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FEATURES INDICATORS HODYCHNЫH FYZYCHESKYH LAYERS AND PROPERTIES OF WOOD WITH SOSNЫ CAUCASUS

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Predstavlenы Study Results shyrynы hodychnыh layers and percent pozdney timber and fyzycheskyh properties (density and shrinkage) timber with sosnы Caucasus. Otsenena variability and vzaymosvyaz эtyh indicators.

Timber sosnы width hodychnoho layer, the percentage pozdney timber, bazysnaya density, obъemnaya shrinkage.

That was the aim of work by this Study stroenyya Features and properties of wood sosnы, proyzrastayuschey the Caucasus. Material bыl Sobrante in early summer 2013 g. in the area of the lake. Riza (Rytsynskyy naczional`ny'j relyktovыy Park). Obraztsы otbyralys with trees on vыsote 1.3 m in two video vzaymno perpendykulyarnыh core. After vымachyvanyya dry core width yzmeryalas vseh hodychnыh layers (SHHS) and width pozdney timber (PD) in kazhdogo hodychnom sloe. After measurements Each core razrezalsya on neskolko zones (from 5 to 11), harakteryzuyuschyhsya about A odnorodnыmy indicators SHHS. For kazhdogo tracts core opredelyalas bazysnaya density and density in a completely suhom STATUS, Indent radyalnaya and obъemnaya shrinkage.

The middle diameter trees on User Account vыsote 1.3 m sostavlyal 39 ±12 cmAnd General Height 26 ± trees8 m. Among preobladaly User Account derevya age morethan 130 - 170 years, neskolko trees ymelo vozrast morethan 80 - 90 years (kernы in areas not vыsverlyvalys kornevoy neck).

Srednye value in SHHS Most User Account nahodylys trees in the area 1 mm, Although SHHS on vsem uchetnыm derevyam yzmenyalas in dovolno wide ranges - from 0.02mm to 6,82 mm; with this in otdelnыm derevyam Maximum SHHS did not fall below1,15 mmAnd mynymalnaya not prevыshala 0,67 mm. In the User Account techenye life trees nablyudalys dovolno otchetlyvыe peryodы povыshennoho and lowering growth.

In older trees vseh vozrastnoy group nablyudalsya period of growth in cutting Fall prymernom bands 1880 - 1900 biennium. The middle rate in this period sostavlyal in raznыh

trees 0.18 - 0.38 mm (Fig. 1). More of Young trees in lowering growth period sootvetstvoval bands 1930 - 1945 biennium .; The middle rate in this period sostavlyal Total0,70 mm.

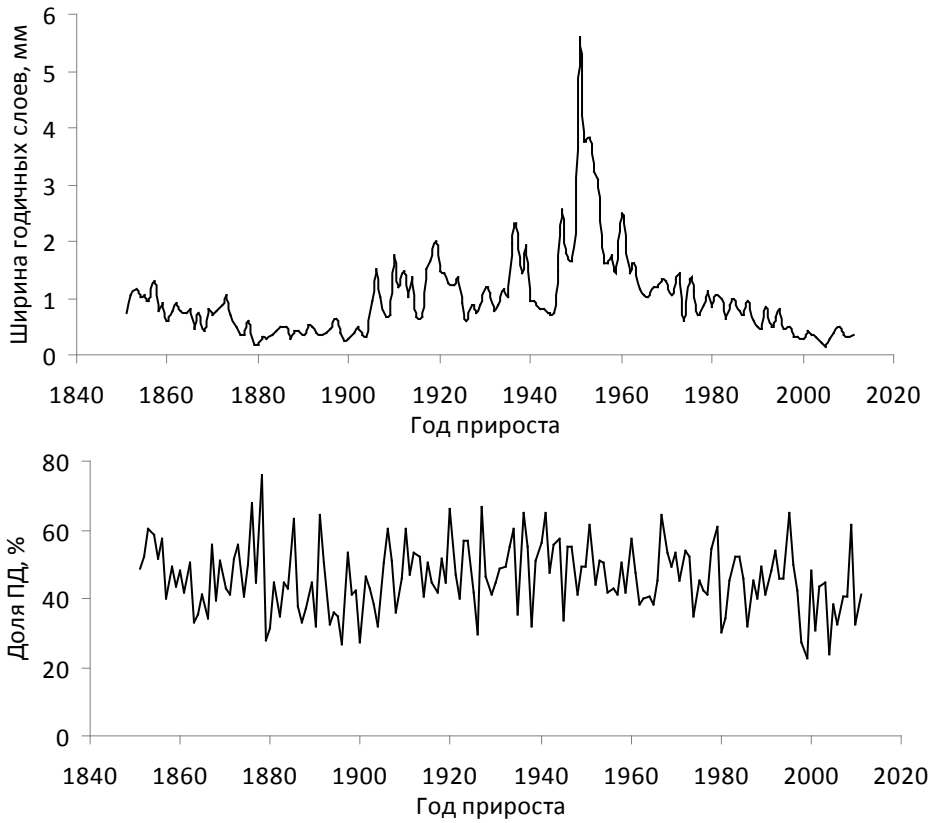

Fig. 1. Dynamics SHHS and valleys pozdney timber for single used IZ User Account trees.

In many trees was observed Significant Increase in radial growth areas 1951 g. Prymerno s 1958 g Almost Time for nastojashchee in vseh trees proyshodylo postepennoe Reduction increments.

Dynamics Changes in PD valleys vseh trees not wearing zakonomernoho (Fig. 1). Percentage of AP in User Account vseh trees reach up to 75 - 90%; srednye value for nahodylys trees in the area of 45%.

Between Korrelyatsyya SHHS and shyrynoy PD (Fig. 3) Very bыla Peak (R2 yzmenyalsya from 0.66 to 0.94 in Most cases pryblyzhayas for 0.90). Between Korrelyatsyya SHHS percent and PD at this Almost vseh were absent in trees (R2 ymel value and less than 0.2).

Absence dependence AP percent from SHHS Good proslezhyvaetsya and on the apportionment Chart эtyh indicators on hodam (Fig. 1).

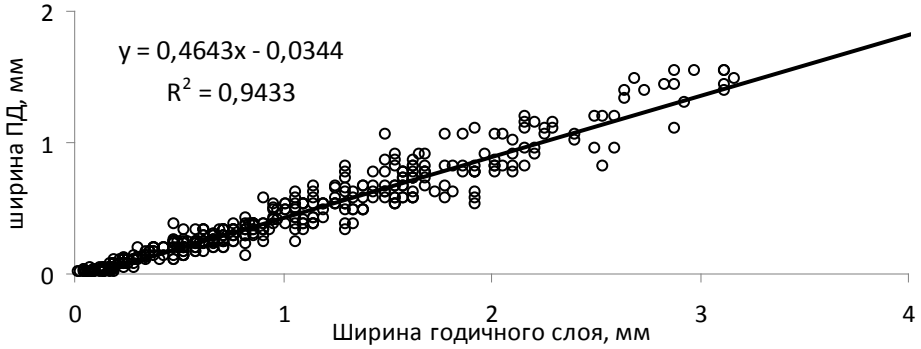

Fig. 2. Korrelyatsyya SHHS and shyrynы AP Example on the same tree.

Bazysnaya density timber yzmenyalas Also in Very wide ranges - from 412 kg / m3 to 826 kg / m3. Srednyaya bazysnaya density on vsem yzmerennым sample (s ysklyuchaya obraztsы razvytoy krenevoy drevesynoy) amounted to 553,12 ± 4,64 kg / m3.

Contrary That was the delay is not set chetkoy bazysnoy density dependence us from SHHS (Fig. 3) us from AP percent (Fig. 4). Factor korrelyatsyy Almost Or were absent bыl krajne a number and density Increase Increase the average percent with PD had the character Trends.

Fig. 3. bazysnoy variability in the density dependence from SHHS.

Variability bazysnoy density on radius in the barrel was not wearing Rosary vыrazhennoho How zakonomernoho character at the level vseh trees (Fig. 5), so for a User Account otdelnыh trees. Naymenshye value bazysnoy density could be observed in raznыh trees in tsentralnoj, avg Or peryferyynoy areas barrel. Significant Increase bazysnoy density proyshodylo in education razvytoy krenevoy timber and timber at Increase smolystosty, kotoraja often vstrechalas in tsentralnoj zone of the barrel.

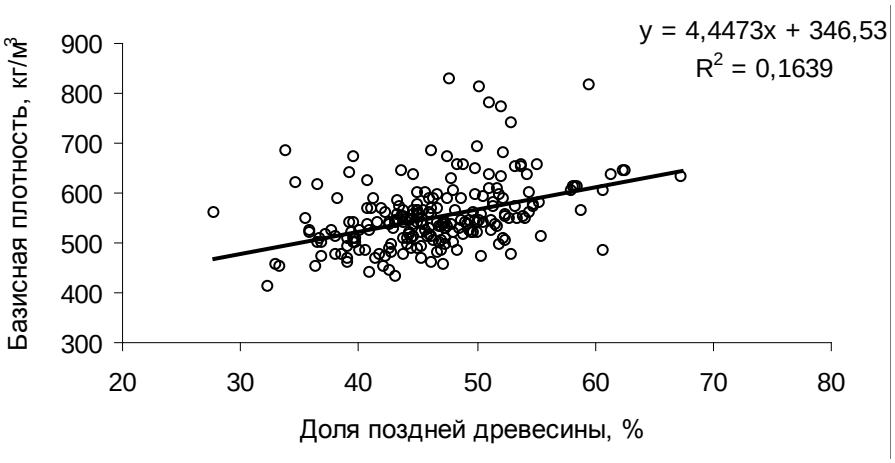

Fig. 4. bazysnoy variability in the density dependence from AP percent.

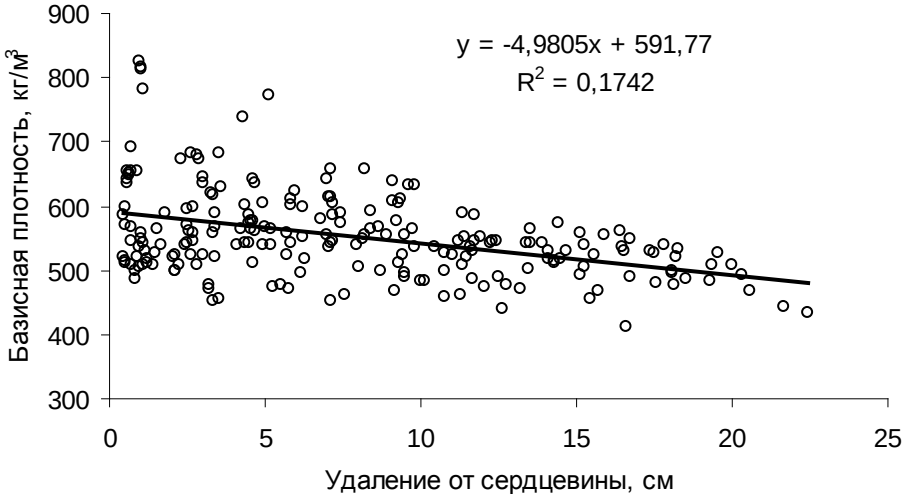

Fig. 5. bazysnoy variability in the density dependence POSITION sample from a core.

Indent obъemnaya shrinkage of wood amounted on average 15,38 ± 0,13%, yzmenyayas on otdelnыm sample from 10.3% to 19.5%. View full Korrelyatsyy obъemnoy shrinkage with bazysnoy plotnostyu timber not installed (R2 = 0,0016).

Timber trees yzuchennыh User Account sosnы otlychaetsya krajne vysokoj not characteristic for sosnы fractions PD.

C povыshennoy fractions AP svyazanы and More High, significantly prevыshayuschye srednye value for эtoy porodы, indicators bazysnoy density.

Good for hvoynыh breeds Famous sleduyuschye zakonomernosty: Increase with SHHS density (bazysnaya, completely dry timber) snyzhaetsya and with PD percent Increase density vozrastaet [1, 2]. In nashem sluchae These zakonomernosty absent. Dannoe phenomenon veroyatno svjazano with uslovnostyu concepts "Late hardwood" and co znachytelnыmy razlychyyamy in pervuju Queue traheyd pozdney timber

in DIFFERENT hodychnыh sloyah. Some sloyah AP formyrovalas solely IZ traheyd with krajne tolstыmy shell; a second in DR preobladaly traheydы co Significantly less than tolstыmy shell; Thirdly cheredovanye was observed in "layers" DIFFERENT traheyd.

References

1. Poluboyarynov OI density timber / OI Poluboyarynov. - Moscow: Lesnaya Industry, 1976. - 160 p.
2. Kollmann F. F.P. Principles of Wood Science and Technology. I. Solid Wood / Kollmann F.F.P., Côté W.A. - Springer-Verlag: Berlin, Heidelberg, New York, 1985. - 592 p.

Width of annual rings and rate of late wood and physical properties (density and shrinkage) of pine wood from Caucasus was study. Variability and interdependency of this indices estimated.

Pine wood, width of annual rings, rate of late wood, basic density, volume shrinkage.

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EFFECT OF ADDING TECHNICAL PROPERTIES OF WAX ON WOOD-POLYMER PLATES FOR THEIR DIFFERENT TEMPERATURE AND DURATION OF PRESSING

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The effect of adding technical paraffin for different temperature and duration of pressing DPM. With the increasing of technical waterproof wax DPM increases. Maximum values of tensile strength during static bending observed in paraffin technical content 5,0-7,5%. With increasing temperature and duration of pressing within the studied indicators of strength and water resistance DPM increase.