

## Gleanings

In each future issue, the Editors will draw readers' attention to a few, interesting and (to us) important titles from the several thousand papers recently published in the plant sciences.

### Review Articles

**Current insights into the development, structure and chemistry of the endodermis and exodermis of roots**

**Fengshan Ma and Carol A. Peterson**

**Canadian Journal of Botany 81: 405-421 (2003)**

The authors provide an excellent explanation of the importance of these two cell layers, which are vitally important to water movement through roots. The work will surely appear very soon in every good basic botany textbook. The illustrations are excellent, as we have come to expect from Dr. Peterson's group. The paper is essential reading for all botanists and horticulturists who are concerned about root-water relations.

**The ethnobotany of edible seaweed (*Porphyra abbottae* and related species; Rhodophyta: Bangiales) and its use by First Nations on the Pacific Coast of Canada**

**Nancy J. Turner**

**Canadian Journal of Botany 81: 283-293 (2003)**

This review, which was invited in recognition of Dr. Turner's receipt of the Lawson Medal of the Canadian Botanical Association, provides an excellent explanation of the enormous range of uses for *Porphyra* species. Known to almost all coastal peoples, uses of this group of seaweeds by the Japanese and the Celts of the British Isles are familiar to the average Canadian. Dr Turner reminds us of their potential for maintaining and enhancing the economic, social, cultural, and physical health and well-being of Coastal First Peoples. Clearly there are many opportunities for mutually increased understanding assuming that the scientific community shows due and proper respect for traditional knowledge

### Journal Articles

**Use of a cold-active entomopathogenic nematode *Steinernema kraussei* to control overwintering larvae vine weevil *Otiorhynchus sulcatus* (Coleoptera: Curculionidae) in outdoor strawberry plants**

**Deana M. Willmott, Andrew J. Hart, Steve J. Long, Rodney N. Edmondson and Paul N. Richardson**

**Nematology 4 (8): 925-932 (2002)**

Douglas Justice notes that this paper is an excellent account of research pointing to the potential of *S. kraussei* as a commercial biocontrol agent for the black vine weevil. He also notes that the paper is exceptionally well written and thus makes complex research accessible to the non-expert who may need to know about a case of biopesticide use on soft fruit.

**Genes duplicated by polyploidy show unequal contributions to the transcriptome and organ-specific reciprocal silencing.**

**KL. Adams, R. Cronn, R. Percifield, and JF. Wendel**

**Proceedings of the National Academy of Sciences USA 100(8) : 4649-54  
(Apr 15 2003)**

This paper describes how recent gene duplication by polyploidy leads quickly to a divergence of function in the two genes in a quarter of cases. The functional divergence detected is from differences in organ-specific expression of the two genes, or from silencing of one gene (quantitative differences). This quick differentiation after gene doubling has changed our view of the events that follow chromosome doubling. There appear to be processes within the genome - what they are we are still uncertain - which can lead to rapid evolution of new gene function.