

Crop protection and pesticides data report 2024

This report includes full data on crop protection and pesticides for the past seven 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 were selected for testing based on both the HSE pesticide testing survey and also products known to have potentially higher residue detections than others.

In 2024, 97 different products were tested, with 360 samples in total. The table below is ordered by the most frequently tested products in 2024.

Products	2018	2019	2020	2021	2022	2023	2024
Table Grapes	27	21	15	18	17	17	16
Beans with pod	17	16	9	13	14	15	13
Tomatoes	8	13	10	12	13	13	12

Apples	24	16	14	16	15	13	11
Strawberries	15	15	9	11	9	9	10
Wine				2	2	3	10
Bananas	15	10	8	12	8	9	9
Blueberries	19	14	10	9	11	10	9
Broccoli	12	13	8	10	12	8	9
Spinach				9	7	12	9
Asparagus		3	6	5	4	6	8
Carrots	12	11	6	9	9	9	8
Raspberries	15	12	10	10	8	9	8
Lettuce	12	8	8	7	5	6	7
Oranges	8	8	6	6	7	8	7
Potatoes	11	11	8	9	11	9	7
Sweet Peppers	6	6	7	7	9	8	7
Cherries	9	7	5	4	5	3	6
Mandarins	10	10	8	5	8	8	6
Mangoes	10	7	7	7	7	9	6
Pears	12	9	10	9	8	8	6
Peas with pod	13	11	9	6	5	5	6
Plums	8	10	7	6	7	5	6
Avocado	1	4	9	4	5	4	5
Blackberries	17	10	9	2	6	5	5
Brussel sprouts		2	4	2	3	3	5
Lemons	8	7	5	6	6	8	5
Tea				1	2	1	5
Bread				5	5	1	4
Chilli Peppers	9	10	7	2		1	4
Cucumber	2	3	4	3	2	4	4
Kale		3	2	3	1	4	4
Kiwi Fruit	2	5	4	4	3	3	4
Onions	2	4	6	4	6	5	4
Parsley	4	8	6	5	3		4
Baby Leaves	8	10	7	3	3	2	3
Butternut squash	2	5	6	4	5	4	3
Garlic		2	3	2	2	2	3
Grapefruit	7	7	6	2	2	5	3
Mushrooms	8	6	4	5	5	5	3
Rice				2	2	2	3
Shallots		1	2	1	2	3	3
Sweet Potatoes	1	3	5	4	1	4	3
Watermelons	5	6	5	3	1	3	3
Pumpkin seeds						2	3
Sesame seeds						4	3
Almonds							2
Apricots	2	4	3	4	4	2	2
Basil	6	5	6	3	1		2
Cabbage	6	9	7	4	5	2	2
Celery		2	3	2	3	3	2

Chilli powder					1		2
Coffee				1	1		2
Coriander	8	8	6	4	3	2	2
Courgettes	6	6	6	4	3	2	2
Cumin				1		5	2
Flour				2	2	3	2
Honey					1	1	2
Leeks		3	3	2	2	1	2
Limes	7	5	5	5	6	1	2
Melons	4	6	5	6	4	4	2
Milk					2		2
Mint	6	3	6	1		1	2
Nectarines	10	5	4	3	2	1	2
Pineapples	10	8	5	7	4	9	2
Rocket		2	4	4	3	3	2
Salmon				1	1	1	2
Spring Onions		4	3	4		3	2
Walnuts				2		2	2
Ginger						5	2
Spice mix						1	2
Sunflower seeds						2	2
Sun-Dried Tomatoes							2
Apple juice				1	1	2	1
Cauliflower	1	3	4	3	2	2	1
Chickpeas						1	1
Chicken						1	1
Eggs					1	1	1
Lentils						1	1
Oats					1	1	1
Orange Juice						1	1
Pak Choi	6	4	4	2	1	1	1
Pasta					5	1	1
Peaches	3	4	2	2	3	1	1
Peas without pod	1	3	1	1	1	1	1
Pomegranates	2		1				1
Pumpkins	1	1	1		1	1	1
Sultanas				1	2	1	1
Swedes		2	2	3	3	1	1
Sweetcorn	1	3	3	3	3	3	1
Thyme	2	4	3	3	1		1
Turmeric	1	1		1		1	1
Crisps						1	1
Popcorn						1	1
Pork							1
Vegetable Oil							1
Processed/ tinned beans							1
Aubergines	2	3	5	2	3	2	
Baby corn	1	2	2	2	2		

Beans without pod	1	2	1				
Beef				1		1	
Brazil nuts				1	1		
Butter				1			
Cassava	3	1					
Chayotes	2	1					
Clementines					2	1	
Coconut oil				2	1	2	
Coconuts		2	1				
Cranberries		1	1			1	
Cress			1				
Curry powder					1		
Dudhi	1	2					
Eddoes	2	1					
Fennel	1	2	2	2	2	2	
Figs	3	1					
Ginger Root	3	5	5	2	4		
Granola					1		
Lemon Grass	1	1					
Mixed berries				7	1		
Mooli	4	2					
Nuts					1		
Okra	2	2	2				
Parsnips	6	8	4	5	2	4	
Passion Fruit	4	8	3				
Persimmon	2	2	1				
Physalis	2	2					
Plantains	2	1					
Radishes	4	3	4	1	2	1	
Rosemary	1	2	3	1		1	
Sage				1			
Spring Greens		1	3	1			
Tangerine				1		1	
Watercress	1	3	3	1			
Bay leaves						2	
Paprika						1	
Pecans						1	
Raisins						2	
Total	470	480	402	380	363	372	360

Detections by product

This table includes only those products that were tested and a residue was detected.

360 samples were tested for multiple-residues each, resulting in 215,210 test results. A single sample could have multiple residues of different active substances detected. From 360 samples tested, 143 had no residues present, 217 had at least 1 residue detected, and 15 samples had at least 1 exceedance. There was a total of 624 detections.

Product	No. samples tested	No. samples with detection	No. detections	No. samples with 1 residue below MRL	No. samples with multiple residues below MRL	No. exceedances	% samples with residues detected	Average detections per sample
Almonds	2	1	1	1	0		50	0.5
Apple juice	1	1	1	1	0		100	1.0
Apples	11	10	41	2	6	2	91	3.7
Apricots	2	2	4	1	1		100	2.0
Asparagus	8	1	1	1	0		13	0.1
Avocado	5	0			0		0	0.0
Baby Leaves	3	3	8	0	3		100	2.7
Bananas	9	6	14	0	6		67	1.6
Basil	2	2	10	0	1	1	100	5.0
Beans with pod	13	5	8	3	2		38	0.6
Blackberries	5	5	24	1	3	1	100	4.8
Blueberries	9	8	25	2	5	1	89	2.8
Bread	4	3	4	2	1		75	1.0
Broccoli	9	3	3	3	0		33	0.3
Brussel sprouts	5	3	3	3	0		60	0.6
Butternut squash	3	2	3	1	1		67	1.0
Cabbage	2	0			0		0	0.0
Carrots	8	4	5	3	1		50	0.6
Cauliflower	1	0			0		0	0.0
Celery	2	1	1	1	0		50	0.5
Cherries	6	5	19	0	4	1	83	3.2
Chickpeas	1	1	7	0	1		100	7.0
Chicken	1	0			0		0	0.0
Chilli Peppers	4	4	17	1	2	1	100	4.3
Chilli powder	2	0			0		0	0.0
Coffee	2	0			0		0	0.0
Coriander	2	2	6	0	2		100	3.0
Courgettes	2	2	3	1	1		100	1.5
Crisps	1	1	1	1	0		100	1.0
Cucumber	4	3	7	1	2		75	1.8
Cumin	2	2	4	1	1		100	2.0
Eggs	1	0			0		0	0.0
Flour	2	1	1	1	0		50	0.5
Garlic	3	1	1	1	0		33	0.3
Ginger	2	0			0		0	0.0

Grapefruit	3	3	9	0	3		100	3.0
Honey	2	0			0		0	0.0
Kale	4	3	14	0	2	1	75	3.5
Kiwi Fruit	4	3	3	3	0		75	0.8
Leeks	2	1	2	0	1		50	1.0
Lemons	5	4	11	1	3		80	2.2
Lentils	1	1	1	1	0		100	1.0
Lettuce	7	3	8	1	2		43	1.1
Limes	2	2	4	0	2		100	2.0
Mandarins	6	6	28	0	6		100	4.7
Mangoes	6	5	10	1	4		83	1.7
Melons	2	2	6	0	2		100	3.0
Milk	2	0			0		0	0.0
Mint	2	1	3	0	1		50	1.5
Mushrooms	3	1	1	1	0		33	0.3
Nectarines	2	2	11	0	1	1	100	5.5
Oats	1	1	1	1	0		100	1.0
Onions	4	0			0		0	0.0
Orange Juice	1	0			0		0	0.0
Oranges	7	8	31	0	6	2	114	4.4
Pak Choi	1	1	2	0	1		100	2.0
Parsley	4	3	12	0	3		75	3.0
Pasta	1	0			0		0	0.0
Peaches	1	1	1	1	0		100	1.0
Pears	6	5	17	0	5		83	2.8
Peas with pod	6	4	5	3	1		67	0.8
Peas without pod	1	1	1	1	0		100	1.0
Pineapples	2	1	1	1	0		50	0.5
Plums	6	5	11	2	3		83	1.8
Pomegranates	1	0			0		0	0.0
Popcorn	1	0			0		0	0.0
Pork	1	0			0		0	0.0
Potatoes	7	3	3	3	0		43	0.4
Processed/ tinned beans	1	0			0		0	0.0
Pumpkin seeds	3	1	2	0	0	1	33	0.7
Pumpkins	1	0			0		0	0.0
Raspberries	8	6	15	1	4	1	75	1.9
Rice	3	1	1	1	0		33	0.3
Rocket	2	2	13	0	2		100	6.5
Salmon	2	1	3	0	1		50	1.5
Sesame seeds	3	0			0		0	0.0
Shallots	3	0			0		0	0.0
Spice mix	2	1	3	0	1		50	1.5
Spinach	9	8	20	1	6	1	89	2.2
Spring Onions	2	1	4	0	1		50	2.0
Strawberries	10	8	30	1	7		80	3.0
Sultanas	1	1	12	0	1		100	12.0
Sun-Dried Tomatoes	2	0			0		0	0.0

Sunflower seeds	2	1	1	1	0		50	0.5
Swedes	1	1	2	0	0	1	100	2.0
Sweet Peppers	7	4	10	0	4		57	1.4
Sweet Potatoes	3	2	2	2	0		67	0.7
Sweetcorn	1	0			0		0	0.0
Table Grapes	16	15	55	3	11	1	94	3.4
Tea	5	1	3	0	1		20	0.6
Thyme	1	1	1	1	0		100	1.0
Tomatoes	12	6	20	2	4		50	1.7
Turmeric	1	0			0		0	0.0
Vegetable Oil	1	0			0		0	0.0
Walnuts	2	1	2	0	1		50	1.0
Watermelons	3	0			0		0	0.0
Wine	10	4	7	2	2		40	0.7
Total	360	218	624	67	135	16		

Tests by product region and country of origin

Region	Number of tests
UK	114
EU	95
Rest of world	122
Unspecified	29
Total	360

Unspecified includes samples that were for products that originated from a packhouse or company often located in the UK, but the origin of the product was not specified.

Country	2018	2019	2020	2021	2022	2023	2024
UK	96	118	96	96	119	106	114
Spain	78	83	65	56	58	68	49
Unspecified	12	6	13	101	63	51	29
South Africa	25	27	18	9	16	1	23
Morocco	27	26	21	9	15	3	17
Netherlands	7	12	15	5	8	3	13
Egypt	17	20	13	9	4	14	13
Italy	15	17	18	13	10	9	9
Kenya	17	14	9	10	6	5	9
Peru	9	11	13	10	8	8	7
Portugal	6	4	10	5	4	2	7
France		5	3	2	2	7	7
Brazil	12	13	12	7	9	1	6
Chile	14	14	12	7	5	10	6
Colombia	10	14	6	6	6	1	5
Dominican Republic	9	5	2	4	4	1	5
Belgium	5	3	3	3	5	1	5
Guatemala	17	10	9	5	3	8	3

Greece	4	3	2		2	5	3
Israel	7	3	5	1	1	4	3
Mexico	5	6	8	4		8	3
Argentina	5	2	1			2	3
Costa Rica	18	10	4	3	3	1	2
New Zealand	2	3	4		2	1	2
USA	2	3	3	1		13	2
Zimbabwe	6	1	4				2
Serbia							2
India	6	10	4	4	3	1	1
Cote d'Ivoire	3	3	2		2	1	1
Namibia	1	1	2		1	1	1
China	5	4	3	2		5	1
Senegal	1	1	3	2		4	1
Ghana	2	2	3	1		2	1
Vietnam	3	2	1			1	1
Zambia			1				1
Ethiopia							1
Canada							1
Australia							1
Germany	3	4	2	1	1	17	
Turkey	2	3	1		1		
Puerto Rico	2	1	1		1		
Norway					1		
Sri Lanka				2			
Honduras		2	1	1			
Indonesia				1			
Jordan	4	5	3				
Poland	6	1	1			1	
Thailand	2	2	1				
Ecuador	2	1					
Jersey		1	1				
Lebanon		1	1				
Tunisia		1	1				
Croatia		1					
Cyprus	1						
Hungary			1				
Ireland	1						
Mozambique	1						
Panama		1					
Central America						2	
India or Pakistan						3	
NL/Portugal						1	
Total	470	480	402	380	363	372	360

2024 Country summary statistics

Country	No. samples	No. detections	No. samples with detection	No. exceedances	Percentage of samples with a detection	Average detections per sample
Argentina	3		0		0	0.0
Australia	1		0		0	0.0
Belgium	5	5	2		40	1.0
Brazil	6	10	4		67	1.7
Canada	1	1	1		100	1.0
Chile	6	17	4	1	67	2.8
China	1		0		0	0.0
Colombia	5	8	3		60	1.6
Costa Rica	2	2	2		100	1.0
Cote d'Ivoire	1	2	1		100	2.0
Dominican Republic	5	5	2		40	1.0
Egypt	13	25	8	1	62	1.9
Ethiopia	1	4	1		100	4.0
France	7	13	6		86	1.9
Ghana	1	2	1		100	2.0
Greece	3		0		0	0.0
Guatemala	3	8	2		67	2.7
India	1	1	1		100	1.0
Israel	3	7	3		100	2.3
Italy	9	14	5		56	1.6
Kenya	9	5	4		44	0.6
Mexico	3	8	1		33	2.7
Morocco	17	41	13	1	76	2.4
Namibia	1	2	1		100	2.0
Netherlands	13	10	5		38	0.8
New Zealand	2	5	1	1	50	2.5
Peru	7	5	2	1	29	0.7
Portugal	7	14	6		86	2.0
Senegal	1		0		0	0.0
Serbia	2	6	1		50	3.0
South Africa	23	64	23	2	100	2.8
Spain	49	111	35	1	71	2.3
UK	114	175	63	7	55	1.5
Unspecified	29	45	12	1	41	1.6
USA	2	4	2		100	2.0
Vietnam	1	2	1		100	2.0
Zambia	1	1	1		100	1.0
Zimbabwe	2	2	1		50	1.0
Total	360	624	218	16		

Same table as above but sorted by average detections per sample.

Country	No. samples	No. detections	No. samples with detection	No. exceedances	Percentage of samples with a detection	Average detections per sample
Ethiopia	1	4	1		100	4.0
Serbia	2	6	1		50	3.0
Chile	6	17	4	1	67	2.8
South Africa	23	64	23	2	100	2.8
Guatemala	3	8	2		67	2.7
Mexico	3	8	1		33	2.7
New Zealand	2	5	1	1	50	2.5
Morocco	17	41	13	1	76	2.4
Israel	3	7	3		100	2.3
Spain	49	111	35	1	71	2.3
Cote d'Ivoire	1	2	1		100	2.0
Ghana	1	2	1		100	2.0
Namibia	1	2	1		100	2.0
Portugal	7	14	6		86	2.0
USA	2	4	2		100	2.0
Vietnam	1	2	1		100	2.0
Egypt	13	25	8	1	62	1.9
France	7	13	6		86	1.9
Brazil	6	10	4		67	1.7
Colombia	5	8	3		60	1.6
Italy	9	14	5		56	1.6
Unspecified	29	45	12	1	41	1.6
UK	114	175	63	7	55	1.5
Belgium	5	5	2		40	1.0
Canada	1	1	1		100	1.0
Costa Rica	2	2	2		100	1.0
Dominican Republic	5	5	2		40	1.0
India	1	1	1		100	1.0
Zambia	1	1	1		100	1.0
Zimbabwe	2	2	1		50	1.0
Netherlands	13	10	5		38	0.8
Peru	7	5	2	1	29	0.7
Kenya	9	5	4		44	0.6
Argentina	3		0		0	0.0
Australia	1		0		0	0.0
China	1		0		0	0.0
Greece	3		0		0	0.0
Senegal	1		0		0	0.0
Total	360	624	218	16		

Products tested by country

Different colours denote frequency of detections for products. Green low, through to red highest.

[illegible]

[illegible]

Residue statistics

All countries	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)	2024	2024 (%)
Number of samples	470		480		402		380		363		372		360	
Samples with zero residues	133	28.3	168	35	126	31.3	160	42.1	155	42.7	153	41.1	143	39.7
Samples with 1 residue below MRL	110	23.4	110	22.9	82	20.4	71	18.7	70	19.3	64	17.2	67	18.6
Samples with multiple residues all below MRL	218	46.4	191	39.8	181	45	139	36.6	132	36.4	142	38.2	135	37.5
Samples with at least 1 MRL exceedance	9	1.9	11	2.3	13	3.2	10	2.6	6	1.7	13	3.5	15	4.2
Number of detections	949		842		748		668		640		665		624	
Average detections per sample	2.02		1.75		1.86		1.76		1.8		1.79		1.73	
UK (including Jersey)	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)	2024	2024 (%)
Number of samples	96	20.4	119	24.8	97	24.1	97		119		94		114	
Samples with zero residues	30	31.3	52	43.7	42	43.3	43	44.3	50	42	48	51.1	51	44.7
Samples with 1 residue below MRL	29	30.2	34	28.6	22	22.7	19	19.6	27	22.7	17	18.1	26	22.8
Samples with multiple residues all below MRL	36	37.5	32	26.9	30	30.9	32	33	39	32.8	27	28.7	30	26.3
Samples with at least 1 MRL exceedance	1	1	1	0.8	3	3.1	3	3.1	3	2.5	2	2.1	7	6.1
Number of detections	190		166		152		168		230		143		175	
Average detections per sample	1.98		1.39		1.57		1.73		1.9		1.52		1.54	
EU	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)	2024	2024 (%)
Number of samples	126	26.8	133	27.7	120	29.9	84		91		125		95	
Samples with zero residues	37	29.4	43	32.3	37	30.8	26	31	38	41.8	48	38.4	35	36.8
Samples with 1 residue below MRL	28	22.2	21	15.8	22	18.3	18	21.4	13	14.3	19	15.2	15	15.8
Samples with multiple residues all below MRL	61	48.4	69	51.9	59	49.2	38	45.2	39	42.9	56	44.8	44	46.3
Samples with at least 1 MRL exceedance	0	0	0	0	2	1.7	2	2.4	1	1.1	2	1.6	1	1.1
Number of detections	241		255		223		177		157		250		173	
Average detections per sample	1.91		1.92		1.86		2.11		1.7		2.00		1.82	

Rest of world	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)	2024	2024 (%)
Number of samples	236	50.2	222	46.3	172	42.8	98		90		137		122	
Samples with zero residues	62	26.3	70	31.5	41	23.8	29	29.6	30	33.3	44	32.1	40	32.8
Samples with 1 residue below MRL	51	21.6	54	24.3	36	20.9	19	19.4	16	17.8	27	19.7	24	19.7
Samples with multiple residues all below MRL	115	48.7	88	39.6	89	51.7	46	46.9	43	47.8	58	42.3	52	42.6
Samples with at least 1 MRL exceedance	8	3.4	10	4.5	6	3.5	4	4.1	1	1.1	8	5.8	6	4.9
Number of detections	491		414		352		203		200		265		231	
Average detections per sample	2.08		1.86		2.05		2.07		2.2		1.93		1.89	
Unspecified	2018	2018 (%)	2019	2019 (%)	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)	2024	2024 (%)
Number of samples	12	2.6	6	1.3	13	3.2	101		63		16		29	
Samples with zero residues	4	33.3	3	50	6	46.2	62	61.4	37	58.7	13	81.3	17	58.6
Samples with 1 residue below MRL	2	16.7	1	16.7	2	15.4	15	14.9	14	22.2	1	6.3	2	6.9
Samples with multiple residues all below MRL	6	50	2	33.3	3	23.1	23	22.8	11	17.5	1	6.3	9	31.0
Samples with at least 1 MRL exceedance	0	0	0	0	2	15.4	1	1	1	1.6	1	6.3	1	3.4
Number of detections	27		7		21		120		53		7		45	
Average detections per sample	2.25		1.17		1.62		1.19		0.8		0.44		1.55	
Percentage is % of samples from this region														

WHO1a/1b and PAN HHP detections over time

This is the number of residue detections for active substances that are classified as WHO1a or WHO 1b or PAN Highly Hazardous Pesticides (HHP).

	2019	2020	2021	2022	2023	2024
WHO 1a	0	0	0	0	0	0
WHO 1b	4	4	2	0	0	0
PAN HHP	228	167	208	154	211	186

The 186 detections were from 40 different actives that are classified as HHPs by PAN.

Actives detected

WHO 1a, 1b is The World Health Organisation Recommended Classification of Pesticides by Hazard (Categories 1a and 1b). Class 1a: Extremely hazardous technical grade active ingredients in pesticides. Class 1b: Highly hazardous technical grade active ingredients in pesticides.

PAN HHP is the list of actives listed by the Pesticide Action Network (PAN) on their International list of highly hazardous pesticides (HHPs). Note that this was updated in March 2021, and a number of actives were added to the list.

Pesticide type by product (2024)

Pesticide type	Almonds	Apple juice	Apples	Apricots	Asparagus	Baby Leaves	Bananas	Basil	Beans with pod	Blackberries	Blueberries	Bread	Broccoli	Brussel sprouts	Butternut squash	Carrots	Celery	Cherries	Chickpeas	Chilli Peppers	Coriander	Courgettes	Crisps	Cucumber	Cumin	Flour	Garlic	Grapefruit	Kale	Kiwi Fruit	Leeks	Lemons	Lentils	Lettuce	Limes	Mandarins	Mangoes		
Acaricide																																							
Contaminants																																							
Fungicides			24	3		5	13	5	4	14	13		1	3	1	4		14		6	2	2	1	5			1	7	8	1	2	10	1	4	1	23	8		
Herbicides												2				1	1				4								3										
Insecticides	1		4	1		1		1	1	7	4		1		2			5	2	4		1		1	3			1	3	2					3	2	2		
Multiple Uses		1	13				1	2	3	3	8		1						5	7				1	1			1				1		1	1	3	2		
Plant Growth Regulator					1							2														1													
Process Contaminants						2		2																															
Total	1	1	41	4	1	8	14	10	8	24	25	4	3	3	3	5	1	19	7	17	6	3	1	7	4	1	1	9	14	3	2	11	1	8	4	28	10		

Table continued

	Melons	Mint	Mushrooms	Nectarines	Oats	Oranges	Pak Choi	Parsley	Peaches	Pears	Peas with pod	Peas without pod	Pineapples	Plums	Potatoes	Pumpkin seeds	Raspberries	Rice	Rocket	Salmon	Spice mix	Spinach	Spring Onions	Strawberries	Sultanas	Sunflower seeds	Swedes	Sweet Peppers	Sweet Potatoes	Table Grapes	Tea	Thyme	Tomatoes	Walnuts	Wine	Total	
Pesticide type																																					
Acaricide																								4													4
Contaminants																				2																	2
Fungicides	5		1	5		22		4	1	12	4	1	1	8	3	2	14		8		1	14	4	24	9		2	6	2	42		1	14	2	4	402	
Herbicides					1			4														1														17	
Insecticides		2		3		6	2	2						3			1		1	1	1	2		2	2			3		9			4		3	99	
Multiple Uses	1	1		3		3				5	1								2		1	3			1			1		1	3		1			82	
Plant Growth Regulator																		1								1				3						9	
Process Contaminants								2											2														1			9	
Total	6	3	1	11	1	31	2	12	1	17	5	1	1	11	3	2	15	1	13	3	3	20	4	30	12	1	2	10	2	55	3	1	20	2	7	624	

Different colours denote frequency of detections for products. Green low, through to red highest.

Active substances detections over time with WHO1a/1b and PAN HHP designation

Active	2018	2019	2020	2021	2022	2023	2024	Total	WHO 1a, 1b	PAN HHP	Comments
Fludioxonil	73	67	56	52	59	62	60	429	No	No	
Boscalid	68	55	51	39	43	43	35	334	No	No	
Imazalil	37	36	30	21	27	29	20	200	No	Yes	
Spinosad	13	7	11	17	7	29	16	100	No	Yes	Includes A and B forms
Dithiocarbamates	44	29	33	30	18	26	16	196	No	No	
Pyraclostrobin	28	26	27	13	12	25	14	145	No	No	
Acetamiprid	20	20	24	22	18	23	16	143	No	No	
Azoxystrobin	48	42	41	30	32	23	40	256	No	No	
Pyrimethanil	33	46	32	25	34	23	28	221	No	No	
Thiabendazole	21	20	21	19	18	22	16	137	No	Yes	Added to PAN HHP list in 2021.
Fluopyram	27	26	33	29	25	21	25	186	No	No	
Dimethomorph	7	7	8	9	6	20	8	65	No	No	Includes E and Z forms
Difenoconazole	16	26	21	15	20	16	15	129	No	No	
Tebuconazole	17	13	14	13	5	16	3	81	No	Yes	
Cyprodinil	32	29	27	18	24	15	21	166	No	No	
Propamocarb	12	12	13	11	13	15	16	92	No	No	
Chlorantraniliprole	15	19	10	12	10	12	16	94	No	Yes	
Mandipropamid	11	12	10	10	11	12	14	80	No	No	
Lambda-cyhalothrin	19	20	9	4	8	11	4	75	No	Yes	
Deltamethrin	9	11	8	13	9	10	11	71	No	Yes	
Fosetyl-Al		22	6	4	9	10	11	62	No	No	
cis-1,2,3,6-Tetrahydrophthalimide				13	12	8	11	44	No	Yes	Metabolite of Captan
Ethephon	11	4	7	7	5	8	3	45	No	No	
Imidacloprid	21	12	7	6	2	8	2	58	No	Yes	
Fenhexamid	23	20	11	15	15	7	14	105	No	Yes	Added to PAN HHP list in 2021.
Cyantraniliprole		3	6	5	7	6	7	34	No	No	
2-Phenylphenol	5	10	7	4		5	4	35	No	No	
Benzalkonium chloride C12					2	5		7	No	No	
Indoxacarb	9	7	11	2	3	5	3	40	No	Yes	
Methoxyfenozide	8	3	6	2	5	5	9	38	No	No	
Myclobutanil	9	10	10	5	4	5	2	45	No	No	
Phthalimide	4			2	2	5	1	14	No	No	
Trifloxystrobin	9	14	9	9	9	5	8	63	No	No	
Bifenthrin	9	4	4	2	1	4	2	26	No	Yes	
Carbendazim	7	6	5	1		4	2	25	No	Yes	
Clothianidin		1	2		1	4	3	11	No	Yes	
Copper	17	9	13	2	1	4		46	No	No	
Flupyradifurone		1	5	4	3	4	5	22	No	Yes	
Metalaxyl	9	4	4	9	5	4	6	41	No	No	
Metrafenone	4	9	5	7	6	4	1	36	No	No	
Pirimicarb	6	4	1	1		4		16	No	Yes	
Pyriproxyfen	4	5	9	9	4	4	2	37	No	No	
Spirotetramat	6	2	5	3	5	4	10	35	No	No	
Sulfoxaflor				1	2	4	2	9	No	Yes	

Benzalkonium chloride C16					4	3		7	No	No	
Chlormequat				1	6	3	3	13	No	No	
Fluopicolide	4	1	3	10	5	3	6	32	No	No	
Fluxapyroxad	4	2	1	6	9	3	8	33	No	No	
Hexythiazox	1	3	1	3	2	3		13	No	Yes	
Isopyrazam	2	1	4	2	2	3		14	No	Yes	
Spinetoram	1	4	3	2		3	4	17	No	Yes	
Tau-Fluvalinate					1	3		4	No	Yes	
Biphenyl					1	2		3	No	Yes	
Chlorates			13	5	1	2	5	26	No	No	
Chloridazon			1	5	4	2	1	13	No	No	
Cyazofamid		2	2		1	2	3	10	No	No	
Cypermethrin	22	10	8	3	3	2	2	50	No	Yes	
Desthio-prothioconazole						2		2	No	No	
Flubendiamide						2		2	No	Yes	
Flutriafol	3	3	1	1	2	2		12	No	No	
Kresoxim-methyl	1	1	1		2	2	1	8	No	Yes	
Maleic hydrazide	1			1	1	2		5	No	No	
Penconazole	4	3	1	2	3	2	2	17	No	No	
Perchlorate				3	3	2	4	12	No	No	
Piperonyl butoxide	2	2	2	1	1	2	1	11	No	No	
Profenofos					1	2	1	4	No	Yes	
Spiromesifen	3	1	2	2	4	2	2	16	No	No	
Tetraconazole	2		1	1	1	2	1	8	No	Yes	Added to PAN HHP list in 2021.
Triallate	3		1	2	1	2	2	11	No	Yes	
Aclonifen		4	3	6	2	1	1	17	No	No	
Ametoctradin		1	2	3	3	1	3	13	No	No	
Atrazine						1		1	No	No	
Azadirachtin		1			1	1		3	No	No	
Bifenazate	5	3	2	4	1	1	1	17	No	No	
Bupirimate	6	2			1	1		10	No	No	
Buprofezin	5	2				1		8	No	No	
Captan	24	14	11	19	4	1		73	No	Yes	Added to PAN HHP list in 2021.
Chlorfenapyr						1	1	2	No	Yes	
Cyflufenamid					3	1	1	5	No	No	
Dodine				2	2	1	3	8	No	Yes	
Famoxadone	2	2	1	1	4	1		11	No	No	
Fenpyroximate	1	1		6	5	1		14	No	Yes	
Fenvalerate				1	1	1	1	4	No	Yes	
Fipronil						1		1	No	Yes	
Isoprothiolane						1		1	No	No	
Lufenuron		1				1		2	No	Yes	
Metaflumizone		1		1		1		3	No	Yes	
Novaluron						1		1	No	No	
Propyzamide		1	1	1	3	1	3	10	No	No	
Proquinazid		1	1	2	2	1	2	9	No	No	
Prosulfocarb	3	1	4	1		1	1	11	No	No	

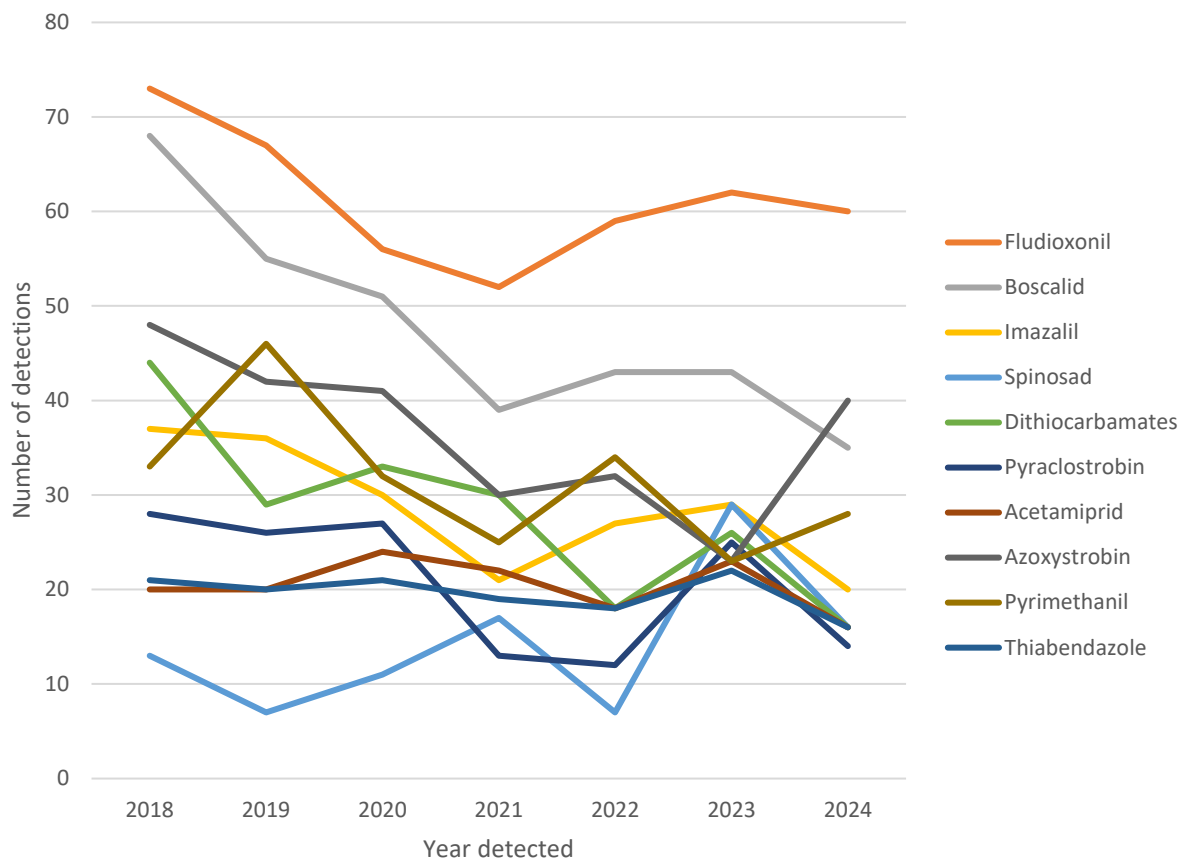
Pyrethrins	3			1		1	18	23	No	Yes	Added to PAN HHP list in 2021.
Pyridaben	1			2		1		4	No	Yes	
Spirodiclofen	4	3		3	1	1		12	No	Yes	
Spiroxamine	2				2	1	1	6	No	No	
Tebufenozide	1			1	1	1		4	No	No	
Thiamethoxam	4	5	3		1	1	1	15	No	Yes	
2,4,6-Trichlorophenol			1	1				2	No	No	
2,4-D			1					1	No	Yes	Added to PAN HHP list in 2021.
Abamectin	2	1	1	1				5	WHO 1b	Yes	
Acephate	2		1					3	No	Yes	
Benfluralin	1							1	No	No	
Bromuconazole					2			2	No	No	
Chlorothalonil	5	8	4	5				22	No	Yes	
Chlorpropham	7	4	1		1			13	No	Yes	Added to PAN HHP list in 2021.
Chlorpyrifos	6	3	2		1			12	No	Yes	
Chlorpyrifos-methyl	3	4						7	No	Yes	
Clofentezine	1				1			2	No	No	
Cyflumetofen					1		2	3	No	No	
Cyfluthrin	2		3					5	WHO 1b	Yes	
Cymoxanil				1				1	No	No	
Cyromazine	9	2	2					13	No	No	
DDT					1		1	2	No	Yes	
Diazinon			2					2	No	Yes	
Didecyldimethyl-ammonium chloride					3			3	No	No	
Dieldrin	1		1				2	4	No	No	
Dimethoate		1		1				2	No	Yes	
Emamectin				1				1	No	Yes	
Emamectin benzoate	3	1	1					5	No	Yes	
Ethirimol	3							3	No	Yes	
Ethylene oxide				2				2	No	Yes	
Etofenprox	6	2	1	2	1		2	14	No	Yes	
Etoxazol	1	3					1	5	No	No	
Fenamidone	1							1	No	No	
Fenazaquin	2							2	No	Yes	
Fenbuconazole	2	3			1			6	No	Yes	Added to PAN HHP list in 2021.
Fenpropathrin				1				1	No	Yes	
Fenpropidin				1	2			3	No	No	
Fenpropimorph	1	1	1	2	3		1	9	No	No	
Fenpyrazamine			1	2	1		1	5	No	No	
Flonicamid	1		1	3	1		3	9	No	No	
Flufenoxuron					1		1	2	No	Yes	
Folpet		1					1	2	No	Yes	
Fosetyl				4				4	No	No	
Furmecyclox					1			1	No	No	
Glyphosate				1			3	4	No	Yes	
Iprodione	7	2	1					10	No	Yes	

Iprovalicarb			1					1	No	Yes	
Linuron	10	7						17	No	Yes	
Malathion	1	1	1	1			1	5	No	Yes	
Mepanipyrim		2		2			2	6	No	Yes	
Mepiquat					2		2	4	No	No	
Methamidophos	2			1				3	WHO 1b	Yes	
Methiocarb	1	1						2	WHO 1b	Yes	
Metribuzin			1				1	2	No	Yes	
Nicotine		1						1	WHO 1b	Yes	
Omethoate		1						1	WHO 1b	Yes	
p,p'-DDE					1			1	No	No	
Pendimethalin	9	3	6	6	4		5	33	No	Yes	
Penthiopyrad			1		2		2	5	No	No	
Perchlorates			6					6	No	No	
Phenmedipham		1	1	3				5	No	No	
Phosmet	4	1		2	1			8	No	Yes	
Phosphorous Acid					5			5	No	No	
Prochloraz	6	4	2	1	2			15	No	No	
Propiconazole		6	3	2	2		1	14	No	Yes	
Prothioconazole	1	2	1					4	No	No	
Pymetrozine	4	5						9	No	Yes	
Pyridalyl		1	1	1	1		1	5	No	Yes	
Quinoxifen	2	1	2					5	No	Yes	
Quizalofop					1			1	No	Yes	
Tebufenpyrad	1	1			1			3	No	No	
Teflubenzuron		2	1					3	No	No	
TFNA				1				1	No	No	
Thiacloprid	16	14	10					40	No	Yes	
Thiophanate-methyl		1						1	No	Yes	
Tolfenpyrad		1						1	No	Yes	
Triadimenol	1	1	1					3	No	Yes	
Zoxamide				1			1	2	No	No	
Sodium 5-nitroguaiacolate							1	1	No	No	
Prothiofos							1	1	No	Yes	
Procymidone							1	1	No	Yes	
PCB 138							1	1	No	No	
PCB 153							1	1	No	No	
Total	949	842	748	668	640	665	624	5131			

Blue shading actives with WHO1a/1b and/ or PAN HHP designation. Green shading added to PAN HHP list in 2021.

		2021	2022	2023	2024
Actives substances	No. Actives detected	101	109	97	96
	WHO 1a 1b	2	0	0	0
	PAN HHP	44	40	39	40

Ten most detected active substances over time



Ten most detected active substances and the product detected

Active substance	Apples	Baby Leaves	Bananas	Basil	Beans with pod	Blackberries	Blueberries	Broccoli	Brussel sprouts	Butternut squash	Carrots	Cherries	Chilli Peppers	Courgettes	Garlic	Grapefruit	Kale	Kiwi Fruit	Leeks	Lemons	Lettuce	Limes	Mandarins	Mangoes	Melons	Mint	Nectarines	Oranges	Parsley	Pears	Peas with pod	Peas without pod	Pineapples	Plums	Pumpkin seeds	Raspberries	Rocket	Spinach	Strawberries	Sultanas	Sweet Peppers	Sweet Potatoes	Table Grapes	Tomatoes	Walnuts	Total
Fludioxonil	7		3	1		1	1			1	2	5						1			1		3	5	1		2	1	1	4			1	2		4	1		4			2	5	1		60
Azoxystrobin			6		2	2	2	1	1		1	2	3				2		1	1			1	2	1				1		2	1						2	1	2		1	2		40	
Boscalid	5		2			4	4		1		1	1		1	1		1											1	2	2	1						2					6	1	1	35	
Pyrimethanil	4																			3			6				1	4		2				3				1	1			3			28	
Dithiocarbamates	2		1	1				1								1				1			1		1			3		1						2						1		16		
Imazalil																3				4		1	6					6																	20	
Acetamiprid	1	1		1		1		1				2		1							1	1	1				1	1											1			2			16	
Thiabendazole																3				1			5				1	6																		16
Spinosad (Spinosyn A & D)						4	6																			1	3		1								1								16	
Pyraclostrobin	3					2										1	1							1	1			2		1					1									1		14
Total	22	1	12	3	2	14	13	3	2	1	4	10	3	2	1	8	4	1	1	10	2	2	23	8	4	1	8	23	4	10	3	1	1	5	1	5	3	2	7	3	2	2	17	5	2	261

Different colours denote frequency of detections of actives. Green low, through to red highest.

Exceedances

2024 exceedances details

There were 16 exceedances in 2024 from 15 samples. Eleven of these exceedances were active substances that are on the PAN HHP list: dodine, propiconazole, flupyradifurone, tebuconazole, procymidone, folpet, indoxacarb, imazalil, prothiofos, deltamethrin and thiabendazole.

Date sampled	Crop or Crop Group	Country	Pesticide	Level Found (mg/kg)	UK MRL (mg/kg)	EU MRL (mg/kg)	Comments
15/05/2024	Raspberries	Morocco	dodine	0.027	0.01	0.01	
15/05/2024	Chilli Peppers	Unspecified	propiconazole	0.034	0.01	0.01	
18/04/2024	Blueberries	Egypt	flupyradifurone	0.055	0.01	4	Note divergence of EU and GB MRL
21/02/2024	Cherries	Chile	tebuconazole	1.12	1	1	
15/05/2024	Pumpkin seeds	UK	procymidone	0.023	0.02	0.02	
25/09/2024	Apples	New Zealand	folpet	0.304	0.3	0.3	
27/11/2024	Apples	UK	indoxacarb	0.018	0.5	0.01	Note divergence of EU and GB MRL
27/11/2024	Oranges*	South Africa	imazalil	4.26	4	4	
27/11/2024	Oranges*	South Africa	prothiofos	0.012	-	0.01	No UK MRL. For EU, default MRL of 0.01 mg/kg used
27/11/2024	Kale	UK	cyantranilprole	0.078	4	0.01	Note divergence of EU and GB MRL
27/11/2024	Table Grapes	Peru	myclobutanil	1.11	1	1.5	Note divergence of EU and GB MRL
29/10/2024	Basil	UK	dithiocarbamates	6.81	5	5	
26/07/2024	Spinach	UK	deltamethrin	0.028	0.01	0.01	
26/07/2024	Nectarines	Spain	thiabendazole	0.013	0.01	0.01	
29/10/2024	Blackberries	UK	cyantranilprole	0.163	1.5	0.01	Note divergence of EU and GB MRL
20/12/2024	Swedes	UK	fosetyl-Al	4.42	2	2	

Blue shading indicates active that is on the PAN HHP list. *exceedances from the same sample.

2023 exceedances details

There were 10 exceedances in 2023. Five of these exceedances were active substances that are on the PAN HHP list: imazalil, thiabendazole, tetraconazole, dodine, fipronil.

Date sampled	Crop or Crop Group	Country	Pesticide	Level Found (mg/kg)	UK MRL (mg/kg)	EU MRL (mg/kg)	Comments
26/01/2023	Bananas	Ghana	boscalid	0.709	0.60	0.6	
14/02/2023	Lemons	Spain	imazalil	7.07	5.00	5	
14/02/2023	Pumpkin seeds	Unspecified	pyraclostrobin	0.06	0.02	0.02	
14/02/2023	Grapefruit	Israel	imazalil	4.09	4.00	4	
14/03/2023	Mangoes	Peru	thiabendazole	0.034	0.01	5	Note divergence of EU and GB MRL
14/03/2023	Strawberries	Morocco	tetraconazole	0.271	0.20	0.01	Isomer F has 0.15 MRL in EU
25/05/2023	Lemons	South Africa	buprofezin	0.011	0.01	0.01	
28/07/2023	Raspberries	UK	dodine	0.096	0.01	0.01	
27/09/2023	Pineapples	Costa Rica	novaluron	0.016	0.01	0.01	
30/11/2023	Spinach	Spain	fipronil	0.01	0.01	0.005	

Blue shading indicates active that is on the PAN HHP list.

2022 exceedances details

There were 7 exceedances in 2022. Three of these exceedances were active substances that are on the PAN HHP list: chlorpropham, deltamethrin, chlorpyrifos.

Date sampled	Crop or Crop Group	Country	Pesticide	Level Found (mg/kg)	UK MRL	EU MRL	Comments
21-Dec-22	Rocket	Spain	acetamiprid	3.33	3	3	
17-Mar-22	Shallots	UK	chlorpropham	0.02	0.05	0.01	Note divergence of UK and EU MRL. This was an EU exceedance.
22-Jun-22	Spinach	UK	deltamethrin	0.03	0.01	0.01	
24-Feb-22	Cherries	Unspecified	fosetyl-Al	7.83	2	2	The two exceedances in cherries were from the same sample.
24-Feb-22	Cherries	Unspecified	phosphorous Acid	5.8	2	2	
22-Dec-22	Table Grapes	Namibia	ethephon	1.72	1	1	
22-Jun-22	Mandarins	UK	chlorpyrifos	0.01	0.01	0.01	

Blue shading indicates active that is on the PAN HHP list.

2021 exceedances details

Date sampled	Crop or Crop Group	Country	Pesticide	Level Found (mg/kg)	UK MRL
15/06/2021	Raspberries	UK	flonicamid	0.06	0.03
27/08/2021	Bread	Unspecified	ethylene oxide	0.083	0.02
27/08/2021	Cumin	France	ethylene oxide	1.3	0.1
03/09/2021	Asparagus	Mexico	TFNA	0.076	0.03
04/09/2021	Dwarf beans	Egypt	fosetyl-Al	2.56	2
24/09/2021	Coriander	UK	propyzamide	0.29	0.2
02/11/2021	Mixed berries	Mexico	dimethoate	0.05	0.01
02/11/2021	Mixed berries	Mexico	methamidophos	0.02	0.01
08/11/2021	Garlic	Spain	prochloraz	0.18	0.03
11/11/2021	Blackberries	UK	cyantraniliprole	0.02	0.01

Blue shading indicates active that is on the PAN HHP list.

2020 exceedances details

Date sampled	Crop or Crop Group	Country	Pesticide	Level Found	MRL	Comments
03-Mar-20	Lettuce		chlorates	0.024	0.01	chlorates MRL 0.7 from 28/06/2020
03-Mar-20	Lettuce		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	MRL	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	MRL	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	
27-Nov-18	Pomegranates	Turkey	acetamiprid	0.04	0.01	

Further data

Further data can be found on our [Crop Protection policy](#).