

()

(*Hordeum vulgare* L.)

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(/ / : // :)

°c

.et al., 1992)

/

ABA

.(Eira & Caldas, 2000)

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(Debeaujon et al., 2000; Probert,

.2000)

(Behnia, 1997; Akram Ghaderi et

.al., 2008)

(Koocheki &)

.Alizadeh, 1997)

.(Bewley, 1997; Schwars et al., 2004)

.(Khosravi, 1996)

:

.(Eira & Caldas, 2000; Garford & Trevor, 2004)

(*Hordeum vulgare L.*)

(ABA)

n

()

(GA)

ABA/GA

$$= [(50-n) \times 2] / 100$$

GA

ABA

(Farnsworth, 2000; Weinder

%

4. After-ripening

-
1. Dormancy
 2. Paradormancy
 3. True dormancy

(Dastaran & Tavakkol Afshari, 2009)

CGN01350

CGN01350

(CGN01350)

° c

Tavakkol)

(Afshari & Hucl, 1998

= (fresh weight) fw

= (dry weight) dw

= fw-dw/dw

) CGN01350

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(%

) CGN02554

(/)
() (IBB)
HUS-5GV (High Vacuum Evaporator)

(DSM966A)
() % /

%

(/)

(LSD)

(Dastaran & Tavakkol Afshari, 2009)

(1998) Caddick & Shelton

() b () a

Baskin & Baskin .

(1986)

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Minitab

MSTATC

(1999) Romagosa et al. .

Excel 2003

(MS)					(df)	(S.O.V.)
/	/	/ *	/	/		
/ **	/ **	/ **	/ **	/ **		()
/	/	/	/	/		
% /	% /	% /	% /	% /		(%CV)
					/ /	** *

(MS)							(df)	(S.O.V)
/ **	/ **	/ *	/	/	/ *	/		
/ **	/ **	/ **	/ **	/ **	/ **	/ **		()
/	/	/	/	/	/	/		
% /	% /	% /	% /	% /	% /	% /		(CV%)
							/ /	** *

(CGN01350)

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CGN01350

CGN01350

(a)

/ (b)

CGN01350

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CGN01350

CGN01350

CGN01350

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(2004) Gatford & Trevor

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/		/	/	/	/	/	CGN00589
/	/	/		/			CGN00599
/	/	/		/	/		CGN00614
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/	/	/			/	/	CGN01058
/	/	/		/		/	CGN01081
/	/		/		/	/	CGN01088
/		/	/	/	/		CGN01196
/	/	/	/		/		CGN01209
/	/	/	/	/	/		CGN01214
/	/		/	/	/	/	CGN01215
/	/	/	/	/	/	/	CGN01271
/	/		/	/	/	/	CGN01286
/	/	/		/			CGN01350
/	/	/	/			/	CGN01461
/	/	/	/	/		/	CGN02234
/		/			/		CGN02249
/	/	/	/	/	/	/	CGN02255
/		/		/	/	/	CGN02257
/	/			/	/	/	CGN02266
/	/		/	/	/	/	CGN02274
/	/		/	/		/	
/	/	/	/	/	/	/	LSD

CGN01350						
(MS)			(df)	(S.O.V)		
/	**	/	**	/	**	(a)
/	**	/	**	/	**	(b)
/		/	*	/	*	(b*a) *
/		/		/		
%	/	%	/	%	/	(%CV)

** *

CGN01350
% /
% /
CGN01350
% /



(2002) Kato et al.

(2000) Debeaujon et al.

(Kato et al.,
Eira & Caldas

HD23

.2003)

(2000)

(2000) Eira & Caldas

(1997) Chesson et al.

CGN02554

CGN01350

CGN02554

CGN01350

(a)

(b)

()

(

/ CGNO2554

()

CGN01350

%

CGNO2554

CGN01350

() a

c

() b

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CGNO2554

% /

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CGN01350

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CGN01350

() CGN02554

CGN01350

(MS)			(df)	(S.O.V)
/ **	/ **	/ **		(a)
/	/	/		
/ **	/ **	/ **		(b)
/ *	/ *	/ **		(b * a) *
/	/	/		
% /	% /	% /		(%CV)
			/ /	** *

CGN01350

(MS)	(df)	(S.O.V.)
/ **		(a)
/		
* /		(b)
* /		(a * b) *
* /		(c)
** /		(a * c) *
* /		(b * c) *
* /		(a * b * c) *
/		
% /		(%CV)
		/ /
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CGN01350

CGN01350

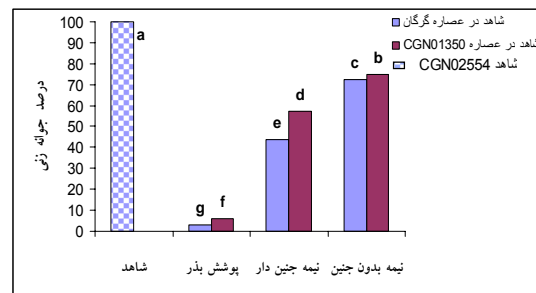
Eira & Caldas .

(2004) Gatford & Trevor (2000)

CGN01350

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(mg/kg



CGN01350

() CGN02554

(mg/kg

CGN01350 (mg/kg)					
()					
h	/ fg	/ i	/ h	e	/ f
/ g	ef	fg	/ f	/ de	df
/ f	de	/ e	/ ef	/ cde	/ df
/ e	d	/ d	/ de	cde	/ d
/ cd	/ c	/ c	/ c	/ bcd	/ c
/ b	/ b	/ b	b	/ ab	ab
a	/ a	/ a	a	a	/ a
/ h	/ g	/ i	/ h	e	f
/ h	/ fg	hi	/ gh	e	f
/ g	f	/ gh	/ fg	de	/ ef
ef	/ d	e	/ e	/ cde	de
/ d	/ c	/ c	/ cd	/ bcd	/ c
/ c	c	c	/ c	/ abc	/ bc
/ b	b	/ b	/ b	/ ab	/ ab

CGN01350

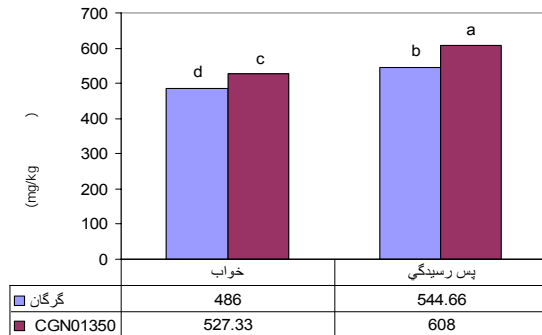
(mg/kg)

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(mg/kg)

() CGN01350

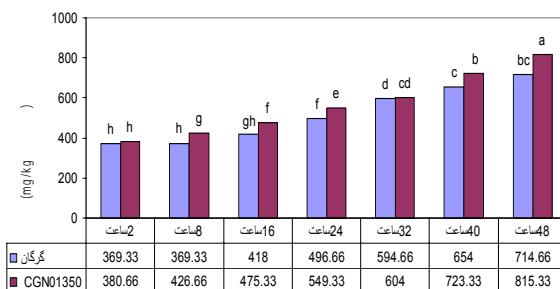


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CGN01350

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) /

(mg/kg)

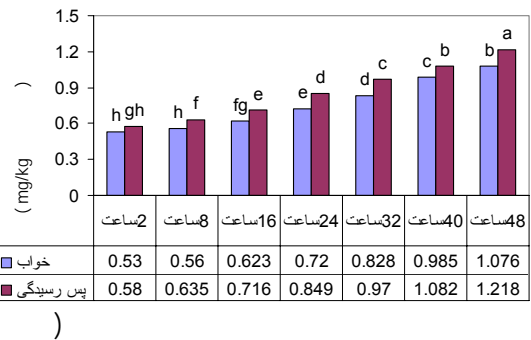
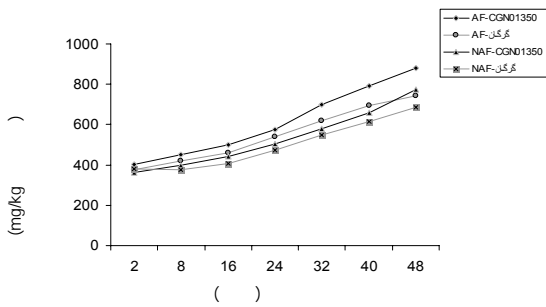
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CGN01350

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(1986) Baskin & Baskin .

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CGN01350

(NAF)

(AF)

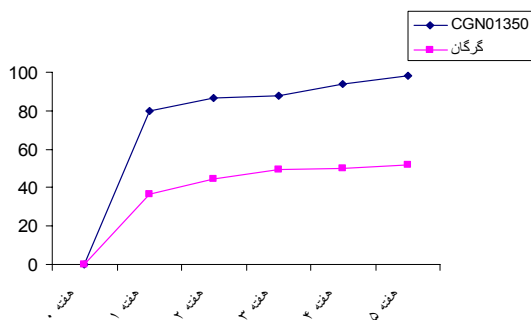
CGN01350

CGN01350

CGN01350

(NAF-CGN01350)

(AF-CGN01350)



(AF)

CGN01350

(AF-CGN01350)

(NAF-)

CGN01350

(1999) Romagosa et al.



CGN01350
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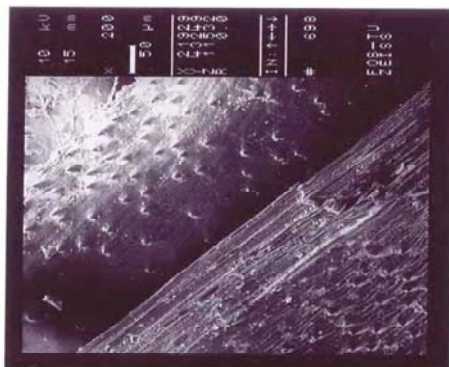
(1986) Baskin & Baskin

Caddick & Shelton .

(2000) Probert (1998)

Tavakkol Afshari & .

(2002) Hucl

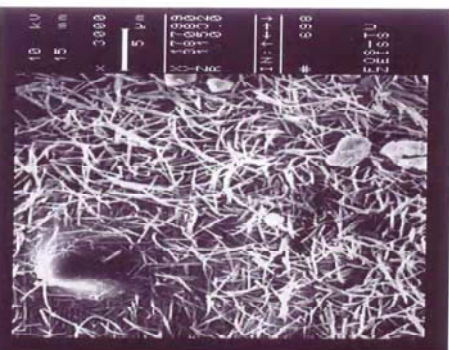


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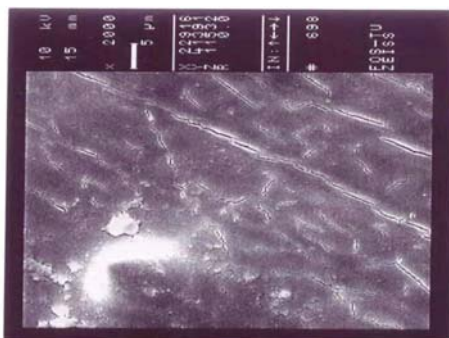
(>%)

Tavakkol)

.(Afshari & Hucl, 2002



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(2002) Tavakkol Afshari & Hucl

(1998) Caddick & Shelton .

(1986) Baskin & Baskin .

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