

International Journal of Plant Breeding Research

Volume 123 Number 8 December 2011

ORIGINAL PAPERS

Association mapping and gene–gene interaction for stem rust resistance in CIMMYT spring wheat germplasm

L.-X. Yu · A. Lorenz · J. Rutkoski · R.P. Singh · S. Bhavani · J. Huerta-Espino · M.E. Sorrells 1257

Gene stacking strategies with doubled haploids derived from biparental crosses: theory and simulations assuming a finite number of loci

A.E. Melchinger · F. Technow · B.S. Dhillon 1269

Multiple alleles for resistance and susceptibility modulate the defense response in the interaction of tetraploid potato (*Solanum tuberosum*) with *Synchytrium endobioticum* pathotypes 1, 2, 6 and 18

A. Balivora · K. Flath · J. Lübeck · J. Strahwald · E. Tacke · H.-R. Hofferbert · C. Gebhardt 1281

PCR-based isolation and identification of full-length low-molecular-weight glutenin subunit genes in bread wheat (*Triticum aestivum* L.)

X. Zhang · D. Liu · W. Jiang · X. Guo · W. Yang · J. Sun · H. Ling · A. Zhang 1293

Population structure and marker–trait association analysis of the US peanut (*Arachis hypogaea* L.) mini-core collection

M.L. Wang · S. Sukumaran · N.A. Barkley · Z. Chen · C.Y. Chen · B. Guo · R.N. Pittman · H.T. Stalker · C.C. Holbrook · G.A. Pederson · J. Yu 1307

Fine mapping a major QTL for flag leaf size and yield-related traits in rice

P. Wang · G. Zhou · H. Yu · S. Yu 1319

Mapping of the *S. demissum* late blight resistance gene *R8* to a new locus on chromosome IX

K.-R. Jo · M. Arens · T.-Y. Kim · M.A. Jongsma · R.G.F. Visser · E. Jacobsen · J.H. Vossen 1331

Nucleotide diversity of a genomic sequence similar to *SHATTERPROOF* (*PvSHP1*) in domesticated and wild common bean (*Phaseolus vulgaris* L.)

L. Nanni · E. Bitocchi · E. Bellucci · M. Rossi · D. Rau · G. Attene · P. Gepts · R. Papa 1341

Molecular evolution of the clustered *MIC-3* multigene family of *Gossypium* species

Z.T. Buriev · S. Saha · S.E. Shermatov · J.N. Jenkins · A. Abdulkarimov · D.M. Stelly · I.Y. Abdurakhmonov 1359

Major locus and other novel additive and epistatic loci involved in modulation of isoflavone concentration in soybean seeds

J.J. Gutierrez-Gonzalez · T.D. Vuong · R. Zhong · O. Yu · J.-D. Lee · G. Shannon · M. Ellersieck · H.T. Nguyen · D.A. Sleper 1375

Exploiting co-linearity among grass species to map the *Aegilops ventricosa*-derived *Pch1* eyespot resistance in wheat and establish its relationship to *Pch2*

C. Burt · P. Nicholson 1387

Characterization of a major QTL for adult plant resistance to stripe rust in US soft red winter wheat

Y. Hao · Z. Chen · Y. Wang · D. Bland · J. Buck · G. Brown-Guedira · J. Johnson 1401

Patterns of molecular variation in a species-wide germplasm set of *Brassica napus*

A. Bus · N. Körber · R.J. Snowdon · B. Stich 1413

Pea powdery mildew *er1* resistance is associated to loss-of-function mutations at a *MLO* homologous locus

S. Pavan · A. Schiavulli · M. Appiano · A.R. Marcotrigiano · F. Cillo · R.G.F. Visser · Y. Bai · C. Lotti · L. Ricciardi 1425

Stable progeny production of the amphidiploid resynthesized *Brassica napus* cv. Hanakkori, a newly bred vegetable

K. Fujii · N. Ohmido 1433

Effects of suppressing the DNA mismatch repair system on homeologous recombination in tomato

S.M. Tam · J.B. Hays · R.T. Chetelat 1445

QTL underlying the resistance to soybean aphid (*Aphis glycines* Matsumura) through isoflavone-mediated antibiosis in soybean cultivar 'Zhongdou 27'

F. Meng · Y. Han · W. Teng · Y. Li · W. Li 1459

Characterization of seed coat post harvest darkening in common bean (*Phaseolus vulgaris* L.)

H.T. Elsadra · L.C. Wright · K. Peter Pauls · K.E. Bett 1467