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Nanotechnology in Sustainable Agriculture: Recent Developments, Challenges, and Perspectives

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712	Who do UK consumers trust for information about nanotechnology?. 2018 , 77, 133-142	4
711	Life cycle considerations of nano-enabled agrochemicals: are today's tools up to the task?. 2018 , 5, 1057-1069	9 25
710	Zein Nanoparticles as Eco-Friendly Carrier Systems for Botanical Repellents Aiming Sustainable Agriculture. 2018 , 66, 1330-1340	90
709	Nanotechnology: current uses and future applications in the food industry. 2018 , 8, 74	84
708	Intestinal microbiome of broiler chickens after use of nanoparticles and metal salts. 2018 , 25, 18109-18120	35
707	Opportunities to advance sustainable design of nano-enabled agriculture identified through a literature review. 2018 , 5, 11-26	45
706	Environmental behavior, potential phytotoxicity, and accumulation of copper oxide nanoparticles and arsenic in rice plants. 2018 , 37, 11-20	34
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703	Effects of Nanoparticles on Germination, Growth, and Plant Crop Development. 2018, 77-110	6
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699	Interaction between PGPR and PGR for water conservation and plant growth attributes under drought condition. 2018 , 73, 1083-1098	15
698	Nanodiagnostics Tools for Microbial Pathogenic Detection in Crop Plants. 2018, 355-384	1
697	Microbes: Naturell Cell Factories of Nanoparticles Synthesis. 2018 , 25-50	11
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695	Synthesis of Functionalized Nanoparticles for Biomedical Applications. 2018 , 199-220	
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693	Antagonistic Effect of Azoxystrobin Poly (Lactic Acid) Microspheres with Controllable Particle Size on Colletotrichum higginsianum Sacc. 2018 , 8,	10
692	Applications of Nanomaterials in Agriculture and Food Industry. 2018 , 343-375	3
691	Risks, Uncertainties, and Ethics of Nanotechnology in Agriculture. 2018 ,	3
690	Challenges and future prospects of agri-nanotechnology for sustainable agriculture in India. 2018 , 11, 299-307	61
689	Medical and Cosmetic Applications of Fungal Nanotechnology: Production, Characterization, and Bioactivity. 2018 , 21-59	3
688	Fungal Nanoparticles: A Novel Tool for a Green Biotechnology?. 2018 , 61-87	21
687	Fungal Nanotechnology: A New Approach Toward Efficient Biotechnology Application. 2018 , 117-143	2
686	Nanobiocomposites: Synthesis and Environmental Applications. 2018, 1-19	
685	Applications of Fungal Nanobiotechnology in Drug Development. 2018 , 273-286	1
684	Mycosynthesized Nanoparticles: Role in Food Processing Industries. 2018, 287-316	
683	Biosynthesis of Metal Nanoparticles via Fungal Dead Biomass in Industrial Bioremediation Process. 2018 , 165-199	2

(2018-2018)

682	Recent Developments and Challenges for Nanoscale Formulation of Botanical Pesticides for Use in Sustainable Agriculture. 2018 , 66, 8898-8913	53
681	Recent Developments on Nanotechnology in Agriculture: Plant Mineral Nutrition, Health, and Interactions with Soil Microflora. 2018 , 66, 8647-8661	92
680	Post-Emergence Herbicidal Activity of Nanoatrazine Against Susceptible Weeds. 2018, 6,	36
679	Biosensors for Sustainable Food Engineering: Challenges and Perspectives. 2018, 8,	80
678	Secondary Metabolites in the Green Synthesis of Metallic Nanoparticles. 2018, 11,	175
677	Different forms of copper and kinetin impacted element accumulation and macromolecule contents in kidney bean (Phaseolus vulgaris) seeds. 2018 , 636, 1534-1540	12
676	Positive Impacts of Nanoparticles in Plant Resistance against Different Stimuli. 2018, 267-279	3
675	Nanoantimicrobials Mechanism of Action. 2018 , 281-322	1
674	Nano-carbon: Plant Growth Promotion and Protection. 2018 , 155-188	9
673	Benefits and Potential Risks of Nanotechnology Applications in Crop Protection. 2018 , 189-246	12
672	Nanoparticle-Based Plant Disease Management: Tools for Sustainable Agriculture. 2018 , 29-61	4
671	Copper Nanostructures Applications in Plant Protection. 2018 , 63-86	2
670	Nanoantimicrobials for Plant Pathogens Control: Potential Applications and Mechanistic Aspects. 2018 , 87-109	6
669	Consumer Products Containing Nanomaterials. 2018 , 351-387	1
668	Nanotechnology and Their Applications in Insect® Pest Control. 2018, 1-28	4
667	Chitosan-Based Nanostructures in Plant Protection Applications. 2018 , 351-384	2
666	Role of Microbes in Plant Protection Using Intersection of Nanotechnology and Biology. 2018 , 111-135	4
665	Applications of Silver Nanoparticles in Plant Protection. 2018 , 247-265	29

Application of Myconanotechnology in the Sustainable Management of Crop Production System. **2018**, 273-305

663	Bioremediation Applications with Fungi. 2018 , 1-37	2
662	Nano-agromaterials: Influence on plant growth and crop protection. 2019, 341-363	1
661	Polymer Based Micro- and Nanoencapsulation of Agrochemicals. 2019 , 5-28	4
660	Potential Use of Polymeric Particles for the Regulation of Plant Growth. 2019 , 45-66	1
659	Conductometric Sensing with Individual InAs Nanowires. 2019 , 19,	12
658	Nanopesticide based on botanical insecticide pyrethrum and its potential effects on honeybees. 2019 , 236, 124282	22
657	Development of Nano-Bioformulations of Nutrients for Sustainable Agriculture. 2019 , 381-394	13
656	Microbial Bioformulations: Present and Future Aspects. 2019 , 243-258	6
655	Nanotechnology Application in Agricultural Sector. 2019 , 317-329	4
654	Application of Nanotechnology in Diagnosis, Drug Dissolution, Drug Discovery, and Drug Carrier. 2019 , 449-475	2
653	Bio-Based Nanoemulsion Formulations Applicable in Agriculture, Medicine, and Food Industry. 2019 , 33-84	9
652	Nanotechnology: A Successful Approach to Improve Nutraceutical Bioavailability. 2019 , 119-133	2
651	Nanotechnology: A Boon for Food Safety and Food Defense. 2019 , 225-242	3
650	Synthesis of indole-3-acetic acid and indole-3-butyric acid loaded zinc oxide nanoparticles: Effects on rhizogenesis. 2019 , 303, 8-15	6
649	Impact of iron and manganese nano-metal-oxides on contaminant interaction and fortification potential in agricultural systems & review. 2019 , 16, 377	10
648	Applications of Nanotechnology in Plant Growth and Crop Protection: A Review. 2019 , 24,	316
647	Nanomaterials in Plants: A Review of Hazard and Applications in the Agri-Food Sector. 2019 , 9,	21

(2019-2019)

646	Role of microbially synthesized nanoparticles in sustainable agriculture and environmental management. 2019 , 55-73	5
645	Applying nanotechnology to bacteria: an emerging technology for sustainable agriculture. 2019 , 121-143	3
644	Advances in Bio-coaters for Nanoparticles and Biodegradable Delivery Systems in Agriculture and Food Industry: Toward a Safer and Eco-friendly Nanotechnology. 2019 , 331-352	O
643	Applications of Nanoparticles in Wastewater Treatment. 2019 , 395-418	30
642	Impact of Heavy Metals on Non-food Herbaceous Crops and Prophylactic Role of Si. 2019 , 303-321	O
641	Inhalation exposure to various nanoparticles in work environmentBontextual information and results of measurements. 2019 , 21, 1	27
640	LaO Nanoparticles: Study of Uptake and Distribution in (Spreng.) Pedersen by LA-ICP-MS and EXRF. 2019 , 53, 10827-10834	9
639	Se Nanoparticles Induce Changes in the Growth, Antioxidant Responses, and Fruit Quality of Tomato Developed under NaCl Stress. 2019 , 24,	53
638	Mycogenic Selenium Nanoparticles as Potential New Generation Broad Spectrum Antifungal Molecules. 2019 , 9,	79
637	Green fabrication, characterization of Pisonia alba leaf extract derived MgO nanoparticles and its biological applications. 2019 , 20, 100380	20
636	Nanofertilizer use for sustainable agriculture: Advantages and limitations. 2019 , 289, 110270	167
635	[What is the new about food packaging material? A bibliometric review during 1996 1016. 2019 , 85, 252-261	32
634	The Role of Nanotechnology in the Fortification of Plant Nutrients and Improvement of Crop Production. 2019 , 9, 499	125
633	Magnetic Nanostructures: Environmental and Agricultural Applications. 2019 , 213-224	2
632	Application of Magnetic Nanoparticles for Removal of Pesticides from Environmental Samples Prior to Instrumental Analysis. 2019 , 247-260	1
631	Use of MgAl Nanoclay as an Efficient Vehicle for the Delivery of the Herbicide 2,4-Dichlorophenoxyacetic Acid. 2019 , 7, 10962-10970	7
630	Composition effect of Cu-based nanoparticles on phytopathogenic bacteria. Antibacterial studies and phytotoxicity evaluation. 2019 , 170, 395-403	15
629	Introduction to Nanoscience, Nanomaterials, Nanocomposite, Nanopolymer, and Engineering Smart Materials. 2019 , 1-12	2

628	Sensing Soil Microbes and Interactions: How Can Nanomaterials Help?. 2019 , 213-236	5
627	Application of Nanotechnology in Plant Protection by Phytopathogens: Present and Future Prospects. 2019 , 261-279	
626	Green Synthesis of Microbial Nanoparticle: Approaches to Application. 2019 , 35-60	16
625	Enzyme Nanoparticles: Microbial Source, Applications and Future Perspectives. 2019 , 61-76	
624	Responses of Tomato Plants under Saline Stress to Foliar Application of Copper Nanoparticles. 2019 , 8,	64
623	Nano-enabled strategies to enhance crop nutrition and protection. 2019 , 14, 532-540	284
622	Green Nanotechnology for Sustained Release of Eco-Friendly Agrochemicals. 2019, 113-129	1
621	Role of Engineered Zinc and Copper Oxide Nanoparticles in Promoting Plant Growth and Yield: Present Status and Future Prospects. 2019 , 183-201	14
620	Impact of Nanomaterials on Plant Economic Yield and Next Generation. 2019, 203-214	О
619	Exposure to Copper Oxide Nanoparticles and Arsenic Causes Intergenerational Effects on Rice (Oryza sativa japonica Koshihikari) Seed Germination and Seedling Growth. 2019 , 38, 1978-1987	6
618	Capturing thematic intervention of nanotechnology in agriculture sector: A scientometric approach. 2019 , 84, 313-359	4
617	Recent advances in nano-enabled fertilizers and pesticides: a critical review of mechanisms of action. 2019 , 6, 2002-2030	177
616	Agrochemicals from nanomaterialsBynthesis, mechanisms of biochemical activities and applications. 2019 , 263-312	4
615	Recent Advancements and New Perspectives of Nanomaterials. 2019 , 1-32	
614	An Insight into Plant Nanobionics and Its Applications. 2019 , 65-82	3
613	Nanopesticides and Nanosensors in Agriculture. 2019 , 165-181	O
612	Nano-agriculture in the Food Industry. 2019 , 183-200	3
611	Impact of Nanoparticles on Photosynthesizing Organisms and Their Use in Hybrid Structures with Some Components of Photosynthetic Apparatus. 2019 , 255-332	9

610	Recent Progress in Applied Nanomaterials. 2019 , 33-64	2
609	Impact of Nanomaterials in Plant Systems. 2019 , 117-140	8
608	Nanotechnology in crop protection: Status and future trends. 2019 , 17-45	10
607	In vitro growth of L. affected by silver nanoparticles. 2019 , 9, 145	5
606	Polydopamine microcapsules from cellulose nanocrystal stabilized Pickering emulsions for essential oil and pesticide encapsulation. 2019 , 570, 403-413	39
605	Applications of nanotechnology in agriculture. 2019 , 46, 115-142	32
604	Agrochemical loaded biocompatible chitosan nanoparticles for insect pest management. 2019 , 18, 101079	29
603	Biofabrication, characterization and evaluation of photocatalytic dye degradation efficiency of Syzygium alternifolium leaf extract mediated copper oxide nanoparticles. 2019 , 6, 065034	16
602	Assessment of Melissa officinalis L. essential oil as an eco-friendly approach against biodeterioration of wheat flour caused by Tribolium castaneum Herbst. 2019 , 26, 14036-14049	17
601	Nano-fertilization to Enhance Nutrient Use Efficiency and Productivity of Crop Plants. 2019 , 473-505	10
600	Biofabricated zinc oxide nanoparticles as an eco-friendly alternative for growth promotion and management of downy mildew of pearl millet. 2019 , 121, 103-112	35
599	Nanoencapsulated deltamethrin as synergistic agent potentiates insecticide effect of indoxacarb through an unusual neuronal calcium-dependent mechanism. 2019 , 157, 1-12	9
598	Distribution and Speciation of Copper and Arsenic in Rice Plants (Oryza sativa japonica 'Koshihikari') Treated with Copper Oxide Nanoparticles and Arsenic during a Life Cycle. 2019 , 53, 4988-4996	10
597	Toxic influence of pristine and surfactant modified halloysite nanotubes on phytopathogenic bacteria. 2019 , 174, 57-68	14
596	Biogenic Nanoparticles as Theranostic Agents: Prospects and Challenges. 2019 , 647-684	2
595	Nanobiopesticide perspectives for protection and nutrition of plants. 2019 , 47-68	5
594	Nanobiopesticide formulations: Application strategies today and future perspectives. 2019 , 179-206	8
593	Nanoparticles in Equine Nutrition: Mechanism of Action and Application as Feed Additives. 2019 , 78, 29-37	22

592	Nanomaterials in the Development of Biosensor and Application in the Determination of Pollutants in Water. 2019 , 195-215	2
591	Nanosensors for diagnosis with optical, electric and mechanical transducers 2019 , 9, 6793-6803	66
590	TEMPORARY REMOVAL: Recent advances in phytonanotechnology. 2019,	
589	Selenium Nanocomposites Having Polysaccharid Matrices Stimulate Growth of Potato Plants in Vitro Infected with Ring Rot Pathogen. 2019 , 489, 184-188	5
588	Fine-grained Construction of Semantic Technology Network for Technology Evolution Analysis. 2019 ,	
587	The Sustainability Challenge of Food and Environmental Nanotechnology: Current Status and Imminent Perceptions. 2019 , 16,	11
586	Engineered nanomaterials in plants: Sensors, carriers, and bio-imaging. 2019 , 133-157	2
585	Fate of the nanoparticles in environmental cycles. 2019 , 16, 583-600	32
584	Nano-based smart pesticide formulations: Emerging opportunities for agriculture. 2019 , 294, 131-153	234
583	Impact of Nanoparticles on Abiotic Stress Responses in Plants. 2019 , 305-322	17
582	Biological effects of oxidized carbon nanomaterials (1D versus 2D) on Spodoptera frugiperda: Material dimensionality influences on the insect development, performance and nutritional physiology. 2019 , 215, 766-774	11
581	Use of botanical insecticides for sustainable agriculture: Future perspectives. 2019 , 105, 483-495	140
580	Optimization of process parameters for the synthesis of silver nanoparticles from Piper betle leaf aqueous extract, and evaluation of their antiphytofungal activity. 2020 , 27, 27221-27233	19
579	Partitioning and stability of ionic, nano- and microsized zinc in natural soil suspensions. 2020 , 700, 134445	13
578	TiO2 Nanostructures (TiO2-NSs): Synthesis, Characterization and Evaluation of Their Toxicity in the Swiss albino Mouse. 2020 , 30, 1049-1064	
577	Magnetic Behavior and Nutrient Content Analyses of Barley (Hordeum vulgare L.) Tissues upon CoNd0.2Fe1.8O4 Magnetic Nanoparticle Treatment. 2020 , 20, 357-366	9
576	Advances in controlled release pesticide formulations: Prospects to safer integrated pest management and sustainable agriculture. 2020 , 385, 121525	98
575	A review on the effects of carbon dots in plant systems. 2020 , 4, 437-448	77

(2020-2020)

574	Continuous manufacturing of silver nanoparticles between 5 and 80 nm with rapid online optical size and shape evaluation. 2020 , 5, 342-355	20
573	Nanomaterials: new weapons in a crusade against phytopathogens. 2020 , 104, 1437-1461	28
572	Application of Terahertz Sensing at Nano-Scale for Precision Agriculture. 2020 , 241-257	2
571	A unified in silico model based on perturbation theory for assessing the genotoxicity of metal oxide nanoparticles. 2020 , 244, 125489	13
570	Insecticidal application of essential oils loaded polymeric nanoparticles to control German cockroach: Design, characterization and lethal/sublethal effects. 2020 , 189, 110047	4
569	Bioactivity of magnesium oxide nanoparticles synthesized from cell filtrate of endobacterium Burkholderia rinojensis against Fusarium oxysporum. 2020 , 109, 110617	26
568	A review on nanotechnological interventions for plant growth and production. 2020 , 31, 685-693	5
567	Growth performance, anti-oxidative status, innate immunity, and ammonia stress resistance of Siganus rivulatus fed diet supplemented with zinc and zinc nanoparticles. 2020 , 18, 100410	11
566	Nanoparticles as Potential Antivirals in Agriculture. 2020 , 10, 444	24
565	Agricultural nanodiagnostics for plant diseases: recent advances and challenges. 2020 , 2, 3083-3094	43
564	Antibacterial potentials of methanolic extract and silver nanoparticles from marine algae. 2020 , 28, 101719	9
563	Industry 4.0 Disruption and Its Neologisms in Major Industrial Sectors: A State of the Art. 2020 , 2020, 1-45	18
562	Effect of silicon dioxide nanoparticles and Rhizobium leguminosarum alone and in combination on the growth and bacterial blight disease complex of pea caused by Meloidogyne incognita and Pseudomonas syringae pv. pisi. 2020 , 1-17	2
561	Environmental Risk Assessment (ERA) of the application of nanoscience and nanotechnology in the food and feed chain. 2020 , 17, 1948E	2
560	Nanoparticles fabrication by plant extracts. 2020 , 143-157	4
559	Recent advances and remaining barriers to producing novel formulations of fungicides for safe and sustainable agriculture. 2020 , 326, 468-481	32
558	Nanomaterials application in greenhouse structures, crop processing machinery, packaging materials and agro-biomass conversion. 2020 , 3, 690-699	4
557	Foliar application of green nanoparticles in Annona muricata L. plants and their effects in physiological and biochemical parameters. 2020 , 28, 101751	6

556	Prospects of kefiran as a food-derived biopolymer for agri-food and biomedical applications 2020 , 10, 25339-25351	14
555	Screening of the Repellent Activity of 12 Essential Oils Against Adult German Cockroach (Dictyoptera: Blattellidae): Preparation of a Sustained Release Repellent Agent of Binary Oil-ECD and its Repellency in a Small Container. 2020 , 113, 2171-2178	3
554	Fungus Processes Exogenous Zinc Nanoparticles into a Biogenic Oxalate Mineral. 2020, 6,	4
553	Nanopesticides: Physico-chemical characterization by a combination of advanced analytical techniques. 2020 , 146, 111816	6
552	A Review on the Beneficial Role of Silicon against Salinity in Non-Accumulator Crops: Tomato as a Model. 2020 , 10,	26
551	Green Synthesis of Gold and Silver Nanoparticles from Plant Extracts and Their Possible Applications as Antimicrobial Agents in the Agricultural Area. 2020 , 10,	104
550	Synthesis of Metallic and Metal Oxide Nanomaterials. 2020 , 99-123	1
549	Foliar Application of Low Concentrations of Titanium Dioxide and Zinc Oxide Nanoparticles to the Common Sunflower under Field Conditions. 2020 , 10,	27
548	CuO nanoparticles effects on poplar spen hybrid clones at various stages of microclonal propagation. 2020 , 595, 012001	1
547	Coating-Dependent Effects of Silver Nanoparticles on Tobacco Seed Germination and Early Growth. 2020 , 21,	6
546	The role of Li4Ti5O12 nanoparticles on enhancement the performance of PVDF/PVK blend for lithium-ion batteries. 2020 , 9, 5689-5698	38
545	Application of nanomaterials in treatment, anti-infection and detection of coronaviruses. 2020 , 15, 1501-1512	2 82
544	Nanocomposites: New trends for sensing and controlled-release of herbicides. 2020 , 255-269	
543	The Known and Unknown about the Environmental Safety of Nanomaterials in Commerce. 2020 , 16, e2000690	12
542	Toxicity of Molybdenum-Based Nanomaterials on the Soybean R hizobia Symbiotic System: Implications for Nutrition. 2020 , 3, 5773-5782	4
541	Dual roles of glutathione in silver nanoparticle detoxification and enhancement of nitrogen assimilation in soybean (Glycine max (L.) Merrill). 2020 , 7, 1954-1966	6
540	Effect of cinnamon oil encapsulated with silica nanoparticles on some biological and biochemical aspects of the rice moth, Corcyra cephalonica (Staint.) (Lepidoptera: Pyralidae). 2020 , 65, 1-5	6
539	Perspectives on plasma-assisted synthesis of N-doped nanoparticles as nanopesticides for pest control in crops. 2020 , 5, 1374-1396	9

538	Silica-based nanosystems: Their role in sustainable agriculture. 2020 , 437-459	3
537	A Review of Microwave Synthesis of Zinc Oxide Nanomaterials: Reactants, Process Parameters and Morphoslogies. 2020 , 10,	102
536	Agriculture nanotechnology: Translating research outcome to field applications by influencing environmental sustainability. 2020 , 19, 100232	38
535	Efficacy of the green synthesized nickel-oxide nanoparticles against pulse beetle, Callosobruchus maculatus (F.) in black gram (Vigna mungo L.). 2020 , 1-9	7
534	Formulation of Microbial Inoculants by Encapsulation in Natural Polysaccharides: Focus on Beneficial Properties of Carrier Additives and Derivatives. 2020 , 11, 270	53
533	Effects of copper oxide nanoparticles on growth of lettuce (Lactuca sativa L.) seedlings and possible implications of nitric oxide in their antioxidative defense. 2020 , 192, 232	40
532	The Biomolecular Spectrum Drives Microbial Biology and Functions in Agri-Food-Environments. 2020 , 10,	1
531	Effect of engineered nanoparticles on soil biota: Do they improve the soil quality and crop production or jeopardize them?. 2020 , 31, 2213-2230	19
530	Biosensors and Nanobiosensors in Environmental Applications. 2020 , 515-591	10
529	Antifungal effect of zinc oxide nanoparticles (ZnO-NPs) on Colletotrichum sp., causal agent of anthracnose in coffee crops. 2020 , 25, 101579	23
528	Effects of biogenerated ferric hydroxides nanoparticles on truffle mycorrhized plants. 2020 , 30, 211-219	3
527	Advances in agrochemical remediation using nanoparticles. 2020 , 465-485	4
526	Sustainability Management of Organic Food Organizations: A Case Study of Azerbaijan. 2020 , 12, 5057	3
525	PLAGA-PEG-PLAGA Terpolymer-Based Carriers of Herbicides for Potential Application in Environment-Friendly, Controlled Release Systems of Agrochemicals. 2020 , 13,	2
524	Polymeric Nanocomposite-Based Agriculture Delivery System: Emerging Technology for Agriculture. 2020 ,	3
523	Titanium dioxide nanoparticles (TiO NPs) promote growth and ameliorate salinity stress effects on essential oil profile and biochemical attributes of Dracocephalum moldavica. 2020 , 10, 912	147
522	Emerging Priorities for Microbiome Research. <i>Frontiers in Microbiology</i> , 2020 , 11, 136	50
521	Ultrasensitive and rapid detection of T-2 toxin using a target-responsive DNA hydrogel. 2020 , 311, 127912	27

520	Carbon nanostructures: detection, controlling plant diseases and mycotoxins. 2020 , 261-277	2
519	Nanoparticles: A New Threat to Crop Plants and Soil Rhizobia?. 2020 , 201-214	7
518	Modified multiwall carbon nanotubes display either phytotoxic or growth promoting and stress protecting activity in Ocimum basilicum L. in a concentration-dependent manner. 2020 , 249, 126171	43
517	Band gap engineering in ZnO based nanocomposites. 2020 , 119, 113969	8
516	Advanced nanomaterials in agriculture under a changing climate: The way to the future?. 2020 , 176, 104048	26
515	Improvement of nutrient elements and allicin content in green onion (Allium fistulosum) plants exposed to CuO nanoparticles. 2020 , 725, 138387	38
514	Generic SAO Similarity Measure via Extended Stensen-Dice Index. 2020 , 8, 66538-66552	3
513	Advancing Modern Healthcare With Nanotechnology, Nanobiosensors, and Internet of Nano Things: Taxonomies, Applications, Architecture, and Challenges. 2020 , 8, 65230-65266	43
512	Carbon nanotubes: Plant gene delivery and genome editing. 2020 , 279-296	7
511	Synthesis of calcium borate nanoparticles and its use as a potential foliar fertilizer in lettuce (Lactuca sativa) and zucchini (Cucurbita pepo). 2020 , 151, 673-680	19
510	Nanocatalyst types and their potential impacts in agroecosystems: An overview. 2020 , 323-344	4
509	Standard biological assays to estimate nanoparticle toxicity and biodistribution. 2020, 71-104	2
508	Developing Nano-Delivery Systems for Agriculture and Food Applications with Nature-Derived Polymers. 2020 , 23, 101055	54
507	Responses of soil bacteria and fungal communities to pristine and sulfidized zinc oxide nanoparticles relative to Zn ions. 2021 , 405, 124258	6
506	Silicon nanoparticle-pulsing mitigates fluoride stress in rice by fine-tuning the ionomic and metabolomic balance and refining agronomic traits. 2021 , 262, 127826	31
505	Effect of zinc oxide nanoparticle supplementation on the enhanced production of surfactin and iturin lipopeptides of endophytic Bacillus sp. Fcl1 and its ameliorated antifungal activity. 2021 , 77, 1035-1041	3
504	Efficacy of nanoparticles as nanofertilizer production: a review. 2021 , 28, 1292-1303	26
503	Biosensors for toxic metals, polychlorinated biphenyls, biological oxygen demand, endocrine disruptors, hormones, dioxin, phenolic and organophosphorus compounds: a review. 2021 , 19, 1657-1666	17

502	A critical review of synthesis procedures, applications and future potential of nanoemulsions. 2021 , 287, 102318	37
501	Photoprotection and release study of spinosad biopolymeric microparticles obtained by spray drying. 2021 , 377, 514-522	2
500	Chitosan-silicon nanofertilizer to enhance plant growth and yield in maize (Zea mays L.). 2021, 159, 53-66	31
499	Role of zinc oxide nanoparticles in the management of disease complex of beetroot (Beta vulgaris L.) caused by Pectobacterium betavasculorum, Meloidogyne incognita and Rhizoctonia solani. 2021 , 62, 225-241	13
498	Microbiomes in some cereal crops: diversity and their role in geochemical nutrient recycling. 2021 , 429-448	
497	Trends in dye industry effluent treatment and recovery of value added products. 2021, 39, 101734	45
496	Nanofertilizers for sustainable fruit production: a review. 2021 , 19, 1693-1714	13
495	Biosensor and nanotechnology. 2021 , 1-18	1
494	Diverse Manifolds of Biogenic Nanoparticles in Synthesis, Characterization, and Applications. 2021 , 1-28	1
493	An overview of nanotechnology in plant disease management, food safety, and sustainable agriculture. 2021 , 193-219	3
492	Environmental Nanobiotechnology: Microbial-Mediated Nanoparticles for Sustainable Environment. 2021 , 145-164	1
491	Engineered Nanoparticles in Agro-ecosystems: Implications on the Soil Health. 2021 , 103-118	О
490	Smart delivery mechanisms of nanofertilizers and nanocides in crop biotechology. 2021, 385-414	
489	Exploring nanomaterials with rhizobacteria in current agricultural scenario. 2021, 487-503	1
488	A nano-agro formulation strategy: Combatting plant stresses via linking agri sustainability and environmental safety. 2021 , 73-83	О
487	Bio-nanosensors: Synthesis and Their Substantial Role in Agriculture. 2021 , 165-172	3
486	Functions of Hydrogen Sulfide in Plant Regulation and Response to Abiotic Stress. 2021, 329-355	5
485	Nanonutrients: Plant Nutritive and Possible Antioxidant Regulators. 2021 , 471-498	

484	Role of Nanomaterials in Regulating Oxidative Stress in Plants. 2021 , 305-326	
483	Bioleaching from Coal Wastes and Tailings: A Sustainable Biomining Alternative. 2021 , 203-224	1
482	Nanotechnology in Agriculture, the Food Sector, and Remediation: Prospects, Relations, and Constraints. 2021 , 1-34	1
481	Metal-Based Nanoparticles[Interactions with Plants. 2021, 145-169	2
480	Sufficiency and toxicity limits of metallic oxide nanoparticles in the biosphere. 2021 , 145-221	2
479	Nanotechnology-based biofortification: a plantBoil interaction modulator/enhancer. 2021 , 83-105	1
478	Nanotechnology for Green Applications: How Far on the Anvil of Machine Learning!. 2021, 1-38	
477	Benefits of Chitosan-Based and Cellulose-Based Nanocomposites in Food Protection and Food Packaging. 2021 , 121-160	1
476	Synthesis of Novel Metal/Metal Oxide-Based Nanomaterials Using Plant Derivatives and Their Potential Environmental Applications. 2021 , 557-584	
475	Nanosensors for the Detection of Fertilizers and Other Agricultural Applications. 2021, 157-168	3
474	Applications of nanotechnology in virus detection, tracking, and infection mechanisms. 2021 , 13, e1700	5
473	AgriFusion: An Architecture for IoT and Emerging Technologies Based on a Precision Agriculture Survey. 2021 , 1-1	5
472	Effect of TiO2 as Plant Growth-Stimulating Nanomaterial on Crop Production. 2021, 129-144	3
471	Nanotechnology for Sustainable Crop Production: Recent Development and Strategies. 2021 , 31-47	2
470	Nanomaterials in agricultural and food applications. 2021, 383-404	
469	Unraveling the mechanism of nanoparticles for controlling plant pathogens and pests. 2021, 415-436	
468	Nanoagriculture: A Holistic Approach for Sustainable Development of Agriculture. 2021, 2587-2602	
467	Encapsulation methods of active molecules for drug delivery. 2021 , 289-306	1

Genetically modified microbes for hanobiotechnology. **2021**, 123-132

465	Mycogenic fabrication of nanoparticles and their applications in modern agricultural practices & food industries. 2021 , 475-488	1
464	Toxicity of Engineered Nanostructures in Aquatic Environments. 2021 , 171-202	O
463	Biosynthesis of Nanoparticles by Microorganisms and Applications in Plant Stress Control. 2021 , 319-353	1
462	Nano-enabled Approaches for the Suitable Delivery of Fertilizer and Pesticide for Plant Growth. 2021 , 355-394	
461	Impact of Nanoparticles on Human Microbiota. 2021 , 29-40	
460	Potential and Risk of Nanotechnology Application in Agriculture vis-Bvis Nanomicronutrient Fertilizers. 2021 , 513-552	0
459	Challenges of Education in the 4th Industrial Revolution. 2021 , 139-150	
458	Challenge and perspectives for inorganic green synthesis pathways. 2021 , 93-107	
457	Nanomaterials at industrial workplacelin overview on safety. 2021 , 197-209	
456	Nematicidal activity of silver nanomaterials against plant-parasitic nematodes. 2021, 527-548	O
455	Improving Crop Physio-Biochemical Efficiency and Abiotic Resilient Crops for Alleviating Food Insecurity in Africa. 2021 , 375-392	
454	Fast and Accurate Nanoparticle Characterization Using Deep-Learning-Enhanced Off-Axis Holography. 2021 , 15, 2240-2250	14
453	Nano-fertilizers and Nano-pesticides as Promoters of Plant Growth in Agriculture. 2021 , 153-163	5
452	Significance of Nanoscience in Food Microbiology: Current Trend and Future Prospects. 2021 , 249-267	1
451	Myco-Nanotechnology for Sustainable Agriculture: Challenges and Opportunities. 2021 , 457-479	6
450	Green synthesised ZnO nanoparticles mediated by Olea europaea leaf extract and their antifungal activity against Botrytis cinerea infecting faba bean plants. 1-23	0
449	Nanoparticles as Novel Elicitors to Improve Bioactive Compounds in Plants. 2021 , 11, 134	36

448	Recent Trends in Advanced Polymer Materials in Agriculture Related Applications. 2021, 3, 1203-1217	29
447	pH-sensitive thiamethoxam nanoparticles based on bimodal mesoporous silica for improving insecticidal efficiency. 2021 , 8, 201967	3
446	Effects of metal nanoparticle-mediated treatment on seed quality parameters of different crops. 2021 , 394, 1067-1089	8
445	Targeted Drug Delivery for Sustainable Crop Protection: Transport and Stability of Polymeric Nanocarriers in Plants. 2021 , 8, e2100067	9
444	In vitro compatibility evaluation of agriusable nanochitosan on beneficial plant growth-promoting rhizobacteria and maize plant.	9
443	Application of Core/Shell Nanoparticles in Smart Farming: A Paradigm Shift for Making the Agriculture Sector More Sustainable. 2021 , 69, 3267-3283	8
442	Inorganic arsenic toxicity and alleviation strategies in rice. 2021 , 408, 124751	30
441	A review on metal-based nanoparticles and their toxicity to beneficial soil bacteria and fungi. 2021 , 213, 112027	57
440	Intelligent, Nano-fertilizers: A New Technology for Improvement Nutrient Use Efficiency (Article Review). 2021 , 735, 012086	2
439	Myco-Fabrication of Copper Nanoparticles and Its Effect on Crop Pathogenic Fungi. 2021 , 20, 146-153	9
438	Nanotechnology: A cutting-edge technology in vegetable production. 1-14	
437	Surfactant assisted spectroscopic application of cadmium oxide nanoparticles prepared via co-precipitation method. 2021 , 50, 48-48	O
436	Innovations in nanoscience for the sustainable development of food and agriculture with implications on health and environment. 2021 , 768, 144990	36
435	Nanoparticles induced stress and toxicity in plants. 2021 , 15, 100457	17
434	A Review on Agro-industrial Waste as Cellulose and Nanocellulose Source and Their Potentials in Food Applications. 1-26	3
433	Antibacterial and cytotoxic activity of polymer-metal hybrid nanoparticle. 2021 , 12, 025003	1
432	The Role of Biosensor in Climate Smart Organic Agriculture toward Agricultural and Environmental Sustainability.	6
431	The potential of nanomaterials associated with plant growth-promoting bacteria in agriculture. 2021 , 11, 318	5

430	Synthesis of MgO nanoparticles through green method and evaluation of its antimicrobial activities. 2021 , 34, 719-724	1
429	Silica nanoparticles boost plant resistance against pathogens. 2021 , 66, 1151-1153	1
428	Responses of Moringa oleifera to alteration in soil properties induced by calcium nanoparticles (CaNPs) on mineral absorption, physiological indices and photosynthetic indicators. 2021 , 10,	2
427	Effects of Silver Nanoparticles on Proliferation and Apoptosis in Granulosa Cells of Chicken Preovulatory Follicles: An In Vitro Study. 2021 , 11,	1
426	Efficacy of Titanium Dioxide Nanoparticles in the Management of Disease Complex of Beetroot (Beta vulgaris L.) Caused by Pectobacterium betavasculorum, Rhizoctonia solani, and Meloidogyne incognita. 2021 , 73, 445	3
425	Using Zinc Oxide Nanoparticles to Improve the Color and Berry Quality of Table Grapes Cv. Crimson Seedless. 2021 , 10,	1
424	Current and future perspectives on the use of nanofertilizers for sustainable agriculture: the case of phosphorus nanofertilizer. 2021 , 11, 357	9
423	Effect of synthetic route in particle size distribution of zinc oxide, silver and carbon nanoparticles and its role in controlling phytopathogenic fungus Alternaria solani. 1-14	1
422	Maghemite nano-fertilization promotes fluoride tolerance in rice by restoring grain yield and modulating the ionome and physiome. 2021 , 215, 112055	7
421	Relevance of phosphate solubilizing microbes in sustainable crop production: a review. 1	3
420	Natural and Synthetic Nanomaterials in Microbial Biotechnologies for Crop Production. 2021 , 83, 81-91	
419	Nanopesticides in Agriculture: Benefits and Challenge in Agricultural Productivity, Toxicological Risks to Human Health and Environment. 2021 , 9,	2 0
418	Silicon dioxide-nanoparticle nutrition mitigates salinity in gerbera by modulating ion accumulation and antioxidants. 2021 ,	4
417	Iron oxide nanoparticles alleviate arsenic phytotoxicity in rice by improving iron uptake, oxidative stress tolerance and diminishing arsenic accumulation. 2021 , 163, 348-357	24
416	Novel Acumens into Biodegradation: Impact of Nanomaterials and Their Contribution.	
415	Growth, yield, and quality of roselle (Hibiscus sabdariffa L.) plants as affected by nano zinc and bio-stimulant treatments. 1	3
414	A Green Nanostructured Pesticide to Control Tomato Bacterial Speck Disease. 2021 , 11,	7
413	The Role of Selenium Nanoparticles in Agriculture and Food Technology. 2021 , 1	9

412	Regenerative agriculture and integrative permaculture for sustainable and technology driven global food production and security.	4
411	Nanoremediation technologies for sustainable remediation of contaminated environments: Recent advances and challenges. 2021 , 275, 130065	24
410	Recovery of Banana Waste-Loss from Production and Processing: A Contribution to a Circular Economy. 2021 , 26,	18
409	Nanodiamonds synthesis using sustainable concentrated solar thermal energy: applications in bioimaging and phototherapy. 2021 , 32,	1
408	Effects of Titanium Dioxide Nanomaterials on Plants Growth. 2021, 17-44	1
407	Starch-based biodegradable packaging materials: A review of their preparation, characterization and diverse applications in the food industry. 2021 , 114, 70-82	34
406	Role of nanoparticles in crop improvement and abiotic stress management. 2021 , 337, 57-70	17
405	Application of Nanoparticle of Merapi Volcanic Ash and Phosphate-Solubilizing Fungi in Improving Inceptisols Characteristics. 1044, 113-120	
404	Potential Applications of Nanobiotechnology in Plant Nutrition and Protection for Sustainable Agriculture. 2021 , 79-92	3
403	Zinc oxide nanoparticles (ZnO-NPs): a promising nanoparticle in renovating plant science. 2021 , 43, 1	5
402	Sustainable Agriculture through Multidisciplinary Seed Nanopriming: Prospects of Opportunities and Challenges. 2021 , 10,	9
401	A comprehensive review on regulatory invention of nano pesticides in Agricultural nano formulation and food system. 2021 , 1239, 130517	8
400	Nano-based pesticides: challenges for pest and disease management. 2021 , 6, 1	2
399	Interaction of metal nanoparticlesplantspicroorganisms in agriculture and soil remediation. 2021 , 23, 1	4
398	The Role of Nanotechnology in Antiviral Regime: An Overview. 2130011	1
397	Nano-zinc oxide synthesized using diazotrophic Azospirillum improves the growth of mung bean, Vigna radiata. 1	4
396	Influence of Ag Doped MoO3 Nanoparticles in the Seedling Growth and Inhibitory Action Against Microbial Organisms. 1	1
395	Nanotechnology advances for sustainable agriculture: current knowledge and prospects in plant growth modulation and nutrition. 2021 , 254, 66	9

394	Cross-examination of engineered nanomaterials in crop production: Application and related implications. 2022 , 424, 127374	1
393	Detection and remediation of pollutants to maintain ecosustainability employing nanotechnology: A review. 2021 , 280, 130792	18
392	Preparation of p-amino salicylic acid-modified polysuccinimide as water-based nanocarriers for enhancing pesticide stability and insecticidal activity. 2021 , 207, 111990	2
391	Analysis of relationships between nanotechnology applications, mineral saving and ecological footprint: Evidence from panel fourier cointegration and causality tests. 2021 , 74, 102373	3
390	Valorization of agro-waste into value added products for sustainable development. 2021, 16, 100834	9
389	Environmental antibiotics and resistance genes as emerging contaminants: Methods of detection and bioremediation. 2021 , 2, 100027	30
388	Green approaches in synthesising nanomaterials for environmental nanobioremediation: Technological advancements, applications, benefits and challenges. 2022 , 204, 111967	21
387	Biosynthesized gold nanoparticles maintained nitrogen metabolism, nitric oxide synthesis, ions balance, and stabilizes the defense systems to improve salt stress tolerance in wheat. 2022 , 287, 132142	8
386	Nanotechnology: A next-generation tool for sustainable aquaculture. 2022 , 546, 737330	12
385	Applications of Nanomaterials to Enhance Plant Health and Agricultural Production. 2021 , 1-19	O
385	Applications of Nanomaterials to Enhance Plant Health and Agricultural Production. 2021 , 1-19 Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021 , 159, 755-768	4
	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black	
384	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021 , 159, 755-768 Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical	4
384	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021 , 159, 755-768 Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical Synthesis Using Nanotools and Nanoprocesses Toward Sustainable Agriculture. 2021 , 1663-1677 Immobilization efficiency and modulating abilities of silver nanoparticles on biochemical and	2
384 383 382	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021, 159, 755-768 Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical Synthesis Using Nanotools and Nanoprocesses Toward Sustainable Agriculture. 2021, 1663-1677 Immobilization efficiency and modulating abilities of silver nanoparticles on biochemical and nutritional parameters in plants: Possible mechanisms. 2021, 235-264 Laser activatable perfluorocarbon bubbles for imaging and therapy through enhanced absorption	4 2 0
384 383 382 381	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021, 159, 755-768 Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical Synthesis Using Nanotools and Nanoprocesses Toward Sustainable Agriculture. 2021, 1663-1677 Immobilization efficiency and modulating abilities of silver nanoparticles on biochemical and nutritional parameters in plants: Possible mechanisms. 2021, 235-264 Laser activatable perfluorocarbon bubbles for imaging and therapy through enhanced absorption from coupled silica coated gold nanoparticles 2021, 11, 4906-4920 Silver Nanoparticles as a Fungicide against Soil-Borne Sclerotium rolfsii: A Case Study for Wheat	4 2 0
384 383 382 381 380	Preharvest application of salicylic acid induces some resistant genes of sweet pepper against black mold disease. 2021, 159, 755-768 Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical Synthesis Using Nanotools and Nanoprocesses Toward Sustainable Agriculture. 2021, 1663-1677 Immobilization efficiency and modulating abilities of silver nanoparticles on biochemical and nutritional parameters in plants: Possible mechanisms. 2021, 235-264 Laser activatable perfluorocarbon bubbles for imaging and therapy through enhanced absorption from coupled silica coated gold nanoparticles 2021, 11, 4906-4920 Silver Nanoparticles as a Fungicide against Soil-Borne Sclerotium rolfsii: A Case Study for Wheat Plants. 2021, 513-542	4 2 0

376	Interaction of Nanoparticles with Microbes. 2021 , 175-188	4
375	Impact of Nanomaterials Stress on Plants. 2021 , 499-526	Ο
374	Applications of Nanobiotechnology to Mitigate Mineral Nutrients Deficiency Stress in Crop Plants. 2021 , 437-452	
373	Valorization of Agri-Food Wastes. 2021 , 111-132	1
372	Applications of Nanobiotechnology in Overcoming Temperature Stress. 2021 , 417-435	4
371	Relevance of Biosensor in Climate Smart Organic Agriculture and Their Role in Environmental Sustainability: What Has Been Done and What We Need to Do?. 2021 , 115-136	10
370	Antioxidant, Cytotoxic and Anti-choline Esterase Activity of Green Silver Nanoparticles Synthesized Using Aspergillus austroafricanus CGJ-B3 (Endophytic Fungus). 2021 , 11, 15-28	7
369	Current Aspects of Nanotechnology: Applications in Agriculture. 2021 , 73-99	
368	Silver nanoparticles phytotoxicity mechanisms. 2021 , 317-356	1
367	Phytotoxicity of halloysite nanotubes using wheat as a model: seed germination and growth.	2
366	Biomedical Applications of Mycosynthesized Selenium Nanoparticles Using Penicillium expansum ATTC 36200. 2021 , 199, 3998-4008	31
365	A Novel Fluorescence Tool for Monitoring Agricultural Industry Chain Based on AlEgens. 2021 , 37, 38-51	4
364	Cytotoxic Potential of Plant Nanoparticles. 2019 , 241-265	1
363	Plant Nanobionics: Application of Nanobiosensors in Plant Biology. 2019 , 337-376	5
362	Green Engineering of Silver Nanoparticles to Combat Plant and Foodborne Pathogens: Potential Economic Impact and Food Quality. 2019 , 451-476	2
361	Potential of Biogenic Plant-Mediated Iron and Iron Oxide Nanoparticles and Their Utility. 2019 , 77-113	4
360	Processing of Nanoparticles by Biomatrices in a Green Approach. 2019 , 1-28	3
359	Green Synthesis and Biogenic Materials, Characterization, and Their Applications. 2019 , 29-61	3

358	Biological Synthesis of Nanoparticles by Different Groups of Bacteria. 2019 , 63-85	17
357	Mushrooms: New Biofactories for Nanomaterial Production of Different Industrial and Medical Applications. 2019 , 87-126	1
356	Impact of Nanomaterials on the Microbial System. 2019 , 141-158	6
355	Microbial Production of Nanoparticles: Mechanisms and Applications. 2019 , 159-176	2
354	Endophytic Microorganisms as Biological Control Agents for Plant Pathogens: A Panacea for Sustainable Agriculture. 2019 , 1-20	1
353	Application of Nanotechnology for Sustainable Crop Production Systems. 2020 , 135-159	3
352	Plants and Microbes: Bioresources for Sustainable Development and Biocontrol. 2020, 153-176	3
351	Biosensor Applications in the Detection of Heavy Metals, Polychlorinated Biphenyls, Biological Oxygen Demand, Endocrine Disruptors, Hormones, Dioxin, and Phenolic and Organophosphorus Compounds. 2020 , 1-28	2
350	Nano-enabled Agriculture Can Sustain Barm to ForklChain. 2020 , 35-61	3
349	Embodiment of Nanobiotechnology in Agriculture: An Overview. 2020 , 113-128	1
348	Nano-Biosensors: NextGen Diagnostic Tools in Agriculture. 2020 , 129-144	5
347	Nanobiotechnology and Supramolecular Mechanistic Interactions on Approach for Silver Nanoparticles for Healthcare Materials. 2020 , 185-207	1
346	Nanoprobiotics: When Technology Meets Gut Health. 2020 , 389-425	3
345	Environmental Nanotechnology: Global Framework and Integrative Strategies of Nanowaste Management. 2020 , 1-31	1
344	Application of Nanotechnology in Genetic Improvement in Crops. 2019 , 3-24	1
343	Applications of Algal Nanoparticles in Agriculture. 2019 , 265-280	1
342	Nanomaterials and Vegetable Crops: Realizing the Concept of Sustainable Production. 2019, 323-353	2
341	Recent Trends in Nanomaterials Used in Dairy Industry. 2019 , 375-396	1

340	Agricultural Nanotechnology: Concepts, Benefits, and Risks. 2017, 1-17	8
339	Synthesis, Characterization, and Application of Chitosan Nanomaterials Loaded with Zinc and Copper for Plant Growth and Protection. 2017 , 227-247	16
338	Nanotechnology for Enhancing Crop Productivity. 2017 , 249-262	4
337	Nanomaterial-Based Biosensors in Agriculture Application and Accessibility in Rural Smallholding Farms: Food Security. 2017 , 263-278	9
336	Nanosensors: Frontiers in Precision Agriculture. 2017 , 279-291	20
335	Application of Nanomaterials Toward Development of Nanobiosensors and Their Utility in Agriculture. 2017 , 293-303	14
334	Modern Prospects of Nanotechnology in Plant Pathology. 2017 , 305-317	29
333	Application of Nanotechnology in Enhancement of Crop Productivity and Integrated Pest Management. 2017 , 361-371	4
332	Nanotechnology in Life Science: Its Application and Risk. 2017 , 19-31	1
331	Nanomaterials: Implications on Agroecosystem. 2017 , 59-71	6
330	Nanoagrotechnology for Soil Quality, Crop Performance and Environmental Management. 2017, 73-97	29
329	Nano-technology Applications in Pest Management. 2020 , 391-401	1
328	Current Status of Biologically Produced Nanoparticles in Agriculture. 2020 , 393-406	2
327	Challenges and Current State-of-Art of the Volvariella volvacea Cultivation Using Agriculture Waste: A Brief Review. 2020 , 145-156	2
326	Drought Stress Tolerance: An Insight to Resistance Mechanism and Adaptation in Plants. 2021 , 183-197	1
325	Nanotechnology in Agriculture. 2019, 1-17	7
324	Beneficial Effects of Metal- and Metalloid-Based Nanoparticles on Crop Production. 2019 , 161-219	6
323	Rhizoremediation: A Sustainable Approach to Improve the Quality and Productivity of Polluted Soils. 2019 , 33-66	5

322	Biodegradable nanomaterials for drink packaging. 2020 , 609-632	4
321	Use of silicon dioxide nanoparticles for the management of Meloidogyne incognita, Pectobacterium betavasculorum and Rhizoctonia solani disease complex of beetroot (Beta vulgaris L.). 2020 , 265, 109211	27
320	Emerging investigator series: nanotechnology to develop novel agrochemicals: critical issues to consider in the global agricultural context. 2020 , 7, 1867-1873	6
319	Exposure to nanoceria impacts larval survival, life history traits and fecundity of Aedes aegypti. 2020 , 14, e0008654	3
318	Biosynthesis of silver nanoparticles mediated by culture filtrate of lactic acid bacteria, characterization and antifungal activity. 2020 , 4, 97-103	15
317	Environmental Impact of Nanoparticles' Application as an Emerging Technology: A Review. 2020 , 14,	32
316	Nano-Fertilization as an Emerging Fertilization Technique: Why Can Modern Agriculture Benefit from Its Use?. 2020 , 10,	65
315	BRADYRHIZOBIUM JAPONICUM REACTION IN PURE CULTURE AND SYMBIOTIC SYSTEMS TO THE USE OF NANOCARBOXYLATES OF MICROELEMENTS. 28, 41-52	2
314	FORMATION AND FUNCTIONING OF SYMBIOTIC SYSTEMS OF SOYA BRADYRHIZOBIUM JAPONICUM FOR THE INFLUENCE OF COMPLEXES OF NANOPARTICLES OF CARBOXYLATES OF MICROELEMENTS. 29, 12-20	2
313	Nanokompozit Kayna∯e Uygulama AlanÐlarak Bitkiler.	2
312	Direct Synthesis of Lemongrass (Cymbopogon Citratus) Essential Oil- Silver Nanoparticle (EO-AgNPs) as Biopesticides and Application for Lichens Inhibition on Stones.	
311	Pesticide-loaded colloidal nanodelivery systems; preparation, characterization, and applications. 2021 , 298, 102552	1
310	Nanomaterials and Their Influence in Society Through Times. 2022 , 229-236	
309	Basic Amino Acid-Modified Lignin-Based Biomass Adjuvants: Synthesis, Emulsifying Activity, Ultraviolet Protection, and Controlled Release of Avermectin. 2021 , 37, 12179-12187	1
308	Applications of Nanomaterials in Agrifood and Pharmaceutical Industry. 2021 , 2021, 1-10	19
307	Curcumin Loaded Dendrimers Specifically Reduce Viability of Glioblastoma Cell Lines. 2021, 26,	2
306	Biological silicon nanoparticles maximize the efficiency of nematicides against biotic stress induced by in eggplant 2022 , 29, 920-932	12
305	Recent Trends in the Foliar Spraying of Zinc Nutrient and Zinc Oxide Nanoparticles in Tomato Production. 2021 , 11, 2074	1

304	Surface modification of textiles by green nanotechnology against pathogenic microorganisms. 2021 , 4, 100206	1
303	Nanocomposites: Future Trends and Perspectives Towards Affinity Biosensor. 2017 , 319-359	
302	Nanotechnology in Agriculture, Food Process Product, and Food Packaging. 2017, 117-131	
301	Cancer Bionanotechnology: Biogenic Synthesis of Metallic Nanoparticles and Their Pharmaceutical Potency. 2019 , 229-251	o
300	Bio-active Peptides: Role in Plant Growth and Defense. 2019 , 1-29	
299	Methods and Mechanisms Involved in Antimicrobially Useful Nanoparticles with Agricultural Promises. 2019 , 207-231	
298	Nanotechnology: A Novel Strategy Against Plant Pathogens. 2019 , 153-170	2
297	Nanotechnological Interventions for Improving Plant Health and Productivity. 2019, 375-395	О
296	Uptake, Accumulation, and Toxicity of Metal Nanoparticles in Autotrophs. 2019 , 101-120	
295	Nanotechnology for Aquaculture. 2019 , 479-544	1
295 294	Nanotechnology for Aquaculture. 2019 , 479-544 Nanotechnology and Sustainable Agriculture. 2019 , 301-333	1
		1
294	Nanotechnology and Sustainable Agriculture. 2019 , 301-333	1 4
294	Nanotechnology and Sustainable Agriculture. 2019 , 301-333 Nanotechnology: An Emerging Tool for Management of Biotic Stresses in Plants. 2019 , 299-335 Phytohormone ratio and photosynthetic activity of bread wheat plants under the effect of	4
294 293 292	Nanotechnology and Sustainable Agriculture. 2019 , 301-333 Nanotechnology: An Emerging Tool for Management of Biotic Stresses in Plants. 2019 , 299-335 Phytohormone ratio and photosynthetic activity of bread wheat plants under the effect of bioactive substances. 2019 , 51, 133-146 Role of chelated fertilizers' and nano-particles application for formation of elements of	4
294 293 292 291	Nanotechnology and Sustainable Agriculture. 2019, 301-333 Nanotechnology: An Emerging Tool for Management of Biotic Stresses in Plants. 2019, 299-335 Phytohormone ratio and photosynthetic activity of bread wheat plants under the effect of bioactive substances. 2019, 51, 133-146 Role of chelated fertilizers' and nano-particles application for formation of elements of productivity Bartificial infected with phytoplasmas and virus. 25, 215-218 Nanoparticle-Mediated Chaetomium, Unique Multifunctional Bullets: What Do We Need for Real	4
294 293 292 291 290	Nanotechnology and Sustainable Agriculture. 2019, 301-333 Nanotechnology: An Emerging Tool for Management of Biotic Stresses in Plants. 2019, 299-335 Phytohormone ratio and photosynthetic activity of bread wheat plants under the effect of bioactive substances. 2019, 51, 133-146 Role of chelated fertilizers' and nano-particles application for formation of elements of productivity Bartificial infected with phytoplasmas and virus. 25, 215-218 Nanoparticle-Mediated Chaetomium, Unique Multifunctional Bullets: What Do We Need for Real Applications in Agriculture?. 2020, 267-300 Carbon-based nanosensors: An efficient tool for use in the food industry and agricultural and	4

286	Nanosafety.	
285	Synthesis, Characterization, and Application of Biogenic Nanomaterials: An Overview. 2020 , 51-71	2
284	Green-Nanotechnology for Precision and Sustainable Agriculture. 2020 , 317-357	
283	Nanopesticides, Nanoherbicides, and Nanofertilizers: The Greener Aspects of Agrochemical Synthesis Using Nanotools and Nanoprocesses Toward Sustainable Agriculture. 2021 , 1-15	
282	Iron Chlorosis in Peach and Its Eco-Friendly Management: An Outlook. 2021, 267-280	
281	Nano-phytoremediation for soil contamination: An emerging approach for revitalizing the tarnished resource. 2022 , 115-138	1
280	Nanotechnology and Functional Food. 2020 , 85-112	1
279	Rearrangement of protein structures on a gold nanoparticle surface is regulated by ligand adsorption modes. 2021 ,	Ο
278	Impact of Nanomaterials on Beneficial Insects in Agricultural Ecosystems. 2020 , 379-393	2
277	Nanoagriculture: A Holistic Approach for Sustainable Development of Agriculture. 2020 , 1-16	1
276	Applications for Nanotechnology in the Polyphagous Destructive Insect Pest Management of Agricultural Crops. 2020 , 181-188	
275	Nanoscience: Convergence with Biomedical and Biological Applications. 2020 , 1-25	O
274	Decent Work and Economic Growth. 2020 , 1-14	
273	Application of Nanoparticles in Agriculture as Fertilizers and Pesticides: Challenges and Opportunities. 2020 , 281-293	4
272	Agri-Nanotechnology for Sustainable Agriculture. 2020 , 229-249	2
271	Novel inclusion of engineered nanoparticles in horticultural sectors. 2020 , 4, 125-127	
270	Efficiency of nano preparations in soybean growing technology. 2020 , 11, 7-21	
269	Nanobiotechnology and its Application in Agriculture and Food Production. 2020 , 105-134	2

268	Nanoantibiotics: The Next-Generation Antimicrobials. 2020 , 375-388		1
267	Potential Applications of Nanotechnology in Agriculture: A Smart Tool for Sustainable Agriculture.		
266	Silver nanoparticles as a viricidal agent to inhibit plant-infecting viruses and disrupt their acquisition and transmission by their aphid vector. 2021 , 1		3
265	Effects of silicon dioxide, zinc oxide and titanium dioxide nanoparticles on Meloidogyne incognita, Alternaria dauci and Rhizoctonia solani disease complex of carrot. 2021 , 230, 108176		2
264	Influence of metal nanocarboxylates and different water supply conditions on efficiency of soybean-rhizobial symbiotic systems. 2021 , 12, 383-390		0
263	Insight into the Prospects for Nanotechnology in Wheat Biofortification. 2021 , 10,		6
262	Decent Work and Economic Growth. 2021 , 1024-1037		О
261	Natural Antimicrobial Materials. 2021 , 149-169		
260	Tropical Biological Natural Resource Management Through Integrated Bio-Cycles Farming System. 2021 , 209-238		3
259	Biopesticides for Pest Management. 2021 , 239-266		1
258	Techniques for Improving Microbial Inoculants as a Tool for Sustainable Development. 2021 , 599-627		
257	Rhizosphere Modelling and Nanotechnology: New Outlooks in Sustainable Agriculture. 2021 , 563-581		
256	Essential Oil Nanoemulsion as Eco-Friendly and Safe Preservative: Bioefficacy Against Microbial Food Deterioration and Toxin Secretion, Mode of Action, and Future Opportunities <i>Frontiers in Microbiology</i> , 2021 , 12, 751062	5.7	4
255	Field Crop Responses and Management Strategies to Mitigate Soil Salinity in Modern Agriculture: A Review. 2021 , 11, 2299		10
254	Biofilm and Biocontrol Modulation of Paenibacillus sp. CCB36 by Supplementation with Zinc Oxide Nanoparticles and Chitosan Nanoparticles. 2021 , 1		O
253	Nanotechnology applications in plant tissue culture and molecular genetics: A holistic approach. 2021 , 17,		1
252	The Effects of Nano-copper, -molybdenum, -boron, and -silica on Pea (Pisum sativum L.) Growth, Antioxidant Properties, and Mineral Uptake. 1		2
251	Green synthesis of molybdenum-based nanoparticles and their applications in energy conversion and storage: A review. 2021 ,		2

250	Application of Nanomaterials to Ensure Quality and Nutritional Safety of Food. 2021 , 2021, 1-19	2
249	Application of nanotechnology in agriculture, postharvest loss reduction and food processing: food security implication and challenges 2021 , 7, e08539	17
248	Applications of Biosynthesized Nanoparticles. 2022, 285-323	1
247	Input Use Efficiency for Improving Soil Fertility and Productivity. 2021 , 305-333	
246	Nanotechnology in Insect Pest Management. 2021 , 377-394	
245	Assessment of Soil Health Indicators Under the Influence of Nanocompounds and Bacillus spp. in Field Condition. 2022 , 9,	1
244	A review on the use of nanomaterials in agriculture: benefits and associated health risks. 2022, 07,	Ο
243	Green TiO2InO nanocomposite stimulator for the growth of Solanum lycopersicum in aquaculture. 1	O
242	Improvement of salicylic acid biological effect through its encapsulation with silica or chitosan 2021 , 199, 108-108	1
241	Nano-enabled agrochemicals/materials: Potential human health impact, risk assessment, management strategies and future prospects 2021 , 295, 118722	O
240	Ligand-protected nanoclusters and their role in agriculture, sensing and allied applications 2021 , 239, 123134	2
239	Bio-Fabricated Silver Nanoparticles: A Sustainable Approach for Augmentation of Plant Growth and Pathogen Control. 2021 , 345-371	2
238	Nanotechnological Approaches for Efficient Delivery of Plant Ingredients. 2021 , 247-286	1
237	Global regulations and legislations on nanoparticles usage and application in diverse horizons. 2022	
236	Low Doses of Anatase and Rutile Nanoparticles Differently Modulate Photosynthesis and Regulatory Genes: A Contribution to the Nanoagroindustry. 2022 , 12, 190	
235	Nanostructured materials based on copper/carbon as a plant growth stimulant. 2022 , 367-391	1
234	Futuristic 2D Nanomaterial Composites Agro-Formulations for Sustainable Agriculture. 2022 , 223-242	
233	Plant and human health. 2022 , 301-322	

232	Responses of Soybean Genotypes to Different Nitrogen and Phosphorus Sources: Impacts on Yield Components, Seed Yield, and Seed Protein 2022 , 11,	О
231	Antiviral activity of chitosan nanoparticles for controlling plant-infecting viruses. 2022, 118,	
230	Effects of Foliar Application of ZnO Nanoparticles on Lentil Production, Stress Level and Nutritional Seed Quality under Field Conditions 2022 , 12,	1
229	Nanosensors for controlled release fertilizer. 2022 , 431-447	
228	Inorganic nanomaterials usable in plant protection strategies. 2022 , 211-231	
227	Current commercial nanosensors and devices/products used in agriculture. 2022, 165-181	
226	Cu-based nanoparticles as pesticides: Applications and mechanism of management of insect pests. 2022 , 203-218	О
225	Understanding the effect of copper-based nanoagrochemicals on nitrogen-fixation ability of blue-green algae: A review. 2022 , 639-660	
224	Nanoparticles-based sensors for agricultural application. 2022 , 117-146	
223	State-of-the-art biosynthesis of tin oxide nanoparticles by chemical precipitation method towards photocatalytic application 2022 , 29, 10871	1
222	Prospective on 2D Nanomaterials for Energy and Environment: Challenges, Commercial Aspect, and the Future Research Endeavor. 2022 , 267-329	0
221	The role of nanoparticles in sustainable agriculture. 2022 , 225-278	1
220	Nanotechnology-based green and efficient alternatives for the management of plant diseases. 2022 , 253-262	
219	Nano and Microengineered Structures for Enhanced Stability and Controlled Release of Bioactive Compounds. 2022 , 25-67	
218	Cu-based nanomaterials for production of novel agrochemicals. 2022 , 567-593	
217	Role of nanotechnology in enhancing crop production and produce quality. 2022, 703-764	O
216	Small-Sized Nanophosphorus Has a Positive Impact on the Performance of Fenugreek Plants under Soil-Water Deficit Stress: A Case Study under Field Conditions 2022 , 11,	4
215	Development and applications of nanobiosensors for sustainable agricultural and food industries: Recent developments, challenges and perspectives. 2022 , 26, 102371	10

214	Potential applications of engineered nanoparticles in plant disease management: A critical update 2022 , 133798	31
213	Recent advances in understanding the effects of nanomaterials on gut microbiota. 2022, 435, 134976	1
212	Gum-based nanoparticles in cancer therapy. 2022 , 183-225	
211	Delineation of mechanistic approaches of rhizosphere microorganisms facilitated plant health and resilience under challenging conditions 2022 , 12, 57	1
210	A facile development of rare earth neodymium nickelate nanoparticles for selective electrochemical determination of antipsychotic drug prochlorperazine. 2022 ,	1
209	Preparation, Characterization, and Evaluation of Pyraclostrobin Nanocapsules by In Situ Polymerization 2022 , 12,	1
208	Nano-Enabled Products: Challenges and Opportunities for Sustainable Agriculture 2021 , 10,	13
207	Fluoride (F) Remediation Using Phytoremediation and Nanomaterials. 2021, 325-348	
206	Seaweeds: A Potential Source in Progressing Nanotechnology. 2021 , 139-152	
205	Algal Nanotechnology: Scope and Limitations. 2021 , 3-22	
204	Biogenic synthesis: a sustainable approach for nanoparticles synthesis mediated by fungi. 1-14	2
203	Engineered nanomaterial-mediated changes in the growth and development of common agricultural crops. 2022 , 345-375	1
202	Green synthesis of nanoparticles and their uses in agriculture. 2022, 247-271	
201	Eco-friendly routes for obtaining nanoparticles and their application in agro-industry. 2022, 49-62	
200	Nano-Bioremediation Using Biologically Synthesized Intelligent Nanomaterials. 2022, 541-552	0
199	Potential Applications of Nanomaterials in Agronomy: An African Insight. 2022 , 581-600	
198	Nano-enabled agrochemicals for sustainable agriculture. 2022 , 291-306	2
197	Rhizospheric health management through nanofertilizers. 2022 , 329-353	О

196	Advances of nanotechnology in plant development and crop protection. 2022, 143-157	О
195	Engineered Clay Nanomaterials for Biomedical Applications. 2022 , 277-314	
194	Biosynthesis of copper oxide nanoparticles and its therapeutic efficacy against colon cancer. 2022 , 11, 1322-1331	6
193	Green nanotechnology for the environment. 2022 , 461-478	o
192	Nanopriming technology for improving crop plants under stressful conditions: concept and methods. 2022 , 159-174	
191	Regulations and risk assessment of microbial green nanotechnology. 2022 , 191-208	
190	Material Nanotechnology Is Sustaining Modern Agriculture.	1
189	Geoinformatics and Nanotechnological Approaches for Coping Up Abiotic and Biotic Stress in Crop Plants. 2022 , 337-359	
188	Circular Hazelnut Protection by Lignocellulosic Waste Valorization for Nanopesticides Development. 2022 , 12, 2604	3
187	Recent Advances in Nano-Enabled Fertilizers towards Sustainable Agriculture and Environment: A Mini Review.	
186	Repurposing of Marine Raw Materials in the Formulation of Innovative Plant Protection Products 2022 ,	1
185	Mechanochemical preparation of NiCuSn nanoparticles and composites in presence of cetyltrimethylammonium bromide (CTAB) and the catalytic application of the products in homocoupling and hydration of terminal alkynes. 2022 , 132948	
184	Efficient polymer-mediated delivery system for thiocyclam: nanometerization remarkably improves the bioactivity toward green peach aphids 2022 ,	0
183	Nanomicrobiology: Emerging Trends in Microbial Synthesis of Nanomaterials and Their Applications. 1	1
182	Magnetite Nanoparticles: Synthesis and Applications in Optics and Nanophotonics 2022, 15,	4
181	Biosynthesized metallic nanoparticles as fertilizers: An emerging precision agriculture strategy. 2022 , 21, 1225-1242	2
180	Biopolymer-based nanocarriers for sustained release of agrochemicals: A review on materials and social science perspectives for a sustainable future of agri- and horticulture 2022 , 303, 102645	3
179	Antiviral potential of nanoparticles for the treatment of Coronavirus infections 2022 , 72, 126977	2

178	Immobilized fungal enzymes: Innovations and potential applications in biodegradation and biosynthesis 2022 , 57, 107936	3
177	Design of nanomaterials for the removal of per- and poly-fluoroalkyl substances (PFAS) in water: Strategies, mechanism, challenges, and opportunities 2022 , 154939	О
176	A Comprehensive Review of the Coffee Leaf Miner (Lepidoptera: Lyonetiidae)-A Major Pest for the Coffee Crop in Brazil and Others Neotropical Countries 2021 , 12,	4
175	Nanotechnology for Agricultural and Environmental Sustainability. 2022 , 413-424	
174	Antifungal, Antibacterial, and Cytotoxic Activities of Silver Nanoparticles Synthesized from Aqueous Extracts of Mace-Arils of 2021 , 26,	3
173	Conversion of Plastic Waste into Supports for Nanostructured Heterogeneous Catalysts: Application in Environmental Remediation. 2022 , 5, 35-66	О
172	An Insight on Emerging Nanomaterials for the Delivery of Various Nutraceutical Applications for the Betterment of Heath. 2022 , 1-27	O
171	Silicon-mediated modulations of genes and secondary metabolites in plants. 2022 , 77-90	
170	Nanotechnology-based controlled release of sustainable fertilizers. A review. 1	3
169	Effects of LaO nanoparticles and bulk-LaO on the development of Pfaffia glomerata (Spreng.) Pedersen and respective nutrient element concentration 2022 , 1	
168	Response of spinach plants to different doses of two commercial nanofertilizers. 2022 , 301, 111143	0
167	The potential of nanomaterials for sustainable modern agriculture: present findings and future perspectives.	1
166	Nanotechnologies for microbial inoculants as biofertilizers in the horticulture. 2022 , 201-261	
165	Nanopesticides for crop protection. 2022 , 389-438	О
164	Sustainable agriculture. 2022 , 187-201	
163	Nanomaterials in Electrochemical Biosensors and Their Applications. 2022, 487-516	
162	Metal oxide nanoparticles toxicity testing on terrestrial plants. 2022 , 317-331	
161	Nanobiotechnology: Emerging trends, prospects, and challenges. 2022 , 1-21	

160	Toxic effects of nanoparticles under combined stress on plants. 2022 , 109-129	1
159	Quantum dots as promising nanomaterials in agriculture. 2022 , 243-296	
158	Current status and future directions for examining nanoparticles in plants. 2022, 373-398	Ο
157	Nanotechnology for Future Sustainable Plant Production Under Changing Environmental Conditions. 2022 , 466-492	
156	Ethology of Sunn-pest oviposition in interaction with deltamethrin loaded on mesoporous silica nanoparticles as a nanopesticide. 2022 , 9,	1
155	Use of Nano-Bio-Chemicals in Modern Agriculture to Accelerate Sustainable Growth. 2022 , 26-49	
154	Comparative study of green synthesised sulphur nanoparticles in different acidic media. 2022, 13, 025003	
153	Carbon Dots in the Detection of Pathogenic Bacteria and Viruses 2022 , 1-28	Ο
152	Fluorescent labeling as a strategy to evaluate uptake and transport of polymeric nanoparticles in plants. 2022 , 102695	
151	Nanotechnology-enabled biofortification strategies for micronutrients enrichment of food crops: Current understanding and future scope. 2022 , 100407	1
150	Biosynthesis and characterization of extracellular metabolites-based nanoparticles to control the whitefly 2022 , 204, 311	1
149	The potential role of plastome copy number as a quality biomarker for plant products using real-time quantitative polymerase chain reaction. 2022 , 23,	Ο
148	Remediation of pesticide residues from contaminated water using various nanomaterials and nanocomposites. 2022 , 229-251	
147	Implications Between the Green Product Consumption on Organizational Green Productivity and Organizational Performance Strategies. 2022 , 406-426	
146	Effects of Methoxyfenozide-Loaded Fluorescent Mesoporous Silica Nanoparticles on Plutella xylostella (L.) (Lepidoptera: Plutellidae) Mortality and Detoxification Enzyme Levels Activities. 2022 , 23, 5790	
145	Environmental Emissions of Nanoparticles. 2022 , 245-279	
144	Influence of Nanoparticles on the Plant Rhizosphere Microbiome. 2022, 83-102	
143	Ecotoxicology and Toxicology of Metal-Based Nanoparticles. 2022 , 281-307	1

Principles and Potentials of Nanobiotechnology. **2022**, 1-40

141	Nanobiosensors: Diagnostic Tools for Environmental Contaminants. 2022 , 365-380	
140	Nanoparticles and Their Effects on Growth, Yield, and Crop Quality Cultivated Under Polluted Soil. 2022 , 333-352	
139	Removal pesticides by advanced techniques based on nanomaterials. 2022 , 437-482	
138	Bio-Herbicidal Potential of Nanoemulsions with Peppermint Oil on Barnyard Grass and Maize. 2022 , 27, 3480	0
137	Incorporation of engineered nanoparticles of biochar and fly ash against bacterial leaf spot of pepper. 2022 , 12,	1
136	Effects of biogenic silver and iron nanoparticles on soybean seedlings (Glycine max). 2022, 22,	0
135	Impacts of Metallic Nanoparticles Application on the Agricultural Soils Microbiota. 2022, 100103	O
134	Effect of different in situ temperatures on the crystallinity and optical properties of green synthesized of 8-hydroxyquinoline zinc by saffron extract.	0
133	Metal Oxide-Based Nanocomposites for Elimination of Hazardous Pesticides. 2022 , 1-26	
132	Strategic applications of nano-fertilizers for sustainable agriculture: Benefits and bottlenecks. 2022 , 11, 2123-2140	2
131	Algae Mediated Pesticides Bioremediation: Mechanisms, Approaches, Limitations, and Prospects for Future Research. 2022 , 353-380	
130	Direct synthesis of lemongrass (Cymbopogon citratus L.) essential oil-silver nanoparticles (EO-AgNPs) as biopesticides and application for lichen inhibition on stones. 2022 , 8, e09701	1
129	Bioengineered ZnO nanoparticles as a nano priming agent in Cyamopsis tetragonoloba (L).Taub. to improve yield and disease resistance.	1
128	A Comprehensive Overview of Nanotechnology in Sustainable Agriculture. 2022,	3
127	Foliar spray of silicon nanoparticles improved the growth and minimized cadmium (Cd) in wheat under combined Cd and water-limited stress.	O
126	Biochemical analysis of cultivated mushroom, Pleurotus florida and synthesis of silver nanoparticles for enhanced antimicrobial effects on clinically important human pathogens. 2022 , 142, 109673	O
125	Microbial Fertilizer as an Alternative to Chemical Fertilizer in Modern Agriculture. 2022 , 111-130	

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123	Nanomaterials in sustainable industrial applications. 2022 , 239-257	
122	Nanoparticles for sustainable agriculture: innovative potential with current and future perspectives. 2022 , 131-148	
121	Ecofriendly microorganism assisted fabrication of metal nanoparticles and their applications. 2022, 77-105	
120	Strategies of nanotechnology as a defense system in plants. 2022 , 227-248	
119	Review and Perspectives of the Use of Alginate as a Polymer Matrix for Microorganisms Applied in Agro-Industry. 2022 , 27, 4248	3
118	Harnessing the Known and Unknown Impact of Nanotechnology on Enhancing Food Security and Reducing Postharvest Losses: Constraints and Future Prospects. 2022 , 12, 1657	2
117	Nano-fertilizers: A sustainable technology for improving crop nutrition and food security. 2022 , 27, 100411	3
116	A novel P nanofertilizer has no impacts on soil microbial communities and soil microbial activity. 2022 , 178, 104570	О
115	Algal-Mediated Nanoparticles, Phycochar, and Biofertilizers for Mitigating Abiotic Stresses in Plants: A Review. 2022 , 12, 1788	2
114	Humic Acid-Coated Fe3O4 Nanoparticles Confer Resistance to Acremonium Wilt Disease and Improve Physiological and Morphological Attributes of Grain Sorghum. 2022 , 14, 3099	1
113	Dietary Diversification and Its Impact on Human Health. 2022 , 223-242	
112	Overview on Recent Developments in the Design, Application, and Impacts of Nanofertilizers in Agriculture. 2022 , 14, 9397	2
111	Nanotechnological Interventions in Agriculture. 2022 , 12, 2667	1
110	Nano-biofertilizers on soil health, chemistry, and microbial community: benefits and risks.	О
109	Impact of nanomaterials accumulation on the organic carbon associated enzymatic activities in soil. 1-19	
108	Review on terpenoid mediated nanoparticles: significance, mechanism, and biomedical applications. 2022 , 13, 033003	0
107	Role of nanoparticles on modulation of plant secondary metabolism. 2023 , 447-473	

106	Metal-organic framework-enabled pesticides are an emerging tool for sustainable cleaner production and environmental hazard reduction. 2022 , 373, 133966	2
105	Introduction. 2022 , 1-10	O
104	Influence of chitosan and chitosan based nanoparticles against abiotic stress in plants. 2022, 297-320	O
103	Nanoemulsion formulations with plant growth promoting rhizobacteria (PGPR) for sustainable agriculture. 2022 , 207-223	O
102	Advances in Nanobiotechnology as Sustainable Solutions for Insect Pest Management. 2022, 421-455	О
101	Environmental Applications of Green Engineered Copper Nanoparticles. 2022, 255-276	O
100	Emerging Trends of Nanoparticles in Sustainable Agriculture: Current and Future Perspectives. 2022 , 1-52	O
99	Chitosan and chitosan-based nanoparticles in horticulture: past, present and future prospects. 2022 , 453-474	O
98	An Overview of Recent Advancements in the Irrigation, Fertilization, and Technological Revolutions of Agriculture. 2022 , 167-184	O
97	Biosynthesized metal oxide nanoparticles for sustainable agriculture: next-generation nanotechnology for crop production, protection and management. 2022 , 14, 13950-13989	1
96	Selenium- and Se-Nanoparticle-Induced Improvements of Salt Stress Tolerance in Plants. 2022, 91-120	O
95	Quantum dots: policy and ethics. 2022 , 887-899	1
94	Nonionic green nanoemulsion nanoinsecticides/nanopesticides. 2022 , 105-122	0
93	Investigation on optical properties and electrical conductivity behavior of Chitosan/PVP/Se NPs NPs composite produced via one-potential laser ablation for optoelectronic applications. 2022 , 54,	1
92	Synthesis and Characterization of Magnesium Doped Ferric Sulphate Nanoparticles (Mg-Fe2SO3 NPs) for Agriculture Applications. 2022 , 10, 773-780	0
91	The Effect of Thermally Heated Carbon Nanoparticles of Oil Fly Ash on Tomato (Solanum lycopersicum L.) Under Salt Stress.	1
90	Era connecting nanotechnology with agricultural sustainability: issues and challenges.	O
89	Application of nanotechnology to monitor agricultural parameters that promote health and nutritional crop growth in order to provide sustainable economic growth in Aatma Nirbhar Bharat.	O

88	Pharmacological Activities of Natural Products from Marine Seaweed Turbinaria ornata: A Review. 2022 , 2022, 1-12	О
87	Role of metal-nanoparticles in farming practices: an insight. 2022 , 12,	o
86	Deciphering the molecular insight behind the inhibitory role of copper and silver nanocomposite on important bacterial and fungal pathogens in rice (oryza sativa).	0
85	Mechanistic and recent updates in nano-bioremediation for developing green technology to alleviate agricultural contaminants.	1
84	Introduction to Nanomaterials. 2022 , 87-103	О
83	Novel biodesign enhancements to at-risk traditional building materials. 8,	1
82	Synthesis and characterization of a novel slow-release nanourea/chitosan nanocomposite and its effect on Vigna radiata L	О
81	Nanobiosensor for Mycotoxin Detection in Foodstuff. 2022 , 219-237	О
80	Nanofertilizers: A Smart and Sustainable Attribute to Modern Agriculture. 2022, 11, 2587	3
79	Surface properties-dependent antifungal activity of silver nanoparticles. 2022, 12,	1
78	Effect of nano-silicon on the regulation of ascorbate-glutathione contents, antioxidant defense system and growth of copper stressed wheat (Triticum aestivum L.) seedlings. 13,	О
77	New Structural Nanocomposite Based on PLGA and Al2O3 NPs as a Balance between Antibacterial Activity and Biocompatibility with Eukaryotic Cells. 2022 , 6, 298	1
76	Metal Nanoparticles in Agriculture: A Review of Possible Use. 2022 , 12, 1586	1
75	Synthesis and effect of CoCuFeNi high entropy alloy nanoparticles on seed germination, plant growth, and microorganisms inactivation activity.	O
74	Role of Nanoparticles in Enhancing Crop Tolerance to Abiotic Stress: A Comprehensive Review. 13,	1
73	Production of supramolecular aggregates by microfluidic platforms. 2023, 169-187	О
72	Understanding the interactions of engineered nanomaterials and plants. 2023, 3-23	О
71	Use of nano-fertilizers to improve the nutrient use efficiencies in plants. 2023 , 299-321	О

70	Recent breakthroughs set by fungal enzymes in the biosynthesis of nanoparticles. 2023, 131-162	O
69	An overview of myconanoparticles applications in veterinary medicine. 2023, 657-691	O
68	Nanotechnology IA new frontier of nano-farming in agricultural and food production and its development. 2023 , 857, 159639	1
67	Synthesis, Characteristics, and Effect of Zinc Oxide and Silver Nanoparticles on the In Vitro Regeneration and Biochemical Profile of Chrysanthemum Adventitious Shoots. 2022 , 15, 8192	2
66	Nanotechnology: a new strategy to combat bacterial infections and antibiotic resistant bacteria. 2023 , 167-190	0
65	Waste valorization by nanotechnology approaches for sustainable crop protection: a mini review. 2022 , 1265, 012009	1
64	Aspects of the Current and Prospective Sustainable Usage of Nanofertilizers in Agriculture and Their Effects on Health of the Soil: an Updated Review.	0
63	Chitosan nanocomposite as an effective carrier of potential herbicidal metabolites for noteworthy phytotoxic effect against major aquatic invasive weed water hyacinth (Eichhornia crassipes). 2022,	0
62	Development and biological evaluation of nanoencapsulated-based pyrethroids with synergists for resistance management of two soybean pests: insights for new insecticide formulations.	0
61	Biosurfactants[multifarious functional potential for sustainable agricultural practices. 10,	1
60	Biosurfactants I multifarious functional potential for sustainable agricultural practices. 10, Nothing is Wastellin Agriculture. 2023, 131-148	0
60	Nothing is Wastelln Agriculture. 2023 , 131-148 Engineered Nanoparticles, Natural Nanoclay and Biochar, as Carriers of Plant-Growth Promoting	0
60 59	Nothing is Wastelln Agriculture. 2023, 131-148 Engineered Nanoparticles, Natural Nanoclay and Biochar, as Carriers of Plant-Growth Promoting Bacteria. 2022, 12, 4474 Assessing the Effect of Intensive Agriculture and Sandy Soil Properties on Groundwater Contamination by Nitrate and Potential Improvement Using Olive Pomace Biomass Slag (OPBS).	0
60 59 58	Nothing is Wastelln Agriculture. 2023, 131-148 Engineered Nanoparticles, Natural Nanoclay and Biochar, as Carriers of Plant-Growth Promoting Bacteria. 2022, 12, 4474 Assessing the Effect of Intensive Agriculture and Sandy Soil Properties on Groundwater Contamination by Nitrate and Potential Improvement Using Olive Pomace Biomass Slag (OPBS). 2023, 9, 1 Agronomic biofortification of food crops: An emerging opportunity for global food and nutritional	0 0 1
60595857	Nothing is Wastelln Agriculture. 2023, 131-148 Engineered Nanoparticles, Natural Nanoclay and Biochar, as Carriers of Plant-Growth Promoting Bacteria. 2022, 12, 4474 Assessing the Effect of Intensive Agriculture and Sandy Soil Properties on Groundwater Contamination by Nitrate and Potential Improvement Using Olive Pomace Biomass Slag (OPBS). 2023, 9, 1 Agronomic biofortification of food crops: An emerging opportunity for global food and nutritional security. 13,	0 0 1
60 59 58 57 56	Nothing is Wastelln Agriculture. 2023, 131-148 Engineered Nanoparticles, Natural Nanoclay and Biochar, as Carriers of Plant-Growth Promoting Bacteria. 2022, 12, 4474 Assessing the Effect of Intensive Agriculture and Sandy Soil Properties on Groundwater Contamination by Nitrate and Potential Improvement Using Olive Pomace Biomass Slag (OPBS). 2023, 9, 1 Agronomic biofortification of food crops: An emerging opportunity for global food and nutritional security. 13, Effectiveness of silica nanoparticle application as plant nano-nutrition: a review. 1-14	0 0 1 0

52	Approaches, Challenges, and Prospects of Nanotechnology for Sustainable Agriculture. 2023 , 83-103	0
51	A State-of-the-Art Systemic Review on Selenium Nanoparticles: Mechanisms and Factors Influencing Biogenesis and Its Potential Applications.	2
50	Application of Nanotechnology in Plant Growth and Diseases Management: Tool for Sustainable Agriculture. 2023 , 145-168	0
49	Recent Strategies to Engineer Alkaloid Biosynthesis in Medicinal Plants. 2023 , 391-416	O
48	Zinc nano-fertilization enhances wheat productivity and biofortification.	О
47	Biofabricated ZnO nanoparticles as vital components for agriculture revolutionization green approach.	0
46	Nano-technological interventions in crop production∃ review.	0
45	Role of Nanomaterials in Plant Cell and Tissue Culture. 2023 , 359-397	o
44	Nanomaterial Impact on Plant Morphology, Physiology and Productivity. 2023, 319-340	О
43	Integration of Eco-Friendly Biological and Nanotechnological Strategies for Better Agriculture: A Sustainable Approach. 2023 , 647-674	o
42	Effect of different nano-fertilizer on growth and yield of summer rice. 2022, 59, 430-434	О
41	Sustainability Framing of Controlled Environment Agriculture and Consumer Perceptions: A Review. 2023 , 15, 304	o
40	Foliar Fertilization by the Sol-Gel Particles Containing Cu and Zn. 2023, 13, 165	О
39	Nanozinc and plant growth-promoting bacteria improve biochemical and metabolic attributes of maize in tropical Cerrado. 13,	1
38	Microbiome Role in Control of Sustenance of Rice Health and Production. 2021, 335-393	О
37	Strategies involved in bio-inspired synthesis of metallic nanomaterials and their applications comprehensive account. 2023 , 1-36	0
36	Strategic role of nanotechnology in plant growth improvement and crop production. 2023, 25-49	0
35	Environmental impacts of nanoparticles: pros, cons, and future prospects. 2023 , 493-528	О

34	Agro-nanodiagnostics for plant diseases. 2023 , 169-188	0
33	Introduction to polymeric nanomaterials. 2023, 3-25	O
32	Review: Role of Nanoparticles Growth and Alleviation of Abiotic Stress in Plants. 2023, 1-12	О
31	Environment sustainability with microbial nanotechnology. 2023 , 289-314	0
30	Use of nanomaterials in agricultural sectors. 2023 , 445-467	0
29	Nano-Inputs: A Next-Generation Solution for Sustainable Crop Production.	O
28	Fungi-mediated synthesis of nanoparticles: characterization process and agricultural applications.	О
27	A systematic literature review on lake water level prediction models. 2023 , 163, 105684	O
26	Nanopesticides in comparison with agrochemicals: Outlook and future prospects for sustainable agriculture. 2023 , 198, 107670	0
25	Nanotechnology future in food using carbohydrate macromolecules: A state-of-the-art review. 2023 , 239, 124350	0
24	Can Nanomaterials Improve the Soil Microbiome and Crop Productivity?. 2023, 13, 231	0
23	Global trends in use of nano-fertilizers for crop production: Advantages and constraints IA review. 2023 , 228, 105645	O
22	Food security and innovative solutions in crop production. 2022 , 13,	О
21	Nanomaterials in agriculture for plant health and food safety: a comprehensive review on the current state of agro-nanoscience. 2023 , 13,	O
20	New genetic insights into improving barley cope with salt stress via regulating mineral accumulation, cellular ion homeostasis, and membrane trafficking. 2023 , 208, 105252	O
19	Toxicological concerns of nanomaterials on agricultural soil fertility and environment. 2023, 387-406	O
18	Role of nanotechnology in combating abiotic stresses in wheat for improved yield and quality. 2023 , 393-412	0
17	Bionanotechnology in Agriculture: A One Health Approach. 2023 , 13, 509	1

16	Nanotechnology in Phytoremediation: Application and Future. 2023, 427-442	O
15	Environmental effect of agriculture-related manufactured nano-objects on soil microbial communities. 2023 , 173, 107819	O
14	A Review of Sustainable Use of Biogenic Nanoscale Agro-Materials to Enhance Stress Tolerance and Nutritional Value of Plants. 2023 , 12, 815	О
13	Recent Advances in Nano-Enabled Seed Treatment Strategies for Sustainable Agriculture: Challenges, Risk Assessment, and Future Perspectives. 2023 , 15,	1
12	Use of Nanofertilizers in Agriculture. 2023 , 102-133	0
11	A review on understanding the efficient source of balanced crop nutrition through nanotechnology in agriculture. 1-11	O
10	Phenylalanine response in rice kernel under chitosan nanoparticles spraying. 2023, 45,	0
9	Facile Preparation of Montmorillonite/Crosslinked Chitosan Containing Potassium Nitrate Nanocomposites as Eco-Friendly Slow Release Fertilizers.	o
8	Nanomaterials and their application in microbiology disciplines. 2023, 175-206	0
7	Role of nanoparticles in maintaining food safety and tackling malnutrition. 2023, 10,	О
6	Prospects of microbial nanotechnology for promoting climate resilient agriculture. 2023, 163-186	0
5	Polymeric nanoparticles as effective delivery systems in agriculture sustainability.	O
4	Microbial nanobiopesticides as next gen biopesticides: development, commercial potential, and challenges. 2023 , 403-436	0
3	Nanoformulations of natural compounds for herbicide and agri-food application. 2023 , 427-443	o
2	Recent progress in micro and nano-encapsulation techniques for environmental applications: A review. 2023 , 18, 101094	0
1	Engineered nanoparticles in plant growth: Phytotoxicity concerns and the strategies for their attenuation. 2023 , 199, 107721	О