

Antioxidants : findings on Antioxidants from X.Q. Yang and colleagues provide new insights (A review on rosemary as a natural antioxidation solution)

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By a News Reporter-Staff News Editor at Health & Medicine Week -- Data detailed on Antioxidants have been presented. According to news originating from Kalamazoo, Michigan, by NewsRx correspondents, research stated, "The following work is a review on the antioxidant capacity of rosemary extract. Rosemary extract is one of the most popular naturally sourced antioxidants that has been used in the food industry around the world."

Our news journalists obtained a quote from the research, "It is widely used in multiple food applications including frying oils, fish oils, snacks, roasted nuts, meat products, and many others. The extraction methods that were used to purify antioxidant compounds from rosemary were introduced. The analytical test results on rosemary extract showed that it has high levels of phenolic compounds. The major active compounds were identified as carnosic acid, carnosol, and rosmarinic acid. In food application tests, rosemary extract was found to reduce lipid autoxidation and photo-oxidation significantly. Oxidation products/markers like peroxide value, p-Anisidine value, TBARS value, and hexanal were measured, and the readings were observed lower in the samples dosed with rosemary extract. Besides, rosemary extract was also found to have a positive impact on reducing the sensation of rancidity notes in foods and protecting them from color loss. In some applications, the performance of rosemary extract is comparable to synthetic antioxidants like BHA, BHT, and TBHQ. It was also found that when rosemary extract was combined with ascorbic acid, citric acid, or other naturally sourced antioxidants, synergistic effects were formed to provide superior antioxidant performance. This is a review paper on rosemary extract's processing methods and related application in the food industry for its antioxidant function. The major active compounds in rosemary extract are found to be carnosic acid, carnosol, and rosmarinic acid. These compounds could be selectively extracted by controlling the solvents' polarity. Greener extraction methods are also introduced to support the demanding clean label food trend."

According to the news editors, the research concluded: "Finally, the applications of rosemary in different food matrices are reviewed to show the overall performance on reducing the oxidation of lipids and improving food products' shelf-life."

For more information on this research see: A review on rosemary as a natural antioxidation solution. European Journal of Lipid Science and Technology, 2017;119(6):184-193.

The news correspondents report that additional information may be obtained from X.Q. Yang, Kalsec Inc, Kalamazoo, MI, United States. Additional authors for this research include P. VanAlstyne, A. Uhlir and J. Xie.

Source Health & Medicine Week