

()

//

(' ' ')
(")

F1

LT50

°C

()

(**GCA**)

% %

(**SCA**)

Archive of SID

%

%

()

()

%

A D

D B D A

A

B A A B D B B D

.()

D A

.()

EC

.()

°C

.()

F1

.()

Aegilops

Agropyron

Agropyron intermedium

Cylindrica elongatum

.()

cm

SCA GCA

cm

SCA GCA

.()

.()

()

D B B A

°C

.()

B

-
1. Monosomic
 2. Ditelosomic
 3. Half Diallel

$$EL\% = \frac{(EC_t)}{(EC_{tot})} \times 100$$

()
 °C
 EC
 °C °C °C
)
 : ()
 (LT₅₀

/) F
 ()
 GCA/SCA
 °C °C °C
 °C
 %
 F
 (LT₅₀) %
 SCA GCA
 ()
 B
 (GCA)
 %
 (SCA)
 °C °C °C
 °C
 ml

%

1. Metrohm

$$\left(\frac{H_2}{4H_1} \right) h^2$$

$$^{\circ}\text{C} \quad (H_1/D)^{1/2}$$

$$\frac{(H_2/4H_1) \text{ LT}_{50}}{\%} \quad \text{F1} \quad \left(\frac{H_2}{4H_1} \right)$$

$$(K_D/K_R)$$

$$\left(\frac{K_D}{K_R} \right) \% \quad \text{vr} \quad \text{wr} \quad (wr-vr)$$

$$\% \left(\frac{K_D}{K_R} \right) \%$$

$$\left(\frac{K_D}{K_R} \right) \quad \text{Wr-Vr}$$

$$\text{GCA} \quad \text{LT}_{50} \quad \text{GCA} \quad \text{GCA}$$

$$\left(\frac{GCA}{\%} \right)$$

$$\text{GCA} \quad ^{\circ}\text{C}$$

$$H_2$$

$$\text{LT}_{50} \quad \text{GCA} \quad \text{GCA} \quad \text{GCA}$$

1. Net dominant effect

()	EL(%)	LT ₅₀	°C (%)	°C (%)	°C (%)	GCA	SCA
/ ns	/ ns	/ *	/ **	/ **	/ **		
/ **	/ **	/ **	/ **	/ **	/ **		
/ **	/ **	/ **	/ **	/ **	/ **		
/ ns	/ **	/ **	/ **	/ **	/ **	GCA	SCA
/	/	/	/	/	/		
/ **	/ **	/ **	/ **	/ **	/ **		
						: ns .	% %
							** *

(b)	t	w _r -V _r	(%) °C	(%) °C	(%) °C	°C LT ₅₀	EL(%)	()
b=1	b=0							
t= / ns	t= / **	/ ns	(%) °C					
t= / ns	t= / **	/ ns	(%) °C					
t= / ns	t= / **	/ ns	(%) °C					
t= / ns	t= / **	/ ns	°C LT ₅₀					
t= / ns	t= / **	/ ns	EL(%)					
t= / ns	t= / **	/ ns	()					
						: ns .	% %	** *

()	EL(%)	LT ₅₀	°C	°C	°C	
/	/	/	/	/	/	$\sqrt{H_1/D}$
/	/	/	/	/	/	H ₂ /4H ₁
/	/	/	/	/	/	K _D /K _R
/	/	/	/	/	/	(M ₁ -m _{l0}) ²

$$I = 0.5f / \sqrt{D(H_1 - H_2)}$$

/	/	/	/	/	/	
/	/	/	/	/	/	a
/	/	/	/	/	/	h ²
/	/	/	/	/	/	H

EL(%)		LT ₅₀	°C	°C	°C	
/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	D±S.E(D)
/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	H ₁ ±S.E(H ₁)
/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	H ₂ ±S.E(H ₂)
/ ± / Sig	< (non-sig)	/ ± / Sig	/ ± / Sig	/ ± / Sig	< (non-sig)	h ² ±S.E(h ²)
/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± / Sig	/ ± < (non-sig)	F±S.E(f)
/ ± / Sig	< (non-sig)	< (non-sig)	< (non-sig)	< (non-sig)	< (non-sig)	E±S.E(f)
/	/	/	/	/	/	H ₁ -H ₂

:(H₁) : (F) : (D)
 :(E) :(H₂) :(h²)
 :(Sig) : (S.E)
 : (non-sig)

°C	()	()
/ **	/ **	/ ns
/ **	/ ns	/ **
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/ **	/ ns	/ **
/ ns	/ **	/ **
/ ns	/ **	/ **
/ **	/ **	/ **

: ns . % % ***

C°	()	()
/ *	/ *	/ **
/ ns	/ *	/ ns
/ *	/ **	/ ns

:

/	ns	/	**	/	**	/	ns	/	**	/	ns	/	**
/	**	/	**	/	ns	/	**	/	**	/	**	/	**
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/	**	/	**	/	**	/	ns	/	ns	/	ns	/	ns
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/	**	/	ns	/	ns	/	ns	/	ns	/	ns	/	ns

: ns . % % ** *

°C () ()

/	ns	/	**	/	**	/	**	/	*	/	*	/	*	/	**	/	**	/	**
/	**	/	ns	/	**	/	**	/	**	/	**	/	ns	/	**	/	**	/	**
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/	ns	/	**	/	**	/	**	/	ns	/	ns	/	ns	/	**	/	**	/	**
/	**	/	**	/	**	/	ns	/	**	/	ns	/	ns	/	**	/	**	/	**
/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**
/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**
/	ns	/	*	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**
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/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**
/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**	/	**

: ns . % % ** *

() °C °C H1,H2, D

() °C

F F (H2, H1) D

C °C I °C ° D °C °C

() °C ° °C H2, H1

(H1/D)^{1/2} °C °C

() °C °C

wr °C °C

C °C °C ° /

°C °

GCA ()
 GCA
 GCA . ()
 LT₅₀
 % LT₅₀
 GCA %
 ()

LT ₅₀	()	()
/ **	/ **	/ ns
/ **	/ ns	/ **
/ **	/ ns	/ ns
/ **	/ ns	/ **
/ ns	/ **	/ ns
/ **	/ ns	/ **
/ **	/ ns	/ **
/ ns	/ **	/ **
/ ns	/ ns	
/ **		

: ns . % % ** *

I . ()
 LT₅₀ / (uv)
 SCA= / (×)
 SCA= / (×)
 LT₅₀ GCA SCA
 SCA
 wr LT₅₀
 () D LT₅₀
 LT₅₀ ()
 % LT₅₀ H2 H1
 (H2, H1) D
 %
 (H1/D)^{1/2}
 % LT₅₀
 () () LT₅₀

/ (uv)

F

I

()

GCA .

WF

()

GCA

GCA= /

GCA= /
GCA

SCA

SCA= / (×)

()

(×)

SCA= /

(GCA)

(F1)

GCA:SCA

()

(D)

H2 H1

GCA= /

(D)

(H2, H1)

GCA= /

SCA / (*)

()

(H1/D)^{1/2}

SCA. / (*)

(*) (*)

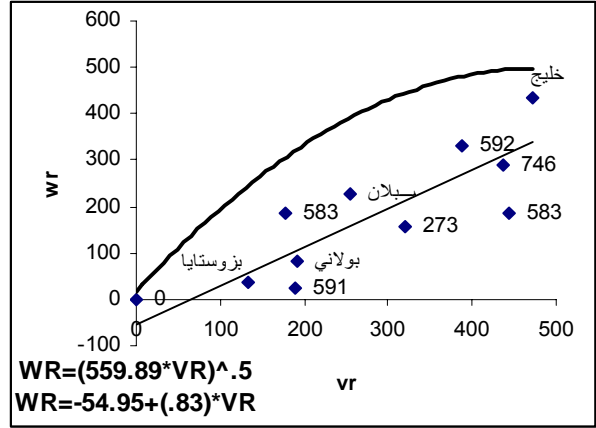
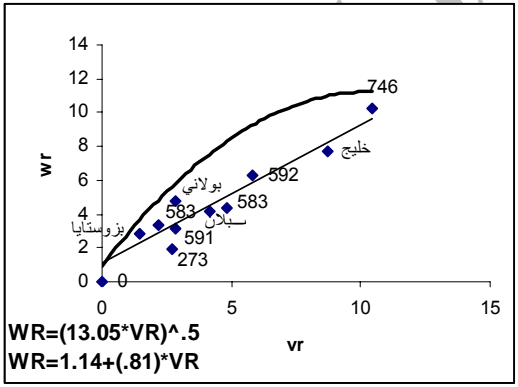
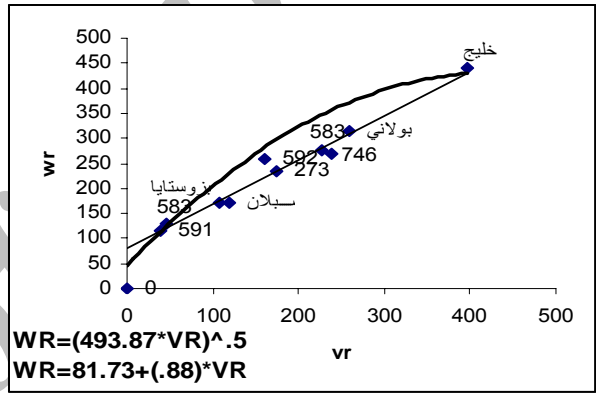
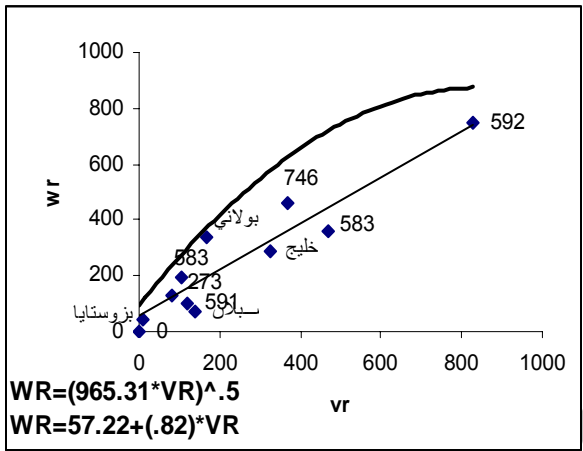
EL(%)

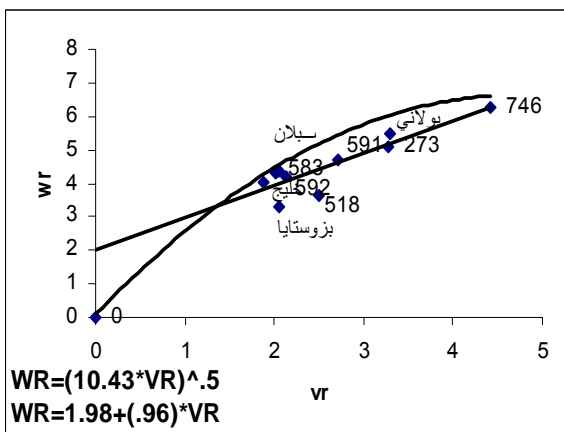
()

()

/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	*
/	*	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	ns	/	*	/	*	/	*	/	*
/	**	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	**	/	**	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	**	/	**	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	ns	/	ns	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*
/	**	/	**	/	**	/	ns	/	ns	/	ns	/	**	/	*	/	*	/	*	/	*

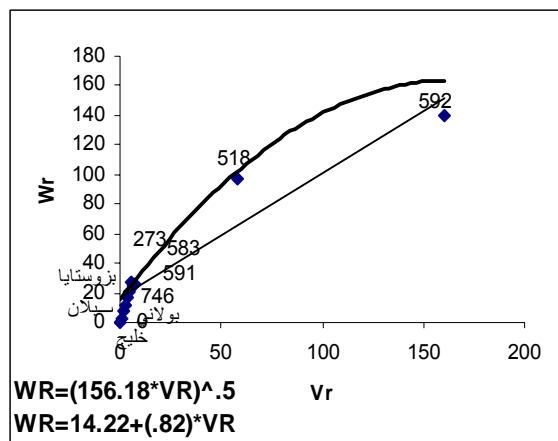
: ns . % % ***





W_r^2

$W_r - V_r$



W_r^2

$W_r - V_r$

()

()

()

/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	**
/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	ns	/	**
/	ns	/	ns	/	ns	/	ns	/	ns	/	**	/	**	/	**
/	**	/	ns	/	ns	/	ns	/	*	/	ns	/	**	/	
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/	ns	/		/		/		/		/		/		/	
/	ns	/		/		/		/		/		/		/	

: ns . % % *** *

I F / (uv) H1 D () H2
 D .
 / (H2, H1)
 WR .
 (H1/D)^{1/2}
 . ()
 % %

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