

Studies on Adulteration and Misusage of Aurantii Immaturus Fructus in Market

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ABSTRACT

Alternatives and adulterants of raw materials may affect the therapeutic efficacy of Chinese medicinal preparations, and pose harm to health. Therefore, authentic raw materials are the priority issue for the safety and quality of traditional Chinese medicines.

The botanical origin of Aurantii Immaturus Fructus is dried immature fruits of *Citrus aurantium* L. and *Citrus sinensis* L. Osbeck. According to literatures, there are a number of alternatives and adulterants, such as *Poncirus trifoliata* (L.) Raf., *Citrus reticulata* Blanco, and *Citrus grandis* (L.) Osbeck, etc.. In order to identify the botanical origins of commercial Aurantii Immaturus Fructus in Taiwan, fifty samples were purchased from market and were distinguished from authentic materials by morphology, microscopy and thin layer chromatography.

The results showed that 2 out of 50 samples (4%) were *C. aurantium*, 5 samples (10%) *C. reticulata* and 43 samples (86%) *P. trifoliata*. Based on the results, the adulteration of Aurantii Immaturus Fructus in market is very serious.

Key words: Aurantii Immaturus Fructus, *Citrus aurantium*, *Citrus sinensis*, *Poncirus trifoliata*, identified