



Macadamia residue testing annual datasets 2021-22

National Residue Survey (NRS), Department of Agriculture, Fisheries and Forestry

Dataset abbreviations

LOR Limit of reporting.

MRL Maximum Residue Limit.

no limit No Australian standard applicable for the contaminant. The 'as low as reasonably achievable' principle applies. Detections at low levels are allowable.

not defined Standards are not defined in inedible matrixes (urine, retina and faeces).

not set No Australian standard has been set for the chemical in the edible matrix and any detection is a contravention of the Australia New Zealand Food Standards Code.

Disclaimer

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Table 1: CONTAMINANTS

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|---------------------------------|--------|-------------|-------------|--------------------------|---------------|------|
| aldrin and dieldrin (HHDN+HEOD) | Whole | 0.01 | not set | 126 | - | - |
| chlordane | Whole | 0.01 | not set | 126 | - | - |
| DDT | Whole | 0.01 | not set | 126 | - | - |
| endosulfan | Whole | 0.01 | not set | 126 | - | - |
| endrin | Whole | 0.01 | not set | 126 | - | - |
| HCB | Whole | 0.01 | not set | 126 | - | - |
| HCH | Whole | 0.01 | not set | 126 | - | - |
| heptachlor | Whole | 0.01 | not set | 126 | - | - |
| lindane (gamma-HCH) | Whole | 0.01 | not set | 126 | - | - |
| mirex | Whole | 0.01 | not set | 126 | - | - |

Table 2: FUNGICIDES

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|----------------|--------|-------------|-------------|--------------------------|---------------|------|
| 2-phenylphenol | Whole | 0.05 | not set | 126 | - | - |



| | | | | | | |
|------------------|-------|------|---------|-----|---|---|
| azoxystrobin | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| benalaxyl | Whole | 0.01 | not set | 126 | - | - |
| bitertanol | Whole | 0.01 | not set | 126 | - | - |
| boscalid | Whole | 0.01 | 0.5 | 126 | 0 | 0 |
| bupirimate | Whole | 0.01 | not set | 126 | - | - |
| captafol | Whole | 0.05 | not set | 126 | - | - |
| captan | Whole | 0.05 | 3 | 126 | 0 | 0 |
| carbendazim | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| chlorothalonil | Whole | 0.01 | not set | 126 | - | - |
| cyproconazole | Whole | 0.01 | not set | 126 | - | - |
| cyprodinil | Whole | 0.01 | not set | 126 | - | - |
| difenoconazole | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| dimethomorph | Whole | 0.01 | not set | 126 | - | - |
| dithianon | Whole | 0.01 | not set | 126 | - | - |
| dithiocarbamates | Whole | 0.2 | not set | 126 | - | - |
| dodine | Whole | 0.01 | not set | 126 | - | - |
| epoxiconazole | Whole | 0.01 | not set | 126 | - | - |
| etridiazole | Whole | 0.01 | not set | 126 | - | - |
| fenarimol | Whole | 0.01 | not set | 126 | - | - |
| fenbuconazole | Whole | 0.01 | not set | 126 | - | - |
| fenhexamid | Whole | 0.01 | not set | 126 | - | - |
| fluzinam | Whole | 0.01 | not set | 126 | - | - |
| fludioxonil | Whole | 0.01 | not set | 126 | - | - |
| fluopyram | Whole | 0.01 | 0.2 | 126 | 0 | 0 |
| fluquinconazole | Whole | 0.01 | not set | 126 | - | - |
| flusilazole | Whole | 0.01 | not set | 126 | - | - |
| flutriafol | Whole | 0.01 | 0.5 | 126 | 0 | 0 |
| hexaconazole | Whole | 0.01 | not set | 126 | - | - |
| imazalil | Whole | 0.01 | not set | 126 | - | - |
| iprodione | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| kresoxim-methyl | Whole | 0.01 | not set | 126 | - | - |
| mandestrobin | Whole | 0.01 | not set | 126 | - | - |
| metalaxyl | Whole | 0.01 | 1 | 126 | 0 | 0 |
| metrafenone | Whole | 0.01 | not set | 126 | - | - |
| myclobutanil | Whole | 0.01 | not set | 126 | - | - |
| oxadixyl | Whole | 0.01 | not set | 126 | - | - |
| paclobutrazol | Whole | 0.01 | not set | 126 | - | - |
| penconazole | Whole | 0.01 | not set | 126 | - | - |
| penthiopyrad | Whole | 0.01 | 0.1 | 126 | 0 | 0 |



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|------------------|-------|------|---------|-----|---|---|
| prochloraz | Whole | 0.01 | not set | 126 | - | - |
| procymidone | Whole | 0.01 | not set | 126 | - | - |
| propiconazole | Whole | 0.01 | 0.2 | 126 | 0 | 0 |
| prothioconazole | Whole | 0.01 | not set | 126 | - | - |
| pyraclostrobin | Whole | 0.01 | 0.07 | 126 | 0 | 0 |
| pyrimethanil | Whole | 0.01 | not set | 126 | - | - |
| tebuconazole | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| thiabendazole | Whole | 0.01 | not set | 126 | - | - |
| tolclofos methyl | Whole | 0.01 | not set | 126 | - | - |
| triadimefon | Whole | 0.01 | not set | 126 | - | - |
| triadimenol | Whole | 0.01 | not set | 126 | - | - |
| trifloxystrobin | Whole | 0.01 | not set | 126 | - | - |
| triforine | Whole | 0.01 | not set | 126 | - | - |
| triticonazole | Whole | 0.01 | not set | 126 | - | - |
| vinclozolin | Whole | 0.01 | not set | 126 | - | - |

Table 3: HERBICIDES

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|--------------------------------------|--------|-------------|-------------|--------------------------|---------------|------|
| 2,2-DPA (2,2-dichloropropionic acid) | Whole | 0.05 | not set | 126 | - | - |
| 2,4-D | Whole | 0.01 | not set | 126 | - | - |
| amitrole | Whole | 0.01 | not set | 39 | - | - |
| atrazine | Whole | 0.01 | not set | 126 | - | - |
| bromacil | Whole | 0.01 | not set | 126 | - | - |
| bromoxynil | Whole | 0.01 | not set | 126 | - | - |
| carfentrazone-ethyl | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| chlormequat | Whole | 0.01 | not set | 39 | - | - |
| chlorpropham | Whole | 0.05 | not set | 126 | - | - |
| chlorsulfuron | Whole | 0.01 | not set | 126 | - | - |
| chlorthal-dimethyl | Whole | 0.01 | not set | 126 | - | - |
| clethodim | Whole | 0.01 | not set | 126 | - | - |
| clodinafop-propargyl | Whole | 0.01 | not set | 126 | - | - |
| clopyralid | Whole | 0.05 | not set | 126 | - | - |
| cyanazine | Whole | 0.01 | not set | 126 | - | - |
| dicamba | Whole | 0.01 | not set | 126 | - | - |
| dichlobenil | Whole | 0.01 | not set | 126 | - | - |
| dichlorprop-P | Whole | 0.01 | not set | 39 | - | - |
| diclofop-methyl | Whole | 0.01 | not set | 39 | - | - |



| | | | | | | |
|----------------------|-------|------|---------|-----|---|---|
| diflufenican | Whole | 0.01 | not set | 126 | - | - |
| diquat | Whole | 0.01 | 0.05 | 39 | 0 | |
| diuron | Whole | 0.01 | not set | 126 | - | - |
| ethofumesate | Whole | 0.01 | not set | 126 | - | - |
| fenoxaprop-ethyl | Whole | 0.01 | not set | 126 | - | - |
| flamprop-M-methyl | Whole | 0.01 | not set | 39 | - | - |
| fluazifop-p-butyl | Whole | 0.01 | not set | 39 | - | - |
| flumioxazin | Whole | 0.02 | 0.02 | 126 | 0 | 0 |
| glufosinate | Whole | 0.01 | 0.1 | 39 | 0 | 0 |
| glyphosate | Whole | 0.01 | 0.2 | 39 | 0 | 0 |
| haloxyfop | Whole | 0.01 | 0.05 | 39 | 0 | 0 |
| iodosulfuron-methyl | Whole | 0.01 | not set | 126 | - | - |
| ioxynil | Whole | 0.01 | not set | 126 | - | - |
| isoxaben | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| linuron | Whole | 0.01 | not set | 126 | - | - |
| MCPA | Whole | 0.01 | not set | 126 | - | - |
| methabenzthiazuron | Whole | 0.01 | not set | 126 | - | - |
| metolachlor | Whole | 0.01 | not set | 126 | - | - |
| metosulam | Whole | 0.01 | not set | 126 | - | - |
| metribuzin | Whole | 0.01 | not set | 126 | - | - |
| metsulfuron-methyl | Whole | 0.01 | not set | 126 | - | - |
| napropamide | Whole | 0.01 | not set | 126 | - | - |
| norflurazon | Whole | 0.01 | 0.2 | 126 | 0 | 0 |
| oryzalin | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| oxyfluorfen | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| paraquat | Whole | 0.01 | 0.05 | 39 | 0 | 0 |
| pendimethalin | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| picloram | Whole | 0.01 | not set | 126 | - | - |
| propachlor | Whole | | not set | 126 | - | - |
| propaquizafop | Whole | 0.01 | not set | 39 | - | - |
| propyzamide | Whole | 0.01 | not set | 126 | - | - |
| quizalofop-ethyl | Whole | 0.01 | not set | 39 | - | - |
| quizalofop-P-tefuryl | Whole | 0.01 | not set | 39 | - | - |
| saflufenacil | Whole | 0.01 | 0.03 | 126 | 0 | 0 |
| sethoxydim | Whole | 0.01 | not set | 126 | - | - |
| simazine | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| tralkoxydim | Whole | 0.01 | not set | 126 | - | - |
| triasulfuron | Whole | 0.01 | not set | 126 | - | - |
| triclopyr | Whole | 0.01 | not set | 126 | - | - |



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|-------------|-------|------|---------|-----|---|---|
| trifluralin | Whole | 0.01 | not set | 126 | - | - |
|-------------|-------|------|---------|-----|---|---|

Table 4: INSECTICIDES

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|---------------------|--------|-------------|-------------|--------------------------|---------------|------|
| abamectin | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| acephate | Whole | 0.05 | 0.1 | 126 | 0 | 0 |
| acetamiprid | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| aldicarb | Whole | 0.01 | not set | 126 | - | - |
| amitraz | Whole | 0.01 | not set | 126 | - | - |
| azamethiphos | Whole | 0.01 | not set | 126 | - | - |
| azinphos-methyl | Whole | 0.01 | not set | 126 | - | - |
| bifenazate | Whole | 0.01 | not set | 126 | - | - |
| bifenthrin | Whole | 0.01 | not set | 126 | - | - |
| bioresmethrin | Whole | 0.01 | not set | 126 | - | - |
| buprofezin | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| cadusafos | Whole | 0.005 | not set | 126 | - | - |
| carbaryl | Whole | 0.01 | 2 | 126 | 0 | 0 |
| carbofuran | Whole | 0.005 | not set | 126 | - | - |
| chlorantraniliprole | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| chlorfenapyr | Whole | 0.01 | not set | 126 | - | - |
| chlorfenvinphos | Whole | 0.01 | not set | 126 | - | - |
| chlorpyrifos | Whole | 0.005 | 0.05 | 126 | 0 | 0 |
| chlorpyrifos-methyl | Whole | 0.005 | not set | 126 | - | - |
| clofentezine | Whole | 0.01 | not set | 126 | - | - |
| clothianidin | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| cyantraniliprole | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| cyfluthrin | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| cyhalothrin | Whole | 0.01 | not set | 126 | - | - |
| cypermethrin | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| deltamethrin | Whole | 0.01 | not set | 126 | - | - |
| diazinon | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| dichlorvos | Whole | 0.01 | 2 | 126 | 0 | 0 |
| dicofol | Whole | 0.01 | not set | 126 | - | - |
| diflubenzuron | Whole | 0.01 | not set | 126 | - | - |
| dimethoate | Whole | 0.01 | not set | 126 | - | - |
| disulfoton | Whole | 0.01 | not set | 126 | - | - |
| emamectin | Whole | 0.005 | not set | 126 | - | - |
| ethion | Whole | 0.01 | not set | 126 | - | - |



| | | | | | | |
|--------------------|-------|-------|---------|-----|---|---|
| ethoprophos | Whole | 0.005 | not set | 126 | - | - |
| etoxazole | Whole | 0.01 | not set | 126 | - | - |
| fenamiphos | Whole | 0.01 | not set | 126 | - | - |
| fenbutatin oxide | Whole | 0.01 | not set | 126 | - | - |
| fenitrothion | Whole | 0.01 | not set | 126 | - | - |
| fenoxycarb | Whole | 0.01 | not set | 126 | - | - |
| fenpyroximate | Whole | 0.01 | not set | 126 | - | - |
| fenthion | Whole | 0.01 | not set | 126 | - | - |
| fenvalerate | Whole | 0.01 | not set | 126 | - | - |
| fipronil | Whole | 0.005 | not set | 126 | - | - |
| flonicamid | Whole | 0.01 | not set | 126 | - | - |
| hexythiazox | Whole | 0.01 | not set | 126 | - | - |
| imidacloprid | Whole | 0.01 | not set | 126 | - | - |
| indoxacarb | Whole | 0.01 | 0.03 | 126 | 0 | 0 |
| malathion | Whole | 0.01 | 8 | 126 | 0 | 0 |
| metaldehyde | Whole | 0.05 | not set | 126 | - | - |
| methacrifos | Whole | 0.01 | not set | 126 | - | - |
| methamidophos | Whole | 0.01 | not set | 126 | - | - |
| methidathion | Whole | 0.01 | not set | 126 | - | - |
| methiocarb | Whole | 0.01 | not set | 126 | - | - |
| methomyl | Whole | 0.01 | 1 | 126 | 0 | 0 |
| methoprene | Whole | 0.01 | not set | 126 | - | - |
| methoxychlor | Whole | 0.01 | not set | 126 | - | - |
| methoxyfenozide | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| mevinphos | Whole | 0.01 | not set | 126 | - | - |
| monocrotophos | Whole | 0.01 | not set | 126 | - | - |
| novaluron | Whole | 0.01 | not set | 126 | - | - |
| omethoate | Whole | 0.01 | not set | 126 | - | - |
| parathion | Whole | 0.01 | not set | 126 | - | - |
| parathion-methyl | Whole | 0.01 | not set | 126 | - | - |
| permethrin | Whole | 0.01 | not set | 126 | - | - |
| phenothrin | Whole | 0.01 | not set | 126 | - | - |
| phorate | Whole | 0.01 | not set | 126 | - | - |
| phosmet | Whole | 0.01 | not set | 126 | - | - |
| piperonyl butoxide | Whole | 0.01 | 8 | 126 | 0 | 0 |
| pirimicarb | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| pirimiphos-methyl | Whole | 0.01 | not set | 126 | - | - |
| profenofos | Whole | 0.01 | not set | 126 | - | - |
| propargite | Whole | 0.01 | not set | 126 | - | - |



| | | | | | | |
|-----------------|-------|-------|---------|-----|---|---|
| prothiofos | Whole | 0.01 | not set | 126 | - | - |
| pymetrozine | Whole | 0.01 | not set | 126 | - | - |
| pyrethrins | Whole | 0.05 | 1 | 126 | 0 | 0 |
| pyridaben | Whole | 0.02 | not set | 126 | - | - |
| pyriproxyfen | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| spinetoram | Whole | 0.01 | 0.02 | 126 | 0 | 0 |
| spinosad | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| spirotetramat | Whole | 0.01 | not set | 126 | - | - |
| sulfoxaflor | Whole | 0.01 | 0.01 | 126 | 0 | 0 |
| tau-fluvalinate | Whole | 0.01 | not set | 126 | - | - |
| tebufenozide | Whole | 0.01 | 0.05 | 126 | 0 | 0 |
| tebufenpyrad | Whole | 0.01 | not set | 126 | - | - |
| terbufos | Whole | 0.005 | not set | 126 | - | - |
| tetradifon | Whole | 0.01 | not set | 126 | - | - |
| thiacloprid | Whole | 0.01 | not set | 126 | - | - |
| thiamethoxam | Whole | 0.01 | not set | 126 | - | - |
| thiodicarb | Whole | 0.01 | not set | 126 | - | - |
| triazofos | Whole | 0.01 | not set | 126 | - | - |
| trichlorfon | Whole | 0.01 | 0.1 | 126 | 0 | 0 |
| triflumuron | Whole | 0.01 | not set | 126 | - | - |

Table 5: METALS

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|-----------------|--------|-------------|-------------|--------------------------|---------------|------|
| arsenic (total) | Whole | 0.05 | no limit | 126 | 0 | 0 |
| cadmium | Whole | 0.01 | no limit | 126 | 0 | 0 |
| copper | Whole | 0.05 | no limit | 126 | 0 | 0 |
| lead | Whole | 0.01 | no limit | 126 | 0 | 0 |
| mercury (total) | Whole | 0.01 | no limit | 126 | 0 | 0 |

Table 6: PHYSIOLOGICAL MODIFIER

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | Number of samples tested | >½MRL to ≤MRL | >MRL |
|---------------|--------|-------------|-------------|--------------------------|---------------|------|
| diphenylamine | Whole | 0.01 | not set | 126 | - | - |