

SUMMARY

Nutraceutical is a portmanteau word derived from nutrition and pharmaceutical . It is a medicinal or nutritional component that includes a food, plant or naturally occurring material that is used for the improvement of health by preventing or treating a disease. It includes isolated nutrients, dietary supplements, genetically engineered designer foods, herbal products and processed products. But , as per 'DESHA'(Dietary Supplements Health and Education Act) of USFDA (1994) , it is a diet suppliant that delivers a concentrated form of a presumed bioactive agent form of a food , presented in a non-food matrix & used to enhance health in dosages that exceed those that could be obtained from the normal food . Thus, nutraceuticals are not drugs that are mainly meant for pharmacological results which activate , deactivate or change metabolic functions & are ubiquitous in food & medicine products with dual attributes well-manifested. The anti-oxidants are molecules capable of preventing oxidative deterioration of foods & allied chemicals. The anti-oxidizing phylo-genetic foods absolutely inhibits a number of un-invited diseases, such as, Cancer , AIDS , CPD , Atherosclerosis , auto-de-recognition syndrome , Rheumatoid arthritis , early aging etc. The Nutraceuticals are apparently devoid of side effects & herbal varieties are known to provide optimal phycho-somatic health leading to increased longevity & healthy generation. It is known that the right food at right season & time can not only provide energy but also give therapeutic help. The nutraceuticals are but anti-oxidants which are known to arrest free radicals or some other reactive items that appear to elicit body's defence mechanism. However, an individual's susceptibility to any particular disease predominantly depends upon genetic pre-disposition & lifestyle . So the response of nutraceuticals can vary person-

wise .Nutraceuticals have proven health benefits and their consumption (within the Dietary acceptable Recommendations) will keep diseases at bay and allow humans to maintain an overall good health.

Plant-based synthesis of AuNPs, via the reduction of Au (III), is relatively faster, and safer and, the mixture of AuNPs and green reductants may possibly result in synergistic biological activities. Various plant parts (roots, stems, bark, leaves and petals) can be exploited as reducing as well as stabilizing agents in the green synthesis of AuNPs. The quantitation of polyphenolics in these plants was carried out by High Performance liquid chromatography (HPLC) method . The result of investigation showed the presence of moderate amount of protein, carbohydrate and different minerals. The high amount of phenolic acids & flavonoids was found in the methanol extract of these plants. The abundance of protein, fat, carbohydrate, minerals and natural antioxidant components in this plant makes it a considerable source of nutrition and could be consumed as a regular diet. The formation of gold nano particles with this plant (WW-AuNPs) was confirmed by surface plasmon resonance spectroscopy, high resolution transmission electron microscopy (HRTEM) and X-ray diffraction (XRD) analyses.