Biodegradation of Mycotoxins: Tales from Known and U

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Citation Report

#	Article	IF	CITATIONS
1	Beyond Ribosomal Binding: The Increased Polarity and Aberrant Molecular Interactions of 3-epi-deoxynivalenol. Toxins, 2016, 8, 261.	1.5	18
2	Impact of food processing and detoxification treatments on mycotoxin contamination. Mycotoxin Research, 2016, 32, 179-205.	1.3	462
3	Prevalence of mycotoxins in foods and decontamination. Current Opinion in Food Science, 2017, 14, 50-60.	4.1	66
4	Esterase activity inspired selection and characterization of zearalenone degrading bacteria Bacillus pumilus ES-21. Food Control, 2017, 77, 57-64.	2.8	53
5	<i>Pediococcus acidolactici</i> and <i>Pediococcus pentosaceus</i> isolated from a rainbow trout ecosystem have probiotic and ABF1 adsorbing/degrading abilities <i>in vitro</i> . Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2017, 34, 2118-2130.	1.1	13
6	Use of yeast (Pichia kudriavzevii) as a novel feed additive to ameliorate the effects of aflatoxin B1 on broiler chicken performance. Mycotoxin Research, 2017, 33, 273-283.	1.3	29
7	Microbial detoxification of eleven food and feed contaminating trichothecene mycotoxins. BMC Biotechnology, 2017, 17, 30.	1.7	32
8	Yeast and bacteria from ensiled high moisture maize grains as potential mitigation agents of fumonisin B ₁ . Journal of the Science of Food and Agriculture, 2017, 97, 2443-2452.	1.7	19
9	Strategies and Methodologies for Developing Microbial Detoxification Systems to Mitigate Mycotoxins. Toxins, 2017, 9, 130.	1.5	91
10	Microbial Detoxification of Deoxynivalenol (DON), Assessed via a Lemna minor L. Bioassay, through Biotransformation to 3-epi-DON and 3-epi-DOM-1. Toxins, 2017, 9, 63.	1.5	25
11	Mycotoxin Biotransformation by Native and Commercial Enzymes: Present and Future Perspectives. Toxins, 2017, 9, 111.	1.5	148
12	Molecular Modeling and Simulation Tools in the Development of Peptide-Based Biosensors for Mycotoxin Detection: Example of Ochratoxin. Toxins, 2017, 9, 395.	1.5	12
13	Microbial Inhibition of Fusarium Pathogens and Biological Modification of Trichothecenes in Cereal Grains. Toxins, 2017, 9, 408.	1.5	33
14	Biodegradation and biodetoxification of Fusarium mycotoxins by Sphaerodes mycoparasitica. AMB Express, 2017, 7, 145.	1.4	23
15	Mycotoxins in Poultry. , 2017, , .		5
16	Mycotoxins in Wheat and Mitigation Measures. , 2017, , .		10
17	Modeling Microbial Communities: A Call for Collaboration between Experimentalists and Theorists. Processes, 2017, 5, 53.	1.3	21
18	Leaching of Cyanogens and Mycotoxins from Cultivated Cassava into Agricultural Soil: Effects on Groundwater Quality. , 0, , .		1

#	Article	IF	CITATIONS
19	Simultaneous degradation of aflatoxin B 1 and zearalenone by a microbial consortium. Toxicon, 2018, 146, 69-76.	0.8	33
20	Strategies to prevent and reduce mycotoxins for compound feed manufacturing. Animal Feed Science and Technology, 2018, 237, 129-153.	1.1	98
21	<i>Fusarium</i> mycotoxins: a trans-disciplinary overview. Canadian Journal of Plant Pathology, 2018, 40, 161-171.	0.8	37
22	The application of digestive tract lactic acid bacteria with high esterase activity for zearalenone detoxification. Journal of the Science of Food and Agriculture, 2018, 98, 3870-3879.	1.7	29
23	Current methods for mycotoxins analysis and innovative strategies for their reduction in cereals: an overview. Journal of the Science of Food and Agriculture, 2018, 98, 4003-4013.	1.7	83
24	Silage review: Mycotoxins in silage: Occurrence, effects, prevention, and mitigation. Journal of Dairy Science, 2018, 101, 4034-4059.	1.4	139
25	The Fate of Mycotoxins During the Processing of Wheat for Human Consumption. Comprehensive Reviews in Food Science and Food Safety, 2018, 17, 556-593.	5.9	97
26	Application of hydrolases and probiotic <i>Pediococcus acidilactici</i> BaltBioO1 strain for cereal by-products conversion to bioproduct for food/feed. International Journal of Food Sciences and Nutrition, 2018, 69, 165-175.	1.3	17
27	Processing of mycotoxin contaminated waste streams through anaerobic digestion. Waste Management, 2018, 71, 122-128.	3.7	15
28	Antifungal activity of lactic acid bacteria and their application for Fusarium mycotoxin reduction in malting wheat grains. LWT - Food Science and Technology, 2018, 89, 307-314.	2.5	81
29	The Multiple and Versatile Roles of Aureobasidium pullulans in the Vitivinicultural Sector. Fermentation, 2018, 4, 85.	1.4	80
30	Modern Immunochemical Approaches in Microbiology. Soil Biology, 2018, , 303-333.	0.6	0
31	Effects of Feeding a Mycotoxin Binder on Nutrient Digestibility, Alkaloid Recovery in Feces, and Performance of Lambs Fed Diets Contaminated with Cereal Ergot. Toxins, 2018, 10, 312.	1.5	10
32	Fumonisins and their analogues in contaminated corn and its processed foods – a review. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2018, 35, 2183-2203.	1.1	35
33	Overview on the Mycotoxins Incidence in Serbia in the Period 2004–2016. Toxins, 2018, 10, 279.	1.5	52
34	Fumonisin-Exposure Impairs Age-Related Ecological Succession of Bacterial Species in Weaned Pig Gut Microbiota. Toxins, 2018, 10, 230.	1.5	32
35	Antifungal Activity of Chitosan Nanoparticles Encapsulated With Cymbopogon martinii Essential Oil on Plant Pathogenic Fungi Fusarium graminearum. Frontiers in Pharmacology, 2018, 9, 610.	1.6	141
36	Progress on nanostructured electrochemical sensors and their recognition elements for detection of mycotoxins: A review. Biosensors and Bioelectronics, 2018, 121, 205-222.	5.3	163

#	Article	IF	CITATIONS
37	Impact of dietary Trichosporon mycotoxinivorans on ochratoxin A induced immunotoxicity; In vivo study. Food and Chemical Toxicology, 2019, 132, 110696.	1.8	12
38	Detoxification Strategies for Zearalenone Using Microorganisms: A Review. Microorganisms, 2019, 7, 208.	1.6	70
39	Biodetoxification of fungal mycotoxins zearalenone by engineered probiotic bacterium Lactobacillus reuteri with surface-displayed lactonohydrolase. Applied Microbiology and Biotechnology, 2019, 103, 8813-8824.	1.7	12
40	Aflatoxin B1 Degradation and Detoxification by Escherichia coli CG1061 Isolated From Chicken Cecum. Frontiers in Pharmacology, 2018, 9, 1548.	1.6	45
41	Mycotoxins in Conversation With Bacteria and Fungi. Frontiers in Microbiology, 2019, 10, 403.	1.5	103
42	Efficacy of Bacillus subtilis ANSB060 Biodegradation Product for the Reduction of the Milk Aflatoxin M1 Content of Dairy Cows Exposed to Aflatoxin B1. Toxins, 2019, 11, 161.	1.5	13
43	Biological evaluation of microbial toxin degradation by microinjected zebrafish (Danio rerio) embryos. Chemosphere, 2019, 227, 151-161.	4.2	13
44	Plant nutrients recovery from aflatoxin B1 contaminated corn through co-composting. Journal of Environmental Chemical Engineering, 2019, 7, 103046.	3.3	14
45	Transformation Products of Organic Contaminants and Residues—Overview of Current Simulation Methods. Molecules, 2019, 24, 753.	1.7	22
46	Allelopathic Interactions between Plants and Microorganisms in Soil Ecosystems. Biology Bulletin Reviews, 2019, 9, 562-574.	0.3	13
47	Decontamination of Mycotoxin-Contaminated Feedstuffs and Compound Feed. Toxins, 2019, 11, 617.	1.5	116
48	Biocatalytic transformation of various mycotoxins: modern problems and existing potential. IOP Conference Series: Materials Science and Engineering, 2019, 525, 012090.	0.3	1
49	Presence of aiiA homologue genes encoding for N-Acyl homoserine lactone-degrading enzyme in aflatoxin B1-decontaminating Bacillus strains with potential use as feed additives. Food and Chemical Toxicology, 2019, 124, 316-323.	1.8	25
50	Mycotoxins in Corn: Occurrence, Impacts, and Management. , 2019, , 235-287.		60
52	Toxicological and Medical Aspects of Aspergillus-Derived Mycotoxins Entering the Feed and Food Chain. Frontiers in Microbiology, 2019, 10, 2908.	1.5	86
53	Protective Effects of Bacillus subtilis ANSB060, Bacillus subtilis ANSB01C, and Devosia sp. ANSB714-Based Mycotoxin Biodegradation Agent on Mice Fed with Naturally moldy Diets. Probiotics and Antimicrobial Proteins, 2020, 12, 994-1001.	1.9	14
54	Pseudomonas simiae effects on the mycotoxin formation by fusaria and alternaria in vitro and in a wheat field. Mycotoxin Research, 2020, 36, 147-158.	1.3	6
55	Moulds and their secondary metabolites associated with the fermentation and storage of two cocoa bean hybrids in Nigeria. International Journal of Food Microbiology, 2020, 316, 108490.	2.1	21

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#		IF	CITATIONS
56	Confrontation assays and mycotoxin treatment reveal antagonistic activities of Trichoderma and the fate of Fusarium mycotoxins in microbial interaction. Environmental Pollution, 2020, 267, 115559.	3.7	15
57	The possible role of toxigenic fungi in ecotoxicity of two contrasting oil-contaminated soils – A field study. Ecotoxicology and Environmental Safety, 2020, 202, 110959.	2.9	7
58	The MyToolbox EU–China Partnership—Progress and Future Directions in Mycotoxin Research and Management. Toxins, 2020, 12, 712.	1.5	7
59	Identification and Characterization of an Aspergillus niger Amine Oxidase that Detoxifies Intact Fumonisins. Journal of Agricultural and Food Chemistry, 2020, 68, 13779-13790.	2.4	14
60	Whole-Genome Sequencing and Bioinformatics Analysis of Apiotrichum mycotoxinivorans: Predicting Putative Zearalenone-Degradation Enzymes. Frontiers in Microbiology, 2020, 11, 1866.	1.5	15
61	Efficacy of a multicomponent mycotoxin detoxifying agent on concurrent exposure to zearalenone and T-2 mycotoxin in weaned pigs. Livestock Science, 2020, 242, 104295.	0.6	5
62	Metabolomics-guided analysis reveals a two-step epimerization of deoxynivalenol catalyzed by the bacterial consortium IFSN-C1. Applied Microbiology and Biotechnology, 2020, 104, 6045-6056.	1.7	12
63	Minimizing Ochratoxin A Contamination through the Use of Actinobacteria and Their Active Molecules. Toxins, 2020, 12, 296.	1.5	16
64	Process optimization for dilute acid and enzymatic hydrolysis of waste wheat bread and its effect on aflatoxin fate and ethanol production. Biomass Conversion and Biorefinery, 2021, 11, 2617-2625.	2.9	13
65	Detoxification of Mycotoxins through Biotransformation. Toxins, 2020, 12, 121.	1.5	77
66	Study of the bioremediatory capacity of wild yeasts. Scientific Reports, 2020, 10, 11265.	1.6	24
67	Mycotoxin contamination and control strategy in human, domestic animal and poultry: A review. Microbial Pathogenesis, 2020, 142, 104095.	1.3	210
68	Identification of the Potential Biological Preservative Tetramycin A-Producing Strain and Enhancing Its Production. Frontiers in Microbiology, 2019, 10, 2925.	1.5	6
69	Fusarium Head Blight, Mycotoxins and Strategies for Their Reduction. Agronomy, 2020, 10, 509.	1.3	80
70	Aflatoxin-degrading Bacillus sp. strains degrade zearalenone and produce proteases, amylases and cellulases of agro-industrial interest. Toxicon, 2020, 180, 43-48.	0.8	31
71	New insight into microbial degradation of mycotoxins during anaerobic digestion. Waste Management, 2021, 119, 215-225.	3.7	12
72	Development of an <i>in vitro</i> gastro-intestinal pig model to screen potential detoxifying agents for the mycotoxin deoxynivalenol. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2021, 38, 488-500.	1.1	0
73	Mycotoxin-associated food safety concerns of agriculture crops. , 2021, , 149-169.		0

#	Article	IF	CITATIONS
74	Fungal natural products galaxy: Biochemistry and molecular genetics toward blockbuster drugs discovery. Advances in Genetics, 2021, 107, 193-284.	0.8	13
75	Evaluation of the Multimycotoxin-Degrading Efficiency of Rhodococcus erythropolis NI1 Strain with the Three-Step Zebrafish Microinjection Method. International Journal of Molecular Sciences, 2021, 22, 724.	1.8	7
76	Lumbricus terrestris regulating the ecosystem service/disservice balance in maize (Zea mays) cultivation. Plant and Soil, 2021, 462, 459-475.	1.8	3
77	Update on mycotoxin contamination of maize and peanuts in East African Community Countries. Journal of Food Science and Nutrition Therapy, 2021, , 001-010.	0.1	3
78	The Good, the Bad, and the Ugly: Mycotoxin Production During Postharvest Decay and Their Influence on Tritrophic Host–Pathogen–Microbe Interactions. Frontiers in Microbiology, 2021, 12, 611881.	1.5	16
79	Screening of Macrofungi Isolates for Aflatoxin B1 and Ochratoxin A Degradation. Biology Bulletin, 2021, 48, 122-129.	0.1	2
80	Mechanisms of deoxynivalenol (DON) degradation during different treatments: a review. Critical Reviews in Food Science and Nutrition, 2022, 62, 5903-5924.	5.4	42
81	Critical Assessment of Mycotoxins in Beverages and Their Control Measures. Toxins, 2021, 13, 323.	1.5	22
82	Bacilli as sources of agrobiotechnology: recent advances and future directions. Green Chemistry Letters and Reviews, 2021, 14, 246-271.	2.1	27
83	Aspergillus flavus Growth Inhibition and Aflatoxin B1 Decontamination by Streptomyces Isolates and Their Metabolites. Toxins, 2021, 13, 340.	1.5	13
84	Recombinant Expression of Trametes versicolor Aflatoxin B1-Degrading Enzyme (TV-AFB1D) in Engineering Pichia pastoris GS115 and Application in AFB1 Degradation in AFB1-Contaminated Peanuts. Toxins, 2021, 13, 349.	1.5	15
85	Microbiological Detoxification of Mycotoxins: Focus on Mechanisms and Advances. Infectious Disorders - Drug Targets, 2021, 21, 339-357.	0.4	3
86	Fate of deoxynivalenol (DON) and impact on the soil microflora and soil fauna. Applied Soil Ecology, 2021, 162, 103898.	2.1	8
87	Bacterial Enrichment Cultures Biotransform the Mycotoxin Deoxynivalenol into a Novel Metabolite Toxic to Plant and Porcine Cells. Toxins, 2021, 13, 552.	1.5	4
88	Isolation, Identification and Characterization of Paenibacillus pabuli E1 to Explore Its Aflatoxin B1 Degradation Potential. Current Microbiology, 2021, 78, 3686-3695.	1.0	5
89	Evaluation of calcium bentonite clay on nutrient digestibility of tilapia (Oreochromis niloticus). Aquaculture Research, 0, , .	0.9	0
91	Diversity of Mycobiota in Spanish Grape Berries and Selection of Hanseniaspora uvarum U1 to Prevent Mycotoxin Contamination. Toxins, 2021, 13, 649.	1.5	12
92	Selection of Bacillus spp. with decontamination potential on multiple Fusarium mycotoxins. Food Control, 2021, 127, 108119.	2.8	15

#	Article	IF	CITATIONS
93	Role of the lactobacilli in food bio-decontamination: Friends with benefits. Enzyme and Microbial Technology, 2021, 150, 109861.	1.6	18
94	Bacilli in theÂBiocontrol of Mycotoxins. Bacilli in Climate Resilient Agriculture and Bioprospecting, 2019, , 49-62.	0.6	3
95	Bioremediation of aflatoxin B1-contaminated maize by king oyster mushroom (Pleurotus eryngii). PLoS ONE, 2017, 12, e0182574.	1.1	35
96	Biological Transformation of Zearalenone by Some Bacterial Isolates Associated with Ruminant and Food Samples. Toxins, 2021, 13, 712.	1.5	11
97	Food Mycotoxins: Dietary Interventions Implicated in the Prevention of Mycotoxicosis. ACS Food Science & Technology, 2021, 1, 1717-1739.	1.3	20
98	A small-scale ochratoxin A production method for rapid and affordable assay for screening microorganisms for their ability to degrade the mycotoxin. LWT - Food Science and Technology, 2022, 156, 113058.	2.5	1
99	Biological Detoxification of Mycotoxins: Current Status and Future Advances. International Journal of Molecular Sciences, 2022, 23, 1064.	1.8	45
100	Potential of Trichoderma spp. for Biocontrol of Aflatoxin-Producing Aspergillus flavus. Toxins, 2022, 14, 86.	1.5	18
101	Specific features of antagonism of <i>Bacillus</i> bacteria against toxinogenic <i>Fusarium</i> fungi in protecting plants against disease and contamination with mycotoxins (review). South of Russia: Ecology, Development, 2022, 16, 86-103.	0.1	2
102	Diacetoxyscirpenol, a Fusarium exometabolite, prevents efficiently the incidence of the parasitic weed Striga hermonthica. BMC Plant Biology, 2022, 22, 84.	1.6	11
103	How does multiannual plastic mulching in strawberry cultivation influence soil fungi and mycotoxin occurrence in soil?. Mycotoxin Research, 2022, , 1.	1.3	0
104	Ochratoxin A: Occurrence and recent advances in detoxification. Toxicon, 2022, 210, 11-18.	0.8	41
105	<i>Cunninghamella bertholletiae's</i> Toxins from Decomposing Cassava: Mitigation Strategy for Toxin Reduction Using <i>Nepenthes mirabilis</i> â€~Monkey Cup' Digestive Fluids. , 0, , .		0
106	The application of antagonistic yeasts and bacteria: An assessment of in vivo and under field conditions pattern of Fusarium mycotoxins in winter wheat grain. Food Control, 2022, 138, 109039.	2.8	5
110	Effective approaches for early identification and proactive mitigation of aflatoxins in peanuts: An EU–China perspective. Comprehensive Reviews in Food Science and Food Safety, 2022, 21, 3227-3243.	5.9	5
111	Crystal structure of a family <scp>VIII</scp> Î²â€łactamase fold hydrolase reveals the molecular mechanism for its broad substrate scope. FEBS Journal, 2022, 289, 6714-6730.	2.2	1
112	Nutritional impact of mycotoxins in food animal production and strategies for mitigation. Journal of Animal Science and Biotechnology, 2022, 13, .	2.1	32
113	Recent Advances and Potential Applications of Atmospheric Pressure Cold Plasma Technology for Sustainable Food Processing. Foods, 2022, 11, 1833.	1.9	11

#	Article	IF	CITATIONS
114	The unsung roles of microbial secondary metabolite effectors in the plant disease cacophony. Current Opinion in Plant Biology, 2022, 68, 102233.	3.5	8
115	Breeding Tools for Assessing and Improving Resistance and Limiting Mycotoxin Production by Fusarium graminearum in Wheat. Plants, 2022, 11, 1933.	1.6	4
116	Effects of High Hydrostatic Pressure on Fungal Spores and Plant Bioactive Compounds. Encyclopedia, 2022, 2, 1453-1463.	2.4	3
117	Mycotoxins … Silent Death. , 0, , .		0
118	Modification of Deoxynivalenol by a Fungal Laccase Paired with Redox Mediator TEMPO. Toxins, 2022, 14, 548.	1.5	2
119	Evaluation of the Safety and Ochratoxin A Degradation Capacity of Pediococcus pentosaceus as a Dietary Probiotic with Molecular Docking Approach and Pharmacokinetic Toxicity Assessment. International Journal of Molecular Sciences, 2022, 23, 9062.	1.8	2
120	Integration of anaerobic digestion and composting allows safety recovery of energy and nutrients from AFB1 contaminated corn. Journal of Environmental Chemical Engineering, 2022, 10, 108356.	3.3	4
121	Underreported Human Exposure to Mycotoxins: The Case of South Africa. Foods, 2022, 11, 2714.	1.9	3
122	Biotechnological and Medical Aspects of Lactic Acid Bacteria Used for Plant Protection: A Comprehensive Review. BioTech, 2022, 11, 40.	1.3	3
123	The main Aflatoxin B1 degrading enzyme in Pseudomonas putida is thermostable lipase. Heliyon, 2022, 8, e10809.	1.4	4
124	The protective effect of 3â€indolepropanoic acid on aflatoxin B1â€induced systemic perturbation of the liver and kidney function in rats. Fundamental and Clinical Pharmacology, 2023, 37, 369-384.	1.0	5
125	Post-weaning diarrhea and use of feedstuffs in pigs. Animal Frontiers, 2022, 12, 41-52.	0.8	5
126	Recovery of Energy and Nutrients from Mycotoxin-Contaminated Food Products through Biological Treatments in a Circular Economy Perspective: A Review. Agronomy, 2022, 12, 3198.	1.3	0
127	Protocooperative Effect of Sphaerodes mycoparasitica Biocontrol and Crop Genotypes on FHB Mycotoxin Reduction in Bread and Durum Wheat Grains Intended for Human and Animal Consumption. Microorganisms, 2023, 11, 159.	1.6	1
128	Aflatoxins: Occurrence, Biosynthesis Pathway, Management, and Impact on Health. , 2023, , 565-594.		1
129	Biological detoxification of mycotoxins: Emphasizing the role of algae. Algal Research, 2023, 71, 103039.	2.4	2
130	Secondary Metabolites of Pathogenic Fungi in Triticum durum Grain Protected with Debaryomyces hansenii in Two Different Locations in Poland. Agronomy, 2023, 13, 721.	1.3	1
131	Mycoviruses in Fungi: Carcinogenesis of Fungal Agents May Not Always Be Mycotoxin Related. Journal of Fungi (Basel, Switzerland), 2023, 9, 368.	1.5	4

#	Article	IF	CITATIONS
138	Mycotoxins and Toxic Fungus in Food: Prevention and Sustainable Management Techniques. World Sustainability Series, 2024, , 343-363.	0.3	0