

Imports of Rice in Small Packages

Contaminant monitoring in Basmati rice

UK Case Study

Civil Dialogue Group: Rice
2023

Samples



- 58 Basmati rice samples monitored.
- All samples were available for sale in the UK market.
- Brands included reflect the majority of Basmati rice sold and consumed in the UK.
- All samples labelled 'Basmati'.
 - Majority were white rice.
 - Small proportion sella/golden sella (i.e. parboiled).
 - Smaller proportion brown rice.

Sample origin



- Slight majority were milled and packed in country of origin (57%).
 - The country of origin was either **India** or **Pakistan**.
- Smaller proportion milled and packed in UK (43%).
 - Milling in this context means milling brown rice into white rice, i.e. removing the bran layers.

Location of milling	Samples (n)	%
Country of origin	33	57%
UK	25	43%
Total	58	

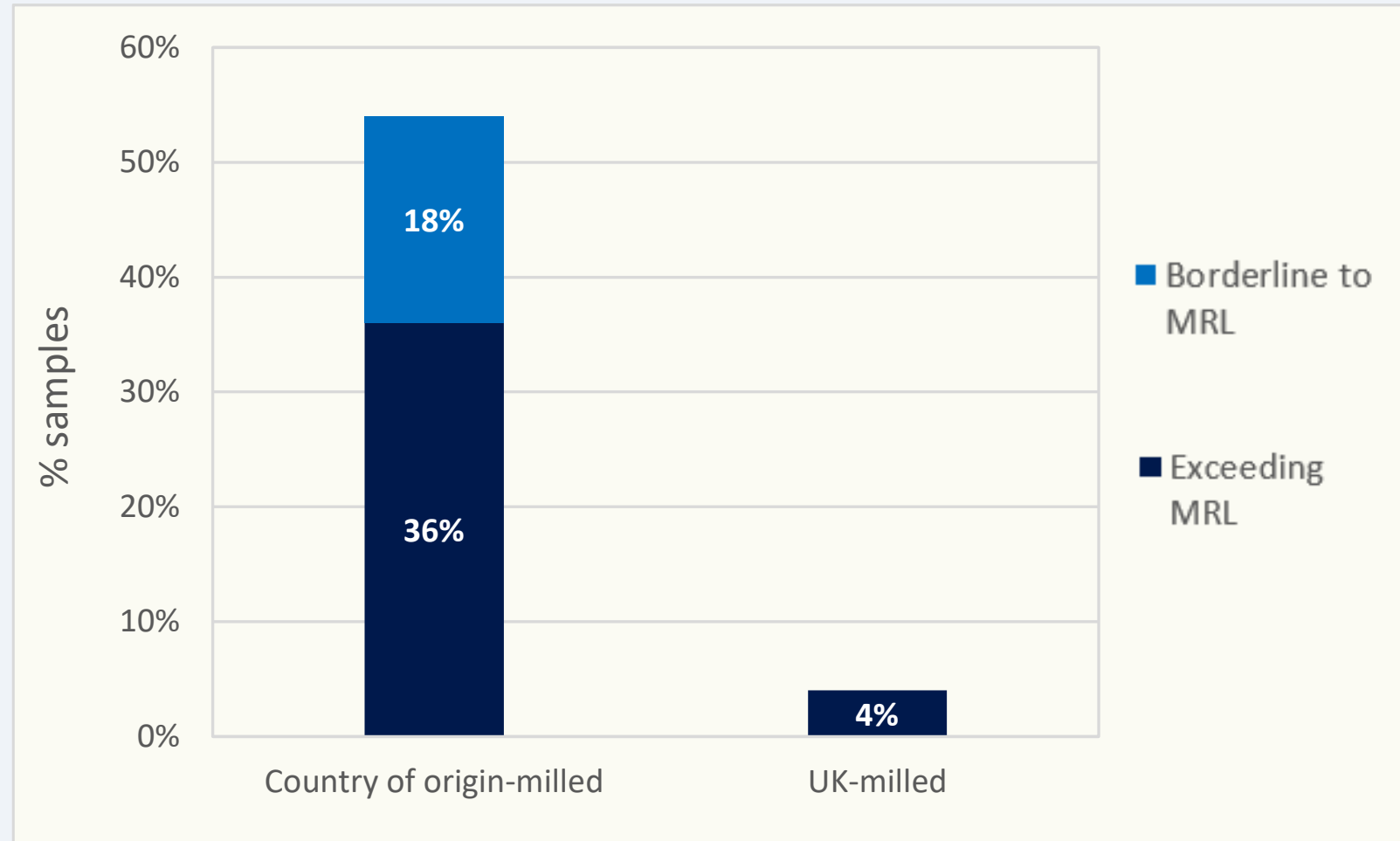
Testing

- Samples were analysed by Eurofins, Hamburg. The laboratory and methods of analysis are accredited. Further information on accreditation available if needed.
- Samples were tested for the following:
 - **Pesticide/agrochemical residue**
 - Aflatoxins (A1, B2, G1 and G2)
 - Ochratoxin A (OTA)

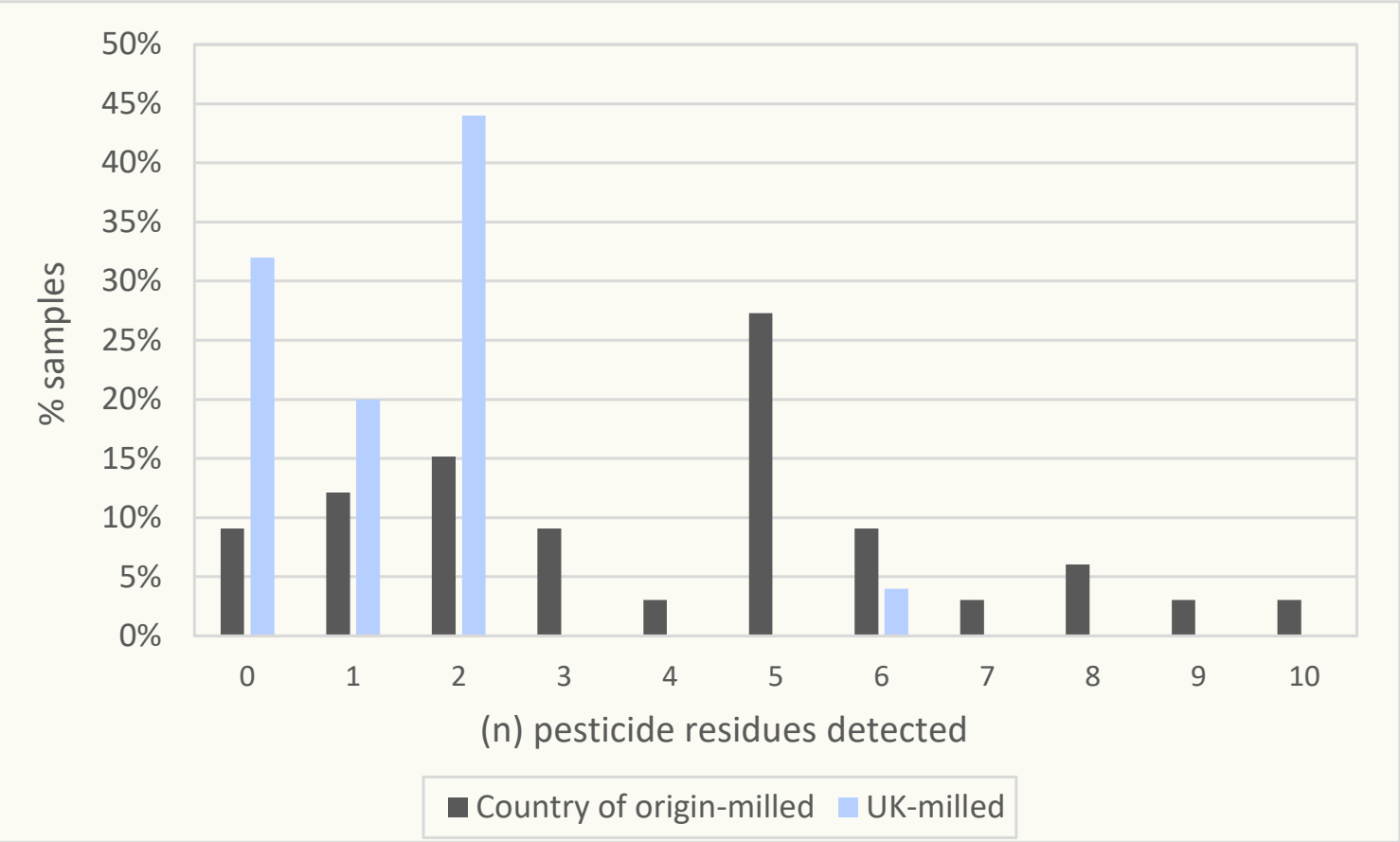


Pesticide residues

- The monitoring found a significant difference in pesticide residue compliance between UK vs country of origin-milled samples.
- 'Borderline' =
 - Result at/on the MRL.
 - Result exceeding the MRL but within the measurement uncertainty
- Just one UK-milled sample exceeding MRL (thiamethoxam).



Pesticide residues



- Country of origin-milled samples more likely to contain a higher number of distinct residues.

	Location of milling	
	Country of origin	UK
Samples containing residues (%)	91%	68%
Samples containing 1 or no residues (%)	21%	52%
Samples containing 2 or more residues (%)	79%	48%
Samples containing 5 or more residues (%)	52%	4%
Samples exceeding an MRL (%)	36%	4%
Samples borderline to MRL (%)	18%	0%
Samples either exceeding or borderline to MRL (%)	54%	4%

Pesticide residues

- Exceedance or borderline residues found in country of origin-milled samples.

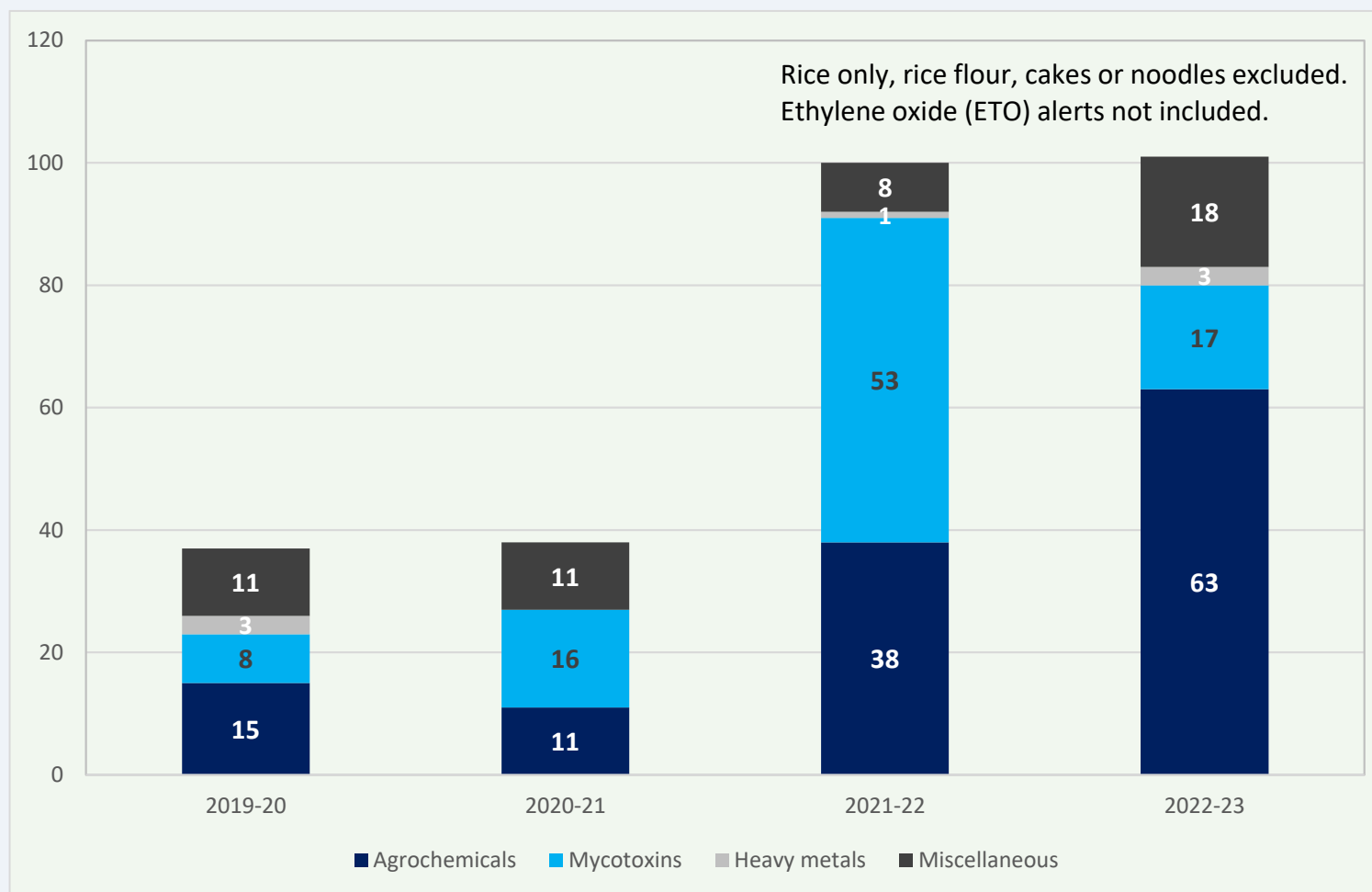
Sample reference	Agrochemical residue	
	Exceedance	Borderline
1	Acetamiprid, chlorpyrifos-ethyl	Chlorpyrifos-ethyl
3	Acetamiprid	
5	Thiamethoxam, tricylazole	Chlorpyrifos-ethyl
6	Thiamethoxam, tricylazole	
7	Thiamethoxam, tricylazole	
8		Acetamiprid
9		Carbendazim
10	Thiamethoxam, tricylazole	
12	Thiamethoxam, tricylazole	Carbendazim
13	Thiamethoxam, tricylazole	Carbendazim, chlorpyrifos-ethyl
16	Thiamethoxam, tricylazole	Carbendazim, malathion, propiconazole
18	Carbendazim	
19		Acetamiprid
20	Acetamiprid	Carbendazim
41		Acetamiprid
45	Thiamethoxam	Tricylazole
46		Quinclorac, thiamethoxam, tricylazole
48		Acetamiprid, thiamethoxam

What underpins compliance of UK-milled rice?

- Vigorous monitoring of raw material. Exact approaches vary but general principles:
 - Composite testing of raw material (brown rice) at country of origin covering pesticides, other contaminants and general quality tests.
 - When brown rice arrives in UK, pesticide testing carried out again to confirm compliance.
 - Non-compliant material is rejected.
- A number of UK rice mills also operate farmer outreach programmes to try and ensure compliance begins at field level (i.e. the offending pesticides are not applied in the first place).

RASFF

- Non-compliance with agrochemical MRLs (EU) accounted for majority of RASFF alerts linked to rice over past 12 months.



RASFF

- Majority of rice alerts linked to agrochemical residues have been Indian-origin.

