

Abstract title: A Systematic Literature Review of Anti-inflammatory property of Anthocyanin.

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Introduction: The research article describes a comprehensive systematic literature review (SLR) on the anti-inflammatory properties of anthocyanins with the aim of findings the new research and analysed for its efficacy and safety of anthocyanins as anti-inflammatory agents. This SLR plays a crucial tool for researchers and policymakers in the field of nutraceuticals, with clinical application for further research.

Methods: In this research article rigorous and systematic approach to conducting the literature review was adopted ensuring reliable and valid findings using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) framework. The selection of SCOPUS and Web of Science as the databases are authentic, reliable and comprehensive sources of academic research which were used. The screen of five year with Scopus articles of 986 and Web of Science 915 with inclusion and exclusion criteria total 109 articles were screen across the globe The selection of 19 full-text articles relevant to the subject area suggests that the author has employed strict inclusion and exclusion criteria to ensure that only relevant studies are included.

Results: This review imparts data on the top journals, countries, theories, annual trends and methods related inflammatory properties exhibited by anthocyanin which can be utilize in in nutraceutical aspect. The countries across the globe showed research articles with highest of 103 papers of USA followed by South Korea and Italy with 55 papers and India has only 27 papers in this area. The study also reveals that the ‘anti-inflammatory property in anthocyanin’ was on the rise till 2018 and decline in the studies seen during Covid-19 senecio and in 2022 again it is been increasing. The results provide useful insights to advance research contributing in the field of Food Nutrition, Biochemistry and Food Science studies.

Conclusion: - This research on anthocyanins can be potentially leading to the development of new treatments or preventative strategies for various health conditions. Practically, it has implications for the food and supplement industries, where advancements in extraction methods, delivery systems, and nutraceutical formulations could lead to new health-promoting products.