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#	Paper	IF	Citations
622	Linking genotypes to phenotypes and fitness: how mechanistic biology can inform molecular ecology. 2009 , 18, 4997-5017		144
621	Efficient targeting of expressed and silent genes in human ESCs and iPSCs using zinc-finger nucleases. 2009 , 27, 851-7		855
620	Plant biotechnology: Zinc fingers on target. <i>Nature</i> , 2009 , 459, 337-8	50.4	28
619	Targeted mutagenesis in zebrafish using customized zinc-finger nucleases. 2009 , 4, 1855-67		101
618	Oligomerized pool engineering (OPEN): an 'open-source' protocol for making customized zinc-finger arrays. 2009 , 4, 1471-501		166
617	The holy grail for plant biologists. 2009 , 10, 350-350		
616	ZFN-induced mutagenesis and gene-targeting in Arabidopsis through Agrobacterium-mediated floral dip transformation. 2009 , 7, 821-35		91
615	Why farming with high tech methods should integrate elements of organic agriculture. 2009 , 25, 378-8	8	17
614	Breaking the code of DNA binding specificity of TAL-type III effectors. 2009 , 326, 1509-12		1971
613	Gene targeting of a disease-related gene in human induced pluripotent stem and embryonic stem cells. 2009 , 5, 97-110		454
612	Recent progress of flower colour modification by biotechnology. 2009 , 10, 5350-69		137
611	Autonomous zinc-finger nuclease pairs for targeted chromosomal deletion. 2010 , 38, 8269-76		91
610	The discovery of zinc fingers and their development for practical applications in gene regulation and genome manipulation. 2010 , 43, 1-21		168
609	Homing endonucleases: from basics to therapeutic applications. 2010 , 67, 727-48		67
608	Site-specific gene integration technologies for crop improvement. 2010 , 46, 219-232		22
607	Zinc-finger nucleases: a powerful tool for genetic engineering of animals. 2010 , 19, 363-71		96
606	Identification and molecular characterization of a Brachypodium distachyon GIGANTEA gene: functional conservation in monocot and dicot plants. 2010 , 72, 485-97		32

(2010-2010)

605	Zinc finger nuclease-mediated transgene deletion. 2010 , 73, 617-28	105
604	Chromosome engineering: power tools for plant genetics. 2010 , 28, 605-10	29
603	Predicting success of oligomerized pool engineering (OPEN) for zinc finger target site sequences. 2010 , 11, 543	21
602	Metal-stimulated regulation of transcription by an artificial zinc-finger protein. 2010 , 11, 1653-5	7
601	Knowledge and technologies for sustainable intensification of food production. 2010 , 27, 505-16	11
600	Analysis of illegitimate genomic integration mediated by zinc-finger nucleases: implications for specificity of targeted gene correction. 2010 , 11, 35	23
599	Heritable targeted mutagenesis in maize using a designed endonuclease. 2010 , 61, 176-87	190
598	Targeted mutagenesis in the sea urchin embryo using zinc-finger nucleases. 2010 , 15, 875-85	66
597	Genome editing with modularly assembled zinc-finger nucleases. 2010 , 7, 91; author reply 91-2	79
596	Reply to Lenome editing with modularly assembled zinc-finger nucleases 2010, 7, 91-92	70
595	IntOGen: integration and data mining of multidimensional oncogenomic data. 2010, 7, 92-3	90
594	Genome editing with engineered zinc finger nucleases. 2010 , 11, 636-46	1539
593	Light-induced modification of plant plasma membrane ion transport. 2010 , 12 Suppl 1, 64-79	26
592	Mobilizing Science to Break Yield Barriers. 2010 , 50, S-99-S-108	50
591	Generation of pink flower varieties from blue Torenia hybrida by redirecting the flavonoid biosynthetic pathway from delphinidin to pelargonidin. 2010 , 27, 375-383	29
590	Breaking news: plants mutate right on target. 2010 , 107, 11657-8	16
589	Generation of redesigned homing endonucleases comprising DNA-binding domains derived from two different scaffolds. 2010 , 38, 2006-18	49
588	Trait stacking in transgenic crops: challenges and opportunities. 2010 , 1, 220-9	147

587	Nontransgenic genome modification in plant cells. 2010 , 154, 1079-87	129
586	Targeted genome modification in mice using zinc-finger nucleases. 2010 , 186, 451-9	216
585	High frequency targeted mutagenesis in Arabidopsis thaliana using zinc finger nucleases. 2010 , 107, 12028-33	306
584	Recent progress in deciphering the biosynthesis of aspartate-derived amino acids in plants. 2010 , 3, 54-65	75
583	Gene correction by homologous recombination with zinc finger nucleases in primary cells from a mouse model of a generic recessive genetic disease. 2010 , 18, 1103-10	45
582	Stacking multiple transgenes at a selected genomic site via repeated recombinase-mediated DNA cassette exchanges. 2010 , 154, 622-31	38
581	Targeting DNA double-strand breaks with TAL effector nucleases. 2010 , 186, 757-61	1333
580	Probing the DNA-binding affinity and specificity of designed zinc finger proteins. 2010 , 98, 852-60	30
579	A single origin and moderate bottleneck during domestication of soybean (Glycine max): implications from microsatellites and nucleotide sequences. 2010 , 106, 505-14	100
578	Engineered Minichromosomes in Plants. 2010 , 29, 135-147	21
57 ⁸	Engineered Minichromosomes in Plants. 2010 , 29, 135-147 ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010 , 38, W462-8	274
	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010 , 38, W462-8	
577	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010 , 38, W462-8	
577 576	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010 , 38, W462-8 Plant Transformation. 2010 ,	274
577 576 575	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010, 38, W462-8 Plant Transformation. 2010, High efficient gene targeting on the AGAMOUS gene in an ArabidopsisAtLIG4 mutant. 2010, 396, 289-93	274
577 576 575	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010, 38, W462-8 Plant Transformation. 2010, High efficient gene targeting on the AGAMOUS gene in an ArabidopsisAtLIG4 mutant. 2010, 396, 289-93 Engineering signal transduction pathways. 2010, 140, 33-47	274 12 94
577576575574573	ZiFiT (Zinc Finger Targeter): an updated zinc finger engineering tool. 2010, 38, W462-8 Plant Transformation. 2010, High efficient gene targeting on the AGAMOUS gene in an ArabidopsisAtLIG4 mutant. 2010, 396, 289-93 Engineering signal transduction pathways. 2010, 140, 33-47 Genome editing in plant cells by zinc finger nucleases. 2010, 15, 308-21	274 12 94 84

(2011-2010)

569	Gene targeting in human pluripotent cells. 2010 , 75, 201-9	44
568	Unique functions of repetitive transcriptomes. 2010 , 285, 115-88	42
567	Site-directed mutagenesis in Arabidopsis using custom-designed zinc finger nucleases. 2010 , 107, 12034-9	231
566	Targeted mutagenesis of duplicated genes in soybean with zinc-finger nucleases. 2011 , 156, 466-73	221
565	Zinc-finger nucleases for somatic gene therapy: the next frontier. 2011 , 22, 925-33	59
564	Genome engineering with zinc-finger nucleases. 2011 , 188, 773-82	638
563	Site-Specific Recombination for Precise and Clean Transgene Integration in Plant Genome. 2011, 197-209	
562	Artificial DNA cutters for DNA manipulation and genome engineering. 2011 , 40, 5657-68	123
561	Homologous recombination in plants: an antireview. 2011 , 701, 51-65	31
560	Efficient design and assembly of custom TALEN and other TAL effector-based constructs for DNA targeting. 2011 , 39, e82	1525
559	Resources for Reverse Genetics Approaches in Arabidopsis thaliana. 2011 , 527-560	1
558	Epigenetic control of Agrobacterium T-DNA integration. 2011 , 1809, 388-94	29
557	Towards artificial metallonucleases for gene therapy: recent advances and new perspectives. 2011 , 3, 1935-66	18
556	Understanding and exploiting late blight resistance in the age of effectors. 2011 , 49, 507-31	298
555	Renegotiating GM crop regulation. Targeted gene-modification technology raises new issues for the oversight of genetically modified crops. 2011 , 12, 883-8	43
554	Creating designed zinc-finger nucleases with minimal cytotoxicity. 2011 , 405, 630-41	58
553	Engineered plant minichromosomes. 2011 , 701, 131-46	4
552	Application of gene targeting to designed mutation breeding of high-tryptophan rice. 2011 , 156, 1269-77	47

551	Effectors in PlantIhsect Interactions. 2011 , 355-375	2
550	Unreduced gamete formation in plants: mechanisms and prospects. 2011 , 62, 1659-68	114
549	Modularly assembled designer TAL effector nucleases for targeted gene knockout and gene replacement in eukaryotes. 2011 , 39, 6315-25	324
548	. 2011,	5
547	p53 Gene repair with zinc finger nucleases optimised by yeast 1-hybrid and validated by Solexa sequencing. 2011 , 6, e20913	30
546	Meganucleases and Their Biomedical Applications. 2011,	3
545	Zinc-finger nucleases: a panoramic view. 2011 , 11, 2-10	37
544	Zinc-finger nuclease based genome surgery: it's all about specificity. 2011 , 11, 28-37	86
543	Engineering designer nucleases with customized cleavage specificities. 2011 , Chapter 12, Unit12.13	15
542	Genetic engineering of woody plants: current and future targets in a stressful environment. 2011 , 142, 105-17	42
541	Site-specific gene integration in rice genome mediated by the FLP-FRT recombination system. 2011 , 9, 713-21	35
540	Localized egg-cell expression of effector proteins for targeted modification of the Arabidopsis genome. 2011 , 68, 929-37	51
539	Repairing breaks in the plant genome: the importance of keeping it together. 2011 , 192, 805-822	141
538	Recombinase-mediated gene stacking as a transformation operating system. 2011 , 53, 512-9	38
537	Selection-free zinc-finger-nuclease engineering by context-dependent assembly (CoDA). 2011, 8, 67-9	417
536	A TALE nuclease architecture for efficient genome editing. 2011 , 29, 143-8	1598
535	Tree genetic engineering and applications to sustainable forestry and biomass production. 2011 , 29, 9-17	126
534	Making the most of 'omics' for crop breeding. 2011 , 29, 33-40	166

533	Permanent genome modifications in plant cells by transient viral vectors. 2011 , 29, 363-9	22
532	Genetic transformation of barley: limiting factors. 2011 , 55, 213-224	12
531	Comparison of variation in adaptive traits between wild-type and transgenic silver birch (Betula pendula) in a field trial. 2011 , 7, 955-967	3
530	Selectable marker genes from plants: reliability and potential. 2011 , 47, 222-233	19
529	Targeted genome engineering via zinc finger nucleases. 2011 , 5, 9-17	19
528	ZFNGenome: a comprehensive resource for locating zinc finger nuclease target sites in model organisms. 2011 , 12, 83	32
527	In situ genetic correction of the sickle cell anemia mutation in human induced pluripotent stem cells using engineered zinc finger nucleases. 2011 , 29, 1717-26	261
526	Terpenoid Biosynthesis. 2011 , 217-240	3
525	Gene editing of human embryonic stem cells via an engineered baculoviral vector carrying zinc-finger nucleases. 2011 , 19, 942-50	36
524	TAL nucleases (TALNs): hybrid proteins composed of TAL effectors and Fokl DNA-cleavage domain. 2011 , 39, 359-72	411
523	Noncoding RNA gene silencing through genomic integration of RNA destabilizing elements using zinc finger nucleases. 2011 , 21, 1944-54	114
522	De novo-engineered transcription activator-like effector (TALE) hybrid nuclease with novel DNA binding specificity creates double-strand breaks. 2011 , 108, 2623-8	339
521	A novel TALE nuclease scaffold enables high genome editing activity in combination with low toxicity. 2011 , 39, 9283-93	580
520	Molecular basis of engineered meganuclease targeting of the endogenous human RAG1 locus. 2011 , 39, 729-43	56
519	Using transgenic modulation of protein synthesis and accumulation to probe protein signaling networks in Arabidopsis thaliana. 2011 , 6, 1312-21	3
518	Engineered zinc finger nickases induce homology-directed repair with reduced mutagenic effects. 2012 , 40, 5560-8	144
517	Chromosomal context and epigenetic mechanisms control the efficacy of genome editing by rare-cutting designer endonucleases. 2012 , 40, 6367-79	60
516	Overexpression of OsRecQl4 and/or OsExo1 enhances DSB-induced homologous recombination in rice. 2012 , 53, 2142-52	27

515	Zinc finger nuclease and homing endonuclease-mediated assembly of multigene plant transformation vectors. 2012 , 158, 132-44	25
514	Pollen Sterility—A Promising Approach to Gene Confinement and Breeding for Genetically Modified Bioenergy Crops. 2012 , 2, 295-315	4
513	Genome Engineering of Crops with Designer Nucleases. 2012 , 5, 42-50	87
512	Advances in targeted genome editing. 2012 , 16, 268-77	127
511	The requirement for recombination factors differs considerably between different pathways of homologous double-strand break repair in somatic plant cells. 2012 , 72, 781-90	53
510	A transgenic system for generation of transposon Ac/Ds-induced chromosome rearrangements in rice. 2012 , 125, 1449-62	18
509	Unsuccessful attempt at gene-editing by homologous recombination in the zebrafish germ line using the approach of "Rong and Golic". 2012 , 21, 1125-36	1
508	A synthetic biology framework for programming eukaryotic transcription functions. 2012 , 150, 647-58	239
507	Reverse genetic approaches in zebrafish. 2012 , 39, 421-33	77
506	Transcription activator-like effector nucleases enable efficient plant genome engineering. 2013 , 161, 20-7	337
505	Life in the fast lane: mammalian disease models in the genomics era. 2012 , 148, 1099-109	60
504	Targeted DNA excision in Arabidopsis by a re-engineered homing endonuclease. 2012 , 12, 86	38
503	Increasing Food Production in Africa by Boosting the Productivity of Understudied Crops. 2012 , 2, 240-283	34
502	Production of Plant Made Pharmaceuticals: From Plant Host to Functional Protein. 2012 , 31, 148-180	22
501	Molecular Genetic Modifications and Genome-Wide Genetics. 2012, 470-487	
500	Advances in identifying and exploiting natural genetic variation. 2012 , 195-205	
499	Synthetic chromosome platforms in plants. 2012 , 63, 307-30	32
498	Transgenic Plants. 2012 ,	3

497	Agrobacterium-mediated plant genetic transformation. 2012 , 99-116	2
496	Genetic Manipulation of Human Pluripotent Stem Cells Using Zinc Finger Nucleases. 2012 , 499-515	
495	Selectable Markers and Reporter Genes: A Well Furnished Toolbox for Plant Science and Genetic Engineering. 2012 , 31, 401-453	51
494	Rescue the failed half-ZFN by a sensitive mammalian cell-based luciferase reporter system. 2012 , 7, e45169	4
493	In planta gene targeting. 2012 , 109, 7535-40	155
492	Toward two decades of plant biotechnology: successes, failures, and prospects. 2012 , 1, 9-28	14
491	Agnostic about agriculture. 2012 , 30, 197	9
490	Deployment of new biotechnologies in plant breeding. 2012 , 30, 231-9	248
489	Targeted gene addition to a predetermined site in the human genome using a ZFN-based nicking enzyme. 2012 , 22, 1316-26	106
488	Integrating C4 photosynthesis into C3 crops to increase yield potential. 2012 , 23, 209-14	72
487	Transgenic Pm3 multilines of wheat show increased powdery mildew resistance in the field. 2012 , 10, 398-409	54
486	Genome modifications in plant cells by custom-made restriction enzymes. 2012 , 10, 373-89	48
485	Efficient targeted mutagenesis of the chordate Ciona intestinalis genome with zinc-finger nucleases. 2012 , 54, 535-45	36
484	Transcriptome data modeling for targeted plant metabolic engineering. 2013 , 24, 285-90	38
483	TAL effector nucleases induce mutations at a pre-selected location in the genome of primary barley transformants. 2013 , 83, 279-85	145
482	A rapid assay to quantify the cleavage efficiency of custom-designed nucleases in planta. 2013 , 82, 207-21	10
481	Diagnostics in Plant Breeding. 2013 ,	1
480	Less is more: strategies to remove marker genes from transgenic plants. 2013 , 13, 36	83

479 Sustainable Food Production. **2013**, 615-637

478	Hybrid Plant Systems for Breeding and Gene Confinement in Bioenergy Crops. 2013 , 141-171	
477	Sustainable Food Production. 2013 , 808-845	2
476	Phenotypic changes in Cyprinus carpiovar var. Jian introduced by sperm-mediated transgenesis of rearranged homologous DNA fragments. 2013 , 171, 189-97	2
475	Trait stacking via targeted genome editing. 2013 , 11, 1126-34	185
474	TALENs: customizable molecular DNA scissors for genome engineering of plants. 2013 , 40, 271-9	75
473	Targeted molecular trait stacking in cotton through targeted double-strand break induction. 2013 , 11, 933-41	121
472	ZFN-mediated gene targeting of the Arabidopsis protoporphyrinogen oxidase gene through Agrobacterium-mediated floral dip transformation. 2013 , 11, 510-5	65
471	Mutant resources for the functional analysis of the rice genome. 2013 , 6, 596-604	84
470	Advanced genetic tools for plant biotechnology. 2013 , 14, 781-93	156
469	RNA-guided genome editing in plants using a CRISPR-Cas system. 2013, 6, 1975-83	492
468	A highly efficient site-specific integration strategy using combination of homologous recombination and the [131 integrase. 2013 , 167, 427-32	4
467	Biotechnology of Neglected and Underutilized Crops. 2013,	12
466	Evaluation of exogenous siRNA addition as a metabolic engineering tool for modifying biopharmaceuticals. 2013 , 29, 415-24	5
465	Insights from the Soybean (Glycine max and Glycine soja) Genome. 2013, 177-204	8
464	Recombinase-mediated cassette exchange (RMCE) - a rapidly-expanding toolbox for targeted genomic modifications. 2013 , 515, 1-27	111
463	TALENs: a widely applicable technology for targeted genome editing. 2013, 14, 49-55	1072
462	Biallelic knockout of the 日,3 galactosyltransferase gene in porcine liver-derived cells using zinc finger nucleases. 2013 , 181, e39-45	35

(2013-2013)

461	manipulating DNA repair pathways. 2013 , 23, 547-54	123
460	Sustainable Food Production. 2013 , 417-448	7
459	Sustainable Food Production. 2013,	16
458	Plant genome engineering with sequence-specific nucleases. 2013 , 64, 327-50	344
457	Site-directed nucleases: a paradigm shift in predictable, knowledge-based plant breeding. 2013 , 31, 375-83	114
456	Site-specific T-DNA integration in Arabidopsis thaliana mediated by the combined action of CRE recombinase and ?C31 integrase. 2013 , 75, 172-184	13
455	Molecular Genetic Manipulation of Microalgae: Principles and Applications. 2013, 146-167	4
454	Application of TILLING for Orphan Crop Improvement. 2013 , 83-113	18
453	Comparing DNA extraction methods for analysis of botanical materials found in anti-diabetic supplements. 2013 , 53, 249-56	14
452	Future Cereal Starch Bioengineering: Cereal Ancestors Encounter Gene Technology and Designer Enzymes. 2013 , 90, 274-287	45
451	Sustainable Food Production. 2013 , 667-698	
450	Current genomic editing approaches in avian transgenesis. 2013 , 190, 144-8	8
449	Gene Identification: Reverse Genetics. 2013 , 61-89	1
448	Emerging tools for synthetic genome design. 2013 , 35, 359-70	15
447	Genome engineering at the dawn of the golden age. 2013 , 14, 135-58	94
446	Sustainable Food Production. 2013 , 913-971	1
445	ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering. 2013 , 31, 397-405	2526
444	Genetic Analysis of Synaptogenesis. 2013 , 537-577	2

443	Genomic resources for functional analyses of the rice genome. 2013 , 16, 157-63	28
442	Biological and biomedical applications of engineered nucleases. 2013 , 55, 54-62	28
441	Engineered Zinc Finger Nucleases for Targeted Genome Editing. 2013 , 121-145	4
440	Engineered Meganucleases for Genome Engineering Purposes. 2013 , 147-185	3
439	Gene Site-Specific Insertion in Plants. 2013 , 287-315	8
438	Genetic Engineering of Saccharum. 2013 , 223-254	2
437	A large-scale in vivo analysis reveals that TALENs are significantly more mutagenic than ZFNs generated using context-dependent assembly. 2013 , 41, 2769-78	110
436	Newer gene editing technologies toward HIV gene therapy. 2013 , 5, 2748-66	63
435	Nonhomologous end joining-mediated gene replacement in plant cells. 2013 , 162, 390-400	44
434	Targeted mutagenesis for functional analysis of gene duplication in legumes. 2013 , 1069, 25-42	17
433	Transformation and Transgenic Breeding. 2013 , 363-386	1
432	Towards the Domestication of Jatropha: The Integration of Sciences. 2013 , 263-299	10
431	Evaluating the mutagenic activity of targeted endonucleases containing a Sharkey Foki cleavage domain variant in zebrafish. 2013 , 10, 353-64	6
430	Design and Development of Artificial Zinc Finger Transcription Factors and Zinc Finger Nucleases to the hTERT Locus. 2013 , 2, e87	18
429	Targeted deletion and inversion of tandemly arrayed genes in Arabidopsis thaliana using zinc finger nucleases. 2013 , 3, 1707-15	59
428	From Agrobacterium to viral vectors: genome modification of plant cells by rare cutting restriction enzymes. 2013 , 57, 639-50	7
427	Elucidation of Nuclear and Organellar Genomes of Gossypium hirsutum: Furthering Studies of Species Evolution and Applications for Crop Improvement. 2013 , 2, 1224-41	
426	Directed genome engineering for genome optimization. 2013 , 57, 621-7	14

425	Gene targeting in plants: 25 years later. 2013 , 57, 629-37	126
424	Stability of zinc finger nuclease protein is enhanced by the proteasome inhibitor MG132. 2013 , 8, e54282	19
423	An over expression APP model for anti-Alzheimer disease drug screening created by zinc finger nuclease technology. 2013 , 8, e75493	4
422	TAL effector specificity for base 0 of the DNA target is altered in a complex, effector- and assay-dependent manner by substitutions for the tryptophan in cryptic repeat -1. 2013 , 8, e82120	35
421	Powdery mildew resistance in tomato by impairment of SIPMR4 and SIDMR1. 2013, 8, e67467	56
420	Creation of herbicide-tolerant crops by gene targeting. 2013 , 38, 49-59	13
419	Transgenics: A new breed. <i>Nature</i> , 2013 , 497, 27-9 50.4	20
418	Crop Genome Editing: Advancing Crops via Editing of Their Genetic Make-Ups. 2014 , 02,	
417	Alternatives to Antibiotic Resistance Marker Genes for In Vitro Selection of Genetically Modified Plants & Cientific Developments, Current Use, Operational Access and Biosafety Considerations. 2014 , 33, 286-330	48
416	CCR5 Gene Editing of Resting CD4(+) T Cells by Transient ZFN Expression From HIV Envelope Pseudotyped Nonintegrating Lentivirus Confers HIV-1 Resistance in Humanized Mice. 2014 , 3, e198	33
415	Novel Plant Breeding Techniques and Risk Assessment of Novel Plants. 2014 , 46, 333-341	
414	Synthetic Haplotypes, Species, Karyotypes, and Protoorganisms?. 2014 , 69, 363-376	
413	Precision genome engineering and agriculture: opportunities and regulatory challenges. 2014 , 12, e1001877	288
412	Emerging gene editing strategies for Duchenne muscular dystrophy targeting stem cells. 2014 , 5, 148	15
411	Identification of "safe harbor" loci in indica rice genome by harnessing the property of zinc-finger nucleases to induce DNA damage and repair. 2014 , 5, 302	48
410	New biotechnology enhances the application of cisgenesis in plant breeding. 2014 , 5, 389	47
409	Conflicting Futures: Environmental Regulation of Plant Targeted Genetic Modification. 2014 , 34, 108-120	6
408	Transgenic Methodologies IPlants. 2014 , 289-302	

407	The I-TevI nuclease and linker domains contribute to the specificity of monomeric TALENs. 2014 , 4, 1155-65	17
406	Next Generation Plant Biotechnology. 2014 , 77-100	3
405	Mapping the emerging field of genome editing. 2014 , 26, 321-352	5
404	DNA replicons for plant genome engineering. 2014 , 26, 151-63	359
403	Wheat Improvement: Historical Perspective and Mutational Approach Review. 2014, 297-322	
402	Evaluation of novel design strategies for developing zinc finger nucleases tools for treating human diseases. 2014 , 2014, 970595	3
401	MegaTevs: single-chain dual nucleases for efficient gene disruption. 2014 , 42, 8816-29	14
400	Modifying plants for biofuel and biomaterial production. 2014 , 12, 1246-58	70
399	Transgenic barley: a prospective tool for biotechnology and agriculture. 2014 , 32, 137-57	32
398	Manipulation of epigenetic factors and the DNA repair machinery for improving the frequency of plant transformation. 2014 , 3, 7-13	1
397	Nucleases for genome editing in crops. 2014 , 3, 14-19	8
396	Engineering nucleases for gene targeting: safety and regulatory considerations. 2014 , 31, 18-27	69
395	Plant-Pathogen Interactions. 2014 ,	3
394	Genome engineering with targetable nucleases. 2014 , 83, 409-39	392
393	Precision genetic modifications: a new era in molecular biology and crop improvement. 2014 , 239, 921-39	41
392	A guide to genome engineering with programmable nucleases. 2014 , 15, 321-34	853
391	CRISPR/Cas9 for genome editing: progress, implications and challenges. 2014 , 23, R40-6	355
390	Precise plant breeding using new genome editing techniques: opportunities, safety and regulation in the EU. 2014 , 78, 742-52	199

389	Metabolic engineering approaches for production of biochemicals in food and medicinal plants. 2014 , 26, 174-82	99
388	Plant synthetic biology: a new platform for industrial biotechnology. 2014 , 65, 1927-37	24
387	Multigeneration analysis reveals the inheritance, specificity, and patterns of CRISPR/Cas-induced gene modifications in Arabidopsis. 2014 , 111, 4632-7	511
386	The do's and don'ts of effectoromics. 2014 , 1127, 257-68	16
385	Synthetic TAL effectors for targeted enhancement of transgene expression in plants. 2014 , 12, 436-46	15
384	CRISPR/Cas9-mediated targeted mutagenesis in the liverwort Marchantia polymorpha L. 2014 , 55, 475-81	179
383	Synthetic nucleases for genome engineering in plants: prospects for a bright future. 2014 , 78, 727-41	181
382	Targeted genome modification technologies and their applications in crop improvements. 2014 , 33, 575-83	114
381	The CRISPR/Cas system can be used as nuclease for in planta gene targeting and as paired nickases for directed mutagenesis in Arabidopsis resulting in heritable progeny. 2014 , 80, 1139-50	258
380	Minimum length of direct repeat sequences required for efficient homologous recombination induced by zinc finger nuclease in yeast. 2014 , 41, 6939-48	6
379	Genome editing in rice and wheat using the CRISPR/Cas system. 2014, 9, 2395-410	455
378	TALEN-mediated genome editing: prospects and perspectives. 2014 , 462, 15-24	80
377	Improvement of Crops in the Era of Climatic Changes. 2014 ,	3
376	Efficient design of meganucleases using a machine learning approach. 2014 , 15, 191	10
375	Integration and inheritance of transgenes in crop plants and trees. 2014, 10, 779-790	12
374	Genome engineering via TALENs and CRISPR/Cas9 systems: challenges and perspectives. 2014 , 12, 1006-14	86
373	Targeted genome correction by a single adenoviral vector simultaneously carrying an inducible zinc finger nuclease and a donor template. 2014 , 188, 1-6	6
372	Toward establishing an efficient and versatile gene targeting system in higher plants. 2014 , 3, 2-6	10

371	Genome editing for crop improvement: Challenges and opportunities. 2015, 6, 183-205	113
370	Large-scale production of pharmaceutical proteins in plant cell culture-the Protalix experience. 2015 , 13, 1199-208	100
369	Plant Mutation Breeding: Current Progress and Future Assessment. 2015 , 23-88	8
368	Genome-editing technologies and their potential application in horticultural crop breeding. 2015 , 2, 15019	95
367	SYNTHETIC ENDONUCLEASES: NOVEL TOOLS FOR THE SITE-DIRECTED GENETIC MODIFICATION OF PLANTS. 2015 , 71-81	
366	Ethylene resistance in flowering ornamental plants - improvements and future perspectives. 2015 , 2, 15038	18
365	FUTURE PERSPECTIVES OF IN VITRO CULTURE AND PLANT BREEDING. 2015, 27-34	1
364	Plant Mutation Breeding: Current Progress and Future Assessment. 2015 , 23-88	4
363	Gene stacking in plant cell using recombinases for gene integration and nucleases for marker gene deletion. 2015 , 15, 93	23
362	Advances in Zinc Finger Nuclease and Its Applications. 2015 , 1, 3-15	4
361	Rapid evaluation of the frequency of gene targeting in rice via a convenient positive-negative selection method. 2015 , 32, 169-173	4
3 60	Application of genomics-assisted breeding for generation of climate resilient crops: progress and prospects. 2015 , 6, 563	161
359	Progress and Prospects of Anti-HBV Gene Therapy Development. 2015 , 16, 17589-610	23
358	DNA damage and repair in plants - from models to crops. 2015 , 6, 885	154
357	Activity and specificity of TRV-mediated gene editing in plants. 2015, 10, e1044191	48
356	Targeted Gene Mutation in Plants. 2015 , 253-272	4
355	Somatic Genome Manipulation. 2015 ,	1
354	Phosphorylation of the Starch Granule. 2015 , 399-424	9

(2015-2015)

353	Biotechnological strategies and tools for Plum pox virus resistance: trans-, intra-, cis-genesis, and beyond. 2015 , 6, 379	45
352	Targeted Modification of Gene Function Exploiting Homology-Directed Repair of TALEN-Mediated Double-Strand Breaks in Barley. 2015 , 5, 1857-63	41
351	Current and future delivery systems for engineered nucleases: ZFN, TALEN and RGEN. 2015 , 205, 120-7	76
350	Genetic Transformation Systems in Fungi, Volume 1. 2015 ,	1
349	Targeted mutagenesis using zinc-finger nucleases in perennial fruit trees. 2015, 241, 941-51	42
348	Gene targeting and editing in crop plants: a new era of precision opportunities. 2015, 35, 1	47
347	Targeted Genome Editing Using Site-Specific Nucleases. 2015,	6
346	Molecular techniques to interrogate and edit the Chlamydomonas nuclear genome. 2015 , 82, 393-412	108
345	Genome editing in plants via designed zinc finger nucleases. 2015 , 51, 1-8	83
344	Nutritionally enhanced food crops; progress and perspectives. 2015 , 16, 3895-914	110
343	Genome Editing in Higher Plants. 2015 , 197-205	1
342	High Efficient Genome Modification by Designed Zinc Finger Nuclease. 2015 , 39-53	3
341	Recent developments and clinical studies utilizing engineered zinc finger nuclease technology. 2015 , 72, 3819-30	20
340	Engineering of Plants for the Production of Commercially Important Products: Approaches and Accomplishments. 2015 , 551-577	3
339	CRISPR-Cas9 Based Genome Engineering: Opportunities in Agri-Food-Nutrition and Healthcare. 2015 , 19, 261-75	8
338	Enrichments of gene replacement events by -mediated recombinase-mediated cassette exchange. 2015 , 35, 82	8
337	Targeted gene mutation in tetraploid potato through transient TALEN expression in protoplasts. 2015 , 204, 17-24	78
336	Sensing, signaLling, and CONTROL of phosphate starvation in plants: molecular players and applications. 2015 , 23-63	7

335	Targeted genome modifications in soybean with CRISPR/Cas9. 2015 , 15, 16	338
334	Starch. 2015 ,	15
333	Editing CCR5: a novel approach to HIV gene therapy. 2015 , 848, 117-30	20
332	Recent Advancements in Gene Expression and Enabling Technologies in Crop Plants. 2015,	3
331	Gene Therapy for HIV and Chronic Infections. 2015,	
330	Modeling Disease In Vivo With CRISPR/Cas9. 2015 , 21, 609-621	77
329	Genetic Engineering and Transgenic Breeding. 2015 , 103-123	2
328	Targeted Mutagenesis, Precise Gene Editing, and Site-Specific Gene Insertion in Maize Using Cas9 and Guide RNA. 2015 , 169, 931-45	464
327	A CRISPR/Cas9 Toolbox for Multiplexed Plant Genome Editing and Transcriptional Regulation. 2015 , 169, 971-85	408
326	Cas9-Guide RNA Directed Genome Editing in Soybean. 2015 , 169, 960-70	316
325	Plant Breeding in the Omics Era. 2015 ,	36
324	Double-Strand Break Repair and Its Application to Genome Engineering in Plants. 2015 , 1-20	4
323	CRISPR/Cas9-mediated genome editing and gene replacement in plants: Transitioning from lab to field. 2015 , 240, 130-42	106
322	High-frequency, precise modification of the tomato genome. 2015 , 16, 232	378
321	Identification of Mutagenized Plant Populations. 2015, 205-239	1
320	Enabling plant synthetic biology through genome engineering. 2015 , 33, 120-31	161
319	Zinc finger nuclease technology: advances and obstacles in modelling and treating genetic disorders. 2015 , 558, 1-5	17
318	Genome editing by targeted chromosomal mutagenesis. 2015 , 1239, 1-13	7

(2016-2015)

317	Rapid prototyping of microbial cell factories via genome-scale engineering. 2015, 33, 1420-32	30
316	The CRISPR-Cas system for plant genome editing: advances and opportunities. 2015 , 66, 47-57	130
315	Genome editing with engineered nucleases in plants. 2015 , 56, 389-400	154
314	CRISPR/Cas9-mediated targeted mutagenesis in Nicotiana tabacum. 2015 , 87, 99-110	219
313	CRISPR/Cas9 Systems: The Next Generation Gene Targeted Editing Tool. 2015 , 85, 377-387	0
312	Looking forward to genetically edited fruit crops. 2015 , 33, 62-4	68
311	Reverse Genetics and High Throughput Sequencing Methodologies for Plant Functional Genomics. 2016 , 17, 460-475	16
310	Genomics Era for Plants and Crop Species DAdvances Made and Needed Tasks Ahead. 2016 ,	3
309	Transgene Expression in Microalgae-From Tools to Applications. 2016 , 7, 505	129
308	Transcription Activator-Like Effector Nucleases (TALEN)-Mediated Targeted DNA Insertion in Potato Plants. 2016 , 7, 1572	35
307	Precise Genome Modification via Sequence-Specific Nucleases-Mediated Gene Targeting for Crop Improvement. 2016 , 7, 1928	41
306	Using CRISPR/Cas in three dimensions: towards synthetic plant genomes, transcriptomes and epigenomes. 2016 , 87, 5-15	71
305	Enzyme Mimics: Advances and Applications. 2016 , 22, 8404-30	201
304	The Future of GM Foods or GM Foods of the Future: Where Is the Biotech Revolution Heading?. 2016 , 518-537	
303	Targeted genome editing, an alternative tool for trait improvement in horticultural crops. 2016 , 57, 531-543	11
302	Genome editing for targeted improvement of plants. 2016 , 10, 327-343	23
301	Targeted gene exchange in plant cells mediated by a zinc finger nuclease double cut. 2016 , 14, 1151-60	22
300	Biotechnological strategies for studying actinorhizal symbiosis in Casuarinaceae: transgenesis and beyond. 2016 , 70, 101-109	4

299	Genome engineering and plant breeding: impact on trait discovery and development. 2016 , 35, 1475-86	37
298	Editing Plant Genomes: a new era of crop improvement. 2016 , 14, 435-6	23
297	Progress of targeted genome modification approaches in higher plants. 2016 , 35, 1401-16	37
296	Homology-based double-strand break-induced genome engineering in plants. 2016 , 35, 1429-38	70
295	Editorial Prerogative and the Plant Genome. 2016 , 43, 229-32	2
294	The expanding footprint of CRISPR/Cas9 in the plant sciences. 2016 , 35, 1451-68	25
293	Genetically Modified Crops and Agricultural Development. 2016 ,	32
292	An Efficient Targeted Mutagenesis System Using CRISPR/Cas in Monocotyledons. 2016 , 1, 329-344	7
291	Low frequency of zinc-finger nuclease-induced mutagenesis in Populus. 2016 , 36, 1	12
290	Advances in genomics for adapting crops to climate change. 2016 , 6, 2-10	50
289	Genetic Engineering of Plants Using Zn Fingers, TALENs, and CRISPRs. 2016 , 187-201	2
288	From Mendel's discovery on pea to today's plant genetics and breeding: Commemorating the 150th anniversary of the reading of Mendel's discovery. 2016 , 129, 2267-2280	12
287	A novel arrangement of zinc finger nuclease system for in vivo targeted genome engineering: the tomato LEC1-LIKE4 gene case. 2016 , 35, 2241-2255	26
286	Genome editing comes of age. 2016 , 11, 1573-8	60
285	Genome Editing. 2016 ,	3
284	Cisgenesis and genome editing: combining concepts and efforts for a smarter use of genetic resources in crop breeding. 2016 , 135, 139-147	63
283	Crop biotechnology: a pivotal moment for global acceptance. 2016 , 5, 3-17	13
282	Genome Editing with Targetable Nucleases. 2016 , 1-29	

(2016-2016)

281	Perspectives on the Transition From Bacterial Phytopathogen Genomics Studies to Applications Enhancing Disease Management: From Promise to Practice. 2016 , 106, 1071-1082	9
2 80	CRISPR-Cas9 mediated genome editing in rice, advancements and future possibilities. 2016 , 21, 437-445	5
279	Cisgenesis and intragenesis in microalgae: promising advancements towards sustainable metabolites production. 2016 , 100, 10225-10235	6
278	CRISPR/Cas9-mediated efficient targeted mutagenesis in Chardonnay (Vitis vinifera L.). 2016 , 6, 32289	158
277	Gene replacements and insertions in rice by intron targeting using CRISPR-Cas9. 2016 , 2, 16139	221
276	Direct stacking of sequence-specific nuclease-induced mutations to produce high oleic and low linolenic soybean oil. 2016 , 16, 225	106
275	Stable gene replacement in barley by targeted double-strand break induction. 2016 , 67, 1433-45	26
274	Insert, remove or replace: A highly advanced genome editing system using CRISPR/Cas9. 2016 , 1863, 2333-44	66
273	A proposed regulatory framework for genome-edited crops. 2016 , 48, 109-11	148
272	Generation of artificial sequence-specific nucleases a preassembled inert-template. 2016 , 7, 2051-2057	10
271	Biallelic Gene Targeting in Rice. 2016 , 170, 667-77	137
270	New Technologies for Insect-Resistant and Herbicide-Tolerant Plants. 2016 , 34, 49-57	54
269	Histone H2AX and the small RNA pathway modulate both non-homologous end-joining and homologous recombination in plants. 2016 , 783, 9-14	17
268	Genome engineering of woody plants: past, present and future. 2016 , 62, 217-225	13
267	Sequence-Specific Nucleases for Genetic Improvement of Potato. 2016 , 93, 303-320	6
266	Use of designer nucleases for targeted gene and genome editing in plants. 2016 , 14, 483-95	159
265	TALEN-Mediated Homologous Recombination Produces Site-Directed DNA Base Change and Herbicide-Resistant Rice. 2016 , 43, 297-305	56
264	Efficiency and Inheritance of Targeted Mutagenesis in Maize Using CRISPR-Cas9. 2016 , 43, 25-36	124

263	New Transformation Technologies for Trees. 2016 , 31-66	2
262	TILLING in forage grasses for gene discovery and breeding improvement. 2016 , 33, 594-603	12
261	Biosafety of Forest Transgenic Trees. 2016 ,	3
260	The Development and Use of Zinc-Finger Nucleases. 2016 , 15-28	2
259	Functional Genomics and Biotechnology in Solanaceae and Cucurbitaceae Crops. 2016,	1
258	Biotech Potatoes in the 21st Century: 20 Years Since the First Biotech Potato. 2016 , 93, 1-20	75
257	Genome-Editing Technologies and Their Use in Tomato. 2016 , 239-250	1
256	Exciting journey of 10 years from genomes to fields and markets: Some success stories of genomics-assisted breeding in chickpea, pigeonpea and groundnut. 2016 , 242, 98-107	107
255	The CRISPR-Cas9 technology: Closer to the ultimate toolkit for targeted genome editing. 2016 , 242, 65-76	51
254	Breaking DNA in plants: how I almost missed my personal breakthrough. 2016 , 14, 437-40	4
253	Next generation breeding. 2016, 242, 3-13	115
252	Advancing chimeric antigen receptor T cell therapy with CRISPR/Cas9. 2017 , 8, 634-643	64
251	Plant genome editing with TALEN and CRISPR. 2017 , 7, 21	141
250	Live cell imaging of single genomic loci with quantum dot-labeled TALEs. 2017 , 8, 15318	39
249	Current and future editing reagent delivery systems for plant genome editing. 2017, 60, 490-505	87
248	Naming CRISPR alleles: endonuclease-mediated mutation nomenclature across species. 2017 , 28, 367-376	6
247	Advances in Genetic Transformation of Litchi. 2017, 421-436	1
246	The Lychee Biotechnology. 2017 ,	3

245	Genome Editing of Plants. 2017, 36, 1-23	82
244	High-efficiency gene targeting in hexaploid wheat using DNA replicons and CRISPR/Cas9. 2017 , 89, 1251-1262	226
243	Crop Improvement. 2017,	2
242	Knockout of OsNramp5 using the CRISPR/Cas9 system produces low Cd-accumulating indica rice without compromising yield. 2017 , 7, 14438	243
241	Cisgenesis and Intragenesis as New Strategies for Crop Improvement. 2017 , 191-216	2
240	A review on advanced methods in plant gene targeting. 2017 , 15, 317-321	9
239	Safety, Security, and Policy Considerations for Plant Genome Editing. 2017, 149, 215-241	20
238	Engineering Molecular Immunity Against Plant Viruses. 2017 , 149, 167-186	12
237	Towards CRISPR/Cas crops - bringing together genomics and genome editing. 2017 , 216, 682-698	165
236	Genome editing in crop improvement: Present scenario and future prospects. 2017 , 31, 453-559	42
235	Recent advances in CRISPR/Cas mediated genome editing for crop improvement. 2017 , 11, 193-207	24
234	Genome Editing B rinciples and Applications for Functional Genomics Research and Crop Improvement. 2017 , 36, 291-309	73
233	Precision Medicine, CRISPR, and Genome Engineering. 2017,	O
232	CRISPR: From Prokaryotic Immune Systems to Plant Genome Editing Tools. 2017 , 1016, 101-120	1
231	Effect of gene order in DNA constructs on gene expression upon integration into plant genome. 2017 , 7, 94	3
230	Challenges in wide implementation of genome editing for crop improvement. 2017 , 20, 129-135	3
229	Targeted mutagenesis of a conserved anther-expressed P450 gene confers male sterility in monocots. 2017 , 15, 379-389	29
228	Generation of chromosomal deletions in dicotyledonous plants employing a user-friendly genome editing toolkit. 2017 , 89, 155-168	77

227	Heritability of targeted gene modifications induced by plant-optimized CRISPR systems. 2017 , 74, 1075-1093	34
226	Targeted modification of plant genomes for precision crop breeding. 2017 , 12, 1600173	49
225	CRISPR-Cas9-mediated efficient directed mutagenesis and RAD51-dependent and RAD51-independent gene targeting in the moss Physcomitrella patens. 2017 , 15, 122-131	68
224	Use of Zinc-Finger Nucleases for Crop Improvement. 2017 , 149, 47-63	12
223	Gene Targeting Without DSB Induction Is Inefficient in Barley. 2016 , 7, 1973	5
222	Progress in Genome Editing Technology and Its Application in Plants. 2017 , 8, 177	54
221	New Biotechnological Tools for the Genetic Improvement of Major Woody Fruit Species. 2017 , 8, 1418	62
220	CRISPR/Cas9: A Practical Approach in Date Palm Genome Editing. 2017 , 8, 1469	24
219	Genome Editing in Plants: An Overview of Tools and Applications. 2017, 2017, 1-15	58
218	Antiviral Defenses in Plants through Genome Editing. 2017 , 8, 47	24
217	Application of next-generation sequencing in plant breeding. 2017, 53, 89-96	14
216	Trait stacking in modern agriculture: application of genome editing tools. 2017 , 1, 151-160	О
215	Novel Technologies for Plant Functional Genomics. 2017 , 241-257	1
214	Precaution in Crop Genetic Improvement Technologies. 2017,	
213	Recent developments in genome editing for potential use in plants. 2017 , 10,	3
212	Application and development of genome editing technologies to the Solanaceae plants. 2018, 131, 37-46	15
211	True gene-targeting events by CRISPR/Cas-induced DSB repair of the PPO locus with an ectopically integrated repair template. 2018 , 8, 3338	29
210	Advanced editing of the nuclear and plastid genomes in plants. 2018 , 273, 42-49	22

(2018-2018)

2 C	2018 , 25, 93-105	ng technology significantly acce	eierated nerpes simplex virus res	earcn.	28
2 C	Efficient in planta gene tar nuclease of Staphylococcus		cell-specific expression of the Ca	as9	82
2 C	207 Genome Editing B.C. (Befo	re CRISPR): Lasting Lessons fror	m the "Old Testament". 2018 , 1, 3	34-46	40
2 C	206 Crop Improvement Using C	enome Editing. 2018 , 55-101			3
2 C	205 Genome editing technolog	es and their applications in cro	p improvement. 2018 , 12, 57-68		28
2 C	204 Rewiring of the Fruit Metal	polome in Tomato Breeding. 20	18 , 172, 249-261.e12		337
2 C	203 CRISPR/Cas9: An RNA-guid	ed highly precise synthetic tool	for plant genome editing. 2018 ,	233, 1844-1859	52
2 C	202 Targeted mutagenesis in te	etraploid switchgrass (Panicum	virgatum L.) using CRISPR/Cas9. :	2018 , 16, 381-393	39
2 C	201 Recent developments in ge	nome editing and applications	in plant breeding. 2018 , 137, 1-9		31
2 C	CRISPR-Cas9 based plant g 131, 2-11	enome editing: Significance, op	portunities and recent advances.	2018,	39
19	199 Genome editing and plant	ransformation of solanaceous	food crops. 2018 , 49, 35-41		46
19	Sensing, Signalling, and Co Applications. 2018 , 23-63	ntrol of Phosphate Starvation in	n Plants: Molecular Players and		1
19	Pod Shattering: A Homolog Crop Improvement. 2018 , 8		ing Domestication and an Avenu	е for	18
19	196 A call for science-based rev	iew of the European court's de	cision on gene-edited crops. 201 8	3 , 36, 800-802	34
19	195 Targeted Genome Editing I	or Cotton Improvement. 2018 ,			3
19	194 Non-transgenic Approach t	o Deliver ZFNs in Seeds for Targ	geted Genome Engineering. 2018	3 , 1867, 187-199	1
19	193 CRISPR/Cas9-mediated ger	e targeting in Arabidopsis usin	g sequential transformation. 201	8 , 9, 1967	119
19	cis-trans Engineering: Adva Plants. 2018 , 11, 886-898	nces and Perspectives on Custo	omized Transcriptional Regulatio	n in	32

191	New breeding technique "genome editing" for crop improvement: applications, potentials and challenges. 2018 , 8, 336	30
190	Ornamental Pepper. 2018 , 529-565	1
189	CRISPR/Cas9-Mediated Mutagenesis of Carotenoid Cleavage Dioxygenase 8 (CCD8) in Tobacco Affects Shoot and Root Architecture. 2018 , 19,	25
188	Genome editing in plants: Advancing crop transformation and overview of tools. 2018 , 131, 12-21	28
187	Zinc finger nuclease-mediated precision genome editing of an endogenous gene in hexaploid bread wheat (Triticum aestivum) using a DNA repair template. 2018 , 16, 2088-2101	33
186	Genome Editing for Crop Improvement: Status and Prospects. 2018 , 75-104	1
185	Zinc Finger Proteins. 2018 ,	1
184	CRISPR/Cas system as an emerging technology to enhance plant viral immunity. 2018 , 103, 107-113	1
183	Genome Editing in Agricultural Biotechnology. 2018 , 86, 245-286	5
182	SKLPT imaging: Efficient in vivo pre-evaluation of genome-editing modules using fluorescent protein with peroxisome targeting signal. 2018 , 503, 235-241	4
181	CRISPR/Cas9-mediated homologous recombination in tobacco. 2019 , 38, 463-473	7
180	In planta gene targeting can be enhanced by the use of CRISPR/Cas12a. 2019 , 100, 1083-1094	45
179	Genome Editing and Abiotic Stress Tolerance in Crop Plants. 2019 , 35-56	4
178	Genome Editing in Plants: Exploration of Technological Advancements and Challenges. 2019, 8,	78
177	Guidelines for C to T base editing in plants: base-editing window, guide RNA length, and efficient promoter. 2019 , 13, 533-541	1
176	Edit at will: Genotype independent plant transformation in the era of advanced genomics and genome editing. 2019 , 281, 186-205	38
175	Improved CRISPR/Cas9 gene editing by fluorescence activated cell sorting of green fluorescence protein tagged protoplasts. 2019 , 19, 36	14
174	The Dmics Approach for Crop Improvement Against Drought Stress. 2019, 183-204	3

173	Evaluation and Reduction of CRISPR Off-Target Cleavage Events. 2019, 29, 167-174	39
172	Harnessing Genome Editing Techniques to Engineer Disease Resistance in Plants. 2019 , 10, 550	39
171	Plant Genome Engineering for Targeted Improvement of Crop Traits. 2019 , 10, 114	105
170	Genome Editing: New Breeding Technologies in Plants. 2019 , 245-285	3
169	CRISPR-based genome editing in wheat: a comprehensive review and future prospects. 2019 , 46, 3557-3569	27
168	An EU Perspective on Biosafety Considerations for Plants Developed by Genome Editing and Other New Genetic Modification Techniques (nGMs). 2019 , 7, 31	37
167	. 2019,	4
166	Advances in Plant Transgenics: Methods and Applications. 2019,	1
165	Omics Potential in Herbicide-Resistant Weed Management. 2019 , 8,	8
164	Challenges and Perspectives in Homology-Directed Gene Targeting in Monocot Plants. 2019 , 12, 95	26
163	Principles of gene editing techniques and applications in animal husbandry. 2019 , 9, 28	4
162	DNA Break Repair in Plants and Its Application for Genome Engineering. 2019 , 1864, 237-266	27
161	Plant Biotechnology Applications of Zinc Finger Technology. 2019 , 1864, 295-310	8
160	Transgenic Plants. 2019 ,	2
159	CRISPR/Cas9-Based Genome Editing and its Applications for Functional Genomic Analyses in Plants. 2019 , 3, 1800473	12
158	CRISPR/Cas9-mediated targeted T-DNA integration in rice. 2019 , 99, 317-328	28
157	Genome editing opens a new era of genetic improvement in polyploid crops. 2019 , 7, 141-150	41
156	Bibliography. 2019 , 497-718	1

155	Plant synthetic biology could drive a revolution in biofuels and medicine. 2019 , 244, 323-331	30
154	New prospects on the horizon: Genome editing to engineer plants for desirable traits. 2020 , 24, 100171	12
153	A Revolution toward Gene-Editing Technology and Its Application to Crop Improvement. 2020, 21,	34
152	CRISPR-Cas9 System for Plant Genome Editing: Current Approaches and Emerging Developments. 2020 , 10, 1033	24
151	The era of editing plant genomes using CRISPR/Cas: A critical appraisal. 2020, 324, 34-60	8
150	Structural Aspects of DNA Repair and Recombination in Crop Improvement. 2020 , 11, 574549	9
149	CRISPR/Cas9 edited of offers ABA and osmotic stress insensitivity by modulation of ROS homeostasis. 2020 , 15, 1816321	9
148	Advanced molecular tools for breeding in Mediterranean fruit trees: genome editing approach of Ficus carica L 2020 , 1-10	2
147	Genome editing technology and application in soybean improvement. 2020 , 5, 31-40	11
146	Improvement of the Rice "Easy-to-Shatter" Trait via CRISPR/Cas9-Mediated Mutagenesis of the Gene. 2020 , 11, 619	8
145	Involvement of DNA mismatch repair systems to create genetic diversity in plants for speed breeding programs. 2020 , 25, 185-199	5
144	A CRISPR/Cas9-Based Mutagenesis Protocol for and Its Allopolyploid Relative,. 2020 , 11, 614	1
143	Plant Genome Editing and the Relevance of Off-Target Changes. 2020 , 183, 1453-1471	29
142	Highly efficient homology-directed repair using CRISPR/Cpf1-geminiviral replicon in tomato. 2020 , 18, 2133	63
141	Genome Editing and Rice Grain Quality. 2020 , 395-422	2
140	Knock-in at GluA1 locus improves recombinant human serum albumin expression in rice grain. 2020 , 321, 87-95	3
139	Sophisticated CRISPR/Cas tools for fine-tuning plant performance. 2021 , 257, 153332	8
138	An unbiased method for evaluating the genome-wide specificity of base editors in rice. 2021 , 16, 431-457	5

137 CRISPR/Cas9: A magic bullet to deal with plant viruses. **2021**, 443-460

136	CRISPR/Cas System: An Introduction. 2021 , 1-35	2
135	An Overview of Genome-Engineering Methods. 2021 , 1-21	3
134	Biotechnology Strategies to Combat Plant Abiotic Stress. 2021 , 61-76	
133	CRISPR-Cas9 System for Agriculture Crop Improvement. 2021 , 97-111	O
132	Advances in Genetically Modified Plants by Employing Modern Biotechnological Tools: An Update. 2021 , 495-513	
131	CRISPR/Cas13: A Novel and Emerging Tool for RNA Editing in Plants. 2021, 301-337	3
130	Pearl Millet Blast Resistance: Current Status and Recent Advancements in Genomic Selection and Genome Editing Approaches. 2021 , 183-200	O
129	An introduction to CRISPR-Cas systems for reprogramming the genome of mammalian cells. 2021 , 181, 1-13	
128	Genome Editing Technologies for Plant Improvement: Advances, Applications and Challenges. 2021 , 213-240	
127	Multiomics Technologies and Genetic Modification in Plants: Rationale, Opportunities and Reality. 2021 , 313-328	O
126	Fungal genome editing using CRISPR-Cas nucleases: a new tool for the management of plant diseases. 2021 , 333-360	O
125	Genome Engineering Strategies for Quality Improvement in Tomato. 2021 , 281-296	
124	Gene Targeting Facilitated by Engineered Sequence-Specific Nucleases: Potential Applications for Crop Improvement. 2021 , 62, 752-765	O
123	Genome Editing: Revolutionizing the Crop Improvement. 1	4
122	Advantage of Nanotechnology-Based Genome Editing System and Its Application in Crop Improvement. 2021 , 12, 663849	18
121	Maize transformation: history, progress, and perspectives. 2021 , 41, 1	6
120	Gene Targeting in Barley Using Cas9 With and Without Geminiviral Replicons. 2021 , 3, 663380	2

119	A short, idiosyncratic history of genome editing. 2021 , 1, 100002	1
118	Genetic engineering and genome editing techniques in peanut plants. 2021 , 8,	1
117	Effects of sgRNA length and number on gene editing efficiency and predicted mutations generated in rice. 2021 ,	3
116	Plant genome engineering from lab to field-a Keystone Symposia report. 2021 ,	1
115	Plant and Fungal Genome Editing to Enhance Plant Disease Resistance Using the CRISPR/Cas9 System. 2021 , 12, 700925	4
114	Current Advancements and Limitations of Gene Editing in Orphan Crops. 2021 , 12, 742932	4
113	Biology of plants coping stresses: epigenetic modifications and genetic engineering. 2022 , 144, 270-283	1
112	Application of Genome Editing in Tomato Breeding: Mechanisms, Advances, and Prospects. 2021 , 22,	11
111	Efficient gene targeting in Nicotiana tabacum using CRISPR/SaCas9 and temperature tolerant LbCas12a. 2021 , 19, 1314-1324	12
110	Zinc Finger Nuclease-Mediated Gene Targeting in Plants. 2015 , 363-381	1
109	A transient assay for monitoring zinc finger nuclease activity at endogenous plant gene targets. 2010 , 649, 299-313	7
108	Method for Bxb1-mediated site-specific integration in planta. 2011 , 701, 147-66	29
107	Targeted mutagenesis in Arabidopsis using zinc-finger nucleases. 2011 , 701, 167-77	20
106	Double-strand break-induced targeted mutagenesis in plants. 2012 , 847, 399-416	7
105	Tailor-made mutations in Arabidopsis using zinc finger nucleases. 2014 , 1062, 193-209	7
104	Genome Editing and Trait Improvement in Wheat. 2021 , 263-283	4
103	TALEN-Based Genome Editing in Yeast. 2015 , 289-307	3
102	Conservation, Evaluation, and Utilization of Biodiversity. 2013 , 9-26	4

101	Genome Editing: Advances and Prospects. 2019 , 147-174	4
100	Target-specific gene delivery in plant systems and their expression: Insights into recent developments. 2020 , 45, 1	9
99	Targeted Genetic Modification in Crops Using Site-Directed Nucleases. 2016 , 133-145	2
98	Identification of Genes that Mediate Protection against Soybean Pathogens. 2012, 97-108	1
97	Highly efficient homology-directed repair using transient CRISPR/Cpf1-geminiviral replicon in tomato.	5
96	Transcription Factors, Gene Regulatory Networks and Agronomic Traits. 2011 , 65-94	1
95	Genomics for Bioenergy Production. 2012 , 21-29	1
94	Zinc Finger Nucleases: Tailor-made for Gene Therapy. 2012 , 37, 183-196	11
93	Evaluation of OPEN zinc finger nucleases for direct gene targeting of the ROSA26 locus in mouse embryos. 2012 , 7, e41796	31
92	Targeting G with TAL effectors: a comparison of activities of TALENs constructed with NN and NK repeat variable di-residues. 2012 , 7, e45383	85
91	Epigenetic alterations at genomic loci modified by gene targeting in Arabidopsis thaliana. 2013, 8, e85383	8
90	Targeted genome editing of sweet orange using Cas9/sgRNA. 2014 , 9, e93806	296
89	The Transcriptional Response to DNA-Double-Strand Breaks in Physcomitrella patens. 2016, 11, e0161204	22
88	A 90-Day Feeding Study in Rats to Assess the Safety of Genetically Engineered Pork. 2016 , 11, e0165843	2
87	Yeni Nesil Genom D⊠enleme Teknikleri: ZFN, TALEN, CRISPRDer ve Bitkilerde Kullanि⊞111-111	2
86	Mutagenesis and TILLING to Dissect Gene Function in Plants. 2016 , 17, 499-508	28
85	Designer Nucleases: Gene-Editing Therapies using CCR5 as an Emerging Target in HIV. 2019 , 17, 306-323	6
84	Reconfiguring Plant Metabolism for Biodegradable Plastic Production. 2020 , 2020, 1-13	4

83	[Progress in zinc finger nuclease engineering for targeted genome modification]. 2011, 33, 665-83	6
82	The Use of Genomics and Precise Breeding to Genetically Improve the Traits of Agriculturally Important Organisms. 2022 , 173-187	
81	Gene delivery strategies for therapeutic proteins production in plants: Emerging opportunities and challenges. 2021 , 54, 107845	2
80	Plants genes get fine tailoring. <i>Nature</i> ,	50.4
79	Molecular breeding of a herbicide-tolerant rice using gene targeting technology. 2010 , 35, 172-175	
78	Future Challenges and Prospects. 2011 , 260-276	
77	[Advances and perspectives in artificial chromosomes]. 2011 , 33, 293-7	
76	Crop Plants Crop Plants plants Transformation Methods crop/cropping plants transformation methods. 2012 , 2583-2615	O
75	Encyclopedia of Sustainability Science and Technology. 2012 , 4492-4550	
74	Emerging Concepts and Strategies for Genomics and Breeding. 2013, 241-283	
73	Gene Replacement. 2013 , 167-183	
72	Sustainable Food Production. 2013 , 558-590	
71	New Gene Therapy Strategies for the Deletion of Exon 44 of Dystrophin Gene Based on Gene Editing by TALENs. 2013 , 03, 1-6	
70	Intellectual Property Rights in Plant Biotechnology. 2013 , 621-670	
69	An efficient gene targeting system using homologous recombination in plants. 2015 , 42, 154-160	
68	Biotechnological Approaches for Nutritionally Enhanced Food Crop Production. 1-12	1
67	Introduction to Molecular Computation. 2016 , 719-743	
66	Plant genetic engineering and genetically modified crop breeding: history and current status. 2017 , 4, 5	1

65	A novel method for high-frequency genome editing in rice, using the CRISPR/Cas9 system. 2017 , 44, 89-96	4
64	Applications of Genome Engineering/Editing Tools in Plants. 2019 , 143-165	О
63	Genome Editing Tools: Need of the Current Era. 2019 , 09, 85-109	2
62	Targeted Genome Engineering and Its Application in Trait Improvement of Crop Plants. 2019 , 10, 1312-1342	O
61	Current Status and Future Prospects of Genetic Transformation and Gene Editing in Sorghum. 2020 , 511-535	
60	Translational Research Using CRISPR/Cas. 2020 , 165-191	
59	Improvement of Seed Quality: A Biotechnological Approach. 2020 , 539-554	
58	Targeting Metabolic Pathways for Abiotic Stress Tolerance Through Genetic Engineering in Rice. 2020 , 617-648	
57	Byproduct Valorization of Vegetable Oil Industry Through Biotechnological Approach. 2020 , 167-206	2
56	Use of CRISPR in Climate Smart/Resilient Agriculture. 2020 , 131-164	
55	TALEN and CRISPR/Cas Genome Editing Systems: Tools of Discovery. 2014 , 6, 19-40	62
54	Horticultural crops tackling stresses: genetic and epigenetic alterations. 2022 , 69, 11	1
53	A Critical Review: Recent Advancements in the Use of CRISPR/Cas9 Technology to Enhance Crops and Alleviate Global Food Crises. 2021 , 43, 1950-1976	9
52	Host Plant Resistance. 2021 , 1-56	
51	Biotechnological Approaches for Genetic Improvement of Castor Bean (Ricinus communis L.). 2022 , 359-418	О
50	A New Era in Herbicide-Tolerant Crops Development by Targeted Genome Editing.	2
49	High-throughput direct screening of restriction endonuclease using microfluidic fluorescence-activated drop sorter based on SOS response in E. coli.	
48	Advances in potato functional genomics: implications for crop improvement. 2022 , 148, 447	О

47	An Introduction to Genome Editing Techniques. 2022 , 1-28	
46	CRISPR/Cas System: Applications and Prospects for Maize Improvement.	3
45	Tools for engineering resistance against pathogens in plants. 1	1
44	Application of CRISPR/Cas9 technology to improve the important traits in coffee. 2022 , 974, 012082	
43	Recent biotechnological developments in reshaping the microalgal genome: A signal for green recovery in biorefinery practices 2022 , 293, 133513	4
42	Target-specific gene delivery in plant systems and their expression: Insights into recent developments. 2020 , 45,	2
41	New Advances of CRISPR/Cas9 Technique and Its Application in Disease Treatment and Medicinal Plants Research 2022 ,	
40	Geminivirus-Derived Vectors as Tools for Functional Genomics 2022 , 13, 799345	1
39	Is There Still Room to Improve Medicinal Herbs (Functional Herbs) by Gene Editing for Health?.	
38	Genome Editing: A Promising Approach for Achieving Abiotic Stress Tolerance in Plants 2022 , 2022, 5547231	1
37	Image_1.tif. 2020 ,	
36	lmage_2.tif. 2020 ,	
35	Table_1.DOC. 2020 ,	
34	Enhancing HR Frequency for Precise Genome Editing in Plants 2022 , 13, 883421	O
33	Opportunity and challenges for nanotechnology application for genome editing in plants. 2022, 1, 100001	1
32	If Mendel Was Using CRISPR: Genome Editing Meets Non-Mendelian Inheritance. 2202585	
31	Genome Editing Crops in Food and Futuristic Crops. 2022 , 401-445	
30	Application of CRISPR-Mediated Gene Editing for Crop Improvement.	2

29 Origin of the genome editing systems: application for crop improvement.

28	The Mechanisms of Genome Editing Technologies in Crop Plants. 2022 , 295-313	
27	CRISPR/Cas9 applications for improvement of soybeans, current scenarios, and future perspectives. 2022 , 50, 12678	О
26	Smart reprograming of plants against salinity stress using modern biotechnological tools. 1-28	6
25	CRISPR Genome Editing Brings Global Food Security into the First Lane: Enhancing Nutrition and Stress Resilience in Crops. 2022 , 285-344	0
24	Genome Editing for the Improvement of Oilseed Crops. 2022 , 367-392	0
23	CRISPR-Cas9/Cpf1-Based Multigene Editing in Crops. 2022 , 67-94	О
22	Intellectual Property Rights in Plant Biotechnology and Breeding. 2022, 273-301	Ο
21	Rice grain yield and quality improvement via CRISPR/Cas9 system: an updated review. 2022 , 50, 12388	О
20	Targeted Genome-Editing Techniques in Plant Defense Regulation. 2022 , 1-32	Ο
19	Designing Tobacco Genomes for Resistance to Biotic Stresses. 2022 , 441-581	1
18	Abiotic Stress Resistance in Tobacco: Advances and Strategies. 2022 , 329-427	Ο
17	Adapting Crops to Climate Change. 2022 , 53-77	О
16	Biotechnological Advances to Improve Abiotic Stress Tolerance in Crops. 2022 , 23, 12053	1
15	Genome editing technologies, mechanisms and improved production of therapeutic phytochemicals: Opportunities and prospects.	1
14	Genome Editing: A Review of the Challenges and Approaches. 2022 , 71-101	0
13	Genome Editingland miRNA-Based Approaches in Cereals under Abiotic Stress. 2022 , 647-673	0
12	Plant genome modification: from induced mutagenesis to genome editing. 2022 , 26, 684-696	O

11	Recent Trends in Genome Editing Technologies for Agricultural Crop Improvement. 2023, 357-379	О
10	Smart Plant Breeding for Potato in the Post-genomics Era. 2023 , 337-356	O
9	Salinity Stress Tolerance in Solanaceous Crops: Current Understanding and Its Prospects in Genome Editing.	2
8	CRISPR-Cas genome editing for the development of abiotic stress-tolerant wheat. 2023 , 195-207	O
7	Targeted mutagenesis with sequence-specific nucleases for accelerated improvement of polyploid crops: Progress, challenges, and prospects.	О
6	Genome editing in cotton: challenges and opportunities. 2023, 6,	O
5	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022, 521-544	0
4	Genetic improvement in Musa through modern biotechnological methods. 2023 , 8, 1-13	o
3	Advances in Genome Editing for Maize Improvement. 2023 , 181-194	О
2	Perceptions of plant breeding methodsfrom phenotypic selectionIto genetic modificationIand Elew breeding technologies[]1-49	0
1	Unclasping potentials of genomics and gene editing in chickpea to fight climate change and global hunger threat. 14,	0