

Crop protection and pesticides data report 2020

This report includes full data on crop protection and pesticides for the past three years. It applies to Co-op own brand products. Data relates to the calendar year.

For more detail, including the actions we take based on our data, please read our [Crop Protection policy](#).

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Products tested

Products	2018	2019	2020
Apples	24	16	14
Apricots	2	4	3
Asparagus	0	3	6
Aubergines	2	3	5
Avocados	1	4	9
Baby corn	1	2	2
Baby Leaves	8	10	7
Bananas	15	10	8
Basil	6	5	6
Bean with pod	17	16	9
Bean without pod	1	2	1
Blackberries	17	10	9
Blueberries	19	14	10
Broccoli	12	13	8
Brussels Sprouts	0	2	4
Butternut squashes	2	5	6
Carrots	12	11	6
Cassava	3	1	0
Cauliflower	1	3	4

Celery	0	2	3
Chayotes	2	1	0
Cherries	9	7	5
Chilli Peppers	9	10	7
Coconuts	0	2	1
Coriander	8	8	6
Courgettes	6	6	6
Cranberries	0	1	1
Cress	0	0	1
Cucumbers	2	3	4
Dudhi	1	2	0
Eddoes	2	1	0
Fennel	1	2	2
Figs	3	1	0
Garlic	0	2	3
Ginger Root	3	5	5
Grapefruit	7	7	6
Head Cabbage	6	9	7
Kale	0	3	2
Kiwi Fruit	2	5	4
Leeks	0	3	3
Lemon Grass	1	1	0
Lemons	8	7	5
Lettuce	12	8	8
Limes	7	5	5
Mandarins	10	10	8
Mangoes	10	7	7
Melons	4	6	5
Mint	6	3	6
Mooli	4	2	0
Mushrooms	8	6	4
Nectarines	10	5	4
Okra	2	2	2
Onions	2	4	6
Oranges	8	8	6
Pak Choi	6	4	4
Parsley	4	8	6
Parsnips	6	8	4
Passion Fruit	4	8	3
Pea with pod	13	11	9
Pea without pod	1	3	1
Peaches	3	4	2

Pears	12	9	10
Persimmon	2	2	1
Physalis	2	2	0
Pineapples	10	8	5
Plantains	2	1	0
Plums	8	10	7
Pomegranates	2	0	1
Potatoes	11	11	8
Pumpkins	1	1	1
Radishes	4	3	4
Raspberries	15	12	10
Rocket	0	2	4
Rosemary	1	2	3
Shallots	0	1	2
Spring Greens	0	1	3
Spring Onions	0	4	3
Strawberries	15	15	9
Swedes	0	2	2
Sweet Peppers	6	6	7
Sweet Potatoes	1	3	5
Sweetcorn	1	3	3
Table Grapes	27	21	15
Thyme	2	4	3
Tomatoes	8	13	10
Turmeric	1	1	0
Watercress	1	3	3
Watermelons	5	6	5
Total	470	480	402*

*Drop in tests due to Covid-19 impacts.

Tests by product's country of origin

Country	2018	2019	2020
UK	96	118	96
Spain	78	83	65
Morocco	27	26	21
Italy	15	17	18
South Africa	25	27	18
Netherlands	7	12	15
Egypt	17	20	13
Peru	9	11	13
Unspecified**	12	6	13
Brazil	12	13	12
Chile	14	14	12

Portugal	6	4	10
Guatemala	17	10	9
Kenya	17	14	9
Mexico	5	6	8
Colombia	10	14	6
Israel	7	3	5
Costa Rica	18	10	4
India	6	10	4
New Zealand	2	3	4
Zimbabwe	6	1	4
Belgium	5	3	3
China	5	4	3
France	0	5	3
Ghana	2	2	3
Jordan	4	5	3
Senegal	1	1	3
USA	2	3	3
Cote d'Ivoire	3	3	2
Dominican Republic	9	5	2
Germany	3	4	2
Greece	4	3	2
Namibia	1	1	2
Argentina	5	2	1
Honduras	0	2	1
Hungary	0	0	1
Jersey	0	1	1
Lebanon	0	1	1
Poland	6	1	1
Puerto Rico	2	1	1
Thailand	2	2	1
Tunisia	0	1	1
Turkey	2	3	1
Viet Nam	3	2	1
Zambia	0	0	1
Croatia	0	1	0
Cyprus	1	0	0
Ecuador	2	1	0
Ireland	1	0	0
Mozambique	1	0	0
Panama	0	1	0
Total	470	480	402

**Unspecified includes mixed EU Salad Leaves, Frozen, and Prepared samples

Residue statistics

All Countries	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	Notes
Number of samples	470		480		402		
Samples with zero residues	133	28%	168	35%	126	31%	
Samples with 1 residue below MRL	110	23%	110	23%	82	20%	
Samples with multiple residues all below MRL	218	46%	191	40%	181	45%	
Samples with at least 1 MRL exceedance	9	2%	11	2%	13	3%	2020 data includes 5 Chlorate exceedances before the date these MRLs were enforced and 1 Environmental contaminant
Number of detections	949		842		748		
Average detections per sample	2.02		1.75		1.86		
UK (Including Jersey)	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	Notes
Number of samples	96	20.4%	119	24.8%	97	24.1%	Percentage is % of samples from this region
Samples with zero residues	30	31.3%	52	43.7%	42	43.3%	
Samples with 1 residue below MRL	29	30.2%	34	28.6%	22	22.7%	
Samples with multiple residues all below MRL	36	37.5%	32	26.9%	30	30.9%	
Samples with at least 1 MRL exceedance	1	1.0%	1	0.8%	3	3.1%	2020 data includes 1 Chlorate exceedance before the date these MRLs were enforced
Number of detections	190		166		152		
Average detections per sample	1.98		1.39		1.57		
EU	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	Notes
Number of samples	126	26.8%	133	27.7%	120	29.9%	Percentage is % of samples from this region
Samples with zero residues	37	29.4%	43	32.3%	37	30.8%	
Samples with 1 residue below MRL	28	22.2%	21	15.8%	22	18.3%	
Samples with multiple residues all below MRL	61	48.4%	69	51.9%	59	49.2%	

Samples with at least 1 MRL exceedance	0	0%	0	0%	2	1.7%	2020 data includes 2 Chlorate exceedances before the date these MRLs were enforced
Number of detections	241		255		223		
Average detections per sample	1.91		1.92		1.86		
Rest of World	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	Notes
Number of samples	236	50.2%	222	46.3%	172	42.8%	Percentage is % of samples from this region for given year
Samples with zero residues	62	26.3%	70	31.5%	41	23.8%	
Samples with 1 residue below MRL	51	21.6%	54	24.3%	36	20.9%	
Samples with multiple residues all below MRL	115	48.7%	88	39.6%	89	51.7%	
Samples with at least 1 MRL exceedance	8	3.4%	10	4.5%	6	3.5%	
Number of detections	491		414		352		
Average detections per sample	2.08		1.86		2.05		
Unspecified	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	Notes
Number of samples	12	2.6%	6	1.3%	13	3.2%	Percentage is % of samples from this region
Samples with zero residues	4	33.3%	3	50.0%	6	46.2%	
Samples with 1 residue below MRL	2	16.7%	1	16.7%	2	15.4%	
Samples with multiple residues all below MRL	6	50.0%	2	33.3%	3	23.1%	
Samples with at least 1 MRL exceedance	0	0%	0	0%	2	15.4%	2020 data includes 2 Chlorate exceedances before the date these MRLs were enforced
Number of detections	27		7		21		
Average detections per sample	2.25		1.17		1.62		

Actives detected

Active	2018	2019	2020	The World Health Organization Recommended Classification of Pesticides by Hazard (Categories 1A and 1B)	PAN International List of Highly Hazardous Pesticides	Notes
Fludioxonil	73	67	56	No	No	
Boscalid	68	55	51	No	No	
Azoxystrobin	48	42	41	No	No	
Dithiocarbamates	44	29	33	No	No*	Individual Dithiocarbamates are listed by PAN
Fluopyram	27	26	33	No	No	
Pyrimethanil	33	46	32	No	No	
Imazalil	37	36	30	No	Yes	
Cyprodinil	32	29	27	No	No	
Pyraclostrobin	28	26	27	No	No	
Acetamiprid	20	20	24	No	No	
Difenoconazole	16	26	21	No	No	
Thiabendazole	21	20	21	No	No	
Tebuconazole	17	13	14	No	No	
Copper	17	9	13	No	No	
Propamocarb	12	12	13	No	No	
Chlorates	0	0	13	No	No	
Fenhexamid	23	20	11	No	No	
Captan	24	14	11	No	No	
Spinosad	13	7	11	No	Yes	
Indoxacarb	9	7	11	No	Yes	

Chlorantraniliprole	15	19	10	No	Yes	
Thiacloprid	16	14	10	No	Yes	
Mandipropamid	11	12	10	No	No	
Myclobutanil	9	10	10	No	No	
Lambda-cyhalothrin	19	20	9	No	Yes	
Trifloxystrobin	9	14	9	No	No	
Pyriproxyfen	4	5	9	No	No	
Cypermethrin	22	10	8	No	Yes	
Deltamethrin	9	11	8	No	Yes	
Dimethomorph	7	7	8	No	No	
Imidacloprid	21	12	7	No	Yes	
2-Phenylphenol	5	10	7	No	No	
Ethephon	11	4	7	No	No	
Fosetyl-aluminium	0	22	6	No	No	
Pendimethalin	9	3	6	No	Yes	
Methoxyfenozide	8	3	6	No	No	
Cyantraniliprole	0	3	6	No	No	
Perchlorates	0	0	6	No	No	
Carbendazim	7	6	5	No	Yes	
Metrafenone	4	9	5	No	No	
Spirotetramat	6	2	5	No	No	
Flupyradifurone	0	1	5	No	Yes	
Bifenthrin	9	4	4	No	Yes	
Chlorothalonil	5	8	4	No	Yes	
Metalaxyl	9	4	4	No	No	
Prosulfocarb	3	1	4	No	No	
Isopyrazam	2	1	4	No	Yes	

Thiamethoxam	4	5	3	No	Yes	
Propiconazole	0	6	3	No	Yes	
Fluopicolide	4	1	3	No	No	
Spinetoram	1	4	3	No	Yes	
Aclonifen	0	4	3	No	No	
Cyfluthrin	2	0	3	WHO Ib	Yes	Beta-cyfluthrin
Cyromazine	9	2	2	No	No	
Prochloraz	6	4	2	No	No	
Chlorpyrifos	6	3	2	No	Yes	
Bifenazate	5	3	2	No	No	
Piperonyl butoxide	2	2	2	No	No	
Spiromesifen	3	1	2	No	No	
Quinoxifen	2	1	2	No	Yes	
Cyazofamid	0	2	2	No	No	
Ametoctradin	0	1	2	No	No	
Clothianidin	0	1	2	No	Yes	
Diazinon	0	0	2	No	Yes	
Chlorpropham	7	4	1	No	No	
Pirimicarb	6	4	1	No	Yes	
Iprodione	7	2	1	No	Yes	
Etofenprox	6	2	1	No	Yes	
Penconazole	4	3	1	No	No	
Flutriafol	3	3	1	No	No	
Fluxapyroxad	4	2	1	No	No	
Emamectin benzoate	3	1	1	No	Yes	
Famoxadone	2	2	1	No	No	
Hexythiazox	1	3	1	No	Yes	

Abamectin	2	1	1	WHO Ib	Yes	
Prothioconazole	1	2	1	No	No	
Triallate	3	0	1	No	Yes	
Acephate	2	0	1	No	Yes	Co-op Red Category Pesticide (if leads to presence of Methamidophos)
Fenpropimorph	1	1	1	No	No	
Kresoxim-methyl	1	1	1	No	Yes	
Malathion	1	1	1	No	Yes	
Teflubenzuron	0	2	1	No	No	
Tetraconazole	2	0	1	No	Yes	
Triadimenol	1	1	1	No	Yes	
Dieldrin	1	0	1	No	No*	Co-op Red Category Pesticide. Known environmental contaminant
Flonicamid	1	0	1	No	No	
Phenmedipham	0	1	1	No	No	
Propyzamide	0	1	1	No	No	
Proquinazid	0	1	1	No	No	
Pyridalyl	0	1	1	No	Yes	
2,4,6-Trichlorophenol	0	0	1	No	No	
2,4-D	0	0	1	No	No	
Chloridazon	0	0	1	No	No	
Fenpyrazamine	0	0	1	No	No	
Iprovalicarb	0	0	1	No	Yes	
Metribuzin	0	0	1	No	Yes	
Penthiopyrad	0	0	1	No	No	
Linuron	10	7	0	No	Yes	

Pymetrozine	4	5	0	No	Yes	
Bupirimate	6	2	0	No	No	
Buprofezin	5	2	0	No	No	
Chlorpyrifos-methyl	3	4	0	No	Yes	
Spirodiclofen	4	3	0	No	Yes	
Fenbuconazole	2	3	0	No	No	
Phosmet	4	1	0	No	Yes	
Etoxazol	1	3	0	No	No	
Phthalimide	4	0	0	No	No	
Ethirimol	3	0	0	No	Yes	
Pyrethrins	3	0	0	No	No	
Fenazaquin	2	0	0	No	Yes	
Fenpyroximate	1	1	0	No	Yes	
Mepanipyrim	0	2	0	No	Yes	
Methamidophos	2	0	0	WHO Ib	Yes	Co-op Red Category Pesticide. Breakdown product of Acephate.
Methiocarb	1	1	0	WHO Ib	Yes	
Spiroxamine	2	0	0	No	No	
Tebufenpyrad	1	1	0	No	No	
Azadirachtin	0	1	0	No	No	
Benfluralin	1	0	0	No	No	
Clofentezine	1	0	0	No	No	
Dimethoate	0	1	0	No	Yes	
Fenamidone	1	0	0	No	No	
Folpet	0	1	0	No	Yes	
Lufenuron	0	1	0	No	Yes	
Maleic hydrazide	1	0	0	No	No	

Metaflumizone	0	1	0	No	Yes	
Nicotine	0	1	0	WHO Ib	Yes	
Omethoate	0	1	0	WHO Ib	Yes	Co-op Red Category Pesticide. Breakdown product of Dimethoate.
Pyridaben	1	0	0	No	Yes	
Tebufenozide	1	0	0	No	No	
Thiophanate-methyl	0	1	0	No	Yes	
Tolfenpyrad	0	1	0	No	Yes	

2020 exceedances details

Date Sampled	Crop or Crop Group	Country	Pesticide	Level Found	MRL	Comments
03-Mar-20	Lettuce	Mixed country of origin	Chlorates	0.024	0.01	Chlorates MRL 0.7 from 28/06/2020
03-Mar-20	Lettuce	Mixed country of origin	Chlorates	0.197	0.01	Chlorates MRL 0.7 from 28/06/2020
31-Mar-20	Baby Leaf Spinach	Italy	Chlorates	0.015	0.01	Chlorates MRL 0.7 from 28/06/2020
31-Mar-20	Butternut squashes	Brazil	Imazalil	0.08	0.05	
31-Mar-20	Blackberries	Mexico	Iprodione	0.05	0.01	
31-Mar-20	Cauliflower	UK	Chlorates	0.088	0.01	Chlorates MRL 0.06 from 28/06/2020
31-Mar-20	Rocket	Italy	Chlorates	0.244	0.01	Chlorates MRL 0.7 from 28/06/2020
06-Aug-20	Parsley	UK	Dithiocarbamates	6.2	5	
07-Sep-20	Cherries	UK	Fosetyl-aluminium	9.2	2	Environmental contaminant
02-Oct-20	Avocados	Dominican Republic	Chlorothalonil	0.06	0.01	
02-Oct-20	Pea with pod	Kenya	Famoxadone	0.02	0.01	
29-Oct-20	Ginger Root	Brazil	Clothianidin	0.07	0.01	
23-Dec-20	Blackberries	Mexico	Dithiocarbamates	0.06	0.05	

2019 exceedances details

Date Sampled	Crop or Crop Group	Country	Pesticide	Level Found mg/kg	MRL mg/kg	Comments
29-Jan-19	Basil	Kenya	Dithiocarbamates	10	5	
28-Feb-19	Raspberries	Zimbabwe	Nicotine	0.03	0.01	Environmental contaminant
28-Feb-19	Blueberries	Morocco	Fosetyl-aluminium	28.3	2	
28-Feb-19	Pea with pod	Guatemala	Omethoate	0.02	0.01	
29-Mar-19	Basil	Jordan	Lufenuron	0.21	0.02	
29-Mar-19	Basil	Jordan	Tolfenpyrad	0.03	0.02	
28-May-19	Butternut squashes	South Africa	Fludioxonil	0.34	0.3	
01-Aug-19	Passion Fruit	Colombia	Difenoconazole	0.11	0.1	
30-Aug-19	Plums	UK	Fosetyl-aluminium	7.11	2	Environmental contaminant
30-Aug-19	Pea with pod	Peru	Dithiocarbamates	1.5	1	
02-Oct-19	Passion Fruit	Colombia	Fosetyl-aluminium	2.2	2	Environmental contaminant
04-Dec-19	Mandarins	Turkey	Buprofezin	0.05	0.01	

2018 exceedances details

Date Sampled	Crop or Crop Group	Country	Pesticide	Level Found mg/kg	MRL mg/kg	Comments
26-Feb-18	Mint	Kenya	Spiromesifen	0.18	0.02	
28-Mar-18	Blackberries	Mexico	Acephate	0.22	0.01	
28-Mar-18	Bean with pod	Kenya	Acephate	0.06	0.01	
28-Mar-18	Bean with pod	Kenya	Methamidophos	0.03	0.01	
28-Mar-18	Basil	Kenya	Spiromesifen	0.06	0.02	
28-Aug-18	Mint	Kenya	Dithiocarbamates	14	5	
25-Oct-18	Blackberries	Guatemala	Famoxadone	0.02	0.01	
25-Oct-18	Figs	Israel	Cyromazine	0.09	0.05	
27-Nov-18	Head Cabbage	UK	Prothioconazole	0.16	0.09	
Nov-18	Pomegranates	Turkey	Acetamiprid	0.04	0.01	

Further data

Further data can be found on our [crop protection page](#).