Microstructure, Wide-area distribution

* Research project of the NARO can be referred to the following site:

<http://www.naro.affrc.go.jp/english/research-programs/4th-midterm-plan.html>