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UTILIZING METABOLOME CAPABILITY OF HORTICULTURAL CROPS IN DEVELOPING FUNCTIONAL FOODS FOR HEALTH AND NUTRITION

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Present day lifestyles and rising stress factors are continuously making us more and more prone towards health loss particularly the metabolic disorders. In such a scenario, the food that we consume could become our best feasible protection if it provide additional healthcare benefits that go beyond basic nutrient provision. Food items that offer such advantage are collectively called 'Functional Foods'. Most of the functional foods are of plant origin with horticulture crops being the major category. However, the public domain databases still need better and precise horticultural chemistry and biological information. In this paper we take a snapshot at some of the prominent functional foods of horticultural origin. In fact, it will be improper to segregate medicinal plants from horticultural crops only because these are better domesticated crops and have been used predominantly for food, pulps and juices in various forms. Their chemistry and metabolome are indicators of their better use in health care along with the food status. Towards the conclusion, taking the example of the well-researched-upon tomato we also discuss the emergence of systems biology-based approaches for deciphering the metabolome of horticulture crops. Lastly, it is emphasized that functional foods should not be considered a general panacea for poor lifestyle habits but as an essential component of nutritional security.