

# PROGRAM

*12th International Symposium of Soil and Plant Analysis  
Mediterranean Agronomic Institute of Chania  
Crete, Greece*

## MONDAY, JUNE 06, 2011

### Welcome and History of ISSPA

TIME	TITLE	PRESENTING AUTHOR	
9:00 - 9:15	Introduction and welcome	Nikos Barbayiannis Rigas Karamanos	
9:15 - 9:45	History of the International Symposia on Soil and Plant Analysis	Yash Kalra	275

Break 9:45 - 10:00

### Plenary Session 1: Mediterranean Agriculture

CHAIR: NIKOS BARBAYIANNIS

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
10:00 - 10:25	Common Agricultural Policy: From Income Support to "Greening"	Ioannis Fermantzis	288	
10:25 - 10:50	The Traditional Mediterranean Diet of Greece: Principles, Functionality and Perspectives	Alexandra-Maria Michaelidou	289	4
10:50 - 11:15	Temporal variability of soil biological properties in temperate grasslands and croplands amended with organic and inorganic fertilizers	Jorge Paz-Ferreiro	98	4
11:15 - 11:40	Evaluation of potassium status in some sandy soils of Egypt characterized with low values of CEC	Shalaby, Mohamed	196	5
11:40 - 12:05	The use of ground-sensor NIR reflectance to quantify soil organic matter and carbonate content in three representative fields of the Thessaly Plain (central Greece)	Stamatis Stamatiadis	245	5

Lunch 12:05 - 13:00

## **MONDAY (CONTINUED)**

### **Plenary Session 2: Soil and Plant Analysis for Fertilizer Recommendations**

*CHAIR: JOHN RYAN*

<b>TIME</b>	<b>TITLE</b>	<b>PRESENTING AUTHOR</b>	<b>SUMMARY/ POSTER NUMBER</b>	<b>BOOK PAGE</b>
13:00 - 13:25	Solvita® CO <sub>2</sub> -Burst Test Indicates Soil Microbial Biomass and Potential N-Mineralization	Robert Miller	279	6
13:25 - 13:50	Rapid Measurement of Soil pH Buffering Capacity	David Kissel	146	6
13:50 - 14:15	Non-destructive total element analysis using portable x-ray fluorescence (PXRF) on cotton leaf tissue and soybean grain	Timothy McLaren	140	7
14:15 - 14:40	Comparison of two sequential extraction methods and the DTPA method for the extraction of micronutrients from acid soils	Theodora Matsi	97	7
14:40 - 15:05	Anionic resin extractable P as an index of P availability in calcareous soils of Crete, amended or non-amended with pig manure compost	Aristeidis Stamatakis	35	8

**Break 15:05 - 15:20**

### **Plenary Session 2: *continued***

*CHAIR: CYNTHIA GRANT*

<b>TIME</b>	<b>TITLE</b>	<b>PRESENTING AUTHOR</b>	<b>SUMMARY/ POSTER NUMBER</b>	<b>BOOK PAGE</b>
15:20 - 15:45	Soil Test and Plant Tissue Analysis as Diagnostic Tools to Fertilizer Recommendation for Cassava ( <i>Manihot esculenta</i> Crantz) in an Ultisol of Kerala, India	Susan Kuzhivilayil	187	8
15:45 - 16:10	Development of a simplified model for N fertilizer recommendation for maize, wheat and helianthus	Vasileios Antoniadis	65	9
16:10 - 16:35	Developing a soil nitrogen supply test for humid environment of Atlantic Canada	Mehdi Sharifi	276	9
16:35 - 17:00	Pollution liabilities of gold mines determined by soil and plant analyses	Astrid Hattingh	88	10

**Welcome Reception 19:30 - 21:30**

## TUESDAY, JUNE 07, 2011

### Plenary Session 3: Olive/Open Program

CHAIR: CHRISTOS TSADILAS

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
8:30 - 8:55	Effect of foliar boron and calcium treatments on fruit quality of 'Ayvalik' olive variety	Mehmet Ulas	219	10
8:55 - 9:20	Microelement status and soil and plant relationships of olive groves in West Anatolia Region of Turkey	Hatice Sevim Turan	283	11
9:20 - 9:45	Effect of potassium on olive production and quality under a fertigation system: Usefulness of sap analysis	Enrique Eymar	249	11

Break 9:45 - 10:00

### Plenary Session 3 - Continued

CHAIR: CHRISTOS TSADILAS

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
10:00 - 10:25	Phosphorus sorption and availability to canola grown on an Alfisol amended with various soil amendments	Sabry Shaheen	183	12
10:25 - 10:50	Effect of selenium treatment in nutrient solution and soil (rhizobox) by maize and sunflower plants	Béla Kovács	142	13
10:50 - 11:15	Enhancing the Efficiency of Applied Fertilizer Nutrients in Aerobic Paddy Through STCR Approach to Increase the Yield	Pujari Basavaraja	234	14
11:15 - 11:45	International launch of Soil Chemical Methods - Australasia	George Rayment	278	15
11:45 - 12:00	Presentations by Exhibitors			

Lunch 12:05 - 13:00

### Plenary Session 4: Precision Agriculture and Nutrient Management

CHAIR: YASH KALRA

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
13:00 - 13:30	Precision Farming: New Challenges and Opportunities for Soil & Plant Analysis	Harold Reetz	286	16
13:30 - 13:50	Nitrogen precision management for wheat-maize double cropping systems in North China Plain	Chunsheng Hu	89	16
13:50 - 14:10	Statistical spatial models for soil parameters. A comparative analysis of several methods applied to Dobrovat basin (eastern Romania)	Cristian Patriche	263	17
14:10 - 14:30	Nutrient Balance in Long-term Experiments - Base for Precise Nutrient Management	Pavel Cermak	241	17
14:30 - 14:50	Conservation Tillage Effects on the Decay of Crop Residues Measured Over 15 Years	Paul Voroney	284	18
14:50 - 15:10	Potassium nutrition management for enhancing tuber yield of potato grown under short day irrigated condition in Eastern Indo - Gangetic plains of India	Hillel Magen	198	19

Break 15:10 - 15:25

**Poster Session 1 15:25 - 18:00**

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	The Role Of Antecedent Hydrologic Conditions On Stream Phosphorus Exportation: A Study Case In NW Spain	Rodríguez-Blanco, M.L.	1	31
	Concentrations Of Three Different Carbon Forms In Surface Waters From An Agroforestry Catchment In Northwest Spain	Vidal-Vázquez, Eva	2	31
	Temporal Oscillation And Losses Of Three C Forms In A Microcatchment From NW Spain	Vidal-Vázquez, Eva	3	32
	Contrasting Dynamics Of Nitrate And Kjeldahl Nitrogen In A Stream Draining A Rural Catchment In NW Spain	Rodríguez-Blanco, M.L.	4	32
	Can Suspended Sediment Data Be Used To Predict Phosphorus Fluxes In Catchments Dominated By Forest And Grassland Uses?: The Corbeira Catchment	Rodríguez-Blanco, M.L.	5	33
	Assessing The Influence Of Catchment Land Use Patterns On The Nutrients And Major Ion Chemistry Of Drainage Water	Taboada-Castro, M.M.	6	33
	Micronutrient Losses In Drainage Water Of A Reforested Small Catchment With Previous Disperse Pollution From Agricultural Practices	Paz González, Antonio	7	34
	Inorganic And Trace Organic Composition At An Agroforestry Catchment In Atlantic Europe	Vidal-Vázquez, Eva	8	35
	Study Of The Organic Fraction In Biosolids	Moral, Raul	9	35
	Influence Of Sample Preparation On Determination Of Soil Nitrogen Fractions	Zbiral, Jiri	10	36
	Influence Of Soil Tillage System And Crop Rotation On Soil And Wheat Production	Paula, Moraru	11	37
	Soil Moisture And Temperature Monitoring For Sustainable Land And Water Management In Transylvanian Plain, Romania	Teodor, Rusu	12	38
	The Influence Of Wetting/drying Cycles And Biotic Factors On Aggregate Formation In A Vertisol	Georgiou, Maria	13	39
	Effect Of Time And Glucose-c On The Fractionation Of Zn And Cu In A Slightly Acid Soil	Dousis, Panagiotis	14	39
	Effect Of Nitrogen And Boron Fertilization On Lettuce ( <i>Lactuca Sativa L.</i> ) Mineral Nutrition In A Calcareous Soil	Petridis, Anastasios	15	40
	Growth, Nutrient Status And Biochemical Changes In Sour Orange ( <i>Citrus Aurantium L.</i> ) Plants Subjected To Sodium Chloride Stress.	Kyriakou, Christodoulos	16	40
	Analytical Methodology Validation For Polycyclic Aromatic Hydrocarbons Extraction From Either Fresh Or Dried Spent Mushroom Compost By HPLC-PDA	Eymar, Enrique	17	41
	Study Of Phosphorus Adsorption In Soils Containing Different Soil Improvements And Its Impact On The Morphological Characteristics Of Plants	Argiri, Aapostolia	18	42
	Study Of Pb Transfer Reduction From Pb-contaminated Soils In Plants	Argiri, Aapostolia	19	42
	Sampling design optimization on arable lands for integrated soil monitoring for sustainable production	Vályi, Kriszta	20	43
	Rapid Determination Of C, N, Si, P And K In Sugar Mill Byproducts, Mill Mud And Ash, Using Near Infrared Spectroscopy (NIRS)	Ostatek-Boczynski, Zofia	21	44

## Poster Session 1 - *Continued*

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	The NAPL Retention Of Mineral Mixture Series Containing Different Clay Minerals	Hernádi, Hilda	22	45
	A Comparison Of Methods To Quantify Organic Carbon On Soil Samples From São Paulo State, Brazil	de Abreu, Cleide	23	46
	Study Of Arsenic Species (arsenite, arsenate) Stability In Soil Samples During Storage	Kovács, Béla	24	47
	Parameter Optimization Of Inductively Coupled Plasma Mass Spectrometer To Analyze Arsenic And Selenium	Kovács, Béla	25	47
	A Study Of Northern Corn Leaf Blight Effect On Yield Of Waxy Corn Inbred Line For Parent Line Selection In Thailand	Jitlakaq, Chadamas	26	48
	Effect Of Surface Cleaning On The Deoxynivalenol (DON) And Heavy Metal Contents Of Winter Wheat Grains	Györi, Zoltán	27	48
	Effect Of Soil Amended With Cd And Pb On Growth, Yield And Metal Accumulation In Cabbage	Kavvadias, Victor	28	49
	Specifying Of The Land Quality Estimation Based On The Data Of Large-scale Soil Mapping	Kocsis, Mihaly	29	50
	Concentration And Shaking Time Of Organic Acids Extractant For Cu, Fe, Mn And Zn From Contaminated Soil	Muraoka, Takashi	30	51
	The Effect Of Soil Properties On Napl Retention Of Soils Treated With A Cationic Surfactant	Csatári, Tünde	31	51
	Soil Quality Under Different Farming Systems In Santa Clara, Cuba	Gonzales, Yanetsy	32	52
	Comparative Study Of Biomass Production And Nutrient Uptake Of Cold Tolerant And Traditional Maize Hybrids	Lehoczky, Éva	33	52
	Investigation Of Water Capillary Rise In Soil Columns Made From Clay Mineral Mixtures Pretreated With Cationic Surfactants	Nagy, Adina	34	53
	Estimation Of Soil Bulk Density Using Detailed Soil Physical Database	Mako, Andras	35	53
	Multi Residue Analysis Of Pesticides In Sediments From The Upper Middle São Francisco River (Bahia, Brazil)	Paz-Ferreiro, Jorge	36	54
	Assessment The Impact Of Soil Properties (morphological, Physical And Chemical) On Developmental Abnormalities Of Olive Trees Planted In Tarom Region Of Zanjan Province, Iran	Nouri Roudsari, Omid	37	54
	The Study Of Salt Stress On Germination And Some Growth Parameters Of Three Types Seed Of Marigold ( <i>Calendula officinalis</i> L.)	Raoufinezhad, Gholam Reza	38	55
	Determination Of Soil pH, Extractable Potassium, And CEC Using Strontium Chloride	Miller, Robert	39	56
	A New Field Soil Quality Index (FSQI) For Olive Groves In The Province Of Jaén (Southern Spain)	Calero, Julio	40	56
	Olive Grove Cultivation Quality Influence Of Management And Soil Type	Aranda, Víctor	41	57
	The Influence Of Edta Application On The Translocation Capacity Of Lead In Soil	Plopeanu, Georgiana	42	58



## THURSDAY, JUNE 9, 2011

### Plenary Session 5: Potassium

CHAIR: ROBERT MILLER

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
8:00 - 8:10	Introduction	Robert Miller		
8:10 - 8:45	The Physiology of Potassium Nutrition in Crop Production	Derrick Oosterhuis	270	20
8:45 - 9:20	Soil Potassium Testing North America	James J. Camberato		
9:20 - 10:15	Recent Developments in the Evaluation of Soil Potassium Supplying Capacity	Vissarion Keramidas	287	20
9:45 - 10:15	World Potassium Reserves and Demand	Robert Mikkelsen	280	21

Break 10:15 - 10:30

### Plenary Session 5: *Continued*

CHAIR: ROBERT MILLER

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
10:30 - 11:00	Improving the measurement of soil potassium supply using PRS™ probes	Ken Greer	155	21
11:30 - 12:00	Total K to Exchangeable K Ratios as a Guide to Sustainable Soil K Supply	George Rayment	138	22

Lunch 12:00 - 13:00

### Plenary Session 6: Fertilizer Recommendations and Irrigation Scheduling

CHAIR: DAVID KISSEL

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
13:00 - 13:25	Development of RISSAC-RIA fertilizer recommendation system based on ten years experiences	Tamás Németh	62	22
13:25 - 13:50	Potassium for potato production	Donald Horneck	17	23
13:50 - 14:15	Phosphorus and Zinc Interactions in Bandplaced Fertilizers	Andries Claassens	217	23
14:15 - 14:50	Changes in soil ammonium and nitrate concentration over the growing season in western Canada as affected by urea or controlled release urea application	Cynthia Grant	23	24
14:50 - 15:15	Micro irrigation of annual and perennial crops in Central Italy. Assessment of seasonal in-field water management according to a simplified soil-plant-climate analysis	Graziano Ghinassi	174	25

Break 15:15 - 15:30

**Poster Session 2 15:30 - 18:00**

<b>TIME</b>	<b>TITLE</b>	<b>PRESENTING AUTHOR</b>	<b>SUMMARY/ POSTER NUMBER</b>	<b>BOOK PAGE</b>
	Dry Matter And Crude Protein Of Bracharia Brizantha Production In Oxisol Treated With Organic-mineral Fertilizer	Alves, Marlene	1	58
	Preliminary Study Of The Nutritional Status Of Pistachio In Aegina, Greece	Assimakopoulou, Anna	2	59
	Targeted Yield Sustainability Through IPNS Approach For Brinjal (Solanum melongena L.) Crop	Basavaraja, Pujari	3	60
	Assessment Of Environmentally Harmful N Surplus By 0.01 M CaCl <sub>2</sub> Soil Extractant In Long-term Experiments	Bertáné Szabó, Emese	4	61
	The Effects Of Increasing Nitrogen Doses And Soil Types On The Chemical Composition Of Tomato And Sweet Corn	Borsné Pető, Judit	5	61
	Results Of Soil Testing And Land Parcel Information System - Basic Tools For Fertilizer Recommendations In Czech Agricultural Practice	Cermak, Pavel	6	62
	Effects Of Manure And Chemical Fertilizer Management On Yield Of Cassava On Map Bon, Coarse-loamy Variant	Chaysri, Sakol	7	63
	Nitrogen Rates For Meadowfoam Based On N Uptake Dynamics And Mineralizable Soil N	Christensen, Neil	8	64
	Soil Properties And Phosphorus Isotopic Exchangeability In Cropped Temperate Soils	Frossard, Emmanuel	9	64
	Silicon Effect On The Plant Iron Deficiency Tolerance	Gonzalo, Maria Jose	10	65
	Cu And Zn Seed-dressing, As A Possible Way Of Nutrient Supply Improvement	Győri, Zoltán	11	65
	Effects Of Nitrogen Form And Application Rates On The Growth Of Petunia x hybrida And Nitrogen Level Of The Substrate	Jiménez, S	12	66
	Assessment Of Phosphorus Status In A Long-term Tillage And Phosphorus Placement Experiment	Karamanos, Rigas	13	66
	Foliar Analysis As A Tool To Evaluate Chelates To Supply Fe, Mn, Zn And Cu To Strawberry Plants	López-Rayó, Sandra	14	67
	Optimizing N Fertilizer Rates For Yield, Seed Quality And N Uptake In Camelina sativa And Brassica carinata	Karamanos, Rigas	15	67
	Reference Levels For Leaf Nutrient Diagnosis Of Cv. Tempranillo Tinto Grapevine (vitis Vinifera L.) In The Rioja Apellation	Martín, Ignacio	16	68
	Methodology For Iron Translocation Rate Assessment In Cv. Tempranillo Tinto Grapevine (vitis Vinifera L.) Fertilized With Both Chelated And Complexed Iron Foliar Suppliers	Martín, Ignacio	17	69
	Effects Of Crop Production Factors On Maize Production With Bioenergetic Purposes On Lowland Calcareous Chernozem Soil	Megyes, Attila	18	70
	Estimating Plant-available K in K-fixing Soils	Pettygrove, Stuart	19	70
	Soil And Plant Indexes Of Soil Depleting From Phosphorus, Potassium And Magnesium	Rutkowska, Agnieszka	20	71
	Dry Matter Allocation And Nutrient Uptake Dynamic In Pepper Plant Irrigated With Regenerated Water By Different Nitrogen And Potassium Rate	Segura, Maria	21	72
	Relationship Between Chlorophyll Content And Nitrogen Fertilizer In Wheat	Skudra, Ilze	22	73

## Poster Session 2 - Continued

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	Organic Fertilization And Soil Tillage Effects On Nutrients And Heavy Metal Contents On A Soil Rich In Organic Matter	Vidal-Vázquez, Eva	23	73
	Improving Effectiveness Of Seedrow-placed N With Polymer-coated Urea (ESN) And Agrotaintm-treated Urea For Emergence, Yield And N Uptake Of Canola And Wheat	Karamanos, Rigas	24	74
	Assessment Of Phosphorous Supply Rate To Common Vetch (vicia Sativa L.) By Using Ion Exchange Membranes	Tsadilas, Christos	25	74
	Preliminary Dris Norms For Leaf Nutrient Diagnosis Of Tempranillo Tinto Grapevine (vitis Vinifera L.) In The Rioja Apellation	MARTIN, IGNACIO	26	75
	Importance Of Nitrogen And Potassium Fertigation On Nutrient Uptake, Production And Quality Of Pepper Irrigated With Disinfected Urban Wastewater	Segura, Maria	27	76
	The Effects Of Sprinkling Water Containing Arsenic Pollution On The Arsenic Content Of Some Parts Of Lettuce Grown In Hydro-culture	Hüvely, Attila	28	77
	AgroAqua: A Computerized Decision Support System for Crop Irrigation Management	Megyes, Attila	29	78
	Species Richness And Density Of Earthworms In Relation To Soil Factors In Olive Orchard Production Systems In Central Greece	Solomou, Alexandra	30	78
	Herbaceous Plant Diversity And Identification Of Indicator Species In Olive Groves In Central Greece	Solomou, Alexandra	31	79
	The Study On Effects Of Vetiver Grass And Green Manure Management On Properties Of Map Bon, Coarse-loamy Variant	Panitnok, Kingkan	32	79
	The Effect Of Management Of Plant Residues And N Fertilization On Swards Productivity And On Total Carbon And Nitrogen Content In Soil	Kauer, Karin	33	80
	Relation Between Soil N-no3- And N Nutritional Status, Yield Components And Must Quality In Semiarid Vineyards From D.o. Ca. La Rioja	Pérez-Álvarez, Eva Pilar	34	81
	Non-invasive Water Stress Assessment Methods In An Apple Orchard	Tamas, Janos	35	82
	Evaluation Of Precision Nutrient Management And Plant Protection Technologies Under Large-Scale Farm Conditions	Megyes, Attila	36	82
	Spatial Variability Of Available Phosphorus On A Field With Excessive Application Of Organic Manure	Vidal-Vázquez, Eva	37	83
	Geostatistical Analysis Of Macronutrients In Cultivated Areas At Two Different Scales	Vidal-Vázquez, Eva	38	83
	Modeling The Contribution Of Salts To The Electrical Conductivity Of Fertigation Solutions Used In Greenhouses In The Mediterranean Area	Lao, M T	39	84
	Characterization Of Porous Cups And Modified Suction Probes For The Extraction Of The Soil Solution	Lao, M T	40	85
	P Levels Influence In Plasma Membrane H <sup>+</sup> -ATPase Activity And K, Ca And Mg Assimilation In Green Bean (phaseolus Vulgaris L.) v. Strike	Lao, M T	41	85
	Proline, Beatine And Choline Answer To Different P Levels In Green Bean (phaseolus Vulgaris L.) cv. Strike	Lao, M T	42	86

## Poster Session 2 - *Continued*

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	Effects Of Treated And Untreated Wastewater From Municipal Solid Waste (MSW) Leachates On The Nutritional State Of Viola spp.: Sodium, Potassium, Calcium And Magnesium	Lao, M T	43	86
	Comparative Study Of Organic And Integrated Apple Growing: Differences In Fruit Nutrition	Péter Tamás, Nagy	44	87
	Groundcover As A Useful Tool For The Purpose Of Efficient Resource Management And Sustainable Production	Vidal-Vázquez, Eva	45	88
	Short-term Effects Of Cover Crop On Soil N-no <sub>3</sub> - Availability, Grape N Nutritional Status, Yield And Must Quality Of A Calcareous Vineyard From D.o.ca. Rioja	Pérez-Álvarez, Eva Pilar	46	89
	Soil Nitrate And Ammonium Status Of An Irrigated Land In The Mediterranean Area Of Turkey.	Karnez, Ebru	47	89
	The Effects Of Organic Farming On Winter Plant Composition, Cover And Diversity In Olive Grove Ecosystems In Central Greece	Solomou, Alexandra	48	90
	Deficiency Of Fe In Vineyards Of Cemovsko Polje (Montenegro)	Knezevic, Mirko	49	91
	Potassium Nutrition Optimization for Enhanced Quality and Bulb Yield of Irrigated Onion in Western India	Magen, Hillel	50	91
	Kinetics Of Soil Potassium Sorption-Desorption	Sinaj, Sokrat	51	92

## FRIDAY, JUNE 10, 2011

### Plenary Session 7: Fertilizer Recommendations and Vegetable Crops

CHAIR: ROBERT MILLER

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
8:00 - 8:25	The use of scanning near infra red spectroscopy as a quality control indicator for bulk blended inorganic fertilizers	Jacobus (Arrie) Janse van Vuuren	76	26
8:25 - 8:50	Monitoring DNA of soil-borne potato pathogens in agricultural soils	Leigh Sparrow	36	26
8:50 - 9:15	Effect of Phosphorus Form on the Short-Term Solubility and "Availability" of Phosphorus in Soil	Tee Boon Goh	171	27
9:15 - 9:40	Response of spring oilseed rape seed yield and quality to nitrogen and sulphur fertilization	Butkute Bronislava	154	27

Break 9:40 - 10:00

### Poster Session 3 10:00 - 12:30

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	Monitoring Change In Carbon And Soil Fertility In Agricultural Soils In Tasmania, Australia	Sparrow, Leigh	1	93
	Susbtitution Of Peat In Horticultural Seedlings: Suitability Of Digestate-derived Compost From Cattle Manure And Silage Of Maize Co-digestion	Moral, Raul	2	94
	Green Bean Under Organic And Integral Crop System In Mediterranean Area Greenhouse: I. Effects On Production And Fruit Quality	Segura, Maria Luz	3	95
	Green Bean Under Organic And Integral Crop System In Mediterranean Area Greenhouse: II. Effects On Dry Matter And Nutrient Extraction Distribution Pattern	Contreras, Juana Isabel	4	96
	Nitrogen Dynamics And Nitrate Leaching In Intensive Vegetable Rotations In The Highlands Of Central Java, Indonesia	Widowati, Ladiyani	5	97
	Molecular Analysis Of Four Allium Species Based On Alliinase And 18s rRNA Genes	Drugă, Bogdan	6	98
	The Effect Of Nitrogen Fertilizer And Cattle Manure Application On Growth Characteristics Of Potato	Najm, Amirali	7	99
	Utilization Of Biosolids In Production Of Bioenergy Crops. I: Impact On Canola Biomass, Soil Properties And Nutrient Availability	Tsadilas, Christos	8	100
	Macronutrient Content Of Viola x Wittrockiana Over Different Substrates	Paz González, Antonio	9	101
	The Connection Between Soil, Geomorfology, Hydrology And Vegetation In The Dorozsma-Majsaian Sandlands	Deák, Áron József	10	101
	Trace Elements Content In Soil And Plants Under The Copper Surplus	Sofia, Veliksar	11	102
	Recycling Of Agro-food Wastes Into Vineyards By Composting: Agronomic Validation In Field Conditions	Moral, Raul	12	103
	Agricultural And Industrial Valorisation Of Arundo Donax L	Andreu Rodriguez, J.	13	104
	Evaluation Of The Different Uses Of Washingtonia Robusta Pruning Waste	Andreu Rodriguez, J.	14	105

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TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	Utilization Of Biosolids In Production Of Bioenergy Crops. Ii: Impact On Bioavailability And Heavy Metals Uptake By Canola	Tsadilas, Christos	15	106
	How Can The Efficacy Of Synthetic Chelates To Correct Iron Chlorosis In Fruit Trees Be Evaluated?	Nadal, Paloma	16	107
	Dry Matter Production Of Brachiaria Decumbens Grown On Degraded Soil Treated With Different Green Manures, Gypsum And Limestone	Bonini, Carolina	17	108
	Effect Of Molybdenum And Selenium Treatment On Element Contents Of Wheat- And Pea-sprouts, As Well As Their Microbiological Analyses	Kovács, Béla	18	109
	Investigation Of Molybdenum Treatment In A Long-term Field Experiment Influencing On The Element Uptake Of Food Crops	Kovács, Béla	19	110
	Improving Farming Practices In Region Of The Municipality Gazi, Crete, Greece	Vavoulidou, Evagelia	20	110
	Effect Of Zn And N On Growth, Yield And Nutrient Composition Of Spinach	Kavvadias, Victor	21	111
	The Effect Of Pisum Sativum Cultivation As Cover Crop On Nitrogen Use Efficiency And Uptake By A Subsequent Maize And Sunflower Crops In A Sandy Soil In Central Greece	Skoufogiannil, Elpiniki	22	111
	Effect Of Zeolite Application To Acidic And Limed Soil In Cu And Zn Availability To Ryegrass	Antoniadis, Vasileios	23	112
	Study On The Competition For Nutrients Between Cold Tolerant Maize And Weeds	Lehoczky, Éva	24	112
	Study On The Spread, Biomass Quantity And Nutrient Content Of Ragweed ( <i>Ambrosia artemisiifolia</i> L.) With High Precision Gnss And Gis Device System	Lehoczky, Éva	25	113
	Effect Of Nutrient Supply On The Weeds In Maize	Lehoczky, Éva	26	113
	Effect Of Storage Duration On Seed Viability And Oil Components Of Physic Nut Seed	Ngamprasitthi, Supranee	27	114
	Effect Of Land Use On Spatial Variability Of Organic Matter And Nutrients In An Oxisol	Paz-Ferreiro, Jorge	28	114
	Effects Of Land Use On Spatial Variability Of Soil Micronutrients At The Plot Scale In An Acid Environment	Paz-Ferreiro, Jorge	29	115
	Potassium Contents In The Main Parts Of Spring Barley As Affected By Soil Properties And Nutrient Supply	Balazsy, Agnes	30	115
	Effect Of Different Amount Of Salts On Detoxification And Some Chemical Properties Of Municipal Solid Waste Leachate	Eskandary, Mehmoosh	31	116
	The Effect Of Nitrogen Application On The Yield And Quality Of Sunflower	Kunzova, Eva	32	116
	Effects of Acidification on the Soil and Water Sources	Kunzova, Eva	33	117
	Long Term Effect Of Phosphorus Fertilization On Soil Phosphorus Status And Productivity Of A Permanent Meadow In The Swiss Jura	Sinaj, Sokrat	34	117
	Variation Of Quality Characteristics Of Greek Carobs ( <i>Ceratonia Siliqua</i> ) During One Period Of Harvesting	Roula, Vekiari	35	118
	Pomegranate: A Valuable Fruit	Roula, Vekiari	36	118

### Poster Session 3 - *Continued*

TIME	TITLE	PRESENTING AUTHOR	SUMMARY/ POSTER NUMBER	BOOK PAGE
	Research Concerning The Impact Of Conservation Agriculture System Upon Wheat Yield	Grigoras, Mircea	37	119
	Survey Of Soil Properties Of Representative Vine, Olive, And Citrus Cultivations In Peloponnese, South Greece.	Kavvadias, Victor	38	120
	The Effect Of Zeolite-bentonite Mixture On Soil Quality And Crop Productivity	Molla, Aikaterini	39	120
	N-no <sub>3</sub> Uptake By Switchgrass And Sunflower As A Peat Soil Quality Improvement Index	Molla, Aikaterini	40	121
	Effects Of Phosphate Solubilizing Microorganisms And Phosphorus Chemical Fertilizer On Yield And Yield Components Of Wheat	Ramezani Movafagh, Sara	41	121
	Efficiency Of Pseudomonas, Bacillus And Phosphorus Chemical Fertilizer In Three Soils With Different Level Of Available Phosphorous On Wheat	Ramezani Movafagh, Sara	42	122