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h/d< (Slenderness factor)

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(*Fagus orientalis* Lipsky)

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(Shamekhi, 1993)

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(Sabeti, 1958)

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(Haidari, 1993)

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(Zobeiri, 2006)

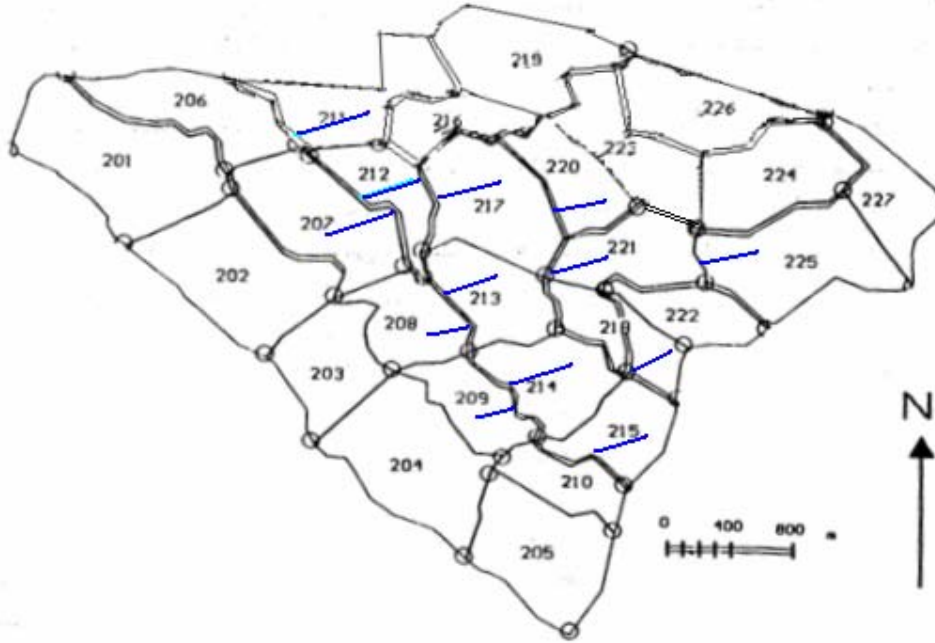
(Namiranian, 2000)

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Namiranian, Burschel and Huss, 1987)

(1995

Namkhaneh Distrikt  
Khyroudkenar



Excel SPSS

$h/d$

$) h \cdot 100/d$

$d$

$h$

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(Namiranian, 2000)

(Namiranian, 2000)

...

d

ch

$$\begin{pmatrix} \cdot \\ \cdot \end{pmatrix}$$

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( )

$$ch\hat{h} = 70/364235d^{-0/1136} \quad r = 0/29$$

$$R^2 = 0/09 \quad Adj.R^2 = 0/08 \quad See = 0/20$$

d

chh

:

( )

$$\hat{h} = 6/1536d^{0/4287} \quad r = 0/88$$

$$R^2 = 0/77 \quad Adj.R^2 = 0/769 \quad See = 0/13$$

(Zobeiri, 2006)

:

d

h

$$\begin{pmatrix} \cdot \\ \cdot \end{pmatrix}$$

( )

$$th\hat{h} = 2/1302d^{0/53814} \quad r = 0/86$$

$$R^2 = 0/74 \quad Adj.R^2 = 0/736 \quad See = 0/18$$

d

th

( )

$$ch\hat{h} = 4/329947d^{0/315112} \quad r = 0/54$$

$$R^2 = 0/29 \quad Adj.R^2 = 0/284 \quad See = 0/27$$

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$$\hat{d} = 0/7742dst^{1/02993} \quad r = 0/99$$

$$R^2 = 0/98 \quad Adj.R^2 = 0/985 \quad See = 0/07$$

$$th\hat{h} = 34/6168d^{0/1094} \quad r = 0/35$$

$$R^2 = 0/12 \quad Adj.R^2 = 0/109 \quad See = 0/16$$

d thh

dst

d

$$Sig.F = 0/0048$$

$$Sig.F = 0/0000$$

(Namirianian, 2000)

( )

$$E\hat{y}_0 = \pm t_{n-2,\alpha} \times s\hat{y}_0$$

( )

s $\hat{y}_0$

$$hd\hat{h} = 128/23 * (0/988)^d \quad r = 0/94$$

$$R^2 = 0/88 \quad Adj.R^2 = 0/87 \quad See = 0/19$$

d

hd

( $\hat{y}_0$ )

(h/d>100)

$$\hat{y}_0 \pm E\hat{y}_0$$

(80<h/d<100)

(h/d<80)

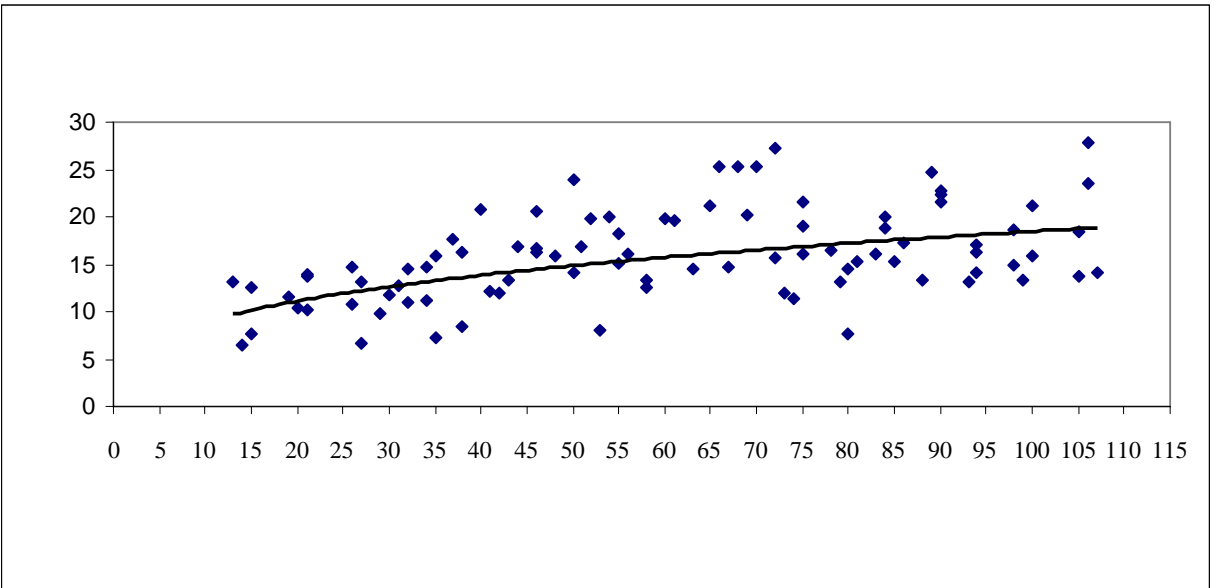
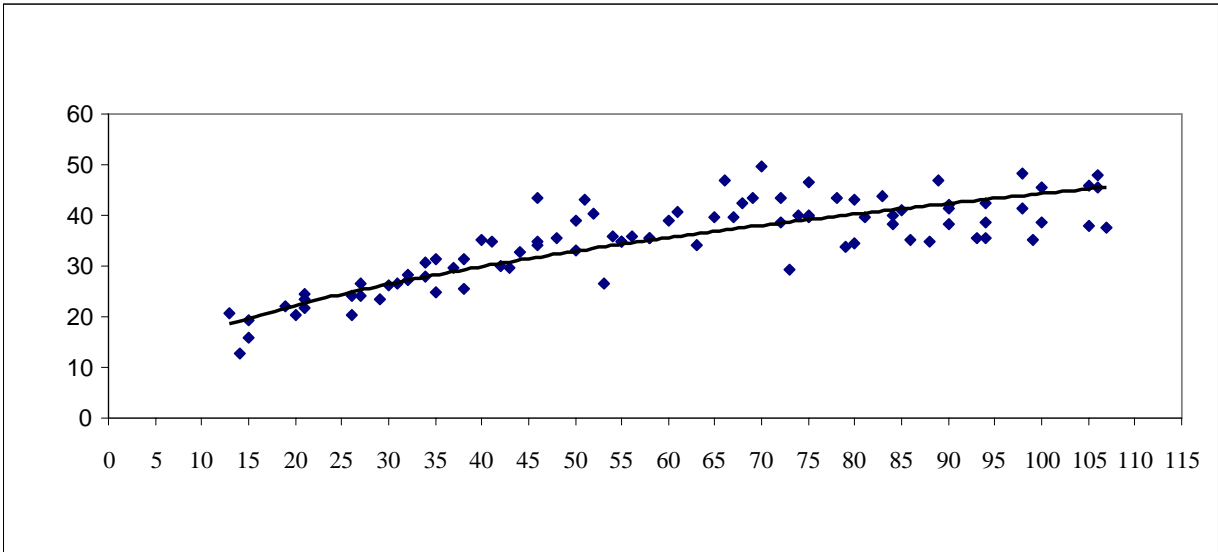
(y<sub>0</sub>)

: ( )

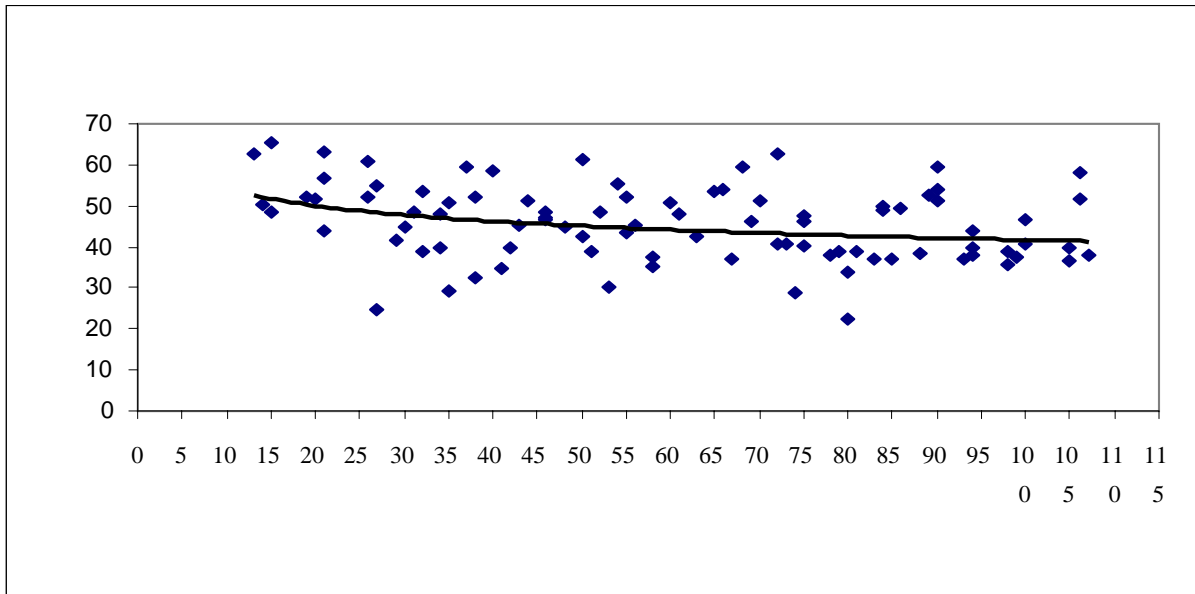
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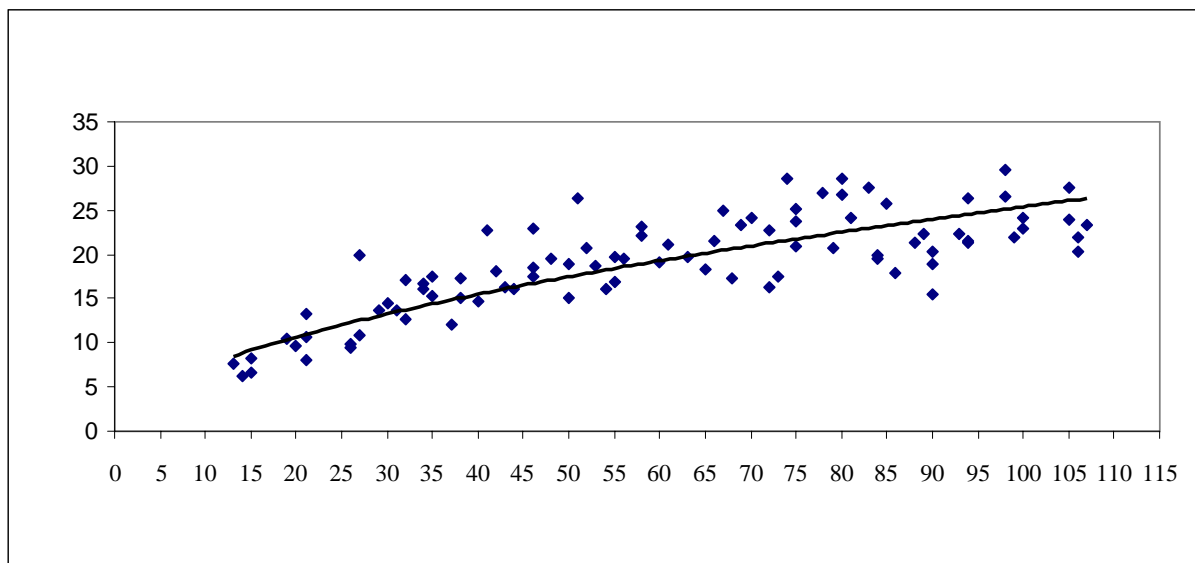
		<b>h</b>	<b>ch</b>	<b>chh</b>	<b>th</b>	<b>thh</b>	<b>hd</b>	<b>d</b>
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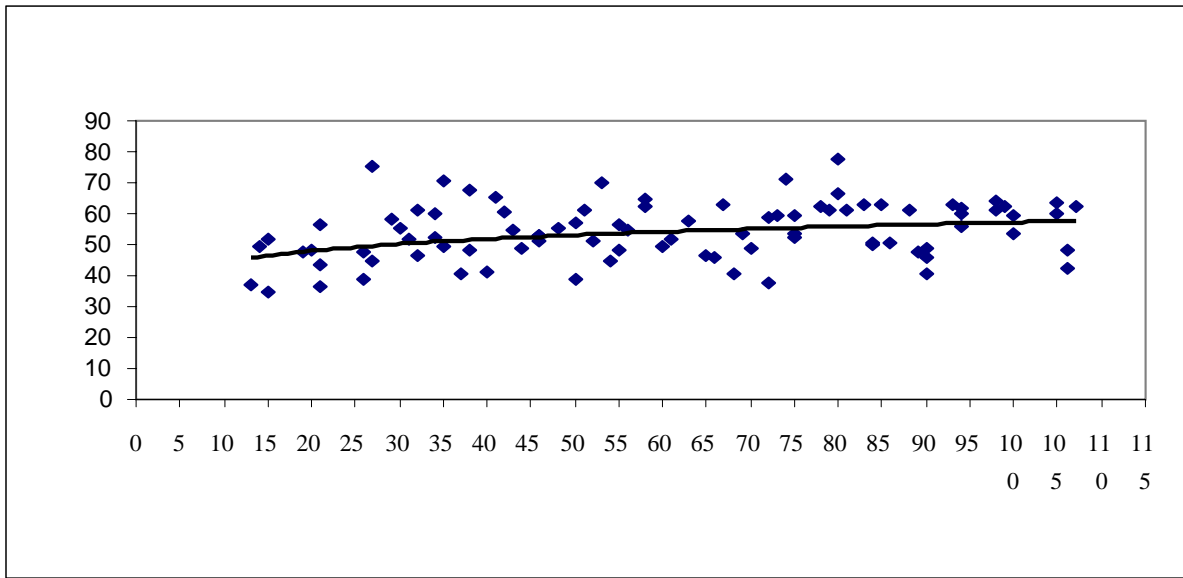
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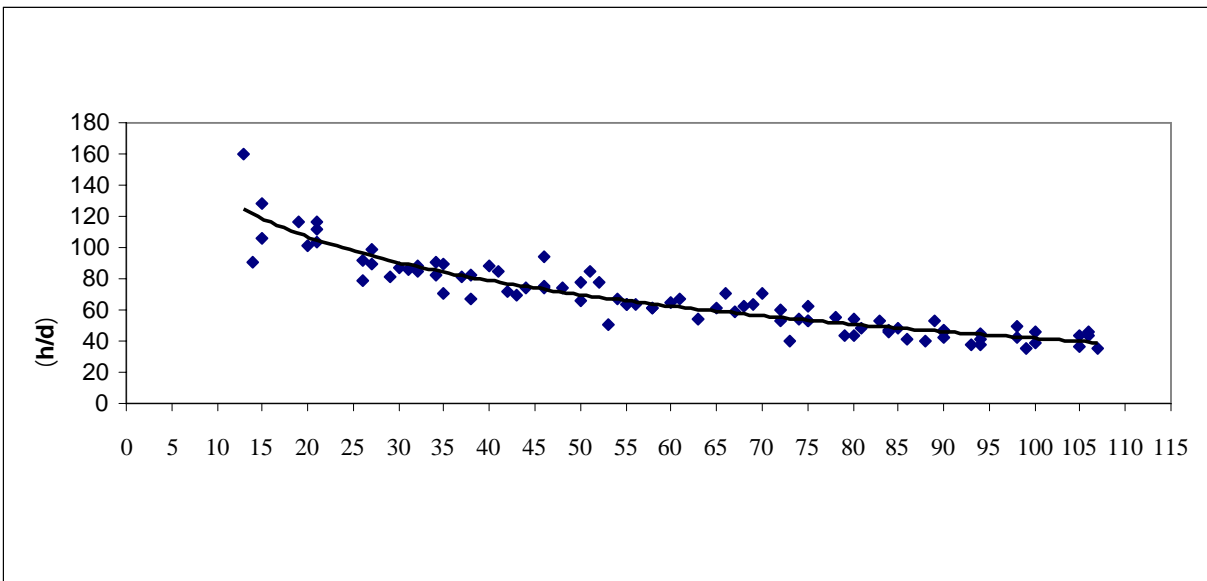
(ch\*100/h)



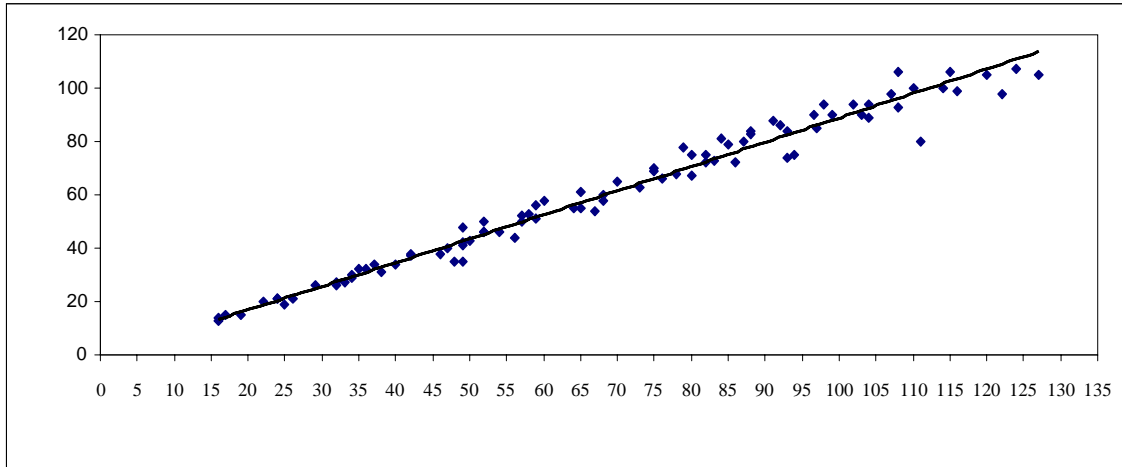




$(th \cdot 100/h)$



$(h/d)$



( )

(Compound)

Namiranian (1995)

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- 1- Burschel, P. and J., Huss, 1987. Grundriss des Waldbus, Verlag Paul Parey, Hamburg and Berlin.
- 2- Haidari, R.H., 1993. Study of Form Factor of Beach and Alder Species in Patom and Namkhaneh Districts (Kheyroudkenar). M.Sc. thesis in Forestry, Tehran University of IRAN. 108pp.
- 3- Namiranian, M. 1995. Study of Height Curve in Gorazbon District, Kheyroudkenar Forest. Iranian Journal of Natural Resources, V(53), No.47: pp 117-130.
- 4- Namiranian, M. 2000. A Study on Dimensional Characters of Beech species in Gorazbon District, Kheyroudkenar Forest. Iranian Journal of Natural Resources, V(53), No.1: pp87-95.
- 5- Sabeti, H. 1958. Forests of Iran. Amirkabir press. Pp256.
- 6- Shamekhi, T. 1993. Forest policy (lecture of forestry). Faculty of Natural Resources, Tehran University of IRAN.
- 7- Zobeiri, M., 2006. Forest Inventory. Third Edition. Tehran University Press. 401pp.-

## A study on dimensional characters of beech species in Namkhaneh District, Kheyroudkenar Forest

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### Abstract

Knowing and conducting studies on size characters of trees can provide a good guidance for proper management as silvicultural purposes require. In Namkhaneh district, a part of experimental forest of Faculty of Natural Resources, totally 110 beech trees were selected and their diameter of stump, diameter at breast height (dbh), total height, height of trunk and height of crown were determined. The results indicated that there is statistical correlation between some of the characteristics of beech trees, so considering this fact, a statistic-mathematical relationship can be derived from such dependencies, as following:

- Between dbh and total height, there is a power correlation.
- Between dbh and total height of crown, there is a power correlation.
- Between dbh and total height of trunk, there is a power correlation.
- In the study area, all trees with above 39 centimeters diameter, would have an appropriate slenderness factor ( $hd < 80$ ).
- Between diameter of stump and dbh, there is a power correlation.

**Keywords:** Measurement, Beech, Slenderness factor, Height of trunk, Crown height, Namkhaneh