

**HEAVY METALS ACCUMULATION IN THE BERRIES
OF *HIPPOPHAE RHAMNOIDES* (ELAEAGNACEAE)
UNDER THE INFLUENCE OF TRAFFIC POLLUTION
(REPUBLIC OF BURYATIA)**

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SUMMARY

The purpose of the study was to determine the heavy metal content (Fe, Mn, Zn, Cu, Cr, Co, Pb, Cd, Ni) in the berries of Sea buckthorn (*Hippophae rhamnoides* L.) and upper soil layer (0–20 cm) along different distances from a highway. The research was carried out in the territories of Republic of Buryatiya. The highest concentration of heavy metals (Fe, Zn, Cu, Cr, Pb, Cd, Ni) in the berries and soil were recorded at 3 m distance from the highway. The *H. rhamnoides* berries weakly accumulated metals from the soil in the background conditions, the accumulation coefficients were 0.2–0.6. Under influence of the traffic pollution the increase of accumulation intensity of Cd, Cr, Ni in the berries was noted. It was found that mobility forms of Cu, Cd, Zn in soil had significant positive correlation with their content in the berries of *H. rhamnoides* ($r = 0.67–0.88$, $P < 0.05$, $n = 18$). The berries of plants growing at 10 m distance from the highway could not be used for medical and food purposes due to exceed of maximum allowable concentration (MAC) of Pb, Cd and ash.

Key words: *Hippophae rhamnoides*, berries, heavy metals, traffic pollution, accumulation coefficient.