

Abstract

To evaluation of genetic diversity among Sistan native wheat were used 10 SSRs primers associate with resistant genes to stem, leaf and yellow rust . The lowest allele (3) were produced by 12C, SCS719 and Xgdm116 primers and the highest (7) by Xgwm443 with mean 4.55 allele per primer. The highest genetic diversity (0.39), MI (2.29) was belong to Xgdm116 and Xgwm533 primers respectively and the lowest genetic diversity (0.1) and MI (0.33) was belong to Xcfd36 primer. The highest Ne, Shannon diversity and Nei diversity was respectively 1.45, 0.63 and 0.44 belong to Xgdm36 primer and the lowest Ne, Shannon diversity and Nei diversity was respectively 1.18, 0.19 and 0.11 belong to Xcfd36 primer and among wheat cultivars the highest polymorphic bands, Ne, Nei diversity and Shannon diversity was respectively 41.46, 1.27, 0.16 and 0.23 belong to Arg cultivar. Arg cultivar was the highest diversity cultivar based on resistant to yellow rust and Aflak cultivar was the highest diversity cultivar based on resistant to leaf rust and also Arg cultivar was the highest diversity cultivar based on all rust. The Xgdm116, Xwmc810 and SCS719 primers have more effect on identity among wheat cultivars. Results were shown that to each cross and wheat breeding of Iranian wheat toward resistant to rust is better to use Arg cultivar for mother or father breeding root and or resistant gene donor. To use from Heterosis is suggested cross between the farthest cultivars Arg and Hirmand.

Key words: Genetic diversity, Yellow Rust, Brown Rust, Black Rust, *Triticum aestivum*.



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Using SSRs

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