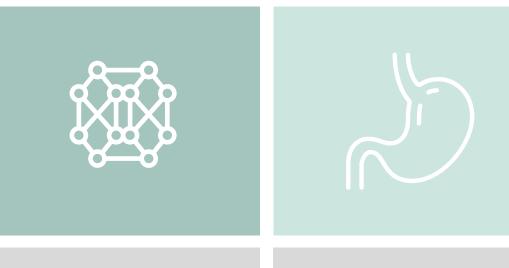
A STUDY ON MICROPLASTIC CONTAMINATION IN MEDICINAL PLANTS

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MICROPLASTICS POLLUTION FACTS



Contamination of microplastics (**MPs**) (size < 5 mm) is a public health and environmental concern.



Because MPs are so small, when consumed by humans, they are readily absorbed by the digestive system.



The amount of plastic consumed has increased from 1.5 million tons in 1950 to 348 million tons in 2017.



MP contamination of **food plants** is increasingly recognised as an environmental and public health



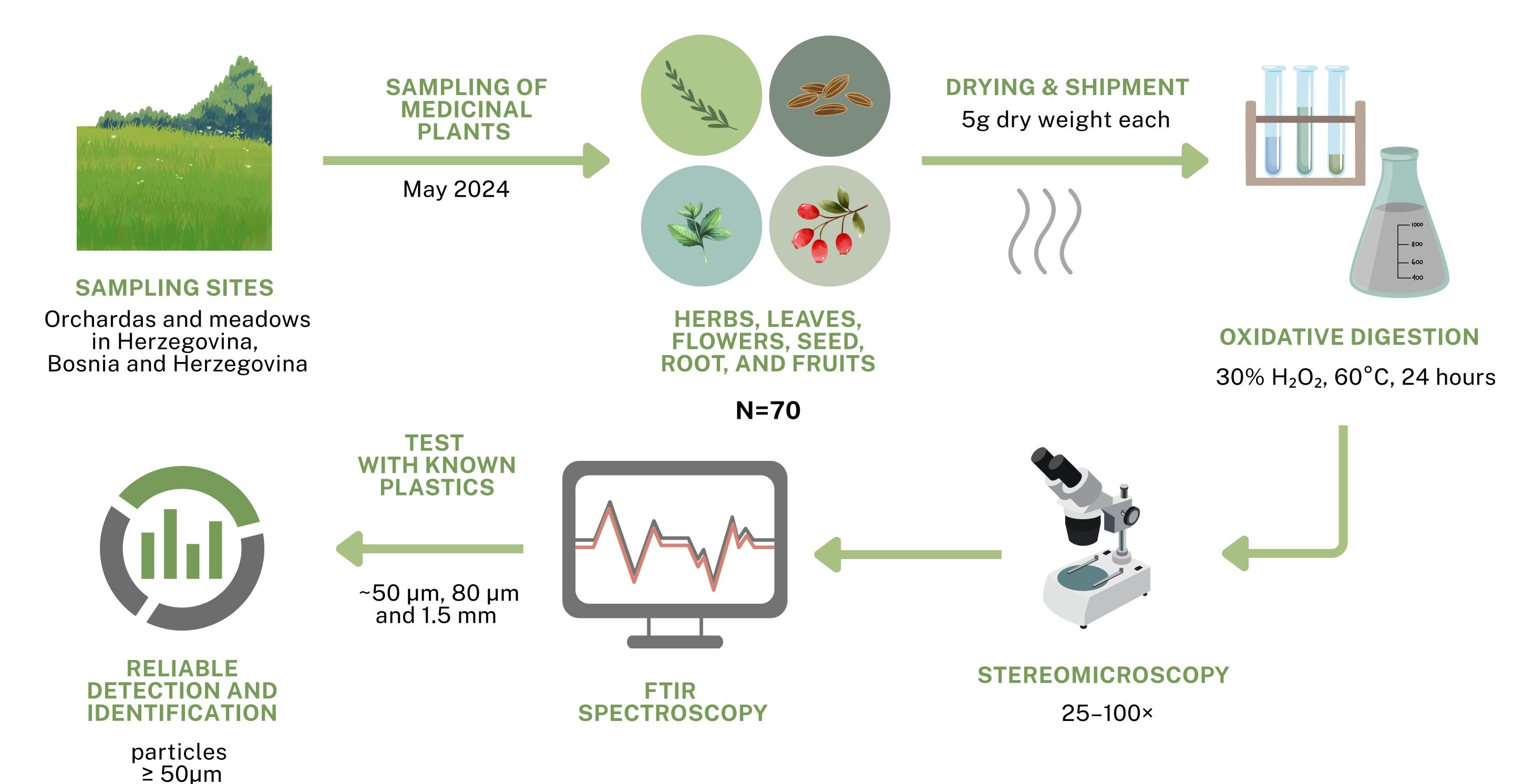
Raw medicinal botanicals remain understudied.

STUDY OBJECTIVES



Survey **MP contamination** in 70 wild-harvested samples (5 g dry weight each) of herbs, flowers, leaves, seeds, roots, and fruits collected in May 2024 from remote meadows and orchards in Herzegovina, Bosnia and Herzegovina.

MATERIALS & METHODS



RESULTS

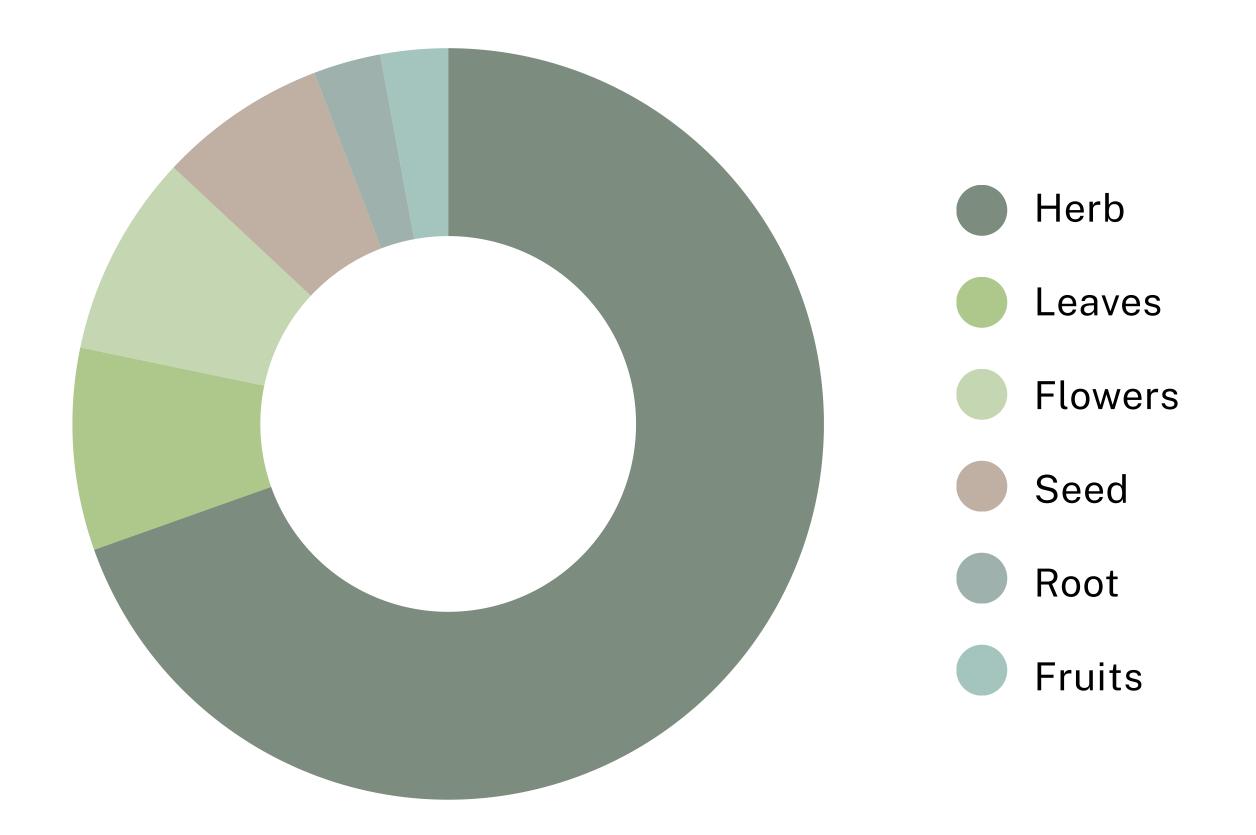
No MPs were detected in any of the 70 plant samples, indicating that, when harvested from relatively pristine sites and processed under stringent contamination-control measures, medicinal plants can remain free of detectable microplastic contamination.

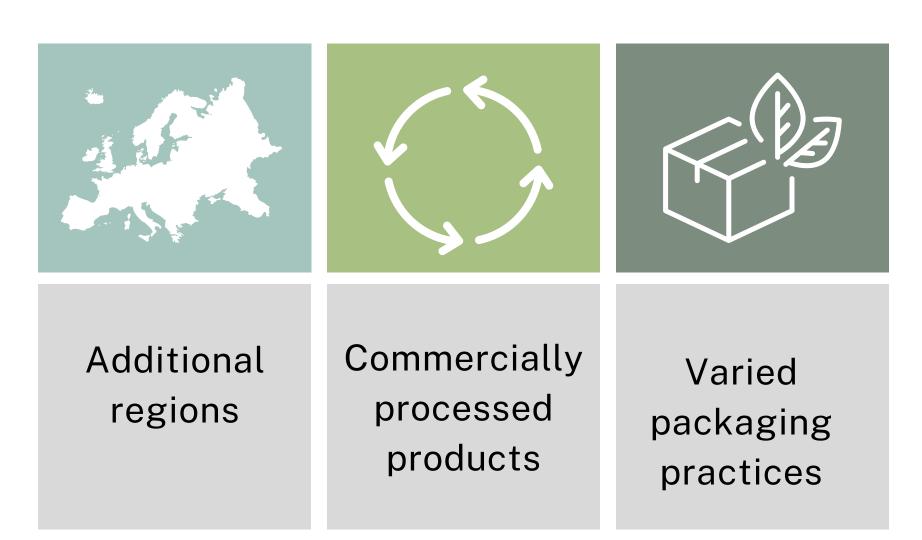
This qualitative survey provides a validated protocol for direct MP screening in botanicals.

CONCLUSION & NEXT STEPS

Future research should broaden the investigation to include herbal products from diverse regions, commercially processed items like teas and supplements, and different packaging methods such as plastic pouches or bulk bins.

This wider scope will provide a complete picture of microplastic contamination throughout the herbal supply chain, helping to pinpoint high-risk steps and better protect consumer health.





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