



## Phytochemistry Vol. 98

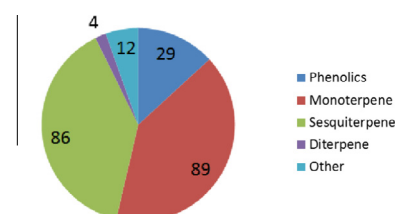
## Contents

## REVIEW

**North American *Artemisia* species from the subgenus *Tridentatae* (Sagebrush):  
A phytochemical, botanical and pharmacological review**

pp 9–26

Christina E. Turi, Paul R. Shipley, Susan J. Murch\*

Distribution of Described Compound Classes Throughout the *Tridentatae*

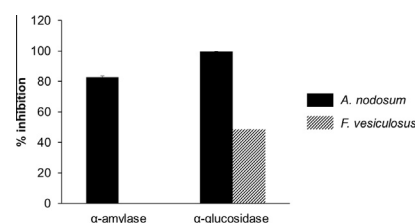
North American endemic *Artemisia* species in the *Tridentatae* are the source of 220 phytochemicals representing all of the major classes of specialized metabolites.

## PROTEIN BIOCHEMISTRY AND PROTEOMICS

**Alpha-amylase and alpha-glucosidase inhibition is differentially modulated by fucoidan  
obtained from *Fucus vesiculosus* and *Ascophyllum nodosum***

pp 27–33

Kyung-Tae Kim, Laurie-Eve Rioux, Sylvie L. Turgeon\*



Starch digesting enzyme inhibition was induced by fucoidan extracted from brown seaweeds: α-amylase and α-glucosidase inhibition induced by fucoidan at 5 and 0.05 mg/mL, respectively.

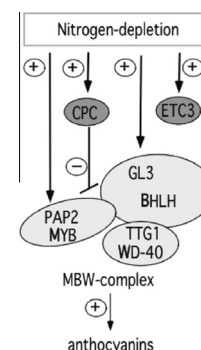
## MOLECULAR GENETICS AND GENOMICS

**Nitrogen depletion and small R3-MYB transcription factors affecting anthocyanin  
accumulation in *Arabidopsis* leaves**

pp 34–40

Dugassa Nemie-Feyissa, Solveig Margret Olafsdottir, Behzad Heidari, Cathrine Lillo\*

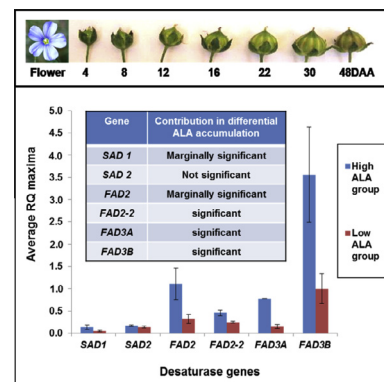
Small R3-MYBs are involved in anthocyanin, trichome and root hair formation through their interaction with MBW-complexes. In response to nitrogen depletion in *Arabidopsis* rosette stage plants, expression of R3-MYBs *CPC* and *ETC3/CPL3* increased two and 9-fold, respectively. *CPC*, but not *ETC3/CPL3* exerted a negative feedback on anthocyanin accumulation.



### Differential transcriptional activity of *SAD*, *FAD2* and *FAD3* desaturase genes in developing seeds of linseed contributes to varietal variation in $\alpha$ -linolenic acid content

Ashwini V. Rajwade, Narendra Y. Kadoo, Sanjay P. Borikar, Abhay M. Harsulkar, Prakash B. Ghorpade, Vidya S. Gupta\*

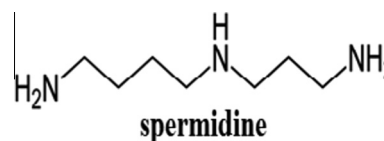
Gene specific temporal expression of all the desaturases and their differential expression contributed to the variation in ALA accumulation in the high and low ALA variety groups of linseed.



### The effect of aluminium-stress and exogenous spermidine on chlorophyll degradation, glutathione reductase activity and the photosystem II D1 protein gene (*psbA*) transcript level in lichen *Xanthoria parietina*

Gulseren Sen, Isil Ezgi Eryilmaz, Dilek Ozakca\*

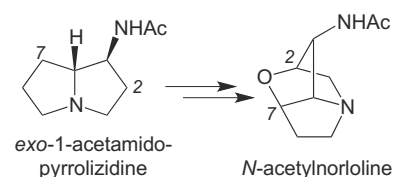
Polyamines are important in protecting plants against abiotic stresses, such as osmotic shock, drought, metal stress and UV irradiation, because of their roles in osmotic adjustment, maintenance of membrane stability and free-radical scavenging.



### Ether bridge formation in loline alkaloid biosynthesis

Juan Pan, Minakshi Bhardwaj, Jerome R. Faulkner, Padmaja Nagabhyru, Nikki D. Charlton, Richard M. Higashi, Anne-Frances Miller, Carolyn A. Young, Robert B. Grossman, Christopher L. Schardl\*

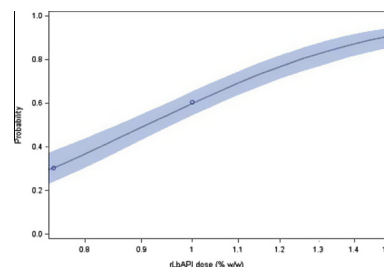
The LoLO non-heme iron oxygenase is required to form the ether bridge of loline alkaloids.



### Effects of the aspartic protease inhibitor from *Lupinus bogotensis* seeds on the growth and development of *Hypothenemus hampei*: An inhibitor showing high homology with storage proteins

Diana Molina\*, Luisa Patiño, Mónica Quintero, José Cortes, Sara Bastos

A *Lupinus bogotensis* aspartic protease inhibitor, incorporated into an artificial diet, was effective against *Hypothenemus hampei* and produced 50% mortality at the level of 0.91% (LD<sub>50</sub>).



Download English Version:

<https://daneshyari.com/en/article/5164883>

Download Persian Version:

<https://daneshyari.com/article/5164883>

[Daneshyari.com](https://daneshyari.com)