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QUALITY ASSURANCE AND SUSTAINABLE PRACTICES BEYOND
CERTIFICATION

**SUSTAINABLE AGRIFOOD SYSTEMS: A SYSTEMATIC REVIEW ON
CIRCULAR ECONOMY, ORGANIC PRODUCTION AND WASTE
MANAGEMENT**

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The increase in environmental awareness and the pursuit of practices that reconcile agricultural production, human health, and natural resource conservation require the adoption of sustainable approaches, such as organic systems and the circular economy. These models promote waste reuse and technological innovation, contributing to more efficient, fair, and environmentally responsible production. However, although they share objectives and techniques, they are not yet integrated satisfactorily or broadly, needing further research to understand this union. This study carried out a systematic review to

analyze the integration of circular economy principles in organic agrifood chains, focusing on waste utilization. The objectives included mapping scientific production, applied methods, relationships among supply chain links and limiting factors. The methodology followed the PRISMA protocol, with searches in the Scopus and Web of Science databases, bibliometric analysis (Bibliometrix), and a final selection of 21 articles. The results showed that this is a relatively new field, with the earliest publication dated 2017, and rapid growth of publications from 2021 onwards; key topics included waste management, soil health, organic fertilizer formulations, sustainable packaging, and bioenergy. Among the main barriers identified were technological (system adaptation), financial (high costs), and social (need for collaboration). It was concluded that the transition to circular systems requires collaborative ecosystems, flexible public policies, technological innovation, and community engagement, with initiatives such as bio-districts standing out. Finally, the interdependence between environmental sustainability, institutional arrangements, and collective participation must be reinforced in order to achieve circularity.

Palavras-chave: organic agriculture; sustainable agriculture; organic supply chain; stakeholders; public policies.