1 Scope

This Standard covers the maximum residue limits (MRL) of pesticides established for commercial varieties of durian from *Durio zibethinus* L. of the Malvaceae family intended for human consumption.

2 Normative References

The following documents are referred to in the text in such a way that some or all their contents constitute the requirements of this document. The latest edition of the referenced documents (including any amendments) applies.

Bureau of Agriculture and Fisheries Standards (BAFS)-Department of Agriculture (DA). (2023). Performance criteria for methods of analysis for the determination of pesticide residues in food and feed — Guidelines (PNS/BAFS 367:2023). https://bafs.da.gov.ph/index.php/approved-philippine-national-standards/

Codex Alimentarius Commission (CAC). (1999). Recommended methods of sampling for the determination of pesticide residues for compliance with MRLs (CAC GL 33-1999). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B33-1999%252FCXG_033e.pdf

CAC. (2010a). Guidelines on good laboratory practice in pesticide residue analysis (CAC/GL 40-1993, Amd. 2010). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B40-1993%252Fcxg_040e.pdf

CAC. (2010b). Portion of commodities to which maximum residue limits apply and which is analyzed (CAC GL 41-1993, Amd. 2010). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/de/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B41-1993%252FCXG_041e.pdf

CAC. (2017). Guidelines on performance criteria for methods of analysis for the determination of pesticide residues in food and feed (CAC/GL 90-2017). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/jp/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B90-2017%252FCXG_090e.pdf

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International Atomic Energy Agency (IAEA). (2022). Food contaminant and residue information system—Databases for pesticide residue methods. https://nucleus.iaea.org/sites/fcris/Pages/Pesticide-Residue-Methods.aspx

United States Food and Drug Administration (FDA). (1999). Pesticide Analytical Manual (PAM) Volume I (3rd ed.). https://www.fda.gov/food/laboratory-methods-food/pesticide-analytical-manual-volume-i-pam-3rd-edition

FDA. (2002.) PAM Volume II. https://www.fda.gov/food/laboratory-methods-food/pesticide-analytical-manual-volume-ii

3 Terms and Definitions

For the purpose of this Standard, the following definitions shall apply:

3.1
active ingredient
part of the product that provides the pesticidal action (Food and Agriculture Organization of the United Nations [FAO] & World Health Organization [WHO], 2014)

3.2
Maximum Residue Limit (MRL)
maximum concentration of a pesticide residue (expressed as mg/kg) to be legally permitted in or on food commodities and animal feeds (CAC, 2025c)

3.3
pesticide
any substance or product, or mixture thereof, including active ingredients, adjuvants and pesticide formulations, intended to control, prevent, destroy, repel or mitigate directly or indirectly, any pest. The term shall be understood to include insecticide, fungicide, bactericide, nematicide, herbicide, molluscicide, avicide, rodenticide, plant regulator, defoliant, desiccant, and the like (Fertilizer and Pesticide Authority [FPA], 2020)

3.4
pesticide residue
any specified substance in food, agricultural commodities, or animal feed resulting from the use of a pesticide. The term includes any derivatives of a pesticide, such as conversion products, metabolites, reaction products, and impurities considered to be of toxicological significance (CAC, 2026c)

4 Minimum Requirements

The MRL of pesticides in durian are shown in Table 1.

Table 1. MRL of pesticide per active ingredient in durian

Active Ingredient	MRL (mg/kg)
2,3,6-Trichlorobenzoic acid	0.01[c]
2,4-dichlorophenyl benzenesulfonate	0.01[c]
acetamiprid	2.00[c]
amitraz	0.50[d]
azoxystrobin	0.50[f]
carbaryl (*1-naphthyl methylcarbamate*)	30.00[e]
carbofuran	0.02[e]
carbosulfan	0.01[c]
chlorfenvinphos	0.01[c]
chlornitrofen	0.01[c]
chloropropylate	0.02[c]
chlorpyrifos	0.40[e]
clothianidin	0.90[e]
crotoxyphos	0.02[c]
cycloprate	0.01[c]
cyhalothrin (*lambda-cyhalothrin*)	0.10[d]
cypermethrin (*alpha-cypermethrin, zeta-cypermethrin*)	1.00[a1]
dichlorvos	0.20[c]
dithiocarbamates	2.00[e]
ethametsulfuron	0.01[c]
ethephon	2.00[e]
fenamiphos	0.02[c]
fenpropathrin	5.00[c]
fenthion	0.05[c]
fipronil	0.02[c]
fluazifop-p-butyl	0.10[d]
fluoronitrofen	0.01[c]

Active Ingredient	MRL (mg/kg)
flutolanil	0.10[d]
fonofos	0.01[c]
fosetyl aluminum	1.00[d]
glufosinate ammonium	0.10[a2]
glyphosate	0.10[c]
heptenophos	0.10[c]
hexachlorophene	0.10[c]
isofenphos-methyl	0.10[c]
metalaxyl	0.20[d]
methamidophos	0.05[c]
methidathion	0.20[e]
methoxychlor	0.01[c]
metsulfuron-methyl	0.01[c]
phosalone	1.00[b]
phosfolan-methyl	0.03[c]
profenofos	0.05[e]
trichlorfon	0.20[c]
NOTE Dithiocarbamates is expressed as carbon disulfide (CS_2) (sum of maneb, mancozeb, metiram, propineb, thiram, and ziram).	

[a1]Codex Alimentarius Commission (CAC). (2026a). Codex pesticides residues in the food online database for durian (FI 0334). https://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/commodities-detail/en/?c_id=2

[a2]Codex Alimentarius Commission (CAC). (2026b). Codex pesticides residues in the food online database for assorted tropical and sub-tropical fruits - inedible peel (FI 0030). https://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/commodities-detail/en/?c_id=129

[b]Association of Southeast Asian Nations (ASEAN). (2025). Crop Codex MRLs (mg/kg). https://asean.org/wp-content/uploads/2025/12/Crops-1-DATABASE-ASEAN-MRLs-Oct-2025-with-proposed-deletion.pdf

[c]National Health Commission of the People's Republic of China, Ministry of Agriculture and Rural Affairs of the People's Republic of China, & State Administration for Market Regulation. (2021). National food safety standard: Maximum residue limits for pesticides in food (GB 2763-2021). http://www.aqsc.agri.cn/zlbz/gzdt/202106/t20210603_379939.htm

[d]Malaysia Ministry of Health. (n.d.). Sixteenth Schedule (Regulation 41),

Active Ingredient	MRL (mg/kg)
Food Regulations 1984. http://fsis2.moh.gov.my/UploadFosim/FAR/040810103612F595SIXTEENTH%20SCHEDULE.pdf [e]Thai Food and Drug Administration (FDA). (2017). Thai FDA revision on pesticide residue standards and MRLs in food (GAIN Report No. TH7021). https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Thai%20FDA%20Revision%20on%20Pesticide%20Residue%20Standards%20and%20MRLs%20in%20Food_Bangkok_Thailand_2-14-2017.pdf [f]Fertilizer and Pesticide Authority (FPA)-Department of Agriculture (DA). (2020). Pesticide Regulatory Policies and Implementing Guidelines (3rd ed.). https://fpa.da.gov.ph/fpa-green-book/#flipbook-df_5043/1/	

5 Methods of Analysis and Sampling

Analytical and sampling methods to be used for ascertaining conformance to the established limits should be in accordance with relevant guidelines of CAC, national competent authority, and/or international organizations, which include but are not limited to the following:

a) BAFS-DA. (2023). Performance criteria for methods of analysis for the determination of pesticide residues in food and feed — Guidelines (PNS/BAFS 367:2023).

b) CAC. (1999). Recommended methods of sampling for the determination of pesticide residues for compliance with MRLs (CAC/GL 33-1999).

c) CAC. (2010). Guidelines on good laboratory practice in pesticide residue analysis (CAC/GL 40-1993, Amd. 2010).

d) CAC. (2010). Portion of commodities to which maximum residue limits apply and which is analyzed (CAC/GL 41-1993, Amd. 2010).

e) CAC. (2017). Guidelines on performance criteria for methods of analysis for the determination of pesticide residues in food and feed (CAC/GL 90-2017).

f) CAC. (2023). Principles and guidance on the selection of representative commodities for the extrapolation of maximum residue limits for pesticides to commodity groups (CXG 84-2012, Amd. 2023).

g) International Atomic Energy Agency (IAEA). (2022). Food contaminant and residue information system—Databases for pesticide residue methods.

h) United States FDA. (1999). Pesticide Analytical Manual (PAM) Volume I (3rd ed.).

i) FDA. (2002.) PAM Volume II.

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Codex Alimentarius Commission (CAC). (2010a). Guidelines on good laboratory practice in pesticide residue analysis (CAC/GL 40-1993, Amd. 2010). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B40-1993%252Fcxg_040e.pdf

Codex Alimentarius Commission (CAC). (2010b). Portion of commodities to which maximum residue limits apply and which is analyzed (CAC/GL 41-1993 Amd. 2010). https://www.fao.org/fao-who-codexalimentarius/sh-proxy/de/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B41-1993%252FCXG_041e.pdf

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Codex Alimentarius Commission (CAC). (2026c). Glossary of terms. https://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/glossary/en/#:~:text=%22Pesticide%20residue%22%20means%20any%20specified,to%20be%20of%20toxicological%20significance

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Malaysia Ministry of Health. (n.d.). Sixteenth Schedule (Regulation 41), Food Regulations 1984. http://fsis2.moh.gov.my/UploadFosim/FAR/040810103612F595SIXTEENTH%20SCHEDULE.pdf

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Thai Food and Drug Administration (FDA). (2017). Thai FDA revision on pesticide residue standards and MRLs in food (GAIN Report No. TH7021). https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Thai%20FDA%20Revision%20on%20Pesticide%20Residue%20Standards%20and%20MRLs%20in%20Food_Bangkok_Thailand_2-14-2017.pdf

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