**Micropropagation of *Acacia seyal* Del. *in vitro***

Gum Arabic or Whistling Tree, *Acacia seyal* Delile ex Oliver, native to African dryland is a moderate-sized tree with a spreading flat-topped crown and reddish-brown bark and greenish-yellow leathery leaves. In India it was introduced into Uttar Pradesh for the reclamation of alkaline soil. Bark yields a useful gum. Scientist at Department of Horticulture and Forestry, King Saud University, Saudi Arabia did study on micropropagation of this species *in vitro*.

Mass propagation of the species *in vitro* was achieved using seedling shoot tip explants on Murashige and Skoog (MS) medium supplemented with 6-benzyladenine (BA) or Thidiazuron (TDZ) with α-Naphthalene acetic acid (NAA). The best result was obtained with BA in the presence of NAA. The greatest shoot multiplication with long shoots was observed on media containing (mg/litre) 2·0 BA with 0·1 or 0·5 NAA and 4·0 BA with 0·1 NAA; with 6·4 and 6·7 mean number of shoots, respectively. TDZ also induced multiple shoots but most of the shoots were stunted. Microshoots were rooted better on half-MS salts supplemented with Indole-3-butyric acid (IBA). The highest rooting percentage (80%) and root number (4·9 roots/microshoot) were promoted by 4·0 mg IBA. The plantlets (90%) successfully survived acclimatization *ex vitro* [Al-Wasel, *J Arid Environ*, 2000, 46(4), 425-431].

**Influence of packaging material and storage condition on Broccoli**

Food and Biotechnology scientists at Sweden studied the influence of packaging material and storage condition on the sensory quality of broccoli. Oriented polypropylene (OPP), polyvinyl chloride (PVC) and low-density polyethylene (LDPE) were used as packaging materials. The LDPE contained an ethylene-absorbing sachet. The samples were stored for 1 week, either at a constant temperature of 10°C or for 3 days at 4°C, followed by 4 days at 10°C.

The atmospheres that were developed inside the different packaging materials during storage differed significantly. After storage, the broccoli was evaluated both raw and cooked using a triangle test and a quantitative descriptive analysis. The triangle test showed significant differences in the smell of broccoli stored in different packaging materials after cooking. No differences were detected in the raw broccoli. The quantitative descriptive analysis showed significant differences in the fresh smell and flavour, the chewing resistance, and the crispness, between samples after cooking. Overall, including all the sensory properties studied, broccoli packaged in LDPE (5% O₂, 7% CO₂) that contained an ethylene absorber was perceived to be the sample most similar to fresh broccoli. There were no differences in weight loss between broccoli stored in the different packaging materials [Jacobsson *et al.*, *Food Qual Prefer*, 2004, 15(4), 301-310].
Salt compounds to control post-harvest diseases of potato

There is presently a trend towards the reduction of synthetic fungicides in agriculture and the use of organic and inorganic salt compounds may provide a compromise as although the compounds may be synthesized artificially, many show a relatively low toxicity compared to commercially available chemical fungicides. Many of the test compounds are presently used in the food processing industry and are generally regarded as safe for human consumption at the appropriate concentration. Salt compounds may be implemented as part of a sustainable integrated pest management strategy for post-harvest plant diseases.

Post-harvest diseases of potato (Solanum tuberosum Linn.) are responsible for significant economic loss. Tuber infection may occur naturally through lenticels and eyes or mechanically through wounds incurred during harvest. There are few fungicides approved for use on human foodstuffs and there is a necessity to evaluate and screen the efficacy of alternative compounds against pathogens responsible for post-harvest diseases in potatoes. Sodium metabisulfite is a commercially available antiseptic. It is widely used as a multi-functional antimicrobial agent and is a common preservative found in relishes, fresh and dried fruits and vegetables, tomato paste and mincemeat. Propyl-paraben and methyl-paraben are compounds which are "generally regarded as safe" (GRAS) and are approved for use in foods by the US Food and Drug Administration (FDA).

In vitro trials were conducted by Mill and others to evaluate the effect of several organic and inorganic salt compounds and two commercial fungicides on mycelial growth, sporulation and spore germination of Alternaria alternata, Botrytis cinerea, Fusarium solani var. coeruleum, Phytophthora erythroseptica, P. infestans, Verticillium albo-atrum, and V. dahliae.

The effects of these salt compounds on above fungi were evaluated at three concentrations: 0.002, 0.02 and 0.2M. Overall, mycelium growth and spore germination of all pathogens were strongly inhibited by sodium metabisulfite and propyl-paraben. Spore germination in most pathogens was consistently inhibited by the aluminum compounds (aluminum chloride, aluminum acetate and alum) and the commercial fungicides Mancozeb and Copper sulfate. The present study shows that there is a potential for the use of organic and inorganic compounds to inhibit pathogens responsible for post-harvest diseases of potato. Thus, salt compounds, including sodium metabisulfite and propyl-paraben, could control post-harvest diseases of potato [Mills et al, Postharvest Biol Technol, 2004, 34 (3), 341-350].