International Journal of Agricultural Sciences
Volume 19 | Issue 1 | January, 2023 | 366-375 ■ ISSN : 0973-130X
DOI:10.15740/HAS/IJAS/19.1/366-375
Visit us : www.researchjournal.co.in

A REVIEW

Antinutritional factors in plant based foods

Jyoti Singh **and** Simran Kaur Arora*
Department of Food Science and Technology, College of Agriculture, Govind Ballabh Pant University of Agriculture and Technology, Pantnagar (Uttarakhand) India
(Email: sim_n@rediffmail.com)

Abstract : Plants have the potential to create chemical molecules that operate as a defense mechanism against pests, bacteria, and other animals. When consumed by humans or other animals, these chemical substances can have a negative effect on the body. There are a number of antinutritional factors such as saponins, polyphenols, phytic acids, lathyrogens, alpha amylase inhibitors, lectins are found in plant-based diet particularly in different cereals and pulses consumed by Indian population in their day-to-day life. Anti-nutrients are one of the main factors that lower the bioavailability of nutrients. Micronutrient deficiency and mineral deficiencies can be caused by these compounds. To minimize the levels of these anti-nutrient elements, a variety of traditional approaches and technology can be applied. Fermentation, germination, milling, autoclaving, soaking, and other processing procedures and technologies are used to lower anti-nutrient content in foods. It is feasible to minimize the amount of anti-nutrients in foods by adopting a variety of approaches alone or in combination. The toxic and anti-nutrient properties of these chemicals in their natural state are of concern but there are also some beneficial effects reported about these compounds on human body at low concentrations. Therefore, this review highlights the different antinutritional factors found in Indian crops and their negative and positive impacts on health along with various approaches and technologies applied for reduction of these compounds from food.

Key Words : Antinutrients, Secondary metabolites, Approaches, Health

View Point Article : Singh, Jyoti and Arora, Simran Kaur (2023). Antinutritional factors in plant based foods. *Internat. J. agric. Sci.*, **19** (1) : 366-375, **DOI:10.15740/HAS/IJAS/19.1/366-375.**

Article History : Received : 19.10.2022; **Accepted :** 23.12.2022

***Author for correspondence:**