

**THE AGROPHYSICAL PARAMETERS OF LEACHED CHERNOZEM IN THE
CONSERVATION NO-TILL TECHNOLOGIES**

E. N. Belousova, A. A. Belousov

*Krasnoyarsk State Agrarian University
Russia, Mira Ave., 90, Krasnoyarsk, 660049
E-mail: svobodalist571301858@mail.ru*

The study was carried out in the conditions of production experiment, established in «Shilinskoe», Krasnoyarsk forest-steppe located within the Chulymo-Yenisei denudation plateau, South-Western outskirts of Central Siberia (56°37' N and 93°12' E). Agrophysical parameters of the leached chernozem which was left without tillage for 8–9 years were studied. Evaluation of aggregate distribution in the soil indicates a significant domination of aggregates > 10 mm in size. Above seedbed layer of the soil was composed of coarse aggregates and crumbs of 1–2 mm in diameter. In the soil under the seedbed layer the soil aggregates were bigger under no-till. No-till did not result in critical numbers of soil bulk density and was accompanied by a trend towards differentiation of the studied soil layers in bulk density. The absolute values of the soil total porosity corresponded to the optimal parameters for this soil type or were close to them. In the layer of 5–20 cm, the relationship between the soil total porosity and the soil moisture during the season was inversely correlated ($r = -0,84$). Increased aeration porosity was identified for both 0–5-cm and 5–20-cm layers.

Key words: aggregate of soil, bulk density, porosity aeration, soil protective technologies.