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The results of research quality indicators aboveground components of phytomass grey willow (*Salix cinerea*) in natural phytocenoses of Chernihiv Polissya.

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In researches for modeling, were selected shrubs of *Salix cinerea*, which had no mechanical damages, increased in conditions not screened and not be affected by diseases and pests. The collection of data was carried out by research methodological approaches, based on the generalization of existing methods taking into account the experience of our research and the specific object of research. In this work the following components were isolated aboveground phytomass bush: leaves, annual shoots, stiff stems (thin – 0,50 cm, average – 0,51-1,00 cm, coarse – more than 1,00 cm).

As results of the work, in Chernihiv Polissya have been studied and selected: 53 wood cuts shoots, 31 likes leaves and 29 samples of annual shoots for determining quality indicators phytomass.

Correlation analysis between biometric parameters (diameter in a bark) and quality parameters samples of wood (including natural density of timber and bark, basic density of timber and bark, content of absolutely dry substance in the foliage and in shoots are determined) allowed to determine the existence of only slight and medium connections between these signs dominated insignificant correlation level is 95%, so it is impossible to develop accurate mathematical models based on these parameters.

In result of research established the quality indicators components of above ground phytomass of shrubs *Salix cinerea*, average values natural density (wood –  $823 \text{ kg} \cdot (\text{m}^3)^{-1}$ , bark –  $1036 \text{ kg} \cdot (\text{m}^3)^{-1}$ ), basic density (wood –  $441 \text{ kg} \cdot (\text{m}^3)^{-1}$ , bark –  $461 \text{ kg} \cdot (\text{m}^3)^{-1}$ ), the contents absolutely dry matter (leaves – 0,410, annual shoots – 0,400) and the proportion of bark (in fresh cut state – 36,4 %, in absolutely dry state – 32,3 %) phytomass of shoots. The components of shrub phytomass and the aboveground phytomass have a strong correlation of biometric parameters. The close correlation was between the percentage of

leaves and the percentage of lignified shoots (-0,96). The lowest correlation was in other parameters, which observed in the percentage of thin shoots. Among biometric parameters of model shrubs closest connection phytomass components detected with height.

Share of weight components with increasing altitude has the following features: the percentage of leaves and annual shoots first sharply and then slowly decreases, but the percentage of lignified shoots – increases. This is consistent with the nature and growth of *Salix cinerea*, because in the first year of life bush photosynthetic apparatus can take a larger share in phytomass plant

The results can be used for further exploration, simulation and evaluation of biological productivity, formations of shrub *Salix cinerea*.