



Subject Index Vol. 26 5(6) 2021

- 16SrRNA 109
 18S ribosomal RNA 547
 Abiotic stress 969
 Active ingredients 131
 Adhesion protein 1249
 ADP1-nematode interactions 1249
Aeromonas hydrophila 397
 Aeshnidae 109
 African swine fever virus 609
Ageratum conyzoides 761
 AgNPs 117
 Agricultural pest 1238
 Agriculture 1085
Agrobacterium mediated transformation 211
 Agronomic traits 929, 937
 Air and climate change 1085
 Al stress 623
 Alfalfa 601
Alisma orientale 373
 Allyl isothiocyanate 667
Alternaria alternata 1173
Alternaria linariae 1101
Alternaria solani 1101
 Alternative control 1126
 Amino acids 895
 Ammonia-oxidizing archaea 33
 Ammonium sulphate 81
 Amylose 1263
 Analysis 591
Anaplasma 541
 Anaplasmosis 1016
 Antibacterial 117, 1187
 Antibiotic resistance pattern 1043
 Antibiotics 795
 Anti-cancer 1024
 Anticancer 409
 Anticandidal 117
 Antifungal activity 761, 1043, 1075
 Antifungal mechanism 873
 Antifungal protein 1153
 Antioxidant 677
 Antioxidant activity 1187
 Antioxidant enzyme activity 838
 Antioxidant enzymes 929
 Antioxidant potential 361
 Antiviral gene 277
 Ants 1375
 Aphid 81
 Apocynoideae 1111
 Aqueous extracts 117
 Aqueous two-phase extraction 1187
 Arid regions 52
Arthrobotrys oligospora 1249
 Asclepiadoideae 1111
 Ascorbate–glutathione cycle 361
 Asteraceae 761
 Authenticity analysis 131
Avena nuda 581
Baccharis salicina 1075
Bacillus cereus 1153
 Bacteria 455, 1035
 Bacterial community 345
 Bacterial leaf blight 75, 338
 Bacterially-expressed dsRNA 1238
 Balochistan 981
 Barley grains 786
 Baseline 945
 Bashang long-tail chicken 1002
 Basil cultivars 1311
 Bat 639
 Bee pollen 615
 Begomovirus 859
 Billygoat weed 761
 Bioactive compounds 1161
 Biochar 632
 Biochemical 241
 Biocontrol 888, 962, 1153
 Biocontrol activity 1066
 Biodiversity 33
 Biofertilizer 98
 Biofertilizers 33
 Biogas 231
 Biological-control 436
 Biology 460
 Bio-sulphur 81
 Black soldier fly larvae 1197
 Blackberry 1007
 Blackhead disease 1173
Bletilla 547
 Blood 241
 Blueberry 1007
Bovine leukemia 222
Bovine leukemia virus 222
 Brachypodium distachyon 1355
 Breeding 361, 683
 Broiler 1197
Brucella abortus 1066
 Brucellaphages 1066
 Brucellosis 1066
 BSMV–VIGS 1263
 Buffalo calves 921
 Bulk segregant analyses 659
 Bulk segregant analysis 1272
C. partellus 1238
 Cadmium stress 98
 Cadmium toxicity 1321
 Cage 1002
Cajanus cajan 20
 Calcium chloride 151
 Calcium-dependent protein kinase 151
 Camel 241
 Capsicum stems 969
 Carbon nitrogen balance 1339
 Carcass characteristics 895
Casuarina equisetifolia 117
 Catechin 139
 Cattle 1016
 cELISA 541
 Cell wall 1303
 Central China 1231
 Challenge test 277
 Characterization 1066
 Charcoal rot 165
 Chemical control 1120
 Chemical factors 198
 Chemicals 1126
 Chemoprevention 667
 Chemotherapy 1161
 China 131
 Chinese fir plantations 146
 Chlorophyll content 338
 Chlorophyll fluorescence characteristics 863
 Chloroplast genome 1203
 circRNAs 1355
 Citric acid 81
 Citrus 68
 Citrus fruit blemishes 298
 Citrus orchards 1346
 Cladistics 1111
 Clubroot 805
 Cluster analysis 768
 CO1 109
 Coefficient infection 260
Coffea spp. 227
 Cold 969
 Cold plasma 667

Cold stress 151, 1303
 Compost 81
 Continuous positioning 146
 Copro-ELISA 881
 Corn 555, 1213
 Cotton 181, 709
 COVID-19 1085
 Cowpea 89
 Crop productivity analysis 985
 Cropping system 20
 Cropping systems 985
 Crown diameter 945
Cucumis melo 327
Cucumis sativus 859
 Cultivars 285
 Cuticular waxes 813
Cymbidium longibracteatum 915
 Cyst isolation 735
 Cyt b 981
 Dairy goat 231
Dalbergia odorifera 723
 Date palm 1120
 DBH 945
 Deep tillage 345
 Defense response 1173
 Delayed planting 742
 Deltamethrin 1255
 Dendrogram 820
Dendrolimus superans 61
 Desert 1035
 Diapause 271
 Diarrhoea 921
 Diet 1147
 Differential hosts 805
 Diketones 813
 Disinfection 469
 Distribution 1375
 Diuretic effect 373
 Diversity 1292
 DNA barcode 227
 DNA cleavage 888
 Dogs 881
 Dolomite 291
 DPPH 677
 Dromedary camels 981
 Drought 1355
 Drought tolerance 441, 929
 Dry matter yield 601
 Early blight 1101
Echinococcus granulosus 881
 Economic analysis 20, 27, 985
 Economic benefits 601
 Economics 249
 Ectopic expression 123
 Effector evolution 1331
 Egg 995
 Egg production rate 995
 Egg quality 139, 1002, 995
 Egg yolk 139
Elymus spp. 1203
 Emamectin benzoate 1120
 Embryonic development 831
 Embryos 786
 Endangered mangrove 420
 Endophytes 436
 Endosulfan 1255
 Energy 1085
Enterococcus durans 1043
env gene 222
 Environment 777
 Environmental pollution 231, 795
 Enzyme activities 338
 Enzyme activity 345
 Enzyme production condition optimization 173
 Epigallocatechin gallate 139
 Epigenetics 319
 Essential oils 723
 Ethanol yield 160
 Eugenol 231
 Evapotranspiration 581
 Expression analysis 01, 327
 Expression profiles 1051
 Extruded linseed 1147
 Faba bean 683
 Farmgate rejection 298
 Farmyard manure 795
 FaTT10 1222
 Fatty acid biosynthesis 123
 Fatty acids 895
 Fecundity 460
 Fermentation 160
 Fermentation quality 1213
Ficus carica 677
 Fingerprint 131
 Finishing bulls 455
 Fish 1255
 Flavonoids 1161
 Flooding tobacco 1303
 Flower opening 851
 Flue-cured tobacco 291, 345, 632
 Food waste 1197
 Forage 89
 Forage canola 995
 Foraging 1140
 Foxtail millet 441
 Free-range 1002
Fritillaria thunbergia 131
 Functional analysis 1051
 Functional category 1355
 Functional traits
 Functional verification 915
 Fungal pathogens 01
Fusarium incarnatum 1096
Fusarium solani 873
 Fusarium wilt 165
 Fusion protein 1249
 Galls 955
Gallus domestica 139
 GASA genes 181
 GC-MS 723, 813
 GC-MS analysis 888
 Gelatinase 1043
 Geminiviridae 859
 Gene clone 915
 Gene diversity 683
 Gene expression 615, 701, 715, 786, 851, 863, 937
 Gene flow 645
 Gene knockdown 1238
 Genepool 1131
 Genetic differentiation 683
 Genetic distance 645
 Genetic diversity 575, 820
 Genetic heterogeneity 222
 Genetic parameter 354
 Genetic variation 645
 Genome 1311
 Genotoxicity 1311
 Genotype 820
 Genotype by yield*trait biplot 1367
 Genotyping 260
 Genotyping-by-sequencing 904
 Germination 786
 Germplasm 381
 Glucose consumption 160
 Glutamine synthetase 845
 Glutathione 615
 Goat 1147
Gossypium barbadense 123
 Grain morphology 1131
 Grain yield 20, 27, 43, 1367
 Green microalgae 404
 Green synthesis 165
 Greenhouse gas emission 1339
 Greenhouse gases 1231
 Grey mold 1126
 Grey slope correlation 61
 Growth 632
 Growth analysis 985
 Growth and development 427
 Growth hormone gene polymorphism 255
 Growth rate 404
 Growth regulating factor 1051
 Growth stages 146
 Guar 89

GWAS 388, 450
 Hair follicle development 450
 Haplotypes 981
 Harvest stage 601
 Hazara region 109
 Health 1255
 Heat stress 547
 Hemicellulose 623
Hemileia vastatrix 1075
 Hepatitis rats 730
 High-density SNPs bin-map 904
 High-throughput sequencing 33
 High-yield diastase-producing strain 173
 Histological properties 895
 Histopathology 397
 HK-2 cells 373
 Holstein cattle 354
 Honeybee 615
 Host plant 436
 Host plants 460
 Hotspot regions 1203
 HPLC 131, 677
 HPLC analysis 723
 HSB 921
 Human 639
 Hydraulic 581
 Hypermethylation 319
 Hyphal growth 1153
 Hypomethylation 319
 Hypovolemia 921
 Identification 1292
 Illumina sequencing 1355
In vitro 677
In vitro maturation 615
 Inbreeding 575
 Indirect ELISA 609
 Induced systemic resistance 01
 Infection 1173
 Infestation 1120
 Insect bioassays 211
 Insect resistance 211
 Intercropping 89
 Intermediate host 639
 Intersegmental vessel 831
 Iron salt 469
 Isolate 436
 Isolated identification 173
 Isolation 1292
 ISSR 645, 683
 ITS 227, 1096
 K acquisition 937
 K input level 937
 Ka/Ks ratio 1331
 Karnal bunt 260
 Korean native black goat strain 575
 Korla fragrant pear 1173
 Lactalbumin 567
 Lactic acid bacteria 1213
 Land equivalent ratio 20, 27
 Laying hens 995
 LC-MS 677
 Leaf 813
 Leaf area 742
 Leaf source 43
 Leaf spots 1096
 Linkage disequilibrium 575
Listeria monocytogenes 198
 Livestock 450
 lncRNA 450
 lncRNA TCONS_00028652 831
 lncRNAs 777
 Local germplasm resources 68
 Longevity 460
 Low oxygen stress 191
Lumnitzera littorea 420
 Lyophilization 567
 Macrophages 1161
Macrophomina phaseolina 761, 888
 MADS-box 851
Magnaporthe oryzae 1153
 Magnesium 291
 Maize 89, 659
 Maize seedlings 904
 Maize variety 43
 Male-sterility 659
 Mapping 659
 Marsh 52
 MAS 255
 Mastitis 701
matK 227
 Maturity 20
 Meat quality 1147
 Medicinal herb 1161
 Medium chain fatty acid 455
Meloidogyne spp. 271
 Melon 962
 Metabolism 191
 Metal 198
 Methylene blue and 4-nitrophenol 201
 Mg protoporphyrin IX methyltransferase (ChlM) 915
 Mice 609
 Microbes 409
 Microbial community 1213
 Microbial population 1197
 Microbial synthesis 201
 Microgreen 667
 Milk 249
 Milk replacer 249
 Milk thistle 692
 Milk yield 354
 Mixotrophic 404
 Molecular analyses 109
 Molecular detection 222
 Molecular diversity 1061
 Molecular genotyping 1346
 Molecular markers 659, 820
 Morphology 813, 1096
 Mountainous 345
 MS-MS analysis 1075
 Multi-locus phylogeny 1101
 Multiple factors 298
 Multiple traits 1367
 Multivariate analysis 1075
 Mustard green 667
 Mycelial morphology 873
Myoviridae 75
 Myxobacteria 1281, 1292
Myxococcus xanthus 1281
 Needle tail disease 397
 Negative pressure irrigation 427
Nelumbo nucifera 851
 Neurotransmitter 409
 NGS 1035
Nigella sativa 1024
 Nitrate 1140
 Nitrate reductase 98
 Nitrogen 191, 285
 Nitrogen and phosphorus content 651
 Nitrogen fixation 845
 NO₃⁻-N content 709
 NRAMP gene family 327
 Nutrient contents 146
 Nutrient digestibility 1197
 Nutrients 692
 Nutrients acquisition 1321
 Nutritional components 1002
 Nutritional quality 601
 Occurrence 61
Ocimum basilicum 1311
 OIJP curves 338
 Oman 1035
 Oomycota 1007
 Oregano 1147
 Organic carbon 404
 Organic fertilizer 1339
 Organic soybean soil 33
 Orthogonal optimization 1281
Oryza sativa 01
 Osmolytes 929, 1321
OsPSTOL1 651
 Overexpression 277

- Overlay technique 1066
- Oxidative stress 623
- P deficiency 623
- Paddy cropping system 1231
- Paired-end RNA sequencing 777
- Pakistan 198, 541, 881, 1375
- Pangolin 639
- Paraffin oil 962
- Parasite 735
- Parasitoid 1375
- Passion fruit 469
- Pasteurella multocida* 567
- Pastoral 241
- Pathogenicity 1096
- PCR 541
- PCR-RFLP 255
- Pectin 623
- Pepper 1126
- Performance 249
- Periplocoideae 1111
- Phage therapy 75
- Pharmacodynamic effects and mechanism 373
- Phenetics 1111
- Phenotypic plasticity 692
- Phoebe Zhennan* 151
- Phosphorus utilization efficiency 651
- Photoautotrophic 404
- Photocatalysis 201
- Photosynthetic characteristics 751, 863
- Photosynthetic performance 11
- Phragmites australis* 52
- Phylogenetic analysis 1051
- Phylogenetic analysis 1203
- Phylogeny 109, 715, 981, 1016
- Physiological attributes 742
- Physiological condition 241
- Phytochemical 1024
- Phytohormone 98
- Phytopathogenic bacteria 1007
- Phytophthora infestans* 1292
- Phytotherapy 1024
- Pisum sativum* 845
- Plant biomass 937
- Plant breeder rights 768
- Plant disease 873
- Plant growth promoters 692
- Plant growth-promoting rhizobacteria 01
- Planting dates 742
- Planting density 43
- Plasmodiophora brassicae* 805
- Poecilia reticulata* 397
- Pollen germination 838
- Polymerization 1222
- Polymorphic information content 768
- Polymorphism 645, 683, 701, 820
- Population structure 1346
- Populus tomentosa* 651
- Positive selection 1331
- Postharvest 1126
- Post-transcriptional regulation 1051
- Potato 1101
- Potato glycoalkaloids 873
- Potato late blight 1281, 1292
- Powdery mildew 962
- Precipitation 61
- Pre-planting tobacco 1303
- Prevalence 1016
- Prevalence 881
- Priming 11
- Proanthocyanins 1222
- Probiotics 409
- Profenofos 1255
- Prokaryotic expression 609
- Promoter analysis 701
- Protective effect 730
- Protein contents 285
- Protein-protein interaction 327
- Pseudochrobactrum* spp. 201
- Psyllid 1375
- Pulsed electric field (PEF) 160
- Punjab 541
- Purifying selection 1331
- Pyrosequencing 1035
- Pyrroloquinoline quinone 01
- Qiandongnan rice landrace 388
- qRT-PCR 904
- QTL 904
- Quantitative real-time PCR 547
- Quinoa flavonoids 1187
- Random regression model 354
- Raspberry 1007
- Rauvolfiadeae 1111
- Raw milk 1043
- Recovery 581
- Red palm weevil 1120
- Red rot disease 381
- Red soil 555
- Reducing N fertilizer 709
- Resistance 260, 338, 381, 955
- Resistance identification 805
- Resistant starch 1263
- Resource use 985
- Response surface methodology 173
- Rhizobium isolate 845
- Rhizosphere soil 555
- Rice 777
- Risk factors 1016
- RNAi technology 1238
- RNA-seq 1173
- Root anatomy 98
- Root exudates 271
- Root morphological traits 904
- Root source 43
- Root system architecture 1140
- Root-knot nematode 955
- Roots 591
- Roots activity 751
- Rosa indica* 1096
- Rotation 1231
- Rumen 231
- Saccharomyces cerevisiae* 160
- Sahiwal cow 701
- Salicylic acid 81
- Salinity 692
- Salmonella 921
- Salt stress 591, 1311
- Salt tolerance 11
- Sapling 945
- SARS-CoV-2 639
- SCoT 68
- Screening 381
- Secondary extrolites 888
- Secondary metabolite 1281
- Seed abortion 420
- Seed development 777
- Seeding rate 285
- Seedling 945
- Septicaemia 921
- Sequence alignment 68
- Sequence characterized amplified region markers 1272
- Sequencing 1016
- Serum levels 730
- Shedding liquor fermented mash 173
- Sheep 450
- Sheep breeding 255
- Sheep oocytes 615
- Silage 895, 1213
- Silver nanoparticles 165, 201
- Silver thiosulfate 469
- Simplified model 61
- SiSAP4* 441
- SIX effectors 1331
- Skimmed milk 567
- SLAF-seq 388
- Slaughter traits 255
- SNP 255, 388
- SOC1 851
- Soil 198, 1035
- Soil exchangeable calcium 291

Soil matrix 795
 Soil penetration resistance 751
 Soil properties 52
 Soil quality 632
 Soil seed bank 945
 Soil water content 52
 Sources 381
 Soybean 1140
 SPAD value 709
 Spatiotemporal expression 831
 Spike 813
Sporisorium scitamineum 1272
 SSR Markers 260
 Stabilizers 567
 Start codon targeted markers 1272
 Stay-green mutation 361
 Stomata 581
 Stomatal conductance 11, 338
 Storage 838
 Strategies 795
 Straw 291
 Strawberry 1007, 1051, 1222
 Stress responses 160, 181
 Structure analysis 768
 Sub-cellular compartmentalization 1321
 Subcellular localization 915
 Subsoiling 751
 Subsoiling tillage 345
 Suckling kids 1147
 Sucrose metabolism 715
 Sucrose synthase 715
 Sugarcane 381, 715, 1272
 Summer squash 1321
 Supply chain 298
 Survival 460
 Sustainability 1231
 Synthetic gene technology 211
Tagetes erecta 271
 Tea polyphenols 139
 Tectorigenin 723
 Temperature 285
 Terpenoids composition 373
 Thai fermented foods 409
 Thymoquinone 1024
 Tiger shrimp 277
 Tissue culture efficiency 469
 Tissue expression 181
TNF- α 701
 Tobacco 1339
 Tobacco stalk 632
 Tomato 165, 1101
 Tomato spotted wilt virus 1061
 Tosopovirus 1061
 Total mixed ration 895
 Transcription factor 123
 Transcriptome 420, 450
 Transcriptome assemble 591
 Transcriptome profiling 151
 Transcriptomics 969
 Transfection 277
 Transgenic *Arabidopsis* 441
 Transgenic cotton 211
 Transient gene expression 1222
 Transplacental transmission 541
 Trehalose 567
Trichoderma viride 888
 Tropism 271
 Truncated p72 protein 609
 Ubiquitin 547
 Ultra-morphology 838
 Ultrastructure 1303
 Untargeted metabolomics 555
 UV-B 969
 Varietal screening 955
 Varieties 1131
 Viability 567
Vigna unguiculata 27
Viola dissecta 838
Vip3A toxin 211
 Virulence phenotypes 735
 Wastewater and surface water 1085
 Water conservation 427
 Water deficit conditions 319
 Water use efficiency 427, 751
 Watermelon chlorotic stunt virus 859
 Western blotting 730
 Wheat 260, 813, 929, 937, 1131, 1263, 1367
 Whitefly 460
Whitmania pigra 191
 Wool production traits 450
 WSSV 277
 WUE 1131
Xanthomonas axonopodis 1346
Xanthomonas oryzae 75
 Yeast preparations 455
 Yield 89, 709, 742, 751, 1321
 Yield improvement 427
Zea mays 27, 319
 Zebrafish 831
ZmEXPB2 319
Zoysia macrostachya 591
 ZYMV 955
 γ -aminobutyric acid 786