Cutting-edge research on solid state fermentation as sustainable biotechnology for solid agroindustrial waste management

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The circular economy is one of the leading sustainable development strategies that can help utilize waste to produce new products o ingredients.

Cereal and fruit wastes represent a significant resource of million tons globally and a feasible feedstock for bioproducts generation via environmentally & friendly solid-state fermentation (SSF).

In this work we present the cutting-edge advances in the study of SSF of agro-industrial waste as an alternative biotechnological strategy for sustainable management.

The work summarizes the efforts of our research group to bioprocess the industrial wastes of the processing of citrus, coffee, avocado, mango, pomegranate, fig, low quality sorghum and corn.

In this contribution, we describe a concentric effort on the use of SSF as a bioprocess to produce biopesticides, feed, natural waxes, enriched human foods, biocatalysts and bioactive ingredients for food, medicinal and biotechnological or agricultural applications.