

## Genetic Diversity of Sistan wheat Landraces by use of SSR molecular marker

### Abstract

The first stage in the field of Sistan wheat landraces improvement is reach the genetic resources and to consider the existing genetic diversity to but characterization of Sistan wheat landraces were based on morphological characters which are affected by environmental factors and have very poor genome coverage. So it seems that using the DNA markers which reveals the polymorphism in the level of DNA, as complemented methods morphologic data, determines effectively genetic relations of Sistan wheat landraces. Therefore in this study genetic diversity of 69 Sistan wheat landraces ecotypes released by markers DNA was extracted using dellaporta et al. method. Of the tested 15 primer combinations only 8 primer combinations revealed polymorphism among the ecotypes with mean percent polymorphism 61/37 percent. Cluster analysis based on Jaccards similarity coefficient and UPGMA algorithm placed, the Sistan wheat landraces in the level similarity 0/70 percent in tree groups. The extent of similarity between 69 Sistan wheat landrace is from 0/53 to 1/00 Cluster analysis of quantitative characters are based on Euclidian distance and UPGMA algorithm and there is low concordance 0/0021 between grouping pattern of these data and that of SSR marker. The results showed a high degree of genetic diversity between the ecotypes suggesting these ecotypes was used in introducing new genes in the bread wheat gene bank and because of the high genetic diversity between the ecotypes it was conclude Sistan wheat landraces is not species but it is the mass of ecotypes and in the next investigation preferred ecotypes were raplaced these mass of ecotypes.

Key Words: genetic diversity, Sistan wheat landraces ,SSR marker.



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Dissertation for M.Sc Degree in Plant breeding Science

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September 2014