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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique N°70

Christian Mougin, Sonia Grimbuhler, Soizic Morin, Pascale
Karmasyn-Veyrines

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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique



N° 70 Septembre 2024

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Christian Mougin (UMR 1402 EcoSys), Sonia Grimbuhler (UMR 1463 ITAP), Soizic Morin (UR 1454 EABX)
et Pascale Karmasyn-Veyrines (DipSO)

Destinataires : les membres de la liste : ecotox@inrae.fr

Edito

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

Contact : veille-ecotox@inrae.fr

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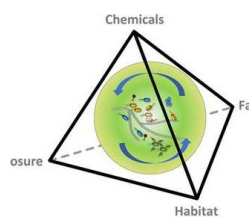
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- Évaluation de la deuxième stratégie nationale sur les perturbateurs endocriniens - Pour une future stratégie « zéro exposition aux perturbateurs endocriniens » | IGEDD

REVUE DE PRESSE

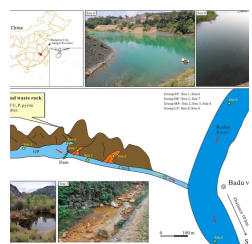
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Microbial responses and risk assessment



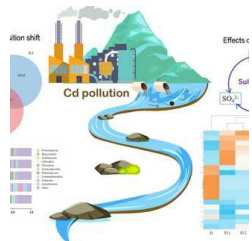
Editorial: thematic issue on microbial ecotoxicology

Authors: Vuilleumier S, Barthelmebs L, Corcoll N et al. Source: FEMS MICROBIOLOGY ECOLOGY 100:fae097, 2024, DOI 10.1093/femsec/fae097 Abstract: Imagine you are a microbe and you are exposed to chemical contamination. Will you be at risk? How will you react, and by which means? [...] Alongside these questions that microbial ecotoxicologists are eager to answer, the question “Why do we need to preserve and monitor the integrity of environmental microbes and the communities they form?” has been at the core of the emerging multidisciplinary field of microbial ecotoxicology...



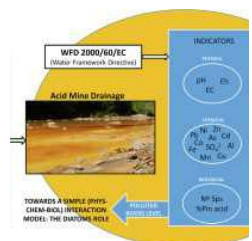
Microbial community structure in an uranium-rich acid mine drainage site: implication for the biogeochemical release of uranium

Authors: Wei XX, Chen HL, Zhu FF, Li J Source: FRONTIERS IN MICROBIOLOGY 15:1412599, 2024, DOI 10.3389/fmicb.2024.1412599 Abstract: The generation of acid mine drainage (AMD) characterized by high acidity and elevated levels of toxic metals primarily results from the oxidation and dissolution of sulfide minerals facilitated by microbial catalysis. [...] In this paper, water samples with varying levels of uranium pollution were collected from an abandoned stone coal mine in Jiangxi Province, China during summer and winter, respectively. Geochemical and high-throughput sequencing analyses were conducted to characterize spatiotemporal variations in bacterial diversity and community composition along pollution groups...



Exploring the long-term impact of a cadmium pollution accident on microbial communities in river ecosystems

Authors: Wang M, Wang YN, Wu YL et al. Source: BIOGEOCHEMISTRY Early Access, DOI 10.1007/s10533-024-01150-2 Abstract: The large leakage accidents of heavy metals from industrial facilities pose a serious environmental problem; however, not enough studies have been conducted to assess the long-term ecological risk associated with such accidents. This study evaluated changes in the bacterial communities within river sediment and identified the key functional microorganisms responding to the 2012 cadmium contamination incident in the Long River, Guangxi Province, China...



Relationships between hydrogeochemistry and diatoms in acid mine drainage affected media: The case of Iberian pyrite belt; functioning models for an all metallogenetic province - ScienceDirect

Authors: Luís AT, Fortes JC, Santisteban M et al. Source: JOURNAL OF GEOCHEMICAL EXPLORATION 264:107537, 2024, DOI 10.1016/j.gexplo.2024.107537 Abstract: The Iberian Pyritic Belt is one of the most important metallogenetic provinces, which hosts massive sulfides and extends over 230 km from Canal Caveira-Lousal in Portugal to Gerena in Spain. It has 88 active and inactive mines only in the Spanish part and near 30 in Portugal that generate Acid Mine Drainage pollution to the main river basins, Corona, Roxo (Portugal), Odiel, Tinto, Guadiamar (Spain) and Chanza-Guadiana (Portugal/Spain) and consequently to the 35 acidic sampling sites, 14 in Portugal and 21 in Spain, selected for this unique study. The physico-chemical parameters of waters, acidic diatoms and diatom diversity were determined in the laboratory...

Combined effects of microplastics and pharmaceutical and personal care products on algae: A critical review

Authors: Yang W, Zhang H, Yang SF et al. Source: ENVIRONMENTAL POLLUTION 358:124478, 2024, DOI 10.1016/j.envpol.2024.124478 Abstract: Microplastics (MPs) and pharmaceuticals and personal care products (PPCPs) are ubiquitous in aquatic environments. Algae play an important role in aquatic environments. Thus, it is important to study the response of algae to combined exposure of MPs and PPCPs. Here, we review the effects of MPs and PPCPs on algae...

Impacts of organophosphate pesticide types and concentrations on aquatic bacterial communities and carbon cycling

Authors: Wu GX, Shi W, Zheng L et al. Source: JOURNAL OF HAZARDOUS MATERIALS 475:134824, 2024, DOI 10.1016/j.jhazmat.2024.134824 Abstract: Organophosphorus pesticides (OPPs) are important chemical stressors in aquatic ecosystems, and they attract increasing more attentions recently. However, the impacts of different OPPs on carbon cycling remain unclear, particularly for those functional-yet-uncultivable microbes. This study investigated the change in lake aquatic microbial communities in the presence of dichlorvos, monocrotophos, omethoate and parathion...

Exposure of pregnant women to neonicotinoids in Wenzhou City, East China: A biomonitoring study

Authors: Huang, M - Wang, YP - Wang, Y - Lin, GK - Wen,... Source: ENVIRONMENT INTERNATIONAL 189 (), 11 DOI: 10.1016/j.envint.2024.108811 Abstract: Background: China produces and consumes a large amount of neonicotinoids. A non-negligible exposure to neonicotinoids might occur for Chinese pregnant women, but relevant data remain limited. Objective: To investigate the exposure to neonicotinoids by urinary biomonitoring in pregnant women from Wenzhou City, East China.

Isolated and mixed effects of pure and formulated abamectin and difenoconazole on biochemical biomarkers of the gills of *Danio rerio*

Source: AQUATIC TOXICOLOGY 273 (), 8 DOI: 10.1016/j.aquatox.2024.106978 Abstract: Pesticides are released into the environment daily, and their effects on nontarget species in aquatic ecosystems have been widely reported. To evaluate the adverse effects caused in adults of *Danio rerio* species exposed to the pesticides abamectin, difenoconazole, and their commercial formulations (Kraft 36EC (R) and Score 250EC (R)), both isolated and in mixtures, biochemical biomarkers were analyzed in the gills of organisms exposed to sublethal concentrations. To this end, the activities of the enzymes 7-ethoxyresorufin-O-deethylase (EROD), glucuronosyltransferase (UDPGT), glutathione-S-transferase (GST), catalase (CAT), glutathione peroxidase (GPx), glutathione reductase (GR), lipid hydroperoxide (LH), and malondialdehyde (MDA), which are indicative of oxidative stress, were measured after 48 h of exposure to the different pesticide treatments. The results showed a significant increase in EROD activity and MDA levels in the gills of fish exposed to the commercial formulation of abamectin. When the fish were exposed to difenoconazole and its commercial formulation, an increase in GST, GPx, and MDA levels and a decrease in GR activity were observed in the gills. Furthermore, the responses of the biomarkers were more pronounced in organisms exposed to mixtures of both active ingredients and commercial formulations. It is concluded that the commercial formulations Kraft 36EC (R) and Score 250EC (R) and...

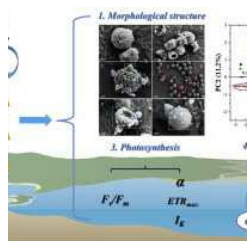
High-throughput screening of 222 pesticides in road environments in a megacity of northern China: A new approach to urban population exposure

Authors: Zhang, Y - Li, JN - Wang, JX - Li, YF - Kallenborn,... Source: ENVIRONMENTAL RESEARCH 257 (), 10 DOI: 10.1016/j.envres.2024.119379 Abstract: A large number of pesticides have been widely manufactured and applied, and are released into the environment with negative impact on human health. Pesticides are largely used in densely populated urban environments, in green zones, along roads and on private properties. In order to characterize the potential exposure related health effects of pesticide and their occurrence in the urban environment, 222 pesticides were screened and quantified

Ions and nanoparticles of Ag and/or Cd metals in a model aquatic microcosm: Effects on the abundance, diversity and functionality of the sediment bacteriome

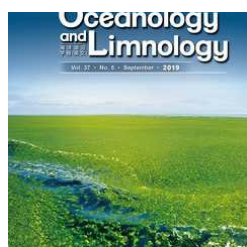
Authors: Herruzo-Ruiz AM, Trombini C, Moreno-Garrido I et al. Source: MARINE POLLUTION BULLETIN 204:14, 2024, DOI 10.1016/j.marpolbul.2024.116525 Abstract: Metals can be adsorbed on particulate matter, settle in sediments and cause alterations in aquatic environments. This study assesses the effect of Ag and/or Cd, both in ionic and nanoparticle (NP) forms, on the microbiome of sediments. For that purpose, aquatic controlled - microcosm experiments were exposed to an environmentally relevant and at tenfold higher doses of each form of the metals. Changes in the bacteriome were inferred by 16S rDNA sequencing...

ERA / PUBLICATIONS SCIENTIFIQUES / PLASTIQUES



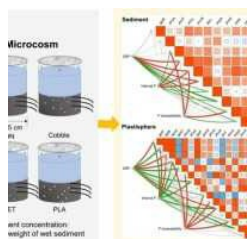
Physiological responses of the microalga *Isochrysis galbana* exposed to polystyrene microplastics with different particle sizes

Authors: Jin XE, Fang YY, Li LN et al. Source: MARINE ENVIRONMENTAL RESEARCH 200:106645, 2024, DOI 10.1016/j.marenvres.2024.106645 Abstract: Due to continuous increase in marine plastic waste, microplastics are ubiquitous in the marine environment. However, there are few studies on the harmful effects caused by microplastics with different particle sizes, and the interaction between particle size and concentration requires further investigation. This study explored the differences in physiological ...



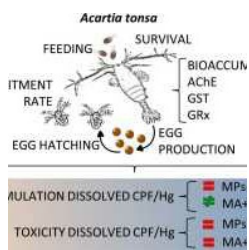
Bacterial communities on microplastics in a wetland ecosystem

Authors: Liu SL, Zhao JK, Zou L et al. Source: JOURNAL OF OCEANOLOGY AND LIMNOLOGY Early Access, DOI 10.1007/s00343-024-3235-5 Abstract: Microplastics (MPs), a new type of environmental pollutant, can serve as substrates for microbes. Wetland ecosystems support a diverse range of aquatic and terrestrial species, and their ecological functions can be disturbed by inputs of microplastic debris. However, limited studies have focused on the interactions between MPs and microbes in wetland ecosystems. I...



Microplastics alter the microbiota-mediated phosphorus profiles at sediment-water interface: Distinct microbial effects between sediment and plastisphere

Authors: Song XJ, Zou H, Zhang YB et al. Source: SCIENCE OF THE TOTAL ENVIRONMENT 933:173048, 2024, DOI 10.1016/j.scitotenv.2024.173048 Abstract: Microplastics (MPs) are ubiquitous in freshwater sediments, raising concern about their potential impacts on ecosystem services. However, the specific impacts of microbiota mediated by MPs in sediment and plastisphere compartments on P availability remain elusive. This investigation conducted a series of microcosm experiments utilizing eutrophic lake sedi...



Comparative assessment of microplastics and microalgae as vectors of mercury and chlorpyrifos in the copepod *Acartia tonsa*

Authors: Pinto EP, Paredes E, Santos-Echeandía J et al. Source: SCIENCE OF THE TOTAL ENVIRONMENT 945:173791, 2024, DOI 10.1016/j.scitotenv.2024.173791 Abstract: Microplastics (MPs) raise concerns not only as pollutants themselves, but also due to their ability to act as vectors of pollutants adsorbed from seawater, transferring them to marine organisms. However, the relevance of MPs as carriers of pollutants compared to microalgae needs further exploration. This study compared the role of MPs (2-1...

Microplastics increase the microbial functional potential of greenhouse gas emissions and water pollution in a freshwater lake: A metagenomic study

Authors: Zhuo TY, Yu KH, Chai BB et al. Source: ENVIRONMENTAL RESEARCH 257:119250, 2024, DOI 10.1016/j.envres.2024.119250 Abstract: Aquatic ecosystems are being increasingly polluted by microplastics (MPs), which calls for an understanding of how MPs affect microbially driven biogenic element cycling in water environments. A 28-day incubation experiment was conducted using freshwater lake water added with three polymer types of MPs (i.e., polyethylene, polypropylene, polystyrene) separately or in c...

Response of a simulated aquatic fungal community to nanoplastics exposure and functional consequence on leaf decomposition

Authors: Du JJ, Tao TY, Gao MX et al. Source: ENVIRONMENTAL POLLUTION 356:119250, 2024, DOI 10.1016/j.envpol.2024.124342 Abstract: Nanoplastics pose a potential threat to a wide variety of aquatic organisms. Despite the awareness of this existing hazard, the impact of nanoplastics on natural fungal communities remains a research gap. In this study, five dominant fungi species, isolated from a stream ecosystem, were used to explore the effects of different nanopolystyrene (nano-PS) particles concent...

PESTICIDES ET SANTE DES AGRICULTEURS

A Comprehensive Review on Pesticide Residues in Human Urine | Journal of Agricultural and Food Chemistry

Authors: Hakme E, Poulsen ME, Lassen ADS Source: JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY 4c02705, 2024, DOI 10.1021/acs.jafc.4c02705 Abstract: Numerous studies worldwide have evaluated pesticide residues detected in urine. This review serves as a contribution to this field by presenting an overview of scientific research studies published from 2001 to 2023, including details of study characteristics and research scope. Encompassing 72 papers, the review further delves into addressing key challeng...

Beyond the urgency: pesticide Emergency Authorisations ' exposure, toxicity, and risk for humans, bees, and the environment

Authors: Carisio L, Delso NS, Tosi S Source: SCIENCE OF THE TOTAL ENVIRONMENT 947: 174217, 2024, DOI 10.1016/j.scitotenv.2024.174217 Abstract: The global challenge to increase agricultural production goes along with the need of decreasing pesticide risks. The European Union (EU) therefore evaluates and controls the risks posed by pesticides by regulating their authorisation through the science-based Risk Assessment process. Member States can however act in derogation to this process and grant the E...

Exposure to pesticides, persistent and non - persistent pollutants in French 3.5-year-old children: Findings from comprehensive hair analysis in the ELFE national birth cohort

Authors: Macheka LR, Palazzi P, Iglesias-González A, Zaros C et al. Source: ENVIRONMENT INTERNATIONAL 190: 108881, 2024, DOI 10.1016/j.envint.2024.108881 Abstract: Exposure to endocrine disruptors during early childhood poses significant health risks. This study examines the exposure levels of French 3.5-year-old children to various persistent and non-persistent pollutants and pesticides using hair analysis as part of the ELFE national birth cohort. Differences in sex and geographical location am...

Methodologies for the collection of parameters to estimate dust/soil ingestion for young children

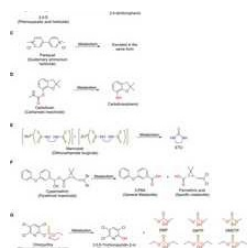
Authors: Ferguson A, Adelabu F, Solo-Gabriele H, Obeng-Gyasi E et al. Source: FRONTIERS IN PUBLIC HEALTH 12: 1357346, 2024, DOI 10.3389/fpubh.2024.1357346 Abstract: Heavy metals, pesticides and a host of contaminants found in dust and soil pose a health risk to young children through ingestion. Dust/soil ingestion rates for young children can be estimated using micro-level activity time series (MLATS) as model inputs. MLATS allow for the generation of frequency and duration of children's contact ac...

Determination of pesticide residues in urine by chromatography-mass spectrometry: methods and applications

Authors: Birolli WG, Lanças FM, Neto AJD, Silveira HCS Source: FRONTIERS IN PUBLIC HEALTH 12: 1336014, 2024, DOI 10.3389/fpubh.2024.1336014 Abstract: Pollution has emerged as a significant threat to humanity, necessitating a thorough evaluation of its impacts. As a result, various methods for human biomonitoring have been proposed as vital tools for assessing, managing, and mitigating exposure risks. Among these methods, urine stands out as the most commonly analyzed biological sample and the prim...

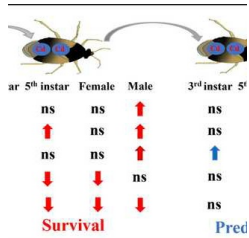
Blood levels of persistent organic pollutants among women in France in the 90's: Main profiles and individual determinants

Authors: Frenoy P, Cano-Sancho G, Antignac JP, Marchand P et al. Source: ENVIRONMENTAL RESEARCH 258: 119468, 2024, DOI 10.1016/j.envres.2024.119468 Abstract: Persistent organic pollutants (POPs) are a group of organic chemical compounds potentially toxic to human health. The objectives of this study were 1) to describe the levels of POPs biomarkers in blood samples from French women collected during the 1990s and to compare them with levels measured in two more recent French studies, 2) to identify...



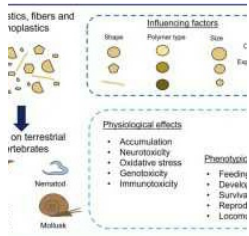
Frontiers | Determination of pesticide residues in urine by chromatography-mass spectrometry: methods and applications

Authors: Birolli WG, Lanças FM, Neto AJD, Silveira HCS Source: FRONTIERS IN PUBLIC HEALTH 12: 1336014, 2024, DOI 10.3389/fpubh.2024.1336014 Abstract: Pollution has emerged as a significant threat to humanity, necessitating a thorough evaluation of its impacts. As a result, various methods for human biomonitoring have been proposed as vital tools for assessing, managing, and mitigating exposure risks. Among these methods, urine stands out as the most commonly analyzed biological sample and the prima...



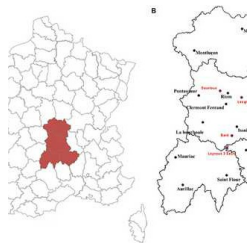
Toxic effects of cadmium on the growth and predation capacity of the predator *Orius sauteri*

Authors: Kou J, Zhu ZY, Wang S, Zhang Y et al. Source: CABI AGRICULTURE & BIOSCIENCE 5(1): 68, 2024, DOI 10.1186/s43170-024-00274-7 Abstract: The heavy metal cadmium (Cd) leads to significant bottom-up effects on food chains of plants, herbivores, and predators in agroecosystems. Through the transfer and accumulation of Cd. In addition to the indirect effects of this cascading effects, predators *Orius sauteri* fed with artificial diets containing Cd also have a direct effect. We found that *O. sa...*



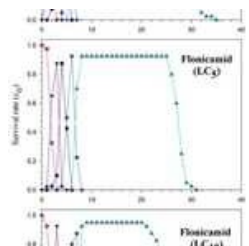
Plastic pollution in terrestrial ecosystems: Current knowledge on impacts of micro and nano fragments on invertebrates

Authors: Richard CMC, Dejoie E, Wiegand C, Gouesbet G et al. Source: JOURNAL OF HAZARDOUS MATERIALS 477: 135299, 2024, DOI 10.1016/j.jhazmat.2024.135299 Abstract: The increasing accumulation of small plastic particles, in particular microplastics (>1 μm to 5 mm) and nanoplastics (< 1 μm), in the environment is a hot topic in our rapidly changing world. Recently, studies were initiated to better understand the behavior of micro- and nanoplastics (MNP) within complex matrices like soil, as well ...



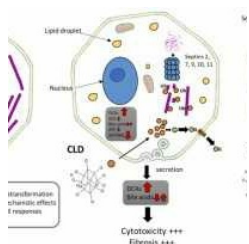
Radioactivity as a driver of bacterial community composition in naturally radioactive mineral springs in the French Massif Central

Authors: Holub G, Sergeant C, Bailly C, Beauger A et al., Source: FRONTIERS IN MICROBIOLOGY 15: 1423342, 2024, DOI 10.3389/fmicb.2024.1423342 Abstract: Some natural environments on Earth are characterised by high levels of radiation, including naturally radioelement enriched mineral springs in the French Massif Central. Therefore, naturally radioactive mineral springs are interesting ecosystems for understanding how bacterial populations in these springs have adapted to high levels of natural and c...



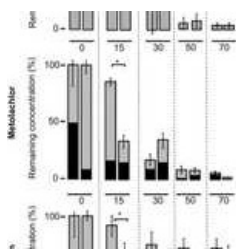
Intergenerational Sublethal Effects of Flonicamid on Cotton Aphid, *Aphis gossypii*: An Age-Stage, Two-Sex Life Table Study

Authors: Gul H, Güncan A, Ullah F, Desneux N et al. Source: INSECTS 15(7): 529, 2024, DOI 10.3390/insects15070529 Abstract: *Aphis gossypii* Glover is an economically important sap-sucking insect pest that causes severe damage worldwide. The flonicamid has been widely used for controlling sap-sucking insect pests, but its intergenerational sublethal effects on key demographic parameters of *A. gossypii* have not been fully studied. The age-stage, two-sex life table analysis was conducted to investigate...



Chlordecone-induced hepatotoxicity and fibrosis are mediated by the proteasomal degradation of septins

Authors: Léger T, Alilat S, Ferron PJ, Dec L et al. Source: JOURNAL OF HAZARDOUS MATERIALS 476: 135177, 2024, DOI 10.1016/j.jhazmat.2024.135177 Abstract: Chlordecone (CLD) is a pesticide persisting in soils and contaminating food webs. CLD is sequestered in the liver and poorly metabolized into chlordecol (CLDOH). In vitro liver cell models were used to investigate the fate and mechanistic effects of CLD and CLDOH using multiomics. A 3D-cell model was used to investigate whether CLD and CLDOH can a...

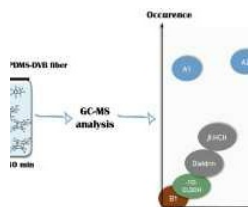


Combined effects of micropollutants and their degradation on prokaryotic communities at the sediment–water interface

Authors: Borreca A, Vuilleumier S, Imfeld G Source: SCIENTIFIC REPORTS 14(1): 16840, 2024, DOI 10.1038/s41598-024-67308-y Abstract: Pesticides and pharmaceuticals enter aquatic ecosystems as complex mixtures. Various processes govern their dissipation and effect on the sediment and surface waters. These micropollutants often show persistence and can adversely affect microorganisms even at low concentrations. We investigated the dissipation and effects on prokaryotic communities of metformin (antid...

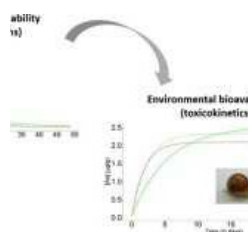
Dislodgeable Foliar Residue Measurements and Assessment of Dermal Exposure to Captan for Workers in Apple Orchards

Authors: Duporté G, Barron E, Bureau M, Le Menach K et al. Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY Early Access, 2024, DOI 10.1021/acs.est.3c10542 Abstract: Captan dislodgeable foliar residues (DFRs) were determined by following the applications of this fungicide in an apple orchard. The study comprised an investigation of the variability of captan DFR values and 14 days of DFR monitoring to assess kinetic modeling. A method combining solid-phase microextraction (SPME) gas chromatography and...



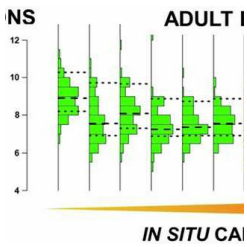
Analysis of chlordecone and its transformation products in environmental waters by a new SPME-GC-MS method and comparison with LLE-GC-MS/MS and LLE-LC-MS/MS: A case study in the French West Indies

Authors: Martin DE, Muselet D, Kanso H, Alnajjar P et al. Source: SCIENCE OF THE TOTAL ENVIRONMENT 948: 174610, 2024, DOI 10.1016/j.scitotenv.2024.174610 Abstract: Among the numerous organochlorines (OCs) applied in the French West Indies (FWI), chlordecone (hydrated form C₁₀Cl₁₀O₂H₂; CLD) still causes major environmental pollution nowadays. A recent report revealed the unexpected presence in FWI environment of transformation products (TPs) of CLD not routinely monitored due to a lack of commercial...



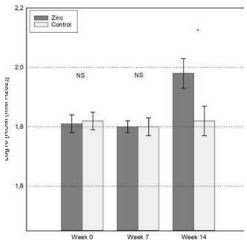
The effects of polystyrene microparticles on the environmental availability and bioavailability of As, Cd and Hg in soil for the land snail Cantareus aspersus

Authors: Colpaert R, de Vaufléury A, Rieffel D, Amiot C et al. Source: SCIENCE OF THE TOTAL ENVIRONMENT 947: 174451, 2024, DOI 10.1016/j.scitotenv.2024.174451 Abstract: The combined contamination of terrestrial environments by metal(loid)s (MEs) and microplastics (MPs) is a major environmental issue. Once MPs enter soils, they can interact with MEs and modify their environmental availability, environmental bioavailability, and potential toxic effects on biota. Although research efforts have been ma...



Chronic metal contamination shapes the size structure of *Gammarus fossarum* populations in French headwater rivers

Authors: Lalouette A, Degli Esposti D, Colomb C, Garnero L et al. Source: ECOTOXICOLOGY Early Access, 2024, DOI 10.1007/s10646-024-02777-5 Abstract: Assessing the effects of multigenerational exposure of aquatic animal populations to chemical contamination is essential for ecological risk assessment. However, beyond rare examples reporting the sporadic emergence of a toxicological tolerance within populations that persist in contaminated environments, conclusive results are even more limited from f...



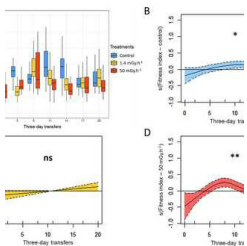
No experimental evidence of an adaptive antioxidative response induced by trace metals exposure in feral pigeons

Authors: Schmitt C, Cavaud L, Moullec H, Leroux-Coyau M et al. Source: JOURNAL OF ORNITHOLOGY Early Access, 2024, DOI 10.1007/s10336-024-02195-8 Abstract: Trace metals produced by anthropogenic activities in particular in urban environments, such as lead and zinc, can induce oxidative damage in exposed individuals. Therefore, trace metals could act as a selective pressure for higher resistance to oxidative damage by favoring individuals able to plastically produce antioxidants once exposed to metal...



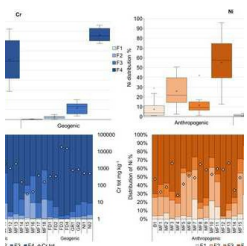
Toxicity of environmental and polystyrene plastic particles on the bivalve *Corbicula fluminea*: focus on the molecular responses

Authors: Latchere O, Roman C, Métails I, Perrein-Ettajani H et al. Source: ECOTOXICOLOGY Early Access, 2024, DOI 10.1007/s10646-024-02769-5 Abstract: Among aquatic organisms, filter feeders are particularly exposed to the ingestion of microplastics (MPs) and nanoplastics (NPs). The present study investigates the effect of environmental microplastics (ENV MPs) and nanoplastics (ENV NPs) generated from macro-sized plastic debris collected in the Garonne River (France), and polystyrene NPs (PS NPs) on ...



Host defense alteration in *Caenorhabditis elegans* after evolution under ionizing radiation

Authors: Quevarec L, Morran LT, Dufourcq-Sekatcheff E, Armant O et al. Source: BMC ECOLOGY AND EVOLUTION 24(1): 95, 2024, DOI 10.1186/s12862-024-02282-7 Abstract: Background Adaptation to a stressor can lead to costs on other traits. These costs play an unavoidable role on fitness and influence the evolutionary trajectory of a population. Host defense seems highly subject to these costs, possibly because its maintenance is energetically costly but essential to the survival. When assessing the ecolog...

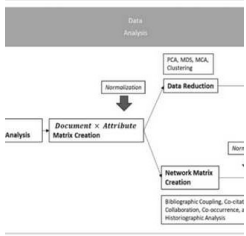


Toward a more realistic estimate of exposure to chromium and nickel in soils of geogenic and/or anthropogenic origin: importance of oral bioaccessibility

Authors: Billmann M, Pelfrène A, Hulot C, Papin A et al. Source: ENVIRONMENTAL GEOCHEMISTRY AND HEALTH 46(8): 273, 2024, DOI 10.1007/s10653-024-02041-z Abstract: To enhance risk assessment for contaminated sites, incorporating bioavailability through bioaccessibility as a corrective factor to total concentration is essential to provide a more realistic estimate of exposure. While the main in vitro tests have been validated for As, Cd, and/or Pb, their potential for assessing the bioaccessibility of...

Reproductive Capacity, but not Food Consumption, is Reduced by Continuous Exposure to Typical Genotoxic Stressor γ -Rays in the sentinel species *Gammarus fossarum*

Authors: Frelon S, Recoura-Massaquant R, Dubourg N, Garnero L et al. Source: ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY Early Access, 2024, DOI 10.1002/etc.5949 Abstract: The long-term impacts of radiocontaminants (and the associated risks) for ecosystems are still subject to vast societal and scientific debate while wildlife is chronically exposed to various sources and levels of either environmental or anthropogenic ionizing radiation from the use of nuclear energy. The present study aimed to assess ...



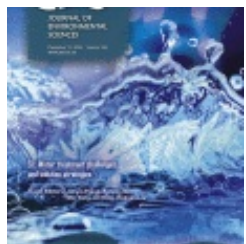
A Systematic Review and Characterization of the Major and Most Studied Urban Soil Threats in the European Union

Authors: Binner H, Wojda P, Yunta F, Breure T et al. Source: WATER AIR AND SOIL POLLUTION 235(8): 494, 2024, DOI 10.1007/s11270-024-07288-x Abstract: There is an urgent need by the European Union to establish baseline levels for many widespread pollutants and to set out specific levels for these under the Zero pollution action plan. To date, few systematic reviews, superseded by bibliometric analyses, have explored this issue. Even less research has been carried out to compare the efficacy of these...



Multi-stakeholder working groups to improve rodent management outcomes in agricultural systems

Authors: Brown PR, Giraudoux P, Jacob J, Couval G et al. Source: INTERNATIONAL JOURNAL OF PEST MANAGEMENT Early Access, 2024, DOI 10.1080/09670874.2024.2363877 Abstract: Rodent pests pose significant impacts to agricultural systems and public health globally. Effective strategies for sustainable management while minimizing environmental impacts are crucial. To address the multifaceted nature of rodent impacts, well-coordinated initiatives are necessary to support control strategies, raise awareness...



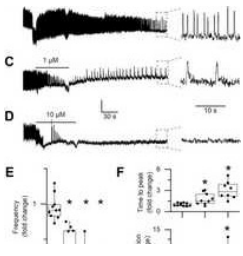
Novel stable isotope concepts to track antibiotics in wetland systems

Authors: Liu X, Zhang JY, Richnow HH, Imfeld G Source: JOURNAL OF ENVIRONMENTAL SCIENCES 146: 298-303, 2024, DOI 10.1016/j.jes.2024.02.005 Abstract: Antibiotics, their transformation products, and the translocation of antibiotic-resistant genes in the environment pose significant health risks to humans, animals, and ecosystems, aligning with the One Health concept. Constructed wetlands hold substantial yet underutilized potential for treating wastewater from agricultural, domestic sewage, or contam...

AGROCHEMICALS	
THIAMETHOXAM	LOEC (ppm) NOEC (ppm)
LAMBDA-CYHALOTHRIN	LOEC (ppb) NOEC (ppb)
PLATINUM NEO	LOEC (ppb) NOEC (ppb)

Eco(genotoxicity of the new commercial insecticide Platinum Neo, a mixture of the neonicotinoid thiamethoxam and the pyrethroid lambda-cyhalothrin

Authors: Dalpiaz FL, Lacoli R, Butzke-Souza N, Santin JR et al. Source: ENVIRONMENTAL POLLUTION 358: 124485, 2024, DOI 10.1016/j.envpol.2024.124485 Abstract: New mixtures of pesticides are being placed on the market to increase the spectrum of phytosanitary action. Thus, the eco(genotoxic effects of the new commercial mixture named Platinum Neo, as well as its constituents the neonicotinoid Thiamethoxam and the pyrethroid Lambda-Cyhalothrin, were investigated using the species *Daphnia magna*, Raphi...



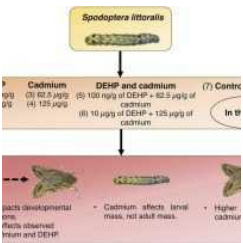
Cardiotoxicity of the diamide insecticide chlorantraniliprole in the intact heart and in isolated cardiomyocytes from the honey bee

Authors: Kaabeche M, Charreton M, Kadala A, Mutterer J et al. Source: SCIENTIFIC REPORTS 14(1): 149938, 2024, DOI 10.1038/s41598-024-65007-2 Abstract: In honey bees, circulation of blood (hemolymph) is driven by the peristaltic contraction of the heart vessel located in the dorsal part of the abdomen. Chlorantraniliprole (CHL) is an insecticide of the anthranilic diamide class which main mode of action is to alter the function of intracellular Ca²⁺ release channels (known as RyRs, for ryanodine rec...



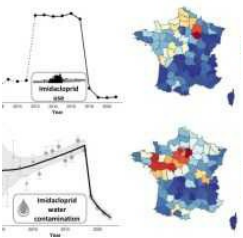
Pesticide reduction: clustering organic croplands

Authors: Waqas M, Chen YN, Desneux N Source: TRENDS IN ECOLOGY & EVOLUTION 39(6): 512-514, 2024, DOI 10.1016/j.tree.2024.04.011 Abstract: Organic and conventional farms often coexist, yet their proximity does not ensure compatibility. Larsen et al. reveal that being surrounded by organic fields reduces pesticide usage in organic fields but increases it in conventional fields. We discuss these findings, emphasizing the need to cluster organic croplands for reduced pesticide use.



Cadmium and phthalate impacts developmental growth and mortality of Spodoptera littoralis, but not reproductive success

Authors: Humann-Guillemint S, Fuentes A, Maria A, Couzi P et al. Source: ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY 281, 116605, 2024, DOI 10.1016/j.ecoenv.2024.116605 Abstract: Our environment is increasingly polluted with various molecules, some of which are considered endocrine disruptors. Metals and phthalates, originating from industrial activities, agricultural practices, or consumer products, are prominent examples of such pollutants. We experimentally investigated the impacts of the heavy meta...



Temporal and spatial trends of imidacloprid-related hazards in France

Authors: Perrot T, Bonmatin JM, Jactel H, Leboulanger C et al. Source: SCIENCE OF THE TOTAL ENVIRONMENT 945: 173950, 2024, DOI 10.1016/j.scitotenv.2024.173950 Abstract: Neonicotinoids are the top-selling insecticides worldwide. Because of their method of use, mainly to coat seeds, neonicotinoids have been found to widely contaminate the environment. Their high toxicity has been shown to be a major concern in terms of impact on biodiversity, and the use of these insecticides has been associated with...



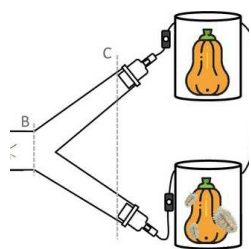
Exploring BPA alternatives – Environmental levels and toxicity review

Authors: Adamovsky O, Groh KJ, Bialk-Bielinska A, Escher BI et al. Source: ENVIRONMENT INTERNATIONAL 189: 108728, 2024, DOI 10.1016/j.envint.2024.108728 Abstract: Bisphenol A alternatives are manufactured as potentially less harmful substitutes of bisphenol A (BPA) that offer similar functionality. These alternatives are already in the market, entering the environment and thus raising ecological concerns. However, it can be expected that levels of BPA alternatives will dominate in the future, they ...



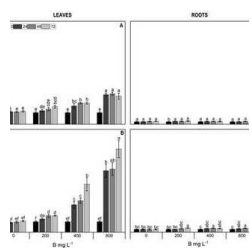
Beyond target chemicals: updating the NORMAN prioritisation scheme to support the EU chemicals strategy with semi-quantitative suspect/non-target screening data

Authors: Dulio V, Alygizakis N, Ng K, Schymanski EL et al. Source: ENVIRONMENTAL SCIENCES EUROPE 36(1): 113, 2024, DOI 10.1186/s12302-024-00936-3 Abstract: Background Prioritisation of chemical pollutants is a major challenge for environmental managers and decision-makers alike, which is essential to help focus the limited resources available for monitoring and mitigation actions on the most relevant chemicals. This study extends the original NORMAN prioritisation scheme beyond target chemicals, pr...



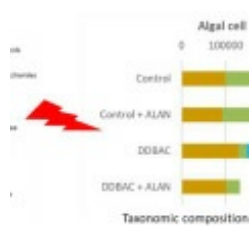
Novel approaches to assess lethal and sublethal effects when evaluating risks of biopesticides toward beneficial arthropod

Authors: Laterza I, Vitale ML, Agostinacchio MF, Bennani Z et al. Source: CABI AGRICULTURE & BIOSCIENCE 5(1): 54, 2024, DOI 10.1186/s43170-024-00249-8 Abstract: Background Biopesticides are defined as substances derived from naturally occurring materials (i.e., plants, microorganisms and minerals) characterized by low environmental effects, rapid degradation, and low toxicity for humans and beneficial insects. However, the assumption of safety for beneficials is generally solely based on the ev...



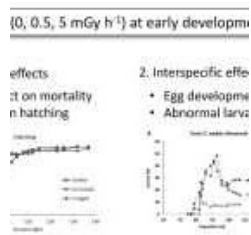
Effects of Foliar Boron Application on Physiological and Antioxidants Responses in Highbush Blueberry (*Vaccinium corymbosum* L.) Cultivars

Authors: Reyes-Díaz M, Cárcamo-Fincheira P, Tighe-Neira R, Nunes-Nesi A et al. Source: PLANTS-BASEL 13(11): 1553, 2024, DOI 10.3390/plants13111553 Abstract: Boron (B) is a micronutrient crucial for the growth, development, productivity, and quality of crops. However, in areas characterized by acid soil (pH(water) < 5.0) and high rainfall, soil B concentration tends to decrease, leading to insufficient supply to crops. This study was aimed at determining the optimal rate of B fertilization to enh...



Experimental testing of two urban stressors on freshwater biofilms

Authors: Vrba R, Lavoie I, Creusot N, Eon M et al. Source: AQUATIC TOXICOLOGY 272: 106972, 2024, DOI 10.1016/j.aquatox.2024.106972 Abstract: Aquatic ecosystems and their communities are exposed to numerous stressors of various natures (chemical and physical), whose impacts are often poorly documented. In urban areas, the use of biocides such as dodecyldimethylbenzylammonium chloride (DDBAC) and their subsequent release in wastewater result in their transfer to urban aquatic ecosystems. DDBAC is kno...



Common and inter-specific toxic effects in three wild fish species after chronic gamma irradiation of early stages

Authors: Simon O, Guirandy N, Dasque L, Dubourg N et al. Source: JOURNAL OF ENVIRONMENTAL RADIOACTIVITY 277: 107459, 2024, DOI 10.1016/j.jenvrad.2024.107459 Abstract: The objective of this study was to investigate the effects of gamma irradiation on the aquatic environment. We used three wild fish species to compare phenotypic responses with a fish model such as *Danio rerio*. We focused on embryonic development, a sensitive life stage to stressors like ionizing radiation, to evaluate the effects of ...

IARC Monographs Volume 133: Anthracene, 2-bromopropane, butyl methacrylate, and dimethyl hydrogen phosphite

The International Agency for Research on Cancer (IARC) is pleased to announce that Volume 133 of the IARC Monographs, Anthracene, 2-bromopropane, butyl methacrylate, and dimethyl hydrogen phosphite, is now available online.

www.iarc.who.int

Combining non-targeted analysis with computer-based hazard comparison approaches to support prioritization of unregulated organic contaminants in environmental media

Combining non-targeted analysis with computer-based hazard comparison approaches to support prioritization of unregulated organic contaminants in environmental media Contact CTE@epa.gov email: CTE@epa.gov Citation: Prasse, C., C. Brueck, M. Newmeyer, S. Lupolt, Q. Lyu, J. Sobus, A. Williams, AND K. Nachman. Combining non-targeted analysis with computer-based hazard comparison approaches to support prioritization of unregulated organic contam...

cfpub.epa.gov



FREIA research project reveals recommendations for strategies to protect women's health against endocrine disrupting chemicals

Following five years of research, the EU-funded research project FREIA has published recommendations for health promotion strategies and EU-wide policy action to reduce exposure.

www.env-health.org

Évaluation de la deuxième stratégie nationale sur les perturbateurs endocriniens - Pour une future stratégie « zéro exposition aux perturbateurs endocriniens »

Auteurs : Émilie Rasooly, Frédéric Saudubray, IGEDD ; Nicolas Durand, Olivier Laboux, Sacha Reingewirtz, Inès Khoun, IGAS

www.igedd.developpement-durable.gouv.fr

REGLEMENTATION

Liste positive pour les groupements agréés : après les antibiotiques en 2014, les anticoccidiens sont à leur tour retirés

Après les antibiotiques en 2014, c'est au tour des anticoccidiens d'être retirés de la liste des médicaments à visée prophylactique que peuvent délivrer les groupements d'éleveurs agréés. Cette mesure a fait l'objet d'un arrêté publié au Journal officiel...

AVIS / EXPERTISES / NORMES

Genotoxicity of Prenatal and Early Childhood Exposure to Pesticides: A Protocol and Pilot Study of a Systematic Review and Meta-Analysis

Objectives: To systematically review and meta-analyse the genotoxic impact of prenatal and early childhood pesticide exposure, investigating prevalence, specific pesticides, effect size, mechanisms, genetic susceptibility, and vulnerable periods. Study Design: A protocol for systematic review and meta-analysis. A pilot study was also conducted to develop appropriate extraction and risk of bias tool. Methods: Adhering to 2020 PRISMA guidelines, the review will explore genotoxic impact of prenatal ...

medrxiv.org

The OBERON Project Contributed to Understanding the Impact of Endocrine Disruptors on Human Metabolism

The project aimed to better understand and identify environmental substances that can disrupt hormonal regulation in the human body was completed and the RECETOX center was involved at several levels.

www.recetox.muni.cz

DROIT ET POLITIQUE DE L'ENVIRONNEMENT

Planification écologique : appel à projets pour l'amélioration de la modélisation et des seuils de risques utilisés pour l'élaboration du Bulletin de santé du végétal

Une des actions portées dans la planification écologique vise à poursuivre l'amélioration du Bulletin de santé du végétal en renforçant la robustesse des observations et des éléments d'analyses de risques. Dans ce cadre, cet appel à projets vise à renforcer les outils de modélisation ainsi que les seuils de risques utilisés.

agriculture.gouv.fr



Un espace internet dédié au biocontrôle pour les professionnels agricoles

Le biocontrôle, est-ce synonyme de « lutte biologique » ? Comment s'intègre-t-il dans la protection intégrée des cultures ? Pour répondre à ces questions et diffuser le mode d'emploi de ces solutions auprès de la profession agricole, le ministère en charge de l'agriculture et l'ACTA (Association de coordination technique agricole) se sont mobilisés afin de rendre visibles et accessibles les ressources disponibles en France sur le sujet.

agriculture.gouv.fr

Ecophyto : lancement d'un AMI pour réduire l'usage des pesticides en agriculture

« Accélérer le déploiement et la massification de solutions alternatives à l'utilisation des produits phytopharmaceutiques », c'est l'objectif d'un nouvel appel à manifestation d'intérêt (AMI) lancé par le Gouvernement, ce mercredi 16 juillet 2024. Intitulé « Prise de risque amont aval et massification de pratiques visant à réduire l'usage des produits phytopharmaceutiques sur les exploitations agricoles » (Praam), il s'inscrit dans la stratégie Ecophyto 2030 annoncée en mai 2024.

www.actu-environnement.com

France 2030 : lancement d'un appel à manifestation d'intérêt visant à réduire l'usage des produits phytopharmaceutiques dans les exploitations agricoles

Dans le cadre de la stratégie Écophyto 2030 publiée en mai dernier, le ministère de l'Agriculture et de la Souveraineté alimentaire, le ministère de la Transition Ecologique et de la Cohésion des territoires, le ministère de l'Industrie et de l'Énergie, avec le secrétariat général pour l'investissement, en charge de France 2030, lancent l'appel à manifestation d'intérêt « Prise de risque Amont Aval et Massification de pratiques visant à réduire l'usage des produits phytopharmaceutiques sur les ex...

agriculture.gouv.fr



Le gouvernement du Canada diffuse une mise à jour de l'ébauche du rapport sur l'état des substances perfluoroalkyliques et polyfluoroalkyliques et une révision du Cadre de gestion des risques

En 2024, le gouvernement du Canada a publié une mise à jour de l'ébauche du rapport sur l'état des substances perfluoroalkyliques et polyfluoroalkyliques (SPFA), qui propose de conclure que la classe des SPFA, à l'exclusion des fluoropolymères tels que définis dans la mise à jour de l'ébauche du rapport, peut nuire à la santé humaine et à l'environnement.

www.canada.ca

Évaluation de la deuxième stratégie nationale sur les perturbateurs endocriniens - Pour une future stratégie « zéro exposition aux perturbateurs endocriniens » | IGEDD

Auteurs : SAUDUBRAY, Frédéric ; RASOOLY, Emilie ; DURAND, Nicolas ; LABOUX, Olivier ; REINGEWIRTZ, Sacha
Source : INSPECTION GENERALE DE L'ENVIRONNEMENT ET DU DEVELOPPEMENT DURABLE (IGEDD) ; INSPECTION GENERALE DES AFFAIRES SOCIALES (IGAS)
Rapport : mai 2024 Mise en ligne: juil. 2024, 203 p.
Télécharger : Rapport

www.igedd.developpement-durable.gouv.fr

REVUE DE PRESSE

Polluants organiques persistants : une exposition généralisée qui tend à diminuer

Un bilan de l'exposition des adultes aux polluants organiques persistants en France vient d'être dressé par des scientifiques du Centre de recherche en épidémiologie et santé des populations (CESP) à Villejuif. Possiblement dangereuse pour la santé, cette exposition est massive, bien qu'elle tende à diminuer depuis l'adoption de politiques publiques restreignant leur usage. Ce travail décrit par ailleurs un certain nombre de facteurs associés à une exposition plus importante à différentes substan...

www.inserm.fr

Pesticides dangereux en Tunisie : une menace persistante malgré les interdictions en Europe

De nombreux pesticides dangereux en Tunisie sont interdits en Europe. Ils continuent d'être commercialisés et utilisés en Tunisie, alerte la fondation allemande Heinrich-Böll-Stiftung dans son dernier rapport, malgré leur effet nocif sur la santé. Selon l'étude de la fondation, bien que la Tunisie ne produise pas de pesticides, elle en importe massivement.[...]

www.tekiano.com

Bilan 2023 du fonds d'indemnisation des victimes de pesticides (fivp)

Le Fonds d'Indemnisation des Victimes de Pesticides (FIVP) a publié son rapport d'activités 2023 le 9 août 2024. Avec une extension de son périmètre et une gestion centralisée des dossiers, le FIVP est devenu un acteur clé dans la reconnaissance et l'indemnisation des victimes de pesticides. Ce bilan met en lumière les actions, les défis et les perspectives du Fonds pour les années à venir.

www.generations-futures.fr

Il est coupable d'ignorer les alertes écologiques

Les deux scientifiques affirment, dans une tribune au « Monde », que les coûts de santé publique engendrés par les pollutions agricoles et industrielles dépassent de beaucoup les gains de pouvoir d'achat par lesquels on les justifie. Ils en appellent à en finir avec la procrastination, qui « sauve l'existant en sacrifiant l'avenir ».

environnementsantepolitique.fr

[] PotatoEurope 2024, vitrine d'une recherche active pour développer la production de pommes de terre

[Contenu proposé par La Pomme de terre française] Les producteurs de pomme de terre et leurs filières se sont dotés d'instituts de recherche et développement, spécificité du modèle français. Les innovations d'Arvalis et de ses partenaires techniques seront exposées au sein de cinq pôles thématiques : agronomie et fertilité ; protection des cultures ; ressources génétiques et innovations variétales ; stockage et conservation ; ainsi qu'outils numériques.

www.terre-net.fr

Impact des pesticides agricoles sur l'incidence de certains cancers : Une étude américaine révèle des risques accrus

Une équipe de chercheurs américains vient de publier une étude suivant l'utilisation de pesticides agricoles dans les différents comtés et l'incidence des cancers dans ces zones. Des facteurs confondants ont aussi été étudiés (tabagisme, vulnérabilité sociale, utilisation des terres agricoles, population totale).

www.generations-futures.fr



La pollution au chlorothalonil, un défi pour le traitement de l'eau potable

La pollution au chlorothalonil, fongicide agricole, s'est récemment retrouvée au-devant de la scène médiatique, lorsque l'Anses a revu à la baisse le danger posé par l'un de ses métabolites.

theconversation.com

[À relire] Pesticides : l'émergence de nouvelles technologies nanométriques se fait dans le brouillard

Associations, scientifiques et autorités le constatent : de plus en plus de pesticides sont actuellement développés sous forme nanométrique. Ni la recherche ni la réglementation ne sont encore capables d'estimer la balance bénéfice-risque de ces produits.

www.actu-environnement.com

Polluants éternels : la métropole de Lyon gagne une première bataille contre les industriels

Adam Gregor - Fotolia C'est une ordonnance de référé du tribunal judiciaire de Lyon qui pourrait faire date. Rendue le 2 août, suite à une requête de la métropole de Lyon, de la régie publique Eau du Grand Lyon, ainsi que du syndicat mixte Rhône-Sud, cette ordonnance nomme trois experts chargés d'établir les responsabilités des chimistes Arkéma et Daikin face à la présence de plusieurs polluants éternels (substances perfluoroalkylées et polyfluoroalkylées, les PFAS) dans les eaux pu...

www.lagazettedescommunes.com

PFAS : une étude alerte sur leur augmentation dans la composition des pesticides aux Etats-Unis

En novembre dernier, nous révélions avec le Pesticide Action Network Europe que 12% des substances actives pesticides autorisées dans l'Union Européenne étaient des PFAS, aussi appelés "polluants éternels". Cette utilisation des PFAS en tant que pesticide conduit à une diffusion de la pollution et entraîne une contamination des eaux de surface et potable sur l'ensemble du continent, notamment au TFA : un PFAS lui-même issu de la dégradation des pesticides-PFAS.

www.generations-futures.fr



PFAS et incinérateurs : un projet d'arrêté en consultation publique

Le 8 juillet 2024, un projet d'arrêté relatif à l'analyse des PFAS dans les émissions atmosphériques des installations d'incinération a été publié et a été ouvert à consultation publique jusqu'au 28 juillet dernier. Générations Futures a répondu à cette consultation et vous présente ici les tenants et aboutissants de ce projet.

www.generations-futures.fr

Traité mondial contre la pollution plastique : en coulisses, le regard des scientifiques français présents

Une coalition de scientifiques s'est formée pour peser dans les négociations et y faire valoir des arguments scientifiques. Une façon de peser contre le lobbying des industriels.

theconversation.com

Perturbateurs endocriniens : comment la recherche aiguillonne la réglementation

La 2e rencontre scientifique de l'Anses sur les perturbateurs endocriniens a examiné les derniers résultats de recherche sur les conséquences pour les milieux et l'Homme. Elle est également revenue sur le dialogue entre science et réglementation. [Article réservé aux abonnés].

www.actu-environnement.com

PVC: a harmful type of plastic that disrupts our hormones

Polyvinyl Chloride (PVC) is a commonly used plastic that exposes people and the environment to endocrine disrupting chemicals. Civil society groups across Europe are calling on EU policymakers to phase out this harmful plastic without delay.

www.edc-free-europe.org

Open-ended workshop on biological control agents and biostimulants

Growing concerns about the impact of pesticide use on biodiversity and human health – and increasing demand for products from biodiversity-friendly production systems – have led to growing interest in alternative methods of pest control, including particularly the use of microbial and invertebrate biological control agents (BCAs).

www.fao.org

EU Commission spreads unscientific information about pesticide reduction

According to a recent EU communication, the use and risk of chemical pesticides decreased by 46% compared to 2015-2017. Miraculous, for it contradicts Eurostat's pesticide sales data which show no clear decrease in pesticide use. It does not match the fact that sales of PFAS pesticides have tripled for example in France in the last 13 years. It does not match the 66% increase in the use of the most environmentally toxic pesticides in The Netherlands. It does not match the increase in sales of dan...

www.pan-europe.info

EPA Announces Changes to When It Assesses Potential Exposure to Pesticide Spray Drift

On July 15, 2024, the U.S. Environmental Protection Agency announced it is updating its process when it assesses the potential for exposure to pesticide drift when it reviews new active ingredient pesticide registrations or makes decisions on new use directions for existing pesticide registrations. EPA states it will review potential exposure to drift earlier in the review process

www.lawbc.com

New \$12 million research project aims to provide 'practical solutions to critical environmental challenges'

Scientists at Rice University, in collaboration with the U.S. Army Engineer Research and Development Center (ERDC), part of the Army Corp of Engineers, are making headway in addressing per- and polyfluoroalkyl substances (PFAS) contamination.

www.eurekalert.org

Le changement climatique contribue à augmenter l'utilisation des pesticides en France

Plus les températures augmentent et mettent les cultures sous tension, plus les agriculteurs ont tendance à utiliser davantage de pesticides.

theconversation.com



Découverte majeure de bactéries qui éliminent les PFAS, les redoutables polluants chimiques éternels

Les PFAS s'insinuent partout. Et ils sont difficiles à éliminer. Mais des chercheurs viennent de mettre la main sur des microbes qui pourraient nettoyer nos eaux polluées.

www.futura-sciences.com

PFAS pesticides cause havoc in the UK

PAN Europe recently revealed that PFAS pesticides residues are found in many fruits and vegetables. We also showed that one of their breakdown products TFA – a small and very soluble and mobile PFAS – is omnipresent in surface, ground and drinking water all over Europe. Our colleagues from PAN UK and FIDRA [The Scottish organisation] now show that the UK is facing the same pollution problem. These forever chemicals are deliberately sprayed on food and fields and their use is increasing. [...]

www.pan-europe.info

Letter: Civil society groups call on UNEP and the WHO to protect scientific integrity of scientific report on endocrine disruptors

A number of NGOs sent a letter to UNEP and the WHO calling for a strict policy on conflicts of interest in the update process for the state-of-the-science report on endocrine disrupting chemicals (EDCs).

www.env-health.org

Perturbateurs endocriniens : des leçons à tirer de l'évaluation de la stratégie du Gouvernement

C'est un tableau plutôt sombre qui a été dressé par les services d'inspection de l'Etat...

www.generations-futures.fr

PFAS dans les fumées d'incinération : l'État présente les détails de la campagne de mesures

Toutes les installations d'incinération de déchets devront mesurer les substances PFAS présentes dans les fumées. Un projet d'arrêté détaille le protocole et fixe le calendrier à respecter.

www.actu-environnement.com



Des analyses d'eau potable à l'échelle de l'UE révèlent la présence de TFA, un polluant éternel, dans 94 % des échantillons

Seule une interdiction rapide des pesticides PFAS et des gaz F peut sauver notre eau !...

www.generations-futures.fr

Pesticides : les volumes de vente ne baissent pas, la dangerosité oui

« Au cours des dix dernières années, la quantité totale de substances actives vendues en France est restée globalement stable autour de 70 000 tonnes (t), avec des fluctuations annuelles marquées, liées aux effets climatiques et aux comportements de stockage », indique une note (1) du ministère de la Transition écologique, publiée le 9 juillet, basée sur les déclarations de vente des distributeurs de produits phytopharmaceutiques. Ainsi, malgré la succession de plans Ecophyto, en 2022, les ventes...

www.actu-environnement.com



EU-Wide Drinking Water Testing Finds Forever Chemical TFA in 94 % of Samples: Only a Rapid Ban on PFAS Pesticides and F-Gases Can Save Our Water | PAN Europe

Alarmed by the high levels of contamination with the forever chemical TFA (trifluoroacetic acid) in European water bodies, the Pesticide Action Network (PAN Europe) analysed 55 drinking water samples (tap water and mineral water) from 11 EU countries. TFA mainly enters water as a degradation product of PFAS pesticides and F-gases. The results are summarised in the report TFA: The Forever Chemical in the Water We Drink. Key analysis results TFA was detected in 34 out of 36 European tap water sampl...

www.pan-europe.info

Neonicotinoid Insecticides Contribute to Honey Bee Vulnerability to Parasitic Varroa Mites

An article last month in Entomology Today, a publication of the Entomological Society of America, highlights the important findings of a study published earlier this year in the Journal of Insect Science. While there has been debate on whether neonicotinoid (neonic) insecticides or Varroa mites (Varroa destructor) are more detrimental to the survival of bees, evidence suggests that neonicotinoids are not only harmful individually but can increase vulnerability to parasitism from mites in western ...

beyondpesticides.org

Pollution marine aux biomédias : les conseils de Surfrider pour limiter les risques

L'ONG Surfrider publie un nouveau rapport sur la pollution marine par les biomédias, complété par un guide de bonnes pratiques. Plus qu'un simple constat, ils sont enrichis des retours de professionnels pour accompagner l'action contre cette pollution.

www.actu-environnement.com

EU Commission proposing to continue the use of dangerous pesticides captan and 8-hydroxyquinoline

This week the EU committee on pesticides SCoPAFF will discuss and vote on the renewal of two very toxic pesticides. Both proposals contradict EFSA's scientific conclusions. Captan is one of the most used fungicides in Europe. It is suspected to be both carcinogenic and toxic to reproduction and pollutes the drinking water. [...] The use was supposed to be limited to closed greenhouses. But Austria has made a strong plea to keep using it in open fields. This proposal is now taken over by the EU Co...

www.pan-europe.info

Pesticides dans les zones Natura 2000 : le Conseil d'Etat rejette le recours de FNE

Le Conseil d'Etat vient de rejeter le recours de France Nature Environnement (FNE) et de la Ligue pour la protection des oiseaux (LPO) relatif à l'utilisation des pesticides en zones Natura 2000.

www.reussir.fr