

## CONTENTS

### Chapter 1. CROP PRODUCTION AND AGROCHEMISTRY

<b>J. Mažvila, Z. Vaišvila, J. Arbačauskas, T. Adomaitis, A. Antanaitis, J. Lubytė.</b> Dependence of agricultural crop yield and its quality on long-term fertilisation on sandy loam soils.....	3
<b>V. Mašauskas, A. Mašauskienė, R. Repšienė, R. Skuodienė, Z. Brazienė.</b> The variation of yield forming traits and grain yield of spring malting barley grown on central, western and south-western Lithuania's soils .....	18
<b>D. Janušauskaitė, S. Lazauskas.</b> The effect of nitrogen nutrition on the productivity of winter triticale .....	33
<b>J. Šlepetytis, J. Šikšnianienė, Ž. Kadžiulienė, A. Brazaitytė, P. Duchovskis.</b> The effect of higher temperatures, acid substrate, and cadmium and cooper on lucerne .....	47
<b>G. Staugaitis, R. Laurė.</b> Leaf-feed fertilizer effect on the yield, quality and profitability of spring rape crops .....	60
<b>E. Lapinskas.</b> <i>Rhizobium leguminosarum</i> bv. <i>trifolii</i> distribution and symbiotic efficiency in the soils of different genesis and fertilization .....	73
<b>A. Šlepetiene, J. Šlepetytis, F. Kavoliutė, I. Liaudanskienė, Ž. Kadžiulienė.</b> Changes in carbon, nitrogen, phosphorus, and sulphur in West Samogitia natural and different agrarian land-use systems .....	90
<b>A. Arlauskienė, S. Maikštėnienė.</b> The importance of legumes as preceding crops for nitrogen turnover in the crop rotation links .....	100
<b>K. Katutis.</b> The variation of the amount of impurities in water in the lower Nemunas during flooding .....	113

## **Chapter 2. CROP AND SOIL MANAGEMENT**

<b>D. Feizienė, V. Feiza, S. Lazauskas, G. Kadžienė, D. Šimanskaitė, I. Deveikytė.</b> The influence of soil management on soil properties and yield of crop rotation.....	129
<b>B. Jankauskas, G. Jankauskienė.</b> Soil protecting land use system for hilly-undulating landscape .....	146

## **Chapter 3. PLANT PATHOLOGY AND PROTECTION**

<b>A. Mankevičienė, Z. Dabkevičius, S. Supronienė, R. Mačkinaitė.</b> The occurrence of fungi and mycotoxyn content in winter wheat grain in relation to harvesting time .....	162
<b>I. Brazauskienė, E. Petraitienė, E. Povilionienė.</b> Investigation of indicators of phoma stem canker ( <i>Leptosphaeria maculans</i> ) epidemiology and disease incidence in winter rape .....	176

## **Chapter 4. PLANT BREEDING AND GENETICS**

<b>L. Lideikytė, I. Pašakinskienė.</b> Genomic composition of amphiploid $\times$ <i>Festulolium braunii</i> cultivars ‘Punia’ and ‘Rakopan’ .....	189
<b>O. Pivorienė, I. Pašakinskienė.</b> Genetic differences between annual and perennial ryegrass revealed by ISSR markers and their sequence characteristics.....	197