

( )

//

( $r_g = / *$ )

( $r_g = / **$ )

( $R^2 = /$ )

( $p = /$ )

( $p = /$ )

( )

( $rg = /$ )

(*B.napus*

( )  
*ssp.oleifera* L.)

( )

( )

(.)

( )

(.)

*B.juncea*

(.)

( )

( )

|

| | | |

N.I.R<sup>1</sup>

$$\sigma^2 p = \sigma^2 g + \sigma^2 e \quad \sigma^2 g = (\sigma^2 t - \sigma^2 e) / r$$

$$\sigma^2 e = \sigma^2 t$$

$$r$$

$$\sigma g_{xy} = (\sigma t_{xy} - \sigma e_{xy})$$

$$\sigma p_{xy} = \sigma g_{xy} + \sigma e_{xy}$$

$$y \quad x \quad \sigma e_{xy} \quad \sigma t_{xy}$$

$$r g = \sigma g_{xy} / \sqrt{\sigma^2 g_x \cdot \sigma^2 g_y}$$

$$r p = \sigma p_{xy} / \sqrt{\sigma^2 p_x \cdot \sigma^2 p_y}$$

(p<sub>iy</sub>) y i

KSM3-I-124	KS7638	
------------	--------	--

$r_{ij}$

$r_{ij}$

$p_{yj} (j)$

$\cdot p_{yj} (i)$

)

(

$$i p_{iy}^2 + 2 \sum_{ij} p_{iy} r_{ij} p_{ij} + p_{xy}^2 = 1$$

$(CV_g)$

$(CV_p)$

$p_{xy}^2$

$\Sigma$

(% / )

( / )

/

/

/

%

%

Ward

Archive of SID

ARC91022-59L-4	CASINO
ARC91017-44E-5	CERES
ARC91016-41-E5	COLVERT
ARC91023-63L-4	ERICKA
ARC91016-41L-2	FORNAX
ARC91004	GA96038A

GA96200E	KS-Su-CO5-S	SLAMO46
JETTON	KS-Su-Wo-S	VDH6036-195
KS3203	OKAPI	VSX-1
KS7419	ORIENT	WICHITA
KS7436	PLAINSMAN	WINFIELD

...

:

	$\bar{x}$			(Std Dev)	(% )	
		(min)	(max)		(CVg)	(CVp)
(kg/ha)	/	/	/	/	/	/
	/		/	/	/	/
(%)	/	/	/	/	/	/
	/			/	/	/
	/			/	/	/
	/			/	/	/
	/			/	/	/
( )	/	/	/	/	/	/
( )	/	/	/	/	/	/
( )	/			/	/	/
( )	/			/	/	/

								(MS)	(df)	(S.O.V)
/	**	/	ns	/	*	/	*	/	**	(R)
/	**	/	*	/	**	/	**	/	**	(T)
/		/		/		/		/		(e)
/		/		/		/		/		(%CV)

/	*	/	**	/	ns	/	**	/	**	(R)
/	**	/	**	/	**	/	**	/	**	(T)
/		/		/		/		/		(e)
/		/		/		/		/		(%CV)

.ns

\*\* \*

/  $R^2 =$  /

(  $\beta = 1$  )

$\beta$

X3) ( X2) (X1)

(

											(g)	(cm)	( )	( )
(kg/h)	**	**	**	**	**	**	**	**	**	**	**	**	**	**
	**	**	**	**	**	**	**	**	**	**	**	**	**	**
	**	**	**	**	**	**	**	**	**	**	*	**	**	**
	*	**	**	**	**	**	**	**	**	**	*	**	**	**
		**	**	*	**	**	*	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	*	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
(g)		**	**	**	**	**	**	**	**	**	**	**	**	**
(cm)		**	**	**	**	**	**	**	**	**	*	**	**	*
( )		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**
		**	**	**	**	**	**	**	**	**	**	**	**	**

...

:

( )

\*\* \*

( )

df	MS	F	R <sup>2</sup>	β	β	B
/	/	**	/	/	/	/
/	/	**	/	/	/	/
/	/	**	/	/	/	/

Y= / / x + / x / x \*\*

( )

(p= / )

%

(rg= / )

%

( )

)

(p = / )

( / )

( / )

/	**	/	/	**
/	**	/	*	/
/	**	/	/	0.083 <sup>ns</sup>
/	**	/	/	-0.179*

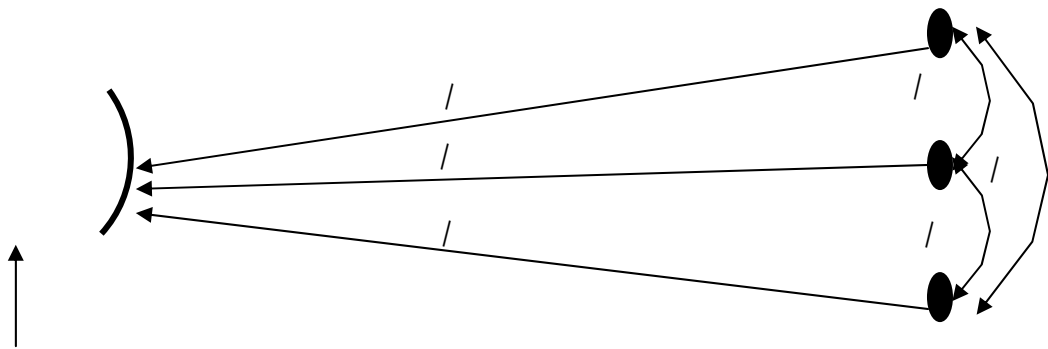
ns

:\*\*\*

= / R<sup>2</sup> = /

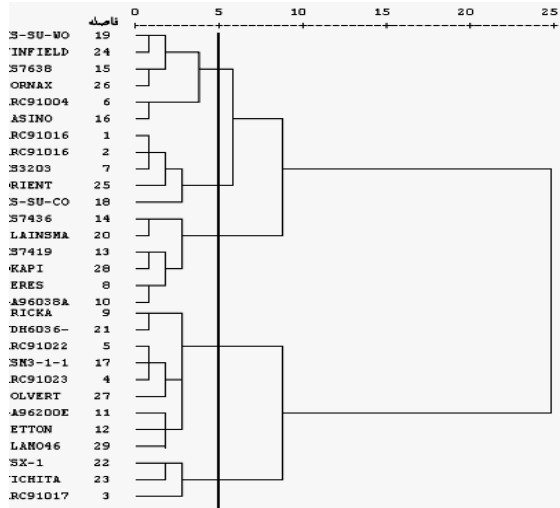
R= /

Archive of SID





= /



Archive

	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	/	/	/
	/	**	/	**	**	/
	/		**	/	/	/
	/		**	/	/	/
	/		**	**	/	/
	/			**	/	/
	/			**	/	/
	/			**	/	/
	/				**	/
(%)	/	/	/	/	/	/
(%)	/	/	/	/	/	/

## REFERENCES

6. Agrama, H. A. S. 1996. Sequential Path analysis of grain yield and its components in maize. *Plant Breeding*. (115): 343-346
7. Campbel, D.C., & Z.P. Kondra. 1978. Relationships among growth patterns, yield components and yield of rapeseed. *Can. J. Plant. Sci.* (58): 87-93.
8. Damon, E. & A. Donald. 1998. Genetics and phenotypic correlations in plants. *J. Heredity*.(80) : 310- 319.
9. Dewy, D.R., & K.H. Lu. 1959. Correlation and Path coefficient analysis of component of crested wheat grass seed production. *Agron-J.R.* (51): 515-518.
10. Gomez, K.A & A. A. Gomez. 1984. *Statistical procedures for agricultural research*. 2nd Ed. John Wiley and Sons.
11. Grami, B., R.J. Baker, & B.R Stefanson.1988.Genetics of protein and oil content of summer rape. Heritability, number of effective factors and combination.*Can.J.of Plant Sci.* (57):937-943.
12. Guo, Z.R. & D.B.Yuan. 1987. A study of distribution pattern of yield component in *B.napus* .oil crops China2 (1987).
13. Hakan, O. & O. Erol 1999. Relationships between yield and yield components on currently improved spring rapeseed cultivars. *tr. j. of Agriculture and forestry*. (23):603- 607
14. Kleinbaum, D.G., L. L. Kupper, & K.E. Muller. 1988. *Applied regression analysis and other multivariable methods*. 2nd Ed PWSKENT pub. Co. Boston. USA.

...

:

15. Mendham, N.J., P.A. Shipway & R.K. Scott. 1981. The effects of delayed sowing and weather on growth, development and yield of winter oilseed rape (*Brassica napus*). J. Agrics. Jci. Camb. (96): 389-416.
16. Natsch, A. & A. Wasche. 2003. Rape Protein Products as food ingredients. 11th International Rapeseed Congress, Agricultural University Copenhagen Denmark.
17. Shabana, R. Shrief, S.A. Ibrahim, A.F. & Geisler.G.1990. Correlation and path analysis for some new released (00) spring rapeseed cultivars grown under different competitive system. J. Agronomy and Crop Sci.165:138-143.
18. Stringam, G.R., D.I. MCGregor, & S. H. Pawlowski. 1974 Chemical and morphological characteristics associated with seed coat color in rapeseed. Proceeding of the fourth international Rapeseed congress, Giessen Germany. GCIRC.
19. Yaniz, Z., Y. Elber, D. Schafferman, & M. Zar. 1991. The effect of temperature of the fatty acid composition of high and low erucic acid rape cultivars. Processing of GCIRC congress. PP: 1821-1825.
20. Wu, M. & X. Zeng. 2003. Studies on preparation and its functional properties of rapeseed protein concentrate. 11th. International Rapeseed congress, Agricultural University Copenhagen Denmark.

Archive of SID