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Studies on the Cultivation Period of *Ophiopogon chekiangensis*.

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In Japan, to produce Ophiopogonis Tuber, *Ophiopogon japonicus* is cultivated for one year, But in Sichuan province and Zhejiang province in China, to produce Ophiopogonis Tuber (Mai-Meng-Dong). *O. chekiangensis* is cultivated for two or three years to give a better harvest. It is already known that this plant can be cultivated in Japan. For the purpose of determining the most efficient cultivation period of *O. chekiangensis* in Japan, the plant was cultivated for three years. The yield increased as the cultivation period became longer and the yield per 1m² per year of the three year old plant was higher than that of the one year old plant.

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Cultivation and Saponin Contents of Guangxi *Bupleurum*.

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A wild race of *Bupleurum marginatum* var. *marginatum*, introduced from Guilin Guanxi China, and Japanese *B. falcatum* were cultivated under the same conditions and yields of their roots and their saponin contents were compared. The Chinese race of *Bupleurum* is similar to Japanese *B. falcatum*, morphologically, though the Chinese race of *Bupleurum* is smaller and has a slower growth rate and a higher saponin content than the Japanese race. Therefore, it was shown that this Chinese race of *Bupleurum* was useful for medicinal resources.

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Synthesis of Helilandin B, Pashanone, and Their Isomers.

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Helilandin B and pashanone, found in *Lindera erythrocarpa* MAKINO (Lauraceae), were synthesized from readily available 3,4,5-trimethoxyphenol. And synthesis of other six chalcones having the same oxygenation pattern as helilandin B and pashanone has also been achieved. Furthermore, ¹H-nmr spectra of those eight chalcones were investigated. Significant differences were observed for the chemical shifts of an aromatic proton on the A ring of the chalcones. Namely, the chemical shifts of aromatic proton on the A ring were observed at high field due to the presence of *p*-hydroxyl groups. From these results, each of helilandin B and pashanone was easily distinguished from other chalcones.