

## OA7. Genetic variations in morphological, pharmaceutical characteristics of *Epimedium koreanum* L.

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### Objectives

To obtain basic information on genetic variations in agricultural characteristics, extract yield and icariin contents of native *Epimedium koreanum* plants collected in Korea

### Materials and Methods

- o. Cultivar : 51 lines collected in middle northern area of Korea and acclimated for 5 years
- o. Planting density : 40 × 30 cm
- o. Shading level : 50%
- o. Fertilizer Application : Organic compost manure ; 2,000 kg/10a  
Dried poultry wastes ; 100 kg/10a
- o. Icariin content analysis : by HPLC

### Results

Most of collected *Epimedium koreanum* exhibited 3 branch and 9 leaf plant type and their icariin contents ranged from 0.11% to 0.97% with an average of 0.41%. When shoots were divided into petiole and lamina, lamina showed higher dry weight and icariin contents than petiole by 0.78g and 1.36%, respectively.

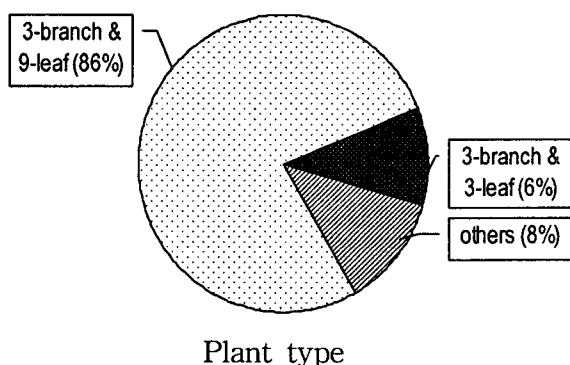


Fig. 1. Morphological variations of *Epimedium koreanum* collected in Kyonggi and Kangwon area. Plant types were classified based upon branch and leaf numbers

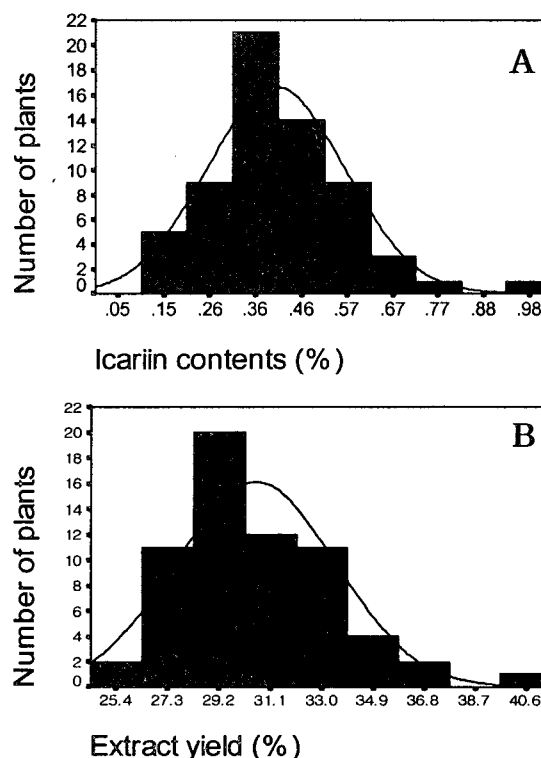


Fig. 2. Histogram of icariin contents (A) and extract yield (B) of *Epimedium koreanum* plants collected in Kyonggi and Kangwon area.

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