

( )

\*

( / / : // : )

( $2n=2x=14$ ; EbEb)

( $2n=6x=42$ ; AABBEbEb)

( $2n=4x=28$ ; AABB)

F1

(AABBDD;  $2n=6x=42$ )

(F2)

F1

F2

D Eb

I

B A

Eb

%

(Colmer et al., 2005, 2006)

(Anonymous, 2006)

- 
1. *Triticum* spp.
  2. CIMMYT (Centro Internacional de Mejoramiento de Maiz y Trigo, Int.)

D

(Flowers, 2004)

E<sup>b</sup>

(Colmer et al., 2005, 2006)

(Hassani, 1998)

(Gorham et al.,

1985; Colmer et al., 2005)

n=

(2n=2x=14; E<sup>b</sup>E<sup>b</sup>)

(AABBE<sup>b</sup>E<sup>b</sup>)

(AABB)

(E<sup>b</sup>E<sup>b</sup>)

(Gorham et al., 1985)

F<sub>2</sub>

JIC

)

(*Triticum* spp × *Thinopyrum* spp.)

(King et al., 1997; Jauhar & Peterson, 2001)

( b )

Az/b, St/b\*Cr/b.F<sub>5</sub>, Ca/b\*Cr/b.F<sub>6</sub>, :

(AABBDDE<sup>b</sup>E<sup>b</sup> AABBE<sup>b</sup>E<sup>b</sup>)

( a )

DNA

(Hassani, 1998; Hassani et al., 2000)

F<sub>2</sub>

Az/b

F<sub>2</sub>

(Az/b )

4. John Innes Centre (JIC)

- 
1. Tall wheatgrass (*Thinopyrum* spp.)
  2. *Thinopyrum bessarabicum* *Elytrigia bessarabica*  
*Agropyron bessarabicum* (JJ EbEb)
  3. *Elytrigia elongata* *Agropyron elongatum*  
*Lophopyrum elongatum* (EjEj EE JeJe)

(King et al., 1997)

$$\begin{aligned}
 & + (\rho \times ) = \\
 \times ) + \nu & \quad \times ) + \rho \\
 & \quad \quad \quad (\wedge \\
 & / \quad =
 \end{aligned}$$

F<sub>2</sub>

F<sub>2</sub>

F<sub>2</sub>

( )

F<sub>2</sub>

(Singh, 2003; Karimzadeh et

al., 2004; Feulgen & Rossenbeck, 1924)

F<sub>2</sub>

( )

(Conger & Fairchild, 1953)

( )

F<sub>2</sub>

(Az/b)

F<sub>2</sub>

DP12

( b )

BX50

F<sub>2</sub>

F<sub>2</sub>

F<sub>2</sub>

( )

( )

%

F<sub>2</sub>

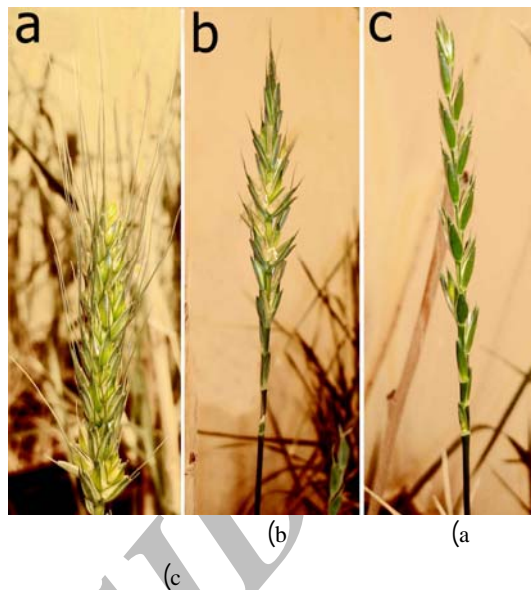
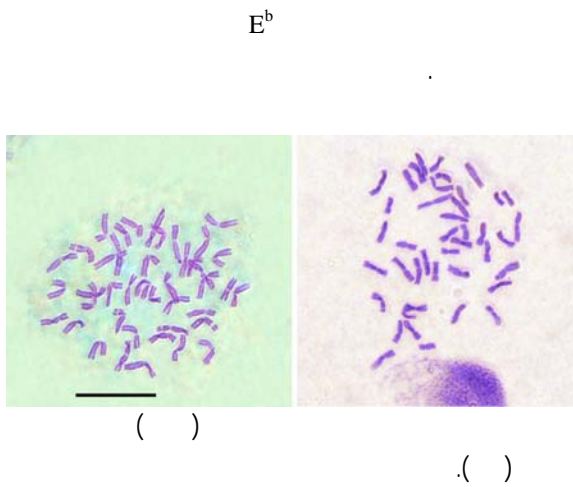
F<sub>2</sub>

( )

I

- 
- 4. Pairing frequency
  - 5. Ring bivalents
  - 6. Rod bivalents
  - 7. Trivalents
  - 8. Quadrivalents

- 
- 1. Entellan
  - 2. Arm association
  - 3. Pollen Mother Cell (PMC)



(Brasileiro-Vidal et al., 2005)

$F_2$  D  $E^b$

( )

*Ph1*

(Sears, 1976; Jauhar & Chibbar, 1999; Jauhar et al., 2004)

(Jauhar, 1991)  $F_2$

B A  
( $E^bE^b$ )

(AABB)

/ *Ph1*

(Jauhar, 2006)

DNA

$F_2$

( )

I

(f e d )

( )

(g ) I

D  $E^b$

:

( )

F<sub>2</sub>

( )

(Silkova et al., 2006)

F<sub>1</sub>

SSR

C

E<sup>b</sup>

E<sup>b</sup> D

B A

F<sub>2</sub>

E<sup>b</sup> D B A

E<sup>b</sup> D

(Az/b )

I

						F <sub>2</sub> (Az/b×Navid.F <sub>2</sub> )	
						n	
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
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/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/

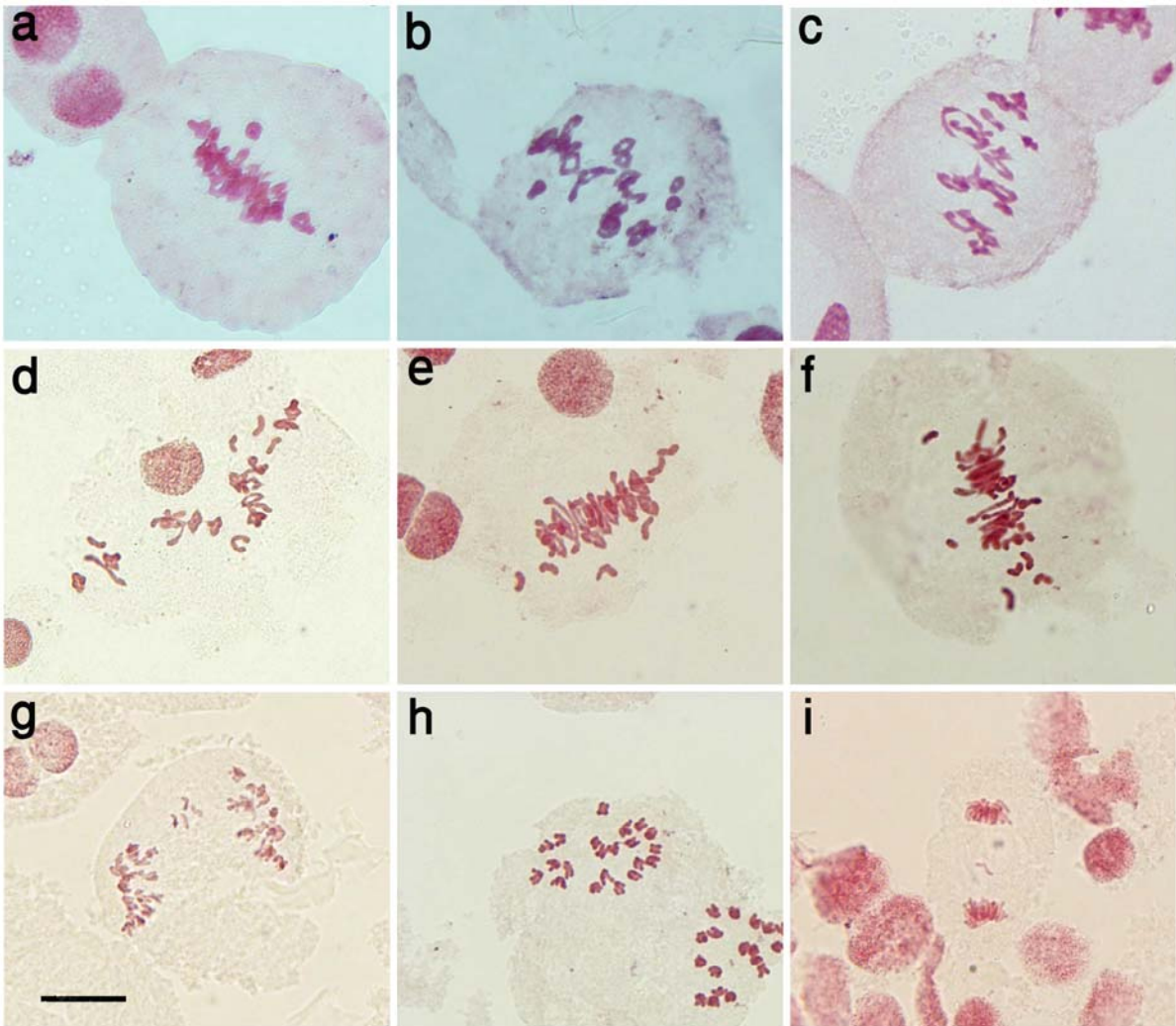
I

n F<sub>2</sub>  
(Az/b×Navid.F<sub>2</sub>)

/	/	/	/	/	/	/	/
/	/	( )	( )	( )	( )	( )	ψ
/	/	( )	( )	( )	( )	( )	( )
/	/	( )	( )	( )	( )	( )	( )
/	/	( )	( )	( )	( )	( )	( )
/	/	( )	( )	( )	( )	( )	( )
		/ **	/ **	/ **	df =	MS	
		/	/	/	df =	MS	

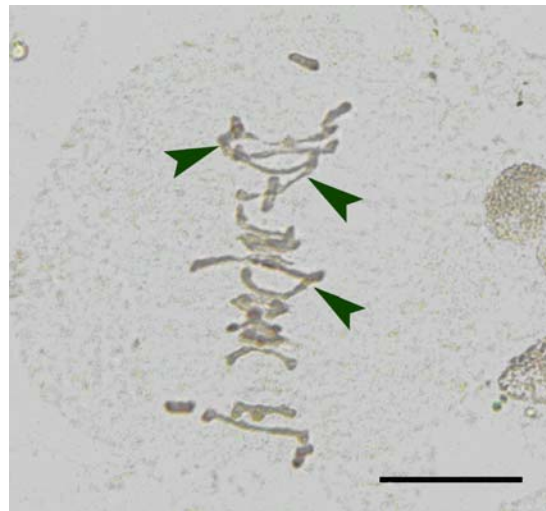
\*\*

ψ



Archives

I (a)  
 I (b)  
 I (c)  
 I (d)  
 I (e)  
 I (f)  
 I (g)  
 I (h)  
 II (i)



I

Az/b

)

.(

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