



Maize (flour) residue testing annual datasets 2018–19

National Residue Survey, Department of Agriculture

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 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.

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Table 1 Fungicides

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|----------------|--------|-------------|-------------|-----------------------|------------------|-------|
| azoxystrobin | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| benalaxyl | whole | 0.01 | not set | 2 | – | 0 |
| bitertanol | whole | 0.01 | not set | 2 | – | 0 |
| bixafen-P | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| boscalid | whole | 0.01 | 0.5 | 2 | 0 | 0 |
| bupirimate | whole | 0.01 | not set | 2 | – | 0 |
| captafol | whole | 0.02 | not set | 2 | – | 0 |
| captan | whole | 0.01 | not set | 2 | – | 0 |
| carbendazim | whole | 0.01 | not set | 2 | – | 0 |
| carboxin | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| chlorothalonil | whole | 0.01 | not set | 2 | – | 0 |
| cyproconazole | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| cyprodinil | whole | 0.01 | not set | 2 | – | 0 |

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|---------------------------------------|--------|-------------|-------------|-----------------------|------------------|-------|
| difenoconazole | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| dimethomorph (sum of E and Z isomers) | whole | 0.01 | not set | 2 | – | 0 |
| dithianon | whole | 0.01 | not set | 2 | – | 0 |
| dodine | whole | 0.01 | not set | 2 | – | 0 |
| epoxiconazole | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| etridiazole | whole | 0.01 | not set | 2 | – | 0 |
| fenarimol | whole | 0.01 | not set | 2 | – | 0 |
| fenbuconazole | whole | 0.01 | not set | 2 | – | 0 |
| fenhexamid | whole | 0.01 | not set | 2 | – | 0 |
| fluazinam | whole | 0.01 | not set | 2 | – | 0 |
| fludioxonil | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| fluquinconazole | whole | 0.01 | not set | 2 | – | 0 |
| flusilazole | whole | 0.01 | not set | 2 | – | 0 |
| flutriafol | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| fluxapyroxad | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| hexaconazole | whole | 0.01 | not set | 2 | – | 0 |
| imazalil | whole | 0.01 | not set | 2 | – | 0 |
| ipconazole | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| iprodione | whole | 0.01 | not set | 2 | – | 0 |
| isoprothiolane | whole | 0.01 | not set | 2 | – | 0 |
| kresoxim-methyl | whole | 0.01 | not set | 2 | – | 0 |
| metalaxyl | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| myclobutanil | whole | 0.01 | not set | 2 | – | 0 |
| oxadixyl | whole | 0.01 | not set | 2 | – | 0 |
| penconazole | whole | 0.01 | not set | 2 | – | 0 |
| penflufen | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| prochloraz | whole | 0.01 | not set | 2 | – | 0 |
| procymidone | whole | 0.01 | not set | 2 | – | 0 |
| propiconazole | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| prothioconazole | whole | 0.01 | 0.3 | 2 | 0 | 0 |
| pyraclostrobin | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| pyrimethanil | whole | 0.01 | not set | 2 | – | 0 |
| quinoxifen | whole | 0.01 | not set | 2 | – | 0 |
| sedaxane | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| spiroxamine-P | whole | 0.01 | not set | 2 | – | 0 |
| tebuconazole | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| thiabendazole-P | whole | 0.01 | not set | 2 | – | 0 |
| tolclofos methyl | whole | 0.01 | not set | 2 | – | 0 |
| triadimefon | whole | 0.01 | 0.5 | 2 | 0 | 0 |

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|-----------------|--------|-------------|-------------|-----------------------|------------------|-------|
| triadimenol | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| trifloxystrobin | whole | 0.01 | not set | 2 | – | 0 |
| triticonazole | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| vinclozolin | whole | 0.01 | not set | 2 | – | 0 |

Table 2 Herbicides

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|--------------------------------------|--------|-------------|-------------|-----------------------|------------------|-------|
| 2,2-DPA (2,2-dichloropropionic acid) | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| 2,4-D | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| 2,4-DB | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| aminopyralid | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| amitrole | whole | 0.01 | 0.01 | 1 | 0 | 0 |
| atrazine | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| bentazone | whole | 0.01 | not set | 2 | – | 0 |
| bromacil | whole | 0.01 | not set | 2 | – | 0 |
| bromoxynil | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| butoxydim | whole | 0.01 | not set | 2 | – | 0 |
| carfentrazone-ethyl | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| chlorpropham | whole | 0.01 | not set | 2 | – | 0 |
| chlorsulfuron | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| chlorthal-dimethyl | whole | 0.01 | not set | 2 | – | 0 |
| clethodim (parent only) | whole | 0.01 | not set | 2 | – | 0 |
| clodinafop-propargyl | whole | 0.01 | not set | 2 | – | 0 |
| clopyralid | whole | 0.01 | 2 | 2 | 0 | 0 |
| cyanazine | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| dicamba | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| dichlobenil | whole | 0.01 | not set | 2 | – | 0 |
| dichlorprop-P | whole | 0.02 | not set | 2 | – | 0 |
| diclofop-methyl | whole | 0.01 | 0.1 | 1 | 0 | 0 |
| diflufenican | whole | 0.01 | not set | 2 | – | – |
| diquat | whole | 0.01 | 0.1 | 1 | 0 | 0 |
| diuron | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| ethofumesate | whole | 0.01 | not set | 2 | – | 0 |
| fenoxaprop-ethyl | whole | 0.01 | not set | 1 | – | 0 |
| flamprop-M-methyl | whole | 0.01 | not set | 1 | – | 0 |
| fluazifop-p-butyl | whole | 0.01 | not set | 1 | – | 0 |
| flumetsulam | whole | 0.01 | 0.05 | 2 | 0 | 0 |

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|----------------------|--------|----------------|----------------|-----------------------------|---------------------|-------|
| flumioxazin | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| fluroxypyr | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| glufosinate | whole | 0.01 | not set | 1 | – | 0 |
| glyphosate | whole | 0.01 | 0.1 | 1 | 0 | 0 |
| haloxyfop | whole | 0.01 | not set | 1 | – | 0 |
| imazamox | whole | 0.01 | not set | 2 | – | 0 |
| imazapic | whole | 0.01 | not set | 2 | – | 0 |
| imazapyr | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| imazaquin | whole | 0.01 | not set | 2 | – | 0 |
| imazethapyr | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| iodosulfuron-methyl | whole | 0.01 | not set | 2 | – | 0 |
| ioxynil | whole | 0.01 | not set | 2 | – | 0 |
| isoxaben | whole | 0.01 | not set | 2 | – | 0 |
| linuron | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| MCPA | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| methabenzthiazuron | whole | 0.01 | not set | 2 | – | 0 |
| metolachlor | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| metosulam | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| metribuzin | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| metsulfuron-methyl | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| napropamide | whole | 0.01 | not set | 2 | – | 0 |
| norflurazon | whole | 0.01 | not set | 2 | – | 0 |
| oryzalin | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| oxyfluorfen | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| paraquat | whole | 0.01 | 0.1 | 1 | 0 | 0 |
| pendimethalin | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| picloram | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| propachlor | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| propaquizafop | whole | 0.02 | not set | 1 | – | 0 |
| propyzamide | whole | 0.01 | not set | 2 | – | 0 |
| quizalofop-ethyl | whole | 0.01 | not set | 1 | – | 0 |
| quizalofop-P-tefuryl | whole | 0.01 | not set | 1 | – | 0 |
| saflufenacil | whole | 0.01 | 0.2 | 2 | 0 | 0 |
| sethoxydim | whole | 0.01 | not set | 2 | – | 0 |
| simazine | whole | 0.01 | not set | 2 | – | 0 |
| terbutryn | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| tralkoxydim | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| triallate | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| triasulfuron | whole | 0.01 | 0.02 | 2 | 0 | 0 |

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|-------------|--------|-------------|-------------|-----------------------|------------------|-------|
| triclopyr | whole | 0.01 | not set | 2 | – | 0 |
| trifluralin | whole | 0.01 | 0.05 | 2 | 0 | 0 |

Table 3 Insecticides

| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|----------------------------------|--------|-------------|-------------|-----------------------|------------------|-------|
| abamectin | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| acephate | whole | 0.01 | not set | 2 | – | 0 |
| acetamiprid-P | whole | 0.01 | not set | 2 | – | 0 |
| aldicarb | whole | 0.01 | not set | 2 | – | 0 |
| amitraz | whole | 0.01 | not set | 2 | – | 0 |
| azamethiphos | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| azinphos-methyl | whole | 0.01 | not set | 2 | – | 0 |
| bifenazate | whole | 0.01 | not set | 2 | – | 0 |
| bifenthrin | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| bioresmethrin | whole | 0.01 | not set | 2 | – | 0 |
| buprofezin | whole | 0.01 | not set | 2 | – | 0 |
| cadusafos | whole | 0.01 | not set | 2 | – | 0 |
| carbaryl | whole | 0.01 | 5 | 2 | 0 | 0 |
| carbofuran | whole | 0.01 | not set | 2 | – | 0 |
| chlorantraniliprole | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| chlorfenapyr | whole | 0.01 | not set | 2 | – | 0 |
| chlorfenvinphos (sum of isomers) | whole | 0.01 | not set | 2 | – | 0 |
| chlorpyrifos | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| chlorpyrifos-methyl | whole | 0.01 | 10 | 2 | 0 | 0 |
| clofentezine | whole | 0.01 | not set | 2 | – | 0 |
| clothianidin | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| cyfluthrin (sum of isomers) | whole | 0.01 | 2 | 2 | 0 | 0 |
| cyhalothrin (sum of isomers) | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| cypermethrin (sum of isomers) | whole | 0.01 | 1 | 2 | 0 | 0 |
| deltamethrin | whole | 0.01 | 2 | 2 | 0 | 0 |
| diafenthiuron | whole | 0.01 | not set | 2 | – | 0 |
| diazinon | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| dichlorvos | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| dicofol | whole | 0.01 | not set | 2 | – | 0 |
| diflubenzuron | whole | 0.01 | not set | 2 | – | 0 |
| dimethoate | whole | 0.01 | 0.05 | 2 | 0 | 0 |

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|------------------------------|--------|-------------|-------------|-----------------------|------------------|-------|
| disulfoton | whole | 0.01 | not set | 2 | – | 0 |
| emamectin | whole | 0.01 | not set | 2 | – | 0 |
| esfenvalerate | whole | 0.01 | 2 | 2 | 0 | 0 |
| ethion | whole | 0.01 | not set | 2 | – | 0 |
| ethoprophos | whole | 0.005 | 0.005 | 2 | 0 | 0 |
| etoxazole | whole | 0.01 | not set | 2 | – | 0 |
| fenamiphos | whole | 0.01 | not set | 2 | – | 0 |
| fenbutatin oxide | whole | 0.01 | not set | 2 | – | 0 |
| fenitrothion | whole | 0.01 | 10 | 2 | 0 | 0 |
| fenoxycarb | whole | 0.01 | not set | 2 | – | 0 |
| fenpyroximate | whole | 0.01 | not set | 2 | – | 0 |
| fenthion | whole | 0.01 | not set | 2 | – | 0 |
| fenvalerate (sum of isomers) | whole | 0.01 | 2 | 2 | 0 | 0 |
| fipronil | whole | 0.002 | not set | 2 | – | 0 |
| hexythiazox | whole | 0.01 | not set | 2 | – | 0 |
| imidacloprid | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| indoxacarb | whole | 0.01 | not set | 2 | – | 0 |
| malathion (maldison) | whole | 0.01 | 8 | 2 | 0 | 0 |
| methacrifos | whole | 0.01 | not set | 2 | – | 0 |
| methamidophos | whole | 0.01 | not set | 2 | – | 0 |
| methidathion | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| methiocarb | whole | 0.01 | not set | 2 | – | 0 |
| methomyl | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| methoprene | whole | 0.01 | 2 | 2 | 0 | 0 |
| methoxychlor | whole | 0.01 | not set | 2 | – | 0 |
| methoxyfenozide | whole | 0.01 | not set | 2 | – | 0 |
| mevinphos | whole | 0.01 | not set | 2 | – | 0 |
| monocrotophos | whole | 0.01 | not set | 2 | – | 0 |
| omethoate | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| parathion | whole | 0.01 | not set | 2 | – | 0 |
| parathion-methyl | whole | 0.01 | not set | 2 | – | 0 |
| permethrin (sum of isomers) | whole | 0.01 | 2 | 2 | 0 | 0 |
| phenothrin (sum of isomers) | whole | 0.01 | not set | 2 | – | 0 |
| phorate | whole | 0.01 | not set | 2 | – | 0 |
| phosmet | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| piperonyl butoxide | whole | 0.01 | 20 | 2 | 0 | 0 |
| pirimicarb | whole | 0.01 | 0.02 | 2 | 0 | 0 |

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| Chemical | Matrix | LOR (mg/kg) | MRL (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|-------------------|--------|-------------|-------------|-----------------------|------------------|-------|
| pirimiphos-methyl | whole | 0.01 | 7 | 2 | 0 | 0 |
| profenofos | whole | 0.01 | not set | 2 | – | 0 |
| propargite | whole | 0.01 | not set | 2 | – | 0 |
| prothiofos | whole | 0.01 | not set | 2 | – | 0 |
| pymetrozine | whole | 0.01 | not set | 2 | – | 0 |
| pyrethrins | whole | 0.01 | 3 | 2 | 0 | 0 |
| pyriproxyfen | whole | 0.01 | not set | 2 | – | 0 |
| spinetoram | whole | 0.01 | not set | 2 | – | 0 |
| spinosad | whole | 0.01 | 1 | 2 | 0 | 0 |
| spirotetramat | whole | 0.01 | not set | 2 | – | 0 |
| sulfoxaflor | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| tau-fluvalinate | whole | 0.01 | not set | 2 | – | 0 |
| tebufenozide | whole | 0.01 | not set | 2 | – | 0 |
| tebufenpyrad | whole | 0.01 | not set | 2 | – | 0 |
| terbufos | whole | 0.01 | 0.01 | 2 | 0 | 0 |
| tetradifon | whole | 0.01 | not set | 2 | – | 0 |
| thiacloprid | whole | 0.01 | not set | 2 | – | 0 |
| thiamethoxam | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| thiodicarb | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| triazofos | whole | 0.01 | not set | 2 | – | 0 |
| trichlorfon | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| triflumuron | whole | 0.01 | 0.05 | 2 | 0 | 0 |

Table 4 Contaminants

| Chemical | Matrix | LOR (mg/kg) | Australian standard (mg/kg) | No. of samples tested | > ½ MRL to ≤ MRL | > MRL |
|---------------------------------|--------|-------------|-----------------------------|-----------------------|------------------|-------|
| aldrin and dieldrin (HHDN+HEOD) | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| chlordan | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| DDT | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| endosulfan | whole | 0.01 | not set | 2 | – | 0 |
| endrin | whole | 0.01 | not set | 2 | – | 0 |
| HCB (hexachlorobenzene) | whole | 0.01 | 0.05 | 2 | 0 | 0 |
| HCH (BHC) | whole | 0.01 | 0.1 | 2 | 0 | 0 |
| heptachlor | whole | 0.01 | 0.02 | 2 | 0 | 0 |
| lindane (gamma-HCH) | whole | 0.01 | 0.5 | 2 | 0 | 0 |
| mirex | whole | 0.01 | not set | 2 | – | 0 |