

Contents

Chapter 1 Field crops

ANDRONACHE Ana – Maria, BORCEAN Ioan - The fertilization effect on the production of beans grains and the protein content in the soil and climate conditions of the Banat plain	3
BIBERDŽIĆ Milan, STOŠOVIĆ Dragana, DELETIĆ Nebojša, BARAĆ Saša, STOJKOVIĆ Slaviša - Yield components of winter barley and triticale as affected by nitrogen fertilization.....	9
BORZA Ioana - Plants population influence on water use efficiency in maize from Crișurilor Plain.....	14
BORZA Ioana, DOMUȚA Cornel, ȘANDOR Maria, DOMUȚA Cristian, BREJEA Radu, VUȘCAN Adrian, JURCA Anuța - Researches regarding the irrigation influence on water use efficiency in potato in the Crișurilor Plain conditions.....	22
BREJEA Radu - Researches regarding the soil losses produced by erosion in the North Western Romania.....	27
BREJEA Radu, DOMUTA Cornel, ȘANDOR Maria, DOMUȚA Cristian, BORZA Ioana, SABĂU Nicu Cornel, VUȘCAN Adrian, JURCA Anuța - Irrigation, the method for drought control in alfalfa 2 nd year from Crișurilor Plain.....	33
CALCIU Irina, ȘTEFĂNESCU Sorin Liviu, DUMITRU Elisabeta, DUMITRAȘCU Monica - Impact of conventional agriculture on soil environment - field study in two areas of SA Agroterra Agigea, Constanța.....	39
COADA ANDRONACHE Anca Maria, BORCEAN Ioan - Research regarding the behaviour of spelta wheat (<i>Triticum aestivum</i> L., ssp. <i>spelta</i>) in the Banat plain.....	47
PRODAN (căs.COTARCĂ) Monica, TABĂRĂ Valeriu - Research concerning the increase of herba of culinary sage (<i>Salvia officinalis</i> L.) through certain cultivation technologies in the conditions of the Didactic Station in Timișoara in 2007	51
PRODAN (căs.COTARCĂ) Monica, TABĂRĂ Valeriu - Research concerning the increase of the amount and quality of essential oil in culinary sage (<i>Salvia officinalis</i> L.) under the impact of fertilisation and of plant row orientation in the conditions of the Didactic Station in Timișoara (Romania).....	57
DAVID Gheorghe, PÂRȘAN Paul, BORCEAN Adrian, IMBREA Florin, BOTOȘ Lucian - Study concerning the introduction and expansion of chickpea in South-Western Romania...	63
DAVID Gheorghe, PÂRȘAN Paul, BORCEAN Adrian, IMBREA Florin, BOTOȘ Lucian - Contributions to the development of a lentil cultivation technology between the Caras and Nera rivers.....	67
DELETIĆ Nebojša, STOJKOVIĆ Slaviša, DJURIĆ Vladan, BIBERDŽIĆ Milan, GUDŽIĆ Slaviša - Genotypic specificity of winter wheat nitrogen accumulation on an acid soil.....	71

DOMUȚA Cornel, ȘANDOR Maria, CIOBANU Gheorghe, SABĂU Nicu Cornel, BARA Lucian, BARA Camelia, BORZA Ioana, DOMUȚA Cristian, BREJEA Radu, SAMUEL Alina, VUȘCAN Adrian, GÎTEA Manuel, MOZA Ana, JURCA Anuța - Crop rotation and irrigation influence on protein and gluten content of the wheat grains in the Crișurilor Plain conditions.....	76
DOMUȚA Cornel, ȘANDOR Maria, CIOBANU Gheorghe, SABĂU Nicu Cornel, BORZA Ioana, DOMUȚA Cristian, BREJEA Radu, GÎTEA Manuel, VUȘCAN Adrian, MOZA Ana, JURCA Anuța - Irrigation influence (1976-2009) on the level stability and quality of the wheat and on the water use efficiency in the Crișurilor Plain conditions.....	81
DOMUȚA Cristian - The correlations between the drought and climate index and maize yield in the Crișurilor Plain.....	86
DOMUȚA Cristian, DOMUȚA Cornel, ȘANDOR Maria, BORZA Ioana, SAMUEL Alina, BARA Camelia, BARA Lucian, BREJEA Radu, VUȘCAN Adrian - The irrigation influence on soybean in the Crișurilor Plain conditions	93
DUDA M. Marcel, IMBREA Florin, VÂRBAN Dan, MUNTEAN Sorin - Research on values of 1000 seeds weight in some medicinal plants.....	101
FUGACIU Nadina, TABĂRĂ Valeriu - Impact of fertilisation on bread-making quality in some native winter wheat varieties in the soil and climate conditions of the Deva – Orăștie area (the Mureșului river flooding Plain).....	105
HABÁN Miroslav, HABÁNOVÁ Marta, OTEPKA Pavol, KOBIDA Lubomir - Milk thistle (<i>Silybum marianum</i> [L.] Gaertn.) cultivated in polyfunctional crop rotation and its evaluation.....	111
IMBREA Florin, MARINCOVIC Branko, TABĂRĂ Valeriu, PÎRȘAN Paul, DAVID Gheorghe, BOTOS Lucian - Effect of low-frequency electromagnetic waves irradiation on maize germination.....	118
IMBREA Florin, MARINCOVIC Branko, TABĂRĂ Valeriu, PÎRȘAN Paul, DAVID Gheorghe, BOTOS Lucian - Impact of electromagnetic waves on biological features in maize.....	124
JINGA I., NIȚU Alina, NITU D.S. - Research regarding the influence of crop technology, water supply and cultivated genotype on cwue and iwue in maize, in Mostiștea Plain.....	128
JINGA I., NITU D.S., NIȚU Alina - Climatic changes and their possible impact on water consumption in different pedoclimatic areas of Romania.....	133
KOVAČEVIĆ Vlado, KOVAČEVIĆ Josip - Response of malting winter barley to ameliorative NPK-fertilization.....	138
LACKO-BARTOŠOVÁ Magdaléna, KORCZYK-SZABÓ Joanna, RAŽNÝ Radoslav - <i>Triticum spelta</i> – a specialty grain for ecological farming systems.....	143
LUCA Sorin, TABĂRĂ Valeriu - Effect of plant density on the main physical and chemical indicators of some maize hybrids cultivated in the Arad Plain.....	148
BOTOȘ Lucian, PÎRȘAN Paul, DAVID Gheorghe, IMBREA Florin, DUDA Marcel, MATEI Gheorghe - Behavior of maize hybrids to create the company Limagrain climatic conditions in the Western Plain.....	154
MACÁK Milan, CANDRÁKOVÁ Eva, HANÁČKOVÁ Eva - The seed quality and yield of soybean varieties in dependence on growing conditions.....	158
MARINKOVIĆ Branko, CRNOBARAC Jovan, JACIMOVIĆ Goran, RAJIĆ Milorad, LATKOVIĆ Dragana, AČIN Vladimir - Sugar yield and technological quality of sugar beet at different levels of nitrogen fertilization	162
MATEAȘ Ioana-Maria, TABĂRĂ Valeriu - Research concerning the impact of	

sowing time on yield in several new lines of safflower (<i>Carthamus tinctorius</i> L.) in the conditions of Timișoara in 2007.....	168
MATEAȘ Ioana-Maria, TABĂRĂ Valeriu - A preliminary study concerning the oil-yielding capacity in several new lines of safflower (<i>Carthamus tinctorius</i> L.) in the conditions of Timișoara in 2007.....	175
MATEI Gh., PĂUNESCU G., PĂUNESCU C., IMBREA F., ROȘCULETE Elena, ROȘCULETE C. - Rotation and fertilization - factors in increasing wheat production and improving the agro productive features of the brown reddish soil from Central area of Oltenia.....	182
LUNGU Mihaela, ȘTEFĂNESCU Sorin Liviu, STOIAN Lucian, FĂLTICEANU Marcela, DUMITRAȘCU Monica, NEGULESCU Petru - Vegetable growing on ecologically certified land.....	190
MOISE George - Overview on application of biotechnology to nutrition.....	198
MRĐA Jelena, CRNOBARAC Jovan, MIKLIĆ Vladimir - Effect of chemical treatment, length of storage and the substrate on germination energy of sunflower hybrid NS-H-111....	201
NIȚĂ Simona, NIȚĂ Lucian, PANAITESCU Liliana, LUNGU Marius - Researches on the relationship bacterization -period of sowing with effects on the harvest and its quality in peas and soybean	208
NIȚĂ Simona, NIȚĂ Lucian, PANAITESCU Liliana, LUNGU Marius, MIRCOV Vlad - The comparative study about the variations in the grains and protein productions in peas and soybean in the pedoclimatic conditions of the Almaj-Depression.....	212
NITU D.S., JINGA I., MARDARE Alina - Research regarding the influence of crop technology, water supply and cultivated genotype on maize economical efficiency in Mostistea Plain.....	216
NITU D.S., NIȚU Alina, JINGA I., VRÂNCEANU A. - Research regarding the influence of crop technology, water supply and cultivated genotype on soybean yield under context of efficient utilization of limited water and energy resources.....	223
NIȚU Alina, JINGA I., NITU D.S., VRÂNCEANU A. - Climatic changes and their possible impact on water consumption, in main crops of Romania.....	229
NIȚU Alina, NITU D.S., JINGA I. - Research regarding the necessity to recalculate the elements of irrigation regime, in main crops from Mostistea Plain, having in view the scenarios of climatic change modifications.....	234
PANAITESCU Liliana, LUNGU Marius, NIȚĂ Simona, ALBU Anca, BELENIUC Georgeta - Studies regarding the behavior of certain varieties of autumn wheat in the current agroclimatic conditions of Dobrogea.....	239
PANAITESCU Liliana, LUNGU Marius, NIȚĂ Simona, ALBU Anca, BELENIUC Georgeta, ȘONEL Mihaela Elena, MALANCU Florentina - Studies regarding the productive potential of certain sunflower hybrids in the current agropedoclimatic conditions of the Dobrogea Plateau.....	244
ROȘCULEȚ (căs.BABĂ) Liliana, TABĂRĂ Valeriu - Investigations concerning some cotton species behaviour (<i>Gossypium hirsutum</i>) in Timișoara weather conditions in the year 2008.....	252
ROȘCULEȚ (căs.BABĂ) Liliana, TABĂRĂ Valeriu - Fertilization influence on some characters at cotton species (<i>Gossypium hirsutum</i> sp.) Marismas, Canada, and Coko in weather conditions from Timișoara in the year 2008.....	257
ȘANDOR Maria, DOMUȚA Cornel, BUNTA Gheorghe, DOMUȚA Cristian, BORZA Ioana, VUȘCAN Adrian, BREJEA Radu, GÎTEA Manuel, JURCA Anuța -	

The cultivar influence on wheat yield quality in the Crișurilor Plain conditions.....	264
ȘANDOR Maria, DOMUȚA Cornel, DOMUȚA Cristian, BORZA Ioana, BREJEA Radu, VUȘCAN Adrian, JURCA Anuța - The crop rotation and irrigation influence on maize yield in the Crișurilor Plain conditions.....	269
SMATANA Jozef , VEREŠ Tomáš, SMATANOVÁ Nora, KOBULNICKÝ Pavol - Weed infestation dynamics in the winter wheat (<i>Triticum aestivum</i> L.) canopy.....	275
SOARE Marin, SOARE Rodica, IANCU Paula, BONCIU Elena - Local seed bean populations from the Oltenia areal and their breeding value.....	279
SOARE Rodica, SOARE Marin, PĂNIȚĂ Ovidiu, ROȘCULETE Elena - The influence of some organic active products over the tomatoes transplants in order to practice the organic technologies.....	285
ȘTEFĂNESCU Sorin Liviu, CALCIU Irina, DUMITRAȘCU Monica, DUMITRU Elisabeta - Effects of the agricultural technologies on the soil environment within an organic certified farm: recommendations for a reduced tillage.....	291
TODORAN Camelia - Research regarding the influence of the seeds ageing and calibration on corn plants raising obtained from the main hybrids cultivated in Transylvania	299
TODORAN Camelia - Research regarding the influence of the ageing and treatments with fungicide on the vigour potential(cold test) at the corn seeds derived from the main hybrids cultivated in Transylvania.....	305
UNGUREANU Mihaela Claudia, TABARĂ Valeriu - Researches concerning the influence of chemical and foliar fertilization on the morphological particularities of three sunflower hybrids (<i>Helianthus annuus</i>) in conditions of Timișoara.....	310
UNGUREANU Mihaela Claudia, TABARĂ Valeriu - Researches concerning the yield capacity of three hybrids of sunflower (<i>Helianthus annuus</i>) in conditions of Timișoara.....	314
VÂRBAN D. I, DUDAM M. M., VÂRBAN Rodica, MUNTEAN S., MUNTEAN L. - The study of several genotypes of <i>Echinacea purpurea</i> (L.) Moench	319
VORPSI Valdete, HARIZAJ Fatos, BARDHI Nikoll, VLADI Vjollca, DODONA Erta - <i>Carthamus tinctorius</i> L., the quality of safflower seeds cultivated in Albania.....	326

Chapter 2 Pastures and forage plants

SOARE Aurica, VOICU Gh. - Research on rehabilitation of the natural grasslands in the conditions of the North Baraganu Plains.....	332
BÂRLIBA C., COJOCARIU Luminița - The selective distribution of pasture surfaces situated on administrative territory of Nadrag, Timis county.....	340
BÂRLIBA C., COJOCARIU Luminița - Classification of the grasslands belonging to Nadrag locality using the multivariate analysis methods.....	348
BOBOICIOV Sebastian - Research on the actual state of some meadows installed on the protection dyke of the river Mures in the area of reservation "Forest Cenad".....	356
BOBOICIOV Sebastian, COJOCARIU Luminita - Suppositions in order of reconsideration of the abandoned land - meadows and former agricultural land.....	363
BOSTAN Cristian, MOISUC Alexandru, RADU Florina, COJOCARIU Luminița, SĂRĂȚEANU Veronica - Study of the action of <i>Poa pratensis</i> L. vegetal extract on the chemical composition of some perennial grasses	367
BOSTAN Cristian, MOISUC Alexandru, RADU Florina, COJOCARIU Luminița, HORABLAGA Marinela, SĂRĂȚEANU Veronica - Effect of <i>Poa pratensis</i> extracts on growing and development of perennial grasses seedlings.....	372
CALUSERU Lavinia Alina, COJOCARIU Luminița, HORABLAGA Adina, HAMZA	

Stela, HORABLAGA N. Marinel, TOTH Emeric - Environment legislation applicable in Romania to natural habitats of grasslands.....	378
CALUSERU Lavinia Alina, COJOCARIU Luminița - 2010 "International year of biodiversity" natural protected areas in Timis county-legal status and route to protection of their habitats.....	383
COJOCARIU Luminița, MOISUC Alexandru, SAMFIRA Ionel, HORABLAGA N. Marinel, RADU Florina, LALESCU V. Dacian - The study of the main production characters depending on dose of cattle manure applied to italian ryegrass.....	390
COJOCARIU Luminița, HORABLAGA N. Marinel, MARIAN Florin, BOSTAN Cristian, MAZĂRE Viaceslav, STROIA Marius S. - Implementation of the ecological european network "Natura 2000" in the area of grasslands and hayfields.....	398
CORCHES Mihaela, MOISUC Al. - Exteriorization of production characters under the influence of climatic conditions from Timisoara in some foreign varieties of <i>Dactylis glomerata</i>	405
DALE Laura Monica, ROTAR Ioan, VIDICAN Roxana, FLORIAN Vasile, MOGOS Alin - Determination of chemical composition of <i>Medicago sativa</i> plant by destructive and non-destructive method.....	411
DRAGOMIR Carmen, MOISUC Al., DRAGOMIR N. - Influence exerted by bacterial inoculation of the legume within the association on total nitrogen content in temporary pastures.....	419
DURAU C. C., MOISUC A, SĂRĂȚEANU V. - Approaches on the biodiversity of permanent underexploited grassland in Banat.....	423
DURAU C. C., MOISUC A, SARATEANU V. - Approaches on floristic composition and pastoral value of some permanent pastures in Hăuzești area (Western Romania)....	427
ENCK Gretel, COJOCARIU Luminita - Grassland management in America an overview of resources, issues, and practices.....	431
ENCK Gretel - How the National Park service from America should step-up its wilderness management.....	440
FAUR M. Florin, MOISUC Alexandru - Dynamics of TMS indicator under influence of fertilization in <i>Dactylis glomerata</i> (Dacglo).....	449
GÂRDA Nicoleta, PĂCURAR Florin, ROTAR Ioan, BOGDAN Anca - The floristic and stational characterisation of the grassland subtype <i>Agrostis capillaris</i> + <i>Trisetum flavescens</i> from Apuseni Mountains, Romania.....	454
HAMZA Stela, CĂLUȘERU Alina Lavinia, COJOCARIU Luminița, MARIAN Florin, LENESCHI Valentin, SÂNDOIU Ionuț - The types of activities allowed or prohibited to be held within protected natural areas in Romania.....	458
HARANGUȘ Daniela - Financing grasslands and forage crops.....	465
LENESCHI Valentin, COJOCARIU Luminița - Research on seed germination at <i>Alopecurus pratensis</i> L.....	470
LENESCHI Valentin, COJOCARIU Luminița, HORABLAGA N. Marinel, LALESCU V. Dacian - Aspects of growth and development of shoots in the shrubs of <i>Alopecurus pratensis</i> L.....	477
MARIAN Florin, MOISUC Alexandru, COJOCARIU Luminita, SAMFIRA Ionel, RADU Florina, HORABLAGA Marinela - Aspects regarding the report production-quality of forage at the mixture of italian ryegrass and persian clover.....	484
MARIAN Florin, MOISUC Alexandru, COJOCARIU Luminita, SAMFIRA Ionel, HORABLAGA Marinela - The behaviour in mixtures of some annual forage species....	490
MAZĂRE Veaceslav, STROIA Marius, COJOCARIU Luminita - The assessment and characterization of the agricultural lands from Becherecu Mic for pasture and hayfield	

usage.....	497
MAZĂRE Veaceslav, STROIA Marius, COJOCARIU Luminita - The rehabilitation of the agricultural lands in Făget Hills for pasture and hayfield usage.....	502
MOISUC Alexandru, SĂRĂȚEANU Veronica, DURĂU Carmen, PAVEL Valeria - Approach on the evolution of grasslands floristic composition after flooding	508
MOISUC Alexandru, SĂRĂȚEANU Veronica, SAMFIRA Ionel, ÂRLUȚ Ruxandra B - Influence of altitude on pastoral value in hills' area from western Romania (case study)	514
MUNTEAN Edward, ROTAR Ioan - HPLC assesment of provitamin a carotenoids from <i>Cucurbita maxima Duch. Ex. Lam.</i> (Marița cultivar) fruits.....	518
OLAR M.V., OLAR M., SIMA N., OLAR VIORICA, MIHAI G., CIORNEI D.V. - Research on biological aspects and technological factors affecting seed production in perrenial leguminous for grassland.....	522
RADU Florina, AHMADI Mirela, COJOCARIU Luminița, MARIAN Florin, BOSTAN Cristian, BOROZAN Aurica - Genotype-biostimulations interactions in some high quality active principles appearance for alfalfa.....	527
SAMFIRA Ionel, MOISUC Alexandru, SĂRĂȚEANU Veronica, BOSTAN Cristian, HAȘ Ciprian Emil - The influence of the altitude gradient on grasslands features.....	532
SĂRĂȚEANU Veronica - Assessing the influence of <i>Amorpha fruticosa</i> L. invasive shrub species on some grassland vegetation types from western Romania.....	537
SĂRĂȚEANU Veronica, MOISUC Alexandru, LAIEȘ Doru George, COTUNA Otilia, DURĂU Carmen Claudia - Influence of fertilisation and climate on yield evolution of temporary grassland from Western Romania (case study).....	542

Chapter 3 Power resources and agricultural machinery

BARAĆ Saša, BIBERDŽIĆ Milan, ĐIKIĆ Aleksandar - Results of testing of seeds and quality losses of harvested mass depending on the drum-underdrum interspace at buckwheat harvest grain combines.....	547
BORUZ Sorin - The study of the work process made by the cutter with vertical rotor, using computational simulation.....	554
BRĂTUCU Gheorghe, PASZTOR Judit - Researches regarding the optimization of the energetic consumption of digging soil machine in greenhouses.....	563
BRĂTUCU Gheorghe, PĂUNESCU Catalin - Contribution to perfecting temperature automatic adjustment systems in vegetables and fruits warehouses.....	571
DULF Francisc Vasile, UNGUREȘAN Mihaela, OROIAN Ioan, BELE Constantin, MATEA Cristian - Chromatographic assessment of romanian tall oils fatty acids as feedstocks for biodiesel production	578
DUMITRU Mariana, GHERMAN Ioan - Researches on using sugar beet for producing bio-fuels (bio-ethanol and bio- gas).....	584
DUMITRU Mariana - Researches on the possibilities of using alternative fuels at automobiles and tractors motors	590
ILEA Radu, TONEA Cornelia, DRĂGOI Gheorghe, POPA Daniel, PILOCA Lorin - Motion investigation of particles on vibrational flat sieves.....	595
IOVAN Călin Ioan - The possibility arrangement of microhydropower on Finiș valley completed in order to produce clean energy.....	601
IOVAN Călin Ioan; PĂȘCUȚ Călin Gheorghe - The debits study of Tărcăița valley in order of hydroenergetical valorification.....	606
JOJIÇ Etleva, VEIZI Pirro, SALLAKU Fatbardh, FRAKULLA Astrit, BAJRAMI Nazmi - Influence of conservation and conventional tillage in cost of labor with farm	

machines in Albanian conditions.....	611
LOGHIN Florin - Aspects concerning determination of functional parameteres of transmission which equiped universal seed drill.....	618
MARIAȘIU Florin, BURNETE Nicolae - External energy conditioning and the influences on biofuels physically parameters.....	625
MARIAȘIU Florin, VARGA Bogdan - Improvement the cold start process of IC engines fueled with biodiesel.....	632
MECA Adrian, BĂDESCU Mircea - Technical equipment of high productivity to prepare summer-autumn crops seedbed and stubble-cleanin.....	638
PILOCA Lorin, LĂZUREANU Aurel - Fuel consumption in minimum tillage variants compared to classical maize cultivation system at the Didactic Station in Timisoara (Romania).....	643
PILOCA Lorin, LĂZUREANU Aurel - Impact of minimum tillage on soil physical features in the conditions fo the Didactic Station in Timișoara.....	647
POPA Daniel, TONEA Cornelia, ILEA Radu, DRĂGOI Gheorghe, PILOCA Lorin, BECHERESCU Alexandra - Study regarding energy consumption after „no-tillage” technology.....	652
TONEA Cornelia, ILEA Radu, DRĂGOI Gheorghe, PILOCA Lorin, POPA Daniel, TONEA Elena - The influence of the unconventional tillage system upon fuel intake in maize crop.....	657
TONEA Cornelia, ILEA Radu, DRĂGOI Gheorghe, PILOCA Lorin, POPA Daniel, TONEA Elenea - Research concerning the rational load of the power base upon aggregate formation	661
VASILE Cristian - Studies on the implementation of automated systems to prevent the technical problems raised during the production process of combined fodders.....	665
VASILE Cristian - Studies and technical experiments concerning the design of automated load monitoring system for a vertical elevator.....	673
VLĂDUȚ Valentin, VOICEA Iulian, MATACHE Mihai, BUNGESCU Sorin, BIRIȘ Sorin Ștefan - Reducing soil and environment pollution by sprayer machines using monitoring system.....	680