

China proposes 133 pesticide residue limits across 61 active ingredients

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Draft standards expand coverage across food commodities, medicinal plants and beverage crops, with implications for pesticide registration, residue testing and agricultural exports



China is proposing 133 maximum residue limits (MRLs) covering 61 pesticides in food products, extending regulatory oversight across major agricultural commodities and a wider range of specialty crops, including traditional Chinese medicinal plants, edible flowers and beverage ingredients.

On October 15, 2026, the Department of Crop Production under China's Ministry of Agriculture and Rural Affairs invited public comments on three draft national standards concerning pesticide residues. These include a proposed national food safety standard establishing maximum residue limits for 61 pesticides, including 2,4-D-ethylhexyl, and two draft standards governing pesticide residue testing methods.

One of the proposed testing standards addresses the determination of dithiocarbamate pesticide residues in plant-derived foods. Together, the three documents address two interconnected elements of food safety regulation: the permissible residue levels for specified pesticides in food and the analytical methods used to determine whether those levels have been exceeded.

The proposed MRL standard spans cereals, vegetables, fruits, oil crops, beverages, condiments, sugar crops and medicinal plants. It covers established crop protection active ingredients alongside newer molecules and products developed in China. A considerable number of the proposed limits are temporary, particularly for newer active ingredients and specialty commodities where the supporting residue data may still be developing.

The consultation follows the implementation of the updated GB 2763-2026 national food safety standard in March 2026. The latest proposals are intended to supplement the existing framework, with food categories and edible portions aligned with

those specified under GB 2763-2026. The relevant normative references are expected to be consolidated when the proposed limits are incorporated into a subsequent revised edition of the standard.

For pesticide manufacturers, food processors, agricultural exporters and testing laboratories, the proposals are significant because residue compliance depends not simply on which pesticide is used, but also on the crop, the edible portion, the applicable limit and the prescribed analytical method. The proposed values remain subject to consultation and the subsequent regulatory process; they should not be interpreted as final requirements until formally adopted.

61 pesticides, 133 proposed limits: What the draft covers

The proposed standard establishes 133 pesticide–commodity residue limits across 61 active ingredients. The number of limits exceeds the number of pesticides because individual active ingredients may have separate limits for several food commodities.

The proposed coverage combines mainstream agricultural production with food categories that have more specialised regulatory and analytical requirements. Cereals include rice, brown rice, wheat, corn, fresh corn and millet. Vegetables include cowpea, snap bean, Welsh onion, broccoli, potato, common Chinese cabbage, crown daisy, leaf lettuce and Indian lettuce. Fruits include lychee, longan and fragrant pear.

Oil crops, nuts, beverages, condiments and medicinal plant materials are also represented. These include camellia oleifera, walnuts, tea, Schisandra and gentian. The proposed limits vary according to the pesticide and commodity combination, underscoring the importance of checking the precise product classification rather than assuming that a single value applies across an entire crop group.

Among the entries provided in the draft, 2,4-D-ethylhexyl is proposed to have a limit of 0.05 mg/kg for both rice and brown rice. Difenconazole is assigned a proposed limit of 0.1 mg/kg for camellia oleifera, while fenoxycarb is proposed at 0.3 mg/kg for cowpea. Pyriproxyfen has proposed limits of 0.2 mg/kg for snap bean, 0.05 mg/kg for lychee and 5 mg/kg for tea. Pymetrozine is proposed at 0.2 mg/kg for Welsh onion, 5 mg/kg for longan and 0.02 mg/kg for fresh walnut.

Other entries illustrate the breadth of the proposed framework. Pyraclostrobin is listed at 0.02 mg/kg for dried walnut, while propiconazole is proposed at 0.02 mg/kg for cowpea. The proposed propiconazole limits for gentian differ by commodity form, at 2 mg/kg for fresh gentian and 0.05 mg/kg for dried gentian. Prothioconazole is proposed at 0.1 mg/kg for wheat, while glufosinate-ammonium is listed at 0.2 mg/kg for both corn and fresh corn.

The proposed limits also cover kasugamycin at 0.5 mg/kg for broccoli and fragrant pear, and isoprothiolane at 2 mg/kg for millet. Boscalid is proposed at 2 mg/kg for fresh peony flower and 5 mg/kg for dried peony flower. Paclobutrazol is listed at 0.05 mg/kg for potato.

For pyroxasulfone, the supplied entries specify proposed limits of 0.05 mg/kg for corn, fresh corn and soybean. Fluopicolide has proposed limits of 7 mg/kg for common Chinese cabbage, 20 mg/kg for crown daisy and 10 mg/kg each for leaf lettuce and Indian lettuce.

These figures illustrate the commodity-specific nature of residue regulation. They are proposed values reported in the consultation material, not confirmation of final or currently applicable limits. Establishing whether any value represents a new requirement, a revision or a continuation of an existing limit requires comparison with the current standard and verification of the official draft annex.

Newer active ingredients move into the residue framework

The draft includes established active ingredients such as pyraclostrobin, azoxystrobin, tebuconazole and chlorantraniliprole, alongside newer crop protection molecules and products developed in China. Among the proposed additions, pydiflumetofen, a succinate dehydrogenase inhibitor (SDHI) fungicide developed by Syngenta, is proposed to receive a temporary MRL of 0.05 mg/kg for blueberry.

BASF's mefentrifluconazole is proposed to receive five temporary limits covering commodities that include cherry, dragon fruit and Panax notoginseng. Cyclobutrifluram is proposed to receive four temporary limits covering wheat, cucumber, ginger and melon. The draft also includes Chinese-developed or China-specific crop protection products, including tetramycin, ningnanmycin and zinc thiodiazole. Their inclusion alongside established and newer multinational active ingredients illustrates the breadth of the regulatory exercise.

Temporary limits feature prominently in the proposed additions. Such provisions are particularly relevant where the residue evidence available for a particular pesticide–commodity combination is still developing. Their inclusion does not, by itself, indicate that a pesticide is unsafe or establish that a permanent limit will necessarily follow. The eventual regulatory position will depend on the supporting data, scientific assessment and applicable approval process.

For manufacturers, these entries can help clarify the residue requirements associated with particular commodities and support registration planning. However, an MRL is not itself an authorisation to use a pesticide on a crop. Product registration, approved use patterns, application instructions and other regulatory conditions remain separate considerations.

Specialty crops receive greater regulatory attention

One of the more consequential features of the consultation is its coverage of traditional Chinese medicinal plants and specialty beverage crops. The proposed framework includes medicinal plant commodities such as *Panax notoginseng*, *Dendrobium nobile*, *Atractylodes macrocephala*, moutan cortex and gentian root. Beverage and flower commodities include tea, edible rose, chrysanthemum and peony flower.

These products present distinct challenges for residue regulation. Some are consumed directly, while others are dried, processed, brewed or incorporated into medicinal preparations. Their exposure pathways and processing characteristics can therefore differ from those of fresh vegetables and fruits.

Commodity definitions become particularly important when a plant is marketed in several forms. A fresh flower, dried flower and processed beverage ingredient may be treated differently under the applicable standard. Drying can reduce moisture content and concentrate residues relative to the original fresh material, which is why limits for fresh and dried commodities cannot automatically be treated as interchangeable.

The proposed boscalid limits for fresh and dried peony flower illustrate this distinction. The same principle applies to the separate proposed propiconazole limits for fresh and dried gentian. The applicable value must be determined from the precise commodity description and the relevant regulatory requirements.

For crop protection companies, clearer residue requirements can support registration strategies for specialty crops, provided the intended uses are supported by appropriate efficacy, safety and residue data. For growers, the practical implications include adherence to approved application rates and pre-harvest intervals, alongside records demonstrating compliance with authorised use conditions.

Processors and exporters may also need to review raw-material specifications, supplier assurance procedures and residue-monitoring plans. A commodity intended for a medicinal preparation or beverage market may face a different compliance pathway from one sold as fresh produce.

The inclusion of these categories points to a more detailed regulatory approach to minor crops and specialised agricultural supply chains. It does not, on its own, establish that every listed pesticide is authorised for every crop or that all uses covered by a proposed MRL are permitted.

Residue testing standards are the other half of compliance

Alongside the proposed limits, Chinese authorities have invited comments on two draft pesticide residue testing-method standards, including a national food safety standard for determining dithiocarbamate pesticide residues in plant-derived foods. This component is essential because a residue limit is meaningful only when the residue can be measured using a reliable and appropriate analytical method. Testing standards provide a common basis for laboratories to assess samples and report results, supporting consistency across compliance testing and regulatory monitoring.

Changes to analytical methods can affect laboratory validation, sample preparation, quality assurance and the documentation needed to demonstrate compliance. For food exporters, processors and importers, the relevant testing method is therefore as important as the numerical limit itself. A residue result must be interpreted against the correct pesticide residue definition, commodity category and applicable testing procedure. Laboratories and businesses will need to examine the final method's scope and performance requirements rather than infer its technical details from the consultation announcement.

The parallel release of proposed residue limits and testing methods underscores the need to align the regulatory threshold with the procedures used to verify it. This is particularly important when standards cover diverse products, from cereals and vegetables to dried medicinal plants and flower-based ingredients.

Implications for crop protection companies

For agrochemical manufacturers, the proposed standards create a reason to reassess registration and residue-data planning for the affected pesticide–commodity combinations. Companies with established active ingredients may need to determine whether the proposals add new commodity coverage, revise existing requirements or introduce additional obligations for residue monitoring. Manufacturers of newer molecules will need to assess the implications of temporary limits for their registration strategies and supporting data packages.

This is particularly relevant for products intended for specialty crops. The commercial opportunity may depend not only on the agronomic performance of an active ingredient but also on whether the manufacturer can generate the residue evidence needed for registration and meet the applicable food safety requirements.

The proposed entries for pydiflumetofen, mefentrifluconazole and cyclobutrifluram illustrate how newer molecules are being incorporated into commodity-specific residue standards. They do not establish that the products have identical regulatory status or that their proposed limits cover every intended use.

Manufacturers will also need to distinguish between the establishment of an MRL and permission to market or apply a pesticide. A residue limit defines the applicable food safety threshold for a particular pesticide–commodity combination; it does not replace pesticide registration or authorise uses that are not otherwise approved.

For companies operating across multiple jurisdictions, differences in residue definitions, commodity classifications and applicable limits can complicate compliance planning. China's draft therefore merits review by regulatory affairs teams, although the implications for individual products will depend on the final text and the relevant registration conditions.

What the proposals mean for food exporters

For agricultural exporters supplying China, the immediate priority is to determine which proposed pesticide–commodity entries affect their products and whether the final requirements differ from the limits currently in force. Exporters should not treat the draft as an immediately enforceable change. Instead, they can use the consultation period to review residue-monitoring programmes, identify commodities that may require closer scrutiny and assess whether existing supplier documentation is adequate.

The distinction between fresh and dried commodities deserves particular attention, especially for tea, nuts, medicinal plants and flower-based products. A residue result for one form should not automatically be used to demonstrate compliance for another without checking the applicable commodity definition and regulatory requirements. Importers and processors may also need to confirm that laboratory reports identify the correct commodity, pesticide residue and analytical method. Inconsistent product descriptions or the use of an inappropriate comparison limit can complicate compliance assessments even when testing has been completed.

The proposed standard may eventually provide greater clarity for some pesticide–commodity combinations. Its practical effect, however, will depend on the final requirements, their implementation and how they interact with existing rules.

Integration with GB 2763-2026

The draft states that the food categories and edible portions defined under GB 2763-2026 will apply. It also indicates that normative references will be consolidated when the proposed limits are incorporated into a subsequent revised version of GB 2763. This approach links the latest consultation to China's established national food safety standard for pesticide MRLs. It also signals that the residue framework will continue to evolve as new active ingredients, crop uses and supporting scientific data become available.

For companies managing large product portfolios, regulatory monitoring is therefore an ongoing requirement rather than a one-time exercise. A change in the limit for one commodity may have a different operational effect from the addition of a limit for a previously uncovered commodity. These cases need to be assessed separately. The final text will also determine how the new entries interact with existing requirements and when any adopted changes become applicable. Until then, the standards currently in force remain the reference point for compliance.

The next regulatory milestone

The public consultation is the next step in evaluating the proposed MRL additions and residue-testing standards. Stakeholder comments, technical review and the subsequent formal issuance process will determine the final regulatory position. For the crop protection industry, the direction is towards more granular residue coverage across both major food crops and specialised agricultural commodities. For food businesses, the challenge will be translating that framework into reliable sourcing, testing and documentation practices.

The significance of the proposal lies not simply in the addition of 133 residue limits. It is in the continuing effort to connect pesticide registration, crop-specific use, analytical verification and food safety requirements across an increasingly diverse agricultural supply chain. The decisive details will be the final pesticide–commodity combinations, the treatment of temporary limits and the requirements established in the adopted standards. Until those details are confirmed, businesses should treat the October consultation as an important regulatory development to monitor rather than a completed change in compliance obligations.