

**Title of Papers Presented at the 118th Meeting of
The JAPANESE SOCIETY OF BREEDING
Held at Akita Prefectural University, Akita, Japan
September 24-25, 2010**

Oral presentations

- 101** Definition of haplotype blocks in diverse rice accessions based on genome-wide single-nucleotide polymorphisms.
○J. Yonemaru¹, K. Ebana¹, H. Nagasaki^{1,2}, T. Yamamoto¹, T. Shibaya¹, M. Yano¹ (1.National Institute of Agrobiological Sciences².National Institute of Genetics)
- 102** Whole genome sequence analysis of somaclonal variation of rice. III. Copy number variation
○A. Miyao¹, M. Nakagome¹, T. Ohnuma¹, H. Yamagata², H. Kanamori², H. Ikawa², A. Takahashi¹, T. Matsumoto¹, H. Hirochika¹ (1.Genome & Biodiv. Res., NIAS².STAFF Institute)
- 103** mPing big bang –why autonomous Ping elements are not silenced by epigenetic regulation? –
○Y. Monden^{1,2,3}, K. Naito², T. Chen², S. Wessler², Y. Okumoto¹ (1.Grad.Sch.Agric., U.Kyoto².Grad.Sch.Plant Bio., UGA³.Japan Society for the Promotion of Science)
- 104** Effects of DNA methylation on transposition of non-autonomous transposable element *mPing* in rice
○N. Mori, T. Tsukiyama, M. Teraishi, Y. Okumoto, T. Tanisaka (Grad.Sch.Agr., Kyoto U.)
- 105** Detection of adaptive genes from natural populations of *Cryptomeria japonica* using SNP genotyping.
○Y. Tsumura, K. Uchiyama, T. Ihara (Forest and For. Prod. Res. Inst.)
- 106** Genetic characterization of Sugi (*Cryptomeria japonica*) elite populations based on large-scale SNP markers.
○K. Uchiyama¹, T. Ihara¹, N. Miyamoto^{1,2}, A. Watanabe², N. Futamura¹, K. Shinohara¹, Y. Tsumura¹ (1.Forestry and Forest Products Research Institute².Forest Tree Breeding Center)
- 107** Construction of high density linkage map in *Cryptomeria japonica* using SNP array and the screening of markers closely linked to a nuclear male sterility gene.
○Y. Moriguchi¹, T. Ihara¹, K. Uchiyama¹, M. Saito², A. Matsumoto¹, N. Tani³, H. Taira⁴, N. Futamura¹, K. Shinohara¹, Y. Tsumura¹ (1.FFPRI².Toyama For. Res. Inst.³.JIRCAS⁴.Ex. Grad. Sch. Sci. Tec., U. Niigata)
- 108** Construction of a high-density linkage map of EST-based-SNP markers in *Raphanus sativus*
○F. Li, Y. Hasegawa, S. Shiokai, H. Kitashiba, T. Nishio (Grad. Sch. Agric. Sci., Tohoku Univ.)
- 109** Map-based cloning of *Crr1*, a gene for resistance to clubroot disease in *Brassica rapa* L.
○K. Hatakeyama¹, K. Suwabe², T. Kato^{1,2}, T. Nunome¹, H. Fukuoka¹, S. Matsumoto¹ (1.Natl.Inst.Veg.Tea Sci.².Grad.Sch,Bioresour., Mie Univ.)
- 110** Comparative analysis of structural differences in GmIRCHS among seed coat pigmented mutants found in yellow soybean cultivar, Enrei.
○S. Nishimura¹, T. Kuroda², N. Ishigouka¹, R. Norita¹, M. Senda¹ (1.Fac. Agric. Life Sci., Hirosaki U.².Niigata Crop Res. Center)

- 111** Fine mapping of *Phs1* locus controlling seed dormancy using a large scale population in bread wheat
 ○A. Torada¹, M. Koike¹, J. Wu², W. Karasawa³, H. Yamane³, T. Matsumoto², Y. Ogihara⁴ (1.HOKUREN Agr. Res. Inst. 2.Nat. Inst. Agrobiol. Sci. 3.STAFF 4.Kihara Inst. Biol. Res., Yokohama City Univ.)
- 112** Exploitation of repetitive sequences for the development of the physical map of bread wheat.
 ○M. Koike¹, A. Torada¹, J. Wu², W. Karasawa³, H. Yamane³, T. Matsumoto² (1.HOKUREN Agr. Res. Inst. 2.Nat. Inst. Agrobiol. Sci. 3.STAFF)
- 113** Segregation distortion caused by type I necrosis in recombinant inbred lines of common wheat
 ○S. Takumi¹, N. Mizuno¹, M. Iehisa¹, Y. Motomura¹, F. Kobayashi^{2,3} (1.Grad.Sch.Agric.Sci., Kobe U. 2.NIAS 3.Tohoku Natl. Agr. Res. Cent., NARO)
- 114** Linkage drag observed in the near-isogenic lines for the covered or naked caryopsis gene (*Nud/nud*) in barley
 ○S. Taketa¹, S. Kikuchi², W. Mizumoto² (1.Institute of Plant Science and Resources, Okayama U. 2.Fac. Agr., Kagawa U.)
- 115** Development of DNA marker linked to wheat yellow mosaic virus resistance gene (*YmMD*) from wheat cultivar 'Madsen'
 ○T. Suzuki¹, M. Nitta², S. Nasuda², Y. Yoshimura³ (1.Hokkaido. R. O. Central Agri. Exp. Stn. 2.Grad. School Agri. Kyoto Univ. 3.Hokkaido. R. O. Kitami Agri. Exp. Stn.)
- 116** Mapping of *high amylose (amo1)* gene increasing β -glucan content in barley
 ○A. Takahashi¹, T. Yanagisawa¹, Y. Yamashita², N. Nankaku², N. Shitsukawa², T. Yuo², K. Sato², S. Taketa² (1.WeNARC, NARO 2.IPSR, Okayama U.)
- 117** Mapping of QTLs controlling seedling establishment using a direct seeding method in rice
 ○N. Iwata¹, H. Sinada², H. Kiuchi³, T. Sato², K. Fujino¹ (1.HOKUREN 2.Kamikawa Agricultural Experiment Station 3.Central Agricultural Experiment Station)
- 118** Fine mapping of a quantitative trait locus for seedling vigor in rice
 ○A. Abe¹, T. Fujibe², R. Terauchi³ (1.Iwate Agric.Res.Ctr. 2.Biotech.Res.Ctr., U.Tokyo 3.Iwate Biotech.Res.Ctr.)
- 119** The effect of *qSw1* for the other yield components
 ○S. Kato¹, T. Sayama², S. Yumoto¹, M. Ishimoto³, Y. Kono¹, Y. Takada⁴, A. Kikuchi¹ (1.NARCT 2.NARCH 3.NIAS 4.WeNARC)
- 120** QTL analysis for grain size of japonica rice cultivars using a SNP array
 ○Y. Arai-Kichise¹, K. Ebana², H. Nagasaki², Y. Shiwa¹, H. Yoshikawa^{1,3}, M. Yano², K. Wakasa^{1,3} (1.NGRC, Tokyo Univ. Agric. 2.QTL Genomics Research Center, NIAS 3.Dept. Biosci., Tokyo Univ. Agric.)
- 121** QTL analysis of the internode elongation of Sorghum
 R. Nagee¹, K. Ohmae¹, T. Yamamura¹, J. Yonemaru², S. Kasuga³, T. Matsumoto², J. Wu², H. Kitano¹, M. Matsuoka¹, ○T. Sazuka¹ (1.Biosci. and Biotech. Ctr, Nagoya Univ. 2.Natl. Inst. Agrobiol. Sci. 3.Edu. Res. Ctr. of Alp. Field Sci., Shinshu Univ.)
- 122** *WFP* gene, controlling rice branching is restricted its expression by transcriptional and post transcriptional gene silencing
 ○K. Miura^{1,2}, M. Ikeda², A. Matsubara², X. Song², K. Asano^{2,3}, M. Matsuoka², H. Kitano², M. Ashikari² (1.Faculty of Biothecnology, Fukui Prefectural Univ. 2.Biosci. Biotech. Ctr., Nagoya U. 3.Natl. Agr. Res. Ctr. for Hokkaido Region)

- 123** QTLs controlling duration of pre- and post-flowering period in soybean.
 ○K. Komatsu¹,M. Takahashi²,N. Ohki²,T. Sayama¹,H. Funatsuki³,M. Ishimoto⁴(1.Nat. Agri. Res. Cent. Hokkaido Reg.2.Nat. Agri. Res. Cent. Kyushu Okinawa Reg.3.Nat. Agri. Res. Cent. Western Reg.4.Nat. Inst. Agrobiol. Sci.)
- 124** QTL analysis for late bolting in Chinese cabbage (*Brassica rapa*) Parental Line Nou 6 gou.
 ○S. Matsumoto¹,T. Kakizaki¹,T. Kato^{1,2},N. Fukino¹,M. Ishida¹,K. Hatakeyama¹(1.Natl. Inst. Veg. Tea Sci.2.Grad. Sch. Bioresour., U. Mie)
- 201** Development of SSR markers for in Japanese gentian.
 ○Y. Ushiku¹,T. Nakatsuka¹,M. Saitou¹,N. Shimada²,T. Hikage³,M. Nishihara¹(1.Iwate Biotechnology Research Center2.Kazusa DNA Res. Inst.3.Hachimantai City Floricultural Reseach and Development Center)
- 202** Development of SNP markers for *Ipomoea nil* and *I. hederacea* by the whole mRNA sequencing
 T. Ly¹,H. Fukuoka²,A. Hoshino³,S. Iida^{3,4},E. Nitasaka⁵,○T. Kuboyama¹(1.Col. Agr., Ibaraki. U.2.NIVTS, NARO3.Natl. Inst. Basic Biol.4.Grad. Sch. Nutri. and Env. Sci. & Grad. Sch. Pharm. Sci., U. Shizuoka5.Grad. Sch. Sci., Kyushu Univ.)
- 203** Variety identification in carnation using EST-SSR markers
 ○S. Isobe¹,K. Shirasawa¹,T. Onozaki²,S. Tabata¹(1.Kazusa DNA Research Institute2.National Institute of Floricultural Science)
- 204** Cultivar identification of cabbage using simple sequence repeats (SSR) markers.
 ○H. Kanamori¹,H. Ikawa²,T. Ando¹,T. Kondo³,J. Ichinose³,M. Kaji⁴,T. Kawanabe⁴,K. Ishii⁵,K. Maki⁵,O. Yamakawa¹(1.STAFF-Institute2.Mitsubishi Space Software Co.,Ltd.3.NIPPON NORIN SEED CO.4.WATANABE SEED Co.,Ltd.5.ISHII SEED GROWERS)
- 205** Estimation of variation and abundance of whole transcripts in rice
 ○H. Mizuno¹,Y. Kawahara²,H. Sakai²,Y. Oono¹,H. Kanamori³,M. Yamamoto³,H. Ikawa³,T. Itoh²,T. Matsumoto¹(1.Nat.Inst.Agrobio.Sci.Plant Genome2.Nat.Inst.Agrobio.Sci.Bioinformatics3.STAFF)
- 206** Development of reciprocal chromosome segment substitution lines between a *japonica* cultivar Koshihikari and an *indica* cultivar IR64 in rice.
 ○Y. Nonoue¹,K. Matsubara²,N. Ono¹,R. Mizobuchi²,T. Shibaya²,E. Ogiso²,K. Hori²,S. Fukuoka²,M. Yano²(1.STAFF-inst.2.Natl. Inst. Agrobiol. Sci.)
- 207** Identification of the blast resistance gene *Pit* in rice cultivars using functional markers
 ○K. Hayashi¹,N. Yasuda¹,Y. Fujita¹,S. Koizumi¹,H. Yoshida²(1.Natl.Agric.Res.Ctr.2.Natl.Inst.Crop.Sci.)
- 208** Evolutional analysis of mitochondrial tRNACys genes and their cognate aminoacyl-tRNA synthetase gene in sugar beet and its related taxa.
 ○K. Kitazaki¹,T. Kubo¹,H. Matsuhira¹,H. Kagami¹,A. Fujita¹,T. Mikami¹(Res. Fac. Agric., Hokkaido U.)
- 209** A phenomics approach to dissect mechanisms of environmental responses in rice root
 S. Chechetka,○Y. Habu(Div.Plant Biol., NIAS)
- 210** Analysis of molecular mechanisms involved in formation of root aerenchyma using oligo microarray in rice
 ○T. Yamauchi¹,K. Shiono^{1,2},T. Abiko¹,I. Rajhi¹,I. Takamure³,Y. Nagamura⁴,N. Tsutsumi¹,K. Kato⁵,M. Nakazono^{1,6}(1.Grad. Sch. Agric. Life Sci., U. Tokyo2.JSPS Res. Fellow3.Grad. Sch. Agr., Hokkaido U.4.Genome Resource Center, Natl. Inst. Agr. Sci.5.Obihiro. Univ. Agric. & Vet. Med.6.Grad. Sch. Bioagr. Sci., Nagoya U.)

- 211** Characterization of low aerenchyma forming mutant in rice roots
 ○A. Funabiki¹, I. Takamura², Y. Tokuji¹, K. Kato¹(1.Obihiro Univ.Agric.&Vet.Med.
 2.Grad.Sch.Agr.,U.Hokkaidou)
- 212** Establishment of a method for evaluating seed-flooding tolerance in soybean (*Glycine max* [L.] Merr.).
 ○T. Nakamura¹, M. Teraishi¹, K. Seki², K. Hirata^{1,3}, T. Yoshikawa^{1,4}, H. Saitou¹, T. Sayama^{1,5}, T. Tsukiyama¹, T. Nakazaki¹, K. Yagasaki², Y. Okumoto¹, T. Tanisaka¹(1.Grad.Sch.Agr.,Kyoto U.2.Nagano Vegetable and Ornamental Crops Experimental Station3.Natl.Inst.Crop Sci.4.Grad.Sch.Agric.Life Sci., U.Tokyo5.NARCH)
- 213** Effective QTL for Seed Flooding Tolerance in soybean useful to improve black seed coat cultivar Tanbaguro with extremely large grain
 ○A. Matsumoto¹, M. Teraishi¹, T. Nakamura¹, K. Hirata², T. Yoshikawa³, T. Tanisaka¹, Y. Okumoto¹(1.Grad.Sch.Agric.,U.Kyoto2.National Institute of Crop Science 3.Grad.Sch.Agric.,U.Tokyo)
- 214** Fine mapping of a major QTL for alkaline salt tolerance using residual heterozygous lines in soybean
 ○D. Tuyen, D. Xu(JIRCAS)
- 215** Variations of salt tolerance in Myanmar *Vigna* genotypes
 ○W. Khin Thuzar, O. Aung Zaw, H. Tadashii, O. Taiichiro, H. Yutaka(United Graduate School of Agricultural Science)
- 216** Variation of ABA sensitivity in seedlings of wheat synthetics and their parental *Aegilops tauschii*
 ○M. Iehisa¹, Y. Kurahashi¹, F. Kobayashi^{2,3}, S. Takumi¹(1.Grad.Sch.Agric.Sci., Kobe U.2.NIAS3.Tohoku Natl. Agr. Res. Cent., NARO)
- 217** Sugar accumulation in sugar beet seedlings during cold treatment
 ○H. Matsuhira, M. Yoshida, Y. Sato(Natl. Agr. Res. Ctr. Hokkaido)
- 218** Correlation of cold-response and genotypes of the W14/W15 locus in Gentian.
 ○T. Hikage¹, S. Chiba², K. Kume¹, Y. Saitoh^{1,2}, Y. Takahata¹, K. Tsutsumi^{1,2}(1.United Grad. Sch. Agric. Sci., Iwate Univ.2.Cryobiofrontier Res. Center, Iwate Univ.)
- 219** QTL analysis of downy mildew resistance in cucumber (*Cucumis sativus* L.)
 ○Y. Yoshioka¹, N. Fukino¹, Y. Sakata², S. Matsumoto¹(1.NIVTS, NARO2.KONARC, NARO)
- 220** QTL analysis of powdery mildew resistance in cucumber (*Cucumis sativus*L.)
 ○N. Fukino¹, Y. Yoshioka¹, Y. Sakata², S. Matsumoto¹(1.NIVTS, NARO2.KONARC, NARO)
- 221** Development of distinctive DNA marker of rym5 genotypes different for resistant reactions against BaYMV strains
 ○T. Nagamine¹, T. Yanagisawa¹, M. Ikeda¹, T. Okiyama², H. Watanabe², T. Kato², T. Soutome²(1.WeNARC, NARO2.Tochigi Pref. Agr. Exp. Stn.)
- 222** Pathogenicity of rice blast isolates from West Africa using monogenic lines in rice
 ○O. Theophile¹, T. Nodal¹, N. Hayashi², S. Yanagihara¹, A. Kawasaki^{1,3}, Y. Fukuta^{1,3,4}, Y. Sere⁵(1.JIRCAS2.NIAS3.Tottri U.4.U. Tsukuba5.AfricaRice)
- 223** Functional analysis of bZIP transcription factor VIP1 in Arabidopsis
 ○D. Tsugama¹, H. Liu¹, S. Liu², T. Takano¹(1.ANESC, U.Tokyo2.Northeast Forestry University, China)
- 224** A profile of pathogen related genes to Pine Wood Nematode in *Pinus thunbergii*
 T. Hirao¹, ○A. Watanabe²(1.Forest Bio Research Center, FFPRI2.Forest Tree Breeding Center, FFPRI)

- 301** Fine mapping of Multiple Organ Gigantism (MOG) gene in black gram (*Vigna mungo*).
 ○K. Naito¹,N. Tomooka¹,A. Kaga¹,K. Hirano²,D. Vaughan^{1,3}(1.National Institute of Agrobiological Sciences².Nosan Corporation³.Food and Agriculture Organization)
- 302** Shoot branching control of *reduced culm number* mutants in rice.
 ○E. Tatebe¹,Y. Tokujii¹,I. Takamure²,K. Kato¹(1.Obihiro U2.Grad. Sch. Agr., Hokkaido U)
- 303** Molecular characterization of X-ray-induced mutations in soybean fatty acid mutants.
 ○T. Hoshino,N. Kawashita,Y. Takagi,T. Anai(Fac. Agric. Saga U.)
- 304** Molecular characterization of dwarf mutant alleles in soybean
 ○T. Anai,A. Kitahara(Fac.Agric.Saga U.)
- 305** Analysis of carotenoid biosynthetic genes in the mature fruit color variation induced by interspecific-grafting in pepper
 ○C. Yamaguchi,M. Ishimori,M. Khalaj,Y. Hirata(TUAT, Grad.sch.Agric.IEAS)
- 306** Production of interspecific hybrids between *Solanum melongena* and *S. sanitswongsei*
 ○Y. Kitamura¹,N. Hamato^{1,2},Y. Iwamoto³,Y. Takahashi³(1.Grad. Sch. Sci. Tech., Niigata U.2.Hortic. Res. Ctr., Niigata Agric. Res. Inst.3.Fac. Agric., Niigata U.)
- 307** Production and characterization of alloplasmic radish line carrying *Brassica fruticulosa* cytoplasm
 ○K. Tsutsui,S. Bang,Y. Kaneko(Fac. Agric., U. Utsunomiya)
- 308** Characteristics of reciprocal interspecific F1 hybrids and their progenies between *Brassica napus* and *B. juncea*
 ○M. Takashima,S. Bang ,Y. Kaneko(Fac. Agric., U. Utsunomiya)
- 309** Production and cytogenetic characteristics of monosomic addition lines and CMS line between *Brassica rapa* and *Diplotaxis eruroides*
 ○W. Yamada,S. Bang,Y. Kaneko(Fac. Agric., U. Utsunomiya)
- 310** Male sterility in progenies of somatic hybrids between *Arabidopsis thaliana* and *Brassica oleracea*
 ○H. Yamagishi,M. Tsuda,K. Kozima,K. Yasumoto(Grad. Sch. Eng., Kyoto Sangyo U.)
- 311** Analysis of chlorosis in hybrids between tetraploid wheat and *Aegilops tauschii*
 ○H. Nakano,N. Mizuno,S. Takumi(Grad.Sch.Agric.Sci., Kobe U.)
- 312** Analysis of low temperature-induced necrosis in hybrids between tetraploid wheat and *Aegilops tauschii*
 ○N. Mizuno¹,N. Shitsukawa²,S. Takumi¹(1.Grad.Sch.Agric.Sci., Kobe U.2.Inst. Plant Sci. Resources, Okayama U.)
- 313** In vivo observation for nuclear localization of Tam3 transposase by low temperature in Antirrhinum cells.
 ○T. Ogawa,K. Fujino,T. Natsume,Y. Kishima(Res.Fac.Agri,Hokkaido Univ.)
- 314** Screening of sorghum varieties for developing a direct transgenic method
 ○S. Nakayama(Div. Plant Sci., Natl. Inst. Agrobiol. Sci.)
- 315** Production of sweet potato with high amylose contents by suppression of starch branching enzyme genes.
 ○T. Hamada¹,M. Otani¹,K. Kitahara²,T. Shimada¹(1.Instit.Bioreso.Biotech., Ishikawa Pref. Univ.2.Dept.Biochem.Sci.Tech., Fac.Agr., Kagoshima Univ.)

- 316** Increase of sucrose content in sweetpotato by RNAi of AGPase subunit genes.
 ◦M. Isobe¹,O. Nakayachi¹,K. Kitahara²,M. Otani¹,T. Sukanuma²(1.Res Inst for Biores and Biotech., Ishikawa Pref Univ.2.Fac of Agri., Kagoshima Univ.)
- 317** Evaluation of stress tolerance in transplastomic tobacco plants containing a ROS scavenging operon integrated into the chloroplast genome.
 ◦H. Yamamoto¹,S. Morita³,T. Terachi²(1.Grad.Sch.Fac.Eng.,Kyoto Sangyo U.2.Fac.Life Sci.,Kyoto Sangyo U.3.Grad. Sch. Life and Envi.,Kyoto Pref U.)
- 318** Construction of a transplastomic *Nicotiana benthamiana* tobacco plant. ▲◦T. Tsujimura¹,K. Uemura²,H. Yamamoto³,T. Terachi²(1.Fac.Eng.,Kyoto Sangyo U.2.Fac.Life Sci.,Kyoto Sangyo U.3.Grad.Sch.Fac.Eng.,Kyoto Sangyo U.)
- 319** Asymmetric cell fusion between eggplant and transplastomic tobacco
 ◦R. Murakami,A. Shigeno,T. Terachi,H. Yamagishi(Grad.Sch.Eng.,Kyoto Sangyo U.)
- 320** Comparative studies on the three transplastomic tobacco lines expressing ferritin in chloroplast
 ◦K. Uemura¹,G. C. H.²,T. Terachi¹(1.Fac. Life Sci., Kyoto Sangyo U.2.Harbin Normal U.)
- 321** Production of transgenic rice plants accumulating hypocholesterolaemic peptide lactostatin in the endosperm
 ◦Y. Wakasa¹,S. Nagaoka²,F. Takaiwa¹(1.NIAS².Fac. Appl. Biol. Sci. Gifu U.)
- 322** Production of cytokines by transgenic rice seed
 ◦F. Takaiwa¹,L. Yang¹,S. Hirose²(1.NIAS².NICS)
- 323** Production and analysis of transgenic rice expressing wheat storage proteins
 ◦Y. Saito¹,S. Oe¹,Y. Mandai¹,S. Ozaki¹,S. Morita^{1,2},S. Satoh^{1,2},M. Kuroda³,K. Kawaura⁴,Y. Ogihara⁴,T. Okunishi⁵,T. Masumura^{1,2}(1.Graduate School of Life and Environmental Sciences, Kyoto Prefectural University².Biotechnology Research Department, Kyoto Prefectural Agriculture, Forestry, and Fisheries Technology Center³.National Agricultural research Center⁴.Kihara Institute for Biological Research, Yokohama City University⁵.National Food Research Institute)
- 401** Breeding of a new rice variety for whole crop silage "Natsuaoba"
 ◦I. Nagaoka¹,K. Miura¹,Y. Uehara²,H. Sasahara¹,A. Shigemune¹,H. Ohta³,Y. Komaki⁴,A. Goto⁵(1.Hokuriku Res. Cent.,NARC².Natl. Agr. Res. Cent. for Hokkaido Region³.Natl. Agr. Res. Cent. for Tohoku Region⁴.Kagoshima Pref. Inst. for Agr. Development⁵.MAFF)
- 402** Breeding of a new hullless barley cultivar "Beau Fiber" containing high levels of functional polysaccharides
 ◦T. Tonooka¹,T. Yoshioka¹,E. Aoki¹,N. Kawada^{1,2},M. Yoshida^{1,2}(1.Natl. Inst. Crop Sci., NARO².Natl. Agric. Res. Cent. Kyushu Okinawa, NARO)
- 403** Development of autotetraploids showing self-compatibility via *in vitro* chromosome doubling in *Pyrus*
 ◦H. Tabira¹,T. Endou²,Y. Yonemura²(1.Daisen Agr.Ext.Center, Tottori pref.².Tottori Hort.Expt.Stn.)
- 404** Breeding of F1 varieties of Yamato-mana with consideration of S haplotype
 ◦H. Asao¹,T. Nishimoto¹,E. Okuyama²,Y. Ochi³,S. Kajita³,S. Takayama⁴(1.Nara Pref. Agri. Center².Nara Supp. Corp.³.Nanto Seed Co., Ltd⁴.Grad. Sch. Biol. Sci., NAIST)
- 405** A reason of many modern Japanese cultivar's leaf morphological defect gene koro (k)
 ◦J. Tanaka(National Institute of Vegetable and Tea Science, NARO)

- 406** Rice biotron breeding system;Rapid life cycle of rice every two month
 ○T. Ohnishi¹,R. Ishikawa²,H. Yamakawa³,T. Kinoshita¹(1.Grad.Sch.Bio.Sci.,
 NAIST.2.Grad.Sch.Agric.Sci.,U.Kobe³. Ntl. Agric. Res. Cntr. (Hokuriku), Ntl. Agric. and Food
 Res. Org.)
- 407** Development of a practical multiplex PCR method in potato breeding for simultaneous detection
 of five disease and pest resistance genes
 ○K. Mori^{1,2},Y. Sakamoto¹,N. Mukojima¹,T. Nakao¹,K. Hosaka³(1.Nagasaki Agri. & Forestry
 Tech. Dev. Center².Graduate School of Agriculture, Kobe U.³.Natl.Agr.Res.Ctr.Hokkaido Reg.)
- 408** On the usefulness of quantitative trait selection based on unvalidated DNA markers:
 Improvement in self-fertilizing crops
 ○T. Ishii¹,K. Yano²,T. Hayashi³,H. Iwata⁴,K. Yonezawa⁵(1.WeNARC.2.Bioinfor., Fac.Agr.,
 Meiji Univ.³.Natl.Agr.Res.Cent.⁴.Grad.Sch.Agric.Life Sci., U.Tokyo⁵.Fac.Engin., Kyoto
 Sangyo Univ.)
- 409** Genetic diversity of stockpiled rice in the Meiji era.
 ○C. Muto¹,R. Ishikawa²,H. Tabuchi³,Y. Sato¹(1.RIHN².Fac. Agr.Life Sci. Hirosaki
 U.³.Hokuriku Res. Cen., NARO)
- 410** Evaluation of genetic diversity of wild rice populations in Myanmar⁵.Comparison of genetic
 structure among seven wild rice populations.
 ○J. Usami¹,M. Yoshitomi¹,T. Kanzaki²,R. Shishido¹,K. Nomura¹,M. Akimoto³,T. Ishii²,S.
 Min⁴,S. Than⁴,H. Tin⁴(1.Coll. Bioresource Sci., Nihon U.².Fac. Agr., Kobe U.³.Obihiro U. Agr.
 Vet. Med.⁴.Dept. Agr. Res., Min. Agr. & Irri., Myanmar)
- 411** Genetic Analysis for the Fragrance of Vietnamese Aromatic Rice Varieties
 ○T. Nguyen,T. Chau Thi Anh,M. Vazirzanjani ,T. Vo Cong,Y. Hirata(IEAS)
- 412** Field research of wild species of *Cucumis* in north Vietnam and Yunnan, China
 ○K. Kato¹,T. Phan¹,K. Tanaka²,T. Yamamoto¹,D. Ishihara¹,Y. Akashi¹,T. Tran ³,C. Long⁴,H.
 Nishida¹(1.Grad. Sch. Natural Sci. Tech., Okayama U.².RIHN³.Hanoi Univ. Agr.⁴.Kunming
 Inst. Bot.)
- 413** Expedition of Triticeae germplasm in North Caucasia
 ○T. Sasanuma¹,T. Kawahara²,M. Zhuk³,T. Smekalova³,K. Sato⁴(1.Fac.Agr., Yamagata
 U.².Grad.Sch.Agr., Kyoto U.³.VIR⁴.RIB, Okayama U.)
- 414** Genetic variation in domesticated emmer wheat (*Triticum turgidum* L.) in and around
 Abyssinian Highlands
 ○S. Takenaka¹,N. Mori²,T. Kawahara¹(1.Grad. Sch. Agr., Kyoto U.².Grad. Sch. Agr., Kobe U.)
- 415** Difference in morphological and physiological characters among common reed populations
 ○T. Araki,T. Yokota,A. Shimizu,H. Hasegawa(Sch. Environ. Sci., Univ. Shiga Pref.)
- 416** Genetic studies on Bambuseae species in Japan. XXIX. Field observations on the aspect of
 flowering and geographical distribution of *Pleioblastus simonii*
 ○M. Muramatsu(None, Professor emeritus, U. Okayama)
- 417** Ecology and Cytology of *Primula cortusoides* and related species in Altai, Russia
 ○S. Yamaguchi¹,J. Kato²(1.Coll.Agr.,Tamagawa Univ.².Aichi Unib.Edu.)

- 418** Genetic characterization of Mogamibenibana, a local safflower variety in Yamagata prefecture
 ○K. Kimura,S. Watanabe,T. Abe,T. Sasanuma(Fac.Agr., Yamagata U.)
- 419** Differences of anthocyanin and energy content in local Brassica rapa varieties in Yamagata pref.
 ○H. Egashira1,T. Ebana2,A. Yoshii1(1.Fac. Agric., Yamagata U.2.YUKIGUNI MAITAKE Co.,Ltd.)
- 420** Spatial statistical analysis of clonal propagation of a coastal plant *Carex kobomugi*
 I. Miyoshi1,○T. Ohsako2(1.Grad.Sch.Agr., Kyoto U.2.Grad.Sch.Life Environmental Sci., Kyoto Pref.U.)
- 421** Phylogenetic analysis of soybean landrace Dadacha-mame based on AFLP
 ○S. Konishi,T. Sasanuma,T. Abe(Fac. Agr. Yamagata U.)
- 422** QTL analysis of flowering time in common buckwheat by using photoperiodic response gene regions and EST markers.
 ○T. Hara1,T. Shima1,H. Iwata2,K. Okuno1,R. Ohsawa1(1.Grad.Sch.Life & Env.Sci., U.Tsukuba2.Grad.Sch.Agric.Life Sci., U.Tokyo)
- 423** Phylogenetic analysis of edible chrysanthemum cultivated in Yamagata and Niigata prefecture using SSR markers and flow cytometer
 ○Y. Saito1,H. Egashira2,T. Takashina1,S. Endo1,H. Kanamori3,A. Sato4,K. Takahashi2,N. Ogasawara2(1.Hort. Exp. Stan. Yamagata Integrated Agric. Res. Cent.2.Fac. Agric. Yamagata U.3.STAFF-Institute4.Niigata Agric. Res. Inst. Hort. Res. Cent.)
- 424** Analysis on multiple origins of U genome polyploid *Aegilops* species by using dCAPS markers
 ○H. Murakami1,T. Kawahara2,T. Abe1,T. Sasanuma1(1.Fac.Agr., Yamagata U.2.Grad.Sch.Agr., Kyoto U.)
- 425** A structural variation in the mitochondrial genome that provides new insights into the evolution of polyploid wheats.
 ○M. Tsujimura1,E. Tomioka1,N. Mori2,T. Terachi1(1.Fac. Life. Sci., Kyoto Sangyo U.2.Grad. Sch. Agr., Kobe U.)
- 501** A wheat breeding line "Chogokuwase" has at least three recessive earliness genes.
 ○K. Kawakami1,H. Nishida1,M. Fujita2,Y. Akashi1,K. kato1(1.Grad. Sch. Natural Sci. Tech., Okayama U.2.KONARC/NARO)
- 502** Homoeolog-specific regulation systems in wheat class B MADS-box gene, *WAP3*.
 ○N. Shitsukawa1,H. Handa2,T. Ogawa2,S. Taketa1,K. Murai3(1.Inst. Plant Sci. Resources, Okayama U.2.NIAS3.Dep. Biosci., Fukui Pref. U.)
- 503** Analysis of wheat mutant defective in the gene encoding abscisic acid catabolic enzyme
 ○M. Chono1,H. Matsunaka2,M. Seki1,M. Fujita2,C. Kiribuchi-Otobe1,S. Oda1,H. Kojima1,N. Kawakami3(1.National Institute of Crop Science2.National Agricultural Research Center for Kyushu Okinawa Region3.Sch. Agric., Meiji U.)
- 504** Research on a bulb formation mechanism in *Hordeum bulbosum* L.
 ○M. Furukawa,T. Ban(Kihara Inst. Bio. Res., Yokohama City U.)
- 505** Analysis of *Cly1* homologs in wild species of *Hordeum*
 ○K. Kakeda1,N. Ishihara1,2,N. Wang3,T. Komatsuda3(1.Grad.Sch.Bioresour., Mie U.2.Murakami Farm Co.ltd3.NIAS)

- 506** Genetic variation of cleistogamous barley
 ○N. Wang¹,I. Honda²,T. Komatsuda¹(1.National Institute of Agrobiological Sciences².National Institute of Vegetable and Tea Science)
- 507** Fine mapping of seed dormancy QTL "Qsd1" in barley
 ○K. Sato¹,K. Takeda¹,H. Kanamori²,T. Komatsuda³,T. Matsumoto³(1.IPSR, Okayama U.².STAFF Inst.³.NIAS)
- 508** Mapping of QTL controlling flowering time in sorghum
 ○Y. El Mannai ,A. Ganaha,J. Bhandari,T. Shehzad,K. Okuno (Grad.Sch.Life Envir.Sci, U.Tsukuba.)
- 509** Analysis of functional polymorphisms of florigen gene *RFT1* in rice
 ○E. Ogiso¹,K. Matsubara¹,S. Yamamoto¹,H. Yamane²,H. Ishikubo²,J. Wu¹,T. Matsumoto¹,M. Yano¹(1.Natl. Inst. Agrobiol. Sci. ².STAFF Inst.)
- 510** Positional cloning of a heading date QTL *Hd16* conferring early heading in a Japanese rice cultivar Koshihikari.
 ○K. Hori,K. Matsubara,E. Ogiso,U. Yamanouchi,M. Yano(Natl. Inst. Agrobiol. Sci.)
- 511** Flowering-time genes affect panicle architectures in rice
 ○N. Endo¹,T. Izawa²(1.Graduate School of Life and Environmental Science ,University of Tsukuba².National Institute of Agrobiological Sciences)
- 512** Functional analysis of rice FD homolog.
 ○H. Tsuji¹,K. Taoka¹,I. Ohki²,M. Yamaguchi¹,Y. Ogaki¹,Y. Purwestri¹,C. Kojima ²,K. Shimamoto¹(1.Lab. of Plant Mol. Biol., Grad. Sch. Biol. Sci., NAIST².Lab. of Biophys., Grad. Sch. Biol. Sci., NAIST)
- 513** Verification of utility of PSR medium on Phalaenopsis cutting culture.
 ○M. Tanaka,Y. Takahara(Dept.Bioengineering.,Nagaoka Univ. of Tech.)
- 514** Physiological study of somatic embryogenesis in carrot cotyledon by treatment with two repetitive high concentration sucrose.
 ○s. Furukawa,Y. Takahara(Dept.Bioengineering.,Nagaoka Univ. of Tech.)
- 515** Selective visitation behavior by pollinators in a F1 seed production field of Brassicaceae crops and the effect on seed productivity
 ○K. Kobayashi¹,A. Tanaka²,S. Niikura²,R. Ohsawa¹(1.Grad.Sch.Life&Envi.Sci., U.Tsukuba².Tohoku Seed Co.)
- 516** Variation in nectar volume in *Brassica rapa*
 ○A. Ganaha¹,K. Kiwa¹,A. Tanaka²,A. Horisaki²,S. Niikura²,R. Ohsawa¹(1.Grad.Sch.Life&Env.Sci.,U.Tsukuba².Tohoku Seed Co.)
- 517** Identification and mapping of novel self-incompatibility genes in *Brassica rapa* L.
 ○M. Osaka¹,S. Isokawa¹,A. Shirasawa¹,R. Kikuta²,S. Komatu²,S. Niikura³,Y. Takada¹,H. Shiba⁴,A. Isogi⁴,S. Takayama⁴,G. Suzuki⁵,K. Suwabe^{1,6},M. Watanabe^{1,7}(1.Graduate School of Life Science, TohokuUniversity².Faculty of Agriculture, Iwate University³.Tohoku Seed Co. Ltd.⁴.Graduate School of Biological Sciences, Nara Institute of Science and Technology⁵.Division of Natural Science, Osaka Kyoiku University⁶.Graduate School of Bioresources, Mie University⁷.Faculty of Science, Tohoku University)
- 518** Analysis of progenies from *Brassica juncea* × *B. napus* by *B. napus* C genome specific SSR marker
 ○M. Tsuda¹,M. Akaba^{2,4},A. Okuzaki¹,Y. Nanasato¹,K. Konagaya^{1,3},Y. Kaneko²,Y. Tabei¹(1.NIAS².Fac. Agric., U. Utsunomiya³.Forest Bio-Research Center, Forestry and Forest Products Research Institutes⁴.Fac. of Agri., Iwate Univ.)

- 519** Identification and characterization of SBP1(S-RNase binding protein1) homolog of apple.
 ○D. Fujii1,H. Kakui1,2,N. Kotoda3,K. Ushijima4,H. Sassa1(1.Grad. Sch. Hort., Chiba U.2.Grad. Sch. Sci., Nagoya U.3.Natl. Inst. Fruit Tree Sci.4.Grad. Sch. Natural Sci. Tech., Okayama U.)
- 520** Analysis of pollen-part S specificity of S4sm, a stylar-part self-compatible S haplotype in Japanese pear
 ○H. Kakui1,M. Kato2,S. Kato3,M. Kitaguchi3,H. Sassa2(1.Nagoya U., JSPS Research Fellow2.Grad. Sch. Hort. Chiba U.3.Chiba pref. Agr. and Forest. Res. Cent.)
- 521** Dynamin-related protein 2 (DRP2) is essential for gametophyte development in plant
 ○Y. Hayashi1,M. Fujimoto2,H. Takanashi1,S. Arimura1,N. Tsutsumi1(1.Grad.Sch.Agric.Life Sci., U.Tokyo2.Grad.Sch.Sci., U.Tokyo)
- 522** MIRO1 influences mitochondrial morphology and inheritance during pollen tube growth and embryogenesis
 ○Y. Shohei1,M. Nakajima1,M. Fujimoto1,C. Leaver2,N. Tsutsumi1(1.Grad.Sch.Agric.Life Sci., U.Tokyo2.Dept.Plant Sci., U.Oxford)
- 523** Stability of expression of pollen fertility restorer genes in Japanese wild radishes
 ○A. Tsutsumi,Y. Mori,K. Yasumoto,H. Yamagishi(Grad. Sch. Eng., Kyoto Sangyo U.)
- 524** Construction of plastid transformation vectors that express orf138, a CMS gene from radish, and development of assay systems for characterization of an Rf gene
 ○Y. Tanaka,K. Yasumoto ,H. Yamagishi,T. Terachi (Fac. Life Sci., Kyoto Sangyo U.)
- 525** Comparison of male-sterile cytoplasms of RT61C, RT98C, RT102C derived from *Oryza rufipogon*.
 ○H. Murata1,T. Kazama1,K. Motomura2,K. Toriyama1(1.Grad. Sch. Agric. Sci., Tohoku Univ.2.Fac. Agric., Univ. Ryukyu)
- 526** Fertility restorer gene *Rf2* for LD-type cytoplasmic male sterility of rice encodes glycine-rich protein.
 ○E. Itabashi,N. Iwata,S. Fujii,T. Kazama,K. Toriyama(Grad. Sch. Agric. Sci., U. Tohoku)
- 527** Functional analysis of MPR25 protein involved mitochondrial gene expression in rice.
 ○T. Toda1,S. Fujii2,K. Noguchi3,T. Kazama1,K. Toriyama1(1.Grad.Sch.Agric.Life Sci., U. Tohoku2.ARC., U.Western Australia 3.Dept. Biol. Sci, Grad. Schl. Sci., U. Tokyo)
- 601** Analysis of double mutant of rice having a super high amylose content
 ○H. Asai,Y. Nakamura,N. Fujita(Akita Pref. Univ.)
- 602** Isolation of a double mutant line for major starch synthase isozymes using a leaky *ss1* mutant line.
 ○N. Fujita,M. Kodama,S. Aihara,R. Itoh,Y. Nakamura(Facult Biores. Sci., Akita Pref. Univ.)
- 603** Effect of starch gelatinization on staling of rice bread
 ○N. Aoki,T. Umemoto,Y. Suzuki(The National Institute of Crop Science, National Agriculture and Food Research Organization)
- 604** Improvement of the breadmaking quality of whole-rice flour
 ○S. Hamada,N. Aoki,Y. Suzuki(Natl. Inst. Crop Sci.)
- 605** Varietal variation of the sugar components in cooked rice.
 ○S. Uchida,S. Kamarara,T. Sasanuma,A. Toshinori(Fac. Agri. Yamagata U.)
- 606** RISBZ1 and RPBF regulate lysine degrading enzyme gene *OsLKR/SDH* in rice grain.
 ○T. Kawakatsu,F. Takaiwa(NIAS)

- 607** Development of rice containing soybean B-conglycinin at a high level
 ○N. Kato¹, Y. Amari¹, A. Ekyo¹, M. Sawada¹, E. Okuda¹, T. Masuda¹, S. Nagaoka³, M. Kuroda², F. Takaiwa⁴, S. Utsumi¹, N. Maruyama¹ (1. Grad. Sch. Agric., U. Kyoto 2. National Agricultural Research Center 3. Dep. Applied Science, U. Gifu 4. National Institute of Agrobiological Sciences)
- 608** Genetic Variation for Sweetness of Tofu Processed from Local Soybean Varieties in Tohoku District.
 ○Y. Kono, S. Kato, A. Kikuchi (Natl. Agr. Res. Cent. Tohoku)
- 609** Effect of light on greening and glycoalkaloid accumulation in potato tubers
 ○H. Ozaki¹, R. Yamada², N. Umemoto³, N. Onisi³, M. Mori², H. Miura¹ (1. Obihiro U., Agric & Vet. Med. 2. Natl. Agr. Res. Ctr. Hokkaido 3. KIRIN Holdings CO.)
- 610** Evaluation of characteristics for the new food processing of taro cultivars.
 ○H. Asami, H. Ishiishikawa, F. Itou (Ehime Reserch Institute of Agriculture, Forestry and Fisheries)
- 611** Effect of nitrogen fertilization on gluten polymer formation among different wheat glutenin genotypes.
 ○T. Ikeda¹, T. Tani², K. Sugiura², K. Fujii³, T. Tsuji², T. Yoshida² (1. NARO, Nat. Agric. Res. Cent. Western Reg. 2. Aichi Pref. Agric. Res. Cent. 3. Aichi Pref. Colg. Agric)
- 612** Genetic analysis of a retarded panicle (*rp*) mutant affecting development of panicle and spikelet in rice.
 K. Shioaku, A. Chiba, R. Nakai, H. Nagano, Y. Sano, ○I. Takamure (Grad. Sch. Agr., Hokkaido U.)
- 613** A novel frameshift mutant gene, *fzp-10*, at the rice *FZP* (*FRIZZY PANICLE*) locus
 ○T. Kato, A. Horibata (Fac. BOST, Kinki U.)
- 614** Responsiveness of plant hormones in *pla* mutants and overexpression of their causal genes.
 ○M. Mimura¹, Y. Sato², M. Kojima³, H. Sakakibara³, J. Itoh¹, Y. Nagato¹ (1. Grad. Sch. Agric. Life Sci., U. Tokyo 2. NIAS 3. RIKEN Plant Science Center)
- 615** Identification of the rice *SLENDER LEAF1* gene
 ○T. Yoshikawa, J. Itoh, Y. Nagato (Grad. Sch. Agric. Life Sci., U. Tokyo)
- 616** Functional analysis of *FON2-LIKE CLE PROTEIN* (*FCPI*) that negatively regulates meristem maintenance in rice.
 ○Y. Ohmori¹, T. Suzuki^{1,2}, H. Hirano¹ (1. Grad. Sch. Sci., Univ. Tokyo 2. Natl. Inst. Basic. Boil.)
- 617** Genetic analysis of awn formation in rice.
 ○T. Toriba, Y. Ohmori, H. Hirano (Grad. Sch. Sci., U. Tokyo)
- 618** A rice mutant with giant chloroplasts and its potential use for molecular breeding
 ○S. Sano, H. Nishimura, M. Maekawa, W. Sakamoto (Institute of Plant Science and Resources., Okayama U.)
- 619** Microarray analysis of genes for pistillody (homeotic change of stamens into pistil-like structure) induced by mitochondrial retrograde signaling
 M. Yamamoto¹, K. Kawaura², Y. Ogihara², ○K. Murai¹ (1. Dep. Biosci., Fukui Pref. U. 2. KIBR, Yokohama City U.)
- 620** Profile analysis of gliadin by two-dimensional electrophoresis in common wheat
 ○M. Nakamura, M. Saito, K. Kawaura, Y. Ogihara (KIBR, Yokohama City U.)
- 621** Atlas of rice grain filling-related metabolism under high temperature
 ○H. Yamakawa, M. Hakata, T. Terao (Natl. Agric. Res. Center, NARO)

- 622** Ionic approach for gene isolations in relation to accumulations of six major essential metals and cadmium in rice plants
 ○T. Yoshihara¹, H. Park¹, K. Shoji¹, F. Goto¹, H. Nakamura², M. Hakata², H. Ichikawa², H. Hirochika², T. Ichikawa³, M. Matsui³ (1. Environ. Sci., CRIEPI 2. NIAS 3. Genomic Sci. Center, RIKEN)
- 623** The role of phytic acid in the movement of metals during seed development.
 ○T. Iwai¹, M. Takahashi², Y. Terada³, K. Yoshida¹ (1. Grad. Sch. Agric. Life Sci., U. Tokyo 2. Fac. Agric, U. Utsunomiya 3. JASRI)
- 624** Expression analysis of the ABC transporter gene, *OsMRP13*, which causes phytate accumulation in rice grains.
 ○C. Matsubara, Y. Nakashima, K. Yoshida (Grad. Sch. Agric. Life Sci., U. Tokyo)
- 625** Study for development of a promoter to drive aleurone-specific expression.
 ○Y. Ishibashi, M. Kuwano, K. Yoshida (Grad. Sch. Agric. Life Sci., U. Tokyo)
- 626** Oriental hybrid lily homologue of *LhMYB12* regulates anthocyanin biosyntheses in flower tepals
 ○M. Yamagishi (Res. Fac. Agr., Hokkaido U.)

Poster presentations

- P001** Breeding of a new six-rowed barley cultivar "Harushirane" with proanthocyanidin-free gene
 ○E. Aoki¹, T. Tonooka¹, T. Yoshioka¹, N. Kawada², M. Yoshida² (1. Natl. Inst. Crop Sci., NARO 2. Natl. Agric. Res. Cent. Kyushu Okinawa, NARO)
- P002** Breeding of a new delicious sweetpotato cultivar "Himeayaka" with compact size of storage root for whole eating.
 ○A. Takada, T. Kuranouchi, Y. Nakamura, K. Katayama, M. Nakatani, S. Tamiya, K. Komaki, T. Kumagai (Natl. Inst. of Crop Sci., NARO)
- P003** Breeding of a new rice cultivar 'TOHOKU189' with high yield and good grain quality
 ○K. Nagano¹, B. Chiba², N. Miyano², K. Sasaki³, T. Endo¹, K. Wagatsuma², H. Hayasaka¹ (1. Miyagi Pref. Furukawa Agr. Exp. Stn. 2. Miyagi Pref. office 3. Miyagi Pref. Motoyoshi Agr. Exten. Cent.)
- P004** A new rice variety Hitachi IL1 with blast field resistance
 ○T. Manabe¹, K. Okamoto¹, S. Fukuoka², K. Kosuge¹, M. Hirayama¹ (1. Plant Biotech. Inst., IBARAKI Agri. Cent. 2. NIAS)
- P005** Characteristics of "Akita63", a large grain Japonica rice cultivar with high yield potential, and its grain weight and grain shape
 ○I. Kodama, T. Kawamoto, K. Kato, S. Matsumoto, M. Taguchi, K. Sato (Ag)
- P006** Chromosome doubling and flow cytometry in sweet sorghum
 ○E. Inoue, S. Nakajima, J. Nishigaki, Y. Nitta, T. Homma (College of Agric., Ibaraki U.)
- P007** F1 hybrid seed production system of rapeseed (*Brassica napus*) using self incompatibility
 ○H. Udagawa, F. Li, T. Nishio (Grad. Sch. Agric. Sci., U. Tohoku)
- P008** OryzaExpress: A database for omics-data and gene expression networks in rice
 ○K. Hamada¹, K. Hongo¹, N. Yamamoto¹, T. Fujii¹, T. Mochizuki², K. Suwabe³, N. Kurata², K. Yano¹ (1. Bioinf., Fac. Agri., Meiji Univ. 2. Natl. Inst. Genet. 3. Bioresources, Mie Univ.)

- P009** Approach to the development of core collection for Japanese cedar
○N. Miyamoto, M. Takahashi, A. Watanabe (Forest Tree Breeding Center, Forestry and Forest Products Research Institute)
- P010** Tomato genome annotation based on full-length cDNAs and database construction
S. Kawamura¹, K. Hamada¹, A. Suzuki¹, N. Yamamoto¹, D. Shibata², K. Aoki², ○K. Yano¹ (1. Bioinformatics Lab., Fac. of Agri., Meiji Univ. 2. Kazusa DNA Res. Inst)
- P011** Development of Brassica rapa cDNA resources for the systematic consolidation of Brassica and Arabidopsis
○H. Abe¹, I. Sasaki¹, K. Hatakeyama², M. Narusaka³, T. Tamura⁴, K. Fukami-Kobayashi¹, Y. Narusaka³, M. Kobayashi¹ (1. RIKEN BioResource Center 2. National Institute of Vegetable and Tea Science 3. Research Institute for Biological Sciences, Okayama 4. BITS Co., Ltd.)
- P013** Development of a simple technique for identification of species using species-specific ITS1 probes.
○K. Tonosaki, T. Nishio (Grad. Sch. Agric. Sci., Tohoku Univ.)
- P014** Retracted
- P015** Retracted
- P016** Population structural analysis of *in-situ conservation* site for wild rice in Lao
○I. Ryuji¹, Y. Wang², B. Chay³, I. Nakamura⁴, T. Sato⁵, Y. Sato⁶ (1. Fac. Agric. Life Sci., U. Hirosaki 2. Jangsu Acad. Agric. Sci. 3. Rice and Cash Crop Research Center, Lao PDR 4. Grad. Sch. Horticult., U. Chiba 5. Grad. Sch. Life Sci., U Tohoku 6. Research Institute for Humanity and Nature)
- P017** Flower color variation in progenies from Nagai type of Japanese Iris (*Iris ensata* Thunb.)
○K. Sakai¹, Y. Murai², S. Bang¹, T. Iwashina³, Y. Kaneko¹ (1. Fac. Agric., U. Utsunomiya 2. Keio University Department of Chemistry 3. Tsukuba Botanical Garden, National Science Museum)
- P018** Origin of triploid wild rice (BKK strain) in Bangkok
○S. Makabe¹, H. Takahashi¹, R. Ishikawa², T. Sato³, Y. Sato⁴, I. Nakamura¹ (1. Grad. Sch. Hort., Chiba U. 2. Fac. Agric. Life Sci., Hirosaki U. 3. Grad. Sch. Life Sci., Tohoku U. 4. Res. Inst. Human & Nature)
- P019** Genetic diversity of emmer wheat and Indian dwarf wheat in India inferred from chloroplast DNA analysis
○T. Takagi¹, N. Mori¹, S. Ohta², H. Chiba³, V. Shinde⁴, M. Kajale⁴, T. Osada⁵ (1. Grad. Sch. Agric. Sci., Kobe U. 2. Dep. Biosci., Fukui Pref. U. 3. Tohoku Gakuin U. 4. Decan College, Post-Grad. & Res. Inst. 5. Res. Inst. Humanity & Nature)
- P020** Morphological and genetic diversity in *Spinacia oleracea* L.
○K. Kuwahara, Y. Itou, Y. Onodera, T. Mikami (Grad. Sch. Agr., Hokkaido U.)
- P021** Origin of *Triticum aestivum* ssp. *sphaerococcum* inferred from nucleotide sequence analysis of a D genome-specific marker A1
○N. Asakura¹, N. Mori², C. Nakamura², I. Ohtsuka¹ (1. Lab. Biol. Fac. Engin. Kanagawa U. 2. Lab. Plant Genet., Grad. Sch. Agric. Sci., Kobe U.)
- P022** Genetic differentiation of *O. rufipogon* in Asia and Oceania
○Y. Hao¹, Y. Kobayashi¹, K. Ichitani², K. Tanaka³, I. Nakamura⁴, T. Sato⁵, Y. Sato³, R. Ishikawa¹ (1. Fac. Agric. Life Sci., Hirosaki U. 2. Fac. Agric., Kagoshima U. 3. RIHN 4. Grad. Sch. Horticult., Chiba U. 5. Grad. Sch. Life Sci., Tohoku U.)

- P023** Comparative analysis of variation in agronomic traits in Indonesian rice landrace and improved varieties
 ○K. Muhamad, K. Okuno (Grad. Sch. Life Envir. Sci., U. Tsukuba)
- P024** Genetic variation of rice cultivars in Japan I. Classification based on the polymorphisms data of SSR markers
 ○A. Kawasaki^{1,2}, Y. Fukuta^{1,2} (1. JIRCAS 2. Uni. Grad. Sch. Agri. Sci., U. Tottori)
- P025** Genetic diversity of chloroplast genome in *Aegilops umbellulata* and its relation to the polyploidy evolution of *Ae. neglecta* and *Ae. columnaris*
 ○Y. Yasugi¹, N. Mori¹, S. Ohta² (1. Grad. Sch. Agric. Sci., Kobe U. 2. Dep. Biosci., Fukui Pref. U.)
- P026** An SSR marker that can distinguish many strawberry cultivars
 ○M. Honjo¹, T. Nunome², S. Kataoka¹, T. Yano¹, H. Yamazaki¹, M. Hamano¹, S. Yui¹, M. Morishita¹ (1. NARCT 2. NIVT)
- P027** Transition of genetic diversity in Asian cultivated rice estimated by molecular phylogenetic analysis
 ○T. Honda¹, H. Tabuchi², T. Itani³, R. Ishikawa¹ (1. Fac. Agric. Life Sci., Hirosaki U. 2. National Agricultural Research Center Hokuriku Research Center 3. Faculty of Life and Environmental sciences, Prefectural University of Hiroshima)
- P028** Relationships among Brassica species revealed by the analysis of PolA1 19 intron.
 ○H. Shindo, H. Takahashi, I. Nakamura (Grad. Sch. Hort., Chiba U.)
- P029** Genetic variation within and among natural populations of endangered plant *Pseudolysimachion ornatum*.
 ○T. Teshima, T. Ohsako (Grad. Sch. Life Environmental Sci., Kyoto Pref. U.)
- P030** Evaluation of genetic diversity of wild rice populations in Myanmar 4. Temporal dynamism of genetic population structure.
 ○M. Yoshitomi¹, J. Usami¹, R. Shishido¹, K. Nomura¹, M. Akimoto², T. Ishii³, T. Sato⁴, S. Min⁵, S. Than⁵, H. Tin⁵ (1. Coll. Bioresource Sci., Nihon U. 2. Obihiro U. Agr. Vet. Med. 3. Fac. Agr., Kobe U. 4. Grad. Sch. Life Sci., Tohoku U. 5. Dept. Agr. Res., Min. Agr. & Irri., Myanmar)
- P031** Flesh color mutants of sweetpotato cultivar "Tamaakane" induced by gamma-irradiation
 ○T. Sakai¹, T. Kamiwatari², K. Katayama¹, Y. Kai¹, M. Yoshinaga¹ (1. Natl. Agr. Res. Cent. Kyushu-Okinawa 2. Okuchi Distilling Co.)
- P032** Isolation of FT3 mutant from soybean (cv. Fukuyutaka) through TILLING.
 ○M. Nishi¹, T. Kinoshita¹, T. Anai², T. Nakashima¹ (1. Saga Pref. Agr. Res. Cen., 2. Fac. Agri., Saga U.,)
- P034** Production and cytogenetic characterizations of CMS *Brassica oleracea* carrying *B. oxyrrhina* cytoplasm.
 ○S. Shim, B. Jeong, S. Bang, Y. Kaneko (Utsunomiya University)
- P035** Plant chimera synthesis and the utilization in Brassicaceae and Cucurbitaceae interspecific chimeras
 ○M. Chen, Q. Xiao, A. Ohmine, M. Nakashima, Y. Hirata (Tokyo University of Agriculture and Technology Faculty of Agriculture)
- P036** Highly efficient Agrobacterium-mediated transformation of suspension-cultured cell clusters for gene targeting in rice (*Oryza sativa* L.)
 ○K. Ozawa, Y. Wakasa, H. Kawahigashi, F. Takaiwa (Natl. Inst. Agrobio. Sci.)

- P037** Plant regeneration from seed and leaf segment-derived callus and *Agrobacterium*-mediated transformation of *Erianthus ravennae* (L.) Beauv.
 ○K. Shimomae, M. Konno, R. Khan, D. Chin, I. Nakamura, M. Mii (Grad. Sch. Hort., Chiba U)
- P038** Detection of transient and/or stable expression of T-DNA using ELuc reporter system
 ○H. Saika¹, S. Nonaka^{1,2}, K. Osakabe¹, S. Toki^{1,3} (1. NIAS². Grad. Sch. Life Env., Univ. Tsukuba³. Kihara Inst. Biol. Res., Yokohama City Univ.)
- P039** Production of *Petunia* transgenic plants with a chalcone synthase gene of *Iris hollandica*
 ○Y. Harazaki¹, S. Hamasuna¹, Y. Ninomiya¹, Y. Hiramoto², T. Yabuya² (1. Grad. Sch. Agr., U. Miyazaki². Fac. Agr., U. Miyazaki)
- P040** *Agrobacterium*-mediated transformation of *Dendrobium nobile*.
 ○W. Phlaetita, D. Chin, M. Mii (Grad. Sch. Hort., Chiba U)
- P041** Simple set of plasmids for production of multi-gene-introduced transgenic plants
 ○M. Kuroda, M. Kimizu, C. Mikami (Natl. Agric. Res. Cent.)
- P042** Cloning and functional analysis of cDNAs encoding chloroplast-targeted aminolevulinic acid dehydratase in common wheat
 ○Y. Takenouchi, K. Kanamaru, S. Takumi (Grad. Sch. Agric. Sci., Kobe U.)
- P043** Direct protein introduction into plant cells without gene transfer
 ○H. Washida¹, H. Tsuji¹, K. Taoka¹, C. Kojima^{1,2}, K. Shimamoto¹ (1. NAIST². Inst. Protein. Res. Osaka U.)
- P044** Artificial epiallele induced by phloem-transported siRNA
 ○S. Bai, A. Kasai, T. Harada (Fac. Agric. Life. Sci. Hirosaki U.)
- P045** Screening of DArT markers relating to Wheat Yellow Mosaic Virus (isolate III) resistance.
 ○K. Hatta¹, K. Kubo¹, S. Oda², K. Takata³, M. Fujita¹ (1. Natl. Agric. Res. Cent. Kyushu Okinawa². Natl. Inst. Crop Sci. ³. Natl. Agric. Res. Cent. West.)
- P046** The resistant genes to barley yellow mosaic virus in PK23-2 collected from Pakistan.
 ○H. Kai, K. Takata, M. Tsukazaki, T. Baba (Fukuoka Agric. Res. Cent.)
- P047** Marker assisted selection of a near-isogenic Koshihikari rice line possessing novel blast resistance gene *Pi45*.
 M. Omoteno¹, N. Hayashi², H. Ozaki¹, M. Yano², M. Morikawa¹, ○T. Ebitani¹ (1. Toyama Pref. Agri. Fore. Fish. Res. Center². NIAS)
- P048** Evaluation of resistant resources to scald of barley by the cell tray test in the Hokuriku Tohoku districts field.
 ○O. Yamaguchi, S. Ito (Hokuriku Res. Cent., NARC)
- P049** Current Status of Chinese Wheat Mosaic Virus (CWMV) in Nagano Prefecture
 ○H. Maejima¹, Y. Shirako², Y. Uehara¹, S. Hosono¹, T. Ushiyama¹ (1. Nagano Agri. Exp. Stn. ². Tokyo Univ. ANESC)
- P050** Effects of genes' pyramiding for iron toxicity in rice (*Oryza sativa* L.)
 ○Y. Fukuta, J. Tanaka, M. Wissuwa (JIRCAS)
- P051** Characterization of transgenic rice over-expressing ascorbate recycling enzyme gene.
 ○H. Yasuda, Y. Sato (Natl. Agr. Res. Ctr. Hokkaido)
- P052** Evaluation of contents of flavonoids and antioxidant activity in the leaves of soybean near-isogenic lines with different chilling tolerance
 ○K. Toda¹, R. Takahashi¹, T. Iwashina², M. Hajika¹ (1. Natl. Inst. Crop Sci. ². National Museum of Nature and Science)

- P053** Metabolite profiling in wheat seedlings during cold acclimation.
 ○E. Shimosaka,S. Murayama(Natl.Agr.Res.Cent.Hokkaido., NARO)
- P054** Genetic factors influencing on alternative splicing of the WDREB2 transcripts in wheat
 ○Y. Kurahashi,M. Iehisa,S. Takumi(Grad.Sch.Agric.Sci., Kobe U.)
- P055** Relationship between expression QTLs for cold-responsive genes and freezing tolerance in common wheat
 ○Y. Motomura1,F. Kobayashi2,3,S. Takumi1(1.Grad.Sch.Agric.Sci., Kobe U.2.NIAS3.Tohoku Natl. Agr. Res. Cent., NARO)
- P056** The effects of transgenic overexpression of ascorbate peroxidase gene (*APXs*) on H₂O₂-scavenging capacity and chilling tolerance at the booting stage of rice
 ○Y. Sato1,Y. Masuta1,K. Saito1,S. Murayama1,K. Ozawa2(1.National Agricultural Research Center for Hokkaido Region2.National Institute of Agrobiological Sciences)
- P057** Identification of the gene responsible for the cadmium tolerant phenotype of the *Arabidopsis* mutant, MRC-32
 ○A. Watanabe,H. Shimizu,N. Satoh,H. Takahashi,K. Sakurai,H. Akagi(Fac.Bioresource Sci., Akita Prefectural Univ.)
- P058** Screening of salt tolerance genes from *Bruguiera gymnorhiza* and *Sprobolus virginicus* (L) Kunth
 ○Y. Tada1,C. Endo2,Y. Nagase2,I. Tamaki2(1.Sch.Biosci.Biotechnol, Tokyo Univ.Technol.2.Grad.Sch.Bionics, Tokyo Univ.Technol.)
- P059** Development of hull-less barley lines with low polyphenol content for tolerant to pre-harvest sprouting
 ○T. Yanagisawa,T. Nagamine,A. Takahashi ,D. Abe(WeNARC, NARO)
- P060** Effect of low temperature on germination rate and emergence rate in sugar beet
 ○Y. Kuroda,H. Takahashi,K. Taguchi,K. Okazaki,H. Abe(NARCH, NARO)
- P061** Breeding of sweetpotato lines with high growth rate in low soil temperature.
 ○T. Kuranouchi1,T. Kumazaki2,T. Fujita1,Y. Nakamura1,A. Takada1,T. Kumagai1(1.Natl. Inst. of Crop Sci.2.Toyohashi Univ. of Technol.)
- P062** QTL analysis of cool temperature tolerance in a local rice cultivar, Somewake
 ○T. Endo1,K. Wagatsuma2,K. Nagano1,K. Nakagomi3,M. Yamaguchi3(1.Miyagi Furukawa Agr. Exp. Stn.2.Miyagi Pref. Office3.Natl. Agric. Res. Cent. Tohoku Reg.)
- P063** Phosphorus recycling in rice leaf under Phosphorus deficiency 2
 ○A. Katayama1,M. Ogawa1,H. Uekawa1,A. Shimizu1,H. Hasegawa1,K. Ochiai2,T. Matoh2(1.Sch. Environ. Sci., Univ. Shiga Pref.2.Grad. Sch. Agr. Kyoto Univ.)
- P064** Sequence analysis of mPing-insertion fragments using rice mutants lacking Iron-Plaques on root surface.
 ○K. Matsumoto1,Y. Nishimura1,A. Shimizu1,H. Hasegawa1,Y. Okumoto2(1.Sch.Envirion.Sci.,Univ.Shiga Pref.2.Grad.Sch.Agr.Kyoto Univ.)
- P065** Analysis of QTL for chilling tolerance at the plumule stage (qCTP11) in rice detected from a landrace in Hokkaido
 ○K. Onishi1,Y. Tokizono2,A. Baruah2,H. Shinada3,T. Satoh3,H. Miura1,Y. Sano2(1.Obihiro U. Agr. & Vet. Med.2.Res. Fac. Agr., Hokkaido U.3.Hokkaido Kamikawa Agr. Exp. St.)

- P066** Effect of selection for waterlogging tolerance in wheat.
 ○T. Yoshida,T. Nonoyama,H. Hashizume(Aichi Pref. Agr. Res. Cent.)
- P067** Marker-assisted pyramiding of QTLs, the 'Awa-akamai' alleles increasing emergence of seedling in soil at low temperature, in the background of 'Koshihikari'
 ○T. Yamaguchi¹,H. Shinada²,H. Maeda³,T. Ebitani¹(1.Toyama Pref. Agr. Fores. Fis. Res. Cent.2.Kamikawa Agric. exper. sta.,HRO3.Natl. Inst. Crop Sci.)
- P068** Varietal Differences in cooked rice quality of the near-isogenic lines for low-amylose content rice
 ○S. Moriyama,S. Kanda,T. Ono,C. Kon,M. Suto(Aomori Prefectural Technology Research Center Agriculture and Forestry Research Institute)
- P069** New sweetpotato lines having high amylose content and low viscosity
 ○K. Katayama¹,K. Kitahara²,T. Sakai¹,Y. Kai¹,M. Yoshinaga¹(1.KONARC/NARO2.Kagoshima Univ.)
- P070** Effect of variation in low-molecular-weight glutenin subunit expression on dough strength in synthetic hexaploid wheat.
 ○H. Tanaka¹,S. Moriwaki¹,Y. Matsuoka²,H. Tsujimoto¹(1.Fac. Agr., Tottori U.2.Dept. Biosci., Fukui Pref. U.)
- P071** New mutant lines having mutation in 7S subunits were found from wild soybean collections.
 ○M. Hajika,T. Yamada,N. Yamada,K. Hirata(National Institute of Crop Science)
- P072** Breeding of red and blue flowers in *Iris ensata*.
 ○S. Higashi¹,Y. Ninomiya¹,T. Yabuya²(1.Grad.Sch.Agr., U.Miyazaki2.Fac.Agr., U.Miyazaki)
- P073** Comparative analysis of physicochemical properties of starches from rice carrying high-amylose type Wx alleles.
 ○K. Abe¹,K. Satoh²,S. Akuzawa²,K. Handa³,K. Itoh¹(1.Grad.Sch.Sci.Tech., Niigata. U.2.Fac. Appl. Biosci., Tokyo U. Agric.3.Fac. Agric., Niigata U.)
- P074** Diversity of Subunit Variation of 7S Storage Protein in Soybean (*Glycine Max* (L.) Merr.) and its Controlling Mechanism
 ○Y. Kobayashi¹,L. Yu¹,T. Uozumi²,Y. Hirata³(1.Uni.Grad.Sch.Agric., TUAT2.Fac.Agric., TUAT3.Grad.Sch.Agric., TUAT)
- P075** Microarray analysis in developing seeds between different oil content lines of *Brassica napus*.
 ○M. Akaba,H. Yamada-Akiyama,Y. Akasaka-Kennedy,S. Yokoi,Y. Takahata(Fac. Agri., Iwate U.)
- P076** Influence on bread-making properties of proteins extracted from seed of protein composition mutant lines
 ○E. Araki,S. Iida(NARO for Western Region)
- P077** Simple and rapid method for the extraction of crude glucosinolates in roots of Japanese radish
 ○M. Ishida¹,T. Ohara¹,T. Kakizaki¹(1.Natl. Inst. Veg. Tea Sci.2.Natl. Inst. Veg. Tea Sci.3.Natl. Inst. Veg. Tea Sci.)
- P078** Evaluation of characteristics on natto processing among small seed soybean varieties and lines.
 ○K. Okano,C. Ikeda,K. Kosuge,M. Hirayama(Plant Biotech. Inst., Ibaraki Agri. Center)
- P079** Pasting properties of rice flour prepared from floury mutant rice.
 ○K. Ashida,S. Iida(National Agricultural Research Center for Western Region, NARO)

- P080** Varietal characteristics in noodle band color of yellow alkaline noodle at cultivar of Nagano
 ○Y. Uehara, h. Maejima, S. Hosono, T. Ushiyama (Nagano Pref. Agr. Exp. Dvi.)
- P081** Pyramiding of *Gn1* and QTLs affecting panicle branching structure in high-yielding variety, Habataki.
 ○M. Ikeda¹, T. Takashi², T. Yamamura³, T. Hobo¹, Y. Morinaka², K. Doi⁴, M. Ashikari¹, M. Matsuoka¹, H. Kitano¹ (1. Biosci. Biotech. Ctr., Nagoya U. 2. HRI-JP3. Earth Note Co., Ltd. 4. Grad. Sch. Bioagr. Sci., Nagoya U.)
- P082** Large-fruited pear mutant project to reveal the mechanism of fruit size control
 ○K. Isuzugawa¹, T. Takashina¹, Y. Takahashi¹, T. Hanada¹, A. Oikawa², F. Matsuda³, S. Yamaguchi², H. Mori⁴, K. Shiratake⁴ (1. Hort. Exp. Stan., Yamagata Integrated Agric. Res. Cent. 2. Riken Plant Science Center 3. Org. of Adv. Sci. and Tech., Kobe Univ. 4. Grad. Sch. of Bioagri. Sci., Nagoya Univ.)
- P083** Isolation and characterization of WEE1 kinase gene in European pear
 ○T. Hanada¹, Y. Takahashi¹, T. Takashina¹, K. Isuzugawa¹, K. Shiratake² (1. Hort. Exp. Stan. Yamagata Integrated Agric. Res. Cent. 2. Grad. Sch. of Bioagri. Sci., Nagoya Univ.)
- P084** Analysis of rice genes regulating development to longitudinal direction
 ○M. Kono¹, Y. Izawa¹, H. Kitano², K. Miura¹, Y. Iwasaki¹ (1. Dept. Biosci., Fukui Pref. Univ. 2. Biosci. Biotech. Cent., Nagoya Univ.)
- P085** Genetic analysis of a malformed spikelet mutant [*mls3 (t)*] in rice
 ○T. Taira, M. Takahashi, K. Ohshima, H. Nagano, Y. Sano, I. Takamure (Grad. Sch. Agr., Hokkaido U.)
- P086** Gene expression analysis of *AGAMOUS*-like gene during a period of sex differentiation in garden asparagus
 ○I. Konno¹, Y. Asada², K. Masuda², A. Kanno¹ (1. Grad. Sch. Life Sci., Tohoku U. 2. Grad. Sch. Agric., Hokkaido U.)
- P087** Analysis of mutants with defective in organogenesis during rice embryogenesis
 H. Yagi¹, A. Yamada¹, R. Nakao¹, Y. Nagato², ○Y. Sato¹ (1. Grad. Sch. Bioagri., Nagoya U. 2. Grad. Sch. Agric. Life Sci., U. Tokyo)
- P088** Segregation analysis of flowering traits in F2 populations of the early-flowering line of synthetic wheat
 ○T. Kajimura¹, Y. Okamoto¹, K. Murai², S. Takumi¹ (1. Grad. Sch. Agric. Sci., Kobe U. 2. Dept. Biosci., Fukui Pref. U.)
- P089** Characterization of spring-habit accessions in wild wheat progenitor *Aegilops tauschii* Coss.
 ○K. Koyama, J. Nakamura, S. Takumi (Grad. Sch. Agric. Sci., Kobe U.)
- P090** Transcriptome analysis of *TRT*-regulated genes in *Arabidopsis thaliana*.
 ○R. Tsuwamoto, T. Harada (Fac. Agric. Life Sci., Hirosaki U.)
- P091** Expression of major determinants of flowering time, FLC and FRI, in no-requirement for vernalization radish (*Raphanus sativus* L.) cultivar 'Pakki-hood'.
 ○A. Ishii, M. Kobayashi, R. Shishido, K. Nomura (Coll. Bioresource Sci., Nihon U.)
- P092** Growth Properties of Near-Isogenic Wheat Lines Carrying Different Photoperiodic Response Genes
 ○. Matsuyama¹, M. Fujita², M. Seki³, H. Kojima³, Y. Shimazaki¹, H. Matsunaka², M. Chono³, K. Hata², K. Kubo², C. Kiribuchi-Otobe³, S. Oda³, K. Kato⁴ (1. National Agricultural Research Center 2. National Agricultural Research Center for Kyushu Okinawa Region 3. National Institute of Crop Science 4. Faculty of Agriculture, Okayama University)

- P093** Analysis of the function of P1B-type heavy-metal ATPase on cadmium translocation in rice.
 ○M. Mori¹,H. Miyadate¹,T. Kawamoto²,K. Sakurai¹,H. Takahashi¹,A. Watanabe¹,N. Satoh-Nagasawa¹,H. Akagi¹(¹Akita Prefectural University²Akita Pref. Agri., Forestry and Fisheries Res. Center)
- P094** The establishment of efficient culture system in production of haploid Strawberry
 ○Y. Matsuda¹,R. Sawada²,K. Iimure²,T. Murata¹(¹Sch.Agric., Tokai U.²Kumamoto Prif.Agric.Res.Cent.)
- P095** Green plant regeneration from calli cultured by gellangum and agar media in rice anther culture.
 ○Y. Okamoto,T. Wagatsuma(Rakuno Gakuen U.)
- P096** Production of doubled haploids of *Brassica rapa* L. using microspore culture and improvement of culture method for multiple samples
 ○Y. Takahashi,S. Yokoi,Y. Takahata(Fac. Agri., Iwate University)
- P097** Somatic embryogenesis in *Melia volkensii*, multi purpose tree species endemic to semi arid lands of East Africa
 ○T. Taniguchi¹,K. Konagaya¹,M. Kurita¹,Y. Fujisawa²,T. Kondo²(¹Forest Bio-Research Center, Forestry and Forest Product Research Institute²Forest Tree Breeding Center, Forestry and Forest Product Research Institute)
- P098** MLPK involves in the intra-species unilateral incompatibility in *Brassica rapa*.
 ○Y. Takada¹,G. Suzuki²,H. Shiba³,S. Takayama³,A. Isogai³,M. Watanabe¹(¹Grad.Sch.Life Sci., Tohoku Univ. ²Div.Natl.Sci., Osaka kyoiku Univ.³Grad.Biol.Sci., Nara Inst.Tech.)
- P099** Segmental duplication involving the S-haplotype in a self-compatible pollen-part mutant 415-1 obtained from gamma-irradiated pollen of Japanese pear
 ○N. Mase,Y. Sawamura,T. Yamamoto,N. Takada,S. Nishio,T. Saito,H. Iketani(Natl. Inst. Fruit Tree Sci., NARO)
- P100** Relationship between male-sterility and expression patterns of mitochondrial mRNA in alloplasmic radish lines.
 ○K. Yasumoto¹,K. Tsutsui²,S. Bang²,T. Terachi¹,H. Yamagishi¹(¹Fac. Life Sci., Kyoto Sangyo U. ²Fac. Agric., U. Utsunomiya)
- P101** Expression analysis of the pollen fertility restorer gene *Rfl* for Owen cytoplasmic male sterility in sugar beet(*Beta vulgaris* L.).
 ○H. Kagami,H. Matsuhira,K. Kitazaki,T. Kubo,T. Mikami(Grad. Sch. Agric., Hokkaido U.)
- P102** Genetic analysis of unexpectedly fertility restoration resulted from crossing between cytoplasmic male-sterile and maintainer Sugar beet.
 ○H. Hiyama¹,R. Ohgami¹,K. Taguchi²,T. Kubo¹,T. Mikami¹(¹Grad.Sch.Agric.,Hokkaido U.²Natl.Agr.Res.Cent.Hokkaido)
- P103** Long 3'UTR of sugar beet *rps3* is truncated in cytoplasmic male-sterile mitochondria
 ○M. Matsunaga,H. Nagano,T. Kubo,T. Mikami(Grad.Sch.Agr.,Hokkaido U.)
- P104** Gene analysis of Ogura CMS and fertility restoration in the synthesized Brassica chimera
 ○A. Ohmine¹,M. Nakashima²,B. Hu¹,S. Ohta¹,M. Chen¹,C. Zhao¹,Y. Hirata¹(¹Grad.Agr.IEAS,TUAT²Fac.Agric.,TUAT)
- P105** Structural analysis of the mitochondrial *atp1* region in the alloplasmic CMS lines of eggplant.
 ○M. Yoshimi¹,T. Saito²,S. Isshiki³,T. Terachi¹,H. Yamagishi¹(¹Fac. Life Sci., Kyoto Sangyo U.²Natl. Inst. Veg. Tea Sci.³Fac. Agric., Saga U.)
- P106** Identification of a female gametophytic sterile mutant of rice
 R. Kashimura,○Y. Ito(Grad Sch Agri Sci, Tohoku U)

- P107** Molecular analysis of mitochondrial mRNA termini in rice
 ○T. Kazama,K. Toriyama(Grad. Sch. Agric. Sci., Tohoku Univ.)
- P108** Characterization of the *O.sativa* pollen tube arrest in interspecies crosses with CC genome species
 ○M. Shenton,N. Kurata(National Institute of Genetics, Plant Genetics Laboratory)
- P109** Analysis of sequence diversity and haplotypes in genomic regions of grain yield related genes *GW2* and *GIF1*
 ○H. Yamane1,T. Ito1,H. Ishikubo1,W. Karasawa1,H. Kanamori1,Y. Ito1,M. Shibata1,M. Hamada1,Y. Mukai1,H. Minami1,T. Sasaki2,J. Wu2,T. Matsumoto2(1.Res. Division 1, STAFF-Institute2.Plant Genome Res. NIAS)
- P110** Characterization of miniature inverted-repeat transposable element in peanut.
 ○K. Shirasawa,P. Koilkonda,S. Tabata,S. Isobe(Kazusa DNA Res. Inst.)
- P111** Graphical genotype of wheat cultivar bred in southern part of Japan
 ○H. Matsunaka1,M. Nitta2,S. Nasuda2,K. Hatta1,K. Kubo1,M. Fujita1(1.NARO/KONARC2.Grad. Sch. Agr., Kyoto Univ.)
- P112** Genetical analysis of a gravitropic mutant of rice "Akitakomachi" by ion beam
 ○A. Takahashi1,K. Tezuka1,M. Horota1,H. Kagaya1,A. Tanaka2,N. Satoh-Nagasawa1,K. Sakurai1,A. Watanabe1,H. Akagi1,H. Takahashi1(1.Fac.Biores., AkitaPref.U.2.QuBS, JAEA)
- P113** Analysis of novel QTLs, qGL4b , qGL7a and qGL7b regulating grain length of rice.
 ○T. Kato1,S. Segami1,M. Toriyama1,T. Ando2,I. Kono2,M. Yano3,H. Kitano4,K. Miura1,Y. Iwasaki1(1.Dept.Biosci. , Fukui Pref. Univ.2.STAFF-Institute3.NIAS4.Biosci. Biotech. Cent., Nagoya Univ.)
- P114** QTL analysis for the occurrence of milky-white kernal under high temperature or poor sunshine condition during the ripening period of rice
 ○M. Tsubone,T. Wada,T. Inoue(Fukuoka Agric. Res. Cent.)
- P115** Detection of QTLs for grain weight and development of near-isogenic lines by using Indica-type rice variety, IR64, introgression lines
 D. Fujita1,A. Tagle1,○Y. Koide2,Y. Fukuta2,N. Kobayashi1(1.International Rice Research Institute2.Japan International Research Center for Agricultural Sciences)
- P116** QTL analysis in tomato segregating populations derived from a four-way cross.
 ○A. Ohyama1,T. Hayashi2,H. Matsunaga1,S. Negoro1,K. Miyatake1,H. Yamaguchi1,T. Nunome1,H. Fukuoka1(1.NIVTS, NARO2.NARC, NARO)
- P117** Detection of major and minor QTLs controlling grain dormancy in white-grained wheat.
 ○M. Fujii,K. Onishi,H. Miura(Obihiro Univ. Agric & Vet. Med.)
- P118** Environmental response of soybean flowering genes.
 ○S. Watanabe1,T. Yamada2,Z. Xia3,J. Abe2,M. Ishimoto1(1.NIAS2.Grad. Sch. Agric. Sci., U. Hokkaido3.NIGA CAS)
- P119** Chromosomal location of gene for yellow endosperm in rice variety "Hatsuyamabuki".
 ○R. Kaji1,M. Sakai2,M. Okamoto2,K. Tamura2,M. Yamaguchi1,K. Nakagomi1,H. Sato1(1.Natl. Agr. Res. Ctr. Tohoku Reg. ,NARO2.Natl. Agr. Res. Ctr. Kyushu Okinawa Reg., NARO)
- P120** Construction of a genetic linkage map of sesame (*Sesamum indicum* L.)
 ○K. Fujiwara1,P. Ho1,M. Yamamoto1,K. Masuda2,T. Wakasugi1,K. Yamada1(1.Grad. Sch. Sci. Eng., U. Toyama2.Fac. Sci., U. Toyama)
- P121** Construction of an integrated linkage map in eggplant and comparative analysis with tomato.
 ○H. Fukuoka,K. Miyatake,T. Nunome,S. Negoro,H. Yamaguchi,A. Ohyama(NIVTS, NARO)

- P122** Identification of Japanese and Chinese cultivars in peanut (*Arachis hypogaea* L.) using SSR markers
 ○Y. Naito¹, S. Suzuki², M. Hasegawa², C. Kuwata², T. Tsugane², M. Watanabe², Y. Murota², T. Kuboyama³, K. Tooyama³, S. Isobe⁴, S. Satou⁴, K. Shirasawa⁴, S. Sasamoto⁴, S. Tabata⁴ (1. MITSUBISHI CHEMICAL MEDICINE CORPORATION 2. Chiba Prefectural Agriculture and Forestry Research Center 3. College of Agriculture, Ibaraki University 4. Kazusa DNA Research Institute)
- P123** Genome-wide non-additive gene regulation and hybrid vigour-like phenotype in artificially synthesized amphidiploids in Arabidopsis.
 R. Fujimoto¹, ○T. Kawanabe², T. Sasaki³, E. Dennis¹ (1. Plant Industry CSIRO 2. WATANABE SEED Co., Ltd. 3. Gregor Mendel Institute)
- P124** Rice Transcriptome analyses in phosphate-deficiency stress by mRNA-seq
 ○Y. Oono¹, Y. Kawahara¹, H. Mizuno¹, H. Sakai¹, H. WAKIMOTO², H. Kanamori³, H. Yamagata³, M. Yamamoto³, S. Hosokawa³, H. Ikawa³, Z. Zhu¹, J. Wu¹, T. Ito¹, T. Matsumoto¹ (1. National Institute of Agrobiological Sciences 2. Hitachi 3. Forestry and Fisheries, Institute of the Society for Techno-innovation of Agriculture)
- P125** Genome-wide analysis for responsive genes of Arabidopsis roots to various rhizotoxic ions
 C. Zhao, ○Y. Hirata (Tokyo University of Agriculture and Technology)
- P126** Transcriptomic characterization of major C/N metabolism in Arabidopsis roots under rhizotoxic treatments
 ○C. Zhao, Y. Hirata (Tokyo University of Agriculture and Technology)
- P127** Isolation and characterization of a gene specifically expressed in both stages of sexual and apomictic embryo sac formation in apomictic guinea grass
 ○L. Chen¹, L. Guan², C. Miyazaki³, A. Kojima⁴, A. Saito³ (1. Faculty of Env. & Hort., Minami Kyushu U. 2. Faculty of Edu. & Cult., U. Miyazaki 3. Kyushu Okinawa Agri. Res. Cent. 4. Institute of Veg. & Tea Sci.)

Symposium I Genomics assisted selection in crop breeding

Organizers: M. Yano (Natl. Inst. Agrobiol. Sci.), M. Matsuoka (Bioscience Center, Nagoya University)

- 1** From plant Science to breeding
 ○M. Ashikari (Bioscience Center, Nagoya University)
- 2** Gene pyramids, a challenge for crop improvement. A case study for enhancing rice blast resistance by means of genomic tools
 ○S. Fukuoka (Natl. Inst. Agrobiol. Sci.)
- 3** Novel strategy of selection in rice breeding: Definition and selection of haplotypes by genome-wide SNPs
 ○T. Yamamoto (Natl. Inst. Agrobiol. Sci.)
- 4** Ultimate selection breeding? - Will genomic selection accelerate rice breeding?
 ○H. Iwata (Grad. Sch. Agric. Life Sci., U. Tokyo)

Symposium II Recent studies and application on rice eating and grain quality in rice.

Organizers: T. Abe (Fac. Agr. Yamagata U.), Y. Suzuki (NARO, Natl. Inst. Crop Sci.)

- 1** Development of simple techniques for analyzing DNA polymorphism including SNPs and their application to plant breeding
 ○T. Nishio (Grad. Sch. Agric. Sci, Tohoku Univ.)

- 2 QTL analysis of traits related to eating quality of cooked rice and their application to breeding
○Y. Takeuchi¹,K. Suzuki²(1.National Institute of Crop Science².National Food Research Institute)
- 3 Characterization of soluble components in rice grain.
○T. Abe(Fac. Agr. Yamagata U.)
- 4 Aroma characteristics of various species of cooked rice
○K. Kubota(Dept. Nutr. Food Sci., Ochanomizu U.)
- 5 Rice flour quality suitable for rice bread and noodles making
○Y. Suzuki(NARO, Natl. Inst. Crop Sci.)
- 6 Health-promoting functions of rice bran ingredients
○H. Hashimoto(Tsuno Food Industrial Co., Ltd.)

Symposium III Challenges for breeding of root type

Organizers: Y. Inukai (Grad. Sch. Bioagr. Sci., Nagoya U.), Y. Uga (Natl. Inst. Agrobiol. Sci.),
T. Sato(Grad. Sch. Life Sci., U. Tohoku)

- 1 Design of root system, perspectives on breeding root types
○S. Morita
- 2 Approach to breeding of soil-surface rooting in rice
○T. Sato(Grad. Sch. Life Sci., U. Tohoku)
- 3 Identification and characterization of QTL associated with root elongation toward molecular breeding for high yielded rice
○M. Obara(JIRCAS)
- 4 Does deep rooting contribute to drought avoidance in rice?
○Y. Uga
- 5 Breeding for tolerance to continuous transient soil moisture fluctuation stress in rice
○Y. Inukai,A. Yamauchi(Grad. Sch. Bioagr. Sci., Nagoya U.)
- 6 Root structure and root system contributing to waterlogging tolerance of crops
○M. Nakazono^{1,2},K. Shiono²,T. Abiko²,T. Yamauchi²,Y. Mano³,A. Oyanagi⁴,K. Kawaguchi⁴,F. Abe⁴(1.Grad. Sch. Bioagr. Sci., Nagoya U.².Grad.Sch.Agric.Life Sci., U.Tokyo³.NILGS⁴.NICS)