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[Lab. of Herbal Garden]

**Erythrina Alkaloid from *Erythrina x bidwillii*.**

Hitoshi TANAKA, Toshihiro TANAKA\* and Hideo ETOH

A new alkaloid, erythbidin B, was isolated from flowers of *Erythrina x bidwillii* (Leguminosae) together with the three known alkaloids, erythraline, erysodine and erythrinine. Their structures were elucidated on the basis of spectroscopic evidence. Erythbidin B is the first example of C-10 oxygenated erythrinan alkaloid.

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**Pharmacognostical Studies of Plantaginis Herba (13) Constituents of Seeds of *Plantago* sp. and Commercial *Plantago* Seeds.**Tomoko KAWAMURA, Youichi HISATA, Kazuyo OKUDA, Satoshi HOSHINO,  
Yukio NORO, Toshihiro TANAKA,\* Asaka KODAMA and Sansei NISHIBE

Chinese commercial *Plantago* seeds were grouped into three types, *i.e.* large grains, small grains and mixtures. The large grains were *Plantago asiatica* seeds containing acteoside and geniposidic acid, and the small grains were considered to be *P. japonica* seeds containing, in addition, plantagoside. *P. depressa* seeds called "small grain *Plantago* seeds" in China, were not commercially available in Japan. Commercial *Plantago* seeds from India and Europe were grouped into two types. One was *P. psyllium* seeds containing acteoside mainly, the other was *P. ovata* seeds containing quercetin glycoside. Commercial *Plantago* seeds were cleared with containing constituents.

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**Pharmacognostical Evaluation of *Arctii Fructus*(1) *Arctiin* Content in Chinese Commercial *Arctii Fructus*.**

Ting-Guo KANG, Ming SHA, Tomoko KAWAMURA, Jin WANG and Toshihiro TANAKA\*

The amount of *Arctiin*, a major ingredient in the fruit of *Arctium lappa*, in the commercial crude drugs *Arctii fructus* collected in 22 localities of 15 provinces in China, were assayed by HPLC. Some of the samples were the non-processed fruits (19 commodities) and some the processed ones prepared by roasting on a low heat (21 commodities). The significant differences noted between the non-processed sample and the processed one were that the *arctiin* content in the process sample was higher than that in the non-processed one and that in the non-processed samples the content showed wider variation. The materials from east China, North China and east of North China had a slightly higher *arctiin* content. Since only the processed crude drug, containing more *arctiin*, has been used practically in China, *arctiin* content may be used as the quality standardization for crude drug *Arctii Fructus*.

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[Lab. of Herbal Garden]

**Berberine Contents in *Phellodendron* Leaves.**

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Leaves of *Phellodendron amurense* collected from different parts of a tree of this plant were assayed for their berberine contents. The amounts of berberine detected in the petiole, the rachis and the main vein of the leaflet were very small. In the mesophyll, berberine was not detected. Young leaves were not recognized to contain berberine. The berberine content in the leaves of *P. amurense* was shown to be too scarce for the leaves to be used as medicinal resource.