

SUMMARY

SOIL SCIENCES

1. EVALUATION OF QUALITY AMENDMENTS IN ORDINARY CHERNOZEM AFTER INCORPORATION IN THE SOIL A HARVEST OF INTERMEDIATE CULTURE THE VETCH AS A GREEN MASS - **Valerian CERBARI, Oleseă COJOCARU**..... 13
2. THE INFLUENCE OF THE TILLAGE SYSTEM AND THE CROP ROTATION ON THE SOIL AVAILABILITY IN THE MAIN NUTRIENTS AND THE YIELDS OBTAINED IN TURDA AREA - **Felicia CHEŢAN** 19
3. EVOLUTION OF LAND USE CATEGORIES AND THE EROSION DEGRADATION STATE OF THE AGRICULTURAL LANDS IN THE SUCEAVA COUNTY - **Simona Gabriela CIOCAN, Dragoş MOŢCO, Simina-Mirela RĂILEANU, Daniel BUCUR** 24
4. SITE SELECTION FOR MANURE STORAGE FACILITIES USING GIS TECHNOLOGIES - **Tatiana CIOLACU, Eugeniu CIOLACU, Marina LUNGU** 30
5. DESTRUCTION OF INTER-AGGREGATE RELATIONS BETWEEN PARTICLES OF SOIL IN THE PROCESS OF WATER EROSION - **Oleseă COJOCARU**..... 36
6. MAIN CHARACTERISTICS OF FOREST SOILS ACROSS GETIC PIEDMONT (SOUTH-WESTERN ROMANIA) - **Cristian Mihai ENESCU, Lucian DINCĂ, Adrian Ioan TIMOFTE** 42
7. STUDY OF PEDOGENETIC PROCESSES IN SOILS LONG IRRIGATED - MONITORING AND PROJECTING THEIR EVOLUTION - **Vladimir FILIPCIUC, Iurie ROZLOGA, Oleseă COJOCARU, Lilia BOAGHE** 48
8. VERMICOMPOST PRODUCTION AND ITS IMPORTANCE FOR SOIL AND AGRICULTURAL PRODUCTION - **Viorel ILIE, Mircea MIHALACHE** 56
9. THE CELLULOLYTIC ACTIVITY DEPENDING ON SOIL TILLAGE AND INFLUENCE OF FOREST STRIP UNDER WINTER WHEAT AGROCOENOSES - **Lucia MACRII, Rodica MELNIC, Oleseă COJOCARU, Oxana POPA** 63
10. BIODEGRADATION OF WOOL WASTE: THEORY AND PRACTICAL ASPECTS – **Andreea-Mădălina MALANCU, Gheorghe ŞTEFANIC, Costică CIONTU** 69
11. INFLUENCE OF PLASTIC MULCH SYSTEM ON AGRO-CLIMATIC FACTORS AND STRAWBERRIES DISEASES IN ORGANIC SYSTEM - **Mihai-Avram MAXIM, Teodor RUSU, Ludger LINNEMANNSTÖNS, Ileana BOGDAN, Adrian Ioan POP, Paula Ioana MORARU, Ovidiu MAXIM**..... 75
12. EVALUATION OF PRECIOUS ECOLOGICAL CONDITIONS FOR FRUIT TREES PLANTATIONS IN THE MIDDLE FARM FIELD - **Emilian MOCANU, Ion BACEAN, Nicolai CAZMALÎ, Oleseă COJOCARU, Rodica MELNIC, Oxana POPA, Maria LUPAŞCU**..... 82
13. SPATIAL DISTRIBUTION OF HEAVY METALS IN AGRICULTURAL SOILS OF ROMANIA: REVIEW OF THE CURRENT SITUATION - **Andrei MOŢ, Roxana Maria MADJAR, Mircea MIHALACHE**..... 88

14. A CALCARIC ALLUVIAL SOIL CHARACTERISTICS AT SUBMICROSCOPIC SCALE USING SEM - Marian MUŞAT, Vlad Ioan POPA, Iulian Bogdan MUŞAT, Roxana CICEOI	97
15. SOIL DEGRADATION – A PRIMARY FACTOR IN THE DECLINE OF FERTILITY AND WAYS TO RECOVER IT - Nicoleta Luminița PARASCHIV, Elena Liliana CHELARIU, Mariana VOLF	105
16. PHYSICO-CHEMICAL PARAMETERS AND ENZYMATIC ACTIVITIES ON TILLED SOILS FROM JIBOU AREA, ROMANIA - Szarita PASKUCZA, Rahela CARPA, Carla Andreea CULDA, Teodor RUSU	111
17. EVALUATION OF BULK DENSITY AND SOIL WATER DYNAMICS AFTER BIOCHAR APPLICATION - Vera PETROVA, Milena YORDANOVA, Tsvetelina NIKOLOVA	118
18. INFLUENCE OF THE TILLAGE SYSTEM AND FOLIAR FERTILIZATIONS ON YIELD AND <i>Fusarium</i> EAR ROT MANIFESTATION IN MAIZE CROP IN THE TRANSILVANIA PLAIN - Alin POPA, Teodor RUSU, Mirela COMAN, Alina ŞIMON, Laura ŞOPTERIAN	125
19. ENGINEERING MEASURES FOR LANDSLIDE PREVENTING AND MITIGATION IN REDIU-ALDEI AREA, IASI COUNTY - Simina-Mirela RĂILEANU, Simona-Gabriela CIOCAN, Daniel BUCUR	132
20. EFFECT OF ORGANIC AND INORGANIC FERTILIZATION ON YIELD AND YIELD COMPONENTS OF TEFF [<i>Eragrostis tef</i> (Zucc.) Trotter] CULTIVATED UNDER MEDITERRANEAN SEMI-ARID CONDITIONS - Ioannis ROUSSIS, Antigolena FOLINA, Ioanna KAKABOUKI, Varvara KOUNELI, Stella KARIDOGIANNI, Maria CHRONI, Dimitrios BILALIS	138
21. EVALUATION AND SPECIFICATION OF NATURAL FACTORS OF THE IALOVENI DISTRICT IN THE REPUBLIC OF MOLDOVA - Iurie ROZLOGA, Vladimir FILIPCIUC, Lilia BOAGHE, Olesca COJOCARU	145
22. AGROTECHNICAL CHARACTERIZATION OF LANDS FROM THE SOMEŞAN PLATEAU FOR AGRICULTURAL SUSTAINABILITY - Teodor RUSU, Bogdan Matei DUDA, Paula Ioana MORARU, Ileana BOGDAN, Lech Wojciech SZAJDAK, Adrian Ioan POP, Mihai Avram MAXIM, Ioan Aurel CHERECHEŞ	155
23. PEDOFUNCTIONAL EFFECTS INDUCED BY ALGALIZATION OF TYPICAL CHERNOZEM HUMUS MODERATED WITH CYANOPHYTA ALGAE NITROGEN FIXATORS UNDER IRRIGATION - Victor ŞALARU, Gheorghe JIGĂU, Elena TOFAN, Sergiu DOBROJAN, Nina PLĂCINTĂ, Eugeniu CIOBANU	167
24. INFLUENCE OF <i>NO-TILLAGE</i> PRACTICES AND GREEN MANURE TREATMENT ON SOIL BIOTA OF THE ORDINARY CHERNOZEM IN THE SOUTHERN ZONE OF THE REPUBLIC OF MOLDOVA - Irina SENICOVSCAIA, Valerian CERBARI	173
25. THE EFFECT OF SOME ALS INHIBITING HERBICIDES IN CHAMBIC CHERNOZEM SOIL - Florina ŞERBAN (COJOCARU), Cristian Andrei GEORGESCU, Ciprian BOLOHAN, Costică CIONTU	179
26. INFLUENCE OF SOIL TILLAGE AND HYBRID MATURITY GROUP UPON THE MAIZE GRAIN YIELD FROM MOARA DOMNEASCĂ, ILFOV COUNTY - Ionut Cosmin SFETCU, Elena Loredana SFETCU, Doru Ioan MARIN	185

27. SOIL REQUIREMENTS AND ENVIRONMENTAL CONSIDERATIONS FOR PENNYROYAL (<i>Mentha pulegium</i> L.): A CASE STUDY FROM ROMANIA - Mala-Maria STAVRESCU-BEDIVAN, Gina VASILE SCĂEȚEANU, Roxana Maria MADJAR	192
28. RESEARCH ON THE ACTION OF ROM-AGROBIOFERTIL NP BIOFERTILIZER ON AGRICULTURAL CROPS - George TOADER, Constantin CHIURCIU, Paul CHIȚONU, Nistor MAIEREAN, Leonard ILIE	198
29. AMELIORATIVE, TECHNICAL AND OPERATIONAL SOLUTION OF VINEYARD IN THE CONDITIONS OF A VARIOUS SOIL COVER AND COMPLEX RELIEF - Krasimir TRENDAFILOV, Violeta VALCHEVA, Mladen ALMALIEV	205
30. ACCUMULATION AND DISTRIBUTION OF DRY MASS AND NITROGEN IN SORGHUM PLANTS GROWN AT DIFFERENT NUTRITIONAL LEVEL - Ivan VELINOV, Zhivko TODOROV, Svetla KOSTADINOVA	213

CROP SCIENCES

1. ANALYSIS OF AGROCLIMATIC RESOURCES IN ROMANIA IN THE CURRENT AND FORESEEABLE CLIMATE CHANGE - CONCEPT AND METHODOLOGY OF APPROACHING - Daniel ALEXANDRU, Elena MATEESCU, Rodica TUDOR, Ilie LEONARD	221
2. THE MITODEPRESIVE AND GENOTOXIC EFFECT OF SOME FOOD COLORANTS ON THE MERISTEMATIC CELLS TO <i>Allium cepa</i> - Elena BONCIU, Dorina BONEA	230
3. RELATIONSHIPS BETWEEN YIELD AND ASSOCIATED TRAITS OF MAIZE HYBRIDS UNDER DROUGHT STRESS AND NON-DROUGHT ENVIRONMENTS - Dorina BONEA, Elena BONCIU	236
4. THE INFLUENCE OF THE RESERVE LIPIDS CONTENT ON SEED GERMINATION AT SUNFLOWER HYBRIDS - Elisa-Maria CHELBEA, Aurelia DOBRESCU, Monica BADEA, Daniela BĂLAN, Gabriela LUȚĂ, Evelina GHERGHINA	242
5. ANALYSIS OF YIELD AND YIELD RELATED TRAITS IN SOME SUNFLOWER (<i>Helianthus annuus</i> L.) HYBRIDS UNDER CONDITIONS OF THE REPUBLIC OF MOLDOVA - Steliana CLAPCO, Ion GISCA, Aliona CUCEREAVII, Maria DUCA	248
6. EFFICACY OF HERBICIDES AND HERBICIDE COMBINATIONS AT MAIZE (<i>Zea mays</i> L.) - Grozi DELCHEV	258
7. RESEARCH REGARDING INFLUENCE OF FERTILIZATION ON SUNFLOWER CROPS IN THE SOUTHERN PART OF ROMANIA - Șerban Cătălin DOBRE, Doru Ioan MARIN	266
8. EFFECT OF DIFFERENT NITROGEN DOSES IN DIFFERENT WINTER WHEAT PRODUCTION - Cristian Laurentiu DRAGOMIR	272
9. MONITORING OF THE EVAPOTRANSPIRATION PROCESSES IN RIPARIAN GRASSLANDS - Daniel DUNEA, Ștefania IORDACHE, Virgil IORDACHE, Larisa PURCOI, Laurențiu PREDESCU	278
10. GRAIN YIELD OF MAIZE HYBRIDS FROM DIFFERENT MATURITY GROUPS INFLUENCED BY NITROGEN AND PHOSPHORUS FERTILISATION - Alina FILIP (FEDOT), Doru Ioan MARIN	286

11. OPPORTUNITIES FOR CULTIVATION OF MEDICAL CANNABIS (<i>Cannabis sativa</i> L.) IN GREECE - Antigolena FOLINA, Ioannis ROUSSIS, Varvara KOUNELI, Ioanna KAKABOUKI, Stella KARIDOGIANNI, Dimitrios BILALIS	293
12. RESEARCHES CONCERNING EUROPEAN CORN BORER (<i>Ostrinia nubilalis</i> Hbn.) CONTROL, IN SOUTH-EAST OF THE ROMANIA - Emil GEORGESCU, Maria TOADER, Lidia CANĂ, Luxița RÎȘNOVEANU	301
13. THE EFFECTS OF MICRO-GRANULATED FERTILIZATION ON POLLINATION AND YIELD OF HYBRID SEED CORN - Lucian-Constantin HARAGA, Lizica SZILAGYI ...	309
14. COMPARATIVE STUDY CONCERNING THE VARIABILITY OF FEW QUANTITATIVE CHARACTERS OF SOME NEW WHEAT GERMLASM - Paula IANCU, Marin SOARE, Ovidiu PĂNIȚĂ	316
15. INFLUENCE OF FOLIAR FERTILIZATION ON THE PHENOLOGICAL DEVELOPMENT OF RAPESEED - Radka IVANOVA, Zhivko TODOROV	322
16. INFLUENCE OF GROWTH REGULATORS ON THE DURUM WHEAT YIELD - Tanko KOLEV, Zhivko TODOROV, Zhanar ERALIEVA	331
17. GRAIN PROTEIN OF SORGHUM DEPENDING ON NITROGEN RATES - Svetla KOSTADINOVA, Zhivko TODOROV, Ivan VELINOV	336
18. IMPACT OF PRECEDING CROP AND VARIETY ON GRAIN YIELD AND QUALITY PARAMETERS IN WINTER WHEAT CULTIVATED IN DÂMBOVIȚA COUNTY - Roxana Maria MADJAR, Gina VASILE SCĂEȚEANU, George Mădălin MIHĂILĂ	342
19. NEW EDITION ON SUNFLOWER CROP - ROMANIAN TECHNOLOGY UNDER CLIMATE CHANGE CONDITIONS IN DOBROGEA - Dumitru MANOLE, Vasile JINGA, Marga GRĂDILĂ, Ioan RADU, Ștefan IORDACHE, Sergiu SOARE	348
20. YIELD AND NUTRIENT USE EFFICIENCY OF FIELD CROPS GROWN IN THE REGION OF SADIEVO, SOUTH BULGARIA - Ivan MANOLOV, Yonko STAMENOV, Nely VALEVA, Margarita NIKOLOVA, Svetla KOSTADINOVA	355
21. RESEARCHES ABOUT THE INFLUENCE OF THE HYBRID AND THE IRRIGATION REGIME ON THE SIZE FEATURES OF THE MAIZE COB - Viorel MIRCEA, Celzin AEDIN, Doru Ioan MARIN	361
22. HERBICIDE CONTROL OF THE WEEDS IN MAIZE (<i>Zea mays</i> L.) - Anyo MITKOV, Mariyan YANEV, Nesho NESHEV, Miroslav TITYANOV, Tonyo TONEV	368
23. QUALITY PARAMETERS AND GRAIN YIELDS OF SOYBEAN VARIETIES PRODUCED AT ARDS TURDA: A CHEMOMETRIC APPROACH - Edward MUNTEAN, Camelia URDĂ, Alina SIMON, Raluca REZI	374
24. MAIZE YIELD RECORDED IN RAINFED CONDITIONS OF SOUTHEASTERN ROMANIA AS INFLUENCED BY FERTILIZATION RATES AND HYBRID - Mihaela NICHITA, Ciprian BOLOHAN, Costică CIONTU, Aurelian PENESCU, Mihai GÎDEA, Tudor ȘCHIOPU, Costel MIHALAȘCU, Mădălin RADU	380
25. MACRONUTRIENTS CONCENTRATION IN DURUM WHEAT VARIETIES GROWN AT DIFFERENT NITROGEN RATES - Galia PANAYOTOVA, Svetla KOSTADINOVA	388
26. BARLEY VARIETIES CREATED AND REGISTERED IN ROMANIA DURING 1921- 2018 PERIOD - Eugen PETCU, Liliana VASILESCU, Viorel ION	394

27. IDENTIFICATION OF VARIABILITY IN VEGETATIVE GROWTH OF SOME WINTER WHEAT VARIETIES UNDER ECOLOGICAL AGRICULTURE WITH NDVI - Victor PETCU, Ion TONCEA	405
28. RESULTS REGARDING NEW SUNFLOWER GENOTYPES RESISTANT TO HERBICIDES, OBTAINED AT NARDI FUNDULEA - Luxița RÎȘNOVEANU, Gabriel Florin ANTON, Maria JOIȚA-PĂCUREANU, Danil STANCIU, Alexandru BRAN, Mihaela DAN, Elisabeta SAVA	411
29. RHIZOBACTERIA EFFECTS ON PHOTOSYNTHETIC PIGMENTS AND NITROGEN CONTENTS OF SOYBEAN PLANTS CULTIVATED UNDER LOW PHOSPHORUS AND WATER LIMITED CONDITIONS - Vladimir ROTARU	416
30. NEW SOURCES FOR GENETIC VARIABILITY WITH RESISTANCE AT DROUGHT OBTAINED BY INTERSPECIFIC HIBRIDIZATION BETWEEN CULTIVATED SUNFLOWER AND THE ANNUAL WILD SPECIES <i>Helianthus argophyllus</i> - Florentina SAUCĂ, Florin Gabriel ANTON	422
31. PRODUCTIVITY AND QUALITY PARAMETERS ON PERSPECTIVE ALFALFA VARIETIES IN SANDY SOIL CONDITIONS - Atanas SEVOV, Lyubka KOLEVA-VALKOVA, Adelina HARIZANOVA	428
32. CHEMICAL COMPOSITION AND YIELD OF SWISS CHARD AS INFLUENCED BY METALLURGICAL SLAG AND FISH FERTILIZER ADDITION TO MARGINAL SOIL - Aleksandra STANOJKOVIĆ-SEBIĆ, Zoran DINIĆ, Stevan ČANAK, Jelena MAKSIMOVIĆ, Radmila PIVIĆ	436
33. ASSESS OF THE IMPACT OF FERTILIZATION ON WHEAT PROTEIN AND ENERGY NUTRITION - Antoniya STOYANOVA, Gancho GANCHEV, Velika KUNEVA	443
34. SOME ASPECTS OF BAKERY INDUSTRY QUALITY FOR ORGANIC AND CONVENTIONAL WHEAT - Maria TOADER, Emil GEORGESCU, Paula Ionela NĂSTASE, Alina Maria IONESCU	450
35. INFLUENCE OF SOWING PERIOD AND TREATMENT WITH VARIOUS FOLIAR FERTILIZERS ON THE PRODUCTIVITY OF RAPESEED - Zhivko TODOROV, Radka IVANOVA	456
36. INFLUENCE OF LEAF FERTILIZERS ON THE CHEMICAL COMPOSITION OF THE GRAIN OF SOLID DURUM - Mitka TODOROVA, Lyubka KOLEVA-VALKOVA, Zhivko TODOROV, Tanko KOLEV	465
37. HEAT STRESS TOLERANCE OF SOME GREEN BEAN (<i>Phaseolus vulgaris</i> L.) GENOTYPES - Asli TOKYOL, Ece TURHAN	472
38. RESPONSE OF SOME CORN HYBRIDS TO DROUGHT STRESS - Viorica URECHEAN, Ioana Claudia BORLEANU, Florica COLĂ	480
39. <i>Bacillus amyloliquefaciens</i> STRAINS WITH BIOCONTROL POTENTIAL AGAINST <i>Fusarium</i> spp. WHEAT PATHOGENS - Mihaela-Daniela URSAN, Oana-Alina BOIU-SICUIA, Călina Petruța CORNEA	486
40. SEED VIGOUR INDEX ESTIMATION OF SOME ROMANIAN WINTER BARLEY BREEDING LINES - Liliana VASILESCU, Olga STAN, Eugen PETCU, Alexandrina SÎRBU, Alexandru BUDE, Victor PETCU	492

MISCELLANEOUS

1. PRELIMINARY RESULTS: ASSESSMENT OF NEW SALVIA CHEMOTYPES FOR HERBAL TEA INDUSTRY BY HYBRIDIZATION - **Nadire Pelin BAHADIRLI, Filiz AYANOĞLU** 501
2. DESCRIBING THE *Ranunculus* GENUS BASED ON THE PLANTS PRESENT IN ALEXANDRU BELDIE HERBARIUM - **Elena DELEANU, Monica IONESCU, Maria DINCĂ** 507
3. SOME OBSERVATIONS ON THE MORPHOLOGY AND GERMINATION OF *Bromus secalinus* L. CARYOPSIS - **Mihaela Ioana GEORGESCU, Nicolae IONESCU, Aurelian PENESCU, Florentina Cezarina VRABIE, Elena SĂVULESCU, Vasilica LUCHIAN, Vlad Ioan POPA** 513
4. EFFECT OF SILICON ON THE ACTIVITY OF ANTIOXIDANT ENZYMES AND THE PHOTOSYNTHETIC RATE OF CUCUMBER UNDER MITE INFESTATION - **Adelina HARIZANOVA, Lyubka KOLEVA-VALKOVA, Atanaska STOEVA, Atanas SEVOV** 519
5. SOME ASPECTS OF MORPHO-ANATOMICAL FEATURES OF THE INVASIVE SPECIES *Eleusine indica* (L.) Gaertn. - **Vasilica LUCHIAN, Mihaela Ioana GEORGESCU, Elena SĂVULESCU, Vlad POPA** 529
6. SOIL ECOTOXICITY ASSESSMENT AFTER BIODEGRADATION OF SOME POLYMERIC MATERIALS - **Amalia Carmen MITELUȚ, Elisabeta Elena POPA, Paul Alexandru POPESCU, Maria RAPA, Mona Elena POPA** 538
7. VARIATION OF THE COEFFICIENT OF EXPANSION IN THE TURKEY OAK STANDS OF OLTENIA PLAIN FROM ROMANIA - **Mariana NICULESCU, Florin Dorian COJOACĂ** 544
8. COMPARISON OF ENERGY CONSUMPTION IN CULTIVATION OPERATIONS FOR WHEAT PRODUCTION IN TURKEY - **Hassan Huseyin OZTURK, Zinnur GOZUBUYUK, Mesut Cemal ADIGUZEL** 551
9. AN INVESTIGATION REGARDING THE EFFECTS OF ACCELERATION PRODUCED BY CABIN SUSPENSION SYSTEMS FITTED TO AGRICULTURAL TRACTORS UPON THE OPERATOR, IN TERMS OF OPERATOR HEALTH - **Kevin SHUTTLEWORTH, Lancelot BUTTERS, Ian TAYLOR**..... 557
10. THE QUALITY OF BIOMASS AND FUEL PELLETS FROM JERUSALEM ARTICHOKE STALKS AND WHEAT STRAW - **Victor ȚÎȚEL, Ivan MUNTEAN, Igor PASAT, Andrei GUDÎMA** 567