

Original papers

Evaluation of different embryogenic systems for production of true somatic embryos in <i>Arabidopsis</i> K. NOWAK, B. WOJCIKOWSKA, K. SZYRAJEW, M.D. GAJ.....	401-408
<i>Arabidopsis thaliana</i> <i>in vitro</i> shoot regeneration is impaired by silencing of <i>TIR1</i> M. QIAO, Z.-J. ZHAO, F.-N. XIANG.....	409-414
Identification and characterization of transcripts differentially expressed during embryogenesis in <i>Capsella bursa-pastoris</i> P. TAO, J.B. WANG.....	415-421
Involvement of G6PDH in heat stress tolerance in the calli from <i>Przewalskia tangutica</i> and <i>Nicotiana tabacum</i> H. GONG, G. CHEN, F. LI, X. WANG, Y. HU, Y. BI.....	422-430
Expression of GFP-mTalin reveals an actin-related role for the <i>Arabidopsis</i> Class II formin AtFH12 F. CVRČKOVÁ, M. GRUNT, V. ŽÁRSKÝ.....	431-440
Isolation and molecular characterization of cinnamate 4-hydroxylase from apricot and plum A. PINA, T. ZHEBENTYAYEVA, P. ERREA, A. ABBOTT.....	441-450
Engineering ascorbic acid biosynthetic pathway in <i>Arabidopsis</i> leaves by single and double gene transformation Y. ZHOU, Q.C. TAO, Z.N. WANG, R. FAN, Y. LI, X.F. SUN, K.X. TANG.....	451-457
The identification of flavonoids and the expression of genes of anthocyanin biosynthesis in the chrysanthemum flowers S.-M. CHEN, C.-H. LI, X.-R. ZHU, Y.-M. DENG, W. SUN, L.-S. WANG, F.-D. CHEN, Z. ZHANG.....	458-464
Divergence of <i>TERMINAL FLOWER1</i> -like genes in <i>Rosaceae</i> N. MIMIDA, J. LI, C. ZHANG, S. MORIYA, Y. MORIYA-TANAKA, H. IWANAMI, C. HONDA, H. OSHINO, K. TAKAGISHI, A. SUZUKI, S. KOMORI, M. WADA.....	465-472
Identification of genes involved in a water stress response in timothy and mapping of orthologous loci in perennial ryegrass K. JONAVIČIENĖ, B. STUDER, T. ASP, L. B. JENSEN, V. PAPLAUSKIENĖ, S. LAZAUSKAS, G. BRAZAUSKAS.....	473-483
Isolation and expression of a cold-responsive gene <i>PtCBF</i> in <i>Poncirus trifoliata</i> and isolation of citrus <i>CBF</i> promoters L.G. HE, H.L. WANG, D.C. LIU, Y.J. ZHAO, M. XU, M. ZHU, G.Q. WEI, Z.H. SUN.....	484-492
Ectopic expression of peanut acyl carrier protein in tobacco alters fatty acid composition in the leaf and resistance to cold stress G.-Y. TANG, L.-Q. WEI, Z.-J. LIU, Y.-P. BI, L. SHAN.....	493-501
cDNA-AFLP analysis reveals a set of new genes differentially expressed in cucumber root apices in response to iron deficiency G. VIGANI, A. CHITTÓ, P. DE NISI, G. ZOCCHI.....	502-508
Improved drought resistance in a wheat stay-green mutant <i>tasg1</i> under field conditions F.X. TIAN, J.F. GONG, G.P. WANG, G.K. WANG, Z.Y. FAN, W. WANG.....	509-515
Over-expressing <i>GsGST14</i> from <i>Glycine soja</i> enhances alkaline tolerance of transgenic <i>Medicago sativa</i> Z.-Y. WANG, F.-B. SONG, H. CAI, Y.-M. ZHU, X. BAI, W. JI, Y. LI, Y. HUA.....	516-520
The development of stomata and other epidermal cells on the rice leaves L. LUO, W.-Q. ZHOU, P. LIU, C.-X. LI, S.-W. HOU.....	521-527
The role of non-symbiotic haemoglobin and nitric oxide homeostasis in waterlogging tolerance in <i>Vigna</i> species R.K. SAIRAM, K. DHARMAR, V. CHINNUSAMY, S. LEKSHMY, R. JOSHI, P. BHATTACHARYA.....	528-536
Oligogalacturonides stimulate antioxidant system in alfalfa roots D. CAMEJO, M.C. MARTÍ, E. OLMOS, W. TORRES, F. SEVILLA, A. JIMÉNEZ.....	537-544
Chalcone isomerase in grape vine: gene expression and localization in the developing fruit W. WANG, H.-L. WANG, S.-B. WAN, J.-H. ZHANG, P. ZHANG, J.-C. ZHAN, W.-D. HUANG.....	545-550

Continued on the previous page

Changes in apoplast protein pattern suggest an early role of cell wall structure remodelling in flagellin-triggered basal immunity E. SZABÓ, Á. SZATMÁRI, É. HUNYADI-GULYÁS, E. BESENYEI, L.R. ZSIROS, Z. BOZSÓ, P.G. OTT.....	551-559
A positive regulatory role of the watermelon <i>CIWRKY70</i> gene for disease resistance in transgenic <i>Arabidopsis thaliana</i> S.M. CHO, E.Y. KANG, K.H. MIN, Y.K. LEE, Y.C. KIM, K.Y. YANG, K.S. KIM, Y.S. CHOI, B.H. CHO.....	560-565
Brief communications	
Effects of 5-aminolevulinic acid on the H ₂ O ₂ -content and antioxidative enzyme gene expression in NaCl-treated cucumber seedlings A. ZHEN, Z.L. BIE, Y. HUANG, Z.X. LIU, M.L. FAN.....	566-570
Inducible expression of the gene of <i>Zinnia elegans</i> coding for extracellular ribonuclease in <i>Nicotiana tabacum</i> plants E.A. TRIFONOVA, A.V. ROMANOVA, S.S. SANGAEV, M.V. SAPOTSKY, V.I. MALINOVSKY, A.V. KOCHETOV.....	571-574
Salinity affects indirectly nitrate acquisition associated with glutamine accumulation in cowpea roots J.A.G. SILVEIRA, A.R.B. MELO, M.O. MARTINS, S.L. FERREIRA-SILVA, R.M. ARAGÃO, E.N. SILVA, R.A. VIÉGAS.....	575-580
Indole-3-acetic acid accumulation during poplar rhizogenesis revealed by immunohistochemistry N.G. DONG, W.L. YIN, Y. GAO, D. PEI.....	581-584
Cloning and characterization of paleo <i>AP3</i> -like MADS-box gene in London plane tree Z. LI, G. LIU, J. ZHANG, S. LU, S. YI, M. BAO.....	585-589
Polyamine content during minimal growth storage of <i>Thymus moroderi</i> explants A. MARCO-MEDINA, J.L. CASAS.....	590-594
Imaging of early conifer embryogenic tissues with the environmental scanning electron microscope V. NEDĚLA, J. HŘIB, B. VOOKOVÁ.....	595-598
Book reviews	
<i>Merchant, S., Briggs, W.R., Ort, D. (ed.): Annual Review of Plant Biology. Volume 61 (2010).</i> (N. Wilhelmová)	599

BIOLOGIA PLANTARUM

Editor-in-Chief: Jana Pospíšilová; *Executive Editor:* Jiří Šantrůček
Editorial Office: Na Karlovce 1a, 160 00 Praha 6, Czech Republic
 phone: (+420) 233331032, fax: (+420) 224310113, e-mail: biol.plant@ueb.cas.cz, <http://www.ueb.cas.cz/bp>

© *Institute of Experimental Botany, Academy of Sciences of the Czech Republic, Praha 2012*