CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 4.5 **CAC48/CRD08**

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CODEX ALIMENTARIUS COMMISSION

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WORK OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES (CCPR)

(CX/CAC 25/48/7 Rev.1 and CX/CAC 25/48/7 Add.1)

(Comments of Benin, European Union, India, Mexico, Nigeria, Panama, Thailand, Zambia, CropLife International, National Health Federation)

Benin

Partie 1 – Normes et textes apparentés soumis pour adoption finale

Limites maximales de résidus (LMR) pour différentes combinaisons de pesticides/produits (étape 5/8)

Contexte : Une réunion conjointe du Groupe d'experts de la FAO et du Groupe d'évaluation principal de l'OMS sur les résidus de pesticides s'est tenue du 17 au 26 septembre 2024 à Rome, avec une session virtuelle supplémentaire le 9 octobre 2024. Le Comité d'experts a procédé à l'évaluation de 37 pesticides concernant les limites maximales de résidus (LMR) afin d'appuyer le Comité du Codex sur les résidus de pesticides (CCPR). Les évaluations de l'exposition alimentaire aux résidus médians issus d'essais contrôlés (STMR) et aux résidus les plus élevés (HR) ont été réalisées et ont indiqué la nécessité de nouvelles doses journalières admissibles (DJA) et doses de référence aiguës (ARfD) le cas échéant. Lors de la 56e session du Comité du Codex sur les résidus de pesticides, un consensus a été atteint pour soumettre 29 des 37 pesticides, concernant les LMR dans différents produits alimentaires, pour adoption à l'étape 5/8 par le CAC48. Se référer à l'annexe III sur les limites maximales de résidus pour les pesticides (à l'étape 5/8) (pour adoption par le CAC).

Position : La République du Bénin soutient les LMR proposées, mais demande la soumission de données toxicologiques pour le chlorpyrifos et la perméthrine afin de permettre au JMPR d'établir une DJA ou une ARfD pour les pesticides qui doivent faire l'objet d'une réévaluation périodique.

Justification : La République du Bénin reconnaît les conclusions des évaluations du JMPR 2024, qui ont confirmé qu'aucun dépassement des doses journalières admissibles (DJA) ni des doses aiguës de référence (ARfD) n'a été constaté avec les limites maximales de résidus (LMR) proposées. Ce constat souligne le caractère protecteur des LMR établies en matière de santé publique et favorisera à terme le commerce international.

Directives pour le suivi de la pureté et de la stabilité des matériaux de référence de pesticides et des solutions mères apparentées pendant un stockage prolongé – Étape 8

Contexte : La question de l'utilisation des matériaux de référence certifiés (MRC) au-delà de leur date de péremption a été soulevée pour la première fois lors de la 51e session du CCPR (2019). Entre les 52e et 54e sessions du CCPR (2021-2023), l'Argentine et l'Inde ont élaboré un document de discussion, affiné grâce aux contributions du groupe de travail d'experts (EWG), afin de définir le champ d'application, les critères et les protocoles. Lors de la 55e session du CCPR (2024), présidée par l'Inde, avec l'Argentine et Singapour comme coprésidents, les lignes directrices ont été révisées grâce aux contributions des groupes de travail EWG, VWG et ISWG et ont atteint l'étape 5, puis ont été approuvées par le CAC47 et sont passées à l'étape 6 pour commentaires. Le groupe de travail d'experts (EWG) (Inde, Canada, Iran et Singapour) a été chargé d'ajouter des dispositions relatives aux solutions étalons de pesticides mixtes et d'affiner le texte pour la 56e session du CCPR. Les membres ont approuvé l'utilisation des MRC au-delà de leur date de péremption si leur stabilité et leur pureté étaient maintenues dans des conditions de stockage appropriées. La 56e session du CCPR a convenu de transmettre les Lignes directrices pour le suivi de la stabilité et de la pureté des matériaux de référence et des solutions mères de pesticides au CAC48 pour adoption à l'étape 8 et a félicité l'EWG pour son travail.

Position : La République du Bénin soutient les travaux sur les lignes directrices relatives au suivi de la stabilité et de la pureté des matériaux de référence et des solutions mères de pesticides associées pendant un stockage prolongé, conformément à la procédure du Codex.

Justification : Ces lignes directrices aideront les laboratoires à relever les défis liés au contrôle de la stabilité des matériaux de référence de pesticides pendant un stockage prolongé, tout en améliorant la fiabilité, l'efficacité et la sécurité sanitaire des aliments, et en favorisant le commerce régional et international.

Correction de la définition de « graisse » dans la Classification des produits destinés à l'alimentation humaine et animale (CXA 4-1989)

Contexte : Le CCPR56 a convenu de transmettre les modifications apportées à la section 4.8 (Principes d'analyse des risques appliqués par le Comité du Codex sur les résidus de pesticides) du Manuel de procédures du Codex (Annexe II, partie 1) et la correction apportée à la définition du terme « matière grasse » dans la classification des aliments pour l'homme et les animaux (CXA 4-1989) au CAC48 pour adoption (Annexe II, partie 2).

Position : La République du Bénin soutient les modifications apportées à la section 4.8 et la correction de la définition du terme « matière grasse ».

Partie 2

Approbation de la liste prioritaire de pesticides à évaluer par la Réunion conjointe FAO/OMS sur les résidus de pesticides (JMPR)

Contexte : Le Groupe de travail d'experts (EWG), présidé par l'Australie, a établi les calendriers d'évaluation des pesticides pour la JMPR 2026 et les années suivantes. Les travaux ont débuté en septembre 2024 et les commentaires finaux ont été reçus le 16 mai 2025 (CL2024/89-PR). L'EWG a reçu des commentaires, des propositions d'évaluation/réévaluation et une préoccupation en matière de santé publique. Parmi les principaux résultats figurent :

Confirmation de l'homologation de deux nouveaux composés en 2026 : Fenmezoditiaz et Metytetraprole

Nouvelles utilisations : 27 propositions de nouvelles utilisations, dont la hiérarchisation des 20 composés prioritaires, sept d'entre eux étant placés sur la liste de réserve 2026.

Examen périodique proposé pour 7 composés et confirmation du soutien pour l'Indoxacarb (216) et l'hydrazide maléique (102)

Demande de soutien/données pour le Carbaryl (008), le bromure de méthyle (52), le Disulfoton (74), le Pirimiphos-méthyl (86) et la Flumethrine (195).

Le CCPR56 a convenu de :

i approuver la liste prioritaire de pesticides à évaluer par la JMPR en 2026 et la soumettre au CAC48 pour approbation (Annexe VIII) ;

ii rétablir le groupe de travail ad hoc sur les calendriers et les priorités, présidé par l'Australie et travaillant en anglais, afin qu'il présente un rapport sur les calendriers et les listes de priorités pour examen lors de la prochaine réunion du CCPR ;

Position : La République du Bénin remercie le groupe de travail ad hoc présidé par l'Australie et tous les États membres qui ont participé à l'avancement de ces travaux. La République du Bénin soutient les calendriers et les listes de priorités de pesticides proposés concernant les nouvelles substances, les nouvelles utilisations et l'examen périodique.

Partie 3

Approbation de la révocation des LMR Codex (CXL) pour différentes combinaisons de pesticides/produits agricoles, telle que proposée par le CCPR56.

Le CCPR56 a demandé la révocation des CXL pour (Annexe IV) 30 pesticides pour des produits alimentaires spécifiques et a également demandé au CAC48 de révoquer toutes les CXL pour le fenthion (39), le parathion-méthyl (59), le dinocap (87), l'amitraz (122) et le bitertanol (144) ainsi que les CXL pour le méthamidophos (100) pour les graines de coton, la betterave fourragère, la pomme de terre et la canne à sucre (Annexe IV), en notant la réserve de la Thaïlande concernant l'« amitraz ».

Position : La République du Bénin soutient la révocation des composés.

Partie 4

Arrêt des travaux sur les LMR pour différentes associations pesticide/produit(s) ayant été retirées de la procédure par étapes

La Commission est invitée à approuver l'arrêt des travaux sur les LMR pour différentes combinaisons de pesticides/produits agricoles retirées par le CCPR de la procédure par étapes. Le CCPR56 a convenu de ce qui suit :

i LMR pour certaines combinaisons de pesticides/produits agricoles retirées de la procédure par étapes - REP25/PR, paragraphe 217(ii)(a), annexe V

ii Il a été noté que : 7 LMR (Phosmet, Iprodione, Carbosulfan, Propiconazole, Fenpyroximate, Fipronil et Pydiflumetofen) appliquées à des produits alimentaires spécifiques dans le cadre de la procédure par étapes ont été retirées (arrêt des travaux) (annexe V) et que le CAC en serait informé en conséquence.

Position : Le République du Bénin soutient l'arrêt des travaux sur les LMR pour différentes combinaisons de pesticides/produits agricoles.

Partie 5

Mesures relatives au financement du JMPR

Contexte : La 56e session du CCPR a souligné la nécessité urgente d'un soutien adéquat de la FAO et de l'OMS à la Réunion conjointe sur les résidus de pesticides (JMPR) afin de garantir l'établissement en temps voulu de limites maximales de résidus de pesticides (LMR) fondées sur des données scientifiques. Constatant l'absence de mécanisme de financement ou de personnel pour mettre en oeuvre des mesures à court terme, le CCPR56 a demandé à la Commission du Codex Alimentarius (CAC) de réitérer à la FAO et à l'OMS, ainsi qu'à leurs organes directeurs, l'importance cruciale de soutenir et de doter adéquatement le JMPR en ressources afin de lui permettre de mener à bien ses travaux efficacement.

Position : La République du Bénin appuie la réitération, par l'intermédiaire de la CAC, auprès de la FAO, de l'OMS et des autres organes directeurs, de l'importance du JMPR pour l'établissement rapide et efficace de LMR de pesticides fondés sur des données scientifiques.

Partie 6

Insertion, dans les CXL pour la matière grasse laitière (FM 0183) dans la base de données du Codex sur les LMR pour les pesticides, dans tous les cas où des CXL ont été établies concernant les pesticides liposolubles dans le lait aussi bien pour le lait (ML 0106) que pour la matière grasse laitière (FM 0183), de la note suivante: «à des fins de suivi et de réglementation, le lait entier doit être analysé, et le résultat doit être comparé aux LMR pour le lait entier».

Contexte : Le CCPR40 (2008) a convenu que, pour les pesticides liposolubles, la surveillance devait se faire par analyse du lait entier, en comparaison avec la LMR pour le lait entier, et il a été demandé au JMPR d'ajouter une note de bas de page à côté des LMR.

La décision n'a jamais été mise en oeuvre et une mise à jour de la base de données du Codex est nécessaire. Lors de la 55e session du CCPR en 2024, il a été demandé au JMPR d'ajouter la note de bas de page convenue à toutes les futures recommandations de LMR pour lesquelles des LMR existent à la fois pour le lait et la matière grasse du lait. Le JMPR doit donner son avis sur l'application rétroactive aux composés identifiés. Les conditions d'application de la note de bas de page sont les suivantes :

- S'applique uniquement lorsque des LMR existent pour le lait et la matière grasse du lait
- Insérée en regard de la LMR pour le lait
- S'applique uniquement aux pesticides liposolubles
- S'applique que les LMR pour le lait et la matière grasse du lait soient identiques ou différentes

L'étape suivante consistait pour le CCPR 56 à confirmer l'insertion de la note de bas de page dans la base de données du Codex et à examiner les recommandations du JMPR de 2024.

Le CCPR56 ;

i a demandé au Secrétariat du CCPR56 d'insérer la note « à des fins de surveillance et de réglementation, le lait entier doit être analysé et le résultat comparé à la LMR pour le lait entier » dans les LMR pour les matières grasses du lait (FM 0183) de la base de données du Codex sur les LMR pour les pesticides dans tous les cas où des LMR sont établies pour les pesticides liposolubles dans le lait (ML 0106) et les matières grasses du lait (FM 0183), y compris celles dont l'adoption est recommandée lors des futures sessions du CCPR56 ;

ii a noté qu'à des fins de transparence, le CAC en serait informé en conséquence.

Position : La République du Bénin remercie le Secrétariat du Codex d'avoir examiné les composés pour lesquels des LMR sont établies à la fois pour le lait et les matières grasses du lait et appuie l'insertion de la note suivante : « à des fins de surveillance et de réglementation, le lait entier doit être analysé et le résultat comparé à la LMR pour le lait entier » dans tous les cas pertinents pour les pesticides liposolubles. Elle demande également au JMPR d'appliquer cette note de manière cohérente et souligne la nécessité de renforcer les capacités des États membres en matière de méthodes pour relever les défis liés aux pesticides à solubilité intermédiaire dans les graisses.

Justification : L'ajout de cette note de bas de page au calendrier permettra de surmonter les difficultés techniques rencontrées par de nombreux laboratoires qui utilisent des méthodes d'analyse ne permettant pas de séparer la matière grasse du lait sans extraire également des résidus de la partie non grasse de l'échantillon analysé.

European Union

MRLs for different combinations of pesticide/commodity(ies) at Step 5/8

General comments

The European Union (EU) supports the adoption of all the proposed draft MRLs in Appendix II to REP25/PR at Step 5/8 with the exception of the reservations for the draft MRLs for the substances/commodities listed below and of any additional reservations for draft MRLs for substances/commodities the EU may express orally during the session. The EU requests that all its reservations be included in the report of CAC48.

The current EU policy is to propose a Commission Regulation for inclusion of Codex MRLs (CXLs) into EU legislation if the following conditions are fulfilled: (1) that the EU sets MRLs for the commodity under consideration; (2) that the current EU MRLs is lower than the CXL.

With the aim of increasing transparency and predictability regarding the impact of the work of the Codex Alimentarius Commission on EU legislation, the EU makes reservations to the proposed MRLs when (1) the proposed CXL is not safe for European consumers, (2) toxicological data are not available at EU level (3) the proposed CXL is not sufficiently supported by data as required according to the FAO manual or other agreed requirements; (4) if the residue definition set by JMPR is incompatible with the residue definition set at EU level, and (5) that the CXL is acceptable to the EU with respect to areas such as supporting data, extrapolations, as well as environmental issues of global nature in accordance with WTO rules.

Reservations of the European Union

15 CHLORMEQUAT

Reservation on the advancement of the proposed MRL group of avian, edible offal of; group of eggs; group of edible offal (mammalian); group of mammalian fats (except milk fat); and group of muscle (from mammalians other than marine mammals); due to the EU observation that the result of the feeding study was rounded to a higher MRL than required.

41 FOLPET

Reservation on the advancement of the proposed MRLs for: bananas; barley; group of avian muscle; group of avian fats; group of avian, edible offal of; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of muscle (from mammals other than marine mammals); group of milks; wheat; and wine grapes, due to the wider residue definition for plant and animal commodities for enforcement in the EU, which includes phthalamide and which is not compatible with the one derived by JMPR and pending the outcome of an ongoing EU assessment of an import tolerance for banana.

103 PHOSMET

Reservation on the advancement of the proposed draft MRLs for cranberries and potatoes, citing health risks identified for their consumers.

142 PROCHLORAZ

Reservation on the advancement of the proposed MRLs for avocado; barley; group of avian, edible offal of; group of avian fat; group of avian muscle; group of edible offal, mammalian; group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammalian other than marine mammals); oats; rye; triticale; and wheat, as the EU considers that the TTC approach should only be used for minor metabolites and not for BTS 44595, which is a major prochloraz metabolite in ruminant tissues and the predominant metabolite in many crops, including cereal grains. The EU also identified an acute risk for avocado for EU consumers.

147 METHOPRENE

Reservation on the advancement of the proposed MRLs for group of avian, edible offal of; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals); and tree nuts, due to the lack of toxicological data evaluated at EU level.

160 PROPICONAZOLE

Reservation on the advancement of the proposed MRLs for group of avian, edible offal of; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals) based on the lack of data on the magnitude and toxicity of metabolites expected in plant and animal products that need to be considered in the dietary risk assessment. In the EU assessment the toxicological data were found insufficient to conclude on the genotoxicity potential and the general toxicity of some of the metabolites.

273 BUPROFEZIN

Reservation on the advancement of the proposed MRLs for group of avian, edible offal; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of muscle (from mammals other than marine mammals); group of mammalian fats (except milk fats), as an increase of the existing limit of quantitation (LOQ) for products of animal origin was unnecessary based on the technical development of analytical methods.

176 HEXYTHIAZOX

Reservation on the advancement of the proposed MRLs for cane berries subgroup, as the assessment of the same GAP in an import tolerance application led to a lower MRL of 3 mg/kg in the EU.

184 ETOFENPROX

Reservation on the advancement of the proposed MRLs for group of eggs as according to the rounding rules included in Section 5.3 of the FAO Manual, based on the OECD standards, the MRL should be set at 0.07 mg/kg and not rounded up to 0.1 mg/kg.

189 TEBUCONAZOLE

Reservation on the advancement of the proposed MRLs for cumin seed pending the outcome of an ongoing evaluation in the EU.

193 FENPYROXIMATE

Reservation on the advancement of the proposed MRLs for apple; cucumber; group of edible offal (mammalian); group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals); subgroup of mandarins (including mandarin-like hybrids); subgroup of oranges, sweet, sour (including orange-like hybrids); tomatoes; and cherry tomatoes, pending outcome of the ongoing periodic review in the EU.

202 FIPRONIL

Reservation on the advancement of the proposed MRLs for banana; barley, similar grains, and pseudocereals with husks, subgroup of; cotton seed; dry beans, subgroup of (except soya beans); dry peas, subgroup of; group of avian, edible offal of; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals); leafy vegetables, group of; maize cereals, subgroup of; onion, bulb; potato; rice, husked; root and tuber vegetables, group of (except potato and sugar beet); soya bean (dry); sugar beet; sugar cane; sunflower seeds, subgroup of; tomato, subgroup of; wheat, similar grains, and pseudocereals with husks, subgroup of, as a chronic risk has been identified for EU consumers.

217 NOVALURON

Reservation on the advancement of the proposed MRLs for group of avian, edible offal of; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of tree nuts; muscle (from mammals other than marine mammals); and poultry muscle, due to the lack of toxicological data evaluated at EU level.

239 CYPROCONAZOLE

Reservation on the advancement of the proposed MRLs for group of muscle (from mammals other than marine mammals); group of mammalian fats (except milk fats); group of milks; group of edible offal (mammalian); group of avian muscle; group of avian fats; group of avian, edible offal of; and group of eggs, noting that for products of animal origin, an updated dietary burden calculation is needed since the methodology has changed since 2021.

242 FLUBENDIAMIDE

Reservation on the advancement of the proposed draft MRL for group of edible offal (mammalian); group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals) as a new dietary burden calculation should be performed to derive the MRL proposals according to the current methodology.

285 FLUPYRADIFURONE

Reservation on the advancement of the proposed MRLs for group of avian edible offal of; group of avian fats; group of avian muscle; group of edible offal, mammalian; group of eggs; group of mammalian fats (except milk fats); group of milks; and group of muscle (from mammals other than marine mammals) as the Codex MRL proposals were not compatible with the EU residue definition for enforcement.

288 ACIBENZOLAR-S-METHYL

Reservation on the advancement of the proposed MRLs for cardoon; celery; fennel, bulb; apple; rhubarb; group of muscle (from mammals other than marine mammals); group of mammalian fats (except milk fats); group of edible offal (mammalian); group of milks; group of avian edible offal of; group of avian fats; group of avian muscle; and group of eggs, pending the outcome of the revision of existing EU MRLs given the availability of new toxicological data.

309 PYDIFLUMETOFEN

Reservation on the advancement of the proposed MRLs for lettuce, head; coffee bean; cotton seed; group of avian fats; group of avian muscle; group of avian edible offal; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals); mango; pitaya (dragon fruit); subgroup of cane berries; stem brassicas (subgroup); underground immature beans and peas (subgroup), pending the outcome of the ongoing approval process at EU level. In addition, an acute consumer risk associated with lettuce, head was identified for European consumers.

324 TETRANILIPROLE

Reservation on the advancement of the proposed MRLs for group of avian edible offal; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of milks; group of muscle (from mammals other than marine mammals); rice, husked; subgroup of barley, similar grains, and pseudocereals with husks; subgroup of wheat, similar grains, and pseudocereals without husks, due to the lack of toxicological data evaluated at EU level.

339 CYCLOBUTRIFLURAM

Reservation on the advancement of the proposed MRLs for banana based on the lack of available toxicological data at the EU level, and that the residue trials may not reflect the most critical situation due to the timing of the application and harvest.

340 FENPROPIDIN

Reservation on the advancement of the proposed MRLs for banana due to an acute risk for EU consumers.

341 FLORPYRAUXIFEN-BENZYL

Reservation on the advancement of the proposed MRLs for group of edible offal (mammalian) as the CXL was not compatible with the EU residue definition for enforcement.

342 FLUOXAPIPROLIN

Reservation on the advancement of the proposed MRLs for cherry tomato; grapes; group of avian edible offal; group of avian fats; group of avian muscle; group of edible offal (mammalian); group of eggs; group of mammalian fats (except milk fats); group of muscle (from mammals other than marine mammals); group of milks; onion, bulb; potato; and tomato, pending the outcome of the toxicological evaluation and approval process at EU level.

India

Guidelines for monitoring the stability and purity of reference materials and related stock solutions of pesticides during prolonged storage (Step 8)

India supports the adoption of "*Guidelines for monitoring the stability and purity of reference materials and related stock solutions of pesticides during prolonged storage"*

Rationale: These guidelines are expected to provide a set of internationally agreed provisions that can be applied consistently worldwide to monitor the stability and purity of Certified Reference materials (CRM's)/stock solutions.

Mexico

- **<u>Parte 1. Normas y textos afines presentados para su aprobación definitiva</u>**

Límites máximos de residuos (LMR) para diferentes combinaciones de plaguicidas y productos

- **México está a favor de la aprobación definitiva** de los LMR recomendados por el Comité del Codex sobre Residuos de Plaguicidas en su Quincuagésima Sexta reunión, evaluados por la Reunión Conjunta FAO/OMS sobre Residuos de Plaguicidas **(JMPR).**

  Se subraya la pertinencia de su uso para cultivos de interés nacional (por ejemplo: okra/ocra y rosella/jamaica) y se reitera la necesidad de mantener un proceso basado en evidencia científica y transparente en futuras actualizaciones.

Directrices para el seguimiento de la pureza y la estabilidad del material de referencia y soluciones madre de plaguicidas conexas durante el almacenamiento prolongado.

- **México está a favor de la aprobación definitiva**, toda vez que considera técnicamente adecuada la guía propuesta sobre la pureza y estabilidad de materiales de referencia y soluciones madre de plaguicidas durante el almacenamiento prolongado.

  No obstante, recomienda que el periodo de evaluación de estabilidad se reduzca de una vez al año a dos veces por año, y que se asegure el control de las condiciones de luz, temperatura, humedad y concentración, a fin de preservar la integridad del material de referencia.

  Asimismo, se reitera que la legislación mexicana prohíbe el uso de materiales de referencia caducos, por lo que estas recomendaciones contribuyen a mantener la calidad analítica de los laboratorios nacionales.

Corrección de la definición de "grasa" que figura en la Clasificación de alimentos y piensos (CXA 4-1989)

- **México está a favor de la aprobación definitiva**, y toma nota de la corrección de la definición de "grasa" en la Clasificación de alimentos y piensos (CXA 4-1989) y no presenta observaciones técnicas.

- **<u>Parte 2. Propuesta de lista de prioridades en materia de plaguicidas para evaluación por la JMPR para su aprobación</u>**

Lista de prioridades en materia de plaguicidas para evaluación por la JMPR

- **México está a favor de la aprobación definitiva** de la lista de prioridades de plaguicidas para evaluación por JMPR, conforme a las recomendaciones del CCPR56. Se respalda que la priorización se base en criterios científicos y de riesgo, manteniendo transparencia en la selección, e invitando a los Miembros a aportar información nacional (usos autorizados, GAP, datos de residuos y consumo) para sustentar futuras evaluaciones y actualizaciones de LMR.

- **<u>Parte 3. Normas y textos afines del Codex cuya revocación se propone</u>**

LMR del Codex para determinadas combinaciones de plaguicidas y productos.

- **México está a favor de la revocación de LMR para determinadas combinaciones de plaguicidas y productos, conforme a las recomendaciones del Comité y las evaluaciones del JMPR.**

  Se respalda la eliminación de aquellos LMR que carecen de respaldo científico actualizado o cuyos plaguicidas ya no se encuentran autorizados a nivel internacional, con el fin de mantener la coherencia en el sistema del Codex. Asimismo, se destaca la importancia de mantener informados a los países productores sobre los plaguicidas sujetos a revocación, para garantizar la trazabilidad y la inocuidad en el comercio internacional de alimentos.

- **<u>Parte 4. Trabajos que se interrumpen</u>**

LMR para determinadas combinaciones de plaguicidas y productos retirados del procedimiento de trámites.

- **México está a favor de la interrupción** de los LMR para determinadas combinaciones de plaguicidas y productos retirados del procedimiento de trámites por el Comité, de conformidad con las recomendaciones del JMPR.

  Se respalda la decisión, al considerar que los plaguicidas involucrados no cuentan con datos recientes de evaluación toxicológica ni de residuos, y su mantenimiento podría generar confusión o riesgos comerciales. La interrupción de estos trabajos contribuye a la transparencia y a la integridad científica del sistema de LMR del Codex.

- **Parte 5. Otras cuestiones que requieren la adopción de medidas**

Reiterar a la FAO y la OMS y sus órganos rectores la importancia crucial que reviste que la JMPR respalde el establecimiento de LMR de plaguicidas sobre la base de datos científicos de forma oportuna y eficiente y que la JMPR cuente con recursos adecuados para efectuar su labor.

- **México está a favor** de **reiterar a la FAO y la OMS** la importancia de fortalecer la capacidad operativa y financiera de JMPR, a fin de que pueda evaluar de manera oportuna y eficiente los plaguicidas y sustentar el establecimiento de LMR con base en datos científicos actualizados. Se destaca que la puntualidad en las evaluaciones de la JMPR resulta esencial para garantizar la armonización internacional de los LMR, evitar disrupciones en el comercio agroalimentario y preservar la credibilidad técnica del Codex.

- **Parte 6. Otras cuestiones a título informativo**

Inclusión de la nota "a efectos de seguimiento y regulación, deberá analizarse la leche entera y compararse el resultado con el LMR para la leche entera" en los LMR del Codex relativos a las grasas de leche (FM 0183) que figuran en la base de datos del Codex de LMR de plaguicidas en todos los casos en que se establezcan LMR del Codex para plaguicidas liposolubles tanto en leches (ML 0106) como en grasas de leche (FM 0183).

- **México toma nota y está a favor** de la inclusión de la nota aclaratoria referente al análisis de leche entera y la comparación de resultados con el LMR establecido para grasas de leche (FM 0183), conforme a lo acordado en el Comité.

  Se reconoce la importancia técnica de esta aclaración para armonizar la interpretación de resultados analíticos, particularmente en plaguicidas liposolubles, y para fortalecer la coherencia entre los LMR aplicables a leche (ML 0106) y los de grasas de leche (FM 0183) en la base de datos del Codex. Esta precisión contribuye a evitar inconsistencias en la aplicación regulatoria y comercial, y a mantener la integridad científica de los valores de referencia utilizados por los países miembros.

Programación de una sesión virtual del Grupo de trabajo electrónico (GTe) conjunto que preceda a una sesión virtual conjunta del CCPR y del Comité del Codex sobre Residuos de Medicamentos Veterinarios en los Alimentos (CCRVDF).

- **México toma nota y respalda** la programación de una sesión virtual del Grupo de Trabajo Electrónico (GTe) conjunto CCPR/CCRVDF, previa a la reunión conjunta de ambos comités, con el objetivo de dar seguimiento a los compuestos de doble uso y promover la coherencia técnica entre los Límites Máximos de Residuos de plaguicidas y de medicamentos veterinarios en los alimentos.

  Se reconoce la pertinencia de este mecanismo de coordinación, ya que facilita el intercambio de información científica, optimiza recursos y evita duplicidades en las evaluaciones de riesgo realizadas por la JMPR y la JECFA, fortaleciendo así la base científica de las decisiones del Codex.

Nigeria

Guidelines for monitoring the stability and purity of reference materials and related stock solutions of pesticides during prolonged storage

Nigeria supports the adoption of "Guidelines for monitoring the stability and purity of reference materials and related stock solutions of pesticides during prolonged storage" at step8

Rationale

These guidelines help laboratories more reliably and efficiently monitor the stability of pesticide reference materials during long-term storage. This, in turn, improves food safety and supports regional and international trade.

Panama

English

Our country expresses its strong support for the standards and texts submitted by the Codex Committee on Pesticide Residues (CCPR56) for adoption by the 48th session of the Codex Alimentarius Commission (CAC48). We acknowledge the rigorous scientific process followed by the CCPR and the advice provided by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR), as well as the collaborative work of Members and Observers, which ensures the protection of consumer health and the safety of international food trade. In particular, we support the adoption of the Maximum Residue Limits (MRLs) for food and feed, as well as the Guidelines for monitoring the stability and purity of pesticide reference materials and stock solutions during long-term storage, recognizing that they provide a sound technical and scientific basis for effective implementation by Member States.

We also support the proposed list of pesticide priorities for evaluation by the Joint Monitoring Programme (JMPR) and consider it essential that this body have the necessary resources to ensure the timely evaluation of compounds, avoiding delays that could affect food safety, international trade, and the reduction of food losses. Our country values the international harmonization of Maximum Residue Limits (MRLs) and the adoption of updated scientific criteria, which strengthen the transparency, regulatory coherence, and reliability of national food control systems, ensuring that decisions based on scientific evidence are available without delay to the international community.

Spanish

Nuestro país expresa su firme apoyo a las normas y textos presentados por el Comité del Codex sobre Residuos de Plaguicidas (CCPR56) para su adopción por la 48.ª reunión de la Comisión del Codex Alimentarius (CAC48). Reconocemos el riguroso proceso científico seguido por el CCPR y el asesoramiento proporcionado por la Reunión Conjunta FAO/OMS sobre Residuos de Plaguicidas (JMPR), así como el trabajo colaborativo de los Miembros y Observadores, que garantiza la protección de la salud de los consumidores y la seguridad del comercio internacional de alimentos. En particular, respaldamos la adopción de los Límites Máximos de Residuos (LMR) para alimentos y piensos, así como las Directrices para el seguimiento de la estabilidad y pureza de materiales de referencia y soluciones madre de plaguicidas durante almacenamiento prolongado, reconociendo que proporcionan una base técnica y científica sólida para la implementación efectiva por los Estados Miembros.

Asimismo, apoyamos la propuesta de lista de prioridades de plaguicidas para evaluación por la JMPR y consideramos esencial que este órgano cuente con los recursos necesarios para garantizar la evaluación oportuna de los compuestos, evitando retrasos que podrían afectar la seguridad alimentaria, el comercio internacional y la reducción de pérdidas de alimentos. Nuestro país valora los esfuerzos de armonización internacional de los LMR y la adopción de criterios científicos actualizados, los cuales fortalecen la transparencia, la coherencia regulatoria y la confiabilidad de los sistemas nacionales de control alimentario, asegurando que las decisiones basadas en evidencia científica estén disponibles sin demoras para la comunidad internacional.

Thailand

Revocation of CXLs for Amitraz

Thailand would like to reiterate its reservation as reflected in the paragraphs 238 and 239 of the report of the 56th Session of Codex Committee on Pesticide Residues (CCPR), regarding the revocation of Codex MRLs for Amitraz.

In principle, Thailand recognizes the importance of establishing MRLs for all registered pesticides to ensure consumer health protection and to prevent potential trade issues. These objectives are consistent with the mandate of Codex as an international food standard-setting body.

Since Amitraz remains an effective compound that continues to be registered and used in many countries, including Thailand, and as no public health concerns have been identified for this compound in the process of periodic review, Thailand considers the retention of all Codex MRLs for Amitraz to be beneficial as international reference values.

Therefore, Thailand would like to formally record its **reservation** on the revocation of Codex MRLs for Amitraz for the reasons stated above and requests that this reservation be noted in the report.

Zambia

Maximum Residue Limits (MRLs) for Different Combinations of Pesticide/Commodity(ies), Step 5/8

Position:

Zambia supports the adoption of the proposed Maximum Residue Limits (MRLs). However, Zambia requests the submission of comprehensive toxicological data for chlorpyrifos and permethrin to enable JMPR to establish or confirm Acceptable Daily Intakes (ADI) and Acute Reference Doses (ARfD) for these compounds, which are due for periodic re-evaluation. Zambia further notes and supports the outcomes of the JMPR 2024 evaluations, which confirmed that none of the proposed MRLs would lead to exceedances of ADIs or ARfDs. This finding reinforces the view that the proposed MRLs are protective of consumer health while also facilitating safe and fair international trade.

Guidelines for Monitoring the Stability and Purity of Reference Materials and Related Stock Solutions of Pesticides During Prolonged Storage, Step 8

Position:

Zambia supports the advancement and adoption of the Guidelines for Monitoring the Stability and Purity of

Reference Materials and Related Stock Solutions of Pesticides During Prolonged Storage through the Codex Step Procedure.

Rationale:

The guidelines will assist analytical laboratories in addressing challenges related to the monitoring and maintenance of pesticide reference materials during long-term storage. Adoption of these guidelines will enhance data reliability, analytical efficiency, and the overall quality assurance of pesticide residue testing, thereby strengthening food safety systems and supporting regional and international trade.

Adoption of Correction to the Definition for "Fat" in the Classification of Food and Feed (CXA 4-1989)

Position:

Zambia supports the proposed amendments to Section 4.8 and the correction to the definition of "fat". The correction will ensure consistency and clarity in classification and interpretation across Codex standards and facilitate harmonized implementation by Member Countries.

Revocation of Codex MRLs (CXLs) for Different Combinations of Pesticide/Commodity(ies) as Forwarded by CCPR56

Position:

Zambia supports the revocation of the specified compounds as recommended by CCPR56. However, Zambia requests that appropriate alternative compounds be identified and proposed to ensure that revocation does not create regulatory gaps that could negatively impact pest management practices or international trade.

Discontinuation of Work on MRLs for Different Combinations of Pesticide/Commodity(ies) Position:

Zambia supports the discontinuation of work on MRLs for the relevant pesticide/commodity combinations as outlined under item 5(a). The decision is consistent with Codex principles for efficient resource utilization and scientific prioritization.

Action on Sponsorship of JMPR

Position:

Zambia supports the reiteration through the Codex Alimentarius Commission (CAC) to FAO, WHO, and other relevant governing bodies on the importance of maintaining adequate sponsorship and support for JMPR. Continued and timely JMPR evaluations are essential for ensuring that Codex MRLs are science-based, up-to-date, and reflective of global food safety priorities

Insertion of a Note to the CXL for Milk Fats

Position:

Zambia appreciates the efforts of the Codex Secretariat in reviewing compounds with Codex MRLs established for both milk and milk fat. Zambia supports the insertion of the following note: "For monitoring and regulatory purposes, whole milk is to be analyzed, and the result compared to the MRL for whole milk." This clarification will ensure consistency in analytical practice and improve comparability of monitoring data across countries. Zambia also encourages JMPR to apply this note consistently across all relevant cases for fat-soluble pesticides. Furthermore, Zambia underscores the importance of capacity building for Member States, particularly in analytical methods for pesticides with intermediate fat solubility, as these compounds present additional technical challenges during testing. The inclusion of this footnote will help laboratories overcome analytical difficulties in separating fat from milk without compromising residue analysis accuracy.

CropLife International

CropLife International (CLI) is an Observer to Codex and represents the crop protection industry in their role as data submitters to JMPR/CCPR. The organization is the global advocate for trade and regulatory policies that give farmers access to the technologies required to meet food production challenges. This includes ensuring the responsible and safe use of plant science innovations.

1. Meeting sequencing and scheduling challenge

CropLife International supports returning the annual Codex Alimentarius Commission (CAC) meeting to its original (pre-pandemic) schedule - meeting yearly in July, shifting from its current annual November timing. We strongly urge Members, Observers and Codex Secretariat to support the Joint Meeting on Pesticide Residues and the Codex Commission on Pesticide Residues (JMPR/CCPR) with all efforts available to also bring the JMPR-CCPR-CAC sequence of meetings to their usual order throughout the calendar year so that there are no further significant delays in setting new and reviewing existing Codex MRL standards (CXLs). Any delays in JMPR meetings also delay the setting of hundreds of CXLs each year and could have a negative

impact on the whole food value chain, including international food trade, consumer safety, and risk communication related to Codex standards.

The problem at hand

A significant backlog has built up in the Codex MRL standard-setting process due to a number of bottlenecks: delays during the COVID-19 pandemic; the growing number of CXLs which need to be re-evaluated regularly; and the limited resources at JMPR. This backlog will be further worsened by scheduling CAC49 in July 2026 which would be before the CCPR57 meeting, tentatively planned for September 2026, introducing an additional 10-month delay in adoption of Codex standards for pesticide residues. The delay in holding CCPR57 is necessitated by JMPR convening only in Q1 or Q2 2026 instead of the originally planned dates in September 2025. This means that it will take more than two and a half years (30 months) to establish CXLs, compared to the usual timeline of 19 months or even the post-pandemic extended timeline of 23 months. The Codex Alimentarius Commission serves as the pre-eminent international food standards-setting body, playing a vital role in consumer safety protection and agricultural trade facilitation through the establishment of standards, such as the CXLs for pesticides. The Codex standards are also recognized as the corner-stone of the World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary (SPS) measures. As highlighted in REP25/PR, the JMPR review process is fundamental to the science-based establishment of pesticide MRLs in a timely and efficient manner. At a time when all stakeholders are calling to enhance efficiencies in Codex, this could have a negative impact on the adoption and acceptance of Codex MRLs globally.

Why it matters

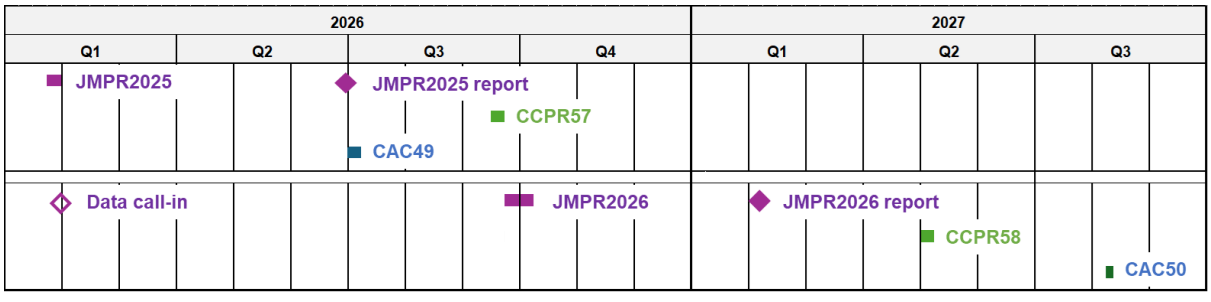
The efficient functioning of the Codex process is vital for farmers, food traders, food production companies, governments who adopt or refer to Codex standards, as well as consumers, as it facilitates the safe trade of food globally. With CCPR being the committee proposing the highest number of standards to be adopted by the Codex Alimentarius Commission, procedural issues introducing significant delays have the potential for far-reaching and systemic consequences:

- Trade Challenges: The lengthening of the pesticide CXL adoption process from 23 to over 30 months creates immediate trade barriers, as crops treated with pesticides held back in the review process struggle to enter international markets. This disruption has cascading effects throughout the agricultural value chain.
- Socio-Economic Impact: Farmers and exporters, particularly in developing regions, could face substantial economic losses from restricted market access, potentially destabilizing agricultural communities and regional economies dependent on export revenue. Additionally, food security could be negatively impacted if CXLs adoption delays impact widely imported crops.
- Consumer Safety: Timely re-evaluation and adoption of pesticide CXLs ensures that international food safety standards reflect the latest scientific assessments and risk evaluations, ensuring continued consumer protection worldwide.

Proposed solution

The FAO and the WHO need to align and quickly hold a JMPR (the one which should have been held in September 2025 already) and then act to bring the JMPR cycle to its normal timing of issuing the data call-in after the JMPR meeting, hosting another JMPR in Q3 2026 and publishing the outcomes from that meeting in a final report in early 2027. This would help schedule CCPR58 for May 2027, allowing the outputs of both CCPR57 and CCPR58 meetings to be considered by CAC50 in July 2027.

Proposed schedule of meetings:



Alternatively, Codex Alimentarius Commission meetings could maintain the current annual meetings in November until the sequence of meetings (JMPR > CCPR > CAC) is back on schedule, although we recognize that the CAC reset is important for work of other Committees too.

CropLife International also supports the comments and proposals made by Brazil in CX/CAC 25/48/7 Add.1.

2. Developments related to the proposed change of dietary exposure methodology used by JMPR for evaluating data and proposing Codex MRL pesticide residue values in foods

CropLife International reiterates its position outlined in the CCPR56 CRD14 and supports the conclusions of CCPR56 expressed in paragraphs 44 to 47 of the meeting Report REP25/PR.

It is imperative that JMPR focuses its already stretched resources on assessing residue and toxicology data for the purpose of proposing new and revising existing CXLs. As brought up by a number of CCPR Members and Observers during CCPR56, significantly more clarity and effort needs to be provided by JMPR to clearly outline the needs, best practices, and implementation strategy for the proposed methodology change and to actively involve the risk managers from CCPR in the process. CropLife International proposes that this activity is organized separately from the dossier evaluation work by JMPR so that it does not interfere and further delay the process of proposing and setting Codex MRLs. Separating this work in an alternative track and regularly including it in upcoming CCPR meetings and discussions would allow to clearly and methodically address the various concerns raised by multiple stakeholders related to the proposed new dietary risk assessment methodology and its implementation.

National Health Federation (NHF)

The National Health Federation (NHF) respectfully submits the following comments noted below for this Commission's consideration in establishing the Maximum Levels for the specified pesticide residues in food and feed.

Introductory Statement

Everything in the natural world is connected. All life, together, forms one cohesive ecosystem. What happens to one piece of that whole, therefore, must affect ***all life***, positively or negatively. When one part of the ecosystem is disrupted, it can lead to a cascade of effects that destabilize the entire system. The extinction of a single species, for example, can lead to a loss of biodiversity, which causes the breakdown of food chains and impacts other species that rely upon them for survival. Such disruptions can go on to alter natural processes, such as pollination and nutrient cycling, ultimately impacting human societies that depend on these natural processes.

All pesticides leave varying amounts of residue. These residues are consistently found in surface water, groundwater, and even ocean waters, causing degradation of one of the most essential ingredients for all life on Earth. Pesticide residues are also pervasive in the air we breathe and in the soil from which life grows. The foods we eat contain residues from pesticides sprayed on and around our food.

This widespread contamination leads to the concentration and bioaccumulation of these residues in water, soil and, most concerningly, in the fatty tissues of almost all animals, including human beings.

Pesticides, collectively, are associated with a wide range of adverse health effects. These include nerve damage, endocrine disruption, reproductive disorders, neurotoxicity, kidney and liver damage, autoimmune conditions, and cancer. They cause interference in metabolic pathways of mammals and disruption of natural processes like photosynthesis or the shikimate pathway in plants and microbes.

The long-term, toxic effects on the World's population and our environment as a whole – consumers, farmers, adults, children, animals, plants, insects, birds, aquatics, and microbes – must be considered when creating Codex standards and national regulations for the use of any and all pesticides.

A living organism will always attempt to adapt to its environment in order to survive. This adaptation can lead to resistance. To illustrate, the Arctic fox has developed thicker, denser fur to resist the increasingly harsher, colder climate in which it lives. But this adaptation is not always a natural evolution, nor is it always beneficial. Antimicrobial resistance, including drug resistant bacteria, fungi, parasites, and viruses, has become increasingly common, in large part due to the overuse and pervasiveness of both pesticides and antibiotics. For example, most conventionally raised livestock are chronically ill due to their living conditions, non-species-appropriate diet, and constant exposure to toxins such as the chemical cocktail of fungicides, insecticides, herbicides, desiccants, and other genetically engineered environmental inhibitors found in and on the GMO grain and alfalfa they often consume. Because they are ill, they are then given frequent antibiotics, contributing to antibiotic resistance, which causes more and more pesticide use on crops. It is a vicious, toxic cycle that must be stopped. The only way to do this is to address the root cause of this growing problem.

Globally, there is a widespread and interconnected health crisis affecting almost all forms of life. As humans, we are currently experiencing a chronic health epidemic. Bird and insect populations are declining alarmingly, while aquatic species are exhibiting significant dysfunction, with many showing signs of reproductive and developmental abnormalities.

Systemic effects must also be taken into consideration. In particular, the pervasive presence of pesticides, which are absorbed by plants and kill or otherwise impact the organisms that rely on them for food. This creates a ripple effect throughout ecosystems overall. If we stopped to consider that the insects are dying from feeding off plants that pesticides were applied to, and the birds are dying from eating the insects that were contaminated by the plants, would it not be reasonable for us to question whether there are any safe MRLs for human food or animal feed?

As long as we hold on to the idea that pesticide use is safe until proven harmful and wait for "scientific research studies" to prove that it is causing harmful health issues, we will be waiting forever. There are too many variables, too many combined effects, and too much interconnectedness of life itself to pinpoint any one thing as the cause of the worldwide problems we are seeing. There is no feasible way to fund and execute unbiased research on the combination of the hundreds of thousands of chemicals, genetically modified organisms, and synthetic biology used in agriculture and other food systems, along with the chemical reactions and long-term changes that happen at the metabolic level in living organisms when exposure to these toxins occurs. Remember, if you take away the interference, all life on Earth will have the ability to heal and thrive.

PESTICIDE USE and MRLs

There has been a sharp rise in pesticide use worldwide since 1945, which correlates with a rise in chronic disease rates. **In 1960, there were 196 million pounds of pesticides applied in agriculture, while in 2022, statistics show that number to be a staggering 8,157 million pounds applied.** During this same period, chronic illnesses, including autoimmune diseases, have increased at a similarly alarming rate. In fact, estimates of the yearly increases in the overall worldwide incidence and prevalence of autoimmune diseases are 19.1% and 12.5%, respectively. Many studies suggest that long-term exposure to pesticides may contribute to these health issues by disrupting endocrine function and causing oxidative stress. This alarming trend highlights the need for increased caution and safer alternatives to pesticide use. It also underscores the need for more research into pesticide exposure's potential health impacts.

There are at least 336 scientific articles on *PubMed* alone showing a correlation between exposure to endocrine active pesticides (endocrine disruptors) and illnesses and conditions mediated by pesticide-residue-induced inflammation: congenital anomalies, developmental and cognitive/neurodegenerative disorders, DNA and genetic damage, oxidative stress, carcinogenic effects, reproductive disorders in both man, bees, aquatic, and terrestrial species, soil, and much more. Additionally, the risk of miscarriage, low birth weight, hypospadias, cryptorchidism, and micropenis were significantly greater in areas with higher use of pesticides in relation to those with lower use. It is well established that pesticide residues constitute a significant source of contamination of our air, water, and soil, thereby creating a continuous threat to the healthy co-existence of plant and animal communities in the ecosystem, let alone the knock-on effects upon human health.

A study by Pimentel (1995) showed that only a small percentage (0.3%) of applied pesticides go into the target pest while 99.7% go into the environment. With losses due to pests leading to one-third of the World's agricultural production being lost annually juxtaposed against the degradation of entire global ecosystems by 99.7% with those pesticide residues, many of which remain in the soils for many years after the initial exposure, entering the environment, it is clear that this is neither wise nor sustainable, particularly when building soils would strengthen plants so they wouldn't require the synthetic chemicals or at least not at the current usage rates.

In 2010, Monsanto was granted a patent for glyphosate as an antimicrobial or antibiotic. Glyphosate targets the shikimate pathway in plants. Humans do not have this metabolic pathway, the basis for many of the safety claims that have been made. However, bacteria do, which means glyphosate harms the necessary, beneficial bacteria in the human gut, thus harming immune system function. As of May 2025, Bayer/Monsanto has reached settlement agreements in nearly 100,000 Roundup lawsuits, paying out approximately $11 billion because glyphosate in Roundup has been proven in countless instances in a court of law to be toxic to humans and the environment. The company has agreed to remove glyphosate from residential Roundup, but its replacement consists of a combination of four highly toxic chemicals, diquat dibromide, Fluarzifop-P butyl, triclopr, and imazapic and the big Ag industry continues to use enormous amounts of glyphosate on human food products as well as Agrifeed.

A 2015 study titled "Assessment of three approaches for regulatory decision making on pesticides with endocrine disrupting properties," noted that no specific science-based approach for the assessment of substances with endocrine disrupting properties had been agreed upon./1 It doesn't appear that since that time, a decision has been reached either.

Moreover, antifungals are applied to prevent agricultural plants from rotting. Some scientists cite evidence that rampant use of fungicides on crops is contributing to the surge in drug-resistant fungi infecting humans./2 "It's an enormous problem," said Matthew Fisher, a professor of fungal epidemiology at Imperial College London, who was a co-author of a recent scientific review on the rise of resistant fungi. "We depend on being able to treat those patients with antifungals."

In fact, Dr. Lynn Sosa, Connecticut's deputy state epidemiologist states that the urgent threat of fungal infection C. auris is "the top" threat among resistant infections and that "it's pretty much unbeatable and difficult to identify." Like antibiotic resistance, resistance to antifungal drugs and other such products is now becoming prevalent and antifungal-product overuse in farming is being blamed.

SPECIFIC SUBSTANCES

None of the following toxic chemicals should be advanced in the 8-Step process for the reasons set forth in this CRD:

ACETAMIPRID (246)

High potential for bioaccumulation and is highly toxic to birds, which not only affects the bird populations but the food chain as well. Heath risks: Steatosis, neurodevelopment, immune system, and CNS impair; and male reproductive system damage. Moreover, evidence indicates acetamiprid may influence hormone levels – it has been linked to reduced testosterone in humans, and to abnormalities in rodents' reproductive development and brain structure. PAN Europe

Continuous exposure to acetamiprid, even at nanogram levels, triggers changes in protein expression across worker bees and queens, possibly affecting reproduction, growth, and immune responses. PubMed Combined with other insecticides, the result will be exactly what we are witnessing currently: a great decline in bee populations and colony collapse! There have been NO studies on the cumulative and synergistic effects of all of these insecticides, so none of these MRLs should be advanced.

See also Hazard Statements at:

https://pubchem.ncbi.nlm.nih.gov/compound/Acetamiprid#section=Hazard-Classes-and-Categories

ACIBENZOLAR-S-METHYL (228) or ASM

According to the UK Pesticide Properties Database, ASM shows moderate toxicity toward: Aquatic life (fish, daphnia); Birds; and Earthworms. Although ASM generally degrades in soil and water, it can exhibit moderate persistence, especially under anaerobic conditions. This indicates meaningful ecological risks even when labeled use is followed.

The European Food Safety Authority (EFSA) noted that current data are **insufficient to fully assess ASM's potential as an endocrine disruptor**. This unresolved status has led to regulatory concern. EFSA JournalEuropean Food Safety Authority Consequently, the **European Commission withdrew its approval** of ASM in mid-2024, citing the manufacturer's inability to provide adequate data and a **self-classification of the substance as toxic for reproduction**. Usage authorizations are being phased out. Classified as a fungicide, antimicrobial, and an endocrine disruptor

ACYNONAPYR (333)

Extremely toxic to aquatic life, both immediately and over the long term, posing a high ecological threat to fish, algae, crustaceans, and other aquatic organisms. Even minimal amounts entering water bodies can have devastating effects. Long-term animal studies found increased rates of **tumors and lymphomas**, including hemangiomas in lymph nodes and malignant lymphomas in male rodents. fsc.go.jp Moreover, studies report **reduced fertility indicators**, including fewer implantations, lower conception rates, and reduced offspring weights. In rabbits, **abortion and low fetal body weight** occurred at higher doses. fsc.go.jp

There's limited information regarding its environmental fate and persistence, meaning potential long-term ecological consequences are unclear. It also has a high partition coefficient (log K_{ov} ≈ 6.65), suggesting **potential for bioaccumulation and mobility** in ecosystems. assets.lgcstan

While Acynonapyr may be effective as an acaricide (mite insecticide), the combination of environmental and health hazards – especially its extreme aquatic toxicity, carcinogenic and reproductive concerns, chronic organ toxicity, and fire/explosion risks – raises serious red flags. Without more evidence of safe use, environmental containment, or safer alternatives, its continued use poses unnecessary harm to humans, ecosystems, and communities.

BUPROFEZIN (173)

Despite its past use as an insect growth regulator for controlling pests like whitefly and mealybugs, **Buprofezin raises serious ecological, health, and environmental concerns**. It is **highly toxic to aquatic organisms**, including fish embryos and larvae –studies report dramatically reduced hatch rates (e.g., only 25% hatching at 25 mg/L and near 0% at 100 mg/L) and low LC_{50} values in Daphnia, signifying substantial environmental risk sitem.herts.ac.ukPMC.

Moreover, Buprofezin poses **threats to beneficial insects**: it negatively affects the life history traits and reproductive success of Encarsia formosa, a parasitoid wasp that helps control whitefly populations, by

reducing emergence rates and parasitism performance Aseestant. In terms of environmental fate, the chemical is **moderately to very persistent in soils and aquatic systems**; its low volatility and solubility combined with soil persistence increase the risk of long-term ecological impact sitem.herts.ac.uk.

When it comes to mammalian and human health, Buprofezin has been linked to **liver, heart, and thyroid damage in chronic rodent studies**, with observations of renal and cardiac lesions, although not definitively carcinogenic, these findings raise red flags inchem.orgFederal Register. Regulatory bodies, including the U.S. EPA, recognize **potential aneugenic effects** – chromosomal mis-segregation – although in vivo mutagenicity was not confirmed, giving it a "very low" carcinogenic risk rating Federal Register.

Furthermore, **bioaccumulation is a concern**: Buprofezin's log K_ow exceeds 3, suggesting potential to concentrate in organisms and pose risks through the food web. This includes elevated risks of secondary poisoning for animals that feed on contaminated prey, especially in greenhouse settings PMC.

In summary, **Buprofezin's use is problematic** due to its high toxicity to fish and beneficial insects, its environmental persistence and bioaccumulation potential, and its documented harmful effects on mammalian organs and endocrine systems. Together, these concerns suggest that its use should be restricted or avoided, particularly in sensitive ecosystems or near water sources.

See also: https://pubchem.ncbi.nlm.nih.gov/compound/Buprofezin#section=GHS-Classification

CARFENTRAZONE-ETHYL (338)

There is insufficient information on this chemical, as admitted by Australia and Canada, and therefore the MRLs for C-E should NOT be advanced.

https://www.pesticideinfo.org/chemical/PRI1902

CHLORPYRIFOS (17) or CPF

Particularly nasty, it is one of the most commonly used pesticides worldwide. However, keeping in view its toxic effects such as genotoxicity, immunotoxicity, cytotoxicity, oxidative stress, neurotoxicity, and mutagenicity, CPF has been banned in various countries. **The residues have been detected in almost all living organisms.**

https://pmc.ncbi.nlm.nih.gov/articles/PMC9566616/

https://pmc.ncbi.nlm.nih.gov/articles/PMC1253789/

https://www.sciencedirect.com/science/article/abs/pii/S0048969720361787

CHLORMEQUAT (015)

Toxicological studies suggest that exposure to Chlormequat can reduce fertility and harm the developing fetus at doses lower than those used by regulatory agencies to set allowable daily intake levels. CHLORMEQUAT is an endocrine disruptor, affecting reproductive and developmental health.

https://www.sciencedirect.com/science/article/abs/pii/S0378427419303480

CYCLOBUTRIFLURAM (339)

NHF disagrees with Australia and Canada that this chemical should be advanced to Step 5/8 for the following reasons:

Cyclobutrifluram is a synthetic SDHI (succinate dehydrogenase inhibitor) used as a nematicide and fungicide, and there are multiple, significant concerns that argue against its use.

First and foremost, it belongs to the PFAS class – chemicals known for their extreme persistence and environmental hazards. As a PFAS pesticide, Cyclobutrifluram presents long-lasting environmental contamination risks; once applied, it can persist in soil and water for months to years. This includes conversion into trifluoroacetic acid (TFA), a breakdown product **with a ~200-year half-life**, known for its links to cancer and reproductive harms The New Lede.

Multiple studies have shown toxic impacts of cyclobutrifluram on animals. Exposures in lab studies have triggered thyroid disruptions, liver effects, and body weight changes in rodents, yet EPA's classification of it as "not likely to be carcinogenic" has been criticized for relying on under-dosed carcinogenicity tests that may have underestimated cancer risk The New LedeCenter for Food Safety.

Inadequate safety assessments also cast further doubt. Human health risk evaluations have been labeled vague and weak, especially regarding thyroid effects, spray-drift protections, and carcinogenic thresholds. Some statements in the EPA risk assessments have been called "unsupported" or unenforceable by expert reviewers Environmental Protection NetworkRegulations.gov.

Ecologically, although EPA's preliminary evaluation suggests low risks to many species, uncertainties remain regarding long-term effects. The active ingredient is persistent in soil (with half-lives from 100 days up to nearly 3 years), moderately mobile – posing risks of leaching into groundwater – and may generate toxic metabolites. Labeling changes (e.g., reduced application rates, pollinator protections) may mitigate some risks, but do not fully discount broader environmental exposure pathways through runoff and drift.

Regulations.govPublicNow DocsThe New Lede.

Finally, several reviewers argue that the environmental and public health review was rushed, with key knowledge gaps left unaddressed. Given the availability of alternative practices and the irreversible nature of PFAS contamination, many argue that registration approval would be premature and potentially irresponsible Beyond PesticidesThe New Lede.

In summary, the MRLs for Cyclobutrifluram should not be advanced because of:

- **Persistent PFAS contamination**: long-lasting environmental presence, including toxic degradates like TFA.
- **Potential health risks**: thyroid, liver, weight effects in animals; cancer risk possibly underestimated.
- **Weak human health risk assessment**: vague conclusions, under-supported mitigation measures.
- **Environmental exposure threats**: soil persistence, mobility, and insufficient data on metabolites.
- **Regulatory and scientific criticism**: reviewers highlight rushed approval, insufficient data, and unaddressed hazards.

Given these substantial concerns – especially around longevity, ecological spread, and health effects – Cyclobutrifluram should not be used until and unless these risks are fully addressed through transparent, complete assessment and proven safe alternatives are available.

CYPROCONAZOLE (239)

Cyproconazole, a commonly used triazole fungicide, poses significant environmental, health, and regulatory concerns. It is **persistent in soil and water** and has a high risk of leaching into groundwater, making it both environmentally pervasive and long-lasting WikipediaAERUefsa.onlinelibrary.wiley.com. Notably, it is classified by the European Union as **toxic for reproduction (Category 1B)**, harmful if swallowed, damaging to the liver, and **very toxic to aquatic life** with long-lasting effects, signaling both acute and chronic hazards to ecosystems European Parliament.

Ecotoxicity beyond aquatic organisms is also a concern. Cyproconazole is **highly toxic to birds** and **moderately toxic to mammals, earthworms, aquatic organisms, and honeybees**, raising serious concerns about its impact on biodiversity WikipediaAERU. Further, studies show that cyproconazole, especially in combination with other fungicides like azoxystrobin, can cause **deleterious effects to freshwater fish**, suggesting synergistic environmental risks ScienceDirect.

Regarding human and mammalian health, the EPA classifies Cyproconazole as **"**not likely to be carcinogenic to humans,**"** yet studies have documented **liver effects, thyroid follicular hyperplasia, and histopathological changes**, indicating potential chronic toxicity concerns at certain dose levels Federal RegisterRegulations.gov. Importantly, Cyproconazole also exhibits **endocrine-disrupting properties**, including binding to estrogen receptors, disrupting hormone production, and interfering with steroidogenesis pathways – effects demonstrated across multiple assay types .

PMCPubMedResearchGate.

Lastly, regulatory scrutiny further underscores its problematic nature: while the FDA and EPA have found dietary exposure risks to be within acceptable limits, the **fact that EU approval for Cyproconazole expired in 2021**, combined with its reproductive toxicity classification and environmental hazards, suggests a substantial regulatory pullback WikipediaEuropean Parliament.

In summary: **Cyproconazole's environmental persistence, threat to aquatic and terrestrial species, reproductive and endocrine-disrupting potential, and documented chronic organ toxicity strongly argue against its continued use**.

FENPROPIDIN (340)

Fenpropidin raises substantial concerns across environmental, ecological, and human health domains. It is **extremely toxic to aquatic life**, with both acute (H400) and chronic (H410) hazards documented, posing serious risks to fish and invertebrates even at low environmental concentrations LGC Standards. It is also **moderately toxic to birds, mammals, earthworms, and non-target arthropods**, indicating a broader ecological threat AERU. From a human-health standpoint, fenpropidin is classified as **harmful if swallowed,**

inhaled, or in contact with skin, and can cause significant irritation, respiratory distress, allergic skin reactions, and even organ damage through prolonged exposure LGC StandardsAPVMA.

Chronic toxicity studies reveal alarming systemic effects: repeated exposure leads to neurological damage (demyelination and hindlimb paralysis), liver lesions, eye cataracts, and bladder epithelial changes in animal studies, raising serious concerns about long-term safety APVMA. Moreover, developmental and reproductive toxicity has been documented, including skeletal malformations, neurodevelopmental impairments in pups (reduced brain weight, cortical thickness), and reduced sperm counts—all in the absence of maternal toxicity – highlighting unacceptable risks to offspring health Federal Register.

Environmental persistence adds to the worry: fenpropidin is **highly volatile and water-soluble**, is moderately persistent in soils and water, and is prone to drift, increasing the likelihood of unintended contamination AERU. Finally, emerging studies on fish bioaccumulation demonstrate **enantioselective uptake and metabolism**, with certain metabolites showing **greater toxicity than the parent compound**—underscoring the need for continuous monitoring and revealing that environmental and health risk assessments may significantly understate its true hazards PubMedResearchGate.

In short: Fenpropidin's broad ecological toxicity, human health hazards, reproductive and developmental risks, environmental persistence and volatility, drift potential, and emergence of highly toxic metabolites collectively make a compelling case that its use should be **discontinued** or severely restricted until full, transparent safety assessments are completed.

FENPYROXIMATE (193)

Fenpyroximate raises numerous concerns across environmental, ecological, and human health domains, making its continued use highly questionable. This acaricide and insecticide is **extremely toxic to aquatic organisms**, including both acute and chronic effects on fish and invertebrates, as confirmed by EFSA hazard assessments efsa.onlinelibrary.wiley.comAERU. Moreover, it poses **chronic toxicity risks to birds and terrestrial invertebrates**, and may also impair reproductive and developmental processes in mammals AERU.

From a human health perspective, fenpyroximate exhibits **moderate oral and inhalation toxicity**, and is a **skin sensitizer** – capable of causing allergic reactions upon contact Government of Canada Publications. Repeated exposure in animal studies has resulted in symptoms such as diarrhea, torpor, emaciation, slight bradycardia, and decreased body weight, alongside **increased liver weights and hepatocellular necrosis** in female rats Regulations.govFederal Register. Inhalation exposure studies also identified respiratory distress, labored breathing, increased lung weights, and damage to nasal and olfactory tissues Regulations.govFederal Register.

From an environmental fate standpoint, Fenpyroximate has **low aqueous solubility** and is **not typically volatile**, but can be **persistent in soil depending on conditions**, with the potential for **particle-bound transport**, thus posing a risk to ecosystems AERU. While the compound does not readily leach into groundwater, its persistence and transport via soil particles could still lead to environmental contamination.

In **one single paragraph**, Fenpyroximate should be avoided due to its **acute and chronic toxicity to aquatic and terrestrial wildlife**, **moderate human toxicity and sensitizing potential**, **evidence of systemic harm in animals including liver and respiratory damage**, and **environmental persistence that risks soil and ecosystem health**. When safer and more environmentally benign alternatives are available, priority should be given to those rather than continuing use of Fenpyroximate.

FIPRONIL (202)

NHF agrees with Egypt that the MRLs for Fipronil should be lowered, for the following reasons and more:

1. Severe Toxicity to Non-Target Wildlife & Pollinators

- **Bees**: Fipronil is highly toxic to honeybees, with minute doses (LD_{50} ≈ 0.004 µg/bee) causing colony collapse, impaired navigation, and synergistic harm alongside bee pathogens. The EU banned its use on maize and sunflowers after EFSA identified "high acute risk to honeybees."Wikipedia+1
- **Terrestrial Invertebrates & Ecosystems**: In places like Madagascar, the pesticide caused drastic declines in termite populations – species vital for soil health and food chains – leading to downstream effects on insectivorous lizards and mammals. PubMed

2. Ecosystem Damage — Aquatic and Soil Organisms

- **Aquatic Toxicity**: Fipronil poses high mortality risk to fish and aquatic invertebrates, with its more toxic, persistent metabolites (sulfone, desulfinyl) compounding the danger. PubMedNational Pesticide Information CenterWikipedia

- **Soil & Sediment Impact**: It binds to sediments and can bioaccumulate in fish (bioconcentration factors up to 575), raising concerns for food chain contamination. PubMedNational Pesticide Information Center

3. Persistence and Environmental Hazards

- **Long Half-Lives & Toxic Metabolites**: Fipronil breaks down slowly (up to 7 months in soil), and its transformation products may be even more toxic and persistent.PubMedScienceDirect+1

Fipronil is an effective insecticide but its widespread environmental toxicity, persistence, and associated health risks far outweigh the benefits. It's especially harmful to key species like bees, aquatic life, and ecosystem processes. Pet treatments particularly introduce this toxicant into everyday environments, jeopardizing wildlife and human health.

FLORPYRAUXIFEN-BENZYL (341)

F-B has risks to the environment and ecology:

1. **Toxicity to Non-Target Aquatic and Terrestrial Plants:** Florpyrauxifen-benzyl is harmful to non-target aquatic and terrestrial plants. Even minor spray drift can damage sensitive vegetation like soybeans, grapes, and tomatoes. mda.state.mn.usfiles.dnr.state.mn.us
2. **Acute Risk to Aquatic Organisms:** Freshwater fish and invertebrates show *slightly elevated acute toxicity* at exposure levels beyond recommended limits. mda.state.mn.us
3. **Disruption of Soil Microbial Communities:** Repeated application significantly alters the soil bacterial diversity and community structure, potentially impacting soil health and function. ScienceDirect
4. **Environmental Persistence of Degradates**: While the parent compound degrades relatively rapidly, the combined total of toxic residues – including longer-lasting degradates – can persist for extended periods in soil and sediment. outside.vermont.govPMC

There are also human & wildlife health considerations:

1. **Limited Human Toxicity Does Not Preclude Risk**: Although acute toxicity, carcinogenicity, genotoxicity, and reproductive effects appear low or negligible, the focus remains primarily on short-term studies; long-term or cumulative impacts may not be fully assessed. Mass.govfsc.go.jpoutside.vermont.gov
2. **Emerging Evidence of Genotoxicity and Hepatotoxicity in Aquatic Animals:** Studies on Nile tilapia have demonstrated liver toxicity, DNA damage, and oxidative stress in fish, suggesting possible broader environmental toxicity beyond what earlier assessments indicated. Beyond PesticidesBeyond Pesticides

Although florpyrauxifen-benzyl has relatively favorable acute toxicity profiles for humans and some wildlife, key risks remain:

- **Ecological harm to plants and aquatic organisms**
- **Disturbance of soil microbial ecosystems**
- **Potential persistent toxicity of degradates**
- **Emerging evidence of harmful effects in fish**

Given these concerns – especially in sensitive agricultural or aquatic environments – it would be prudent to reassess its use, consider buffer zones or drift reduction strategies, or explore safer alternatives.

FLUAZINAM (306)

Fluazinam is toxic and induces contact dermatitis in some individuals, with symptoms ranging from mildly itchy, papular rash to a painful, weeping, and blistering dermatitis. /12

Moreover, Fluazinam:

• Is highly toxic to fish and aquatic invertebrates

Fluazinam poses significant hazards to aquatic life, necessitating strict label restrictions: it must not be applied near water bodies, via aerial sprays, or through irrigation systems, and requires buffer zones of at least 25 feet to protect water sources. mda.state.mn.usUS EPA

• Binds to sediment and bioconcentrates in fish

It has a tendency to accumulate in sediments and then bioaccumulate in fish tissue. This raises concerns about food-chain contamination and ecological persistence.Regulations.gov

• Poses chronic risk to sediment-dwelling and aquatic organisms

Screening-level assessments indicate fluazinam can pose chronic ecological risks particularly in pore water and sediment environments.Regulations.gov

• Is Toxic to zebrafish larvae

Recent studies show that exposure to fluazinam disrupts mitochondrial function in zebrafish larvae, leading to reduced survival rates.ScienceDirect

Although fluazinam is valued as a broad-spectrum fungicide, its notable ecological and health hazards – especially to aquatic environments – and persistent nature make it problematic. Combined with uncertain impacts on plant and soil ecosystems, its continued use raises valid concerns across multiple risk dimensions.

FLUBENDIAMIDE (242)

Flubendiamide is a widely used diamide insecticide, which displays a concerning environmental and regulatory profile that strongly argues against its continued use. The U.S. Environmental Protection Agency (EPA) has formally determined that Flubendiamide causes **unreasonable adverse effects on the environment**, particularly harming **benthic invertebrates** – organisms crucial for aquatic food chains – prompting initiation of a **notice of intent to cancel all registrations** of the chemical. This action reflects the chemical's breakdown into **highly toxic and persistent metabolites** that remain in aquatic ecosystems long after application, amplifying its ecological threat.US EPA+1ACS PublicationsNational Agricultural Law Center

Further environmental fate studies underscore that Flubendiamide is **persistent and potentially mobile**, with a high potential to contaminate both surface and groundwater, raising concerns about its widescale contamination potential. Regulations.govAERU In laboratory studies, Flubendiamide has been shown to disrupt **protein metabolism in freshwater fish** and **enzyme activity in soil ecosystems**, underlining its broader ecological toxicity. PMC

For humans, chronic exposure to flubendiamide has been linked to **liver enlargement and fatty degeneration**, **thyroid alterations**, **kidney pathology**, and **adrenal and offspring developmental effects**, including eye enlargement and delayed sexual maturation in offspring, even when reproductive toxicity was not observed at certain levels. EPA NERL Although immediate human health risks were not the primary driver for regulatory action, these findings raise valid concerns about its long-term safety.

In summary, Flubendiamide's documented **ecotoxicity, especially to aquatic ecosystems**, its well-evidenced **environmental persistence and bioaccumulation**, and its potential for **systemic organ effects in mammals** combine to create a compelling case against its use. Regulatory decisions to cancel its registration further reinforce that it poses unacceptable risks – particularly when safer, more sustainable alternatives are available.

FLUPYRADIFURONE (285)

Flupyradifurone, marketed under the brand name Sivanto, is a systemic insecticide developed by Bayer. While it was introduced as a safer alternative to neonicotinoids, there are several compelling reasons to reconsider its use due to its environmental and ecological impacts.

Ecotoxicity and Environmental Persistence

Flupyradifurone is highly toxic to aquatic invertebrates and has been shown to have lethal effects on solitary bees and lady beetles. Studies have reported that exposure to Flupyradifurone can lead to reduced survival, impaired foraging, and abnormal behaviors in these non-target species. Additionally, its high water solubility and persistence in the environment raise concerns about contamination of water bodies and the potential for bioaccumulation. ScienceDirect+1

Regulatory Concerns

In 2020, French authorities raised concerns about the potential risks of Flupyradifurone to human health and the environment, prompting a review of its approval status. This action underscores the growing apprehension among regulatory bodies regarding the safety of this chemical. PMC

Conclusion

While Flupyradifurone was developed as a safer alternative to neonicotinoids, its significant ecological risks and regulatory scrutiny suggest that its use should be reconsidered. The potential harm to beneficial insect populations and the environment warrants a cautious approach and consideration of alternative pest management strategies.

FOLPET (041)

Folpet (CAS No. 133-07-3) is a phthalimide-based fungicide used to control fungal diseases in various crops. Despite its efficacy, several concerns regarding its safety and environmental impact warrant reconsideration of its use.

Human Health Risks

Folpet has been associated with several health risks. In animal studies, it has caused hyperkeratosis and acanthosis of the skin, particularly in rats, and has been linked to duodenal adenomas and adenocarcinomas in mice. While it is not classified as a mutagen, some studies have shown cytotoxic effects on human bronchial epithelial cells. Additionally, folpet is a known skin sensitizer and irritant, which poses risks to individuals handling the chemical without adequate protective measures. Exposure can lead to allergic reactions, including eczema and photo allergy, especially among agricultural workers.

Environmental and Ecological Concerns

Folpet exhibits high toxicity to aquatic organisms. For instance, the 48-hour LC_{50} for Daphnia magna is 0.60 ppm, indicating significant risks to aquatic invertebrates. It is also toxic to fish, with reported 96-hour LC_{50} values of 185 ppb for rainbow trout and 675 ppb for bluegill sunfish. While it is relatively non-toxic to honeybees, its impact on other beneficial insects and soil organisms remains a concern. Folpet's persistence in the environment, particularly under alkaline conditions, increases the potential for long-term ecological effects.

Regulatory Actions

Folpet has been banned in several countries due to its health and environmental risks. In the European Union, folpet was not re-registered for use as a pesticide, reflecting concerns over its safety profile. Similarly, in the United States, the Environmental Protection Agency (EPA) has conducted risk assessments indicating potential health hazards associated with folpet exposure, leading to restrictions on its use in certain applications.

Conclusion

Given the significant human health risks, environmental toxicity, and regulatory restrictions associated with folpet, its use should be carefully reconsidered. Alternative fungicides with safer profiles and lower environmental impact are recommended to mitigate these concerns.

FOSETYL ALUMINIUM (302)

Fosetyl aluminum (also known as fosetyl-Al or Aliette) is a systemic fungicide used to control oomycete pathogens in various crops. While it is effective in disease management, there are several reasons why its use may be reconsidered.

Fosetyl aluminum is highly soluble in water and can leach into groundwater, especially when heavy rainfall follows application. Although it degrades rapidly in soil to non-toxic components, its potential to leach raises concerns about water contamination. US EPA

Ecotoxicological studies indicate that fosetyl aluminum has low-to-moderate toxicity to most terrestrial and aquatic species. However, it has been shown to have moderate chronic toxicity to birds and moderate acute toxicity to fish. These effects underscore the need for careful management to prevent environmental harm. AERU

In summary, while fosetyl aluminum is effective against certain plant diseases, its environmental persistence, potential for water contamination, ecotoxicity, and possible neurotoxic effects on humans warrant careful consideration of its use.

LAMBDA-CYHALOTHRIN (146)

The symptoms and signs of acute poisoning resulting from exposure to different pyrethroids are similar. Clinical analysis of 573 cases of acute pyrethroid poisoning due to occupational or accidental exposure revealed symptoms including burning, itching, and tingling sensations of the skin, which resolved after several hours. Washing was not an effective treatment. The systemic symptoms included dizziness, headache, nausea, anorexia, and fatigue; vomiting was most common in cases due to ingestion of pyrethroids. Although less frequently reported, tightness of the chest, paresthesia, palpitation, blurred vision, and increased sweating were observed in some cases. Coarse muscular fasciculations were observed in more serious cases. While not likely to be carcinogenic, convulsions and coma can also result from acute poisoning with pyrethroids. /19 More study of this compound is required. It should not be advanced in the 8-Step process.

PHOSMET (103)

Phosmet is an organophosphate insecticide with several significant concerns regarding its safety and environmental impact, leading to its ban in the European Union and increasing scrutiny in other regions.

Human Health Risks

Phosmet is a cholinesterase inhibitor, disrupting nerve function by interfering with acetylcholine breakdown. Acute exposure can lead to symptoms such as nausea, vomiting, abdominal cramps, dizziness, and, in severe cases, convulsions and respiratory failure. The compound has a reported oral LD_{50} of 113–160 mg/kg in rats, indicating moderate toxicity. While it is not classified as a carcinogen, Phosmet has been associated with reproductive toxicity and developmental effects in animal studies. Children are particularly vulnerable, with studies indicating that their health is threatened by current exposures from food, especially from fruits like peaches, apples, and blueberries. EarthjusticeEWG

Environmental and Ecological Concerns

Phosmet is highly toxic to aquatic organisms, including fish and invertebrates, even at low concentrations. It is also highly toxic to honeybees, posing significant risks to pollinator populations. The compound's use has led to concerns about its impact on biodiversity and ecosystem health. Canada.caUS EPA

Regulatory Actions

Due to its health and environmental risks, Phosmet has been banned in the European Union. In the United States, the Environmental Protection Agency (EPA) has identified Phosmet as a pesticide that presents significant risks to human health and has expedited its review to address these concerns. Environmental and Energy Law Program

Conclusion

Given its toxicity to humans and wildlife, persistence in the environment, and regulatory actions taken against its use, Phosmet presents significant risks that outweigh its benefits. Safer and more sustainable alternatives should be considered to protect both human health and the environment.

PROPICONAZOLE (160)

Propiconazole is a fungicide and an endocrine disruptor. It is listed as a possible human carcinogen displaying an increased incidence of benign and malignant liver cell tumors among male laboratory rats and mice. Additionally, it is a skin and gastric mucosa irritant and highly toxic to aquatic species. Propiconazole degrades into triazole compounds, which can then be toxic to terrestrial and avian organisms. /23 This highly toxic compound most definitely should not have any MRLs approved for it by Codex.

PYDIFLUMETOFEN (309)

Pydiflumetofen is a fungicide with moderate toxicity to mammals, 24 aquatic species, invertebrates, and plants, sediment dwelling organisms, and remains currently undetermined as an endocrine disruptor. Further study, however, is necessary.

SPINOSAD (203)

Spinosad is **very highly toxic to bees**, particularly if applied while they're active or before residues dry WikipediaWikipedia. Studies show **100% mortality** in **Africanized honeybee workers** at field-recommended doses, accompanied by severe behavioral and cellular damage. PubMed

Spinosad also exhibits significant toxicity to non-target aquatic insects. In exposure studies on the non-biting midge *Chironomus riparius*, even sub-lethal levels caused oxidative stress and developmental disruption, impeding growth and life cycle progression. PubMed

In rats, high doses caused widespread tissue degeneration – vacuolation, inflammation, and histological damage – in organs including the liver, thyroid, and lymphatic tissues InChemPubMed. Sub-chronic exposure in mice led to biochemical imbalances and neurodegeneration in liver, kidney, and cerebellum SciELO.

Even low doses triggered lysosomal dysfunction, oxidative stress, lipid dysregulation, and neurodegeneration in fruit flies, raising concerns about impacts on beneficial insects at environmental concentrations PMC.

Given these concerns, the use of Spinosad should be **reassessed**, particularly in contexts where beneficial insects, aquatic ecosystems, or human exposure are concerned.

TEBUCONAZOLE (189)

Tebuconazole is identified as an **endocrine disruptor**, with evidence showing **anti-estrogen effects** and interference with hormone biosynthesis, reproduction, and development in aquatic organisms such as zebrafish. It skews sex ratios, suppresses egg production, and alters steroid hormone levels. PubMedMDPIOekotoxzentrum.

A comprehensive review highlights tebuconazole's potential to cause:

- **Developmental toxicity**
- **Genotoxicity**
- **Reproductive toxicity**
- **Mutagenicity**
- **Hepatotoxicity, neurotoxicity, cardiotoxicity, and nephrotoxicity** These effects are mediated through mechanisms like oxidative stress, DNA damage, and disruption of gene expression. PubMed

It is **very toxic to aquatic organisms**, including fish, invertebrates, and algae, both in acute and chronic exposures. PAN Europe Moreover, Tebuconazole has **moderate mobility in soils** and is **highly persistent** in both water and sediment ecosystems, leading to prolonged environmental exposure and risk to benthic and aquatic organisms. MDPIRegulations.g

Prolonged or repeated use, especially in turf, tree nuts, and similar applications, poses **chronic risks to birds and small mammals**, even at labeled application rates. US E

The U.S. EPA classifies Tebuconazole as a **Group C possible human carcinogen**, based on increased liver tumors in mice at high doses. Regulations

Despite some regulatory approvals, mounting evidence of **endocrine disruption, ecological harm, environmental persistence, and health concerns** suggests tebuconazole's risks outweigh its benefits. Given safer alternatives exist, its continued use should be **re-evaluated or restricted**, especially in vulnerable ecosystems and human health contexts.

TEBUFENOZIDE (196)

Tebufenozide affects blood chemistry by increasing methemoglobin, which impairs oxygen transport and can lead to hemolytic anemia in mammals. This raises concerns for applicators and those with conditions like sickle-cell disease or thalassemia.US Forest Service Maine Moreover, although not classified as carcinogenic or a birth defect agent, tebufenozide has shown **adverse reproductive effects** in lab studies involving rats, rabbits, and dogs.US Forest And sensitive species such as Lepidoptera (butterflies) and certain earthworms show negative effects even at low application rates (as low as 0.03 lb/acre). US Forest Service.

Tebufenozide's targeted action and favorable mammalian toxicity profile have made it popular in integrated pest management (IPM). However, **human health risks** (especially for those with blood disorders), **harm to sensitive insects**, **low-level aquatic toxicity**, and **ecosystem disruptions** warrant a more precautionary approach. Alternative, truly benign options would better serve both agricultural and environmental sustainability.

TETRANILIPROLE (324)

Tetraniliprole is highly toxic to adult and larval honeybees, as well as adult bumblebees when exposed orally. Foliar and soil applications – especially on blooming crops – pose notable risks to individual bees. This raises serious concerns for pollinator health. mda.state.mn.us It also exhibits **very high toxicity to freshwater invertebrates**, including aquatic species like Daphnia, especially in the benthic (bottom-dwelling) ecosystem. mda.state.mn.us

Tetraniliprole is **moderately persistent**, with soil half-lives ranging from **69 to 144 days (aerobic)** and up to **177 days (anaerobic)**. Degradation in aquatic environments is variable but can be extremely slow, ranging up to **925 days** in some records. The compound is **moderately mobile**, meaning it could leach into groundwater or drift into water bodies.

Although Tetraniliprole is marketed as a lower-risk, selective insecticide, there are still significant concerns:

- **High toxicity to bees and aquatic invertebrates**
- **Persistence** that allows accumulation in soil and water
- **Risk of water contamination via runoff**, especially near sensitive ecosystems
- **Possible carcinogenic potential**
- **Health hazards with limited safety data**

Given these concerns and data gaps, its use should be **approached with extreme caution**, especially in proximity to water, pollinator habitats, or residential areas. Safer alternatives should be evaluated where feasible.

Environmental Inhibitors in Agrifood

Environmental Inhibitors are substances used in agriculture to address perceived imbalances and/or negative environmental impacts caused by conventional farming practices by reducing or halting specific processes, such as the production of greenhouse gases. Specifically, they are focused on mitigating greenhouse emissions and attempting to correct nutrient deficiencies in our depleted soil that have been caused by widespread pesticide use alongside synthetic ammonia- and urea-based and bio-sludge fertilizers.

There are three main categories of environmental inhibitors: Nitrification Inhibitor, Urease Inhibitors, and Methanogenesis Inhibitors, as well as biofertilizers. All three categories are synthetic or synthetic-biology compounds. Biofertilizer is also extremely dangerous, so the Committee should be attentive to it as well.

Nitrogen inhibitors are used to slow the conversion of ammonium to nitrate. These synthetic compounds delay the biological oxidation of ammonium to nitrite and then nitrite to nitrate by targeting soil bacteria. As with pesticides, these compounds disrupt the natural pathways and synthesis of bacteria in the soil microbiome, which can lead to antimicrobial resistance among other concerns. Some nitrogen inhibitors are also classified as pesticides.

Urease inhibitors block the activity of the urease enzyme, which converts urea (a common nitrogen fertilizer form) into ammonia. By inhibiting urease, these compounds aim to prevent the loss of nitrogen as gaseous ammonia through volatilization.

Methanogenesis or methane inhibitors are feed additives used to lower the amount of methane produced by cattle. Ruminants naturally break down the cellulose in grass, their primary diet, using a process called enteric fermentation, which is a biological process whereby beneficial bacteria help break down fibrous plant material. During this process, methane is produced as a byproduct. This natural part of the ruminant's digestive system is ultimately how the animal is able to absorb nutrients from their diet. We know that if the digestive system or microbiome of any living creature is compromised, ill health almost always ensues. And we cannot get healthy humans from unhealthy animals.

An example of a methane inhibitor is the product Rumin 8. This is presented as a natural solution "derived from red seaweed," but at a commercial level, it is produced using synthetic biology or "GMO 2.0," where engineered microorganisms can be programmed to use red seaweed hydrolysate as a feedstock to produce the wanted compounds. This substance targets methanotrophs, an important archaea in the microbiome of the cow. If the microbiome of an animal is tampered with, many dysfunctions can occur. The immune function can be altered, nutrient assimilation can decrease, and dysbiotic infections can follow, adding to the ill health of the animals, which in turn will cause a need for antibiotic use. It is not possible to alter the natural function of the body of any living creature without causing long-term ill-effects.

Additionally, in a healthy animal without the environmental inhibitor present, the beneficial microbes break down the cellulose in the plant matter into short-chain fatty acids; but they also play a key role in naturally fixing nitrogen in the soil – one of the issues being addressed by these synthetic substances. This natural process is crucial for soil and plant health and also enhances carbon sequestration. All of which are good for the environment. Pasture-raised, naturally healthy cows actually help capture carbon by stimulating the grass growth with nutrient-rich manure, grazing, and hooves that can aerate the soil.

Genetically Modified or Genetically Engineered Microbes for the soil / Biofertilizer (also biocontrol agents, enhanced fertilizer)

Conventional farming practices used over the last century have caused the once healthy, bountiful, balanced microbiome of the soil to all but disappear. Instead of turning to regenerative farming practices that work WITH nature and help rebuild a healthy microbiome, corporate agricultural interests have decided that copyrightable technology can do a better, more income-producing, job than nature and they have engineered soil microbes. A glaringly obvious and valid scientific concern here is that the GE or GM microbes become invasive or disruptive to the natural ecosystems they are introduced to. Their use involves potential risks that must be carefully evaluated and managed. They may be designed to have positive outcomes, but the unintended consequences, such as affecting the metabolic pathways of all life on the Planet, polluting our water, and our food, are of the utmost concern.

These substances are all new, man-made technologies with no long-term use or studies to provide proof of safety or give insight into the possible health implications on both livestock and humans consuming the end products. Widespread usage looks like a large-scale experiment with human, animal, and environmental health as the involuntary guinea pigs. In applying the precautionary principle, we can only presume this will lead to unintended, negative health consequences. Environmental inhibitors show strong evidence that they pose significant risks to human health and the environment by interfering with essential biological processes. While some inhibitors may occur in nature, the versions of these substances used commercially are synthetic compounds released into the environment for agricultural uses that they were never a part of in natural ecosystems. We must not fall prey to GE or synthetic biology solutions simply because they

are labeled as “natural,” and we must remember that not all things found in nature are healthy and safe for human consumption. The tag line for synthetic biology or biotechnology is “Redesigning Life.” What could possibly go wrong with that?

FINAL STATEMENT

In light of the damage from the prolific overuse, barely regulated, and irresponsible use of pesticides and other chemicals and synthetic compounds, the National Health Federation respectfully, but firmly, submits that CCPR56 was lacking in solid science in proposing to CAC48 to advance any of the chemical substances mentioned above.

When glyphosate, one of the most heavily accepted and widely applied pesticides on the Planet, is being banned by major retailers and by entire countries, and when Bayer has lost one lawsuit after another regarding the carcinogenicity of glyphosate use, Codex must not continue to disregard the major health dangers posed by pesticide use and environmental inhibitors, as well as the clear and present danger of the unexplored synergistic effect of such compounds upon human and animal health.

Entire communities are banning not only glyphosate but all synthetic chemicals unless a waiver is obtained due to an “emergency need.”34 If Codex continues to set maximum residue levels on pesticides that man, animals, and the environment will be exposed to, community leaders simply bypass Codex’s decisions and act responsibly for the Planet and all affected life, and discontinue using killer products. Codex will be proven as completely irrelevant when these actions occur. This is not an outcome that any of us should want, as Codex must remain strong and relevant in global health matters, because Codex performs many useful and necessary purposes.

Each of us should support the transition to regenerative farming and building healthy soil through proven, natural (not “natural” synthetic biology) means. Bowing to corporate sponsor demands at Codex is bringing about the destruction of the Earth’s biome and the health of us all. Wouldn’t it make sense to take a preventative approach, using the precautionary principle, and assume that there is a great chance that these toxic substances, all the “-cides,” are a large contributor to the root cause of the global problems that have grown alongside their use? There is more than enough evidence to support this approach.

The Precautionary Principle states: “When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically.”

Commission members, as representatives of your countries, it is your job to represent the population of your country. Their health and well-being, as well as that of the entire Planet, lies in your hands. The National Health Federation retains the position we have stated in the past, that is, that the pesticide MRLs are too high, there have been no studies of cumulative and varied/synergistic pesticide, herbicide, and chemical exposures, and there are limited-to-no studies on the negative health impact of Environmental Inhibitors. Therefore, neither CCPR56 nor the Codex Alimentarius Commission can propose, with any degree of confidence, any safe level of exposure to pesticide residues. The studies listed in the References below show that any responsible and respectful approach to global health and safety would reject the advancement of the proposed MRLs under consideration at CAC48.

The National Health Federation respectfully asks CAC48 to consider the global nature of decisions made here and to stop acting solely in the interest of corporations and pesticide sponsors intent on just improving their financial bottom line. Instead, NHF asks that Codex protect and preserve the Planet for the sake of humanity and all life that exists on it.

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