

## Comparison of Astragaloside Contents According to Harvest Time and Cultivation Time in Astragalus (*Astragalus membranaceus*)

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### 황기의 수확시기와 재배기간에 따른 Astragaloside의 함량비교

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#### Objectives

In this study, find the most appropriate harvest time and cultivation period to compare with contents of astragaloside.

#### Material and method

##### Material

Astragalus which are cultivated in Taebaek, Gangwon-do, Korea were used in this study. 2-year astragalus, 3-year astragalus and 5-year astragalus which are harvested in June 5th were used.

2-year astragalus, 3-year astragalus and 5-year astragalus which are harvested in July 8th were used.

2-year astragalus, 3-year astragalus and 5-year astragalus which are harvested in September 21th were used.

##### Method

##### - Preparation of samples

1. Astragalus was grind down and measured 3g.
2. Dissolved in 100% MeOH solution.
3. Sonication for 2 hours.

##### - Astragaloside analysis

1. Mobile phase solution in Evaporation Light Scattering Detection. (Alltech ELSD 2000 es, USA)

##### ※ Solvent

Astragaloside I - ACN : Water = 45 : 55

Astragaloside II,III,IV - ACN : Water = 40 : 60

2. ELSD condition

	Temperature(°c)	Gas-flow(L/Min)	Gain	Impactor
Astragaloside I	94.8	2.5	1	OFF
Astragaloside II,III,IV	97.0	2.6	1	OFF

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## Result

These results shown that astragalus which are cultivated at June 5th was the highest amount of astragaloside I,II,III,IV among others. And 2-year astragalus shown the highest amount of astragaloside I,II,III,IV amog 2, 3, 5 - year astraglus.

In addition, longer cultivation time has decreased total amount of astragloside I, II, III, IV.

