C-P-1

Analysis of Presumed Synonyms and Homonyms Using Microsatellite Markers for Germplasm Management in Pear Collection (*Pyrus* spp.)

Keumsun Kim[1], Haewon Jung[2], Kyungho Won[2], Sam-Seog Kang[3] and Il Seob Shin[3]*

[1]Post-doc, [2]Researcher, and [3]Senior Researcher, Pear Research Institute, National Institute of Horticultural & Herbal Science, Rural Development Administration, Naju 58216, Korea

Pears (*Pyrus* spp.) have been grown worldwide as a kind of important economical fruits. Over 1,500 accessions collected from countries have been preserved in National Institute of Horticultural and Herbal Science, Rural Development Administration in Korea. However, redundancies and misidentification are happening in the germplasm preservation due to same cultivars which have different names in various localities (synonyms) and different cultivars which have same names (homonyms). That can lower germplasm management efficiency. The object of this study is to identify synonyms and homonyms in pear germplasms by analyzing genetic variation with four microsatellite markers: CH03d12, CH03g07, CH02b10, and EMPc117. PCR amplification with above 4 microsatellite markers was done for the 31 pear accessions, and the products were analyzed by agarose gel electrophoresis. As a result, 7 synonyms and 9 homonyms were identified among 31 pear accessions. We'll compare these genotypes with phenotypes of each pear accessions, and reduces the redundancy and misidentification in pear germplasm collection for the reliable management.

[본 연구는 농촌진흥청 시험연구사업(사업번호: PJ01358201)의 지원에 의해 이루어진 결과로 이에 감사드립니다.]

*(Corresponding author) shinis3@korea.kr, Tel: +82-61-330-1540