PPS Keyword List: Keywords related to Physiology from PPS vol. 1 - 20

PHYSIOLOGY (R)

Keyword		Article title (downloadable pdf link)	Author	Year	DOI
Raceme (6)	Raceme (2)	Intra-Raceme Variation in Pod-Set Probability Is Associated with Cytokinin Content in Soybeans	Kokubun M, et al.	2000	10.1626/pps.3.354
		Influences of High Night Temperature on Flowering and Pod Setting in Soybean	Zen SH, et al.	2002	10.1626/pps.5.215
	Raceme order (3)	Differences in Flowering Habit between Determinate and Indeterminate Types of Soybean	Kuroda T, et al.	1998	10.1626/pps.1.18
		Differentiation and Development of Floral Organs at Each Node and Raceme Order in an Indeterminate Type of Soybean	Saitoh K, et al.	1999	10.1626/pps.2.47
		Effects of Carbon Dioxide Enrichment during Different Growth Periods on Flowering, Pod Set and Seed Yield in Soybean	Nakamoto H, et al.	2004	10.1626/pps.7.11
	Secondary raceme with compound leaf (1)	Differences in Flowering Habit between Determinate and Indeterminate Types of Soybean	Kuroda T, et al.	1998	10.1626/pps.1.18
Rachis (5)	Rachis branch (1)	Effects of Gibberellic Acid Application on Panicle Characteristics and Size of Shoot Apex in the First Bract Differentiation Stage in Rice	Mu C, et al.	2001	10.1626/pps.4.227
	Primary rachis-branch (3)	Relationship between the Size of the Apical Dome at the Panicle Initiation and the Panicle Components in Rice	Kobayasi K, et al.	2001	10.1626/pps.4.81
		Relationship between Apical Dome Diameter at Panicle Initiation and the Size of Panicle Components in Rice Grown under Different Nitrogen Conditions during the Vegetative Stage	Kobayasi K, et al.	2002	10.1626/pps.5.3
		Diversity of the Rachis-Branching System in a Panicle in Japonica Rice	Yamagishi J, et al.	2003	10.1626/pps.6.59
	Secondary rachis-branch (1)	Diversity of the Rachis-Branching System in a Panicle in Japonica Rice	Yamagishi J, et al.	2003	10.1626/pps.6.59
Radix yield (1)		Habitat Niche-Fitness and Radix Yield Prediction Models for Angelica sinensis Cultivated in the Alpine Area of the Southeastern Region of Gansu Province, China	Lin H, et al.	2008	10.1626/pps.11.42
Raphide (1)		Structural Changes and Fate of Crystalloplastids during Growth of Calcium Oxalate Crystal Idioblasts in Japanese Yam (*Dioscorea japonica* Thunb.) Tubers	Kawasaki M, et al.	2004	10.1626/pps.7.283
Rate (63)	Rate of elongation (1)	Effect of the Interaction between Cultural Condition and Genotype on Spike Morphogenesis in Spring Wheat	Itoh H, et al.	1998	10.1626/pps.1.56
	Rate of grain filling (1)	Variation and Association of the Traits Related to Grain Filling in Several Extra-Heavy Panicle Type Rice under Different Environments	Kato T.	2010	10.1626/pps.13.185
	Rate of pod set (1)	Characteristics of Flowering and Pod Set in Wild and Cultivated Types of Soybean	Saitoh K, et al.	2004	10.1626/pps.7.172
	Rate-determining step (1)	Estimating the Temperature Dependence of Germination Time by Assuming Multiple Rate-Determining Steps	Hara Y, et al.	2005	10.1626/pps.8.361
	Bleeding rate (1)	Root-shoot relationships in four strains of field-grown Erianthus arundinaceus at seedling stage	Shiotsu F, et al.	2016	10.1080/1343943X.2015.1128096
	Carbon exchange rate (1)	A Multichannel Automated Chamber System for Continuous Measurement of Carbon Exchange Rate of Rice Canopy	Katsura K, et al.	2006	10.1626/pps.9.152
	CO_2 assimilation rate (1)	Effects of Paclo butrazol on Podding and Photosynthetic Characteristics in Peanut	Senoo S, et al.	2003	10.1626/pps.6.190
	CO_2 exchange rate (1)	Physio-morphological Studies of F_1 Hybrids in Rice (*Oryza sativa* L.)	Khan MNA, et al.	1998	10.1626/pps.1.233
	Crop growth rate (6)	Effects of Dark Respiration on Dry Matter Production of Field Grown Rice Stand: Comparison of growth efficiencies in 1991 and 1992	Saitoh K, et al.	1998	10.1626/pps.1.106
		Effects of Nitrogen Fertilization on Dark-Respiration and Growth Efficiency of Field-Grown Rice Plants	Saitoh K, et al.	2000	10.1626/pps.3.238
		Drought Tolerance Characteristics of Brazilian Soybean Cultivars: Evaluation and characterization of drought tolerance of various Brazilian soybean cultivars in the field	Oya T, et al.	2004	10.1626/pps.7.129
		Effects of Planting Pattern on the Interception of Solar Radiation by the Canopy and the Light Extinction Coefficient of the Canopy in Rice Plants Direct-sown in a Submerged Paddy Field	San-oh Y, et al.	2006	10.1626/pps.9.334

Rate (continued)	Crop growth rate (continued)	Maintenance of Crop Growth through 30 Days after Silking Contributes to Achieving Super-High Yield of Spring Maize	Tao H, et al.	2014	10.1626/pps.17.268
		Analysis of yield-attributing traits for high-yielding wheat lines in southwestern Japan	Okami M, et al.	2016	10.1080/1343943X.2016.1151331
	Decomposition rate (2)	Effects of Soil Moisture and Temperature on Decomposition Rates of Some Waste Materials from Agriculture and Agro-industry	Thongjoo C, et al.	2005	10.1626/pps.8.475
		Soil Productivity after Decomposition of Waste Materials under Different Soil Moisture and Temperature	Thongjoo C, et al.	2006	10.1626/pps.9.106
	Developmental rate (1)	Effect of Light Quality on Developmental Rate of Wheat under Continuous Light at a Constant Temperature	Kasajima S, et al.	2007	10.1626/pps.10.286
	Elongation rate (1)	Root Osmotic Adjustment under Osmotic Stress in Maize Seedlings. 1. Transient Change of Growth and Water Relations in Roots in Response to Osmotic Stress	Ogawa A, et al.	2006	10.1626/pps.9.27
	Exudation rate (3)	Effects of Pre-Flowering Soil Moisture Deficits on Dry Matter Production and Ecophysiological Characteristics in Soybean Plants under Well Irrigated Conditions during Grain Filling	Hirasawa T, et al.	1998	10.1626/pps.1.8
		Analysis of the Factors Causing Differences in the Leaf-Senescence Pattern between Two Soybean Cultivars, Enrei and Tachinagaha: Comparison of root length and exudation rate among grafted plants	Ookawa T, et al.	2001	10.1626/pps.4.3
		Comparison of Nitrogen Uptake, Transpiration Rate and Exudation Rate between Upland NERICAs and Japanese Cultivars	Matsunami M, et al.	2010	10.1626/pps.13.347
	Flow rate of stem sap (1)	Leaf Temperature and Transpiration of Field Grown Cotton and Soybean under Arid and Humid Conditions	Isoda A, et al.	2002	10.1626/pps.5.224
	Gas exchange rate (1)	Mechanism of High Photosynthetic Capacity in BC_2F_4 Lines Derived from a Cross between *Oryza sativa* and Wild Relatives *O. rufipogon*	Masumoto C, et al.	2005	10.1626/pps.8.539
	Germination rate (1)	Effects of elevated CO_2 concentration on bulbil germination and early seedling growth in Chinese yam under different air temperatures	Thinh NC, et al.	2017	10.1080/1343943X.2017.1346477
	Grain filling rate (1)	Genetic and Environmental Variations and Associations of the Characters Related to the Grain-Filling Process in Rice Cultivars	Kato T.	1999	10.1626/pps.2.32
	Growth rate (2)	Characterization of Vegetative Growth of a Supernodulating Soybean Genotype, Sakukei 4	Matsunami T, et al.	2004	10.1626/pps.7.165
		Effect of Waterlogging during Vegetative Stage on Growth and Yield in Supernodulating Soybean Cultivar Sakukei 4	Matsunami T, et al.	2007	10.1626/pps.10.112
	Heading rate (1)	Response Spectrum for Green Light-Induced Acceleration of Heading in Wheat cv. Norin 61	Kasajima S, et al.	2009	10.1626/pps.12.54
	k_{cat} (catalytic turnover rate) (1)	Screening of High kcat Rubisco among Poaceae for Improvement of Photosynthetic CO_2 Assimilation in Rice	Ishikawa C, et al.	2009	10.1626/pps.12.345
	Leaf area growth rate (1)	Higher Leaf Area Growth Rate Contributes to Greater Vegetative Growth of F_1 Rice Hybrids in the Tropics	Laza MRC, et al.	2001	10.1626/pps.4.184
	Leaf photosynthetic rate (1)	Comparison of Leaf Photosynthesis between Wild and Cultivated Types of Soybean	Saitoh K, et al.	2004	10.1626/pps.7.277
	Lodging rate (1)	Effect of planting density on lodging-related morphology, lodging rate, and yield of tartary buckwheat (*Fagopyrum tataricum*)	Xiang DB, et al.	2016	10.1080/1343943X.2016.1188320
	Net assimilation rate (3)	Feed-Forward Effects on the Photosynthetic Source-Sink Balance in Single-Rooted Leaves of Sweet Potato	Sawada S, et al.	1999	10.1626/pps.2.87
		Effects of Top Dressing on Growth and Panicle Dry Weight as Affected by Soil Water Stress at the Early Panicle-Development Stage in Rice (*Oryza sativa* L.)	Tsuda M, et al.	2010	10.1626/pps.13.37
		Comparison of Young Seedling Growth and Sodium Distribution among Sorghum Plants under Salt Stress	Chaugool J, et al.	2013	10.1626/pps.16.261
	Net photosynthetic CO_2 assimilation rate (1)	Physiological Response of Three Wheat Cultivars to High Shoot and Root Temperatures during Early Growth Stages	Tahir ISA, et al.	2009	10.1626/pps.12.409
	Net photosynthetic rate (3)	Land Equivalent Ratio of Groundnut-Fingermillet Intercrops as Affected by Plant Combination Ratio, and Nitrogen and Water Availability	Runkulatile H, et al.	1998	10.1626/pps.1.39
		Effect of Altitude on the Response of Net Photosynthetic Rate to Carbon Dioxide Increase by Spring Wheat	Fujimura S, et al.	2010	10.1626/pps.13.141
		Physio-Biochemical Responses of Oil Palm (*Elaeis guineensis* Jacq.) Seedlings to Mannitol- and Polyethylene Glycol-Induced Iso-Osmotic Stresses	Cha-um S, et al.	2012	10.1626/pps.15.65
	Nitrogen rates (1)	Effects of Crop Residue and Nitrogen Rates on Yield and Yield Components of Two Dryland Wheat (*Triticum aestivum* L.) Cultivars	Sadeghi H, et al.	2009	10.1626/pps.12.497

Rate (continued)	Oxygen diffusion rates (1)	Combined Soil Physical Stress of Soil Drying, Anaerobiosis and Mechanical Impedance to Seedling Root Growth of Four Crop Species	Iijima M, et al.	2007	10.1626/pps.10.451
	Oxygen evolution rate (1)	Involvement of Silicon in the Senescence of Rice Leaves	Agarie S, et al.	1998	10.1626/pps.1.104
	Photosynthetic rate (13)	Studies on Mechanisms of Dehydration Postponement in Cassava Leaves under Short-term Soil Water Deficits	Itani J, et al.	1999	10.1626/pps.2.184
		Physio-Morphological Characters of F_1 Hybrids of Rice (*Oryza sativa* L.) in Japonica-Indica Crosses. I. Heterosis for photosynthesis	Sarker MAZ, et al.	2001	10.1626/pps.4.196
		Effects of Waterlogging at Vegetative and Reproductive Growth Stages on Photosynthesis, Leaf Water Potential and Yield in Mungbean	Ahmed S, et al.	2002	10.1626/pps.5.117
		Effect of Nitrogen Fertilization on Photosynthetic Characters and Dry Matter Production in F_1 Hybrids of Rice (*Oryza sativa* L.)	Sarker MAZ, et al.	2002	10.1626/pps.5.131
		Interaction of Scion and Stock on Leaf Senescence of Soybean Plants Grafted at Mid-Stem during Ripening	Ookawa T, et al.	2005	10.1626/pps.8.32
		Effects of High Temperature on Growth, Yield and Dry-Matter Production of Rice Grown in the Paddy Field	Oh-e I, et al.	2007	10.1626/pps.10.412
		Effect of Sink-Limitation on Leaf Photosynthetic Rate and Related Characteristics in Soybean Plants	Kasai M, et al.	2008	10.1626/pps.11.223
		Effects of Excessive Ear Removal on Senescence Order of Wheat Functional Leaves	Miao F, et al.	2009	10.1626/pps.12.428
		Varietal Differences in Photosynthetic Rates in Rice Plants, with Special Reference to the Nitrogen Content of Leaves	Hirasawa T, et al.	2010	10.1626/pps.13.53
		Varietal Difference in Early Vegetative Growth during Seedling Stage in Soybean	Fatichin, et al.	2013	10.1626/pps.16.77
		Effects of temperature on growth and photosynthesis in the seedling stage of the sheath blight-resistant rice genotype 32R	Kiet HV, et al.	2016	10.1080/1343943X.2015.1128108
		Variations in structural, biochemical, and physiological traits of photosynthesis and resource use efficiency in *Amaranthus* species (NAD-ME-type C_4)	Tsutsumi N, et al.	2017	10.1080/1343943X.2017.1320948
		Variations in physiological, biochemical, and structural traits of photosynthesis and resource use efficiency in maize and teosintes (NADP-ME-type C_4)	Yabiku T, et al.	2017	10.1080/1343943X.2017.1398050
	Relative growth rate (2)	Relative Contribution of Hetero-and Auto-trophic Growth to Genotypic Variation of Seedling Vigor in Rice (*Oryza sativa* L.)	Shiraiwa T, et al.	2006	10.1626/pps.9.133
		Effects of temperature on growth and photosynthesis in the seedling stage of the sheath blight-resistant rice genotype 32R	Kiet HV, et al.	2016	10.1080/1343943X.2015.1128108
	Root elongation rate (1)	Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
	Specific dark-respiration rate (1)	Effects of Nitrogen Application on Dark-Respiration in Different Parts of Rice Seedlings	Saitoh K, et al.	2000	10.1626/pps.3.243
	Tiller appearance rate (1)	Effects of Foliar and Root-Applied Benzylaminopurine on Tillering of Rice Plants Grown in Hydroponics	Liu Z, et al.	2001	10.1626/pps.4.220
	Transpiration rate (3)	Reduction in Leaf Water Potential and Hydraulic Conductance of Young Rice Plants (*Oryza Sativa* L.) Grown in Wet Compacted Soils	Kobata T, et al.	1999	10.1626/pps.2.14
		Varietal Differences in the Morphophysiological Response to Atmospheric Humidity in Rice	Hirai G, et al.	2002	10.1626/pps.5.101
		Effects of Waterlogging at Vegetative and Reproductive Growth Stages on Photosynthesis, Leaf Water Potential and Yield in Mungbean	Ahmed S, et al.	2002	10.1626/pps.5.117
Ratio (17)	Ratio of true seed weight to fruit weight (1)	Application of Near-Infrared Diffuse Reflectance Spectroscopic Analysis for Estimating the Ratio of True Seed Weight to Fruit Weight in Sugar Beet Seed	Mukasa Y, et al.	2005	10.1626/pps.8.3
	C/N ratio (6)	Dry-Matter Partitioning and Accumulation of Carbon and Nitrogen during Ripening in a Female-Sterile Line of Rice	Kato M, et al.	2006	10.1626/pps.9.185
		Role of Belowground Parts of Green Manure Legumes, *Crotalaria spectabilis* and *Sesbania rostrata*, in N Uptake by the Succeeding Tendergreen Mustard Plant	Choi B, et al.	2008	10.1626/pps.11.116
		Evaluation of Mixed Cropping of Oat and Hairy Vetch as Green Manure for Succeeding Corn Production	Tarui A, et al.	2013	10.1626/pps.16.383
		Field Evaluation of Coffee Grounds Application for Crop Growth Enhancement, Weed Control, and Soil Improvement	Yamane K, et al.	2014	10.1626/pps.17.93
		Possibility of Introducing Winter Legumes, Hairy Vetch and Faba Bean, as Green Manures to Turmeric Cropping in Temperate Region	Yamawaki K, et al.	2014	10.1626/pps.17.173

Ratio (continued)	C/N Ratio (continued)	Rice yield and soil carbon dynamics over three years of applying rice husk charcoal to an Andosol paddy field	Koyama S, et al.	2017	10.1080/1343943X.2017.1290506
	C/P ratio (1)	Possibility of Introducing Winter Legumes, Hairy Vetch and Faba Bean, as Green Manures to Turmeric Cropping in Temperate Region	Yamawaki K, et al.	2014	10.1626/pps.17.173
	Na/K ratio (1)	Relationship between Salinity-Induced Damages and Aging in Rice Leaf Tissues	Mitsuya S, et al.	2003	10.1626/pps.6.213
	Pod-flower set ratio (1)	Effects of Pre-Flowering Soil Moisture Deficits on Dry Matter Production and Ecophysiological Characteristics in Soybean Plants under Well Irrigated Conditions during Grain Filling	Hirasawa T, et al.	1998	10.1626/pps.1.8
	Recovery ratio (1)	Correlation of the Amount of Nitrogen Accumulated in the Aboveground Biomass at Panicle Initiation and Nitrogen Content of Soil with the Nitrogen Uptake by Lowland Rice during the Period from Panicle Initiation to Heading	Inamura T, et al.	2003	10.1626/pps.6.302
	Root/shoot ratio (2)	Phenotypic Plasticity of Rice Seedlings: Case of Phosphorus Deficiency	Luquet D, et al.	2005	10.1626/pps.8.145
		Effects of Soil Temperature on Growth and Root Function in Rice	Arai-Sanoh Y, et al.	2010	10.1626/pps.13.235
	Seedling establishment ratio (1)	Path Analysis of Tiller Density of Winter Wheat Demonstrates the Importance of Practices that Manipulate Clod Size Based on Soil Moisture at Seeding in the Rice–Wheat Cropping System	Inamura T, et al.	2010	10.1626/pps.13.85
	Source-sink ratio (1)	Effects of Source/Sink Ratio and Cytokinin Application on Pod Set in Soybean	Yashima Y, et al.	2005	10.1626/pps.8.139
	Top-root ratio (1)	Growth and Panicle Characters of Wheat with a Single Primary Seminal Root allowed to Grow	Arima S, et al.	1999	10.1626/pps.2.21
	Yield-shoot ratio (1)	Effects of Harvest Time on Shoot Biomass and Yield of Turmeric (*Curcuma longa* L.) in Okinawa, Japan	Hossain MA.	2010	10.1626/pps.13.97
Ratoon (1)		Year-Round Cultivation of Sweet Sorghum [*Sorghum bicolor* (L.) Moench] through a Combination of Seed and Ratoon Cropping in Indonesian Savanna	Tsuchihashi N, et al.	2008	10.1626/pps.11.377
Reactive oxygen species (7)		Promotion of Seedling Growth of Seeds of Rice (*Oryza sativa* L. cv. Hitomebore) by Treatment with H_2O_2 before Sowing	Sasaki K, et al.	2005	10.1626/pps.8.509
		Alternative Respiratory Pathway under Drought is Partially Mediated by Hydrogen Peroxide and Contributes to Antioxidant Protection in Wheat Leaves	Feng H, et al.	2008	10.1626/pps.11.59
		Antioxidant Capacity and Damages Caused by Salinity Stress in Apical and Basal Regions of Rice Leaf	Yamane K, et al.	2009	10.1626/pps.12.319
		NADPH Oxidases Act as Key Enzyme on Germination and Seedling Growth in Barley (*Hordeum vulgare* L.)	Ishibashi Y, et al.	2010	10.1626/pps.13.45
		Transcription Profiles of Genes Encoding Catalase and Ascorbate Peroxidase in the Rice Leaf Tissues under Salinity	Yamane K, et al.	2010	10.1626/pps.13.164
		Physiological Roles of Betacyanin in a Halophyte, *Suaeda japonica* Makino	Hayakawa K, et al.	2010	10.1626/pps.13.351
		Molecular physiological aspects of chalking mechanism in rice grains under high-temperature stress	Mitsui T, et al.	2016	10.1080/1343943X.2015.1128112
Recovery (11)	Drought recovery (4)	Genotypic Variation in Response of Rainfed Lowland Rice to Drought and Rewatering. I. Growth and water use	Wade LJ, et al.	2000	10.1626/pps.3.173
		Genotypic Variation in Response of Rainfed Lowland Rice to Prolonged Drought and Rewatering	Kamoshita A, et al.	2004	10.1626/pps.7.406
		Growth and Water Use Response of Doubled-Haploid Rice Lines to Drought and Rewatering during the Vegetative Stage	Siopongco JDLC, et al.	2006	10.1626/pps.9.141
		Genotypic Variation in Responses of Cassava (*Manihot esculenta* Crantz) to Drought and Rewatering: Root System Development	Subere JOQ, et al.	2009	10.1626/pps.12.462
	Growth recovery (2)	Effect of Waterlogging during Vegetative Stage on Growth and Yield in Supernodulating Soybean Cultivar Sakukei 4	Matsunami T, et al.	2007	10.1626/pps.10.112
		Responses to shade and subsequent recovery of soya bean in maize-soya bean relay strip intercropping	Wu Y, et al.	2016	10.1080/1343943X.2015.1128095
	Nitrogen recovery (2)	Recovery of ^{15}N-labeled Ammonium by Barley and Maize Grown on the Soils with Long-Term Application of Chemical and Organic Fertilizers	Li K, et al.	2001	10.1626/pps.4.29
		Rice Uptake and Recovery of Nitrogen with Different Methods of Applying ^{15}N-Labeled Chicken Manure and Ammonium Sulfate	Liu J, et al.	2008	10.1626/pps.11.271

Recovery (continued)	Recovery from drought stress (1)	Comparison of Root System Development in Two Rice Cultivars During Stress Recovery from Drought and the Plant Traits for Drought Resistance	Trillana N, et al.	2001	10.1626/pps.4.155
	Recover from weed competition (1)	Genotypic Variation in Ability to Recover from Weed Competition at Early Vegetative Stage in Upland Rice	Saito K, et al.	2010	10.1626/pps.13.116
	Recovery ratio (1)	Correlation of the Amount of Nitrogen Accumulated in the Aboveground Biomass at Panicle Initiation and Nitrogen Content of Soil with the Nitrogen Uptake by Lowland Rice during the Period from Panicle Initiation to Heading	Inamura T, et al.	2003	10.1626/pps.6.302
Recycling (1)	Nitrogen recycling (1)	Effect of Hairy Vetch Incorporated as Green Manure on Growth and N Uptake of Sorghum Crop	Choi B, et al.	2008	10.1626/pps.11.211
Red edge position (1)		Extracting Red Edge Position Parameters from Ground- and Space-Based Hyperspectral Data for Estimation of Canopy Leaf Nitrogen Concentration in Rice	Tian Y, et al.	2011	10.1626/pps.14.270
Redox potential (1)		Suppressive Effect of Sulfate on Establishment of Rice Seedlings in Submerged Soil May be Due to Sulfide Generation around the Seeds	Hara Y.	2013	10.1626/pps.16.50
Regeneration (11)	Regeneration (1)	Difference with Rice Cultivars in the Rate of Root Regeneration from Embryo Callus and Its Relationship with the Genetic Background	Yoshida T, et al.	1998	10.1626/pps.1.296
	Regeneration ability (2)	Somaclonal Variation in Regenerants Derived from Anther Culture of Rice (*Oryza sativa* L.)	Sugimoto K, et al.	1999	10.1626/pps.2.71
		Genetic Diversity of Regeneration Ability in Anther Culture of Rice (*Oryza sativa* L.)	Sugimoto K, et al.	2000	10.1626/pps.3.387
	Regenerated plantlets (1)	Effects of Physiological Status of Parent Plants and Culture Medium Composition on the Anther Culture of Sorghum	Can ND, et al.	1998	10.1626/pps.1.211
	Regenerated plants (1)	Variation in Spikelet-Related Traits of Rice Plants Regenerated from Mature Seed-Derived Callus Culture	Carsono N, et al.	2007	10.1626/pps.10.86
	Green plant regeneration (1)	Improved Method for Anther Culture of an Indica Rice Cultivar of Thailand	Sripichitt P, et al.	2000	10.1626/pps.3.254
	Plant regeneration (5)	Combining Ability of Callus Induction and Plant Regeneration in Sorghum Anther Culture	Can ND, et al.	1999	10.1626/pps.2.125
		Screening of Regenerable Genotypes of Italian Ryegrass (*Lolium multiflorum* Lam.)	Takahashi W, et al.	2004	10.1626/pps.7.55
		Plant Regeneration Capacity of Calluses Derived from Mature Seed of Five Indonesian Rice Genotypes	Carsono N, et al.	2006	10.1626/pps.9.71
		Effect of 2,4-Dichlorophenoxyacetic Acid on the Efficiency of Wheat Haploid Production by the Hordeum bulbosum Method	Ushiyama T, et al.	2006	10.1626/pps.9.206
		Effects of Various Phytohormones on Haploid Wheat Production in Wheat x Maize Crosses	Ushiyama T, et al.	2007	10.1626/pps.10.36
Regulation (2)	Calcium regulation (1)	Morphological Changes and Function of Calcium Oxalate Crystals in Eddo Roots in Hydroponic Solution Containing Calcium at Various Concentrations	Islam MN, et al.	2014	10.1626/pps.17.13
	Hormonal regulation (1)	Role of Abscisic Acid in Flood-Induced Secondary Aerenchyma Formation in Soybean (*Glycine max*) Hypocotyls	Shimamura S, et al.	2014	10.1626/pps.17.131
Release (1)	Oxygen release (1)	Short-term evaluation of oxygen transfer from rice (*Oryza sativa*) to mixed planted drought-adapted upland crops under hydroponic culture	Iijima M, et al.	2017	10.1080/1343943X.2017.1379882
Reproductive (6)	Reproductive duration (1)	Relation of Leaf Nitrogen Content and Other Traits with Seed Yield of Soybean	Shibles R, et al.	1998	10.1626/pps.1.3
	Reproductive stage (5)	Effect of Soil Compaction on Dry Matter Production and Water Use of Rice (*Oryza sativa* L.) under Water Deficit Stress during the Reproductive Stage	Kobata T, et al.	2000	10.1626/pps.3.306
		Effect of Soil Compaction on the Grain Yield of Rice (*Oryza sativa* L.) under Water-Deficit Stress during the Reproductive Stage	Hoque M, et al.	2000	10.1626/pps.3.316
		Relationship between the Size of the Apical Dome at the Panicle Initiation and the Panicle Components in Rice	Kobayasi K, et al.	2001	10.1626/pps.4.81
		Relationship between Apical Dome Diameter at Panicle Initiation and the Size of Panicle Components in Rice Grown under Different Nitrogen Conditions during the Vegetative Stage	Kobayasi K, et al.	2002	10.1626/pps.5.3
		High-yielding Crop Management by Enhancing Growth in Reproductive Stage of Direct-Seeded Rainfed Lowland Rice (*Oryza sativa* L.) in Northeast Thailand	Hayashi S, et al.	2010	10.1626/pps.13.104
Peroxidation (1)	Lipid peroxidation (1)	Promotive Effect of Priming with 5-Aminolevulinic Acid on Seed Germination Capacity, Seedling Growth and Antioxidant Enzyme Activity in Rice Subjected to Accelerated Ageing Treatment	Kanto U, et al.	2015	10.1626/pps.18.443

Resistance (35)	Resistance (2)	Metabolite profiling of sheath blight disease resistance in rice: in the case of positive ion mode analysis by CE/TOF-MS	Suharti WS, et al.	2016	10.1080/1343943X.2016.1140006
		Study of some resistance mechanisms to Orobanche spp. infestation in faba bean (*Vicia faba* L.) breeding lines in Tunisia	Trabelsi I, et al.	2016	10.1080/1343943X.2016.1221734
	Resistance to water transport (2)	Effects of Pre-Flowering Soil Moisture Deficits on Dry Matter Production and Ecophysiological Characteristics in Soybean Plants under Well Irrigated Conditions during Grain Filling	Hirasawa T, et al.	1998	10.1626/pps.1.8
		Effects of Soil Moisture Depletion for One Month before Flowering on Dry Matter Production and Ecophysiological Characteristics of Wheat Plants in Wet Soil during Grain Filling	Nakamura E, et al.	2003	10.1626/pps.6.195
	Bird resistance (1)	Growth, Yield and Quality of Bird-Resistant Sunfl ower Cultivars Found in Genetic Resources	Yasumoto S, et al.	2012	10.1626/pps.15.23
	Cool-weather resistance (1)	Number of Pollen Grains in Rice Cultivars with Different Cool-Weather Resistance at the Young Microspore Stage	Nakamura T, et al.	2000	10.1626/pps.3.299
	Cyanide-resistant respiration (1)	Alternative Respiratory Pathway under Drought is Partially Mediated by Hydrogen Peroxide and Contributes to Antioxidant Protection in Wheat Leaves	Feng H, et al.	2008	10.1626/pps.11.59
	Disease resistance (1)	Four Decades of Breeding for Varietal Improvement of Irrigated Lowland Rice in the International Rice Research Institute	Peng S, et al.	2003	10.1626/pps.6.157
	Drought resistance (3)	Growth Responses of Drought Resistant Rice Cultivars to Soil Compaction under Irrigated and Succeeding Nonirrigated Conditions during the Vegetative Stage	Hoque M, et al.	1998	10.1626/pps.1.183
		Effect of Soil Compaction on the Grain Yield of Rice (*Oryza sativa* L.) under Water-Deficit Stress during the Reproductive Stage	Hoque M, et al.	2000	10.1626/pps.3.316
		Comparison of Root System Development in Two Rice Cultivars During Stress Recovery from Drought and the Plant Traits for Drought Resistance	Trillana N, et al.	2001	10.1626/pps.4.155
	Field resistance (1)	A Rice (*Oryza sativa* L.) Breeding for Field Resistance to Blast Disease (*Pyricularia oryzae*) in Mountainous Region Agricultural Research Institute, Aichi Agricultural Research Center of Japan	Saka N.	2006	10.1626/pps.9.3
	Freezing resistance (1)	Increased Cell-Wall Mass and Resistance to Freezing and Snow Mold during Cold Acclimation of Winter Wheat under Field Conditions	Sugiyama S, et al.	2007	10.1626/pps.10.383
	Hydraulic resistance (3)	Change in Hydraulic Resistance and Shoot Morphology of Napiergrass (*Pennisetum purpureum* Schumach.) under Shaded Condition	Nagasuga K, et al.	2006	10.1626/pps.9.364
		Effects of Shading on Hydraulic Resistance and Morphological Traits of Internode and Node of Napiergrass (*Pennisetum purpureum* Schumach.)	Nagasuga K, et al.	2008	10.1626/pps.11.352
		A quick determination of root resistance to water transport in paddy rice	Adachi S, et al.	2017	10.1080/1343943X.2017.1313688
	Induced resistance (1)	Effects of *Pseudomonas fluorescens* CHA0 on the Resistance of Wheat Seedling Roots to the Take-all Fungus *Gaeumannomyces graminis* var. *tritici*	Sari E, et al.	2008	10.1626/pps.11.298
	Insect resistance (1)	Four Decades of Breeding for Varietal Improvement of Irrigated Lowland Rice in the International Rice Research Institute	Peng S, et al.	2003	10.1626/pps.6.157
	Lodging resistance (5)	Effects of Powdered Rice Chaff Application on Si and N Absorption, Lodging Resistance and Yield in Rice Plants (*Oryza sativa* L.)	Hossain KA, et al.	1999	10.1626/pps.2.159
		Decomposition of (1-3,1-4)-β-Glucan and Expression of the (1-3,1-4) -β-Glucanase Gene in Rice Stems during Ripening	Baba Y, et al.	2001	10.1626/pps.4.230
		Biomass Production and Lodging Resistance in 'Leaf Star', a New Long-Culm Rice Forage Cultivar	Ookawa T, et al.	2010	10.1626/pps.13.58
		Yield and Lodging Resistance of 'Tachiayaka', a Novel Rice Cultivar with Short Panicles for Whole-Crop Silage	Matsushita K, et al.	2014	10.1626/pps.17.202
		Evaluation of Soybean (*Glycine max*) Stem Vining in Maize-Soybean Relay Strip Intercropping System	Liu WG, et al.	2015	10.1626/pps.18.69
	Nematode-resistant cultivar (1)	Effect of Introducing Nematode-Resistant Sweet Potato Cultivars on Crop Productivity and Nematode Density in Sweet Potato-Radish Double-Cropping Systems	Suzuki T, et al.	2012	10.1626/pps.15.48
	Powdery mildew resistance (1)	Identification of Random Amplified Polymorphic DNA and Simple Sequence Repeat Markers Linked to Powdery Mildew Resistance in Common Wheat Cultivar Brock	Wang Z, et al.	2004	10.1626/pps.7.319
	Preharvest sprouting resistance (1)	Effects of Preharvest Sprouting on Flour Pasting Viscosity in Common Buckwheat (*Fagopyrum esculentum* Moench)	Hara T, et al.	2007	10.1626/pps.10.361

Resistance (continued)	Pushing resistance (2)	Effect of Field Drainage on Root Lodging Tolerance in Direct-Sown Rice in Flooded Paddy Field	Terashima K, et al.	2003	10.1626/pps.6.255
		Factors Responsible for Decreasing Sturdiness of the Lower Part in Lodging of Rice (*Oryza sativa* L.)	Kashiwagi T, et al.	2005	10.1626/pps.8.166
	Salinity resistance (1)	Differential Sensitivity of Rice Cultivars to Salinity and Its Relation to Ion Accumulation and Root Tip Structure	Ferdose J, et al.	2009	10.1626/pps.12.453
	Salt resistance (1)	Comparison of Young Seedling Growth and Sodium Distribution among Sorghum Plants under Salt Stress	Chaugool J, et al.	2013	10.1626/pps.16.261
	Sheath blight resistance (1)	Effects of temperature on growth and photosynthesis in the seedling stage of the sheath blight-resistant rice genotype 32R	Kiet HV, et al.	2016	10.1080/1343943X.2015.1128108
	Snow mold resistance (3)	Effect of Dwarfing Induced by Uniconazole-P on Snow Tolerance of the Faba Bean (*Vicia faba* L.)	Fukuta N, et al.	2001	10.1626/pps.4.189
		Fructan Content in Aegilops cylindrica and its Relationship to Snow Mold Resistance and Freezing Tolerance	Iriki N, et al.	2005	10.1626/pps.8.563
		Increased Cell-Wall Mass and Resistance to Freezing and Snow Mold during Cold Acclimation of Winter Wheat under Field Conditions	Sugiyama S, et al.	2007	10.1626/pps.10.383
	Specific hydraulic resistance (1)	Change in Hydraulic Resistance and Shoot Morphology of Napiergrass (*Pennisetum purpureum* Schumach.) under Shaded Condition	Nagasuga K, et al.	2006	10.1626/pps.9.364
Respiration (14)	Respiration (4)	Gas Exchange through the Slit between the Lemma and the Pale a in the Rice (*Oryza sativa* L.) Floret before Anthesis	Matsui T, et al.	2003	10.1626/pps.6.262
		Gas Exchange Analysis for Estimating Net CO_2 Fixation Capacity of Mangrove (*Rhizophora stylosa*) Forest in the Mouth of River Fukido, Ishigaki Island, Japan	Okimoto Y, et al.	2007	10.1626/pps.10.303
		High Carbon Requirements for Seed Production in Soybeans [*Glycine max* (L.) Merr.]	Kakiuchi J, et al.	2008	10.1626/pps.11.198
		Effects of the Temperature Lowered in the Daytime and Night-time on Sugar Accumulation in Sugarcane	Uehara N, et al.	2009	10.1626/pps.12.420
	Cyanide-resistant respiration (1)	Alternative Respiratory Pathway under Drought is Partially Mediated by Hydrogen Peroxide and Contributes to Antioxidant Protection in Wheat Leaves	Feng H, et al.	2008	10.1626/pps.11.59
	Dark respiration (3)	Effects of Dark Respiration on Dry Matter Production of Field Grown Rice Stand: Comparison of growth efficiencies in 1991 and 1992	Saitoh K, et al.	1998	10.1626/pps.1.106
		Factors Causing the Variation in the Temperature Coefficient of Dark Respiration in Rice (*Oryza sativa* L.)	Lee KH, et al.	2000	10.1626/pps.3.38
		Effects of Nitrogen Fertilization on Dark-Respiration and Growth Efficiency of Field-Grown Rice Plants	Saitoh K, et al.	2000	10.1626/pps.3.238
	Photorespiration (4)	Inheritance of C_3-C_4 Intermediate Photosynthesis in Reciprocal Hybrids between Moricandia arvensis (C_3-C_4) and Brassica oleracea (C_3) that Differ in their Genome Constitution	Ueno O, et al.	2007	10.1626/pps.10.68
		Production of Raphanus sativus (C_3)-Moricandia arvensis (C_3-C_4 intermediate) Monosomic and Disomic Addition Lines with Each Parental Cytoplasmic Background and their Photorespiratory Characteristics	Bang SW, et al.	2009	10.1626/pps.12.70
		Ammonia Emission from Leaves of Different Rice (*Oryza sativa* L.) Cultivars	Kumagai E, et al.	2011	10.1626/pps.14.249
		Intracellular position of mitochondria and chloroplasts in bundle sheath and mesophyll cells of C_3 grasses in relation to photorespiratory CO_2 loss	Hatakeyama Y, et al.	2016	10.1080/1343943X.2016.1212667
	Specific dark-respiration rate (1)	Effects of Nitrogen Application on Dark-Respiration in Different Parts of Rice Seedlings	Saitoh K, et al.	2000	10.1626/pps.3.243
	Substrate induced respiration (1)	Development of Substrate Induced Respiration (SIR) Method Combined with Selective Inhibition for Estimating Fungal and Bacterial Biomass in Humic Andosols	Nakamoto T, et al.	2004	10.1626/pps.7.70
Response (6)	Blue light response (1)	Effects of Silicon on Stomatal Blue-Light Response in Rice (*Oryza sativa* L.)	Agarie S, et al.	1999	10.1626/pps.2.232
	Gibberellic acid response (1)	Response to GA and Variation of the Culm Length in Doubled Haploid Lines of Wheat	Ushiyama T, et al.	2008	10.1626/pps.11.217
	Growth response (2)	Screening of Al-Tolerant Sorghum by Hematoxylin Staining and Growth Response	Anas A, et al.	2000	10.1626/pps.3.246
		Growth and yield responses of upland NERICAs to variable water management under field conditions	Kikuta M, et al.	2017	10.1080/1343943X.2016.1245102
	Nitrogen response (1)	Responses of a Supernodulating Soybean Genotype, Sakukei 4 to Nitrogen Fertilizer	Maekawa T, et al.	2003	10.1626/pps.6.206
	Yield response (1)	Growth and yield responses of upland NERICAs to variable water management under field conditions	Kikuta M, et al.	2017	10.1080/1343943X.2016.1245102

Rheological properties (1)		Hagberg Falling Number and Rheological Properties of Wheat Cultivars in Wet and Dry Preharvest Periods	Dencic S, et al.	2013	10.1626/pps.16.342
Rhizome (9)	Rhizome (2)	Optimal Planting Depth for Turmeric (*Curcuma longa* L.) Cultivation in Dark Red Soil in Okinawa Island, Southern Japan	Ishimine Y, et al.	2003	10.1626/pps.6.83
		Possibility of Introducing Winter Legumes, Hairy Vetch and Faba Bean, as Green Manures to Turmeric Cropping in Temperate Region	Yamawaki K, et al.	2014	10.1626/pps.17.173
	Rhizome development (1)	Effects of Seed Rhizome Size on Growth and Yield of Turmeric (*Curcuma longa* L.)	Hossain A, et al.	2005	10.1626/pps.8.86
	Rhizome sprouting (1)	Does Allelopathy Play a Role in Suppression of Mugwort (*Artemisia vulgaris*) by Alfalfa?	Onen H.	2013	10.1626/pps.16.255
	Rhizome-stub expansion (1)	Effects of Planting Pattern and Planting Distance on Growth and Yield of Turmeric (*Curcuma longa* L.)	Hossain A, et al.	2005	10.1626/pps.8.95
	Daughter rhizome (1)	Effects of Seed Rhizome Size on Growth and Yield of Turmeric (*Curcuma longa* L.)	Hossain A, et al.	2005	10.1626/pps.8.86
	Mother rhizome (1)	Effects of Seed Rhizome Size on Growth and Yield of Turmeric (*Curcuma longa* L.)	Hossain A, et al.	2005	10.1626/pps.8.86
	Rhizodegradation (1)	Effect of Rhizodegradation in Diesel-contaminated Soil under Different Soil Conditions	Kaimi E, et al.	2007	10.1626/pps.10.105
	Rhizodeposition (1)	Rhizodeposition of Mucilage, Root Border Cells, Carbon and Water under Combined Soil Physical Stresses in *Zea mays* L.	Somasundaram S, et al.	2009	10.1626/pps.12.443
Ripening (10)	Ripening (3)	Effects of Inabenfide [4'-chloro-2'-(α-hydroxybenzyl)-isonicotinanilide] on Growth, Lodging, and Yield Components of Rice	Fukazawa M, et al.	2001	10.1626/pps.4.118
		Effect of High Temperature at Ripening Stage on the Reserve Accumulation in Seed in Some Rice Cultivars	Zakaria S, et al.	2002	10.1626/pps.5.160
		Analysis of High Yielding Ability in a Rice Cultivar Akisayaka	Fukushima A, et al.	2006	10.1626/pps.9.369
	Ripening percentage (1)	Differences in dry matter production, grain production, and photosynthetic rate in barley cultivars under long-term salinity	Hirasawa T, et al.	2017	10.1080/1343943X.2017.1343647
	Ripening period (1)	Contribution of Nitrogen Absorbed during Ripening Period to Grain Filling in a High-Yielding Rice Variety, Takanari	Ida M, et al.	2009	10.1626/pps.12.176
	Ripening stage (1)	Distribution of Assimilates to Each Organ in Rice Plants Exposed to a Low Temperature at the Ripening Stage, and the Effect of Brassinolide on the Distribution	Fujii S, et al.	2001	10.1626/pps.4.136
	Abnormally early ripening (1)	Physiological Mechanisms of Poor Grain Growth in Abnormally Early Ripening Wheat Grown in West Japan	Hossain MA, et al.	2009	10.1626/pps.12.278
	Post-ripening period (1)	Isoflavonoid Accumulation Pattern as Affected by Shading from Maize in Soybean (*Glycine max* (L.) Merr.) in Relay Strip Intercropping System	Wan Y, et al.	2015	10.1626/pps.18.302
	Promotion of ripening (1)	Distribution of Assimilates to Each Organ in Rice Plants Exposed to a Low Temperature at the Ripening Stage, and the Effect of Brassinolide on the Distribution	Fujii S, et al.	2001	10.1626/pps.4.136
	Ripened grain (1)	Convenient Estimation of Unfertilized Grains in Rice	Kobata T, et al.	2010	10.1626/pps.13.289
Root (189)	Root (18)	Growth Responses of Drought Resistant Rice Cultivars to Soil Compaction under Irrigated and Succeeding Nonirrigated Conditions during the Vegetative Stage	Hoque M, et al.	1998	10.1626/pps.1.183
		Quantitative Analysis of Soil Sheath Distribution in Maize Root Systems	Sako Y, et al.	1999	10.1626/pps.2.25
		Differences in Leaf Senescence among Reciprocally Grafted Plants of Two Soybean Cultivars, Enrei and Tachinagaha	Ookawa T, et al.	1999	10.1626/pps.2.51
		Genotypic Variation in Response of Rainfed Lowland Rice to Drought and Rewatering. III. Water extraction during the drought period	Kamoshita A, et al.	2000	10.1626/pps.3.189
		Effects of Nitrogen Application on Dark-Respiration in Different Parts of Rice Seedlings	Saitoh K, et al.	2000	10.1626/pps.3.243
		Analysis of the Factors Causing Differences in the Leaf-Senescence Pattern between Two Soybean Cultivars, Enrei and Tachinagaha: Comparison of root length and exudation rate among grafted plant	Ookawa T, et al.	2001	10.1626/pps.4.3
		Nonstructural Carbohydrate Reserves in Roots and the Ability of Temperate Perennial Grasses to Overwinter in Early Growth Stages	Tamura Y, et al.	2001	10.1626/pps.4.56
		Influence of Soybean and Maize Roots on the Seasonal Change in Soil Aggregate Size and Stability	Nakamoto T, et al.	2001	10.1626/pps.4.317
		Effect of Field Drainage on Root Lodging Tolerance Direct-Sown Rice in Flooded Paddy Field	Terashima K, et al.	2003	10.1626/pps.6.255

Root (continued)	Root (continued)	Genotypic Variation in Response of Rainfed Lowland Rice to Prolonged Drought and Rewatering	Kamoshita A, et al.	2004	10.1626/pps.7.406
		Root Osmotic Adjustment under Osmotic Stress in Maize Seedlings. 1. Transient Change of Growth and Water Relations in Roots in Response to Osmotic Stress	Ogawa A, et al.	2006	10.1626/pps.9.27
		Root Osmotic Adjustment under Osmotic Stress in Maize Seedlings. 2. Mode of Accumulation of Several Solutes for Osmotic Adjustment in the Root	Ogawa A, et al.	2006	10.1626/pps.9.39
		Effect of Rhizodegradation in Diesel-contaminated Soil under Different Soil Conditions	Kaimi E, et al.	2007	10.1626/pps.10.105
		Screening of Twelve Plant Species for Phytoremediation of Petroleum Hydrocarbon-Contaminated Soil	Kaimi E, et al.	2007	10.1626/pps.10.211
		Effects of Soil Moisture Conditions before Heading on Growth of Wheat Plants under Drought Conditions in the Ripening Stage: Insufficient Soil Moisture Conditions before Heading Render Wheat Plants More Resistant to Drought during Ripening	Saidi A, et al.	2008	10.1626/pps.11.403
		Differences in Cadmium Accumulation and Root Morphology in Seedlings of Japanese Wheat Varieties with Distinctive Grain Cadmium Concentration	Kubo K, et al.	2011	10.1626/pps.14.148
		The Effect of High-Temperature Stress Applied to the Root on Grain Quality of Rice	Nagaoka I, et al.	2012	10.1626/pps.15.274
		Morphological Changes and Function of Calcium Oxalate Crystals in Eddo Roots in Hydroponic Solution Containing Calcium at Various Concentrations	Islam MN, et al.	2014	10.1626/pps.17.13
	Root activity (1)	Root growth, soil water variation, and grain yield response of winter wheat to supplemental irrigation	Man J, et al.	2016	10.1080/1343943X.2015.1128097
	Root anatomy (1)	Development of Tuberous Cassava Roots under Different Tillage Systems: Descriptive Anatomy	Figueiredo PG, et al.	2015	10.1626/pps.18.241
	Root apex (1)	Formation of Organic Acids in the Root Apices of Rice Plants (*Oryza sativa* L.) Grown in Acidic Nutrient Solution Containing Aluminum	Kang DJ, et al.	2006	10.1626/pps.9.228
	Root apical meristem (2)	Mechanical Stimulus-Sensitive Mutation, *rrl3*, Affects the Cell Production Process in the Root Meristematic Zone in Rice	Inukai Y, et al.	2003	10.1626/pps.6.265
		Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
	Root border cells (1)	Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
	Root branching (1)	Root System Development Including lRoot Branching in Cuttings of Cassava with Reference to Shoot Growth and Tuber Bulking	Izumi Y, et al.	1999	10.1626/pps.2.267
	Root cap (2)	Functional Role of Mucilage - Border Cells: A Complex Facilitating Protozoan Effects on Plant Growth	Somasundaram S, et al.	2008	10.1626/pps.11.344
		Dynamics of Root Border Cells in Rhizosphere Soil of *Zea mays* L.: Crushed Cells during Root Penetration, Survival in Soil, and Long Term Soil Compaction Effect	Somasundaram S, et al.	2008	10.1626/pps.11.440
	Root competition (1)	Competitiveness of Four Rice Cultivars against Barnyardgrass, *Echinochloa oryzicola* Vasing, with Reference to Root and Shoot Competition	Suzuki T, et al.	2002	10.1626/pps.5.77
	Root development (6)	The Effect of Fluctuations of Soil Moisture on Root Development during the Establishment Phase of Sweetpotato	Pardales JRJr, et al.	2000	10.1626/pps.3.134
		Sucrose Metabolism for the Development of Seminal Root in Maize Seedlings	Ogawa A, et al.	2009	10.1626/pps.12.9
		Variation in Root Development Response to Flooding among 92 Soybean Lines during Early Growth Stages	Sakazono S, et al.	2014	10.1626/pps.17.228
		Characterization of the morphological and physiological traits of rice cultivars with adaptation to unflooded condition during early vegetative growth	Matsunami M, et al.	2016	10.1080/1343943X.2015.1128090
		Root development and the expression of aquaporin genes in rice seedlings under osmotic stress	Matsunami M, et al.	2016	10.1080/1343943X.2015.1128109
		Drought-induced root plasticity of two upland NERICA varieties under conditions with contrasting soil depth characteristics	Menge DM, et al.	2016	10.1080/1343943X.2016.1146908
	Root diameter (3)	Development and Distribution of Root System in Two Grain Sorghum Cultivars Originated from Sudan under Drought Stress	Tsuji W, et al.	2005	10.1626/pps.8.553
		Varietal Differences in Stem Diameter and Rooting Number of Phytomers in Conjunction with Root System Development of Field-Grown Rice (*Oryza sativa* L.)	Kato Y, et al.	2007	10.1626/pps.10.357

Root (continued)	Root diameter (continued)	A Quick Method to Estimate Root Length in Each Diameter Class Using Freeware ImageJ	Tajima R, et al.	2013	10.1626/pps.16.9
	Root distribution (4)	The Distribution of Wheat and Maize Roots as Influenced by Biopores in a Subsoil of the Kanto Loam Type	Nakamoto T.	2000	10.1626/pps.3.140
		Fractal and Multifractal Analysis of Cassava Root System Grown by the Root- Box Method	Izumi Y, et al.	2002	10.1626/pps.5.146
		Crop Production in Successive Wheat-Soybean Rotation with No-Tillage Practice in Relation to the Root System Development	Izumi Y, et al.	2004	10.1626/pps.7.329
		Water-Extraction by Split-Roots of Sesbania and Pigeon Pea Exposed to Spatially Heterogeneous Distribution of Soil Water	Sekiya N, et al.	2006	10.1626/pps.9.191
	Root dry weight (1)	A Simple Method for Selection of Potato Lines with a Higher Root/Total Ratio at an Early Stage in the Seedling Generation	Iwama K, et al.	1998	10.1626/pps.1.286
	Root elongation (3)	Non-destructive Method for Root Elongation Measurement in Soil Using Acoustic Emission Sensors. I. Vertical measurement of single root elongation	Shimotashiro T, et al.	1998	10.1626/pps.1.25
		Mechanical Stimulus-Sensitive Mutation, *rrl3*, Affects the Cell Production Process in the Root Meristematic Zone in Rice	Inukai Y, et al.	2003	10.1626/pps.6.265
		Quantitative Analysis of Cell Division and Cell Death in Seminal Root of Rye under Salt Stress	Ogawa A, et al.	2006	10.1626/pps.9.56
	Root elongation rate (1)	Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
	Root endodermis (1)	Root Anatomical Responses to Waterlogging at Seedling Stage of Three Cordage Fiber Crops	Changdee T, et al.	2008	10.1626/pps.11.232
	Root exodermis (1)	Root Anatomical Responses to Waterlogging at Seedling Stage of Three Cordage Fiber Crops	Changdee T, et al.	2008	10.1626/pps.11.232
	Root extract (1)	Flavonoids in the Extract and Exudate of the Roots of Leguminous Crops	Isobe K, et al.	2001	10.1626/pps.4.278
	Root exudate (4)	Relationship between the Amount of Root Exudate and the Infection Rate of Arbuscular Mycorrhizal Fungi in Gramineous and Leguminous Crops	Isobe K, et al.	1998	10.1626/pps.1.37
		Flavonoids in the Extract and Exudate of the Roots of Leguminous Crops	Isobe K, et al.	2001	10.1626/pps.4.278
		Release Level of Momilactone B from Rice Plants	Kato-Noguchi H, et al.	2004	10.1626/pps.7.189
		Effects of Plant Residue, Root Exudate and Juvenile Plants of Rapeseed (*Brassica napus* L.) on the Germination, Growth, Yield, and Quality of Subsequent Crops in Successive and Rotational Cropping Systems	Yasumoto S, et al.	2011	10.1626/pps.14.339
	Root exudation (2)	Functional Role of Mucilage - Border Cells: A Complex Facilitating Protozoan Effects on Plant Growth	Somasundaram S, et al.	2008	10.1626/pps.11.344
		Rhizodeposition of Mucilage, Root Border Cells, Carbon and Water under Combined Soil Physical Stresses in *Zea mays* L.	Somasundaram S, et al.	2009	10.1626/pps.12.443
	Root formation (2)	Genotypic Variation in Biomass Production at the Early Vegetative Stage among Rice Cultivars Subjected to Deficient Soil Moisture Regimes and Its Association with Water Uptake Capacity	Matsunami M, et al.	2012	10.1626/pps.15.82
		Genotypic Variation in Osmotic Stress Tolerance Among Rice Cultivars and Its Association with L-Type Lateral Root Development	Toyofuku K, et al.	2015	10.1626/pps.18.246
	Root growth (6)	Growth of Roots Emerged from Excised Phytomers of Three Gramineous Species under a Low Osmotic Potential	Matsuura A, et al.	2000	10.1626/pps.3.55
		Effects of Benzylaminopurine on Shoot and Root Development and Growth of Rice (cv. North Rose) Grown Hydroponically with Different Nitrogen Forms	Liu Z, et al.	2000	10.1626/pps.3.349
		Maize-Soybean-Cowpea Sequential Cropping as a Sustainable Crop Production for Acid-Infertile Clay Soils in Indonesia	Izumi Y, et al.	2004	10.1626/pps.7.356
		Genetic Opportunities to Improve Cereal Root Systems for Dryland Agriculture	Richards RA, et al.	2008	10.1626/pps.11.12
		Effect of Pre- and Post-heading Water Deficit on Growth and Grain Yield of Four Millets	Matsuura A, et al.	2012	10.1626/pps.15.323
		Effect of pre- and post-heading waterlogging on growth and grain yield of four millets	Matsuura A, et al.	2016	10.1080/1343943X.2016.1146907
	Root growth angle (2)	Aerenchyma Formation in the Seminal Roots of Japanese Wheat Cultivars in Relation to Growth under Waterlogged Conditions	Haque ME, et al.	2012	10.1626/pps.15.164

Root (continued)	Root growth angle (continued)	Association between root growth angle and root length density of a nearisogenic line of IR64 rice with *DEEPER ROOTING 1* under different levels of soil compaction	Ramalingam P, et al.	2017	10.1080/1343943X.2017.1288550
	Root health (1)	Genetic Opportunities to Improve Cereal Root Systems for Dryland Agriculture	Richards RA, et al.	2008	10.1626/pps.11.12
	Root hydraulic conductance (1)	Effects of Low Root Temperature on Dry Matter Production and Root Water Uptake in Rice Plants	Nagasuga K, et al.	2011	10.1626/pps.14.22
	Root length (6)	A Simple Method for Selection of Potato Lines with a Higher Root/Total Ratio at an Early Stage in the Seedling Generation	Iwama K, et al.	1998	10.1626/pps.1.286
		Reduction in Leaf Water Potential and Hydraulic Conductance of Young Rice Plants (*Oryza Sativa* L.) Grown in Wet Compacted Soils	Kobata T, et al.	1999	10.1626/pps.2.14
		Effect of Soil Compaction on Dry Matter Production and Water Use of Rice (*Oryza sativa* L.) under Water Deficit Stress during the Reproductive Stage	Kobata T, et al.	2000	10.1626/pps.3.306
		Diurnal and Phenological Changes in the Rate of Nitrogen Transportation Monitored by Bleeding in Field-Grown Rice Plants (*Oryza sativa* L.)	Sakaigaichi T, et al.	2007	10.1626/pps.10.270
		Responses of Root Growth to Moderate Soil Water Deficit in Wheat Seedlings	Saidi A, et al.	2010	10.1626/pps.13.261
		A Quick Method to Estimate Root Length in Each Diameter Class Using Freeware ImageJ	Tajima R, et al.	2013	10.1626/pps.16.9
	Root length density (5)	Crop Production in Successive Wheat-Soybean Rotation with No-Tillage Practice in Relation to the Root System Development	Izumi Y, et al.	2004	10.1626/pps.7.329
		Development and Distribution of Root System in Two Grain Sorghum Cultivars Originated from Sudan under Drought Stress	Tsuji W, et al.	2005	10.1626/pps.8.553
		Performance of a High-Yielding Modern Rice Cultivar Takanari and Several Old and New Cultivars Grown with and without Chemical Fertilizer in a Submerged Paddy Field	Taylaran RD, et al.	2009	10.1626/pps.12.365
		Root Development, Water Uptake, and Shoot Dry Matter Production under Water Deficit Conditions in Two CSSLs of Rice: Functional Roles of Root Plasticity	Kano-Nakata M, et al.	2011	10.1626/pps.14.307
		Root Growth of Two Soybean [*Glycine max* (L.) Merr.] Cultivars Grown under Different Groundwater Level Conditions	Matsuo N, et al.	2013	10.1626/pps.16.374
	Root morphology (2)	Genotypic Variation in Response of Rainfed Lowland Rice to Drought and Rewatering. II. Root growth	Azhiri-Sigari T, et al.	2000	10.1626/pps.3.180
		Phenotypic variation in root development of 162 soybean accessions under hypoxia condition at the seedling stage	Suematsu K, et al.	2017	10.1080/1343943X.2017.1334511
	Root nodulation (1)	Nitrogen Utilization in the Supernodulating Soybean Variety "Sakukei 4" and Its Parental Varieties, "Enrei" and "Tamahomare"	Nakamura T, et al.	2010	10.1626/pps.13.123
	Root nodule (6)	Nitrate-Induced Inhibition of Root Nodule Formation and Nitrogenase Activity in the Peanut (*Arachis hypogaea* L.)	Daimon H, et al.	1999	10.1626/pps.2.81
		Secondary Aerenchyma Formation and its Relation to Nitrogen Fixation in Root Nodules of Soybean Plants (*Glycine max*) Grown under Flooded Conditions	Shimamura S, et al.	2002	10.1626/pps.5.294
		Characteristics of Growth and Yield Formation the Improved Genotype of Supernodulating Soybean (*Glycine max* L. Merr.)	Takahashi M, et al.	2003	10.1626/pps.6.112
		Characteristics of Nodulation and Nitrogen Fixation in the Improved Supernodulating Soybean (*Glycine max* L. Merr.) Cultivar 'Sakukei 4'	Takahashi M, et al.	2005	10.1626/pps.8.405
		Distribution Pattern of Root Nodules in Relation to Root Architecture in Two Leading Cultivars of Peanut (*Arachis hypogaea* L.) in Japan	Tajima R, et al.	2006	10.1626/pps.9.249
		Effect of Hairy Vetch Incorporated as Green Manure on Growth and N Uptake of Sorghum Crop	Choi B, et al.	2008	10.1626/pps.11.211
	Root penetration (1)	Relationship between Deep Root Distribution and Root Penetration Capacity Estimated by Pot Experiments with a Paraffin and Vaseline Layer for Landraces and Recent Cultivars of Wheat	Kubo K, et al.	2008	10.1626/pps.11.487
	Root physiology (1)	Genetic Opportunities to Improve Cereal Root Systems for Dryland Agriculture	Richards RA, et al.	2008	10.1626/pps.11.12

Root (continued)	Root plasticity (3)	Root Development, Water Uptake, and Shoot Dry Matter Production under Water Deficit Conditions in Two CSSLs of Rice: Functional Roles of Root Plasticity	Kano-Nakata M, et al.	2011	10.1626/pps.14.307
		Roles of Root Aerenchyma Development and Its Associated QTL in Dry Matter Production under Transient Moisture Stress in Rice	Niones JM, et al.	2013	10.1626/pps.16.205
		Matching the Expression of Root Plasticity with Soil Moisture Availability Maximizes Production of Rice Plants Grown in an Experimental Sloping Bed having Soil Moisture Gradients	Kameoka E, et al.	2015	10.1626/pps.18.267
	Root porosity (1)	Roles of Root Aerenchyma Development and Its Associated QTL in Dry Matter Production under Transient Moisture Stress in Rice	Niones JM, et al.	2013	10.1626/pps.16.205
	Root primordia (1)	Morphological and Anatomical Observations of Adventitious and Lateral Roots of Sago Palms	Nitta Y, et al.	2002	10.1626/pps.5.139
	Root proliferation (1)	Root Morphological Plasticity for Heterogeneous Phosphorus Supply in *Zea mays* L.	Yano K, et al.	2005	10.1626/pps.8.427
	Root senescence (1)	Root growth, soil water variation, and grain yield response of winter wheat to supplemental irrigation	Man J, et al.	2016	10.1080/1343943X.2015.1128097
	Root signals (2)	Stomatal Responses in Rainfed Lowland Rice to Partial Soil Drying; Evidence for Root Signals	Siopongco JDLC, et al.	2008	10.1626/pps.11.28
		Stomatal Responses in Rainfed Lowland Rice to Partial Soil Drying; Comparison of Two Lines	Siopongco JDLC, et al.	2009	10.1626/pps.12.17
	Root surface area (2)	Responses of Root Growth to Moderate Soil Water Deficit in Wheat Seedlings	Saidi A, et al.	2010	10.1626/pps.13.261
		Effects of Low Root Temperature on Dry Matter Production and Root Water Uptake in Rice Plants	Nagasuga K, et al.	2011	10.1626/pps.14.22
	Root system (10)	Root System Development of Cassava and Sweetpotato during Early Growth Stage as Affected by High Root Zone Temperature	Pardales JR, et al.	1999	10.1626/pps.2.247
		Root System Development Including Root Branching in Cuttings of Cassava with Reference to Shoot Growth and Tuber Bulking	Izumi Y, et al.	1999	10.1626/pps.2.267
		Dry Matter Production and Root System Development of Rice Cultivars under Fluctuating Soil Moisture	Bañoc DM, et al.	2000	10.1626/pps.3.197
		Fractal and Multifractal Analysis of Cassava Root System Grown by the Root- Box Method	Izumi Y, et al.	2002	10.1626/pps.5.146
		Effects of a Reduction in Soil Moisture from One Month before Flowering through Ripening on Dry Matter Production and Ecophysiological Characteristics of Wheat Plants	Nakagami K, et al.	2004	10.1626/pps.7.143
		Distribution Pattern of Root Nodules in Relation to Root Architecture in Two Leading Cultivars of Peanut (*Arachis hypogaea* L.) in Japan	Tajima R, et al.	2006	10.1626/pps.9.249
		Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
		Effects of Soil Type, Vertical Root Distribution and Precipitation on Grain Yield of Winter Wheat	Itoh H, et al.	2009	10.1626/pps.12.503
		Genetic Variations in Dry Matter Production, Nitrogen Uptake, and Nitrogen Use Efficiency in the AA Genome Oryza Species Grown under Different Nitrogen Conditions	Hamaoka N, et al.	2013	10.1626/pps.16.107
		Genotypic Variation in Morphological and Physiological Characteristics of Rice (*Oryza sativa* L.) under Aerobic Conditions	Nguyen NTA, et al.	2015	10.1626/pps.18.501
	Root system architecture (1)	Local Fractal Dimensions and Multifractal Analysis of the Root System of Legumes	Ketipearachchi WK, et al.	2000	10.1626/pps.3.289
	Root system component (1)	The Effect of Fluctuations of Soil Moisture on Root Development during the Establishment Phase of Sweetpotato	Pardales JRJr, et al.	2000	10.1626/pps.3.134
	Root system development (3)	Effects of Pre-Flowering Soil Moisture Deficits on Dry Matter Production and Ecophysiological Characteristics in Soybean Plants under Well Irrigated Conditions during Grain Filling	Hirasawa T, et al.	1998	10.1626/pps.1.8
		Comparison of Root System Development in Two Rice Cultivars During Stress Recovery from Drought and the Plant Traits for Drought Resistance	Trillana N, et al.	2001	10.1626/pps.4.155
		Effects of Soil Moisture Depletion for One Month before Flowering on Dry Matter Production and Ecophysiological Characteristics of Wheat Plants in Wet Soil during Grain Filling	Nakamura E, et al.	2003	10.1626/pps.6.195

Root (continued)	Root thickness (1)	Selection of Rice Lines Using SPGP Seedling Method for Direct Seeding	Won JG, et al.	1998	10.1626/pps.1.280
	Root tip (4)	Non-destructive Method for Root Elongation Measurement in Soil Using Acoustic Emission Sensors. I. Vertical measurement of single root elongation	Shimotashiro T, et al.	1998	10.1626/pps.1.25
		Non-destructive Method for Root Elongation Measurement in Soil Using Acoustic Emission Sensors. II. Spatial measurement of single root elongation	Shimotashiro T, et al.	1998	10.1626/pps.1.248
		Effects of Salinity Stress on the Seminal Root Tip Ultrastructures of Rice Seedlings (*Oryza sativa* L.)	Rahman S, et al.	2001	10.1626/pps.4.103
		Differential Sensitivity of Rice Cultivars to Salinity and Its Relation to Ion Accumulation and Root Tip Structure	Ferdose J, et al.	2009	10.1626/pps.12.453
	Root traits (2)	Root Growth and Water Extraction Response of Doubled-Haploid Rice Lines to Drought and Rewatering during the Vegetative Stage	Siopongco JDLC, et al.	2005	10.1626/pps.8.497
		Improving Drought-Avoidance Root Traits in Chickpea (*Cicer arietinum* L.) -Current Status of Research at ICRISAT	Gaur PM, et al.	2008	10.1626/pps.11.3
	Root water uptake (1)	Developmental Plasticity of Rice Root System Grown under Mild Drought Stress Condition with Shallow Soil Depth; Comparison between Nodal and Lateral roots	Kameoka E, et al.	2016	10.1080/1343943X.2015.1128094
	Root weight density (2)	Root Growth of Two Soybean [*Glycine max* (L.) Merr.] Cultivars Grown under Different Groundwater Level Conditions	Matsuo N, et al.	2013	10.1626/pps.16.374
		Root growth, soil water variation, and grain yield response of winter wheat to supplemental irrigation	Man J, et al.	2016	10.1080/1343943X.2015.1128097
	Root yield (1)	Accumulation of Soluble Sugar in True Seeds by Priming of Sugar Beet Seeds and the Effects of Priming on Growth and Yield of Drilled Plants	Mukasa Y, et al.	2003	10.1626/pps.6.74
	Root/shoot ratio (2)	Phenotypic Plasticity of Rice Seedlings: Case of Phosphorus Deficiency	Luquet D, et al.	2005	10.1626/pps.8.145
		Effects of Soil Temperature on Growth and Root Function in Rice	Arai-Sanoh Y, et al.	2010	10.1626/pps.13.235
	Root-lodging tolerance (1)	Effect of Field Drainage on Root Lodging Tolerance in Direct-Sown Rice in Flooded Paddy Field	Terashima K, et al.	2003	10.1626/pps.6.255
	Root-shoot relationship (1)	Root-shoot relationships in four strains of field-grown Erianthus arundinaceus at seedling stage	Shiotsu F, et al.	2016	10.1080/1343943X.2015.1128096
	Adventitious root (7)	Root System Development of Cassava and Sweetpotato during Early Growth Stage as Affected by High Root Zone Temperature	Pardales JR, et al.	1999	10.1626/pps.2.247
		Nurturing of Plantlets Using Cut Pieces from the Storage Roots of Sweet Potatoes (*Ipomoea batatas* (L.) Lam.) and their Productivity in the Field	Yamashita M.	2000	10.1626/pps.3.259
		Morphological and Anatomical Observations of Adventitious and Lateral Roots of Sago Palms	Nitta Y, et al.	2002	10.1626/pps.5.139
		Differences in Vegetative Growth Response to Soil Flooding between Common and Tartary Buckwheat	Matsuura H, et al.	2005	10.1626/pps.8.525
		Specific Variation in Shoot Growth and Root Traits under Waterlogging Conditions of the Seedlings of Tribe Triticeae Including Mizutakamoji (*Agropyron humidum*)	Kubo K, et al.	2007	10.1626/pps.10.91
		Effects of duration and combination of drought and flood conditions on leaf photosynthesis, growth and sugar content in sugarcane	Jaiphong T, et al.	2016	10.1080/1343943X.2016.1159520
		Changes in photosynthesis, growth, and sugar content of commercial sugarcane cultivars and *Erianthus* under flood conditions	Jaiphong T, et al.	2017	10.1080/1343943X.2016.1275711
	Axile root (3)	Rooting Nodes of Deep Roots in Rice and Maize Grown in a Long Tube	Araki H, et al.	1998	10.1626/pps.1.242
		Which Roots Penetrate the Deepest in Rice and Maize Root Systems?	Araki H, et al.	2000	10.1626/pps.3.281
		Physiol-Morphological Analysis on Axile Root Growth in Upland Rice	Araki H, et al.	2002	10.1626/pps.5.286
	Branching of root (1)	Development and Distribution of Root System in Two Grain Sorghum Cultivars Originated from Sudan under Drought Stress	Tsuji W, et al.	2005	10.1626/pps.8.553
	Branching roots (1)	Specific Variation in Shoot Growth and Root Traits under Waterlogging Conditions of the Seedlings of Tribe Triticeae Including Mizutakamoji (*Agropyron humidum*)	Kubo K, et al.	2007	10.1626/pps.10.91
	Critical root length density (1)	Root Growth and Water Extraction Response of Doubled-Haploid Rice Lines to Drought and Rewatering during the Vegetative Stage	Siopongco JDLC, et al.	2005	10.1626/pps.8.497

Root (continued)	Crown root primordia (2)	Anatomical Characteristics of the Formation of Crown Root Primordia in Unelongated Stems of Wheat	Nitta Y, et al.	2005	10.1626/pps.8.186
		Relation between Crown Root Primordia Formation and Stem Size in Unelongated Stems of Wheat (*Triticum aestivum* L.)	Nitta Y, et al.	2006	10.1626/pps.9.266
	Deep root (8)	Rooting Nodes of Deep Roots in Rice and Maize Grown in a Long Tube	Araki H, et al.	1998	10.1626/pps.1.242
		Deep Rooting in Winter Wheat : Rooting Nodes of Deep Roots in Two Cultivars with Deep and Shallow Root Systems	Araki H, et al.	2001	10.1626/pps.4.215
		Deep Root Water Uptake Ability and Water Use Effi ciency of Pearl Millet in Comparison to Other Millet Species	Zegada-Lizarazu W, et al.	2005	10.1626/pps.8.454
		Water-Extraction by Split-Roots of Sesbania and Pigeon Pea Exposed to Spatially Heterogeneous Distribution of Soil Water	Sekiya N, et al.	2006	10.1626/pps.9.191
		Growth of Rice (*Oryza sativa* L.) Cultivars under Upland Conditions with Different Levels of Water Supply. 3. Root System Development, Soil Moisture Change and Plant Water Status	Kato Y, et al.	2007	10.1626/pps.10.3
		No-Tillage Enhanced the Dependence on Surface Irrigation Water in Wheat and Soybean	Iijima M, et al.	2007	10.1626/pps.10.182
		Varietal Differences in Stem Diameter and Rooting Number of Phytomers in Conjunction with Root System Development of Field-Grown Rice (*Oryza sativa* L.)	Kato Y, et al.	2007	10.1626/pps.10.357
		Matching the Expression of Root Plasticity with Soil Moisture Availability Maximizes Production of Rice Plants Grown in an Experimental Sloping Bed having Soil Moisture Gradients	Kameoka E, et al.	2015	10.1626/pps.18.267
	Deepest root (1)	Which Roots Penetrate the Deepest in Rice and Maize Root Systems?	Araki H, et al.	2000	10.1626/pps.3.281
	Direction of root elongation (2)	Which Roots Penetrate the Deepest in Rice and Maize Root Systems?	Araki H, et al.	2000	10.1626/pps.3.281
		Deep Rooting in Winter Wheat : Rooting Nodes of Deep Roots in Two Cultivars with Deep and Shallow Root Systems	Araki H, et al.	2001	10.1626/pps.4.215
	Growth angle of nodal root (1)	Development and Distribution of Root System in Two Grain Sorghum Cultivars Originated from Sudan under Drought Stress	Tsuji W, et al.	2005	10.1626/pps.8.553
	High shoot and root temperature (1)	Physiological Response of Three Wheat Cultivars to High Shoot and Root Temperatures during Early Growth Stages	Tahir ISA, et al.	2009	10.1626/pps.12.409
	Lateral root (1)	Nursery Growth of Banana (*Musa* spp.) Plantlets Rooted on Auxin-free and Auxin-supplemented Media	Buah JN, et al.	1998	10.1626/pps.1.207
	Lateral root (10)	Root System Development of Cassava and Sweetpotato during Early Growth Stage as A~ffected by High Root Zone Temperature	Pardales JR, et al.	1999	10.1626/pps.2.247
		Root System Development Including Root Branching in Cuttings of Cassava with Reference to Shoot Growth and Tuber Bulking	Izumi Y, et al.	1999	10.1626/pps.2.267
		Dry Matter Production and Root System Development of Rice Cultivars under Fluctuating Soil Moisture	Bañoc DM, et al.	2000	10.1626/pps.3.197
		Genotypic Variations in Response of Lateral Root Development to Fluctuating Soil Moisture in Rice	Bañoc DM, et al.	2000	10.1626/pps.3.335
		Morphological and Anatomical Observations of Adventitious and Lateral Roots of Sago Palms	Nitta Y, et al.	2002	10.1626/pps.5.139
		Sugar Accumulation along the Seminal Root Axis, as Affected by Osmotic Stress in Maize: A Possible Physiological Basis for Plastic Lateral Root Development	Ogawa A, et al.	2005	10.1626/pps.8.173
		Distribution Pattern of Root Nodules in Relation to Root Architecture in Two Leading Cultivars of Peanut (*Arachis hypogaea* L.) in Japan	Tajima R, et al.	2006	10.1626/pps.9.249
		Utilizing Chromosome Segment Substitution Lines (CSSLs) for Evaluation of Root Responses to Transient Moisture Stresses in Rice	Suralta RR, et al.	2008	10.1626/pps.11.457
		Genotypic Variation in Responses of Cassava (*Manihot esculenta* Crantz) to Drought and Rewatering: Root System Development	Subere JOQ, et al.	2009	10.1626/pps.12.462
		Effects of Low Root Temperature on Dry Matter Production and Root Water Uptake in Rice Plants	Nagasuga K, et al.	2011	10.1626/pps.14.22
	Lateral root production (1)	Genotypic Variations in Responses of Lateral Root Development to Transient Moisture Stresses in Rice Cultivars	Suralta RR, et al.	2008	10.1626/pps.11.324

Root (continued)	L-type lateral root (1)	Genotypic Variation in Osmotic Stress Tolerance Among Rice Cultivars and Its Association with L-Type Lateral Root Development	Toyofuku K, et al.	2015	10.1626/pps.18.246
	Nodal root (3)	Dry Matter Production and Root System Development of Rice Cultivars under Fluctuating Soil Moisture	Bañoc DM, et al.	2000	10.1626/pps.3.197
		Anatomy of Nodal Roots in Tropical Upland and Lowland Rice Varieties	Kondo M, et al.	2000	10.1626/pps.3.437
		Deep Rooting in Winter Wheat: Rooting Nodes of Deep Roots in Two Cultivars with Deep and Shallow Root Systems	Araki H, et al.	2001	10.1626/pps.4.215
	Penetrating ability of root (1)	Genotypic Variation of the Ability of Root to Penetrate Hard Soil Layers among Japanese Wheat Cultivars	Kubo K, et al.	2006	10.1626/pps.9.47
	Primary root (2)	Non-destructive Method for Root Elongation Measurement in Soil Using Acoustic Emission Sensors. I. Vertical measurement of single root elongation	Shimotashiro T, et al.	1998	10.1626/pps.1.25
		Non-destructive Method for Root Elongation Measurement in Soil Using Acoustic Emission Sensors. II. Spatial measurement of single root elongation	Shimotashiro T, et al.	1998	10.1626/pps.1.248
	Seminal root (4)	Growth and Panicle Characters of Wheat with a Single Primary Seminal Root allowed to Grow	Arima S, et al.	1999	10.1626/pps.2.21
		Genotypic Variations in Response of Lateral Root Development to Fluctuating Soil Moisture in Rice	Bañoc DM, et al.	2000	10.1626/pps.3.335
		Deep Rooting in Winter Wheat: Rooting Nodes of Deep Roots in Two Cultivars with Deep and Shallow Root Systems	Araki H, et al.	2001	10.1626/pps.4.215
		Aerenchyma Formation in the Seminal Roots of Japanese Wheat Cultivars in Relation to Growth under Waterlogged Conditions	Haque ME, et al.	2012	10.1626/pps.15.164
	Single-rooted leaf (1)	Feed-Forward Effects on the Photosynthetic Source-Sink Balance in Single-Rooted Leaves of Sweet Potato	Sawada S, et al.	1999	10.1626/pps.2.87
	Sloughed root cap cells (1)	Dynamics of Root Border Cells in Rhizosphere Soil of Zea mays L.: Crushed Cells during Root Penetration, Survival in Soil, and Long Term Soil Compaction Effect	Somasundaram S, et al.	2008	10.1626/pps.11.440
	Specific root length (1)	Water-Extraction by Split-Roots of Sesbania and Pigeon Pea Exposed to Spatially Heterogeneous Distribution of Soil Water	Sekiya N, et al.	2006	10.1626/pps.9.191
	Storage root formation (1)	Stimulation of Root Thickening and Inhibition of Bolting by Jasmonic Acid in Beet Plants	Koda Y, et al.	2001	10.1626/pps.4.131
	Top-root ratio (1)	Growth and Panicle Characters of Wheat with a Single Primary Seminal Root allowed to Grow	Arima S, et al.	1999	10.1626/pps.2.21
	Tuberous root (1)	Effect of Calcium Concentration on the Shape of Sweet Potato (*Ipomoea batatas* Lam.) Tuberous Root	Sulaiman H, et al.	2004	10.1626/pps.7.191
	Tuberous root formation (1)	Regulation of Expression of D3-type Cyclins and ADP-Glucose Pyrophosphorylase Genes by Sugar, Cytokinin and ABA in Sweet Potato (*Ipomoea batatas* Lam.)	Nagata T, et al.	2009	10.1626/pps.12.434
	Vertical distribution of roots (1)	Deep Rooting in Winter Wheat: Rooting Nodes of Deep Roots in Two Cultivars with Deep and Shallow Root Systems	Araki H, et al.	2001	10.1626/pps.4.215
Rooting (9)	Rooting ability (1)	Hydrogen Stable Isotope Analysis of Water Acquisition Ability of Deep Roots and Hydraulic Lift in Sixteen Food Crop Species	Zegada-Lizarazu W, et al.	2004	10.1626/pps.7.427
	Rooting depth (1)	Cassava-Based Intercropping Systems on Sumatra Island in Indonesia: Productivity, Soil Erosion, and Rooting Zone	Iijima M, et al.	2004	10.1626/pps.7.347
	Rooting habit (1)	Rooting Nodes of Deep Roots in Rice and Maize Grown in a Long Tube	Araki H, et al.	1998	10.1626/pps.1.242
	Rooting pattern (1)	Pearl Millet Developed Deep Roots and Changed Water Sources by Competition with Intercropped Cowpea in the Semiarid Environment of Northern Namibia	Zegada-Lizarazu W, et al.	2006	10.1626/pps.9.355
	Deep rooting (5)	Which Roots Penetrate the Deepest in Rice and Maize Root Systems?	Araki H, et al.	2000	10.1626/pps.3.281
		Growth of Three Rice (*Oryza sativa* L.) Cultivars under Upland Conditions with Different Levels of Water Supply. 1. Nitrogen Content and Dry Matter Production	Kato Y, et al.	2006	10.1626/pps.9.422
		Relationship between Deep Root Distribution and Root Penetration Capacity Estimated by Pot Experiments with a Paraffin and Vaseline Layer for Landraces and Recent Cultivars of Wheat	Kubo K, et al.	2008	10.1626/pps.11.487

Rooting (continued)	Deep rooting (continued)	Genotypic variation in rice varieties screened for deep rooting under field conditions in West Africa	Samejima H, et al.	2016	10.1080/13 43943X.20 15.1128085
		Developmental Plasticity of Rice Root System Grown under Mild Drought Stress Condition with Shallow Soil Depth; Comparison between Nodal and Lateral roots	Kameoka E, et al.	2016	10.1080/13 43943X.20 15.1128094