

A Manual On

# Functional FOODS



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## CONTENTS

*Preface*

*Editor's introduction*

1. Cereals .....3-8.  
*Najma Chokli*
2. Pulses and Legumes. ....9-28.  
*A.S. Anitha Begum and Akila. I.*
3. Vegetables and fruits. . . . .29-40.  
*Bushaira. V.*
4. Probiotics, prebiotics and synbiotics. ....41-62.  
*Dr. Annie Ninan*
5. Meat and meat products. .... 63-65.  
*Shahla Karuthedth*
6. Spices and other functionl foods ..... 66-73.  
*Priyanka Pradeep*
7. Conclusion. .... 74.



## CHAPTER 6

### SPICES AND OTHER FUNCTIONAL FOODS



A spice is a seed, fruit, root, bark, or other plant substance primarily used for flavoring, coloring or preserving food. A spice may be available in several forms: fresh, whole dried, or pre-ground dried. The most common spices being used black pepper, cinnamon cumin, garlic, red chilli, turmeric, nutmeg, ginger and cloves.

#### **Turmeric:**

The turmeric (*Curcuma longa*) plant, a perennial herb belonging to the ginger family, is cultivated extensively in south and southeast tropical Asia. The rhizome of this plant is also referred to as the “root” and is the most useful part of the plant for culinary and medicinal purposes. The most active component of turmeric is curcumin, which makes up 2 to 5% of the spice. Curcumin exhibited antioxidant properties. It can increase serum activities of antioxidants such as superoxide dismutase (SOD). It can scavenge different forms of free radicals, such as reactive oxygen and nitrogen species (ROS and RNS, respectively) it can modulate the activity of GSH, catalase, and SOD enzymes active in the neutralization of free radicals.

Inflammation has been identified in the development of many chronic diseases and conditions. These diseases include Alzheimer’s disease(AD), Parkinson’s disease, multiple sclerosis, epilepsy, cerebral injury, cardiovascular disease, , cancer, allergy, asthma, bronchitis, colitis,