

Waitrose Pesticide Residue Testing Report: 2020 to 2023

At Waitrose we undertake an extensive independent pesticide testing program to ensure that our fresh produce meets legislative requirements. This compliments the programs we have with our suppliers and growers worldwide to ensure the rational use of pesticides, Integrated Pest Management and compliance with our pesticide policy.

Our testing program is conducted on the full range of fresh produce from around the world by accredited laboratories. Our laboratories independently take samples from products in our shops for analysis from an agreed annual program. Waitrose has no influence on what particular samples are taken.

The results of the last four years analysis data is summarised as below;

- 1. Number of Tests per Product**
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Definitions:

MRL Maximum Residue Limit, the maximum level of a pesticide residue allowed by law in a product. Based on usage following Good Agricultural Practice.

LOD - Limit of Determination, the lowest level at which a pesticide can be reliably detected.

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I. Number of Tests per Product

Product	2020	2021	2022	2023
Apple	21	24	25	11
Apricot	2	1	5	2
Artichoke	1	2	3	
Asparagus	4	6	5	4
Avocado	3	3	6	2
Baby Corn	3	1	2	-
Banana	10	4	3	1
Beans	8	10	12	8
Beetroot	2	1	1	-
Blackberry	3	3	5	4
Blueberries	7	10	11	6
Broccoli	6	7	4	3
Brussel Sprouts	1	3	5	3
Cabbage	6	4	4	3
Carrot	6	12	12	6
Cauliflower	5	3	5	3
Cavolo	2	-	-	-
Cavolo Nero	-	1	2	-
Celery	6	3	4	2
Chard	2	1	2	1
Cherries	6	7	7	3
Chicory	3	3	4	3
Chillies	-	-	-	1
Chinese leaf	-	1	2	-
Clementine	3	2	-	1
Courgettes	5	6	5	5
Cranberry	1	2	2	2
Cucumber	7	4	4	3
Dates	2	-	-	-
Dragon Fruit	-	1	-	-
Figs	-	3	4	2
Garlic	1	2	3	-
Gooseberries	1	1	2	1
Grapes	13	12	17	8
Greengage	-	-	-	1
Horseradish	1	1	1	1
Kale	5	5	1	2
Kiwi fruit	5	5	6	4
Leaf Greens	1	2	1	1
Leeks	6	5	4	3
Lemon	5	6	4	2
Lettuce	9	9	8	3
Lime	4	2	4	2
Lychees	2	1	1	-
Mandarin	2	2	-	-

Product	2020	2021	2022	2023
Mangetout pea	1	-	3	2
Mango	5	7	6	1
Melon	1	2	4	1
Mushrooms	10	9	14	10
Nectarine	5	3	8	3
Okra	-	-	1	1
Onion	12	12	10	4
Orange	4	9	8	6
Pak Choi	2	2	2	1
Papaya	1	1	-	-
Parsnip	4	5	6	6
Passionfruit	2	1	3	1
Peach	1	4	3	4
Pears	12	12	11	7
Peas	2	3	1	-
Peppers	14	5	5	5
Persimmon	1	1	1	1
Physalis	-	-	-	1
Pineapple	2	1	2	2
Plum	6	8	6	5
Plums	1	-	-	-
Pomegranate	2	-	-	-
Potato	26	22	23	13
Radish	3	3	2	4
Raspberries	8	9	7	3
Redcurrants	-	2	-	1
Rhubarb	1	2	2	1
Romanesco	-	1	1	-
Salad cress	-	-	1	-
Satsuma	5	3	8	2
Shallots	1	-	1	-
Sharon Fruit	-	-	1	-
Spinach	4	4	4	2
Squash	5	1	4	1
Strawberries	7	10	7	5
Sugar Snap Peas	1	4	2	3
Swede	-	-	-	1
Sweetcorn	4	7	4	3
Swiss Chard	1	-	-	-
Tangerine	2	3	4	4
Tat Soi	1	2	1	1
Tomatoes	15	17	18	13
Turmeric	-	1	1	-
Turnip	-	3	-	1
Watermelon	-	2	1	-
Grand Total	352	362	382	226

2. Tests by Country of Origin

Country of origin	2020	2021	2022	2023
Argentina	2	3	4	2
Belgium	4	2	3	3
Brazil	5	6	13	5
Burkina-Faso	-	1	-	-
Chile	6	13	8	2
China	-	-	1	-
Colombia	1	1	1	3
Costa Rica	2	2	2	2
Cyprus	1	-	2	-
Dominican Rep.	3	2	2	1
Egypt	7	7	6	8
Ethiopia	1	-	-	-
France	4	5	5	3
Gambia	1	-	-	-
Germany	-	1	-	-
Ghana	4	-	-	-
Greece	5	3	3	-
Guatemala	-	1	1	-
Honduras	-	-	2	-
Hungary	1	1	1	1
India	1	1	4	-
Indonesia	-	-	1	-
Israel	3	2	3	-
Italy	14	13	10	11
Jersey		1	2	-
Jordan	1	1	-	-
Kenya	2	4	6	6
Mexico	2	3	-	2
Morocco	10	10	9	12
Namibia	-	1	-	-
Netherlands	13	11	10	6
New Zealand	4	5	3	-
Panama	1	-	1	-
Peru	12	11	14	9
Portugal	3	2	5	2
Saint Lucia	1	1	-	-
Senegal	4	4	4	3

Country of origin	2020	2021	2022	2023
South Africa	26	30	40	19
Spain	66	62	65	43
St Lucia	-	-	1	-
Thailand	-	1	-	-
Turkey	-	1	2	1
UK	134	144	140	78
USA	2	3	4	3
Vietnam	2	3	2	1
Zambia	-	-	1	-
Zimbabwe	1	-	1	-
Unspecified	3	-	-	-
Grand Total	352	362	382	226

3. Residue Statistics - Summary

All countries	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)
Number of samples	352	N/A	362	N/A	382	N/A	226	N/A
Samples with zero residues	161	46%	185	51%	188	49%	106	47%
Samples with 1 residue below MRL	0	0	57	16%	81	21%	50	22%
Samples with multiple residues below MRL	190	54%	120	33%	111	29%	67	30%
Samples with at least 1 MRL exceedance	1	<1%	0	0%	2	1%	3	1%
Number of detections	426	N/A	220	N/A	357	N/A	241	N/A
Average detections per sample	1.2	N/A	0.6	N/A	0.9	N/A	1.0	N/A

4. Residue Statistics - Split by Region

United Kingdom	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)
Number of samples	134	N/A	144	N/A	140	N/A	78	N/A
Samples with zero residues	76	57%	88	61%	86	61%	45	58%
Samples with 1 residue below MRL	-	-	25	17%	32	23%	19	24%
Samples with multiple residues below MRL	57	43%	31	22%	56	40%	13	17%
Samples with at least 1 MRL exceedance	1	<1%	-	-	1	<1%	1	1%
Number of detections	58	-	56	-	89	-	33	-
Average detections per sample	0.4	-	0.3	-	0.6	-	0.4	-

Europe	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)
Number of samples	109	N/A	99	N/A	100	N/A	68	N/A
Samples with zero residues	41	38%	43	43%	45	45%	33	48%
Samples with 1 residue below MRL	-	-	14	14%	20	20%	14	21%
Samples with multiple residues below MRL	68	62%	42	42%	35	35%	21	31%
Samples with at least 1 MRL exceedance	-	-	-	-	-	-	-	-
Number of detections	68	-	56	-	55	-	68	-
Average detections per sample	0.6	-	0.5	-	0.6	-	1	-

Rest of World	2020	2020 (%)	2021	2021 (%)	2022	2022 (%)	2023	2023 (%)
Number of samples	109	N/A	119	N/A	142	N/A	80	N/A
Samples with zero residues	44	40%	54	45%	60	42%	28	35%
Samples with 1 residue below MRL	-	-	18	15%	29	20%	17	21%
Samples with multiple residues below MRL	65	60%	47	40%	52	37%	33	41%
Samples with at least 1 MRL exceedance	-	-	-	-	1	<1%	2	3%
Number of detections	65	-	65	-	82	-	78	-
Average detections per sample	0.5	-	0.5	-	0.5	-	1	-

5. Residue Statistics - Split by Product

	2020				2020 Total	2021				2021 Total	2022				2022 Total	2023				2023 Total
<i>Product Description</i>	Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance	
Apple	4		17		21	4	7	13		24	1	8	16		25	3	2	6		11
Apricot	1		1		2	1				1		2	3		5	1		1		2
Artichoke	1				1	1		1		2	3				3					
Asparagus	4				4	6				6	4		1		5	4				4
Avocado	1		2		3		2	1		3	4	1	1		6	1		1		2
Baby Corn	3				3	1				1	2				2					
Banana	3		7		10	2		2		4	1		2		3			1		1
Beans	3		3		6	5	2	3		10	9	1	2		12	5		3		8
Beetroot	2				2	1				1	1				1					
Blackberry			3		3	2		1		3	1	1	3		5	3		1		4
Blueberries	3		4		7	6	2	2		10	3	4	4		11	3	2	1		6
Broccoli	2		4		6	6		1		7	3		1		4	2	1			3
Brussel Sprouts			1		1	2		1		3	2	2	1		5	1	1	1		3
Cabbage	5		1		6	3		1		4	4				4	3				3
Carrot	4		2		6	7	3	2		12	10	1	1		12	3	2	1		6
Cauliflower	2		3		5	2	1			3	5				5	3				3
Cavolo			2		2															
Cavolo Nero						1				1		1	1		2					
Celery	3		3		6	1		2		3	2	2			4	2				2
Chard	1		1		2			1		1	1		1		2	1				1
Cherries			6		6	1	2	4		7		2	5		7		2	1		3
Chicory	1		2		3	3				3	1	3			4	2		1		3
Chillies																	1			1

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	2020				2020 Total	2021				2021 Total	2022				2022 Total	2023				2023 Total
<i>Product Description</i>	Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance	
Mangetout pea			1		1						1	1	1		3			2		2
Mango	1		4		5	4	2	1		7	1	4	1		6		1			1
Melon			1		1		1	1		2		2	2		4		1			1
Mushrooms	9		1		10	7	1	1		9	9	3	1	1	14	6	4			10
Nectarine			5		5	1	1	1		3	2	4	2		8		3			3
Okra											1				1	1				1
Onion	11		1		12	11	1			12	10				10	4				4
Orange	1		3		4	2		7		9		1	7		8	2	1	3		6
Pak Choi	1			1	2	1		1		2	2				2	1				1
Papaya	1				1	1				1										
Parsnip	4				4	5				5	2	3	1		6	4	1	1		6
Passionfruit	2				2		1			1	1	1	1		3			1		1
Peach	1				1	1		3		4	1		2		3			4		4
Pears	2		10		12	3	2	7		12	1	2	8		11	2	1	4		7
Peas	2				2	1	1	1		3	1				1					
Peppers	10		4		14	3	1	1		5	4		1		5	3	1	1		5
Persimmon	1				1	1				1	1				1	1				1
Physalis																		1		1
Pineapple			2		2		1			1		2			2		2			2
Plum	2		4		6	1	1	6		8	2	2	2		6	1		4		5
Plums			1		1															
Pomegranate			2		2															
Potato	16		10		26	15	6	1		22	12	11			23	6	7			13
Radish	2		1		3	1	1	1		3	1	1			2	1	3			4
Raspberries	3		5		8	5	2	2		9	5	1	1		7	1	1	1		3

	2020				2020 Total	2021				2021 Total	2022				2022 Total	2023				2023 Total
<i>Product Description</i>	Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance		Not Detected	Single Residue	Multiple Residues	MRL Exceedance	
Redcurrants								2		2								1		1
Rhubarb	1				1	2				2	2				2	1				1
Romanesco						1				1	1				1					
Salad cress												1			1					
Satsuma			2		2								1		1			1		1
Shallots	1				1						1				1					
Sharon Fruit											1				1					
Spinach			4		4	1		3		4	1	1	2		4	2				2
Squash	5				5	1				1	3	1			4	1				1
Strawberries			7		7	2	1	7		10	2	3	2		7	1	1	3		5
Sugar Snap Peas	1				1	3	1			4	1			1	2		1	1	1	3
Swede																1				1
Sweetcorn	3		1		4	6		1		7	4				4	3				3
Swiss Chard			1		1															
Tangerine			2		2			3		3			4		4			4		4
Tat Soi	1				1	1	1			2	1				1	1				1
Tomatoes	5		10		15	11	1	5		17	12	1	5		18	4	4	5		13
Turmeric						1				1	1				1					
Turnip							3			3						1				1
Watermelon						2				2	1				1					
Grand Total	161	0	190	1	352	185	57	120	0	362	188	81	111	2	382	106	50	67	3	226

6. Exceedance Details

From 2020 to 2023 a total of 6 pesticide residues were found to be above the MRL, which equates to 0.45% of all tests

2020 Exceedance details

Date sample	Crop or Crop Group	Country	Pesticide	Level found mg/kg	MRL mg/kg
September 2020	Pak Choi	United Kingdom	Cyantraniliprole	0.019	0.01

2021 Exceedance details

Date sample	Crop or Crop Group	Country	Pesticide	Level found mg/kg	MRL mg/kg
NONE					

2022 Exceedance details

Date sample	Crop or Crop Group	Country	Pesticide	Level found mg/kg	MRL mg/kg
April 2022	Sugar snaps	Guatemala	Chlorothalonil	0.25	0.01
October 2022	Mushrooms	United Kingdom	Fluazinam	0.03	0.01

2023 Exceedance details

Date sample	Crop or Crop Group	Country	Pesticide	Level found mg/kg	MRL mg/kg
January 2023	Kale	United Kingdom	Propyzamide	0.02	0.01
September 2023	Sugar snaps	Peru	Fipronil	0.08	0.005
September 2023	Limes	Brazil	Chlorfenapyr	0.02	0.01

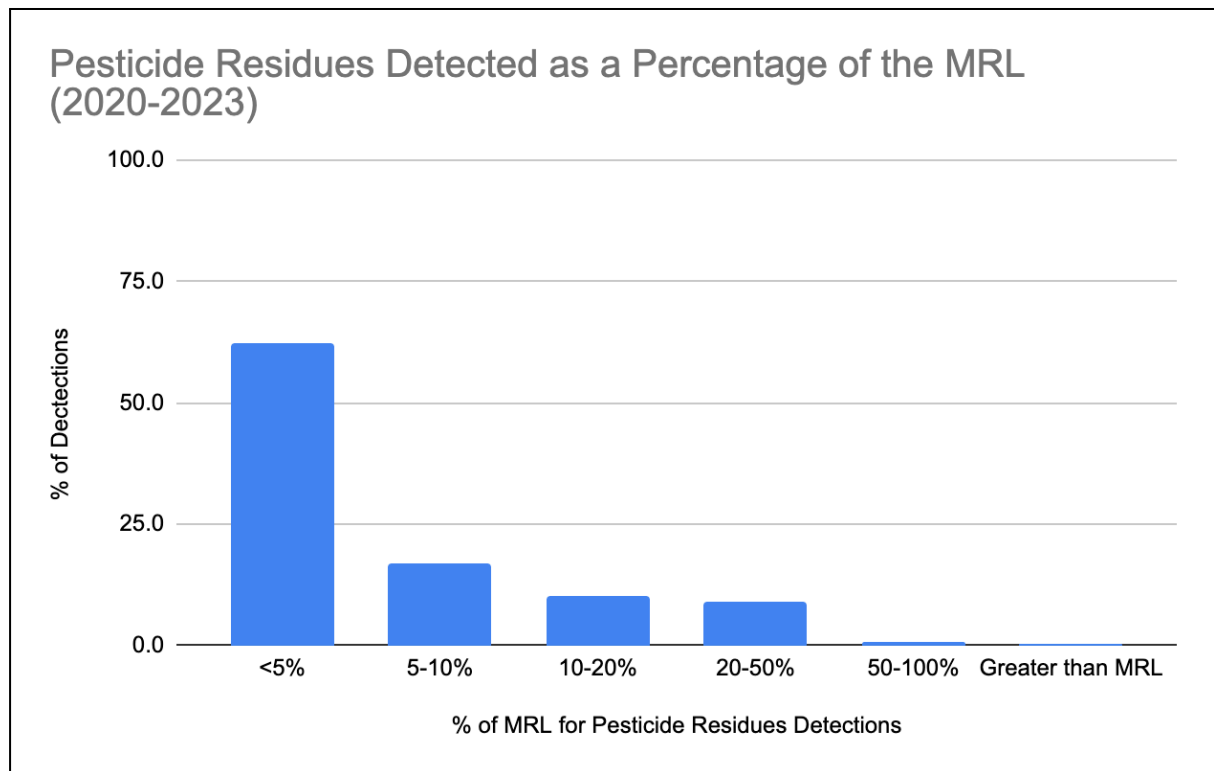
* Not including residues from cleaning or water treatment chemicals

7. Summary of Pesticides Detected at over 50% of the MRL

From 2021 to 2023 a total of 13 pesticide residues were found to be above 50% of the MRL, which equates to 1.3% of all tests

SAMPLE DATE	CROP	COO	RESIDUE	RESULT mg/kg	MRL mg/kg	% of MRL	MRL set at LOD
May 2021	Grapes	Chile	Phosmet	0.04	0.05	80%	No
May 2021	Beans	Italy	Dithio-carbamates	0.07	0.1	70%	No
September 2021	Oranges	South Africa	Imazalil	2.14	4	53%	No
January 2022	Tangerine	Turkey	Etoxazole	0.05	0.1	50%	No
May 2022	Grapes	Brazil	Etofenprox	3.56	4	89%	No
May 2022	Satsuma	South Africa	Imazalil	3.37	5	67%	No
August 2022	Orange	South Africa	Imazalil	2.34	4	58%	No
October 2022	Grapes	Brazil	Azoxystrobin	1.59	3	53%	No
November 2022	Cavolo Nero	UK	Triallate	0.06	0.1	60%	No
November 2022	Easy Peeler	South Africa	Imazalil	3.69	5	74%	No
December 2022	Orange	South Africa	Imazalil	2.86	4	71%	No
July 2023	Satsuma	South Africa	Imazalil	2.69	5	54%	No
October 2023	Orange	South Africa	Imazalil	3.30	4	82%	No

8. Pesticide Residues Detected as a Percentage of the MRL



Over the 4 years from 2020 to 2024 the vast majority of pesticide residues detected (62%) were at less than 5% of the MRL. 17% were found between 5 and 10% of the MRL and 10% were found at 10 to 20% and 9% were found between 20 and 50%.

As illustrated in the sections above, 1.3% of all tests were found over 50% of the MRL whilst 0.45% of all tests were found above the MRL.

It should be noted that the MRL is not a safety limit but a legal maximum that should be achieved by carrying out Good Agricultural Practices in normal conditions.

9. Pesticide Active Ingredients Detected

Active	2020		2021		2022		2023	
	N	(%)	N	(%)	N	(%)	N	(%)
I-Naphthylacetamide	1	0.2	0	0.0	0	0.0	0	0.0
I-Naphthylacetic	1	0.2	0	0.0	0	0.0	0	0.0
Acetamiprid	14	3.1	5	2.6	13	3.8	11	5.4
Ametoctradin	2	0.4	0	0.0	0	0.0	0	0.0
Azoxystrobin	22	4.9	8	4.1	25	7.3	18	8.8
Benzalkonium	3	0.7	0	0.0	0	0.0	0	0.0
Boscalid	38	8.5	27	13.8	34	9.9	17	8.3
Captan	19	4.2	0	0.0	0	0.0	0	0.0
Captan/THPI	4	0.9	0	0.0	0	0.0	0	0.0
Carbendazim	1	0.2	1	0.5	0	0.0	0	0.0
Benomyl	2	0.4	0	0.0	0	0.0	0	0.0
Chlorantraniliprole	2	0.4	6	3.1	6	1.8	1	0.5
Chlorothalonil	0	0.0	0	0.0	1	0.3	0	0.0
Chlorpropham	7	1.6	0	0.0	0	0.0	0	0.0
Chlorpyrifos	1	0.2	0	0.0	0	0.0	0	0.0
Clothianidin	1	0.2	0	0.0	0	0.0	0	0.0
Cyantraniliprole	1	0.2	0	0.0	0	0.0	0	0.0
Cyazofamid	1	0.2	0	0.0	0	0.0	4	2.0
Cyhalothrin	4	0.9	4	2.1	4	1.2	0	0.0
Cypermethrin	0	0.0	0	0.0	1	0.3	0	0.0
Cyprodinil	16	3.6	12	6.2	12	3.5	7	3.4
DDAC	2	0.4	1	0.5	0	0.0	0	0.0
Deltamethrin	2	0.4	0	0.0	5	1.5	2	1.0
Dialkyldimethylammonium	2	0.4	0	0.0	0	0.0	0	0.0
Difenoconazole	10	2.2	5	2.6	7	2.0	7	3.4
Dimethomorph	4	0.9	1	0.5	3	0.9	2	1.0
Dithiocarbamates	13	2.9	3	1.5	4	1.2	2	1.0

Active	2020		2021		2022		2023	
Dodine	3	0.7	0	0.0	0	0.0	0	0.0
Etofenprox	3	0.7	0	0.0	6	1.8	2	1.0
Fenhexamid	5	1.1	2	1.0	2	0.6	3	1.5
Fenpyrazamine	1	0.2	0	0.0	0	0.0	0	0.0
Fipronil	0	0.0	0	0.0	0	0.0	1	0.5
Flonicamid	2	0.4	0	0.0	0	0.0	1	0.5
Fludioxonil	44	9.8	25	12.8	61	17.8	31	15.2
Flupicolid	4	0.9	0	0.0	0	0.0	0	0.0
Fluopyram	12	2.7	0	0.0	0	0.0	6	2.9
Flupyradifurone	4	0.9	0	0.0	0	0.0	0	0.0
Flutriafol	3	0.7	1	0.5	0	0.0	1	0.5
Fluxapyroxad	1	0.2	0	0.0	0	0.0	2	1.0
Imazalil	14	3.1	10	5.1	24	7.0	7	3.4
Imidacloprid	5	1.1	1	0.5	3	0.9	0	0.0
Indoxacarb	6	1.3	2	1.0	5	1.5	0	0.0
Isopyrazam	1	0.2	0	0.0	0	0.0	0	0.0
Malathion	0	0.0	0	0.0	1	0.3	2	1.0
Maleic	2	0.4	1	0.5	6	1.8	2	1.0
Mandipropamid	1	0.2	1	0.5	2	0.6	0	0.0
Mepanipyrim	1	0.2	1	0.5	0	0.0	0	0.0
Metalaxyl	3	0.7	2	1.0	0	0.0	0	0.0
Metalaxyl/Metalaxyl-M	3	0.7	2	1.0	0	0.0	0	0.0
Methoxyfenozide	2	0.4	0	0.0	1	0.3	0	0.0
Metrafenone	1	0.2	2	1.0	3	0.9	4	2.0
Myclobutanil	5	1.1	6	3.1	2	0.6	1	0.5
Pendimethalin	1	0.2	2	1.0	4	1.2	2	1.0
Penthiopyrad	2	0.4	0	0.0	0	0.0	0	0.0
Phosmet	2	0.4	1	0.5	0	0.0	0	0.0
Pirimicarb	0	0.0	2	1.0	2	0.6	1	0.5

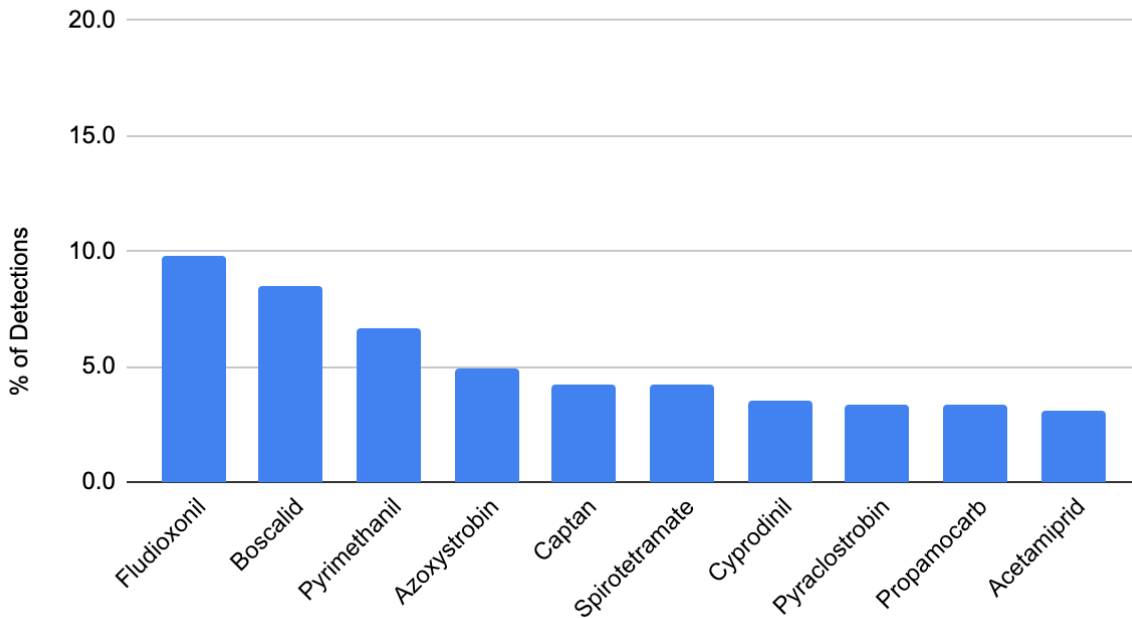
Active	2020		2021		2022		2023	
Prochloraz	4	0.9	0	0.0	2	0.6	3	1.5
Propamocarb	15	3.3	8	4.1	8	2.3	6	2.9
Propiconazole	3	0.7	0	0.0	0	0.0	0	0.0
Prothioconazole-desthio	0	0.0	0	0.0	0	0.0	1	0.5
Pyraclostrobin	15	3.3	5	2.6	12	3.5	11	5.4
Pyrimethanil	30	6.7	22	11.3	36	10.5	21	10.3
Pyriproxyfen	5	1.1	2	1.0	5	1.5	3	1.5
Spinosad	14	3.1	6	3.1	7	2.0	0	0.0
Spiromesifen	1	0.2	0	0.0	1	0.3	2	1.0
Spirotetramate	19	4.2	0	0.0	0	0.0	0	0.0
Sulfoxaflor	2	0.4	0	0.0	0	0.0	2	1.0
Tebuconazole	6	1.3	3	1.5	10	2.9	8	3.9
Tebufenozide	1	0.2	0	0.0	0	0.0	0	0.0
Thiabendazole	12	2.7	11	5.6	13	3.8	7	3.4
Thiacloprid	7	1.6	1	0.5	0	0.0	0	0.0
Thiamethoxam	1	0.2	0	0.0	0	0.0	0	0.0
Triallate	1	0.2	1	0.5	3	0.9	1	0.5
Trifloxystrobin	6	1.3	2	1.0	8	2.3	2	1.0
Triflumizol/FM-6-I	1	0.2	0	0.0	0	0.0	0	0.0
Triflumuron	2	0.4	0	0.0	0	0.0	0	0.0

Waitrose Restricted List Detections 2020-2023

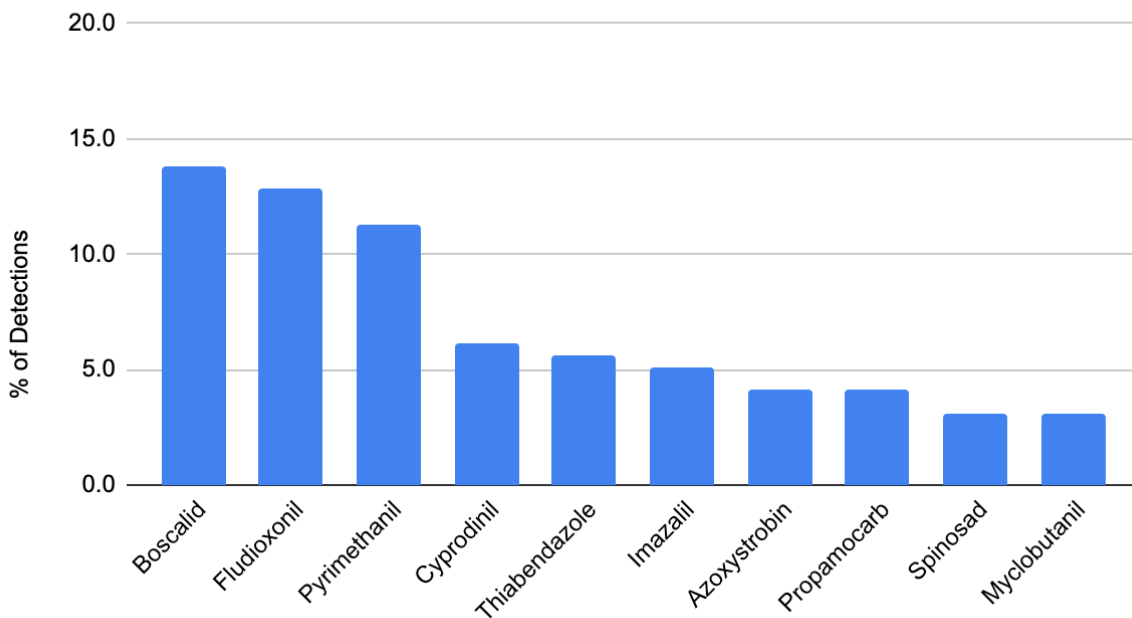
Black List Pesticides Not to be used for crops destined to Waitrose	0
Red List Pesticides Pesticides not to be used unless a valid justification is conducted. Risk analysis and elimination plans must be in place and available to Waitrose	9
Amber List Pesticides Pesticides that may be used providing suppliers and growers understand the risks associated with these chemicals, that these risks are controlled and usage is monitored by suppliers throughout the Waitrose grower base	310

10. Summary of Most Detected Pesticides by Year

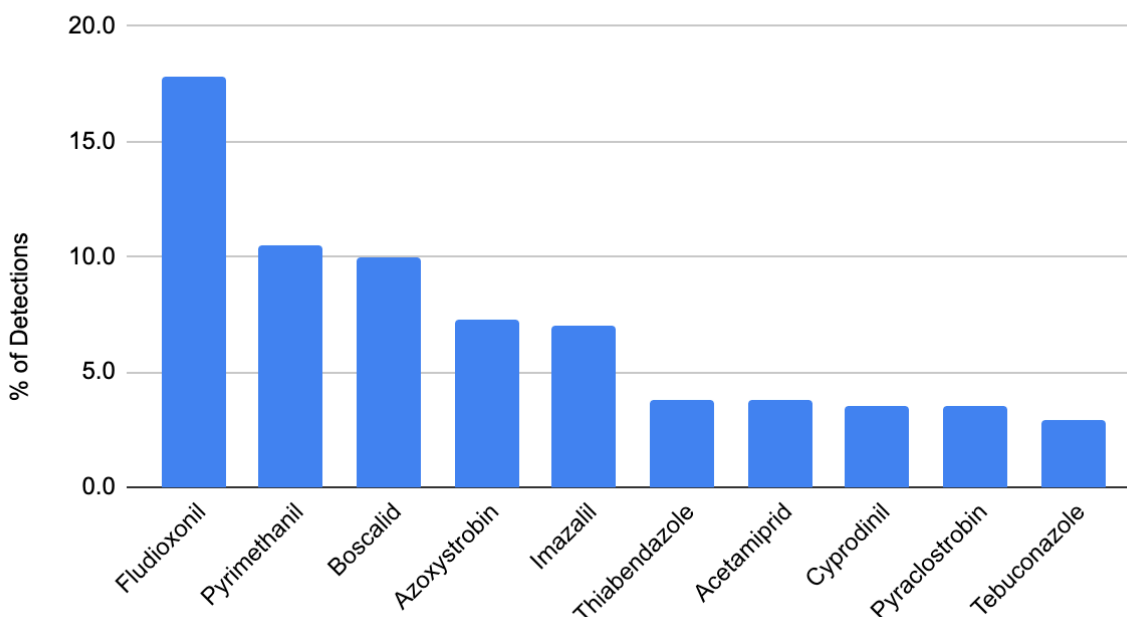
Pesticide Resdues: Ten Most Detected Pesticides 2020



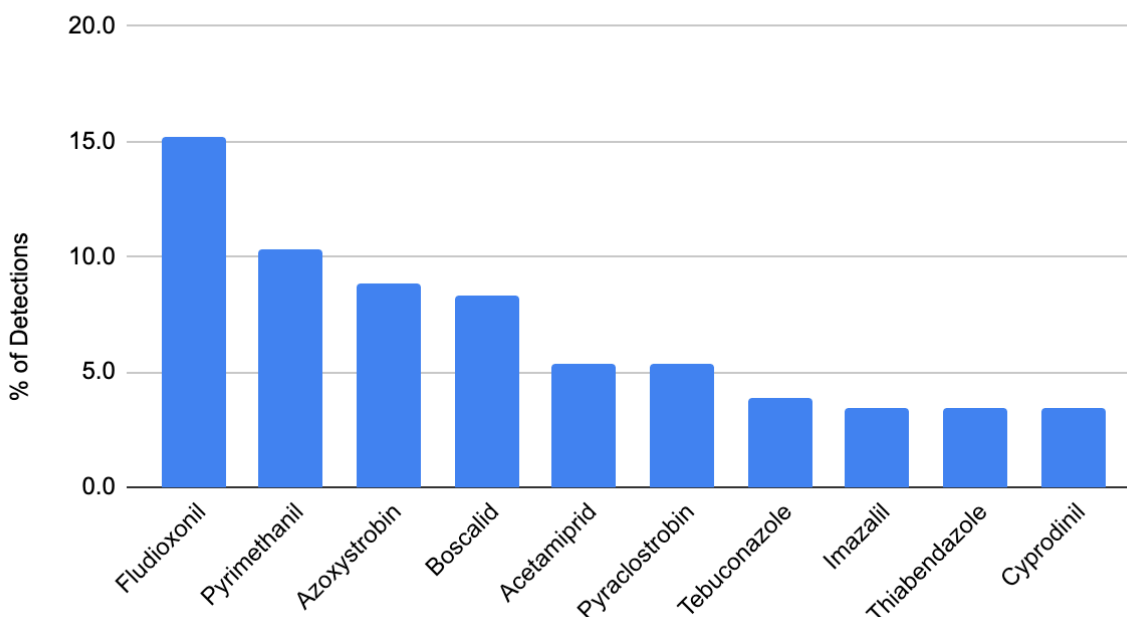
Pesticide Resdues: Ten Most Detected Pesticides 2021



Pesticide Resdues: Ten Most Detected Pesticides 2022



Pesticide Resdues: Ten Most Detected Pesticides 2023



Of the most common pesticides found in the Waitrose residue testing program all are fungicides with the exception of Spinosad, an insecticide which is also approved for use in organic farming systems and Acetamiprid, an insecticide widely used to control aphids and other sucking insects. Imazalil, Pyrimethanil, Thiabendazole, Azoxystrobin, Fludioxonil are most commonly used as post harvest fungicides on products such as citrus fruits.

II. Summary of Non Fresh Produce Pesticide Residue Testing 2020-2023

Product Category	PASS Total	OOS* Total	Grand Total	% Pass
Bakery	4		4	100
Beans, grains, lentils	5		5	100
Biscuits	1		1	100
Bread	12		12	100
Cereals	13		13	100
Cheese, yoghurt, butter	29		29	100
Cocoa	1		1	100
Coffee	5		5	100
Dips, Soups and Sauces	8		8	100
Dried fruit, nuts and seeds	23	2	25	92
Eggs	4		4	100
Fish	17		17	100
Flour	13		13	100
Frozen fruit	8		8	100
Frozen veg	11		11	100
Grains	11		11	100
Herbs and Spices	4		4	100
Ice cream	1		1	100
Jam, honey, preserves, nut butters	16		16	100
Meat	22		22	100
Milk and cream	11		11	100
Olive oil	2		2	100
Olives	1		1	100
Pasta	4		4	100
Poultry	13		13	100
Prepared Salad	2		2	100
Rice	19	3	22	86
Soft drinks	3		3	100
Tea	2	1	3	67
Tinned fruit	1		1	100
Tomato puree	2		2	100
Wine	1		1	100
Grand Total	269	6	275	98

*OOS - Out of Specification Result

* Not including residues from cleaning or water treatment chemicals

Summary of Out of Specification Results, Non-Fresh Produce Pesticide Testing

Date	Product	Pesticide Detected	Level mg/lg	MRL mg/kg
2020	White Basmati Aged Rice*	Buprofezin	0.017	0.01
2020	Brown Basmati Aged Rice*	Buprofezin	0.2	0.1
		Chlorpyrifos	0.037	0.01
2020	Organic dried mango	Imidacloprid	0.11	0.1
2021	Organic dried mango	Diphenylamine	0.014	0.01
2021	Camomile infusion tea	Chlorpyrifos	0.016	0.005
2022	Whole Grain Rice*	Propiconazole	0.042	1.5
		Tebuconazole	0.013	1.5
		Tricyclazole	0.016	0.01
		Pirimiphos-methyl	0.005	0.5
		Isoprothiolane	0.066	6

*Product within MRL at time of import into the UK, MRL lowered during storage period

12. Conclusions and Recommendations

Waitrose carries out a comprehensive independent pesticide residue analysis program of its fresh produce. This covers 93 products from 50 countries, tests are carried out based on a risk assessment on an annual basis. Samples are collected by the laboratory from our shops and Waitrose has no influence on which individual samples are taken for analysis.

From 2020 to 2023 a total of 6 pesticide residues were found to be above the MRL, which equates to 0.45% of all tests. It should be noted that the MRL is not a safety limit but a legal maximum that should be achieved by carrying out Good Agricultural Practices in normal conditions.

For that period of 2021 to 2023 a total of 13 pesticide residues were found to be above 50% of the MRL, which equates to 1.3% of tests.

62% of detections of a pesticide residue were at less than 5% of the MRL. Around 90% of all detections had pesticide residues at less than 20% of the MRL. 98% of all detections showed pesticide residue levels at less than 50% of the MRL.

The most common result was that no pesticide residues were detected, at 48% of all tests, whilst 14% had one residue detected. 37% of tests had more than one residue detected at less than the MRL. It should be pointed out that although multiple residues are detected in samples the levels are very low and as pointed out previously about 90% of all residues are detected at less than 20% of the MRL and 98% of all detections showed pesticide residue levels at less than 50% of the MRL.

We will continue the work to understand why certain products are prone to multiple residues and, in conjunction with our growers, to further develop minimisation strategies.

No detections of Waitrose prohibited pesticides (Black List) were found and 9 detections of Restricted pesticides were found (Red List, can be used subject to risk assessment) and 310 detections of pesticides on the Amber list were noted.

Of the most commonly detected pesticides most are fungicides of which five are most commonly used as post harvest fungicides. Others are fungicides with wide usage and two are insecticides.

In conclusion the results of the Waitrose fresh produce pesticide residue testing program shows that residue levels generally are either nil or where present they are very low, and the level of MRL exceedance is extremely low.