



**ASSOCIATION OF THRACE UNIVERSITIES**

# **2<sup>nd</sup> INTERNATIONAL BALKAN AGRICULTURE CONGRESS**

**16-18 MAY 2017**

**BOOK of ABSTRACTS**

## **Venue**

Namık Kemal University, Faculty of Agriculture, Namık Kemal Mahallesi  
Kampüs Sokak, 59030 Süleymanpaşa-Tekirdağ, Turkey



## Molecular marker techniques used in plant science and usage areas

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Molecular markers are any part of the gene or gene region associated with DNA in genome. Molecular markers are also called DNA markers that can be defined as a series to determine the location along the chromosome. Molecular markers to measure differences in the level of DNA and finger prints are markers that can be used to examine a gene in the desired genotype. Today there are many different molecular marker techniques and they all have different features and benefits. Researchers decide to use which marker systems based on the factors affecting the including the level of polymorphism, population type, stability in different environments, the number of loci, convenience, cost analysis. Marker selection should be made according to objective criteria, taking in to account the purpose. Molecular markers are widely used to determine level of genetic diversity and used for identification of varieties. The objective is used to introduce the marker techniques and application areas and show the advantages obtainable by the use of molecular marker techniques in plant science.

**Keywords:** DNA, molecular markers, genome, chromosome, genotype