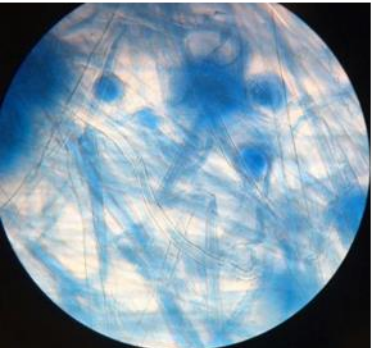


1. Background

- The high prevalence of airborne bacterial and fungal species in forklift cabinets from waste sorting units has already been described (*Madsen et al. 2016; Viegas et al. 2017; Viegas et al. 2020*).



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Environmental Research

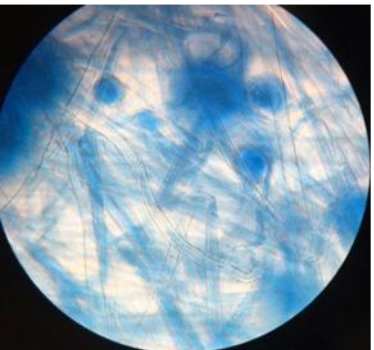
journal homepage: www.elsevier.com/locate/envres



The effects of waste sorting in environmental microbiome, THP-1 cell viability and inflammatory responses

C. Viegas^{a,b,c,*}, L.A. Caetano^{a,d}, J. Cox^e, M. Korkalainen^f, S.R. Haines^{g,h,i}, K.C. Dannemiller^{g,h}, S. Viegas^{a,b,c}, T. Reponen^e





Climate change



Increase of fungi and mycotoxins contamination



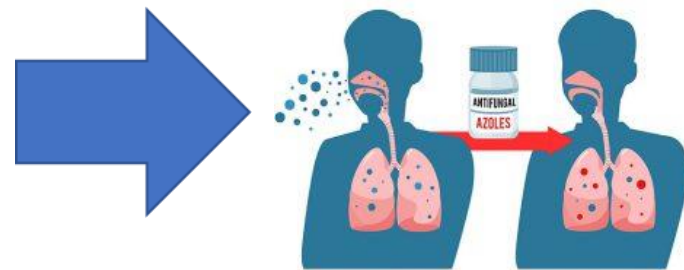
Intensive use of azoles in crops to avoid toxigenic species

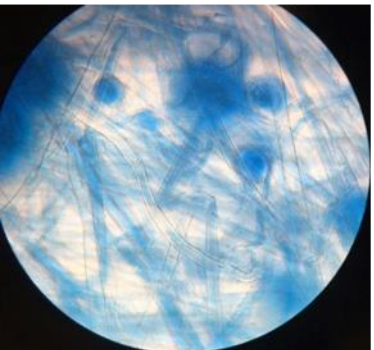


Resistant species can multiply and survive (*A. fumigatus*)



Infections are hard to treat and life-threatening.





2. Materials and methods

Workstations	Tasks	Number of Samples
FMW	Feeding machines with waste	9
SW	Sorting waste	40
MI	Machines inspection	10
MSVO	Machines and special vehicles operator	8
Total		67

Azole screening



<i>Aspergillus</i> sections	SDA			ITR			POS		
	n	CFU.m ⁻²	%	n	CFU.m ⁻²	%	n	CFU.m ⁻²	%
<i>Candidi</i>	2	1.00×10 ³	0.01	1	5.00×10 ²	0.004			
<i>Circumdati</i>	41	2.05×10 ⁴	0.16	5×10 ²	2.50×10 ⁵	1.97			
<i>Clavati</i>							1	5.00×10 ²	0.02
<i>Flavi</i>	42	2.10×10 ⁴	0.17	6	3.00×10 ³	0.027			
<i>Fumigati</i>	3.77×10 ³	1.88×10 ⁶	14.86	2	1.00×10 ³	0.01			
<i>Nigri</i>	2.11×10 ³	1.06×10 ⁶	8.33	5×10 ²	2.50×10 ⁵	1.97			
<i>Versicolores</i>				10	5.00×10 ³	0.04			
Total		2.98×10 ⁶	23.53		5.10×10 ⁵	4.01		5.00×10 ²	0.02

- Azole resistant *Aspergillus* sections were found in both ITR and POS supplemented media.
- In POS supplemented media only *Aspergillus* section *Clavati* was found.
- in ITR supplemented media, 6 different *Aspergillus* sections were found.

