A review: modified agricultural by-products for the development and fortification of food products and nutraceuticals

ABSTRACT

Producing more food for a growing population in the coming decades, while at the same time combating environmental issues, is a huge challenge faced by the worldwide population. The risks that come with climate change make the mission more daunting. Billion tons of agriculture by-products are produced each year along the agricultural and food processing processes. There is a need to take further actions on exploring the inner potential of agro-waste to stand out as food ingredient to partially or fully substitute the foods in orthodox list. Some of the agro-waste contains the most valuable nutrients in the plant and it is truly a "waste" to dispose any of them. Furthermore, the paper aims at discussing the possible methods of modification to improve the safety and feasibility of the agro-waste either through physical, chemical or microbiological ways. The safety issues and bioactivity contains in the agro-waste in food applications.