

[Anti-Cancer Drugs, 11, 653-657 (2000)]

[Lab. of Microbiology]

**Antitumor activity of 2-amino-4,4 $\alpha$ -dihydro-4 $\alpha$ ,7-dimethyl-3H-phenoxazine-3-one against Meth A tumor transplanted into BALB/c mice.**

Hiroshi MORI\*, Katsuaki HONDA, Ryoji ISHIDA, Tomoyoshi NOHIRA and Akio TOMODA

We examined in vivo effect of 2-Amino-4,4 $\alpha$ -dihydro-4 $\alpha$ ,7-dimethyl-3H-phenoxazine-3-one (Phx) on Meth A carcinoma cells transplanted into BALB/c mice, in terms of both anti-tumor activity and side effects. Phx, which was synthesized by the reaction of 2-amino-5-methylphenol with bovine hemolysates, was administered i.p. at doses of 1 and 5mg/kg to BALB/c mice transplanted with Meth A tumor cells. Phx exerted a strong antitumor activity to Meth A tumor growing in the mice as 5-fluorouracil (5-FU) did. The antitumor activity of Phx at the dose of 5 mg/kg was comparable to that of 5-FU at the dose of 7.8 mg/kg. In contrast, unlike 5-FU, Phx did not cause leukopenia and wasting of mice while showing a strong antitumor activity. These results show that Phx has strong anti-tumor activity, but exerts lower side effects, and suggest that Phx is available to therapeutic purposes in future.

[Natural Medicines, 54, 1-6 (2000)]

[Lab. of Herbal Garden]

**Morphological Character of Vietnamese Cinnamon Barks on the Market.**

Toshie KONDO, Ken-Ichiro INOUE, Kazuhito KAWAHARA, Masashi YOSHIDA  
and Toshihiro TANAKA\*

*Cinnamomi* Cortex imported into Japan is mainly cultivated in China and Vietnam. In market. Vietnamese commodities are marked with symbol MN, QN, YB and so on showing the place of product, and also with the grades I, II, III and so on. Morphological comparison was carried out of about each class of the MN and YB specimens, externally and internally. The average number of the bast fibers in the secondary cortex of YB was over five times that of MN. As a whole, YB was thicker than MN, and the thickness of some YB exceeded 4mm. The YB was more astringent in taste than MN. On the basis of these features, it was possible to distinguish specimens of Vietnamese commodities of various classes.

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[Lab. of Herbal Garden]

**Quality Evaluation of Plant Dye Henna with Glycosides.**

Tomoko KAWAMURA, Youichi HISATA, Kazuyo OKUDA, Yukio NORO, Yoshio TAKEDA  
and Toshihiro TANAKA\*

The Plant dye henna, the leaf of *Lawsonia inermis*, was assayed by HPLC for the amounts of the two glycosides. 1,2-dihydroxy-4-O-glucosyl -oxynaphthalen (1) and 2,3,4,6-tetra-hydroxyacetophenone-2-,  $\beta$ -D-glucopyranoside (lalioside, 2) which are relevant to lawson. Greenish dry leaf and greenish powder of henna contained 1 and 2, whereas, the leaf which had changed to reddish brown contained neither 1 nor 2 nor lawson. Turkish henna was the highest in the amount of those glycosides.

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[Lab. of Herbal Garden]

**Isoflavonoids Contents in Green Soybeans(1) Content Changes during the Seed Growth.**

Tomoko KAWAMURA, Youichi HISATA, Kazuyo OKUDA, Yukio NORO, Masaharu YASUDA,  
Kaneyuki KOSHIKAWA and Toshihiro TANAKA\*

The isoflavonoid contents in the seeds of green soybeans were measured by HPLC, and the ratio between genistin the genistin, daidzin, genistein and daidzein contents, and their contents in different beans maturing stages were compared. The genistein content in very immature soybean was higher than that in the mature beans, whereas the genistin and daidzin contents in the mature beans were higher than those in young beans. It was observed that the isoflavonoid content was very low in the green soybean collected when they are most suitable to eat, and there was small difference in the isoflavonoids contents between the seeds of 2 varieties assayed in this study.