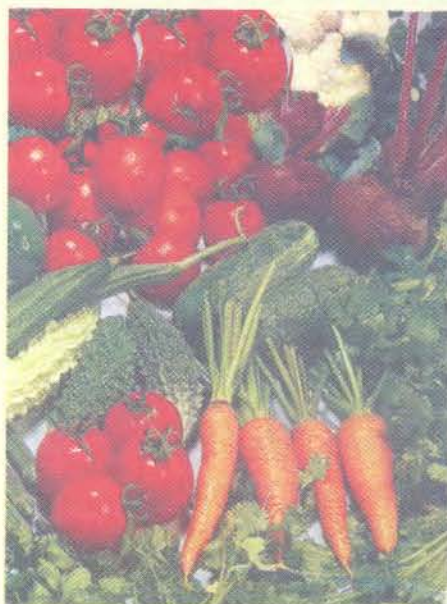


Vegetables also exhibit antioxidant activity

Several medicinal herbs have been reported to exhibit antioxidant activity against many degenerative diseases including cancer, cardiovascular diseases and ageing. Vegetables used in a common Indian diet have been found to be high in phenolic antioxidants and antioxidant activity as measured by β -carotene-linoleic acid system. These vegetables/garnishing include, *kachnar*, *aonla*, fenugreek, mint, beetroot, black carrots, brussels sprouts, broccoli, lotus

stem, *zimikhand*, coriander and tomato (Indian Agric Res Inst, Annual Report, 2000-2001, 121).



Lycopene concentrate from tomato paste

Intake of tomato and its products are beneficial to health. The benefits of such foods are attributed to their antioxidant properties, especially to the antioxidant properties of lycopene contained therein. Antioxidant properties of lycopene have been investigated extensively as a potential protective agent against the cancers of the prostate, cervix, colon, breast, and other chronic diseases. Wenli and others from China prepared lycopene concentrate (LC) containing 50wt% lycopene by extracting from tomato paste. The antioxidant properties of LC were evaluated by means of chemiluminescence in four models. It was observed that LC was an effective scavenger of superoxide anions, hydroxyl radicals, and singlet oxygens, and also it

could effectively reduce lipid peroxidation. The 50% efficient concentrations (EC_{50}) toward superoxide anions, hydroxyl radicals, lipid peroxidation and singlet oxygen were 0.75, 0.05, 0.1 and 1 mg/ml, respectively. In addition, changes of antioxidant behaviour with time were investigated. The time requirements of LC for effectively scavenging superoxide anions, hydroxyl radicals, and inhibiting lipid peroxidation were not higher than 6, 6, and 18s, respectively. These results favourably supported the role of lycopene-rich foods in prevention of chronic diseases and cancers, which has been observed in cell culture, animal experiments, and clinics [Wenli *et al*, *J Am Oil Chem Soc*, 2001, 78(7), 697-701.

