RESUMEN

En la presente tesis se entregan antecedentes relativos al volumen y forma, para renovales de **Nothofagus glauca** (Phil.) Krasser, ubicados en la Precordillera Andina de la VII Región. Para el volumen se probaron seis modelos descritos en la literatura y la información para realizar los ajustes se extrajo de una muestra de 114 árboles que fueron cortados en los sectores El Picazo y Armerillo.

MODELO 1 $V = a + b(DAP)^2 (Hc)$

MODELO 2 $V = a + b(DAP)^2 + c(DAP)^2(Hc) + d(Hc)$

MODELO 3 $V = a + b(DAP) + c(DAP)^2 + d(DAP)(Hc) + e(DAP)^2(Hc)$

MODELO 4 $V = a + b(DAP)^2 + c(DAP)^2(Hc) + d(DAP)(Hc)^2 + e(Hc)^2$

MODELO 5 $V = a + b(DAP)^2 + c(Hc)$

MODELO 6 $V = a + b(DAP) + c(Hc)$

Todos son analizados estadísticamente y seleccionado el que presenta un menor error estándar de estimación y un mayor coeficiente de determinación ajustado.

Según el criterio descrito anteriormente se seleccionó el MODELO N° 1 el cual tiene la siguiente forma

$$V = 0.014168 + 0.000039*(DAP)^2 * (Hc)$$

$$10 \text{ cm} <= DAP <= 40 \text{ cm}$$

donde:

DAP = diámetro a la altura del pecho (1.30 m del suelo).
Hc = altura comercial (diámetro de utilización 5 cm).

Para la forma se calcularon valores medios de factores (natural y artificial) y coeficientes (normal, absoluto y Girard).

SUMMARY

In this thesis information related to size and shape for **Nothofagus glauca** (Phil.) Krasser is presented. This specie can be found in the Andes premountain in the VII Region and the central zone of Chile. About size, six models described in literature and information were tested. In order to carry out adjustments, a sample was taben from 114 trees which were cut in The Picazo and Armerillo.

MODELS 1 $V = a + b(DAP)^2 (Hc)$

MODELS 2 $V = a + b(DAP)^2 + c(DAP)^2(Hc) + d(Hc)$

MODELS 3 $V = a + b(DAP) + c(DAP)^2 + d(DAP)(Hc) + e(DAP)^2(Hc)$

MODELS 4 $V = a + b(DAP)^2 + c(DAP)^2(Hc) + d(DAP)(Hc)^2 + e(Hc)^2$

MODELS 5 $V = a + b(DAP)^2 + c(Hc)$

MODELS 6 $V = a + b(DAP) + c(Hc)$

All models were analized statistically, and the one with the least estimation standard error and the highest correlation coefficient was chosen.

According to the criterion described above, Model 1 was selected. It has the following form.

$$V = 0.014168 + 0.000039*(DAP)^2 * (Hc)$$
$$10 \text{ cm} <= DAP <= 40 \text{ cm}$$

Where:

DAP = breast height diametor (1.30 m from the soil).
Hc = altura comercial (utilization diametor 5 cm).

For the form, factor and the form coefficient average values were calculated.

Both elements help to improve the existing data bank about this species in the country, and day provide essential information for the subsequent management planming, forestry intervensions and quantitative representation of them.