

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

PHYSIOLOGY (G-L)

Keyword		Article title (downloadable pdf link)	Author	Year	DOI
Gain (1)	Carbon gain (1)	Changes in Vertical Distribution of Leaf Nitrogen with the Growth Stage and the Influence on Dry Matter Production in Rice	Hasegawa T.	1999	10.1626/pps.2.37
Gas exchange (10)	Gas exchange (9)	Effects of Nitrogen Application on Dark-Respiration in Different Parts of Rice Seedlings	Saitoh K, et al.	2000	10.1626/pps.3.243
		Gas Exchange through the Slit between the Lemma and the Pale a in the Rice (<i>Oryza sativa</i> L.) Floret before Anthesis	Matsui T, et al.	2003	10.1626/pps.6.262
		Photosynthetic Recovery of a Perennial Grass <i>Leymus chinensis</i> after Different Periods of Soil Drought	Xu ZZ, et al.	2007	10.1626/pps.10.277
		Gas Exchange Analysis for Estimating Net CO₂ Fixation Capacity of Mangrove (<i>Rhizophora stylosa</i>) Forest in the Mouth of River Fukido, Ishigaki Island, Japan	Okimoto Y, et al.	2007	10.1626/pps.10.303
		Effects of Coronatine on Growth, Gas Exchange Traits, Chlorophyll Content, Antioxidant Enzymes and Lipid Peroxidation in Maize (<i>Zea mays</i> L.) Seedlings under Simulated Drought Stress	Wang B, et al.	2008	10.1626/pps.11.283
		Leaf Growth, Gas Exchange and Chlorophyll Fluorescence Parameters in Response to Different Water Deficits in Wheat Cultivars	Wu X, et al.	2011	10.1626/pps.14.254
		Inclination Angle Affects Ozone Injury in the Flag Leaf of Rice	Kobayakawa H, et al.	2013	10.1626/pps.16.24
		Relation between O₃-Inhibition of Photosynthesis and Ethylene in Paddy Rice Grown under Different CO₂ Concentrations	Kobayakawa H, et al.	2015	10.1626/pps.18.22
		Exogenous ascorbic acid scarcely ameliorates inhibition of photosynthesis in rice leaves by O₃	Kobayakawa H, et al.	2017	10.1080/1343943X.2016.1232149
	Gas exchange rate (1)	Mechanism of High Photosynthetic Capacity in BC₂F₄ Lines Derived from a Cross between <i>Oryza sativa</i> and Wild Relatives <i>O. rufipogon</i>	Masumoto C, et al.	2005	10.1626/pps.8.539
Generation (1)	CO ₂ generation (1)	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
Germination (42)	Germination (33)	Genetic Gain and Heritability of Seedling Characters Selected at a Low Temperature in Pearl Millet (<i>Pennisetum typhoideum</i> Rich.)	Totok ADH, et al.	1998	10.1626/pps.1.47
		Changes in α-Amylase Isoforms during Emergence of Rice in Submerged Soil	Huang J, et al.	1999	10.1626/pps.2.12
		Electron Microscopy Related to the Reserve Mobilization in Germinating Rice Seed: Decomposition process of protein bodies	Zakaria S, et al.	1999	10.1626/pps.2.100
		Calculation of Population Parameters using Richards Function and Application of Indices of Growth and Seed Vigor to Rice Plants	Hara Y.	1999	10.1626/pps.2.129
		Factors Relating to Seedling Emergence in Spring Wheat	Ueno K, et al.	1999	10.1626/pps.2.235
		Expression of α-Amylase Isoforms and the <i>RAmy1A</i> Gene in Rice (<i>Oryza sativa</i> L.) during Seed Germination, and its Relationship with Coleoptile Length in Submerged Soil	Huang J, et al.	2000	10.1626/pps.3.32
		Allelopathy in Maize II. Allelopathic potential of a new benzoxazolinone, 5-chloro-6-methoxy-2-benzoxazolinone and its analogues	Kato-Noguchi H.	2000	10.1626/pps.3.47
		Morphological Studies on the Mobilization of Reserves in Germinating Rice Seed: Decomposition process of starch granules	Zakaria S, et al.	2000	10.1626/pps.3.152
		Does Wetting and Redrying the Seed before Sowing Improve Rice Germination and Emergence under Low Soil Moisture Conditions?	Andoh H, et al.	2000	10.1626/pps.3.161
		GA₃ and Proline Promote Germination of Wheat Seeds by Stimulating α-Amylase at Unfavorable Temperatures	Sultana N, et al.	2000	10.1626/pps.3.232
		Effect of Temperature on the Decomposition of Reserves during Germination and Early Growth of Rice Plants: An electron microscopic study	Zakaria S, et al.	2001	10.1626/pps.4.20
		Effect of Seed Hardening, Wetting and Redrying before Sowing, on Germination and Seedling Emergence of a Japanese Wheat Variety Norin 61 in Desiccated Soil	Andoh H, et al.	2001	10.1626/pps.4.50

Germination (continued)	Germination (continued)	Submergence Tolerance and Ethanolic Fermentation in Rice Coleoptiles	Kato-Noguchi H.	2001	10.1626/pps .4.62
		A Varietal Difference in Coleoptile Growth is Correlated with Seedling Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions	Ogiwara H, et al.	2001	10.1626/pps .4.166
		Germination of Wheat Grains at Various Temperatures in Relation to the Activities of α -Amylase and Endoprotease	Ichinose Y, et al.	2002	10.1626/pps .5.110
		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
		Response of Sesame (<i>Sesamum indicum</i> L.) to Low Oxygen Concentration during Germination	Tian X, et al.	2003	10.1626/pps .6.126
		The Role of Seed Structure and Oxygen Responsiveness in Pre-Germination Flooding Tolerance of Soybean Cultivars	Tian XH, et al.	2005	10.1626/pps .8.157
		Ascorbic Acid Suppresses Germination and Dynamic States of Water in Wheat Seeds	Ishibashi Y, et al.	2006	10.1626/pps .9.172
		Development of Rice "Seed-Mats" Consisting of Hardened Seeds with a Cover of Soil for the Rice Transplanter	Shiratsuchi H, et al.	2008	10.1626/pps .11.108
		Relation of Seed Structures to Soybean Cultivar Difference in Pre-germination Flooding Tolerance	Muramatsu N, et al.	2008	10.1626/pps .11.434
		Effects of Sprouting on Texture of Cooked Buckwheat (<i>Fagopyrum esculentum</i> Moench) Noodles	Hara T, et al.	2009	10.1626/pps .12.492
		NADPH Oxidases Act as Key Enzyme on Germination and Seedling Growth in Barley (<i>Hordeum vulgare</i> L.)	Ishibashi Y, et al.	2010	10.1626/pps .13.45
		α -Amylase Activity and Soluble Sugar Supply from Endosperm in Relation to Varietal Differences in Seedling Establishment under Low-Temperature Conditions in Rice (<i>Oryza sativa</i> L.)	Ogiwara H, et al.	2010	10.1626/pps .13.321
		Does Allelopathy Play a Role in Suppression of Mugwort (<i>Artemisia vulgaris</i>) by Alfalfa?	Onen H.	2013	10.1626/pps .16.255
		QTLs for Seedling Growth of Direct Seeded Rice under Submerged and Low Temperature Conditions	Fukuda A, et al.	2014	10.1626/pps .17.41
		Does Pre-Germination Flooding-Tolerant Soybean Cultivar Germinate Better under Hypoxia Conditions?	Nakajima T, et al.	2015	10.1626/pps .18.146
		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
		Suppressive Effects of Low Seed-Soaking Temperatures on Germination of Long-Term-Stored Rice Seeds	Itayagoshi S, et al.	2015	10.1626/pps .18.455
		Seed Germination and Coleoptile Growth of New Rice Lines Adapted to Hypoxic Conditions	Adachi Y, et al.	2015	10.1626/pps .18.471
		Germination Characteristics of SC701 Maize Hybrid According to Size and Shape at Different Temperature Regimes	Akinnuoye DB, et al.	2015	10.1626/pps .18.514
		Germination rate (1)	Effects of elevated CO ₂ concentration on bulbil germination and early seedling growth in Chinese yam under different air temperatures	Trabelsi I, et al.	2016
10.1080/13 43943X.20 17.1289067					
Germination time (1)	Estimating the Temperature Dependence of Germination Time by Assuming Multiple Rate-Determining Steps	Hara Y, et al.	2005	10.1626/pps .8.361	
Germinated pollen grains (1)	Cleistogamy Decreases the Effect of High Temperature Stress at Flowering in Rice	Koike S, et al.	2015	10.1626/pps .18.111	
Pollen germination (3)	Susceptibility to Coolness at the Young Microspore Stage under High Nitrogen Supply in Rice (<i>Oryza Sativa</i> L.). Proteome Analysis of Mature Anthers	Hayashi T, et al.	2006	10.1626/pps .9.212	
	Effects of High Nitrogen Supply on the Susceptibility to Coolness at the Young Microspore Stage in Rice (<i>Oryza sativa</i> L.): Gene Expression Analysis in Mature Anthers	Hayashi T, et al.	2009	10.1626/pps .12.271	
	Lower-Than-Expected Floret Sterility of Rice under Extremely Hot Conditions in a Flood-Irrigated Field in New South Wales, Australia	Matsui T, et al.	2014	10.1626/pps .17.245	

Germination (continued)	Seed germination (3)	Biochemical Analysis of Protein Kinase Activities in the Dry Seeds of Rice	Kanekatsu M, et al.	2005	10.1626/pps.8.65	
		Variation of Germination Response to Temperature in Formosan Lily (<i>Lilium formosanum</i> Wall.) Collected from Different Latitudes and Elevations in Taiwan	Weng JH, et al.	2006	10.1626/pps.9.281	
		Varietal Differences of Flood Tolerance during Germination and Selection of the Tolerant Lines in Common Buckwheat	Sakata K, et al.	2006	10.1626/pps.9.395	
Gradient (1)	Nitrogen gradient (1)	Changes in Vertical Distribution of Leaf Nitrogen with the Growth Stage and the Influence on Dry Matter Production in Rice	Hasegawa T.	1999	10.1626/pps.2.37	
Grain (93)	Grain (1)	Cadmium Concentration in Grains of Japanese Wheat Cultivars: Genotypic Difference and Relationship with Agronomic Characteristics	Kubo K, et al.	2008	10.1626/pps.11.243	
	Grain dry matter (1)	Liquid Culturing of Detached Panicles of Rice: Cooled Culture Solutions Extend the Period of Growth	Kobata T, et al.	2001	10.1626/pps.4.280	
	Grain fill (1)	Adaptation of rice (<i>Oryza sativa</i> L.) genotypes in the rainfed lowlands of Lao PDR	Sengxua P, et al.	2017	10.1080/1343943X.2017.1403290	
	Grain filling (10)		Dynamics of Abscisic Acid Levels during Grain-Filling in Rice: Comparisons between Superior and Inferior Spikelets	Tsukaguchi T, et al.	1999	10.1626/pps.2.223
			Effects of Dry Matter Production, Translocation of Nonstructural Carbohydrates and Nitrogen Application on Grain Filling in Rice Cultivar Takanari, a Cultivar Bearing a Large Number of Spikelets	Nagata K, et al.	2001	10.1626/pps.4.173
			Historical Changes in Grain Yield and Photosynthetic Rate of Rice Cultivars Released in the 20th Century in Tohoku Region	Zheng W-H, et al.	2004	10.1626/pps.7.36
			Effect of CO ₂ Enrichment on the Translocation and Partitioning of Carbon at the Early Grain-filling Stage in Rice (<i>Oryza sativa</i> L.)	Sasaki H, et al.	2005	10.1626/pps.8.8
			Activities of Enzymes for Sucrose-Starch Conversion in Developing Endosperm of Rice and Their Association with Grain Filling in Extra-Heavy Panicle Types	Kato T, et al.	2007	10.1626/pps.10.442
			Effects of Assimilate Supply and High Temperature during Grain-Filling Period on the Occurrence of Various Types of Chalky Kernels in Rice Plants (<i>Oryza sativa</i> L.)	Tsukaguchi T, et al.	2008	10.1626/pps.11.203
			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
			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
			Varietal Difference in the Occurrence of Milky White Kernels in Response to Assimilate Supply in Rice Plants (<i>Oryza sativa</i> L.)	Tsukaguchi T, et al.	2011	10.1626/pps.14.111
			Molecular physiological aspects of chalking mechanism in rice grains under high-temperature stress	Mitsui T, et al.	2016	10.1080/1343943X.2015.1128112
	Grain filling duration (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	
	Grain filling mechanisms (1)	Grain Filling Mechanisms in Two Wheat Cultivars, Haruyutaka and Daichinominori, grown in Western Japan and in Hokkaido	Hossain MA, et al.	2010	10.1626/pps.13.156	
	Grain filling period (1)	Stay-Green in Rice (<i>Oryza sativa</i> L.) of Drought-Prone Areas in Desiccated Soils	Hoang TB, et al.	2009	10.1626/pps.12.397	
	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	
	Grain growth (1)	Storage and Remobilization of Soluble Carbohydrates after Heading in Different Plant Parts of a Winter Wheat Cultivar	Takahashi T, et al.	2001	10.1626/pps.4.160	
	Grain number (1)	Analysis of yield-attributing traits for high-yielding wheat lines in southwestern Japan	Okami M, et al.	2016	10.1080/1343943X.2016.1151331	
	Grain number per spike (2)	Investigation of Yielding Ability of Wheat Cultivars for Early-Sowing Cultivation in Yamaguchi	Zhang L, et al.	2006	10.1626/pps.9.83	
Factors in the Reduction in Grain Number in Winter Wheat by Early-Sowing in Yamaguchi		Zhang L, et al.	2007	10.1626/pps.10.189		
Grain number per spikelet (1)	Factors in the Reduction in Grain Number in Winter Wheat by Early-Sowing in Yamaguchi	Zhang L, et al.	2007	10.1626/pps.10.189		

Grain (continued)	Grain production (2)	Rice Production in Unfertilized Paddy Field: Mechanism of grain production as estimated from nitrogen economy	Okumura T.	2002	10.1626/pps .5.83
		Differences in dry matter production, grain production, and photosynthetic rate in barley cultivars under long-term salinity	Hirasawa T, et al.	2017	10.1080/13 43943X.20 17.1343647
	Grain protein content (3)	Effect of Nitrogen Application Rate and Timing on Grain Yield and Protein Content of the Bread Wheat Cultivar 'Minaminokaori' in Southwestern Japan	Nakano H, et al.	2008	10.1626/pps .11.151
		Effects of Seeding Rate and Nitrogen Application Rate on Grain Yield and Protein Content of the Bread Wheat Cultivar 'Minaminokaori' in Southwestern Japan	Nakano H, et al.	2009	10.1626/pps .12.109
		The effects of nitrogen uptake before and after heading on grain protein content and the occurrence of basal- and back-white grains in rice (<i>Oryza sativa</i> L.)	Tsukaguchi T, et al.	2016	10.1080/13 43943X.20 16.1223527
	Grain quality (8)	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
		Molecular Breeding for Rainfed Lowland Rice in the Mekong Region	Toojinda T, et al.	2005	10.1626/pps .8.330
		Reduction of Rice Chalky Grain by Deep and Permanent Irrigation Method; Effect on Growth and Grain Quality of Rice	Hayashi M, et al.	2011	10.1626/pps .14.282
		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
		Enhanced Nitrogen Uptake and Photosynthesis of Rice Grown with Deep and Permanent Irrigation Method: Possible Mechanism for Chalky Grain Reduction	Hayashi M, et al.	2013	10.1626/pps .16.309
		Long-term Effect of Year-Round Tillage Patterns on Yield and Grain Quality of Wheat	Tang Y, et al.	2013	10.1626/pps .16.365
		Breeding efforts to mitigate damage by heat stress to spikelet sterility and grain quality	Ishimaru T, et al.	2016	10.1080/13 43943X.20 15.1128113
		Differential responses to high temperature during maturation in heat-stress-tolerant cultivars of <i>Japonica</i> rice	Tanamachi K, et al.	2016	10.1080/13 43943X.20 16.1140007
	Grain shattering (3)	Breaking Strength of Pedicel and Grain Shattering Habit in Two Species of Buckwheat (<i>Fagopyrum</i> spp.)	Oba S, et al.	1998	10.1626/pps .1.62
		Breaking Strength of Pedicel as an Index of Grain-Shattering Habit in Autotetraploid and Diploid Buckwheat (<i>Fagopyrum esculentum</i> Moench.) Cultivars	Oba S, et al.	1999	10.1626/pps .2.190
		Yield Potential and Physiological and Morphological Characteristics Related to Yield Performance in <i>Oryza glaberrima</i> Steud.	Futakuchi K, et al.	2012	10.1626/pps .15.151
	Grain shedding habit (1)	Association of Grain Shedding Habit with Polyploidy in Tartary Buckwheat (<i>Fagopyrum tataricum</i>) Strains	Oba S, et al.	2004	10.1626/pps .7.212
	Grain size (1)	Association of Grain Shedding Habit with Polyploidy in Tartary Buckwheat (<i>Fagopyrum tataricum</i>) Strains	Oba S, et al.	2004	10.1626/pps .7.212
	Grain texture (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
	Grain yield (40)	Effects of Selection for Yield Components on Grain Yield in Pearl Millet (<i>Pennisetum typhoideum</i> Rich.)	Totok ADH, et al.	1998	10.1626/pps .1.52
		Effect of Soil Compaction on the Grain Yield of Rice (<i>Oryza sativa</i> L.) under Water-Deficit Stress during the Reproductive Stage	Hoque M, et al.	2000	10.1626/pps .3.316
		Grain Yield and Related Physiological Characteristics of Rice Plants (<i>Oryza sativa</i> L.) Inoculated with Free-Living Rhizobacteria	Alam MS, et al.	2001	10.1626/pps .4.126
		Agronomic Performance of F ₁ Hybrids of Rice (<i>Oryza sativa</i> L.) in Japonica-Indica Crosses: Heterosis for and relationship between grain yield and related characters	Murayama S, et al.	2002	10.1626/pps .5.203
Contribution of Biomass Partitioning and Translocation to Grain Yield under Sub-Optimum Growing Conditions in Irrigated Rice		Laza MRC, et al.	2003	10.1626/pps .6.28	
Sterility of Thermo-Sensitive Genic Male Sterile Line, Heterosis for Grain Yield and Related Characters in F ₁ Hybrid Rice (<i>Oryza sativa</i> L.)		Pham VC, et al.	2004	10.1626/pps .7.22	
Effect of Panicle Size on Grain Yield of IRRI-Released Indica Rice Cultivars in the Wet Season		Laza MRC, et al.	2004	10.1626/pps .7.271	
Investigation of Yielding Ability of Wheat Cultivars for Early-Sowing Cultivation in Yamaguchi		Zhang L, et al.	2006	10.1626/pps .9.83	
Effect of Planting Density on Grain Yield and Water Productivity of Rice (<i>Oryza sativa</i> L.) Grown in Flooded and Non-flooded Fields in Japan		Hayashi S, et al.	2006	10.1626/pps .9.298	

Grain (continued)	Grain yield (continued)	Growth of Three Rice Cultivars (<i>Oryza sativa</i> L.) under Upland Conditions with Different Levels of Water Supply. 2. Grain Yield	Kato Y, et al.	2006	10.1626/pps .9.435
		Spatial Distribution of Leaf Area Index and Leaf N Content in Relation to Grain Yield and Nitrogen Uptake in Rice	Jing Q, et al.	2007	10.1626/pps .10.136
		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 Nitrogen Application Rate and Timing on Grain Yield and Protein Content of the Bread Wheat Cultivar 'Minaminokaori' in Southwestern Japan	Nakano H, et al.	2008	10.1626/pps .11.151
		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
		Current Status and Challenges of Rice Production in China	Peng S, et al.	2009	10.1626/pps .12.3
		A Knowledge-Based Model for Nitrogen Management in Rice and Wheat	Cao J, et al.	2009	10.1626/pps .12.100
		Effects of Seeding Rate and Nitrogen Application Rate on Grain Yield and Protein Content of the Bread Wheat Cultivar 'Minaminokaori' in Southwestern Japan	Nakano H, et al.	2009	10.1626/pps .12.109
		Comparison of Growth and Grain Yield of Spring Wheat in Lhasa, the Tibetan Plateau, with those in Sapporo, Japan	Fujimura S, et al.	2009	10.1626/pps .12.116
		Genotypic Differences in Dry Matter Accumulation, Nitrogen Use Efficiency and Harvest Index in Recombinant Inbred Lines of Rice under Hydroponic Culture	Ju J, et al.	2009	10.1626/pps .12.208
		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	Tayloran RD, et al.	2009	10.1626/pps .12.365
		Effects of Crop Residue and Nitrogen Rates on Yield and Yield Components of Two Dryland Wheat (<i>Triticum aestivum</i> L.) Cultivars	Sadeghi H, et al.	2009	10.1626/pps .12.497
		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
		Growth and Yield of Six Rice Cultivars under Three Water-saving Cultivations	Matsuo N, et al.	2009	10.1626/pps .12.514
		Spatial Variations in Water Availability, Soil Fertility and Grain Yield in Rainfed Lowland Rice: A Case Study from Savannakhet Province, Lao PDR	Inthavong T, et al.	2011	10.1626/pps .14.184
		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
		Grain Yield and Leaf Area Growth of Direct-Seeded Rice on Flooded and Aerobic Soils in Japan	Okami M, et al.	2013	10.1626/pps .16.276
		Long-term Effect of Year-Round Tillage Patterns on Yield and Grain Quality of Wheat	Tang Y, et al.	2013	10.1626/pps .16.365
		Comparison of Five Nitrogen Dressing Methods to Optimize Rice Growth	Chen QC, et al.	2014	10.1626/pps .17.66
		SPAD Values and Nitrogen Nutrition Index for the Evaluation of Rice Nitrogen Status	Yang H, et al.	2014	10.1626/pps .17.81
		Field Technique and Traits to Assess Reproductive Stage Cold Tolerance in Sorghum (<i>Sorghum bicolor</i> (L.) Moench)	Krishnamurthy L, et al.	2014	10.1626/pps .17.218
		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
		Chlorophyll Fluorescence and Yield Responses of Winter Wheat to Waterlogging at Different Growth Stages	Wu X, et al.	2015	10.1626/pps .18.284
		Characterizing N uptake and use efficiency in rice as influenced by environments	Jiang P, et al.	2016	10.1080/13 43943X.20 15.1128103
		Root growth, soil water variation, and grain yield response of winter wheat to supplemental irrigation	Man J, et al.	2016	10.1080/13 43943X.20 15.1128097
		Effect of pre- and post-heading waterlogging on growth and grain yield of four millets	Matsuura A, et al.	2016	10.1080/13 43943X.20 16.1146907
Analysis of yield-attributing traits for high-yielding wheat lines in southwestern Japan	Okami M, et al.	2016	10.1080/13 43943X.20 16.1151331		
Bayesian analysis of quantitative traits in popcorn (<i>Zea mays</i> L.) through four cycles of recurrent selection	do Amaral Jr AT, et al.	2016	10.1080/13 43943X.20 16.1222870		

Grain (continued)	Grain yield (continued)	Suppression of starch accumulation in 'sugar leaves' of rice affects plant productivity under field conditions	Okamura M, et al.	2017	10.1080/1343943X.2016.1259958
		Overexpression of <i>CO₂-responsive CCT protein</i> , a key regulator of starch synthesis strikingly increases the glucose yield from rice straw for bioethanol production	Morita R, et al.	2017	10.1080/1343943X.2017.1389614
		Adaptation of rice (<i>Oryza sativa</i> L.) genotypes in the rainfed lowlands of Lao PDR	Sengxua P, et al.	2017	10.1080/1343943X.2017.1403290
	Grains thickness (1)	The Palatability and Physicochemical Properties of Milled Rice for Each Grain-Thickness Group	Matsue Y, et al.	2001	10.1626/pps.4.71
	Large grain (2)	Varietal Differences in Morphological Traits, Dry Matter Production and Yield of High-Yielding Rice in the Tohoku Region of Japan	Fukushima A, et al.	2011	10.1626/pps.14.47
		Effects of Nitrogen Application and Planting Density on Morphological Traits, Dry Matter Production and Yield of Large Grain Type Rice Variety Bekoaoba and Strategies for Super High-Yielding Rice in the Tohoku Region of Japan	Fukushima A, et al.	2011	10.1626/pps.14.56
	Percentage of filled grains (1)	Responses of Yielding Ability, Sink Size and Percentage of Filled Grains to the Cultivation Practices in a Chinese Large-Panicle-Type Rice Cultivar, Yangdao 4	Gendua PA, et al.	2009	10.1626/pps.12.243
	Pollen grain (1)	Effects of the number of pollen grains on cold tolerance at the booting stage in rice lines with QTLs for cold tolerance	Fukushima A, et al.	2017	10.1080/1343943X.2016.1245103
	Pollen grain swelling (2)	Rapid Swelling of Pollen Grains in Response to Floret Opening Unfolds Anther Locules in Rice (<i>Oryza sativa</i> L.)	Matsui T, et al.	1999	10.1626/pps.2.196
		High Temperature at Flowering Inhibits Swelling of Pollen Grains, a Driving Force for Thecae Dehiscence in Rice (<i>Oryza sativa</i> L.)	Matsui T, et al.	2000	10.1626/pps.3.430
	Poor grain filling (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
	Protein content of grain (2)	Predicting the Protein Content of Grain in Winter Wheat with Meteorological and Genotypic Factors	Pan J, et al.	2006	10.1626/pps.9.323
		Leaf Blade Dry Weight and Leaf Area Index×SPAD Value at Anthesis Can Be Used to Estimate Nitrogen Application Rate at Anthesis Required to Obtain Target Protein Content of Grain in Bread Wheat	Nakano H, et al.	2010	10.1626/pps.13.297
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	
Ripened grain (1)	Convenient Estimation of Unfertilized Grains in Rice	Kobata T, et al.	2010	10.1626/pps.13.289	
Grana (1)	Salinity Induces Granal Development in Bundle Sheath Chloroplasts of NADP-Malic Enzyme Type C ₄ Plants	Omoto E, et al.	2009	10.1626/pps.12.199	
Gravitropism (6)	Gravitropism (3)	Physiol-Morphological Analysis on Axile Root Growth in Upland Rice	Araki H, et al.	2002	10.1626/pps.5.286
		Hydraulic Conductivity and Aquaporins of Cortical Cells in Gravitropically Bending Roots of <i>Pisum sativum</i> L.	Miyamoto N, et al.	2005	10.1626/pps.8.515
		Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps.11.17
	Plagiogravitropism (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
	Geotropism (2)	Dynamics of Amyloplast Sedimentation in Growing Yam Tubers and Its Possible Role in Gravierception	Kawasaki M, et al.	2008	10.1626/pps.11.393
Effects of the Direction of Gravistimulation on Tuber Formation and Amyloplast Distribution in Tuber Tips of Chinese Yam		Kawasaki M, et al.	2014	10.1626/pps.17.298	
Growth (107)	Growth (20)	Elevated Sucrose-phosphate Synthase Activity in Source Leaves of Potato Plants Transformed with the Maize SPS Gene	Tobias DJ, et al.	1999	10.1626/pps.2.92
		Growth and Physiological Characteristics of Rice Seedlings Raised with Long Mat by Hydroponics: Comparison with young seedlings raised in soil	Wang Y, et al.	1999	10.1626/pps.2.115
		Studies on the Effect of the Relative Humidity of the Atmosphere on the Growth and Physiology of Rice Plants	Hirai G, et al.	2000	10.1626/pps.3.129
		Salinity-Induced Ultrastructural Alterations in Leaf Cells of Rice (<i>Oryza sativa</i> L.)	Rahman S, et al.	2000	10.1626/pps.3.422
		Effects of Salinity Stress on the Seminal Root Tip Ultrastructures of Rice Seedlings (<i>Oryza sativa</i> L.)	Rahman S, et al.	2001	10.1626/pps.4.103
		Effects of Exogenous Glycinebetaine on Growth and Ultrastructure of Salt-Stressed Rice Seedlings (<i>Oryza sativa</i> L.)	Rahman S, et al.	2002	10.1626/pps.5.33

Growth (continued)	Growth (continued)	Characteristics of Growth and Yield Formation the Improved Genotype of Supernodulating Soybean (<i>Glycine max</i> L. Merr.)	Takahashi M, et al.	2003	10.1626/pps .6.112
		Influence of Day Length before and after the Start of Anthesis on the Growth, Flowering and Seed -Setting in Common Buckwheat (<i>Fagopyrum esculentum</i> Moench)	Michiyama H, et al.	2003	10.1626/pps .6.235
		Growth Enhancement by Drainage during Seedling Establishment in Rice Direct-Sown into Puddled and Leveled Soil: Comparison with seed coating with calcium peroxide	Tsuchiya M, et al.	2004	10.1626/pps .7.324
		Influence of Day Length on Stem Growth, Flowering, Morphology of Flower Clusters, and Seed-Set in Buckwheat (<i>Fagopyrum esculentum</i> Moench)	Michiyama H, et al.	2005	10.1626/pps .8.44
		Endogenous Gibberellins in Bulbils of Chinese Yam during Growth and Storage	Kim SK, et al.	2005	10.1626/pps .8.181
		Characteristics of Nodulation and Nitrogen Fixation in the Improved Supernodulating Soybean (<i>Glycine max</i> L. Merr.) Cultivar 'Sakukei 4'	Takahashi M, et al.	2005	10.1626/pps .8.405
		Internode Characteristics of Sweet Sorghum (<i>Sorghum bicolor</i> (L.) Moench) during Dry and Rainy Seasons in Indonesia	Tsuchihasi N, et al.	2005	10.1626/pps .8.601
		Effects of Temperature, Sowing Depth and Soil Hardness on Seedling Establishment and Yield of Cambodian Rice Direct-seeded in Flood Paddy Fields	Ly T, et al.	2007	10.1626/pps .10.129
		Effects of Day Length and Air Temperature on Stem Growth and Flowering in Sesame	Kumazaki T, et al.	2008	10.1626/pps .11.178
		Growth and Yield of New Rice for Africa (NERICAs) under Different Ecosystems and Nitrogen Levels	Matsunami M, et al.	2009	10.1626/pps .12.381
		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
		Effect of Supplementing Inorganic Fertilizer with Organic Fertilizer on Growth and Yield of Rice-Cowpea Mixed Crop	Amoah AA, et al.	2012	10.1626/pps .15.109
		Effect of Low pH on the Growth, Physiological Characteristics and Nutrient Absorption of Sago Palm in a Hydroponic System	Anugoolprasert O, et al.	2012	10.1626/pps .15.125
		Auxin Polar Transport is Essential for the Early Growth Stage of Etiolated Maize (<i>Zea mays</i> L. cv. Honey Bantam) Seedlings	Ueda J, et al.	2014	10.1626/pps .17.144
		Growth and development (1)	Studies on Agronomic Traits of African Rice (<i>Oryza glaberrima</i> Steud.). IV. Changes In growth, dry matter productivity and yielding ability related to domestication from wild to cultivated form	Sumi A, et al.	1998
Growth angle (1)	Physiol-Morphological Analysis on Axile Root Growth in Upland Rice	Araki H, et al.	2002	10.1626/pps .5.286	
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	
Growth cessation (1)	Relationship between the Deposition of Phenolic Acids in the Cell Walls and the Cessation of Rapid Growth in Internodes of Floating Rice	Azuma T, et al.	2005	10.1626/pps .8.447	
Growth characters (2)	Confirmation of the Productivity of the Stored Seeds of Wheat and Two- Rowed Barley	Matsue Y, et al.	2002	10.1626/pps .5.187	
	Productivity of the Soybean Seeds Stored for Various Periods	Matsue Y, et al.	2005	10.1626/pps .8.393	
Growth delay (1)	A Model for Phenological Development of Vietnamese Rice Influenced by Transplanting Shock	Kotera A, et al.	2004	10.1626/pps .7.62	
Growth diagnosis (1)	Leaf Blade Dry Weight and Leaf Area Index \times SPAD Value at Anthesis Can Be Used to Estimate Nitrogen Application Rate at Anthesis Required to Obtain Target Protein Content of Grain in Bread Wheat	Nakano H, et al.	2010	10.1626/pps .13.297	
Growth direction (1)	Structure and Function of the Root Cap	Iijima M, et al.	2008	10.1626/pps .11.17	
Growth duration (1)	High-yielding Crop Management by Enhancing Growth in Reproductive Stage of Direct-Seeded Rainfed Lowland Rice (<i>Oryza sativa</i> L.) in Northeast Thailand	Hayashi S, et al.	2010	10.1626/pps .13.104	
Growth efficiency (2)	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	
Growth inhibition (4)	Allelopathy in Maize II. Allelopathic potential of a new benzoxazolinone, 5-chloro-6-methoxy-2-benzoxazolinone and its analogues	Kato-Noguchi H.	2000	10.1626/pps .3.47	

Growth (continued)	Growth inhibition (continued)	Isolation of Allelopathic Substances in Rice Seedlings	Kato-Noguchi H.	2002	10.1626/pps .5.8
		Ecophysiological Traits of Field-Grown <i>Crotalaria incana</i> and <i>C. pallida</i> as Green Manure	Uratani A, et al.	2004	10.1626/pps .7.449
		Allelopathic Potential of White, Red and Black Rice Cultivars	Kato-Noguchi H, et al.	2013	10.1626/pps .16.305
Growth inhibitor (3)		Release Level of Momilactone B from Rice Plants	Kato-Noguchi H, et al.	2004	10.1626/pps .7.189
		Isolation and Identification of Potent Allelopathic Substances in a Traditional Bangladeshi Rice Cultivar Kartikshail	Kato-Noguchi H, et al.	2011	10.1626/pps .14.128
		Phytotoxic Substances in Bangladeshi Allelopathic Rice BR 17	Kato-Noguchi H, et al.	2014	10.1626/pps .17.311
Growth of young seedling (1)		Promotion of Seedling Growth of Seeds of Rice (<i>Oryza sativa</i> L. cv. Hitomebore) by Treatment with H ₂ O ₂ before Sowing	Sasaki K, et al.	2005	10.1626/pps .8.509
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
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	10.1080/13 43943X.20 15.1128095
Growth relationships (1)		Allometric Relationships of Maize Organ Development under Different Water Regimes and Plant Densities	Song Y, et al.	2015	10.1626/pps .18.1
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	10.1080/13 43943X.20 16.1245102
Growth stage (2)		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
		Growth Behavior of Sago Palm (<i>Metroxylon sagu</i> Rottb.) from Transplantation to Trunk Formation	Nabeya K, et al.	2015	10.1626/pps .18.209
Growth suppression (1)		Tolerance of Rice (<i>Oryza sativa</i> L.) and Echinochloa Weeds to Growth Suppression by Rice Straw Added to Paddy Soil in Relation to Iron Toxicity	Nozoe T, et al.	2010	10.1626/pps .13.314
Autotrophic growth (1)		Relative Contribution of Hetero- and Auto-trophic Growth to Genotypic Variation of Seedling Vigor in Rice (<i>Oryza sativa</i> L.)	Shiraiwa T, et al.	2006	10.1626/pps .9.133
Coleoptile growth (2)		A Varietal Difference in Coleoptile Growth is Correlated with Seedling Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions	Ogiwara H, et al.	2001	10.1626/pps .4.166
		Introduction of the Long-Coleoptile Trait to Improve the Establishment of Direct-Seeded Rice in Submerged Fields in Cool Climates	Miura K, et al.	2002	10.1626/pps .5.219
Compensated growth (1)		Dual and Triple Intercropping: Potential Benefits for Annual Green Manure Production	Miyazawa K, et al.	2014	10.1626/pps .17.194
Compensatory growth (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
Creeping growth (2)		Growth Behavior of Sago Palm (<i>Metroxylon sagu</i> Rottb.) from Transplantation to Trunk Formation	Nabeya K, et al.	2015	10.1626/pps .18.209
		Growth behavior of suckers derived from transplanted sago palm (<i>Metroxylon sagu</i> Rottb.)	Nabeya K, et al.	2016	10.1080/13 43943X.20 16.1147928
Crop growth (1)		Parameterization, Validation and Comparison of Three Tillering Models for Irrigated Rice in the Tropics	Zhong X, et al.	1999	10.1626/pps .2.258
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

Growth (continued)	Crop growth rate (continued)	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
		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	10.1080/13 43943X.20 16.1151331
	Early growth (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
	Early growth after transplanting (2)	Varietal Differences in Biomass Production of Rice Early After Transplanting at Low Temperatures	Ohsumi A, et al.	2012	10.1626/pps .15.32
		Nursery Management for Improving Seedling Length and Early Growth after Transplanting in a Semi-Dwarf Rice Cultivar Hokuriku 193	Ohsumi A, et al.	2015	10.1626/pps .18.407
	Early growth stage (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
		Effects of Seed Rhizome Size on Growth and Yield of Turmeric (<i>Curcuma longa</i> L.)	Hossain A, et al.	2005	10.1626/pps .8.86
		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
	Early stage growth (1)	Temporal Growth Inhibition of Rice Plant and Growth Recovery Observed under Application of Anaerobically-Digested Cattle Manure	Nishikawa T, et al.	2013	10.1626/pps .16.154
	Etiolation growth (1)	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
	First-leaf growth (1)	A Varietal Difference in Coleoptile Growth is Correlated with Seedling Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions	Ogiwara H, et al.	2001	10.1626/pps .4.166
	Grain growth (1)	Storage and Remobilization of Soluble Carbohydrates after Heading in Different Plant Parts of a Winter Wheat Cultivar	Takahashi T, et al.	2001	10.1626/pps .4.160
	Heterotrophic growth (1)	Relative Contribution of Hetero- and Auto-trophic Growth to Genotypic Variation of Seedling Vigor in Rice (<i>Oryza sativa</i> L.)	Shiraiwa T, et al.	2006	10.1626/pps .9.133
	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 growth (2)	Leaf Growth, Gas Exchange and Chlorophyll Fluorescence Parameters in Response to Different Water Deficits in Wheat Cultivars	Wu X, et al.	2011	10.1626/pps .14.254
		Exogenously Applied Nitric Oxide Enhances the Drought Tolerance in Hulless Barley	Gan L, et al.	2015	10.1626/pps .18.52
	Organ growth (1)	Simulating Organ Growth in Wheat Based on the Organ-Weight Fraction Concept	Cao X, et al.	2002	10.1626/pps .5.248
	Pod growth (1)	Genotypic and Environmental Variation of Lag Period of Pod Growth in Soybean	Zheng SH, et al.	2003	10.1626/pps .6.243
	Pre-anthesis growth (1)	Analysis of yield-attributing traits for high-yielding wheat lines in southwestern Japan	Okami M, et al.	2016	10.1080/13 43943X.20 16.1151331
	Relative growth rate (2)	Relative Contribution of Hetero- and Auto-trophic Growth to Genotypic Variation of Seedling Vigor in Rice (<i>Oryza sativa</i> 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	10.1080/13 43943X.20 15.1128108
	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	10.1080/13 43943X.20 16.1146907	

Growth (continued)	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
		Association between root growth angle and root length density of a nearisogenic line of IR64 rice with <i>DEEPER ROOTING 1</i> under different levels of soil compaction	Ramalingam P, et al.	2017	10.1080/13 43943X.20 17.1288550
	Seedling growth (5)	The Promotive Effect of Brassinolide on Lamina Joint-Cell Elongation, Germination and Seedling Growth under Low-Temperature Stress in Rice (<i>Oryza sativa</i> L.)	Fujii S, et al.	2001	10.1626/pps .4.210
		NADPH Oxidases Act as Key Enzyme on Germination and Seedling Growth in Barley (<i>Hordeum vulgare</i> L.)	Ishibashi Y, et al.	2010	10.1626/pps .13.45
		Seed Treatment with Uniconazole Powder Improves Soybean Seedling Growth under Shading by Corn in Relay Strip Intercropping System	Yan Y, et al.	2010	10.1626/pps .13.367
		Does Allelopathy Play a Role in Suppression of Mugwort (<i>Artemisia vulgaris</i>) by Alfalfa?	Onen H.	2013	10.1626/pps .16.255
		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	10.1080/13 43943X.20 17.1346477
		Cooperative effects of sand application and flushing during the sensitive stages of rice on its yield in a hard saline-sodic soil	Wang MM, et al.	2016	10.1080/13 43943X.20 16.1195695
	Shoot growth (4)	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
		Effects of Temperature on Growth and Dry Matter Accumulation in Mulberry Saplings	Fukui K.	2000	10.1626/pps .3.404
		Assessing Drought Tolerance of Snap Bean (<i>Phaseolus vulgaris</i>) from Genotypic Differences in Leaf Water Relations, Shoot Growth and Photosynthetic Parameters	Omae H, et al.	2007	10.1626/pps .10.28
		Responses of Root Growth to Moderate Soil Water Deficit in Wheat Seedlings	Saidi A, et al.	2010	10.1626/pps .13.261
	Stages of growth (1)	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
	Stem growth (2)	Analysis of Successive Internode Growth in Sweet Sorghum Using Leaf Number as a Plant Age Indicator	Nakamura S, et al.	2011	10.1626/pps .14.299
		Relation between Stem Growth Processes and Internode Length Patterns in Sorghum Cultivar 'Kazetachi'	Fujii A, et al.	2014	10.1626/pps .17.185
	Stem growth habit (1)	Stability Verification of the Effects of Stem Determination and Earliness of Flowering on Green Stem Disorder of Soybean against Genetic Background and Environment	Fujii K, et al.	2015	10.1626/pps .18.166
	Vegetative growth (2)	Differences in Vegetative Growth Response to Soil Flooding between Common and Tartary Buckwheat	Matsuura H, et al.	2005	10.1626/pps .8.525
		Differences in the Vegetative Growth between Common and Tartary Buckwheat in Saline Hydroponic Culture	Matsuura H, et al.	2005	10.1626/pps .8.533
	Guard cell (1)	Silica Deposition in Cell Walls of the Stomatal Apparatus of Rice Leaves	Ueno O, et al.	2005	10.1626/pps .8.71
	Guttation (4)	Evaluation of Calcium Regulating Roles of Guttation and Calcium Oxalate Crystals in Leaf Blades and Petioles of Hydroponically Grown Eddo	Islam MN, et al.	2015	10.1626/pps .18.11
Effect of Calcium Concentration in Growth Medium on Oxalate Content and Evaluation of the Role of Guttation in the Regulation of Oxalate in Eddo		Islam MN, et al.	2015	10.1626/pps .18.464	
Hydathode morphology and role of guttation in excreting sodium at different concentrations of sodium chloride in eddo		Hossain MB, et al.	2016	10.1080/13 43943X.20 16.1210990	
Hydathode function and changes in contents of elements in eddo exposed to zinc in hydroponic solution		Hossain MB, et al.	2017	10.1080/13 43943X.20 17.1383167	
Habitat (4)	Habitat (3)	Variation of Salinity Tolerance in <i>Zoysia</i> Clones Collected from Different Habitats in Taiwan	Weng JH, et al.	2001	10.1626/pps .4.313
		Genetic Variation of <i>Zoysia</i> in Taiwan as Analyzed by Isozyme Patterns and Salinity Tolerance	Weng JH.	2002	10.1626/pps .5.236
		Variation of Germination Response to Temperature in Formosan Lily (<i>Lilium formosanum</i> Wall.) Collected from Different Latitudes and Elevations in Taiwan	Weng JH, et al.	2006	10.1626/pps .9.281
	Habitat niche-fitness (HNF) (1)	Habitat Niche-Fitness and Radix Yield Prediction Models for <i>Angelica sinensis</i> Cultivated in the Alpine Area of the Southeastern Region of Gansu Province, China	Lin H, et al.	2008	10.1626/pps .11.42

Hardness (2)	Hardness (1)	Difference in the Physical Properties of White-Core and Non-White-Core Kernels of the Rice Varieties for Sake Brewing is Unrelated to Starch Properties	Tamaki M, et al.	2006	10.1626/pps.9.78	
	Hardness distribution (1)	Hardness Distribution and Endosperm Structure on Polishing Characteristics of Brewer's Rice Kernels	Tamaki M, et al.	2007	10.1626/pps.10.481	
Heading (3)	Early-heading (1)	Grain Yield of Sorghum Cultivars in a Double Cropping System	Can ND, et al.	1999	10.1626/pps.2.121	
	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	
	Heading time (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	
Height (7)	Height (1)	Effects of Vertical Gradient of Leaf Nitrogen Content on Canopy Photosynthesis in Tall and Dwarf Cultivars of Sorghum	Tominaga J, et al.	2015	10.1626/pps.18.336	
	Collar height (1)	Relation between Stem Growth Processes and Internode Length Patterns in Sorghum Cultivar 'Kazetachi'	Fujii A, et al.	2014	10.1626/pps.17.185	
	Plant height (5)		Effect of Plot Size on Accuracy of Yield Estimation of Rainfed Lowland Rice Genotypes with Different Plant Heights and Grown under Different Soil Fertility Conditions	Jearakongman S, et al.	2003	10.1626/pps.6.95
			Molecular Dissection of the Relationships among Tiller Number, Plant Height and Heading Date in Rice	Cui K, et al.	2004	10.1626/pps.7.309
			Characterization of Aroma and Agronomic Traits in Afghan Native Rice Cultivars	Sarhadi WA, et al.	2009	10.1626/pps.12.63
			Stable Characteristics of Cover Crops for Weed Suppression in Organic Farming Systems	Uchino H, et al.	2011	10.1626/pps.14.75
			Adaptation of rice (<i>Oryza sativa</i> L.) genotypes in the rainfed lowlands of Lao PDR	Sengxua P, et al.	2017	10.1080/1343943X.2017.1403290
Heterotrophic growth (1)		Relative Contribution of Hetero- and Auto-trophic Growth to Genotypic Variation of Seedling Vigor in Rice (<i>Oryza sativa</i> L.)	Shiraiwa T, et al.	2006	10.1626/pps.9.133	
Hilum (1)		Relation of Seed Structures to Soybean Cultivar Difference in Pre-germination Flooding Tolerance	Muramatsu N, et al.	2008	10.1626/pps.11.434	
Husk (3)	Husk (1)	Silica Distribution on the Husk Epidermis at Different Parts of the Panicle in Rice (<i>Oryza sativa</i> L.) Determined by X-ray Microanalysis	Takahashi N, et al.	2006	10.1626/pps.9.168	
	Husk color (1)	Variation in Seed Shape and Husk Color in Japanese Native Cultivars of Common Buckwheat (<i>Fagopyrum esculentum</i> Moench)	Tetsuka T, et al.	2005	10.1626/pps.8.60	
	Husk volume (1)	Correlation of Nitrogen Concentration with Dry-Matter Partitioning to Spikelets and Total Husk Volume on the Panicle in Japonica Rice	Matsui T, et al.	2002	10.1626/pps.5.198	
Hydathode (2)		Hydathode morphology and role of guttation in excreting sodium at different concentrations of sodium chloride in eddo	Hossain MB, et al.	2016	10.1080/1343943X.2016.1210990	
		Hydathode function and changes in contents of elements in eddo exposed to zinc in hydroponic solution	Hossain MB, et al.	2017	10.1080/1343943X.2017.1383167	
Hydraulic (10)	Hydraulic conductance (3)	Reduction in Leaf Water Potential and Hydraulic Conductance of Young Rice Plants (<i>Oryza Sativa</i> L.) Grown in Wet Compacted Soils	Kobata T, et al.	1999	10.1626/pps.2.14	
		Identification of Chromosomal Regions Controlling the Leaf Photosynthetic Rate in Rice by Using a Progeny from Japonica and High-yielding Indica Varieties	Adachi S, et al.	2011	10.1626/pps.14.118	
		Root Anatomical Traits and Their Possible Contribution to Drought Tolerance in Grain Legumes	Purushothama n R, et al.	2013	10.1626/pps.16.1	
	Hydraulic conductivity (2)	Vulnerability to Hydraulic Dysfunction as Affected by Sowing Date in Rice Leaves	Tsuda M, et al.	2002	10.1626/pps.5.22	
		Hydraulic Conductivity and Aquaporins of Cortical Cells in Gravitropically Bending Roots of <i>Pisum sativum</i> L.	Miyamoto N, et al.	2005	10.1626/pps.8.515	
	Hydraulic resistance (3)	Change in Hydraulic Resistance and Shoot Morphology of Napiergrass (<i>Pennisetum purpureum</i> 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 (<i>Pennisetum purpureum</i> 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	
	Specific hydraulic resistance (1)	Change in Hydraulic Resistance and Shoot Morphology of Napiergrass (<i>Pennisetum purpureum</i> Schumach.) under Shaded Condition	Nagasuga K, et al.	2006	10.1626/pps.9.364	

Hydraulic (continued)	Vulnerability to hydraulic dysfunction (1)	Vulnerability to Hydraulic Dysfunction as Affected by Sowing Date in Rice Leaves	Tsuda M, et al.	2002	10.1626/pps .5.22
Idioblast (1)	Crystal idioblast (1)	Structural Changes and Fate of Crystalloplastids during Growth of Calcium Oxalate Crystal Idioblasts in Japanese Yam (<i>Dioscorea japonica</i> Thunb.) Tubers	Kawasaki M, et al.	2004	10.1626/pps .7.283
Indeterminate (3)	Indeterminate (1)	The Relationship between Dry Matter Increase of Seed and Shoot during the Seed-Filling Period in Three Kinds of Soybeans with Different Growth Habits Subjected to Shading and Thinning	Kakiuchi J, et al.	2006	10.1626/pps .9.20
	Indeterminate type (2)	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
Infection ratio (1)		Distribution of Arbuscular Mycorrhizal Fungi in Upland Field Soil of Japan. 2. Spore Density of Arbuscular Mycorrhizal Fungi and Infection Ratio in Soybean and Maize Fields	Isobe K, et al.	2008	10.1626/pps .11.171
Inhibition (13)	Inhibitory activity (2)	Change in Activity of Soybean Trypsin Inhibitor by Removal of C-terminal Amino Acid Residues during Seed Germination	Momonoki YS, et al.	2002	10.1626/pps .5.51
		Kunitz Soybean Trypsin Inhibitor is Modified at its C-terminus by Novel Soybean Thiol Protease (Protease T1)	Sugawara M, et al.	2007	10.1626/pps .10.314
	Growth inhibition (4)	Allelopathy in Maize II. Allelopathic potential of a new benzoxazolinone, 5-chloro-6-methoxy-2-benzoxazolinone and its analogues	Kato-Noguchi H.	2000	10.1626/pps .3.47
		Isolation of Allelopathic Substances in Rice Seedlings	Kato-Noguchi H.	2002	10.1626/pps .5.8
		Ecophysiological Traits of Field-Grown <i>Crotalaria incana</i> and <i>C. pallida</i> as Green Manure	Uratani A, et al.	2004	10.1626/pps .7.449
		Allelopathic Potential of White, Red and Black Rice Cultivars	Kato-Noguchi H, et al.	2013	10.1626/pps .16.305
		Release Level of Momilactone B from Rice Plants	Kato-Noguchi H, et al.	2004	10.1626/pps .7.189
	Growth inhibitor (3)	Isolation and Identification of Potent Allelopathic Substances in a Traditional Bangladeshi Rice Cultivar Kartikshail	Kato-Noguchi H, et al.	2011	10.1626/pps .14.128
		Phytotoxic Substances in Bangladeshi Allelopathic Rice BR 17	Kato-Noguchi H, et al.	2014	10.1626/pps .17.311
		Adaptive Responses of Soybean and Cotton to Water Stress. II. Changes in CO ₂ Assimilation Rate, Chlorophyll Fluorescence and Photochemical Reflectance Index in Relation to Leaf Temperature	Inamullah et al.	2005	10.1626/pps .8.131
	Photoinhibition (4)	Characteristics of Gas Exchange and Chlorophyll Fluorescence during Senescence of Flag Leaf in Different Rice (<i>Oryza sativa</i> L.) Cultivars Grown under Nitrogen-Deficient Condition	Kumagai E, et al.	2009	10.1626/pps .12.285
		Comparison of Susceptibility to Photoinhibition and Energy Partitioning of Absorbed Light in Photosystem II in Flag Leaves of Two Rice (<i>Oryza sativa</i> L.) Cultivars that Differ in Their Responses to Nitrogen-Deficiency	Kumagai E, et al.	2010	10.1626/pps .13.11
		The Long-Term Changes in Midday Photoinhibition in Rice (<i>Oryza sativa</i> L.) Growing under Fluctuating Soil Water Conditions	Iseki K, et al.	2013	10.1626/pps .16.287
Patterns of Internode Elongation in Rice Seedlings		Hirao A, et al.	2001	10.1626/pps .4.88	
Intercalary meristem (1)		Patterns of Internode Elongation in Rice Seedlings	Hirao A, et al.	2001	10.1626/pps .4.88
Internode (15)	Internode (6)	Changes in Cell Wall-Bound Phenolic Acids in the Internodes of Submerged Floating Rice	Azuma T, et al.	2005	10.1626/pps .8.441
		Relationship between the Deposition of Phenolic Acids in the Cell Walls and the Cessation of Rapid Growth in Internodes of Floating Rice	Azuma T, et al.	2005	10.1626/pps .8.447
		Internode Characteristics of Sweet Sorghum (<i>Sorghum bicolor</i> (L.) Moench) during Dry and Rainy Seasons in Indonesia	Tsuchihashi N, et al.	2005	10.1626/pps .8.601
		Identification of Casparian Bands in the Mesocotyl and Lower Internodes of Rice (<i>Oryza sativa</i> L.) Seedlings Using Fluorescence Microscopy	Watanabe H, et al.	2006	10.1626/pps .9.390
		Effects of Shading on Hydraulic Resistance and Morphological Traits of Internode and Node of Napiergrass (<i>Pennisetum purpureum</i> Schumach.)	Nagasuga K, et al.	2008	10.1626/pps .11.352
		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

Internode (continued)	Internode elongation (2)	Patterns of Internode Elongation in Rice Seedlings	Hirao A, et al.	2001	10.1626/pps .4.88
		Cloning of a Cytochrome P450 Gene Induced by Ethylene Treatment in Deepwater Rice (<i>Oryza sativa</i> L.)	Watanabe H, et al.	2008	10.1626/pps .11.124
	Internode length (2)	Effects of Shading on Hydraulic Resistance and Morphological Traits of Internode and Node of Napiergrass (<i>Pennisetum purpureum</i> Schumach.)	Nagasuga K, et al.	2008	10.1626/pps .11.352
		Relation between Stem Growth Processes and Internode Length Patterns in Sorghum Cultivar 'Kazetachi'	Fujii A, et al.	2014	10.1626/pps .17.185
	Internode length pattern (1)	Relation between Stem Growth Processes and Internode Length Patterns in Sorghum Cultivar 'Kazetachi'	Fujii A, et al.	2014	10.1626/pps .17.185
	Internode position (1)	Analysis of Successive Internode Growth in Sweet Sorghum Using Leaf Number as a Plant Age Indicator	Nakamura S, et al.	2011	10.1626/pps .14.299
	Internode thickening (1)	Analysis of Successive Internode Growth in Sweet Sorghum Using Leaf Number as a Plant Age Indicator	Nakamura S, et al.	2011	10.1626/pps .14.299
	First internode (1)	Responses of the First Internodes of Hong Mang Mai Wheat to Ethylene, Gibberellins and Potassium	Nishizawa T, et al.	2002	10.1626/pps .5.93
Lower internodes (1)	Analysis of Lodging-Resistant Characteristics of Different Rice Genotypes Grown under the Standard and Nitrogen-Free Basal Dressing Accompanied with Sparse Planting Density Practices	Pham QD, et al.	2004	10.1626/pps .7.243	
Isoform (1)	Expression of α -Amylase Isoforms and the <i>RAmy1A</i> Gene in Rice (<i>Oryza sativa</i> L.) during Seed Germination, and its Relationship with Coleoptile Length in Submerged Soil	Huang J, et al.	2000	10.1626/pps .3.32	
Kernel (3)	Kernel (1)	Influence of Low/High Temperature on Water Status in Developing and Maturing Rice Grains	Funaba M, et al.	2006	10.1626/pps .9.347
	Kernel quality (1)	Changes in NMR Relaxation of Rice Grains, Kernel Quality and Physicochemical Properties in Response to a High Temperature after Flowering in Heat-Tolerant and Heat-Sensitive Rice Cultivars	Tanaka K, et al.	2009	10.1626/pps .12.185
	Kernel width (1)	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
Kranz anatomy (2)	Photosynthetic Characteristics of an Amphibious C_4 Plant, <i>Eleocharis retroflexa</i> ssp. chaetaria	Ueno O, et al.	1998	10.1626/pps .1.165	
	Plastid Damage in Photosynthetic Cells of Mizugayatsuri (<i>Cyperus serotinus</i>) Leaves Treated with a Pyrazole Herbicide	Ogawa M, et al.	2001	10.1626/pps .4.291	
Lamina joint (3)	Lamina joint (2)	Expression of Photosynthesis-Related Genes during the Leaf Development of a C_3 Plant Rice as Visualized by <i>In Situ</i> Hybridization	Tsutsumi K, et al.	2006	10.1626/pps .9.232
		Structural and Functional Differentiation of Bundle Sheath and Mesophyll Cells in the Lamina Joint of Rice Compared with that in the Corresponding Region of the Liguleless Genotype	Tsutsumi K, et al.	2007	10.1626/pps .10.346
	Lamina joint-cell (1)	The Promotive Effect of Brassinolide on Lamina Joint-Cell Elongation, Germination and Seedling Growth under Low-Temperature Stress in Rice (<i>Oryza sativa</i> L.)	Fujii S, et al.	2001	10.1626/pps .4.210
Leaching (1)	Nitrogen leaching (1)	Nitrogen Balance in Forage Rice (<i>Oryza sativa</i> L. cv. Tachisuzuka) Cultivation in Pots with Animal Manure Application	Gusmini, et al.	2015	10.1626/pps .18.529
Leaf (108)	Leaf (5)	The Effect of Day to Night Temperature Variation on Leaf Development in Wheat	Tamaki M, et al.	1998	10.1626/pps .1.254
		Vulnerability to Hydraulic Dysfunction as Affected by Sowing Date in Rice Leaves	Tsuda M, et al.	2002	10.1626/pps .5.22
		Quantitative Trait Loci for Rice Phyllochron in Lemont x IR36 Cross	Morita M, et al.	2005	10.1626/pps .8.199
		Identification of QTLs for Improvement of Plant Type in Rice (<i>Oryza sativa</i> L.) Using Koshihikari/Kasalath Chromosome Segment Substitution Lines and Backcross Progeny F_2 Population	Kanbe T, et al.	2008	10.1626/pps .11.447
		Suppression of starch accumulation in 'sugar leaves' of rice affects plant productivity under field conditions	Okamura M, et al.	2017	10.1080/13 43943X.20 16.1259958
	Leaf anatomy (2)	Inheritance of C_3 - C_4 Intermediate Photosynthesis in Reciprocal Hybrids between <i>Moricandia arvensis</i> (C_3 - C_4) and <i>Brassica oleracea</i> (C_3) that Differ in their Genome Constitution	Ueno O, et al.	2007	10.1626/pps .10.68
		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	10.1080/13 43943X.20 17.1320948

Leaf (continued)	Leaf appearance (3)	Effects of Temperature on Growth and Dry Matter Accumulation in Mulberry Saplings	Fukui K.	2000	10.1626/pps .3.404
		Modeling of Shoot Elongation and Leaf Appearance in Potted Mulberry	Fukui K.	2000	10.1626/pps .3.410
		Modeling of Mulberry Shoot Elongation and Leaf Appearance in Field Conditions	Fukui K.	2005	10.1626/pps .8.115
	Leaf area (9)	Physio-morphological Studies of F ₁ Hybrids in Rice (<i>Oryza sativa</i> L.): Photosynthetic ability and yield	Khan MNA, et al.	1998	10.1626/pps .1.233
		Growth and Physiological Characteristics of Rice Seedlings Raised with Long Mat by Hydroponics: Comparison with young seedlings raised in soil	Wang Y, et al.	1999	10.1626/pps .2.115
		Physio-Morphological Characters of F ₁ Hybrids of Rice (<i>Oryza sativa</i> L.) in Japonica-Indica Crosses. II. Heterosis for leaf area and dry matter accumulation	Sarker MAZ, et al.	2001	10.1626/pps .4.202
		Leaf Characteristics and Shape of Sago Palm (<i>Metroxylon sagu</i> Rottb.) for Developing a Method of Estimating Leaf Area	Nakamura S, et al.	2004	10.1626/pps .7.198
		Analysis of Leaflet Shape and Area for Improvement of Leaf Area Estimation Method for Sago Palm (<i>Metroxylon sagu</i> Rottb.)	Nakamura S, et al.	2005	10.1626/pps .8.27
		A Method for Estimating Sago Palm (<i>Metroxylon sagu</i> Rottb.) Leaf Area after Trunk Formation	Nakamura S, et al.	2009	10.1626/pps .12.58
		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
		Identification of Chromosome Regions Affecting Leaf Area with Rice Chromosome Segment Substitution Lines	Ujiie K, et al.	2013	10.1626/pps .16.31
		Differences in dry matter production, grain production, and photosynthetic rate in barley cultivars under long-term salinity	Hirasawa T, et al.	2017	10.1080/13 43943X.20 17.1343647
		Leaf area density (1)	Effects of Vertical Gradient of Leaf Nitrogen Content on Canopy Photosynthesis in Tall and Dwarf Cultivars of Sorghum	Tominaga J, et al.	2015
	Leaf area duration (1)	Effects of Top Dressing on Growth and Panicle Dry Weight as Affected by Soil Water Stress at the Early Panicle-Development Stage in Rice (<i>Oryza sativa</i> L.)	Tsuda M, et al.	2010	10.1626/pps .13.37
	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 blade (3)	Relationship between Ethylene Evolution and Sucrose Content in Excised Leaf Blades of Rice	Kobayashi H, et al.	2000	10.1626/pps .3.398
		Differential Regulation of the Conversion of 1-aminocyclopropane-1-carboxylate to Ethylene in Excised Leaf Sheaths and Leaf Blades of Rice (<i>Oryza sativa</i> L.) Seedlings	Kobayashi H, et al.	2002	10.1626/pps .5.28
		Evaluation of Calcium Regulating Roles of Guttation and Calcium Oxalate Crystals in Leaf Blades and Petioles of Hydroponically Grown Eddo	Islam MN, et al.	2015	10.1626/pps .18.11
	Leaf blade dry weight (1)	Leaf Blade Dry Weight and Leaf Area Index × SPAD Value at Anthesis Can Be Used to Estimate Nitrogen Application Rate at Anthesis Required to Obtain Target Protein Content of Grain in Bread Wheat	Nakano H, et al.	2010	10.1626/pps .13.297
	Leaf color (1)	Does Allelopathy Play a Role in Suppression of Mugwort (<i>Artemisia vulgaris</i>) by Alfalfa?	Onen H.	2013	10.1626/pps .16.255
	Leaf conductance (2)	Effects of Silicon on Transpiration and Leaf Conductance in Rice Plants (<i>Oryza sativa</i> L.)	Agarie S, et al.	1998	10.1626/pps .1.89
		Water Use and Growth of Maize under Water Stress on the Soil after Long-Term Applications of Chemical and/or Organic Fertilizers	Li KZ, et al.	2002	10.1626/pps .5.58
	Leaf development (2)	Expression of Photosynthesis-Related Genes during the Leaf Development of a C ₃ Plant Rice as Visualized by <i>In Situ</i> Hybridization	Tsutsumi K, et al.	2006	10.1626/pps .9.232
		Gene Expression and Accumulation of Rubisco in Bundle Sheath and Mesophyll Cells during Leaf Development and Senescence in Rice, a C ₃ Plant	Tsutsumi K, et al.	2008	10.1626/pps .11.336
	Leaf expansion (2)	Characterization of Vegetative Growth of a Supermodulating Soybean Genotype, Sakukei 4	Matsunami T, et al.	2004	10.1626/pps .7.165
		Characterization of the morphological and physiological traits of rice cultivars with adaptation to unflooded condition during early vegetative growth	Matsunami M, et al.	2016	10.1080/13 43943X.20 15.1128090
	Leaf growth (2)	Leaf Growth, Gas Exchange and Chlorophyll Fluorescence Parameters in Response to Different Water Deficits in Wheat Cultivars	Wu X, et al.	2011	10.1626/pps .14.254
Exogenously Applied Nitric Oxide Enhances the Drought Tolerance in Hulless Barley		Gan L, et al.	2015	10.1626/pps .18.52	

Leaf (continued)	Leaf inclination (1)	A Multiband Polarimetric Imager for Field Crop Survey: Instrumentation and Preliminary Observations of Heading-stage Wheat Canopies	Shibayama M, et al.	2011	10.1626/pps .14.64
	Leaf inclination angle (3)	Seasonal Profiles of Polarized Reflectance and Leaf Inclination Distribution of Wheat Canopies	Shibayama M.	2004	10.1626/pps .7.397
		Remote Assessment of Wheat Canopies under Various Cultivation Conditions Using Polarized Reflectance Michio Shibayama	Shibayama M, et al.	2006	10.1626/pps .9.312
		Inclination Angle Affects Ozone Injury in the Flag Leaf of Rice	Kobayakawa H, et al.	2013	10.1626/pps .16.24
	Leaf K concentration (1)	Effect of Leaf Phosphorus and Potassium Concentration on Chlorophyll Meter Reading in Rice	Peng S, et al.	1999	10.1626/pps .2.227
	Leaf length (1)	Comparison of Leaf Photosynthesis between Wild and Cultivated Types of Soybean	Saitoh K, et al.	2004	10.1626/pps .7.277
	Leaf movement (2)	Adaptive Responses of Soybean and Cotton to Water Stress. I. Transpiration Changes in Relation to Stomatal Area and Stomatal Conductance	Inamullah, et al.	2005	10.1626/pps .8.16
		Adaptive Responses of Soybean and Cotton to Water Stress. II. Changes in CO ₂ Assimilation Rate, Chlorophyll Fluorescence and Photochemical Reflectance Index in Relation to Leaf Temperature	Inamullah et al.	2005	10.1626/pps .8.131
	Leaf nitrogen (2)	Responses of a Supernodulating Soybean Genotype, Sakukei 4 to Nitrogen Fertilizer	Maekawa T, et al.	2003	10.1626/pps .6.206
		Correlation of Leaf Nitrogen, Chlorophyll and Rubisco Contents with Photosynthesis in a Supernodulating Soybean Genotype Sakukei 4	Maekawa T, et al.	2005	10.1626/pps .8.419
	Leaf nitrogen accumulation (1)	Influence of Nitrogen Enrichment during Reproductive Growth Stage on Leaf Nitrogen Accumulation and Seed Yield in Soybean	Zhao X, et al.	2014	10.1626/pps .17.209
	Leaf nitrogen concentration (3)	Effect of Leaf Phosphorus and Potassium Concentration on Chlorophyll Meter Reading in Rice	Peng S, et al.	1999	10.1626/pps .2.227
		Analysis of Common Canopy Reflectance Spectra for Indicating Leaf Nitrogen Concentrations in Wheat and Rice	Zhu Y, et al.	2007	10.1626/pps .10.400
		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
	Leaf nitrogen content (6)	A Comparison of the Accumulation and Partitioning of Nitrogen in Plants between Two Rice Cultivars, Akenohoshi and Nipponbare, at the Ripening Stage	Ookawa T, et al.	2003	10.1626/pps .6.172
		Comparison and Standardization among Chlorophyll Meters in their Readings on Rice Leaves	Huang J, et al.	2004	10.1626/pps .7.97
		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
		Nitrogen Content of Leaves Affects the Nodal Position of the Last Visible Primary Tiller on Main Stems of Rice Plants Grown at Various Plant Densities	Sasaki R, et al.	2006	10.1626/pps .9.242
		Spatial Distribution of Leaf Area Index and Leaf N Content in Relation to Grain Yield and Nitrogen Uptake in Rice	Jing Q, et al.	2007	10.1626/pps .10.136
		Leaf Photosynthesis and Its Genetic Improvement from the Perspective of Energy Flow and CO ₂ Diffusion	Tanaka Y, et al.	2014	10.1626/pps .17.111
	Leaf P concentration (1)	Effect of Leaf Phosphorus and Potassium Concentration on Chlorophyll Meter Reading in Rice	Peng S, et al.	1999	10.1626/pps .2.227
	Leaf photosynthesis (3)	Spatial and Temporal Variation in Photon Flux Density on Rice (<i>Oryza sativa</i> L.) Leaf Surface	Nishimura S, et al.	1998	10.1626/pps .1.30
		Enhancement of Rice Leaf Photosynthesis by Crossing between Cultivated Rice, <i>Oryza sativa</i> and Wild Rice Species, <i>Oryza rufipogon</i>	Masumoto C, et al.	2004	10.1626/pps .7.252
Response of Leaf Photosynthesis to Vapor Pressure Difference in Rice (<i>Oryza sativa</i> L) Varieties in Relation to Stomatal and Leaf Internal Conductance		Ohsumi A, et al.	2008	10.1626/pps .11.184	
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	
Leaf photosynthetic traits (1)	Morphological and physiological traits of seeds and seedlings in two rice cultivars with contrasting early vigor	Huang M, et al.	2017	10.1080/1343943X.2016.1229571	
Leaf position (3)	Effects of Nitrogen Application on Dark-Respiration in Different Parts of Rice Seedlings	Saitoh K, et al.	2000	10.1626/pps .3.243	
	Leaf Positions of Potato Suitable for Determination of Nitrogen Content with a SPAD Meter	Li L, et al.	2012	10.1626/pps .15.317	
	SPAD Values and Nitrogen Nutrition Index for the Evaluation of Rice Nitrogen Status	Yang H, et al.	2014	10.1626/pps .17.81	

Leaf (continued)	Leaf rosette (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
	Leaf senescence (4)	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
		Gene Expression and Accumulation of Rubisco in Bundle Sheath and Mesophyll Cells during Leaf Development and Senescence in Rice, a C ₃ Plant	Tsutsumi K, et al.	2008	10.1626/pps .11.336
		Characteristics of Gas Exchange and Chlorophyll Fluorescence during Senescence of Flag Leaf in Different Rice (<i>Oryza sativa</i> L.) Cultivars Grown under Nitrogen-Deficient Condition	Kumagai E, et al.	2009	10.1626/pps .12.285
		Effects of Excessive Ear Removal on Senescence Order of Wheat Functional Leaves	Miao F, et al.	2009	10.1626/pps .12.428
	Leaf shape (2)	Leaf Characteristics and Shape of Sago Palm (<i>Metroxylon sagu</i> Rottb.) for Developing a Method of Estimating Leaf Area	Nakamura S, et al.	2004	10.1626/pps .7.198
		A Method for Estimating Sago Palm (<i>Metroxylon sagu</i> Rottb.) Leaf Area after Trunk Formation	Nakamura S, et al.	2009	10.1626/pps .12.58
	Leaf sheath (8)	Gene Expression of Enzymes for Starch and Sucrose Metabolism and Transport in Leaf Sheaths of Rice (<i>Oryza sativa</i> L.) during the Heading Period in Relation to the Sink to Source Transition	Hirose T, et al.	1999	10.1626/pps .2.178
		Effects of Brassinolide on Mesocotyl, Coleoptile and Leaf Growth in Rice Seedlings	Chon NM, et al.	2000	10.1626/pps .3.360
		Differential Regulation of the Conversion of 1-aminocyclopropane-1-carboxylate to Ethylene in Excised Leaf Sheaths and Leaf Blades of Rice (<i>Oryza sativa</i> L.) Seedlings	Kobayashi H, et al.	2002	10.1626/pps .5.28
		The Effect of the Amount of Nitrogen Fertilizer on Starch Metabolism in Leaf Sheath of Japonica and Indica Rice Varieties during the Heading Period	Hirano T, et al.	2005	10.1626/pps .8.122
		Temporal and Spatial Variations of Carbohydrate Content in Rice Leaf Sheath and Their Varietal Differences	He HY, et al.	2005	10.1626/pps .8.546
		The QTL Analysis of RuBisCO in Flag Leaves and Non-Structural Carbohydrates in Leaf Sheaths of Rice Using Chromosome Segment Substitution Lines and Backcross Progeny F ₂ Populations	Kanbe T, et al.	2009	10.1626/pps .12.224
		Involvement of α -Amylase Genes in Starch Degradation in Rice Leaf Sheaths at the Post-Heading Stage	Sugimura Y, et al.	2015	10.1626/pps .18.277
		Two β -amylase genes, <i>OsBAM2</i> and <i>OsBAM3</i> , are involved in starch remobilization in rice leaf sheaths	Hirano T, et al.	2016	10.1080/13 43943X.20 16.1140008
	Leaf temperature (3)	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
		Transpiration and Leaf Movement of Cotton Cultivars Grown in the Field under Arid Conditions	Wang C, et al.	2004	10.1626/pps .7.266
		Effects of Water Stress on Leaf Temperature and Chlorophyll Fluorescence Parameters in Cotton and Peanut	Shahenshah et al.	2010	10.1626/pps .13.269
	Leaf thickness (1)	Chlorophyll Meter's Estimate of Weight-based Nitrogen Concentration in Rice Leaf is Influenced by Leaf Thickness	Li J, et al.	2011	10.1626/pps .14.177
	Leaf tissue (1)	Varietal Difference in Nitrogen Redistribution from Leaves and Its Contribution to Seed Yield in Soybean	Zhao X, et al.	2014	10.1626/pps .17.103
	Leaf water content (1)	Midday Drop of Leaf Water Content Related to Drought Tolerance in Snap Bean (<i>Phaseolus vulgaris</i> L.)	Omae H, et al.	2005	10.1626/pps .8.465
	Leaf water potential (8)	Reduction in Leaf Water Potential and Hydraulic Conductance of Young Rice Plants (<i>Oryza Sativa</i> L.) Grown in Wet Compacted Soils	Kobata T, et al.	1999	10.1626/pps .2.14
		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
		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
		Mixed Planting with Legumes Modified the Water Source and Water Use of Pearl Millet	Zegada-Lizarazu W, et al.	2005	10.1626/pps .8.433
		Water Competition of Intercropped Pearl Millet with Cowpea under Drought and Soil Compaction Stresses	Zegada-Lizarazu W, et al.	2006	10.1626/pps .9.123
		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

Leaf (continued)	Leaf water potential (continued)	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
		Stomatal Responses in Rainfed Lowland Rice to Partial Soil Drying; Comparison of Two Lines	Siopongco JDLC, et al.	2009	10.1626/pps .12.17
	Leaf water status (1)	Assessing Drought Tolerance of Snap Bean (<i>Phaseolus vulgaris</i>) from Genotypic Differences in Leaf Water Relations, Shoot Growth and Photosynthetic Parameters	Omae H, et al.	2007	10.1626/pps .10.28
	Erect leaf (1)	Spatial and Temporal Variation in Photon Flux Density on Rice (<i>Oryza sativa</i> L.) Leaf Surface	Nishimura S, et al.	1998	10.1626/pps .1.30
	First-leaf growth (1)	A Varietal Difference in Coleoptile Growth is Correlated with Seedling Establishment of Direct Seeded Rice in Submerged Field under Low-Temperature Conditions	Ogiwara H, et al.	2001	10.1626/pps .4.166
	Flag leaf (3)	Effects of Flag Leaves and Panicles on Light Interception and Canopy Photosynthesis in High-Yielding Rice Cultivars	Saitoh K, et al.	2002	10.1626/pps .5.275
		Correlation of Chlorophyll Meter Readings with Gas exchange and Chlorophyll Fluorescence in Flag Leaves of Rice (<i>Oryza sativa</i> L.) Plants	Kumagai E, et al.	2009	10.1626/pps .12.50
		Characteristics of Gas Exchange and Chlorophyll Fluorescence during Senescence of Flag Leaf in Different Rice (<i>Oryza sativa</i> L.) Cultivars Grown under Nitrogen-Deficient Condition	Kumagai E, et al.	2009	10.1626/pps .12.285
	Physiology of flag leaf (1)	Rice Flag Leaf Physiology, Organ and Canopy Temperature in Response to Water Stress	Yan C, et al.	2012	10.1626/pps .15.92
	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
	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
	Source leaf (1)	Elevated Sucrose-phosphate Synthase Activity in Source Leaves of Potato Plants Transformed with the Maize SPS Gene	Tobias DJ, et al.	1999	10.1626/pps .2.92
	Specific leaf area (3)	Physio-Morphological Characters of F ₁ Hybrids of Rice (<i>Oryza sativa</i> L.) in Japonica-Indica Crosses. I. Heterosis for photosynthesis	Sarker MAZ, et al.	2001	10.1626/pps .4.196
		Response of Soybean, Sugar Beet and Spring Wheat to the Combination of Reduced Tillage and Fertilization Practices	Miyazawa K, et al.	2004	10.1626/pps .7.77
		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
Specific leaf weight (2)	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	
	Chlorophyll Meter's Estimate of Weight-based Nitrogen Concentration in Rice Leaf is Influenced by Leaf Thickness	Li J, et al.	2011	10.1626/pps .14.177	
Leaflet (7)	Leaflet (3)	Leaf Characteristics and Shape of Sago Palm (<i>Metroxylon sagu</i> Rottb.) for Developing a Method of Estimating Leaf Area	Nakamura S, et al.	2004	10.1626/pps .7.198
		Analysis of Leaflet Shape and Area for Improvement of Leaf Area Estimation Method for Sago Palm (<i>Metroxylon sagu</i> Rottb.)	Nakamura S, et al.	2005	10.1626/pps .8.27
		A Method for Estimating Sago Palm (<i>Metroxylon sagu</i> Rottb.) Leaf Area after Trunk Formation	Nakamura S, et al.	2009	10.1626/pps .12.58
	Leaflet area (2)	Leaf Characteristics and Shape of Sago Palm (<i>Metroxylon sagu</i> Rottb.) for Developing a Method of Estimating Leaf Area	Nakamura S, et al.	2004	10.1626/pps .7.198
		Analysis of Leaflet Shape and Area for Improvement of Leaf Area Estimation Method for Sago Palm (<i>Metroxylon sagu</i> Rottb.)	Nakamura S, et al.	2005	10.1626/pps .8.27
	Leaflet shape (1)	Analysis of Leaflet Shape and Area for Improvement of Leaf Area Estimation Method for Sago Palm (<i>Metroxylon sagu</i> Rottb.)	Nakamura S, et al.	2005	10.1626/pps .8.27
	Shape of a soybean leaflet (1)	Modeling of a Soybean Canopy Structure by the Approximation of a Leaflet into an Ellipsoid for Estimating Direct Solar Radiation Environment	Hirota O, et al.	2000	10.1626/pps .3.67
Leakage (3)	Electrolyte leakage (2)	Effects of Silicon on Tolerance to Water Deficit and Heat Stress in Rice Plants (<i>Oryza sativa</i> L.), Monitored by Electrolyte Leakage	Agarie S, et al.	1998	10.1626/pps .1.96
		Improving the Field Emergence Performance of Super Sweet Corn by Sand Priming	Zhao G, et al.	2009	10.1626/pps .12.359
	Relative electrolyte leakage (1)	Physio-Biochemical Responses of Oil Palm (<i>Elaeis guineensis</i> Jacq.) Seedlings to Mannitol- and Polyethylene Glycol-Induced Iso-Osmotic Stresses	Cha-um S, et al.	2012	10.1626/pps .15.65

Lignified wall (1)		Histochemistry and Cell Wall Specialization of Oil Cells related to the Essential Oil Accumulation in the Bark of <i>Cinnamomum cassia</i> Presl. (Lauraceae)	Geng SL, et al.	2012	10.1626/pps .15.1
Ligule (1)	Liguleless (1)	Structural and Functional Differentiation of Bundle Sheath and Mesophyll Cells in the Lamina Joint of Rice Compared with that in the Corresponding Region of the Liguleless Genotype	Tsutsumi K, et al.	2007	10.1626/pps .10.346
Location / Localizatoin (3)	Centrifugal location (1)	Strictness of the Centrifugal Location of Bundle Sheath Chloroplasts in Different NADP-ME Type C ₄ Grasses	Taniguchi Y, et al.	2003	10.1626/pps .6.274
	Enzyme localization (1)	Sucrose Metabolism for the Development of Seminal Root in Maize Seedlings	Ogawa A, et al.	2009	10.1626/pps .12.9
	Tissue localization (1)	Tissue Localization of the Glycine Betaine Biosynthetic Enzymes in Barley Leaves	Mitsuya S, et al.	2013	10.1626/pps .16.117
Locule unfolding (1)		Rapid Swelling of Pollen Grains in Response to Floret Opening Unfolds Anther Locules in Rice (<i>Oryza sativa</i> L.)	Matsui T, et al.	1999	10.1626/pps .2.196
Lodging (13)	Lodging (7)	Relation of Leaf Nitrogen Content and Other Traits with Seed Yield of Soybean	Shibles R, et al.	1998	10.1626/pps .1.3
		Effects of Inabenfide [4'-chloro-2'-(α -hydroxybenzyl)-isonicotinilide] on Growth, Lodging, and Yield Components of Rice	Fukazawa M, et al.	2001	10.1626/pps .4.118
		Analysis of Lodging-Resistant Characteristics of Different Rice Genotypes Grown under the Standard and Nitrogen-Free Basal Dressing Accompanied with Sparse Planting Density Practices	Pham QD, et al.	2004	10.1626/pps .7.243
		Factors Responsible for Decreasing Sturdiness of the Lower Part in Lodging of Rice (<i>Oryza sativa</i> L.)	Kashiwagi T, et al.	2005	10.1626/pps .8.166
		Yield Potential and Physiological and Morphological Characteristics Related to Yield Performance in <i>Oryza glaberrima</i> Steud.	Futakuchi K, et al.	2012	10.1626/pps .15.151
		Effects of Nitrogen Fertilizer and Planting Density on the Lignin Synthesis in the Culm in Relation to Lodging Resistance of Buckwheat	Wang C, et al.	2015	10.1626/pps .18.218
		Decreasing radioactive cesium in lodged buckwheat grain after harvest	Kubo K, et al.	2016	10.1080/13 43943X.20 15.1128104
	Lodging rate (1)	Effect of planting density on lodging-related morphology, lodging rate, and yield of tartary buckwheat (<i>Fagopyrum tataricum</i>)	Xiang DB, et al.	2016	10.1080/13 43943X.20 16.1188320
	Lodging resistance (5)	Effects of Powdered Rice Chaff Application on Si and N Absorption, Lodging Resistance and Yield in Rice Plants (<i>Oryza sativa</i> 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 (<i>Glycine max</i>) Stem Vining in Maize-Soybean Relay Strip Intercropping System	Liu WG, et al.	2015	10.1626/pps .18.69
Longevity (1)	Developmental Fates of Axillary Buds as a Major Determinant for the Pattern of Life History in <i>Lolium</i>	Onishi K, et al.	2003	10.1626/pps .6.179	