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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique N°64

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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique



N° 64 Août 2023

Réalisé par l'équipe de veille sur la période du 1er Juillet au 31 Août 2023.

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et Pascale Karmasyn-Veyrines (DipSO)

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Edito

Voici notre 64ème bulletin de veille, qui nous espérons toujours informatif !

Nous nous rappelons que les fiches thématiques sont désormais directement consultables et téléchargeables sur le site ECOTOX : <https://www6.inrae.fr/ecotox/Productions/Fiches-thematiques>.

Nous vous rappelons notre PCI pour la soumission de vos preprints : <https://ecotoxenvchem.peercommunityin.org/> Notre PCI monte en puissance.

N'oubliez pas de nous transmettre les informations que vous souhaitez diffuser, notamment vos publications que nous pourrions avoir oubliées. Nous rencontrons actuellement des soucis d'alertes WoS, il se peut que la liste des productions du réseau soit donc incomplète.

L'équipe vous souhaite une bonne lecture de ce bulletin !

Contact : veille-ecotox@inrae.fr

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- Immunotoxicity of relevant mixtures of pesticides and metabolites on THP-1 cells
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- Effect of subtherapeutic and therapeutic sulfamethazine concentrations on transcribed genes and translated proteins involved in *Microbacterium* sp. C448 resistance and degradation.
- First detection/quantification of roxadustat in hair with a new liquid chromatography with tandem mass spectrometry method: Application to a treated patient
- The "parasite detoxification hypothesis": lead exposure potentially changes the ecological interaction from parasitism to mutualism
- Heavy ionic pollution disrupts assemblages of algae, macroinvertebrates and riparian vegetation
- Copper accumulation in five weed species commonly found in the understory vegetation of Mediterranean vineyards
- Soil Management Drives Copper and Zinc Export in Runoff from Vineyard Plots
- Soil Management Drives Copper and Zinc Export in Runoff from Vineyard Plots | SpringerLink
- Integrative biomarker response- Threshold (IBR-T): Refinement of IBRv2 to consider the reference and threshold values of biomarkers

OUVRAGES / RAPPORTS / ACTES DE CONGRES

- A proposed approach to defining per- and polyfluoroalkyl substances (PFAS) based on molecular structure and formula - Gaines - 2023 - Integrated Environmental Assessment and Management - Wiley Online Library
- Pesticides residues in European agricultural soils : results from LUCAS 2018 soil module.

REGLEMENTATION

- Dérogation de mise à disposition sur le marché et d'utilisation du produit biocide «ANTOFF Fipronil Ant Bait», sur l'île de La Réunion
- Abrogation de l'arrêté du 11 mars 2020 relatif à la lutte contre le Tomato brown rugose fruit virus «ToBRFV»
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- Modification des périodes d'approbation des substances actives *Bacillus pumilus* QST 2808 et penflufène
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- Modification du règlement (UE) n° 649/2012 du Parlement européen et du Conseil en ce qui concerne l'inscription des pesticides et des produits chimiques industriels

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- Une méthode pour évaluer la cancérogénicité des procédés de travail

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- Séparation de la vente et du conseil phyto : des propositions pour plus d'efficacité sur le terrain
- Pesticides: Public hearing with pesticide firms on toxicity studies
- Une nouvelle stratégie nationale en construction sur les produits phytopharmaceutiques, pour la réduction des effets sur la santé et l'environnement, et pour l'adaptation des techniques de protection des cultures.
- « En mer Méditerranée, trois enjeux de qualité de l'eau nécessitent encore des progrès »

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- Management of New Insect Pests Presents Safety Challenge for People and Environment: Yellow-Legged Hornets
- Rising Air Pollution Helps Deadly Bacteria Build Resistance to Antibiotics
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- PFAS purification plant at Schiphol causes unrest among residents and health concerns
- EPA Withdraws Decision on Toxic Fungicide Difenconazole
- Perils Of Plastic Pollution
- Commission d'enquête sur les pesticides : quels enjeux ?
- Have a pesticide problem? GLO FISH – Scientific Breakthrough Sheds Glowing Light on Pesticide Research
- Illness Tied to Petrochemicals' Impact on Body's Essential Mast Cells (immune system regulators), Study Finds
- EPA Releases Initial Nationwide Monitoring Data on 29 PFAS and Lithium
- EPA Announces Federal Enforcement Priorities to Protect Communities from Pollution
- Pesticide Exposure with Disproportionate Effects Increases Risk of Asthma
- Study Cites Multiple Chemical Characteristics, Strengthening Weed Killer Glyphosate Cancer Ranking
- Fed To Evaluate Endangered Species Impacts under Clean Water Act's General Pesticide Permits
- Polluants émergents : pourquoi est-il si difficile d'améliorer la qualité des eaux littorales ?
- Insufficient Scientific Evidence on Mitigation Measures to Protect Pollinators from Pesticides, Study Finds
- FAO Director General urged to end partnership with pesticide industry
- Évaluation DCE des eaux souterraines et de surface : deux projets d'arrêtés en consultation
- USDA grant funds study of effectiveness of vegetation to curb water pollution
- 29 illegal new pesticide derogations, EU Commission closes eyes
- Pesticides : études cachées, le parlement européen convoque une réunion
- Funding To Support Compliance with International Treaty to Save the Oceans and Biodiversity, Combat Climate Threats
- EPA Withdraws Decision on Toxic Fungicide Difenconazole
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- Les "polluants éternels" dans 45% de l'eau des robinets américains
- Pesticides : la justice condamne l'État français. Une victoire historique.
- Glyphosate: un rapport ouvre la voie au renouvellement de l'autorisation dans l'UE
- Algues, plastique, polluants chimiques: quel est l'état du littoral français ?

Twenty Years of Research in Ecosystem Functions in Aquatic Microbial Ecotoxicology

Authors: Morin S, Artigas J

Source: ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY Early Access, DOI 10.1002/etc.5708

Abstract: One of the major threats to freshwater biodiversity is water pollution including excessive loads of nutrients, pesticides, industrial chemicals, and/or emerging contaminants. The widespread use of organic pesticides for agricultural and nonagricultural (industry, gardening, etc.) purposes has resulted in the prese...

Current Status of Omics in Biological Quality Elements for Freshwater Biomonitoring

Authors: Machuca-Sepulveda J, Miranda J, Lefin N et al.

Source: BIOLOGY-BASEL 12:923, 2023, DOI 10.3390/biology12070923

Abstract: Freshwater ecosystems face various threats, especially in recent decades, that pose unprecedented challenges to human health, water supply, agriculture, forestry, ecology, and biodiversity. Although progress has been made in biomonitoring techniques tailored to specific countries and communities, signifi...

In situ effects of arsenic, aluminium and chromium stresses on algal periphyton of the river Ganga at Varanasi, India

Authors: Yadav A, Pandey LK

Source: JOURNAL OF LIMNOLOGY 82:2112, 2023, DOI 10.4081/jlimnol.2023.2112

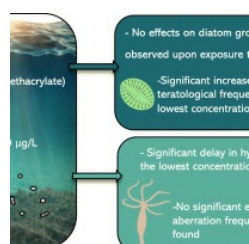
Abstract: In situ effect of metal stress on periphytic algal communities of a river was studied using chemical diffusing substrates. The metal stress caused the inhibition of periphytic biomass in a concentration-dependent manner. The study indicated differential response of various periphytic groups to different metal treatments...

An Assessment of the Toxicity of Pesticide Mixtures in Periphyton from Agricultural Streams to the Mayfly *Neocloeon triangulifer*

Authors: Ijzerman MM, Raby M, Izma GB et al.

Source: ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY Early Access, 2023, DOI 10.1002/etc.5698

Abstract: Residual concentrations of pesticides are commonly found outside the intended area of application in Ontario's surface waters. Periphyton are a vital dietary component for grazing organisms in aquatic ecosystems but can also accumulate substantial levels of pesticides from the surrounding wa...



Teratogenic effects of environmental concentration of plastic particles on freshwater organisms

Authors: Cesarini G, Secco S., Taurozzi et al.

Source: SCIENCE OF THE TOTAL ENVIRONMENT 898, 2023, DOI 10.1016/j.scitotenv.2023.165564

Abstract: Given the widespread presence of plastics, especially in micro- and nanoscale sizes, in freshwater systems, it is crucial to identify a suitable model organism for assessing the potential toxic and teratogenic effects of exposure to plastic particles. Until now, the early life stage of fre...

Metal leaching from plastics in the marine environment: An ignored role of biofilm

Authors: Peng GG, Pu ZSJ, Chen FY et al.

Source: ENVIRONMENT INTERNATIONAL 177, 2023, DOI 10.1016/j.envint.2023.107988

Abstract: A large quantity of metal compounds in plastics are released into the marine environment every year. However, our understanding of the extent and mechanism by which polymer-bound metals leach into seawater is still limited. In this study, a comprehensive survey was conducted to measure the metal concentra...

PESTICIDES ET SANTE DES AGRICULTEURS

Exploring associations between residential exposure to pesticides and birth outcomes using the Dutch birth registry

Authors: Simoes M, Vermeulen R, Portengen L, Janssen N et al.

Source: ENVIRONMENT INTERNATIONAL 178: 108085, 2023, DOI 10.1016/j.envint.2023.

Abstract: Maternal occupational exposure to pesticides has been linked to adverse birth outcomes but associations with residential pesticide exposures are inconclusive. To explore associations between residential exposure to specific pesticides and birth outcomes using individual level exposu...

Effect of prenatal exposure to organophosphates and pyrethroid pesticides on neonatal anthropometric measures and gestational age

Authors: Gimenez-Asensio MJ, Hernandez AF, Romero-Molina D, Gonzalez-Alzaga B et al.

Source: ENVIRONMENTAL RESEARCH 232: 116410, 2023, DOI 10.1016/j.envres.2023.116410

Abstract: Several studies have examined the association between prenatal exposure to organophosphate and pyrethroid pesticides and their impact on foetal growth and newborn anthropometry; however, the available evidence is limited and inconclusive. This study examine...

Assessing farmer's exposure to pesticides and the risk for non-communicable diseases: A biomonitoring study

Authors: Kumar D, Sinha, SN, Rajendra S, Sharma K

Source: SCIENCE OF THE TOTAL ENVIRONMENT 891: 164429, 2023, DOI 10.1016/j.scitotenv.2023.164429

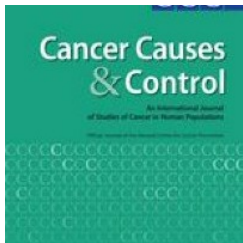
Abstract: This cross-sectional study aimed to assess the adverse effects of pesticide use in humans, such as non-communicable diseases, using acetylcholinesterase (AChE) and pesticide concentrations in blood samples. A total of 353 samples (290 case and 63 control) were collected from pa...

The Prevalence of Dermal and Respiratory Symptoms among Greenhouse Agricultural Workers: A Surveillance Study

Authors: Adibelli D, Sumen A

Source: CYPRUS JOURNAL OF MEDICAL SCIENCES 8(3): 197-204, 2023, DOI 10.4274/cjms.2021.2021-129

Abstract: This study was conducted to examine the prevalence of dermal and respiratory symptoms among workers in greenhouse agriculture. MATERIAL AND METHODS: This cross-sectional study was conducted with 529 greenhouse workers in a district center between March and September 2020. The data collection form was...



Exposure to pesticides and risk of Hodgkin lymphoma in an international consortium of agricultural cohorts (AGRICOH) | Cancer Causes & Control

Authors: Kim J, Leon ME, Schinasi LH, Baldi I et al.

Source: CANCER CAUSES & CONTROL, 2023, DOI 10.1007/s10552-023-01748-1

Abstract: Some pesticides may increase the risk of certain lymphoid malignancies, but few studies have examined Hodgkin lymphoma (HL). In this exploratory study, we examined associations between agricultural use of 22 individual active ingredients and 13 chemical groups and HL incidence. We used data from ...

Assessing the impact of coexposure on the measurement of biomarkers of exposure to the pyrethroid lambda-cyhalothrin in agricultural workers

Authors: Bossou YM, Côté J, Morin E, Dumais E et al.

Source: INTERNATIONAL JOURNAL OF HYGIENE AND ENVIRONMENTAL HEALTH, 251:114194, 2023, DOI 10.1016/j.ijheh.2023.114194

Abstract: There are few published data on the impact of combined exposure to multiple pesticides (coexposure) on levels of biomarkers of exposure in workers, which may alter their toxicokinetics and thus the interpretation of biomonitoring data. This study aimed t...

Occurrence and exposure assessment of glyphosate in the environment and its impact on human beings

Authors: Muñoz JP, Silva-Pavez E, Carrillo-Beltrán D, Calaf GM

Source: ENVIRONMENTAL RESEARCH 231(3):116201, 2022, DOI 10.1016/j.envres.2023.116201

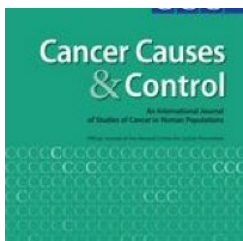
Abstract: Glyphosate is a broad-spectrum and one of the most widely used herbicides in the world, which has led to its high environmental dissemination. In 2015, the International Agency for Research on Cancer stated that glyphosate was a probable human carcinogen. Since then, several s...

Black and non-black population: investigation of the difference in butyrylcholinesterase activity in a healthy population in Salvador, Bahia

Authors: da Conceição Filho JN., Dos Santos IC., Gonçalves DPJ., Ferreira JRD. et al.

Source: IRISH JOURNAL OF MEDICAL SCIENCE 192(3):1311-1319, 2023, DOI 10.1007/s11845-022-03087-7

Abstract: Butyrylcholinesterase (BChE), an important biomarker of exposure to anticholinesterases, varies its activity according to the intensity and duration of exposure to these agents. Their normal values may vary in different populations. It is im...



Exposure to pesticides and risk of Hodgkin lymphoma in an international consortium of agricultural cohorts (AGRICOH) | SpringerLink

Authors: Kim J, Leon ME, Schinasi LH, Baldi I et al.

Source: CANCER CAUSES & CONTROL 392: 01748, 2023, DOI <https://doi.org/10.1007/s10552-023-01748-1>

Abstract: Some pesticides may increase the risk of certain lymphoid malignancies, but few studies have examined Hodgkin lymphoma (HL). In this exploratory study, we examined associations between agricultural use of 22 individual active ingredients and 13 chemical groups and ...

Metals in the Reunion harrier: tissue concentrations and meaning for conservation

Authors: Hadjadji C, Augiron S, Crini N, Amiot C et al.

Source: Environmental Science and Pollution Research 30(38): 89270-89279, 2023, DOI 10.1007/s11356-023-28748-7

Abstract: The Reunion harrier is an endemic raptor on Reunion Island. Several threats endanger its population, poisoning by rodenticides being considered as the main one currently. No information is available on its exposure to other chemicals notably trace metal elem...

Effect of salinity on the fate of pesticides in irrigated systems: a first overview

Authors: Khouni M, Hammecker C, Grunberger O, Chaabane H

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-28860-8

Abstract: This review investigates the impact of salinity on the fate of the active compounds of pesticides in a cultivated environment. Due to the over-exploitation of water resources and intensification of agriculture, salinity outbreaks are being observed more often in ...

Assessment of organochlorine contamination source and ecological risk in the Litani River: polychlorinated biphenyls and organochlorinated pesticides in surface sediments

Authors: Soukarieh B, Hamieh M, Malak IA, Budzinski H et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-27128-5

Abstract: In this paper, we investigate for the first time the contamination source and the ecological risk associated to organochlorinated compounds in the Litani system. For this purpose, the levels of 7 polychlorinated biphenyls (PCBs) and 13 organochlorinated pestic...

Effects of phthalate and bisphenol plasticizers on the activity of glycolytic enzymes of the moth *Spodoptera littoralis*

Authors: Rivas J, Fuentes A, Maria A, Bergerot B et al.

Source: Journal of Insect Physiology 149: 104533, 2023, DOI 10.1016/j.jinsphys.2023.104533

Abstract: Environmental plastic pollution has significantly increased in the recent decades, and severely impacts economies, human and biodiversity health. Plastics are made of several chemical additives, including bisphenol and phthalate plasticizers such as bisphenol A (BPA) and Di(2-e...

Flow patterns and pathways of legacy and contemporary pesticides in surface waters in tropical volcanic catchments

Authors: Voltz M, Andrieux P, Samouelian A, Ponchant L et al.

Source: Science of the Total Environment 893: 164815, 2023, DOI 10.1016/j.scitotenv.2023.164815

Abstract: Severe water pollution issues due to legacy and contemporary pesticides exist in tropical regions and are linked to cash crops requiring intensive plant protection practices. This study aims to improve knowledge about contamination routes and patterns in tropical vol...

Towards a better consideration of endocrine disruption within the technical guidance for deriving environmental quality standards

Authors: James A, Kroll A, Minier C

Source: REGULATORY TOXICOLOGY AND PHARMACOLOGY 143: 105457, 2023, DOI 10.1016/j.yrtph.2023.105457

Abstract: Endocrine-disrupting chemicals (EDCs) are a reason for growing concern because of their substantial and longlasting deleterious effects on human health and wildlife populations. These include direct effects on aquatic organisms and may be a concern to species feeding on the aquatic food ch...

Exposure and hazard of bisphenol A, S and F: a multi-biomarker approach in three-spined stickleback

Authors: Mit C, Beaudouin R, Palluel O, Turiees C et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-28462-4

Abstract: Due to the estrogenic behavior of bisphenol (BP) A, industries have developed many substitutes, such as BPS and BPF. However, due to their structural similarities, adverse effects on reproduction are currently observed in various organisms, including fish. Even if...

Population transcriptogenomics highlights impaired metabolism and small population sizes in tree frogs living in the Chernobyl Exclusion Zone

Authors: Car C, Gilles A, Goujon E, Muller MLD et al.

Source: BMC Biology 21(1): 164, 2023, DOI 10.1186/s12915-023-01659-2

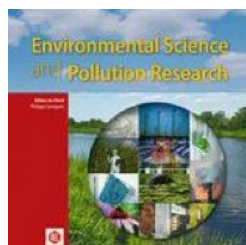
Abstract: Background. Individual functional modifications shape the ability of wildlife populations to cope with anthropogenic environmental changes. But instead of adaptive response, human-altered environments can generate a succession of deleterious functional changes leading to the extinction of the populati...

Modulation of haemocyte motility by chemical and biological stresses in *Mytilus edulis* and *Dreissena polymorpha*

Authors: Gendre H, Ladeiro MP, Geffard A, Poret A et al.

Source: FISH & SHELLFISH IMMUNOLOGY 139: 108919, 2023, DOI 10.1016/j.fsi.2023.108919

Abstract: Mussels are constantly exposed to various pollutants in the environment, which can impair their immune defences against microbes and thus threaten their survival. In this study, we expand the insight into a key parameter of immune response in two mussel species by exploring the ...

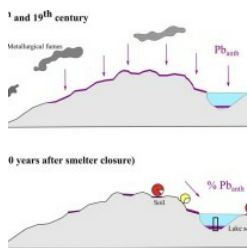


Potential of fluorescent tracers to appraise biochar amendment strategies for pesticide mitigation — insights from comparative sorption

Authors: Sene S, Dollinger J, Hammecker C, Lagacherie M et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-28821-1

Abstract: Mitigation of pesticide dispersion in soil and water is required to protect ecosystem health and the anthropic uses of water bodies. Biochar amendments have been suggested to reduce pesticide dispersion due to their high sorption potentials. Nevertheless, ap...

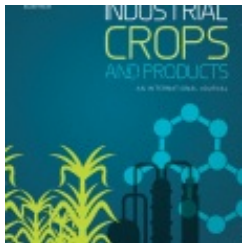


The legacy of metallurgical atmospheric contamination in a mountainous catchment: A delayed response of Pb contamination

Authors: Guillevic F, Arnaud F, Rossi M, Poulenard J et al.

Source: Science of the Total Environment 895: 165127, 2023, DOI 10.1016/j.scitotenv.2023.165127

Abstract: Metal-rich fumes emitted during ore smelting contribute to widespread anthropogenic contamination. Environmental archives (such as lake sediments) record fallouts deposited on lake and terrestrial surfaces during ancient mining and smelting activities. However, very fe...

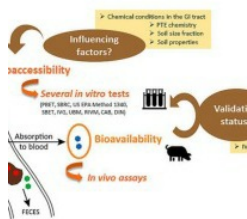


Effects of essential oil-based formulation on biopesticide activity

Authors: Dunan L, Malanga T, Benhamou S, Papaiconomou N et al.

Source: Industrial Crops and Products 202: 117006, 2023, DOI 10.1016/j.indcrop.2023.117006

Abstract: Essential oils (EOs) represent a promising source of biopesticides, given their compositional complexity which bestows them high insect specificity and low risk of inducing resistance. However, their use in agriculture remains limited by their rapid degradation, limited ...



Oral bioaccessibility of PTEs in soils: A review of data, influencing factors and application in human health risk assessment

Authors: Billmann M, Hulot C, Pauget B, Badreddine R et al.

Source: Science of the Total Environment 896: 165263, 2023, DOI 10.1016/j.scitotenv.2023.165263

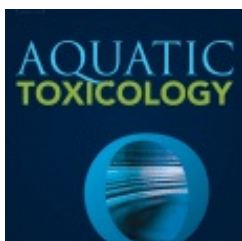
Abstract: Understanding the behavior of metal(lo)ids transported from soil to humans is critical for human health risk assessment (HHRA). In the last two decades, extensive studies have been conducted to better assess human exposure to potentially toxic elements (PTEs) by estima...

Twenty Years of Research in Ecosystem Functions in Aquatic Microbial Ecotoxicology

Authors: Morin S, Artigas J

Source: Environmental Toxicology and Chemistry Early Access, 2023, DOI 10.1002/etc.5708

Abstract: One of the major threats to freshwater biodiversity is water pollution including excessive loads of nutrients, pesticides, industrial chemicals, and/or emerging contaminants. The widespread use of organic pesticides for agricultural and nonagricultural (industry, gardening, etc.) purposes has resulted in th...



The goby fish *Sicydium* spp. as valuable sentinel species towards the chemical stress in freshwater bodies of West Indies

Authors: Bony S, Labeille M, Lefrancois E, Noury P et al.

Source: Aquatic Toxicology 261: 106623, 2023, DOI 10.1016/j.aquatox.2023.106623

Abstract: Implementation of the European Water Framework Directive in tropical areas such as the French West Indies (FWI) requires to select relevant aquatic sentinel species for investigating the ecological status of surface waters. The present work aimed to study the biological response of the ...

New approach methodologies to facilitate and improve the hazard assessment of non-genotoxic carcinogens—a PARC project

Authors: Audebert M, Assmann AS, Azqueta A, Babica P et al.

Source: FRONTIERS IN TOXICOLOGY 5: 1220998, 2023, DOI 10.3389/ftox.2023.1220998

Abstract: Carcinogenic chemicals, or their metabolites, can be classified as genotoxic or non-genotoxic carcinogens (NGTxCs). Genotoxic compounds induce DNA damage, which can be detected by an established in vitro and in vivo battery of genotoxicity assays. For NGTxCs, DNA is not the primary ta...

Wildlife ecological risk assessment in the 21st century: Promising technologies to assess toxicological effects

Authors: Rattner BA, Bean TG, Beasley VR, Berny P et al.

Source: Integrated Environmental Assessment and Management Early Access, 2023, DOI 10.1002/ieam.4806

Abstract: Despite advances in toxicity testing and the development of new approach methodologies (NAMs) for hazard assessment, the ecological risk assessment (ERA) framework for terrestrial wildlife (i.e., air-breathing amphibians, reptiles, birds, and mammals) has remained un...

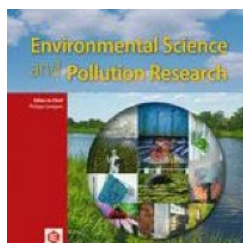


Avoidance behaviour of aquatic macroinvertebrates for real-time detection of micropollutant surge in wastewater effluents

Authors: Ruck G, Decamps A, Aubin JB, Queau H et al.

Source: Water Research 242: 120228, 2023, DOI 10.1016/j.watres.2023.120228

Abstract: Micropollutants are regularly detected at the outlets of wastewater treatment plants (WWTPs). Across urban and industrial WWTPs, monitoring directives only require assessment for a handful of chemicals via sampling methods that fail to capture the temporal variability in micropollutant discharge....

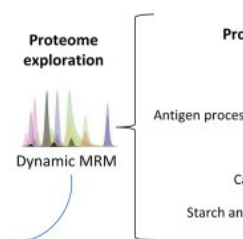


Disruption of oogenesis and molting by methoprene and glyphosate in *Gammarus fossarum*: involvement of retinoic acid?

Authors: Gauthier M, Defrance J, Jumarie C, Vulliet E et al.

Source: Environmental Science and Pollution Research s11356-023-28327-w, 2023, DOI 10.1007/s11356-023-28327-w

Abstract: In the last decade, the freshwater amphipod *Gammarus fossarum* proved to be a promising sentinel species in active biomonitoring programs to assess the effects of environmental contamination on non-target organisms. Given that the highly conserved ...



Dynamic Multiple Reaction Monitoring of amphipod *Gammarus fossarum* caeca expands molecular information for understanding the impact of contaminants

Authors: Lepretre M, Chaumot A, Aboud R, Delorme N et al.

Source: Science of The Total Environment 893: 164875, 2023, DOI 10.1016/j.scitotenv.2023.164875

Abstract: Mass spectrometry in multiple reaction monitoring (MRM) mode is a powerful technique that can provide highly selective, multiplexed, and reproducible quantification of peptides derived from proteins. Ideal for the application of molecular bio-markers in biomonitoring sur...



Main conclusions and perspectives from the collective scientific assessment of the effects of plant protection products on biodiversity and ecosystem services along the land-sea continuum in France and French overseas territories

Authors: Pesce S, Mamy L, Sanchez W, Amichot M et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-26952-z

Abstract: Preservation of biodiversity and ecosystem services is critical for sustainable development and human well-being. However, an unprecedented erosion of biodiversity is observed and the use of plant protection products (PPP) has been identified as one of its main cause...



Impact of sublethal concentrations of flonicamid on key demographic parameters and feeding behavior of Schizaphis graminum

Authors: Gul H, ul Haq I, Ullah F, Khan S et al.

Source: Ecotoxicology Early Access, 2023, DOI 10.1007/s10646-023-02682-3

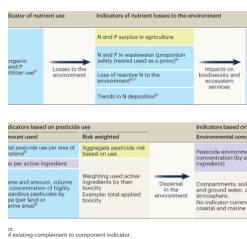
Abstract: Flonicamid is a novel systemic insecticide that efficiently controls sap-sucking insect pests. However, the impact of sublethal concentrations of flonicamid on key demographic parameters and the feeding behavior of greenbug, Schizaphis graminum has not yet been studied. In this study, we used the age s...

Carlina acaulis L. (Asteraceae): biology, phytochemistry, and application as a promising source of effective green insecticides and acaricides

Authors: Spinozzi E, Ferrati M, Cappellacci L, Caselli A et al.

Source: Industrial Crops and Products 192: 116076, 203, DOI 10.1016/j.indcrop.2022.116076

Abstract: *Carlina acaulis* L., belonging to the Asteraceae (Compositae) family, is a perennial herb native to the Alps, which has a long history as a food and traditional remedy, being one of the most important medicinal plants in Europe. Its reported uses go from diuretic,...



Successful implementation of global targets to reduce nutrient and pesticide pollution requires suitable indicators

Authors: Mohring N, Kanter D, Aziz T, Castro IB et al.

Source: Nature Ecology and Evolution Early Access, 2023, DOI 10.1038/s41559-023-02120-x

Abstract: Indicators proposed for nutrient and pesticide pollution in the current text of the Convention on Biological Diversity's post-2020 Global Biodiversity Framework (GBF) are inadequate for tracking progress and informing policy. We highlight a set of more relevant pollution indicato...

Toxicological effects assessment for wildlife in the 21st century: Review of current methods and recommendations for a path forward

Authors: Bean TG, Beasley VR, Berny P, Eisenreich KM et al.

Source: Integrated Environmental Assessment and Management Early Access, 2023, DOI 10.1002/ieam.4795

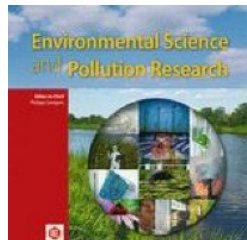
Abstract: Model species (e.g., granivorous gamebirds, waterfowl, passerines, domesticated rodents) have been used for decades in guideline laboratory tests to generate survival, growth, and reproductive data for prospective ecological risk assessments (ERAs) for birds and m...

ADDI-Spraydrift: A comprehensive model of pesticide spray drift with an assessment in vineyards

Authors: Djouhri M, Loubet B, Bedos C, Dages C et al.

Source: Biosystems Engineering 231: 57-77, 2023, DOI 10.1016/j.biosystemseng.2023.05.008

Abstract: Spray drift is a major contributor to pesticide losses in the atmosphere leading to nontargeted ecosystem exposure. An overview of currently used ground-application spray drift models highlighted gaps in the description of the processes occurring during and after spraying. The ADDI...



Chronic exposure to tebuconazole alters thyroid hormones and plumage quality in house sparrows (*Passer domesticus*)

Authors: Bellot P, Brischoux F, Budzinski H, Dupont SM et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-28259-5

Abstract: Triazoles belong to a family of fungicides that are ubiquitous in agroecosystems due to their widespread use in crops. Despite their efficiency in controlling fungal diseases, triazoles are also suspected to affect non-target vertebrate species through the di...

PITCH: A model simulating the transfer and retention of pesticides in infiltrating ditches and channel networks for management design purposes

Authors: Dages C, Voltz M, Bailly JS, Crevoisier D et al.

Source: Science of the Total Environment 891: 164602, 2023, DOI 10.1016/j.scitotenv.2023.164602

Abstract: Agricultural ditches are frequently included in the panel of landscape elements to be managed to minimize the negative impacts of agriculture on the environment, particularly water contamination. A new mechanistic model simulating pesticide transfer in ditch networks dur...



Spatial and seasonal use of biomarkers in dreissenids: implications for biomonitoring

Authors: Devin S, Potet M, Louis F, Pauly D et al.

Source: Environmental Science and Pollution Research Early Access, 2023, DOI 10.1007/s11356-023-28126-3

Abstract: In addition to pollution, organisms are exposed to natural variations of the biotic and abiotic factors of their environment. A battery of sub-cellular biomarkers has been measured seasonally in several populations of both *Dreissena polymorpha* and *Dreissena rostriformis*...

Screening potential toxicity of currently used herbicides in the freshwater amphipod *Gammarus fossarum* based on multi-level biomarker responses to field-realistic exposures

Authors: Lebrun JD, El Kouch S, Guenne A, Tournebize J

Source: Environmental Pollution 320: 120985, 2023, DOI 10.1016/j.envpol.2022.120985

Abstract: Herbicides are widely used to control weeds and maximize crop growth. Because of agricultural runoff, these chemicals are potentially hazardous to aquatic wildlife. However, their ecotoxicity and resulting disturbance in individual performance remain scarcely documented in freshwater ...



Metal Contaminants in Fish: Blood as a Potential Non-lethal Monitoring Tool

Authors: Gouthier L, Jacquin L, Giraud J, Jean S et al.

Source: Bull Environ Contam Toxicol 111(1): 12, 2023, DOI 10.1007/s00128-023-03762-0

Abstract: The use of fish to monitor metal contamination is well established, but existing studies often focus on internal tissues that require the sacrifice of organisms. Developing non-lethal methods is thus a scientific challenge to enable large scale biomonitoring of wildlife health. We ex...

Immunotoxicity of relevant mixtures of pesticides and metabolites on THP-1 cells

Authors: Roque AD, Neto FF, Cosio C, Barjhoux I et al.

Source: Toxicology 493: 153557, 2023, DOI 10.1016/j.tox.2023.153557

Abstract: Pesticides are used to combat agricultural pests but also trigger side effects on non-target organisms. Particularly, immune system dysregulation is a major concern due to the organism's increased vulnerability to diseases, including cancer development. Macrophages play essential roles in innate and a...

Ability of aerated compost tea to increase the mobility and phytoextraction of copper in vineyard soil

Authors: Eon P, Deogratias JM, Robert T, Coriou C et al.

Source: Journal of Environmental Management 325(B): 116560, 2023, DOI 10.1016/j.jenvman.2022.116560

Abstract: Aerated compost tea (ACT) contains soluble humic substances (SHS) that are expected to alter the dynamics and ecotoxicity of Cu in soil. This study investigated the efficiency of ACT in enhancing the mobility and phytoextraction of Cu in vineyard soil. Crimson clover ...

Pesticide contamination in an intensive insect predator of honey bees

Authors: Tison L, Franc C, Burkart L, Jactel H et al.

Source: Environment International 176: 107975, 2023, DOI 10.1016/j.envint.2023.107975

Abstract: Pesticides used for plant protection can indirectly affect target and non-target organisms and are identified as a major cause of insect decline. Depending on species interactions, pesticides can be transferred into the environment from plants to preys and predators. While the transfe...

Shifts in sediment bacterial communities reflect changes in depositional environments in a fluvial context

Authors: Da Costa C, Colin Y, Debret M, Copard Y et al.

Source: Science of the Total Environment 885: 163890, 2023, DOI 10.1016/j.scitotenv.2023.163890

Abstract: Sediments are complex heterogeneous matrices allowing to some extent the recording of past environmental conditions by integrating sediment characteristics, contamination and the microbial community assembly. In aquatic environments, abiotic environmental filtering is c...

Tools for harmonized data collection at exposure situations with naturally occurring radioactive materials (NORM)

Authors: Popic JM, Haanes H, Di Carlo C, Nuccetelli C et al.

Source: Environment International 175: 107954, 2023, DOI 10.1016/j.envint.2023.107954

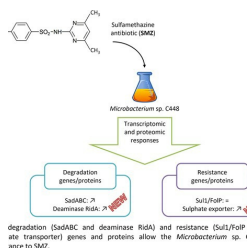
Abstract: Naturally occurring radioactive materials (NORM) contribute to the dose arising from radiation exposure for workers, public and non-human biota in different working and environmental conditions. Within the EURATOM Horizon 2020 RadoNorm project, work is ongoing to identify NORM ...

Pesticide Residues in French Soils: Occurrence, Risks, and Persistence

Authors: Froger C, Jolivet C, Budzinski H, Pierdet M et al.

Source: Environmental Science and Technology 57(20): 7818-7827, 2023, DOI 10.1021/acs.est.2c09591

Abstract: Contamination of the environment by pesticide residues is a growing concern given their widespread presence in the environment and their effects on ecosystems. Only a few studies have addressed the occurrence of pesticides in soils, and their results highlighted the need...



Effect of subtherapeutic and therapeutic sulfamethazine concentrations on transcribed genes and translated proteins involved in *Microbacterium* sp. C448 resistance and degradation.

Authors: Paris L, Devers-Lamrani M, Joly M, Viala D et al.

Source: FEMS Microbiology Ecology 99(7): 1-10, 2023, DOI 10.1093/femsec/fiad064

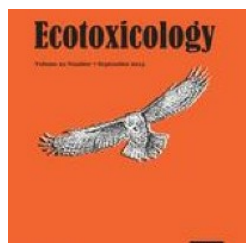
Abstract: *Microbacterium* sp. C448, isolated from a soil regularly exposed to sulfamethazine (SMZ), can use various sulphonamide antibiotics as the sole carbon source for growth. The basis for the regulation of genes encoding the sulphonamide metabolism pathway, the dihydropteroate synthase sulph...

First detection/quantification of roxadustat in hair with a new liquid chromatography with tandem mass spectrometry method: Application to a treated patient

Authors: Alvarez JC, Etting I, Juillard L, Massy Z et al.

Source: Clinica Chimica Acta 546: 117395, 2023, DOI 10.1016/j.cca.2023.117395

Abstract: Roxadustat is an oral inhibitor of hypoxia-inducible factor prolyl hydroxylase which increases erythropoiesis. It can therefore be used as a doping agent. No data are available on how to measure roxadustat in hair and on the concentration found in treated patients. The aim of this study w...



The "parasite detoxification hypothesis": lead exposure potentially changes the ecological interaction from parasitism to mutualism

I

Heavy ionic pollution disrupts assemblages of algae, macroinvertebrates and riparian vegetation

Authors: Fanton H, Affre L, Franquet E, Bertrand C et al.

Source: Environmental Pollution 331(1): 121791, 2023, DOI 10.1016/j.envpol.2023.121791

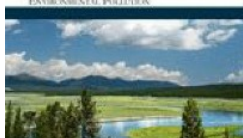
Abstract: Urban streams display consistent ecological symptoms that commonly express degraded biological, physical, and chemical conditions: the urban stream syndrome (USS). Changes linked to the USS result in consistent declines in the abundance and richness of algae, invertebrates, and r...

Copper accumulation in five weed species commonly found in the understory vegetation of Mediterranean vineyards

Authors: Mattiello A, Novello N, Cornu JY, Babst-Kostecka A et al.

Source: Environmental Pollution 329: 121675, 2023, DOI 10.1016/j.envpol.2023.121675

Abstract: Copper (Cu) concentration in agricultural soils often exceeds toxicological limits due to application of Cu-based fungicides. The potential of weeds for their use as functional cover plants in vineyard management and phytoremediation practices is little explored. We identif...

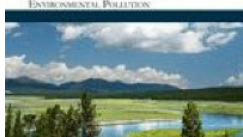


Soil Management Drives Copper and Zinc Export in Runoff from Vineyard Plots

Authors: Imfeld G, Guyot B, Wiegert C, Payraudeau S

Source: Water, Air and Soil Pollution 234(6): 357, 2023, DOI 10.1007/s11270-023-06352-2

Abstract: Copper (Cu)- and zinc (Zn)-based formulations are used globally in vineyards for fungicide protection. Both soil management and rainfall characteristics control the exports of Cu and Zn in runoff from vineyard plots. However, quantitative field studies investigating the influence of ...



Soil Management Drives Copper and Zinc Export in Runoff from Vineyard Plots | SpringerLink

Authors: Imfeld G, Guyot B, Wiegert C, Payraudeau S

Source: Water, Air and Soil Pollution 234(6): 357, 2023, DOI 10.1007/s11270-023-06352-2

Abstract: Copper (Cu)- and zinc (Zn)-based formulations are used globally in vineyards for fungicide protection. Both soil management and rainfall characteristics control the exports of Cu and Zn in runoff from vineyard plots. However, quantitative field studies investigating the influence of ...

Integrative biomarker response- Threshold (IBR-T): Refinement of IBRv2 to consider the reference and threshold values of biomarkers

Authors: Catteau A, Le Guernic A, Ladeira MP, Dedourge-Geffard O et al.

Source: Journal of Environmental Management 341: 118049, 2023, DOI 10.1016/j.jenvman.2023.118049

Abstract: The Integrated Biomarker Response (IBR) is one of the most used index in biomonitoring, especially the IBRv2 integrating a reference condition. However, some limitations remain for its routine and large-scale use. The IBRv2 is proportional to the total nu...

OUVRAGES / RAPPORTS / ACTES DE CONGRES

A proposed approach to defining per- and polyfluoroalkyl substances (PFAS) based on molecular structure and formula - Gaines - 2023 - Integrated Environmental Assessment and Management - Wiley Online Library

Authors: Linda G. T. Gaines, Gabriel Sinclair, Antony J. Williams

Source: Integrated Environmental Assessment and Management, 19 (5):1333-1347,2023, DOI 10.1002/ieam.4735

Abstract: [...] Our objective was to create a narrow, simple PFAS definition that allows interested groups to communicate with a common understanding and will also serve as a starting point to focus on substances that are of real environmental concern. [...]. Using a ...

setac.onlinelibrary.wiley.com

Pesticides residues in European agricultural soils : results from LUCAS 2018 soil module.

This is the largest study providing a comprehensive characterisation on the extent of residues of active ingredients from pesticides in the soils of the EU. This work establishes an initial EU baseline, and project a future assessment of the effectiveness of EU policies and regulations targeting pesticides use and soil pollution. Moreover, this study provides the first steps on the development of risk indicators for soil, allowing to present the first temporal assessment of pesticides in EU soils...

op.europa.eu

Dérogation de mise à disposition sur le marché et d'utilisation du produit biocide «ANTOFF Fipronil Ant Bait», sur l'île de La Réunion

Arrêté du 27 juillet 2023 autorisant par dérogation la mise à disposition sur le marché et l'utilisation du produit biocide «ANTOFF Fipronil Ant Bait», sur l'île de La Réunion, pour une période de 180 jours

Numéro officiel : TREP2320817A

Date de signature : 27/07/2023

Abrogation de l'arrêté du 11 mars 2020 relatif à la lutte contre le Tomato brown rugose fruit virus «ToBRFV»

Arrêté du 6 juillet 2023 portant abrogation de l'arrêté du 11 mars 2020 relatif à la lutte contre le Tomato brown rugose fruit virus «ToBRFV»

Numéro officiel : AGRG2318424A

Date de signature : 06/07/2023

Liens juridiques : Abrogation Arrêté 11/03/2020 NOR AGRG2007380A

Lutte contre Pityophthorus juglandis (PITOJU) et Geosmithia morbida (GEOHMO)

Arrêté du 28 juin 2023 relatif à la lutte contre Pityophthorus juglandis (PITOJU) et Geosmithia morbida (GEOHMO), agents pathogènes responsables de la maladie des mille chancres.

Numéro officiel : AGRG2235717A

Date de signature : 28/06/2023

Modification des périodes d'approbation des substances actives Bacillus pumilus QST 2808 et penflufène

RÈGLEMENT D'EXÉCUTION (UE) 2023/1447 DE LA COMMISSION du 12 juillet 2023 modifiant le règlement d'exécution (UE) no 540/2011 en ce qui concerne les périodes d'approbation des substances actives Bacillus pumilus QST 2808 et penflufène

Numéro officiel : UE/2023/1447

Date de signature : 12/07/2023

Liens juridiques : Modification Règlement UE/540/2011 25/05/2011

Non-renouvellement de l'approbation de la substance active «dimoxystrobine»

RÈGLEMENT D'EXÉCUTION (UE) 2023/1436 DE LA COMMISSION du 10 juillet 2023 portant sur le non-renouvellement de l'approbation de la substance active «dimoxystrobine» conformément au règlement (CE) n° 1107/2009 du Parlement européen et du Conseil, et modifiant les règlements d'exécution (UE) n° 540/2011 et (UE) 2015/408 de la Commission

Numéro officiel : UE/2023/1436

Date de signature : 10/07/2023

Liens juridiques : Modification Règlement UE/540/2011 25/05/2011

Modification Règleme...

Modification du règlement (UE) n° 649/2012 du Parlement européen et du Conseil en ce qui concerne l'inscription des pesticides et des produits chimiques industriels

RÈGLEMENT DÉLÉGUÉ (UE) 2023/1656 DE LA COMMISSION du 16 juin 2023 modifiant le règlement (UE) n° 649/2012 du Parlement européen et du Conseil en ce qui concerne l'inscription des pesticides et des produits chimiques industriels

Numéro officiel : UE/2023/1656

Date de signature : 16/06/2023

Liens juridiques : Modification le 01/11/2023 Règlement UE/649/2012 04/07/2012

AVIS / EXPERTISES / NORMES

Une méthode pour évaluer la cancérogénicité des procédés de travail

Au-delà de l'exposition à des substances et produits chimiques, certaines activités ou conditions de travail peuvent provoquer ou favoriser l'apparition de cancers. L'Anses a élaboré une méthodologie afin d'évaluer le caractère cancérogène de ces procédés de travail, pour mieux prévenir les risques associés pour les travailleurs.

www.anses.fr

DROIT ET POLITIQUE DE L'ENVIRONNEMENT

Consultation publique : projet de décret en Conseil d'Etat relatif à l'application du dispositif des certificats d'économie de produits phytopharmaceutiques pour la période 2024-2025

Le décret vise à : fixer les obligations CEPP pour la période 2024-2025, en reconduisant les modalités actuelles du dispositif ; mettre en place une contravention de cinquième classe pour les entreprises n'ayant réalisé aucune déclaration ou ayant réalisé moins de 10 % des obligations notifiées.

agriculture.gouv.fr

Séparation de la vente et du conseil phyto : des propositions pour plus d'efficacité sur le terrain

Mercredi 12 juillet 2023, Dominique Potier (député socialiste, Meurthe-et-Moselle) et Stéphane Travert (député Renaissance, Manche) ont présenté à la commission des Affaires économiques les conclusions du groupe de travail sur le bilan de la séparation des activités de vente et de conseil des produits phytopharmaceutiques.

www.circuits-culture.com

Pesticides: Public hearing with pesticide firms on toxicity studies

Environment committee MEPs will hold a public hearing on Tuesday to query the disclosures by pesticide firms of the results of toxicity studies.

www.europarl.europa.eu

Une nouvelle stratégie nationale en construction sur les produits phytopharmaceutiques, pour la réduction des effets sur la santé et l'environnement, et pour l'adaptation des techniques de protection des cultures.

De nouvelles orientations ont été annoncées à l'occasion du Comité d'orientation stratégique et de suivi (COS) du plan national de réduction des produits phytopharmaceutiques Écophyto 2+ qui s'est réuni ce mardi 11 juillet en présence des ministres chargés de l'agriculture, de la transition écologique, de l'enseignement supérieur et de la recherche, de la santé et des Outre-mer.

agriculture.gouv.fr

« En mer Méditerranée, trois enjeux de qualité de l'eau nécessitent encore des progrès »

Le dispositif de surveillance de la Méditerranée permet à l'agence de l'eau RMC d'orienter ses aides. Parmi les points d'amélioration : les micropolluants, la pression des usages et la température de l'eau. Précisions de Laurent Roy, le directeur général.

www.actu-environnement.com

REVUE DE PRESSE

Management of New Insect Pests Presents Safety Challenge for People and Environment: Yellow-Legged Hornets

Invasive yellow-legged hornets have been spotted near Savannah, Georgia, causing concern among agriculture officials. These hornets are known for their ability to prey on honeybees and other pollinators, and their presence in the United States is a cause for alarm. This is the first time a live specimen of this species has been detected in the open United States, according to the Georgia Department of Agriculture. [...] In response to the sighting in Georgia, officials are taking action to eradic...

beyondpesticides.org

Rising Air Pollution Helps Deadly Bacteria Build Resistance to Antibiotics

Particulate pollution is worsening a crisis in antibiotic resistance that is already killing an estimated 1.3 million people per year, concludes a new study that spanned more than 100 countries and nearly two decades. The analysis by researchers from China and the United Kingdom, published in the Lancet Planetary Health journal earlier this month, "indicates that increased air pollution is linked with rising antibiotic resistance across every country and continent," The Guardian reports. "It als...

environment.einnews.com

New study raises concerns about herbicide clethodim on male reproductive health

Manipal: A new study has given alarming insights into the potential impact of the widely used herbicide clethodim on male reproductive health. The findings, recently published in the esteemed journal 'Chemosphere,' highlight the risks associated with clethodim-based herbicide exposure on male reproductive function and early embryonic development. The study utilized laboratory mouse models to explore the consequences of clethodim exposure.

newsmeter.in



PFAS purification plant at Schiphol causes unrest among residents and health concerns

Schiphol wants to build a factory on its own premises to clean soil contaminated with PFAS (Per- and polyfluoroalkyl substances). The North Sea Canal Area Environment Agency has ruled that the airport does not have to prepare an environmental impact report for this, which causes concern among the SP Noord-Holland. GroenLinks in the municipality of Haarlemmermeer is very concerned about the non-degradable or hardly degradable substances that could be harmful to people's health.

nltimes.nl

EPA Withdraws Decision on Toxic Fungicide Difenoconazole

Following legal pressure from Center for Food Safety (CFS) and courts, the U.S. Environmental Protection Agency (EPA) has withdrawn its interim approval of difenoconazole, a potent and toxic fungicide sprayed on a wide range of fruits and vegetables, such as potatoes, tomatoes, grapes, and soybeans.

www.centerforfoodsafety.org

Perils Of Plastic Pollution

The breathtaking wilderness of Nepal has long been a haven for diverse wildlife, from elusive snow leopards to majestic greater one-horned rhinos. Yet beneath the serene surface, a dangerous threat looms for the wildlife: plastic pollution. Recent research has cast a harsh light on the impact of plastic pollution on Nepal's iconic rhinos, revealing a crisis that demands immediate attention and concerted action.

risingnepaldaily.com

Commission d'enquête sur les pesticides : quels enjeux ?

Une commission d'enquête sur les causes de l'incapacité de la France à atteindre les objectifs des plans successifs de maîtrise des impacts des « produits phytosanitaires » sur la santé humaine et environnementale, ainsi que sur les conditions de l'exercice des missions des autorités publiques en charge de la sécurité sanitaire a été mise en place récemment.

www.generations-futures.fr

Have a pesticide problem? GLO FISH – Scientific Breakthrough Sheds Glowing Light on Pesticide Research

Researchers are investigating a cutting-edge method to identify the impact of pesticides on reproductive health—shrinking the wait time from months to weeks. Scientists at the University of California, Davis, are developing a method for identifying harmful chemicals in pesticides with the help of glowing fish.

beyondpesticides.org

Illness Tied to Petrochemicals' Impact on Body's Essential Mast Cells (immune system regulators), Study Finds

A recently completed study (available in preprint before peer review) identifies the development of what the authors term Toxicant-Induced Loss of Tolerance (TILT), the constellation of symptoms associated with chemical exposures.

beyondpesticides.org

EPA Releases Initial Nationwide Monitoring Data on 29 PFAS and Lithium

Today, the U.S. Environmental Protection Agency is releasing the first set of data collected under the fifth Unregulated Contaminant Monitoring Rule (UCMR 5). In the latest action to deliver on EPA's PFAS Strategic Roadmap, UCMR 5 will provide new data that will improve EPA's understanding of the frequency that 29 PFAS and lithium are found in the nation's drinking water systems, and at what levels.

www.epa.gov

EPA Announces Federal Enforcement Priorities to Protect Communities from Pollution

Today, the U.S. Environmental Protection Agency announced its National Enforcement and Compliance Initiatives for 2024-2027, including for the first time initiatives to mitigate climate change, address exposure to PFAS contamination, and protect communities from cancer-causing coal ash. To advance the Biden-Harris Administration's commitment to protect disadvantaged communities, EPA also will integrate environmental justice considerations into each of its National Enforcement and Compliance Initiatives.

www.epa.gov

Pesticide Exposure with Disproportionate Effects Increases Risk of Asthma

A study published in Environmental Science and Pollution Research further supports the indication that exposure to organophosphate insecticides (OPs) increases the risk of asthma among the U.S. general population. According to the Asthma and Allergy Foundation of America, "The burden of asthma in the United States falls disproportionately on people with low-income, senior adults, and Black, Hispanic and American Indian/Alaska Native people," making these groups more susceptible to developing this...

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Study Cites Multiple Chemical Characteristics, Strengthening Weed Killer Glyphosate Cancer Ranking

Reinforcing earlier findings, a systematic review published in Chemosphere finds the popular herbicide glyphosate and its formulations (glyphosate-based formulations-GBF) exhibit five out of the ten key characteristics (KC) of carcinogens (cancer-causing chemicals). Specifically, glyphosate exhibits strong evidence of genotoxicity, epigenetic alterations (heritable changes in gene expression), oxidative stress, chronic inflammation, endocrine disruption, and disturbs gut microbiota implicated in ...

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Fed To Evaluate Endangered Species Impacts under Clean Water Act's General Pesticide Permits

The U.S. Fish and Wildlife Service (FWS) and U.S. Environmental Protection Agency (EPA) has agreed to assess the harms of applying pesticides in water and the impacts on threatened and endangered wildlife under a legal agreement with the Center for Biological Diversity (CBD). Under the Clean Water Act, a National Pollutant Discharge Elimination Systems (NPDES) permit is needed when pollutants are discharged from a point source (an identifiable source) into the "Waters of the United States" (WOTUS...

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Polluants émergents : pourquoi est-il si difficile d'améliorer la qualité des eaux littorales ?

La pollution, notamment chimique, de diverses activités implantées sur les littoraux menace la santé humaine et la riche biodiversité des littoraux.

theconversation.com

Insufficient Scientific Evidence on Mitigation Measures to Protect Pollinators from Pesticides, Study Finds

A study published in the Journal of Economic Entomology calls into question the scientific literature on protecting bees from pesticides. The study analyzes actions taken by pesticide users to reduce the risk of pesticides on nontarget organisms, known as “mitigation measures.” Ultimately, the study finds that there is insufficient evidence to support the effectiveness of bee-protecting mitigation measures. “Almost all research was centered around protecting honey bees. However, honey bees are...

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FAO Director General urged to end partnership with pesticide industry

Today, 11 global civil society and Indigenous Peoples organisations representing small-scale farmers, agricultural workers, trade unions, and rights holders urged Mr. Qu Dongyu to begin his new term as Director General of the UN Food and Agriculture Organization (FAO) on a positive note by ending a controversial partnership with the pesticide industry.

www.pan-uk.org

Évaluation DCE des eaux souterraines et de surface : deux projets d'arrêtés en consultation

Deux projets d'arrêtés viennent actualiser le cadre prévu pour l'évaluation de l'état des eaux souterraines et de surface. Ils sont en consultation jusqu'au 18 août.

www.titrespresse.com



USDA grant funds study of effectiveness of vegetation to curb water pollution

At a time when Pennsylvania is actively working to achieve water-quality improvements to meet the state's obligations for cleaning up the Chesapeake Bay, a multidisciplinary Penn State research team is studying whether agricultural pollution-prevention devices called riparian buffers are working properly.

www.eurekalert.org

29 illegal new pesticide derogations, EU Commission closes eyes

In January the EU Court of Justice presented a very clear ruling on pesticide derogations. Approval to use banned pesticides can only be given in very special and unforeseen circumstances. Health and the environment go before plant protection. As a result of this ruling, some countries withdrew derogations that allowed the use of highly dangerous pesticides. However, others did not. Six months after the ruling, the European Commission has still not officially published an official reaction. Follo...

www.pan-europe.info

Pesticides : études cachées, le parlement européen convoque une réunion

La dissimulation d'études sur la neurotoxicité de plusieurs pesticides constitue une violation de la réglementation européenne, juge la Commission européenne !

www.generations-futures.fr

Funding To Support Compliance with International Treaty to Save the Oceans and Biodiversity, Combat Climate Threats

The Global Environment Facility (GEF) Council, the governing body for the world's largest source of multilateral funding for biodiversity loss and climate change, has authorized \$34 million USD to support the new high seas treaty agreement announced on March 4. The move marks a significant step toward safeguarding the delicate ecosystems of the world's oceans and promoting sustainable practices on a global scale. The oceans suffer from severe pollution caused by various substances, including pest...

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EPA Withdraws Decision on Toxic Fungicide Difenconazole

Following legal pressure from Center for Food Safety (CFS) and courts, the U.S. Environmental Protection Agency (EPA) has withdrawn its interim approval of difenconazole, a potent and toxic fungicide sprayed on a wide range of fruits and vegetables, such as potatoes, tomatoes, grapes, and soybeans.

www.centerforfoodsafety.org

ALERTE Glyphosate !

Selon une fuite la Commission européenne prévoit de réapprouver rapidement le glyphosate pour éviter un débat scientifique et public

www.generations-futures.fr



Les "polluants éternels" dans 45% de l'eau des robinets américains

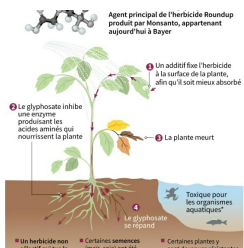
Les perfluorés et polyfluoroalkylés (PFAS) sont une famille de composés chimiques de synthèse nocifs pour la santé, qui selon des études peuvent être liés à certains cancers ou d'autres maladies. Ces polluants, qui doivent leur surnom d'"éternels" à leur cycle de vie très long, peuvent se retrouver dans des rejets industriels et des sites d'enfouissement et ainsi contaminer différentes sources d'eau. En cas d'exposition sur une longue période, ils peuvent s'accumuler dans le corps humain.

www.sciencesetavenir.fr

Pesticides : la justice condamne l'État français. Une victoire historique.

Les ONG estiment que cette décision est "historique". Le jeudi 29 juin, l'État français a été condamné pour l'utilisation des pesticides. Le tribunal administratif de Paris lui donne un an, soit jusqu'au 30 juin 2024, pour réparer ce préjudice écologique.

positivr.fr



Glyphosate: un rapport ouvre la voie au renouvellement de l'autorisation dans l'UE

L'Autorité européenne de sécurité des aliments (EFSA) n'a pas identifié de niveau de risque lié au glyphosate qui justifierait selon elle de l'interdire dans l'Union européenne au-delà de sa période actuelle d'autorisation, dans une étude remise jeudi à la Commission européenne, qui a suscité l'ire de nombreuses ONG.

www.sciencesetavenir.fr

Algues, plastique, polluants chimiques: quel est l'état du littoral français ?

L'Ifremer suit l'évolution des écosystèmes marins côtiers depuis cinquante ans. Si la situation s'est globalement améliorée, des zones restent en mauvais état, en particulier dans les estuaires et les grandes villes.

www.lefigaro.fr