

*Japonica Indica*

*waxy*  
( ) PCR

*waxy*

n (CT)<sub>n</sub> n (CT)<sub>n</sub> PCR

/

*Waxy* :

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	-
	-
	-
	-
	-

(*Oryza sativa* L.)

% /

(CT)<sub>n</sub> - bp  
] (n = n = )

(CT) (CT) (CT)

( -% )

(CT) (CT) (CT)

( -% )

(% )

(CT)

waxy

%

(CT)

( )

( )

( )

waxy

waxy

( )

5-Leader

bp )

% /

( waxy

waxy

(CTTTGTCTATCTCAAGACAC)

(TTGCAGATGTTCTTCCTGATG)

( )

*Oryza*

( )

(CT)<sub>n</sub>

*Wx*

( )

)

*Waxy*

..... / /

DNA (

*Waxy*

( )

DNA CTAB ( )

DNA *Waxy* n (CT)<sub>n</sub>

(CT)

( )

( ) juliano OSR19

( )

/ DNA

/ RM190

/ PCR dNTPs

*Waxy*

°C

°C

°C

°C

°C

*Waxy*





.....

( )  
 % (CT)

(CT) .  
 % /

% (CT)

(CT) .  
 % ( -% )

(CT) (CT) ( -% )

( -% )

(CT) (CT) (CT) (CT) ( -% )

(CT) (CT) (CT) ( )

)

(

) (CT)<sub>n</sub>

(CT) ( ) (n= n=

(CT) ( - bps)

( ) (CT) (CT) (CT)<sub>n</sub>

(CT) (CT) (CT) (CT) (CT)

(% )

(CT)

( )

(CT)

(CT)<sub>n</sub> %

$\hat{I}$  ..... / /

$WX$

$(CT)_n$

$\hat{a}$

$-bp$

$( \quad )$

$( \quad )$

$(CT)$

- .....
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## Evaluation of Genetic Diversity By Using of Link Maker For Amylase Content of Some Iranian Local Rice Cultivars

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### Abstract

Molecular markers are the best method for investigating the genetic diversity. In this experiment, 72 cultivars including *Indica* and *Japonica* were investigated in Rice Research Centre of Iran. In order to evaluate the genetic diversity of locus *waxy* linked to the trait controlling the amylose content, PCR was performed using two oligonucleotides (484 and 485) and scored. The important Iranian cultivars of rice were screened using *waxy* microsatellite marker and classified into seven groups based on (CT)<sub>n</sub> repeats ranging from n=7 to 20. The amplified PCR products ranged from 102 to 128 bps in length and represented the (CT)<sub>n</sub> repeats of (CT)<sub>7</sub>, (CT)<sub>8</sub>, (CT)<sub>14</sub>, (CT)<sub>17</sub>, (CT)<sub>18</sub>, (CT)<sub>19</sub> and (CT)<sub>20</sub>, that were according to amylose content of cultivars in Iranian germplasm classified in seven groups for that locus and explained 70%, 72%, 78.95%, 80% and 70% of each group variations, respectively.

**Keywords:** Rice, *Waxy* microsatellite, Oligonucleotide, Amylose content

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