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Eco-Friendly Use of Metallurgical Slag in Green Vegetables Cultivation

**Outlay of the possible wider usage of metallurgical
slag as improving acid soil additive in leafy
vegetables growing**

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The aim of experiments with various leafy vegetables such as Swiss chard, lettuce, spinach, cabbage and radicchio was to present the effects of metallurgical slag (MS), ground limestone, hydrated lime, organic solid and liquid animal fertilizer, in combination without and with mineral NPK fertilizer, on vegetables chemical composition and yield cultivated on acid soils. The study was performed in semi-controlled greenhouse pot and cassette conditions. The results of macroelements content in all tested crops showed the significant differences between the treatments, particularly in relation to control, which applies to the levels of trace elements including Cd. Refined experiment which included treatment with organic fertilizers, as well as combination of mineral nutrition and lime materials including MS, improved plant nutrient uptake. The promotion of leafy biomass growth and the yields were in accordance with chemical ones. The levels of Fe, Cu, Zn and Cd were mostly in the range of normal to critical values, but below the toxic in all the treatments. Concluding, the studied metallurgical slag of the specific chemical traits can be used in improving vegetable growth on acid soils.