

Original article

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Resource Characteristics of Wild Pear Tree Fruits in the Chernozem Zone of the European part of Russia

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Abstract. *The paper briefly characterizes morphological and ecological specifics of common pear, its range and this species fruit commercial value.*

Study findings of plantations with available pears in 6 central and south Black earth European Russia regions (Belgorod, Volgograd, Voronezh, Kursk, Lipetsk and Rostov).

State forest inventory permanent sample plot data found that the most number of pear trees per a forest area ha was identified in the Voronezh, Kursk and Lipetsk regions from 5,3 to 7,4 pcs.

Results of pear fruit resource assessment in 6 above central and south black earth regions are presented. The following calculation algorithm was applied : 1) selection of regulatory reference tables for calculation of individual pear tree fruit stock (harvest). Pear tree diameter (SFI data) served as a table input. 2) estimation of fruit harvest per 1 ha. 1 tree fruit harvest in kg was multiplied by mean pear tree number (based on SFI data). 3) estimation of forest covered land area assessed for the resource (data of the SFI and State Forest Register). 4) calculation of fruit biological stock by multiplying of fruit harvest per 1 ha by forest covered land area where resource is assessed. 5) estimation of commercial fruit stock taking into account that annually around 20% of pear harvest is damaged by pests, around 15% is inaccessible for harvest and harvesting and transportation losses (10%). Thus pear fruit commercial stock is referred as 40% of the biological one.

Total commercial pear fruit stock in the study region is 40,7 thousand t. Commercial fruit stock values will correspond to possible annual raw material harvest volumes that slightly exceeded the ones specified in the Russian Federation regional forest management plans.

Key words: *chernozemie, pear, yield, stock, forest inventory*

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