



Società Italiana di Agronomia

53° Convegno nazionale



La gestione delle risorse nell'innovazione delle filiere agro-alimentari

**Aula Magna – Università degli Studi della Basilicata
Via Lanera 20 Matera**

11-13 Settembre 2024

PROGRAMMA

Mercoledì 11 Settembre 2024

Workshop:

Prospettive scientifiche e politiche per il Carbon Farming

Il workshop mira ad affrontare il divario tra i progressi scientifici e le prossime direttive politiche europee in tema di carbon farming. L'obiettivo è promuovere un dialogo solido che allinei metodologie scientifiche e quadri politici per migliorare le pratiche agricole sostenibili in tutta l'Unione europea.

10:30 - 11:00 Registrazione partecipanti Workshop e Convegno

11:00 – 12:00 Relazioni su invito

Moderatore: Michele Perniola (Università degli Studi della Basilicata)

Orario	Relatori	Titolo
11:00 - 11:30	Emanuele Lugato (European Commission, Joint Research Centre, Ispra, Italy)	Legge sulla certificazione dei crediti di carbonio: Potenzialità nel contesto europeo
11:30 - 12:00	Daniele De Rosa (Università degli Studi della Basilicata)	Cambiamenti dello stock di carbonio organico nei suoli agricoli europei e possibili baseline standardizzate per progetti di carbon farming

12:00 – 13:00 Tavola rotonda

Moderatore: Marco Bindi (Università degli Studi di Firenze)

- **Michele Pisante**, Università degli studi di Teramo
- **Michele Monetta**, Upbio Unione Nazionale dei Produttori biologici e biodinamici
- **Alessandra Pesce**, CREA Centro Politiche e Bioeconomia
- **Stefano Leporati**, Coldiretti
- **Barbara Rollo**, CIA Confederazione Italiana Agricoltori
- **Donato Rotundo**, Rappresentate Confagricoltura
- **Alessandro Cataldo**, Divisione Agricoltura Ernest Young
- **Michele Falce**, Novamont

13:00-14:30 Pranzo

Convegno:

La gestione delle risorse nell'innovazione delle filiere agro-alimentari

14:30 - 15:00 Registrazione partecipanti Convegno

15:00 - 16:00 Apertura del 53° Convegno della Società Italiana di Agronomia

Prof. Giovanni Carlo Di Renzo – Direttore Scuola di Scienze Agrarie, Forestali, Alimentari ed Ambientali (SAFE) - Università degli Studi della Basilicata

Prof. Michele Perniola – Presidente del Comitato Organizzatore - Università degli Studi della Basilicata

Dott.ssa Laura Mongelli, Assessore Ambiente, Territorio e Energia Regione Basilicata

Dott. Carmine Cicala Assessore alle Politiche Agricole e Forestali Regione Basilicata

Prof. Marco Bindi – Presidente della Società Italiana di Agronomia - Università degli Studi di Firenze

16:00 - 18:15 **Sessione 1. IL SUOLO**

Chair: Prof.ssa Alessia Perego, Università degli Studi di Milano Statale

16:00 – 16:30 **Keynote** – Prof. Nunzio Fiorentino (Università degli Studi di Napoli Federico II), Dr. Antonello Bonfante (Consiglio Nazionale delle Ricerche - Istituto per i Sistemi Agricoli e Forestali del Mediterraneo, CNR-ISAFOM): ***Approcci multiscala per il monitoraggio della qualità del suolo***

16:30-17:00 Pausa Caffè

Presentazioni orali

Orario	Authors	Title
17:00 - 17:15	Emilio Lo Presti, Tim H. Mauchline, Vanessa	Phosphorus uptake facilitation

	N. Kavamura, Michele Monti	in wheat intercropped with legumes implies a great change in root-rhizobacteria-soil interactions
17:15 - 17:30	Pietro Goglio , Simone Pelaracci, Simon Moakes, Marie Trydeman Knudsen, Klara Van Mierlo, Nina Adams, Maxime Fossey, Alberto Maresca, Manuel Romero-Huelva, Muhammad Ahmed Waqas, Laurence Smith, Frank Willem Oudshoorn, Thomas Nemecek, Camillo De Camillis, Giampiero Grossi, Ward Smith, Francesco Tei	LCA methods for soil CO ₂ emissions in crop-livestock systems
17:30 - 17:45	Ilaria Piccoli , Federico Grillo, Ivan Furlanetto, Francesca Ragazzi, Silvia Obber, Tiziano Bonato, Francesco Meneghetti, Luca Saccardo, Francesco Morari	On-farm experimentation of anaerobic digestate distribution methods for advancing precision agriculture and circular economy in the agroecosystem

Elevator pitches

Orario	Authors	Title
17:45 - 17:50	Luisa Leolini , Marco Moriondo, Lorenzo Brilli, Marcella Biddoccu, Margherita Coli, Riccardo Rossi, Marco Bindi, Nicolina Staglianò, Giorgio Capello, Simone Bussotti, Elisa Paravidino, Sergi Costafreda-Aumedes	Modeling inter-row grass growth, soil water content and carbon cycle in vineyard
17:50 - 17:55	Nicola Grossi, Leonardo Ercolini, Silvia Pampana , Lorenzo Gabriele Tramacere, Daniele Antichi, Nicola Silvestri	Use of a small rain simulator to evaluate the effects of Nature-Based Solutions on soil erosion in a reclaimed area of central Italy
17:55 - 18:00	Andrea Alpigiano , Tomas Javier Sitzmann, Barbara Moretti, Cristina Lerda, Carlo Grignani, Laura Zavattaro	Replacing peat in organo-mineral fertilizers to enhance agro-environmental sustainability

18:00-18:15 Discussione

18:15-20:30 Visita ai Sassi e al sistema ipogeo di raccolta delle acque, e Cocktail di benvenuto presso il Vicinato di via Purgatorio.

Giovedì 12 Settembre 2024

09:00 - 11:00 **Sessione II. L'ACQUA**

Chair: Prof.ssa Stella Lovelli, Università degli Studi della Basilicata

09:00 – 09:30 **Keynote** – Prof.ssa Marcella Giuliani (Università degli Studi di Foggia), Prof.ssa Stefania De Pascale (Università degli Studi di Napoli Federico II): ***Strategie per migliorare l'uso delle risorse idriche nei sistemi colturali erbacei***

Presentazioni orali

Orario	Autori	Titolo
09:30 - 09:45	Francesco Ferrero , Ernesto Tabacco, Gabriele Rolando, Giorgio Borreani	Microbial consortia increase nutrient use efficiency on irrigated and rainfed corn over 5-year monocropping
09:45 - 10:00	Michele Denora , Vincenzo Candido, Francesco De Mastro, Giuseppe Gatta, Cristina De Ceglie, Sapia Murgolo, Costanza Fiorentino, Gennaro Brunetti, Michele Perniola	Comprehensive Assessment of Wastewater Reuse in Agriculture: Risk and Benefit Evaluation in Tomato and Durum Wheat Cultivation
10:00 - 10:15	Andrea Burato , Giovanna Marta Fusco, Alfonso Pentangelo, Paola Iovieno, Rosalinda Nicastro, Petronia Carillo, Pasquale Campi, Domenico Ronga, Mario Parisi	Biodegradable mulching improves processing tomato yield, water productivity, and fruit quality under regulated deficit irrigation

Elevator pitches

Orario	Authors	Title
10:15 - 10:20	Federica Caradonia , Fabrizio Petti, Muhammad Fazail Nasar, Giovanni Caccialupi, Giulia Santunione, Enrico Francia	Enhancing Barley Biomass and Water Use Efficiency with Biochar and Functionalized Biochar Under Varied Irrigation Regimes
10:20 - 10:25	Laura Zavattaro , Davide Biagini, Ivan Di Furia, Silvia Fogliatto, Barbara Moretti, Francesco Vidotto	An indicator-based framework for the assessment of sustainability in paddy rice

		farms
10:25 - 10:30	Leonardo Verdi , Marco Mancini, Shamina Imran Pathan, Giacomo Pietramellara, Simone Orlandini, Anna Dalla Marta	Intercropping of legumes and cereals: a strategy to support food production and improve the resources use of agricultural systems

10:30-10:45 Discussione

10:45-11:15 Pausa Caffè

11:15 - 13:00 **Sessione III. IL CLIMA**

Chair: Prof. Albino Maggio, Università degli Studi di Napoli Federico II

11:15 – 11:45 **Keynote** – Prof.ssa Anna Dalla Marta (Università degli Studi di Firenze), Prof. Claudio Cassardo (Università degli Studi di Torino): ***Adattarsi al futuro: evoluzione dei modelli e delle tecniche agronomiche per affrontare il cambiamento climatico***

Presentazioni orali

Orario	Autori	Titolo
11:45 - 12:00	Livia Paleari , Alessandro Tondelli, Agostino Fricano, Luigi Cattivelli, Ernesto Igartua, Alan H. Schulman, Andrea Visioni, Roberto Confalonieri	Using crop models to extend genomic prediction for genotype-specific evaluation of climate change impacts
12:00 - 12:15	Marco Pittarello, Alessandra Gorlier, Simone Ravetto Enri, Michele Lonati, Ginevra Nota, Giampiero Lombardi	A long-term experiment on mowing, fertilization and their combination to control <i>Brachypodium rupestre</i> in an abandoned grassland of the Alps
12:15 - 12:30	Alberto Tanda , Antonio Pulina, Simonetta Bagella, Giovanni Riveccio, Francesco Vuolo, Pier Paolo Roggero	Land surface phenology for the characterization of Mediterranean permanent grasslands

Elevator pitches

Orario	Authors	Title
12:30 - 12:35	Alessia Perego, Marco Botta, Mara Gabrielli , Giorgio Ragaglini, Marco Acutis, Albino Maggio, Claudio Russo, Valerio Cirillo, Elena Cervelli, Stefania Pindozi, Pier Francesco	Modelling estimation of crop and soil variables in agrivoltaic systems in marginal areas

	Recchi, Antonio Mileti, Fabio Terribile	
12:35 - 12:40	Monica Auteri , Giuseppe Di Miceli, Mario Licata, Rose Nangah Mankaa, Simona Prestigiacomo, Marzia Traverso	Life Cycle Assessment of Wheat Production in Sicily: Conventional vs. Organic Approaches
12:40 - 12:45	Michele Moretta , Riccardo Rossi, Marco Moriondo, Marco Bindi, Enrico Palchetti, Gloria Padovan	Time-lapse Image-Based Monitoring of Pasture Growth in Agrivoltaic Environment Using Green Indices Extraction: A Proximal Sensing Approach

12:45-13:00 Discussione

13:00-15:30 **Pranzo e Sessione Poster**

15:30-16:30 **Premio SIA - tesi di dottorato** (*Prof. Marco Bindi – Prof. Albino Maggio*)

- "Validation of Practices to Optimize the Production of Protein Crops in Organic Systems" **Daniel Marusig**, Università degli Studi di Udine
- "Crop response, N and C dynamics after cover crops introduction" **Giorgia Raimondi**, Università degli Studi di Padova
- "Transition to agroecological management of forage-based cropping systems in the Mediterranean area" **Lorenzo Gabriele Tramacere**, Università di Pisa

16:30-16:45 **Presentazione del volume "Tecnica Agronomica dell'Irrigazione"**, Aracne Editrice in ricordo del Prof. Angelo Caliandro (Prof. Michele Perniola)

16:45-18:45 **Assemblea ordinaria dei soci**

20:30-23:30 **Cena sociale & Premiazione miglior poster presso Palazzo Viceconte**

Venerdì 13 Settembre 2024

9:00-11:00 **Sessione IV - LE COLTURE**

Chair: Prof.ssa Anna Rita Rivelli, Università degli studi della Basilicata

09:00 – 09:30 **Keynote** – Prof. Massimo Blandino (Università degli Studi di Torino), Prof. Alessandra Mati (Università degli Studi di Milano Statale): ***Dalla tavola al campo: le nuove esigenze della filiera alimentare e l'evoluzione dei sistemi colturali***

Presentazioni orali

Orario	Autori	Titolo
09:30 - 09:45	<i>Pasquale Campi</i> , Gabriele de Carolis, Simone Pietro Garofalo, Giuseppe Scarascia-Mugnozza, Mesele Negash Tesemma, Anna Francesca Modugno	Apulia Regenerative Cotton in Agroforestry System: first results and prospective
09:45 - 10:00	<i>Riccardo Fazioli</i> , Federica Carucci, Luca Marrone, Davide Tahani, Raffaele Casa	Impact of Using Different Remotely Sensed Variables on Wheat Grain Yield and Nitrogen estimation with the DSSAT-CERES-Wheat Model in a data assimilation scenario
10:00 - 10:15	<i>Paola Pasta</i> , Marco Rimoldi, Hicham Iderrami, Marco Davide Michel Torrente, Daniele Manenti, Aldo Calcante, Roberto Oberti, Pietro Marino Gallina, Giorgio Ragaglini	Developing operational procedures for site-specific weed management in maize: preliminary results from the Lombardy OG project PRECISION WEED

Elevator pitches

Orario	Authors	Title
10:15 - 10:20	<i>Alessandra Virili</i> , Wendy Vernaza Cartagena, Maurizio Borin, Carmelo Maucieri, Vittoria Giannini, Elisa Marraccini	An overview of soybean-based cropping systems in North-Eastern Italy
10:20 - 10:25	<i>Gabriele Nerucci</i> , Federico Leoni, Alessandra Virili, Daniel Marusig, Gemini delle Vedove, Stefano Carlesi, Elisa Marraccini, Anna Camilla Moonen	Chickpea and common wheat intercropping for supporting agroecological weed control
10:25 - 10:30	<i>Nicoletta Lala</i> , Giuseppe Di Miceli, Gianniantonio Domina, Mario Licata, Simona Prestigiacomo, Lucia Dinolfo	Phytopastoral characterization and productivity of natural pastures within the territory of the Madonie Park (Sicily)

10:30-10:45 Discussione

10:45-12:00 Discussione finale e chiusura convegno

12:00-13:00 **Pranzo**

13.30 **Partenza per visita tecnica**

14.00-18.00 Escursione agro-ecologica presso la Riserva Regionale dei Calanchi di Montalbano Ionico

18.00 Rientro a Matera

Comitato Scientifico

Marco Bindi
Albino Maggio
Vittoria Giannini
Filiberto Altobelli
Daniele Antichi
Giuseppe Di Miceli
Elisa Marraccini
Alessia Perego
Domenico Ronga

Comitato Organizzatore

Michele Perniola
Mariana Amato
Anna Rita Rivelli
Stella Lovelli
Daniele De Rosa
Giuseppe Mercurio

POSTERS

Sessione 1. IL SUOLO

abstract_id	Titolo	Autori
9	Regenerative Organic Agriculture, soil health and ecosystem services: a literature review	Greta Colombi, Enrico Martani, Dario Fornara
10	Conservative corn (<i>Zea mays</i> L.) silage production by means of cover crops to improve soil conditions	Daniele Borgatti, Valentina Quintarelli, Emanuele Radicetti, Roberto Mancinelli, Mortadha Ben Hassine
13	Exploring the impact of intercropping camelina-pea on soil and rhizospheric microbiome dynamics and crop productivity	Elena Pagani, Federica Zanetti, Daniel Scicchitano, Marco Candela, Andrea Monti, Erika Facciolla, Sara Berzuini, Maria Giovanna Sessa
21	Soil Biological Quality Index (QBS-ar) to assess agronomic management in the coastal wetlands of King's Lagoon	Anna Rita Bernadette Cammerino, Lorenzo Piacquadio, Michela Ingaramo, Maurizio Gioiosa, Massimo Monteleone
25	Potato (<i>Solanum tuberosum</i> , L.) crop as influenced by the interaction effect of tillage and fertilization practices in the Mediterranean environment	Mariam Atait, Mohamed Allam, Roberto Mancinelli, Emanuele Radicetti
31	Increasing the sustainability of Grana Padano production by using NIR spectroscopy to map soil variability for Precision Agriculture proposes	Andrea Lazzari, Andrea Gasparini, Fabio P. Abeni, Angelo Stroppa, Giovanni Cabassi
48	Model-based comparison of alternative management strategies to increase soil carbon sequestration.	Domenico Caterino, Livia Paleari, Pietro Crudele, Daniela Famulari, Roberto Confalonieri
55	Optimizing Nutrient Management with Nanofertilizers: A Run-Off Experiment in a Model System	Laura Pilotto, Christian O. Dimkpa, Jason C. White, Luca Marchiol, Francesca Scalera, Clara Piccirillo, Guido Fellet
57	Soil organic carbon stocks in European croplands and grasslands: How much have we lost in the past decade?	Daniele De Rosa, Cristiano Ballabio, Emanuele Lugato, Matteo Fasiolo, Arwyn Jones, Panos Panagos
60	Using (Brady) Rhizobium bacteria to enhance root nodulation and biomass yield in forage legumes	Tommaso La Malfa, Aurora Maio, Francesca Calderone, Marianna Oteri, Aurelio Scavo, Danilo Scordia, Fabio Gresta
62	Business models for soil health: the Novasoil Project	Silvia Tavarini, Daniele Vergamini, Luciano Pagano, Francesco Riccioli, Roberta Moruzzo, Barbora Nohlova, Daniele Antichi, Luciana G. Angelini
66	Improving manure nitrogen use efficiency by means of biochar as an alternative to chemical fertilization	Lamberto Borrelli, Daniele Cavalli, Massimo Valagussa, Alessandra Lagomarsino, Carla Scotti, Alberto Tosca
71	Adaptability of castor to heavy metals polluted soil	Barbara Rachele Ciaramella, Valeria Cafaro, Alessio Scandurra, Carmela Patania, Cristina Patanè, Salvatore Luciano Cosentino, Giorgio Testa
73	Impact of different cover crops on soil chemical and physical properties in maize cropping systems	Octavian Chiriac
80	A coupled system that combines a cropping system model and a software tool to optimized manure redistribution	Mara Gabbrielli, Marco Botta, Marco Acutis, Giorgio Ragaglini, Marina Allegrezza, Alessia Perego
84	Assessing the effect of cropping system, soil properties and climate on N ₂ O emission through the use of the simulation model ARMOSA on a regional scale	Giorgio Ragaglini, Mara Gabbrielli, Marco Perfetto, Marco Botta, Nicola Alessi, Marco Acutis, Alessia Perego, Leonardo Vario

abstract_id	Titolo	Autori
89	Summarising soil organic carbon changes from scientific literature using natural language processing	Luca Bechini, Alfio Ferrara
90	Exploring the impact of tillage and nitrogen fertilization on acrylamide risk in durum wheat products	Luigi Tedone, Teresa Sardone, Giovanna Marta Fusco, Rosalinda Nicastro, Annalinda Capone, Giuseppe De Mastro, Biagio Morrone, Petronia Carillo
98	Chemical and biological solutions to improve manure nitrogen use efficiency	Pietro Marino Gallina, Daniele Cavalli, Andrea Gasparini, Roberto Fuccella, Lorenza Michelin, Giovanni Cabassi
102	Variable Rate Management of Livestock Effluents to Optimize Soil Organic Matter Storage	Nicolò Pricca, Daniele Cavalli, Roberto Fuccella, Pietro Marino Gallina, Andrea Lazzari, Giovanni Cabassi
109	Contrasting effects of two zeolites used as soil amendment on water retention characteristics of a sandy-loam soil	Antonio Satriani, Alessandro Comegna, Donato Castronuovo, Claudia Belviso, Stella Lovelli
117	A low-cost simple and rapid phenotyping pipeline to study early belowground interactions in intercropping	Roberta Rossi, Daniele Cavalli, Tommaso Notario, Angelo Passerini, Giuseppe Morone, Luciano Pecetti
123	Potential role of New Agricultural Carbon Credits (ACC) in sustainable agronomic management	Maria Giordano, Marco Schiavon, Paolo Gianpiero Miosi, Giorgia Raimondi, Marco Berton, Cristian Bolzonella, Samuele Trestini, Maurizio Borin, Carmelo Maucieri
131	Use of grass species for phytoremediation of hydrocarbon contaminated soils	Anna Verde, Donato Visconti, Nunzio Fiorentino, Massimo Fagnano
138	Precision Soil Mapping: The Potential of an Autonomous Rover Combined with Multi-Geophysical Instruments	Davide Gabrieli, Ilaria Piccoli, Franco Gasparini, Luigi Sartori, Antonio Berti, Francesco Morari
144	Implementing Carbon Farming in the Euro-Mediterranean Basin: Collaborations, Strategies and Impact	Nicola Dal Ferro, Ilaria Piccoli, Carlo Camarotto, Thomas Alexandridis, George Bilas, Francesco Morari
161	Application of plant biostimulants to chickpea genotypes under field conditions	Michele Andrea De Santis, Salvatore Colecchia, Luigia Giuzio, Damiana Tozzi, Zina Flagella
163	A case study of precision agriculture and biofertilization on durum wheat under drought conditions in South Italy	Michele Andrea De Santis, Davide Misturini, Zina Flagella
165	Health risk assessment in two agricultural soil contaminated by potential toxic elements	Donato Visconti, Nunzio Fiorentino, Massimo Fagnano
167	Assessing the impact of minimum tillage and legume species introduction on forage-cereals crop rotation under Mediterranean conditions	Alice Palimodde, Davide Fois, Teresa Murgia, Antonio Pulina, Giovanna Seddaiu

Sessione II. L'ACQUA

abstract_id	Titolo	Autori
27	Beta vulgaris L. and Salicornia spp. as potential strategic crops in King's Lagoon coastal wetlands	Anna Rita Bernadette Cammerino, Michela Ingaramo, Vincenzo Rizzi, Massimo Monteleone
29	Agronomic tolerance of durum wheat to transient waterlogging events at tillering	Silvia Pampana, Daniele Antichi, Nicola Grossi, Leonardo Ercolini, Lorenzo Gabriele Tramacere, Nicola Silvestri, Lorenzo Cotrozzi
30	Water Stress Response of Different Quinoa Genotypes Grown with and without Woody Biochar	Muhammad Zubair Akram, Angela Libutti, Anna Rita Rivelli

abstract_id	Titolo	Autori
35	Quantifying water stress in maize using smartphone-based estimates of stomatal conductance	Chiara Rusconi, Livia Paleari, Ermes Movedi, Roberto Confalonieri
44	Effects of Salt and Water stresses on Morphological and Physiological traits of Hemp grown under LED light	Valeria Cafaro, Salvatore L. Cosentino, Giorgio Testa, Vivienne Panebianco, Silvio Calcagno, Cristina Patanè
51	A Living Lab approach for a multi-scale experimentation in Northern Italy on drought resistant maize hybrids	Gabriela Alandia, Giorgio Borreani, Francesco Ferrero, Vittoria Giannini, Elisa Marraccini, Carmelo Maucieri, Gabriele Rolando, Ernesto Tabacco, Maurizio Borin
56	Allelopathic Effect of Water Plant Extracts on Seed Germination and Seedling Growth	Thomas Conte, Antonia Carlucci, Angela Libutti
69	Camelina response to salinity from early root growth to rosette stage: preliminary implication for mediterranean regions	Rossella Mastroberardino, Federica Zanetti, Andrea Monti
70	AquaCrop Model Assessment for Simulating Rice Response Under Alternative Irrigation Management to Flooding Practice	Itzel Inti Maria Donati, Pasquale Garofalo, Andrea Martelli, Davide Rapinesi, Stefano Monaco, Leonardo Verdi, Anna Dalla Marta, Filiberto Altobelli
76	Supplemental irrigation on broad bean (<i>Vicia faba</i> L., var. <i>minor</i>): irrigation strategies compared with ML-DSS approach.	Andrea Martelli, Davide Rapinesi, Itzel Inti Donati, Leonardo Verdi, Anna Dalla Marta, Filiberto Altobelli
94	Assessing crop water use of industrial crops under different irrigation input using a Sub Water Retention System	Sebastiano Andrea Corinzia, Alessandra Piccitto, Elena Crapio, Antonella Iurato, Cristina Patanè, Giorgio Testa, Salvatore Luciano Cosentino
108	Preliminary assessment of genotype diversity in Faba Bean from Low and High Rainfall Regions: Field Phenotyping of Root and Shoot Traits for Drought Tolerance	Roberta Rossi, Paolo Di Renzo, Redouane Elargoubi, Michele Falivene, Biagio Catarinella, Giovanni Bitella, Gaetano Laghetti
119	Optimizing quinoa cultivation in Southern Italy: irrigation and agronomic practices	Michele Rinaldi, Francesco Ciavarella, Carmen Manganiello, Giuditta De Santis
128	Co-designing agronomic options for the sustainability of endangered pastoral systems: the case of small-scale family farms in drylands of the West-Bank, Palestine	Alberto Tanda, Qusay Abu Dawas, Sameh Jarrar, Pier Paolo Roggero
132	Decision Support System for large scale and early irrigation requirements estimation	Michele Rinaldi, Sergio Ruggieri, Francesco Ciavarella, Giuseppe Satalino, Davide Palmisano, Anna Balenzano, Cinzia Albertini, Francesco Lovergine, Francesco Mattia, Vito Iacobellis, Andrea Gioia, Donato Impedovo, Luigi Nardella, Michele Di Cataldo, Nicoletta Noviello, Rocchina Guarini, Patrizia Sacco, Maria Virelli, Deodato Tapete, Pasquale Garofalo
134	Biomass development, essential oil yield and bioactive compounds composition of sage (<i>Salvia officinalis</i> L.) under the influence of water availability and harvest time during the balsamic period.	Sebastiano Delfine, Carmen Formisano, Daniela Rigano
152	Effect of paper mulch on weed control and irrigation water management on baby leaf lettuce produced in organic farming system	Domenico Ronga, Giampaolo Oliviero

abstract_id	Titolo	Autori
157	Drought Stress Affects Morphometric, Agronomic, and Qualitative Traits of Rosemary Grown in Different Locations in Sicily	Valentina Formica, Federico Leoni, Celia Duce, Josè Gonzlez-Rivera, Massimo Onor, Paolo Guarnaccia, Stefano Carlesi, Paolo Barberi
172	Proximal and remote sensing data integration to evaluate the crop water requirements of processing tomatoes	Angeloluigi Aprile, Oscar Rosario Belfiore, Albino Maggio, Guido D'Urso, Mario Palladino, Giovanni Battista Chirico

Sessione III. IL CLIMA

abstract_id	Titolo	Autori
11	How Hairy Vetch (Vicia villosa Roth.) Residue Management Affect soil Carbon dioxide emissions and processing tomato (Solanum Lycopersicon L.) yield	Valentina Quintarelli, Daniele Borgatti, Mortadha Ben Hassine, Mattia Baretta, Emanuele Radicetti, Roberto Mancinelli
12	Enhancing sustainable camelina cultivation through intercropping: a pathway towards climate neutrality	Elena Pagani, Federica Zanetti, Erika Facciolla, Andrea Monti
101	Development of Innovative Earth Observation Tools for Adaptative Management of Alpine grasslands	Rodolfo Ceriani, Eugenio Carlon, Francesco Fava
22	LCA methodologies to assess biodiversity in agricultural systems with crop-livestock interaction	Huayang Zhen, Pietro Goglio, Fatemeh Hashemi, Maxime Fossey, Christel Cederberg, Hayo van der Werf, Marie Trydeman-Knudsen
24	High-performance and stable bread wheat varieties responses under multi-environmental trial using AMMI and GGE models	Mohamed Allam, Mariam Atait, Emanuele Radicetti, Roberto Mancinelli
33	Sustainable biomass potential resources and availability in Europe and in Italy, for bioenergy and new biofuels	Lisa Caturegli, Arianna Baldinelli, Silvia Tavarini, Leonardo Tognotti, Aristide Giuliano, Nicola Pierro, Isabella De Bari, Luciana G. Angelini
38	System-based Precision Agriculture for Sustainable Crop Production	Davide Cammarano
40	Responses of bread wheat yield to long-term (1976-2020) fertilization regimes under different rotations	Sara Bosi, Lorenzo Negri, Giulia Oliveti, Rocco Enrico Sferrazza, Marco Sangiorgi, Francesca Ventura, Guido Baldoni, Giovanni Dinelli
49	Monitoring, reporting and verification system for EU carbon farming implementation: a case study based on agroforestry in Northern Italy plain	Stefano Monaco, Sara Bergante, Roberto Barbetti, Maria Fantappiè, Roberta Farina, Marco Bascietto, Francesco Palazzi, Pier Mario Chiarabaglio
88	Potential growth and development of black oat and white mustard cover crops in response to three sowing dates	Matteo Sampietro, Luca Bechini, Marta Colombo, Roberto Fuccella, Davide Reginelli, Pietro Marino
91	Development of a decision support system for cover crop choice	Luca Bechini, Federico Ardentì, Marta Colombo, Daniele Della Torre, Alfio Ferrara, Pietro Marino, Lorenza Michelon, Sergio Picascia, Silvia Salini, Matteo Sampietro, Vincenzo Tabaglio, Andrea Fiorini
103	Participatory land evaluation for improved agricultural decision making in protected areas: insights from the Northern Andean Bio-corridor, Ecuador	Pietro De Marinis, Stefano Bocchi, Francesco Fava, Eugenio Carlon

abstract_id	Titolo	Autori
107	On-farm and plot experimentations of climate-smart agricultural practices in Northern Italy	Elisa Marraccini, Vittoria Giannini, Gabriela Alandia Robles, Giorgio Borreani, Gemini Delle Vedove, Francesco Ferrero, Donato Loddo, Cristina Marzachi, Carmelo Maucieri, Tanja Mimmo, Carlo Nicoletto, Silvia Panozzo, Alessandro Peressotti, Gabriele Rolando, Luigi Sartori, Enrico Sturaro, Ernesto Tabacco, Massimo Tagliavini, Eren Taskin, Gaetano Roberto Pesce, Maurizio Borin
126	Underutilized crops: sustainability and modelling approach to assess their use as biofuel	Claudio Russo, Valerio Cirillo, Nausicaa Pollaro, Fabio Terribile, Alessia Perego, Andrea Chiodini, Albino Maggio
145	Rooftop Agrivoltaics: bio-agronomical response of Lactuca sativa L.	Giovanni Ventura, Giuseppe Marco Tina, Caterina Caruso, Laura Siracusa, Tonia Strano, Francesco Mugheddu, Antonio C. Barbera
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160	Livestock manure digestate treatments to reduce GHG and NH3 emissions and meet crop nutrients requirement	Laura Zavattaro, Nunzio Fiorentino, Alessandra Apostolico, Elena Cervelli, Elio Dinuccio, Raffaele Grieco, Lucia Ottaiano, Ester Scotto di Pert, Anna Verde, Stefania Pindozi
164	Foliar fertilizer on reducing nitrate leaching and nitrous oxide emissions in potato field	Jingru Yin
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176	Insights Into Grapevine Growth Monitoring Using Synthetic Aperture Radar (SAR) Imagery	Riccardo Rossi, Martina Mori, Luca De Guttry, Gloria Padovan, Anna Rita Balingit, Nicolina Staglianò, Marco Bindi, Camilla Dibari, Marco Moriondo

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32	Digital Image Analysis: an innovative method to assess nutritional status of common wheat	Alessandro Rossi, Lisa Caturegli, Clarissa Clemente, Silvia Tavarini, Luciana G. Angelini, Giuliano Sciusco
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39	Towards a sustainable potato production: the case of Bologna Potato PDO	Giovanni Dinelli, Marco Sangiorgi, Rocco Enrico Sferrazza, Giulia Oliveti, Lorenzo Negri, Sara Bosi
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124	Agronomic response of 13 cotton genotypes cultivated in two different Sicilian environments under organic farming.	Federica Alaimo, Giuseppe Vitale, Nicolò Iacuzzi, Noemi Tortorici, Giuseppe Indovino, Sara Lombardo, Paolo Guarnaccia, Teresa Tuttolomondo
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135	A Multi-Criteria Decision Framework for Nitrogen Fertilization Optimization in Agrivoltaics	Michele Croci, Davide Berardi, Tommaso Carlini, Giorgio Impollonia, Yuri Bellone, Manuele Ragazzi, Riccardo Panigada, Chiara Nigro, Christian Giorgi, Lorenzo Repetti, Michele Vaghini, Simone Macetti, Luca Martullo, Giulia Milcovich, Stefano Amaducci
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137	Screening hard common wheat varieties for shade tolerance within an alley-cropping systems with poplar	Anna Panozzo, Simone Piotto, Emanuele Lodo, Giuseppe Barion, Lorenzo Furlan,

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140	Threshold value of chlorophyll meter and sap test for the optimization of nitrogen supply in processing tomato	Beatrice Falcinelli, Michela Farneselli, Francesco Tei
141	Different Fertilization Strategies and Mulching affect the Yield, Quality, and Physiology Traits of Eggplant (<i>Solanum melongena</i> L.)	Luca Vitale, Lucia Ottaiano, Eugenio Cozzolino, Nunzio Fiorentino, Mauro Mori, Ida Di Mola
142	Oenotrace - A data-driven approach to trace sustainable practices in wine-growing	Davide Cammarano, Andreas Heifl, Nikolaos Tsoulas, Dimitrios Argyropoulos, Dimitrios T. Davarakis, Marco Moriondo, Cristina Balaceanu, George Suci, Marco Bignardi, Dimitrios S. Paraforos
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150	Cover cropping strategies for the sustainable weed management in a Mediterranean citrus grove	Salvatore Alfio Salicola, Alessia Restuccia, Cristina Abbate, Gaetano Pandino, Aurelio Scavo, Giovanni Mauromicale, Sara Lombardo
151	The cover crops selection for the agroecological weed management in Southern Italy vineyards	Salvatore Alfio Salicola, Aurelio Scavo, Modaffari Antonino, Stefano Bortolussi, Cristina Abbate, Umberto Anastasi, Alessia Restuccia, Giovanni Mauromicale, Alexandros Tataridas, Helena Freitas, Sara Lombardo
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159	Effect of different doses of chitosan application on lettuce Cappuccia yield and quality	Maria Eleonora Pelosi, Eugenio Cozzolino, Ida Di Mola, Lucia Ottaiano, Enrica Buonocore, Fabio Brancato, Mohamed houssemmeddine Sellami, Mauro Mori
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177	Assessing the herbicidal activity of some Mediterranean <i>Thymus</i> sp. pl. essential oils	Rym Boukhalfa, Claudia Ruta, Saida Messgo-Moumene, Generosa Jenny Calabrese, Giuseppe De Mastro
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179	Agrobiodiversity and agronomic performance of chickpea field trials in the Apulia Region	Claudio Calia, Claudia Ruta, Cataldo Pulvento, Diego Antonio Zullo, Michele Antonio Roncetti, Giannicola Caione, Giuseppe De Mastro
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