The Anti-diabetic Effect of Extracts from the Korean native grass extract

Jung-Woo Chae1 ∙ Hui-Seon Jo1 ∙ Sung-Hyun Joo2 ∙ Jung-A Lee3

1*Gyeonggi-do Forest Environment Research Institute, Osan 447-290, Korea*

2*Department of forestry, Kyungpook National University, Daegu 702-701, Korea.*

3*Medicinal Effect Evaluation Team, Gyeonggi Institute of Science & technology Promotion, Suwon 443-270, Korea.*

The present study indicates the efficacy of the natural anti-diabetic agent of medicinal industries as resource. In this study, anti-diabetic activity of 70% ethanol extracts from the *Amelanchier asiatica*, *Dystaenia takeshimana, Glechoma grandis, Hmulus japonicus, Sambucus sieboldiana* and *Vaccinium oldhami* was investigated. The anti-diabetic activity was determined by optical density (O.D.) of p-nitrophenol to α-glucosidase inhibition reaction. In the result of α-glucosidase inhibition, O.D. of p-nitrophenol of *Amelanchier asiatica,* *Dystaenia takeshimana*, *Glechoma grandis*, *Hmulus japonicus*, *Sambucus sieboldiana* and *Vaccinium oldhami* was each 0.716, 0.767, 0.859, 0.814, 0.780, 0.555 at 31.25 ㎍/㎖. And O.D. of p-nitrophenol of *Amelanchier asiatica,* *Dystaenia takeshimana*, *Glechoma grandis*, *Hmulus japonicus*, *Sambucus sieboldiana* and *Vaccinium oldhami* was each 0.686, 0.887, 0.876, 0.996, 0.954, and 0.631 at 500 ㎍/㎖. From these results, the O.D. of most of test substance is increasing. Decrease in O.D. of p-nitropenol means that the enzymatic activity inhibition occurs. So the possibility of antidiabetic agents in *Amelanchier asiatica*, *Dystaenia takeshimana*, *Glechoma grandis*, *Hmulus japonicus*, *Sambucus sieboldiana* and *Vaccinium oldhami* are very few. And studies in various areas of the experimental materials it is considered necessary.

**Key words** : *Amelanchier asiatica, Dystaenia takeshimana*, *Glechoma grandis*, *Hmulus japonicus*, *Sambucus sieboldiana* and*Vaccinium oldhami,* anti-diabetic activity