Aleksandra Stanojković-Sebić
Jelena Maksimović
Radmila Pivić

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

LAP LAMBERT Academic Publishing

Imprint
Any brand names and product names mentioned in this book are subject to trademark, brand or patent protection and are trademarks or registered trademarks of their respective holders. The use of brand names, product names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:
LAP LAMBERT Academic Publishing
is a trademark of
Dodo Books Indian Ocean Ltd., member of the OmniScriptum S.R.L Publishing group
str. A.Russo 15, of. 61, Chisinau-2068, Republic of Moldova Europe
Printed at: see last page
ISBN: 978-620-4-74750-7

TABLE OF CONTENTS

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 cassete 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.