

Preliminary Schedule for Oral Presentations at the 2022 NARC/W3008/Stop the Rot Meeting

Monday, February 28, 2022

| Time | Authors | Title |
|-------------|---|--|
| 8:00 AM | Lindsey du Toit (Stop-the-Rot Team), Peter Rogers (W3008), and Michael Havey (NARC) | Meeting opening and overview of schedule |

Session I: Diseases and Pests

| Time | Authors | Affiliations | Title |
|-------------|--|---------------------------------|--|
| 8:10 | <u>Douglas S Higgins</u> and Mary K Hausbeck | Michigan State University | EARLY FUNGICIDE APPLICATION TIMING CAN IMPROVE STEMPHYLIUM LEAF BLIGHT CONTROL IN ONION |
| 8:30 | <u>Gia Khuong Hoang Hua</u> , Robert Wilson, and Jeremiah Dung | Oregon State University | USE OF ALLIUMS AS TRAP CROPS TO REDUCE WHITE ROT INOCULUM IN INFESTED FIELD SOIL |
| 8:50 | <u>Rob Wilson</u> , Kevin Nicholson, and Brenna Aegerter | University of California | THE INFLUENCE OF IRRIGATION METHOD (SOLID-SET SPRINKLER IRRIGATION OR DRIP IRRIGATION) ON THE INCIDENCE AND SEVERITY OF BACTERIAL DISEASES IN ONIONS GROWN IN NORTHEAST CALIFORNIA |
| 9:10 | <u>Mei Zhao</u> , Shaun Stice, Gi Yoon Shin, Teresa Coutinho, Ron Gitaitis, Brian Kvitko, and Bhabesh Dutta | University of Georgia | A NOVEL BIOSYNTHETIC GENE CLUSTER ACROSS THE PANTOEA SPECIES COMPLEX IS IMPORTANT FOR PATHOGENICITY IN ONION |
| 9:30 | <u>Bhabesh Dutta</u> , Brian Kvitko, Mei Zhao, Brendon Myers, Gaurav Agarwal, Gi Yoon-Shin, Sujan Paudel, Santosh Koirala, Bamidele Sangoyomi, and Ronald Gitaitis | University of Georgia | AN OVERVIEW OF BASIC AND APPLIED RESEARCH ON DIVERSE BACTERIAL DISEASES ON ONION IN GEORGIA |
| 9:50 | <u>Gi Yoon Shin</u> , Bhabesh Dutta and Brian Kvitko | University of Georgia | GENETIC BASIS OF HIVIR, A PHYTOTOXIN GENE CLUSTER OF ONION PATHOGEN PANTOEA ANANATIS |
| 10:10 | Jo Ann Asselin, Mary Ann Karp, Paulina Rychlik, Margery Daughtrey, Melanie Filiatrault, and <u>Paul Stodghill</u> | Cornell University and USDA-ARS | GENOMIC COMPARISON OF DICKEYA FANGZHONGDAI STRAINS ISOLATED FROM DIFFERENT HOSTS AND PATHOGENICITY IN ONION (ALLIUM CEPA) BULBS |

10:30 to 10:45 AM: Break

Session II: Production

| Time | Authors | Affiliations | Title |
|-------|--|---------------------|--|
| 10:45 | <u>Mike Thornton</u> , Deron Beck, Kyler Beck, Ransey Portenier, and Oksana Morgan | University of Idaho | EVALUATION OF HERBICIDES FOR IMPACT ON THE INCIDENCE OF SINGLE CENTERS IN ONIONS |
| 11:05 | <u>Deron Beck</u> , Kyler Beck, Mike Thornton, Ransey Portenier, and Oksana Morgan | University of Idaho | STUNTING AND STAND LOSS IN DRIP-IRRIGATED ONIONS |
| 11:25 | <u>Brian A. Nault</u> | Cornell University | MANAGING INSECT PESTS OF ALLIUM CROPS IN THE EASTERN US |
| 11:55 | <u>Christy Hoepting</u> | Cornell University | STUNNING WEED CONTROL IN MUCK-GROWN ONIONS WITH BICYCLOPYRONE |

12:15 to 13:00 PM: Lunch Provided

Session III: Breeding and Genetics

| Time | Authors | Affiliations | Title |
|-------|---|-----------------------------|--|
| 13:00 | <u>Joseph B. Wood</u> , Christopher S. Cramer, Robert Steiner, Richard Heerema, Brian J. Schutte, and Ivette Guzman | New Mexico State University | ONIONS SELECTED FOR RESISTANCE TO IRIS YELLOW SPOT VIRUS HAVE HIGHER CARBON ASSIMILATION RATES |
| 13:20 | <u>Michael J. Havey</u> | University of Wisconsin | MODIFICATION OF EPICUTICULAR-WAX PROFILES TOWARDS THRIPS RESISTANCE IN ONION |
| 13:40 | E. Straley, J. Marzu, and <u>Michael J. Havey</u> | University of Wisconsin | GENETIC ANALYSIS OF RESISTANCE TO FUSARIUM BASAL ROT OF ONION |

Session IV: W3008 Meeting

| Time | Item |
|-------|--|
| 14:00 | Welcome and introductions <ul style="list-style-type: none"> State of W3008 – note from Tracy Dougher W3008 Annual Report submission process and deadlines – Chair W4008 Submission and next steps – Brian Nault |
| 14:15 | State reports, with open forum discussions <ul style="list-style-type: none"> <i>All states willing:</i> Colorado, New Mexico, Utah, Oregon, Idaho, Washington, California, Texas, Georgia, Pennsylvania, Michigan, New York, and others |
| 15:15 | Break |
| 15:30 | State reports continue with open discussions |
| 16:30 | Team business meeting for W3008 <ul style="list-style-type: none"> Communications and Alliumnet updates for W3008 Election of officers and lead into W4008 Next meeting – ideas and location? |
| 16:45 | Adjourn |

Session V: Discussion regarding scheduling of next NARC

| Time | Discussion leaders |
|-------|--|
| 16:45 | Greg Yelding, National Onion Association, Peter Rogers, M.J. Havey, and NARC/W3008 group |

17.00-18.00: Reception with Colorado Fruit and Vegetable Growers Association (CFVGA). Snacks provided with a cash bar.

Tuesday, March 1, 2022

Research presentations and posters on bacterial rots by the “Stop-the-Rot” project team. Open to NARC/W3008/CFVGA participants and Stop the Rot Stakeholder Advisory Panel members.

Session I:

| Time | Oral presentations | Presenter/lead |
|---|--|----------------|
| 8 am | Welcome, introduction & overview of the project | du Toit |
| Objective A: Characterization of onion bacterial disease | | |
| 8.15 | A1. Bacterial survey & NOBSC | du Toit |
| 8.30 | A2a. Onion bacterial pathogenomics | Kvitko |
| 8.45 | A2b. Microbiome studies | Coutinho |
| 9.00 | A3. Development of onion bacterial pathogen detection tools | Woodhall |
| 9.15 | A4. Development of onion phenotyping protocols for screening for resistance to bacterial pathogens | Dutta |
| 9.30 | <i>Break/Poster viewing</i> | |
| Objective B: Management of onion bacterial disease | | |
| 9.45 | Overview of Objective B: how Stop the Rot work supports improved production, reduced losses, and better understanding of how to detect & manage bacterial diseases | du Toit |
| 9.50 | B1 & B2. Irrigation & fertility practices | LaHue |
| 10.10 | B3. Pesticides | Uchanski |
| 10.25 | B4. Cultural practices | du Toit |
| 10.40 | B5. Post-harvest practices | Waters |
| 10.55 | <i>Break 20 mins for coffee/refreshments– include poster viewing during the coffee break.</i> | |
| 11.15 | B6. Bacterial disease modeling | Rajagopalan |
| 11.30 | B8. Economics & surveys | Colson |
| 11.45 | Closing, wrap up, questions | du Toit |

Session II (13:00 to 17:00): Closed meeting of the Stop-the-Rot project team

Wednesday, March 2, 2022

Session III (8:00 to 12:00): Closed meeting of the Stop-the-Rot project team

Version 6 (January 5, 2022)

Preliminary Schedule for Poster Presentations at the 2022 NARC/W3008/Stop the Rot Meeting

| Title | Authors |
|--|---|
| IDENTIFICATION AND PATHOGENICITY OF FUSARIUM PROLIFERATUM CAUSING CLOVE ROT ON GARLIC | Gia Khuong Hoang Hua, Shari Lupien and Jeremiah Dung |
| THE METAVIROME OF ONION BULBS IN THE USA | Pedro Lebre, Verushka Ibanez, Christopher Liakos, Jacqui van der Waals, and Teresa Coutinho |
| PAN-GENOMIC APPROACHES TO PREDICTING VIRULENCE FACTORS IN PANTOEA ANANATIS IN ALLIUM PORRUM AND ALLIUM FISTULOSUM | Brendon K. Myers, Gi Yoon Shin, Gaurav Agarwal, Ronald D. Gitaitis, Brian Kvitko, and Bhabesh Dutta |
| BREEDING FOR REDUCED IRIS YELLOW SPOT SYMPTOM EXPRESSION IN ONION | Christopher S Cramer, Seyed Shahabeddin Nourbakhsh, and Suman Sharma |
| MITOCHONDRIAL COI-BASED BARCODING OF <i>Thrips tabaci</i> POPULATIONS FROM ONION | Romana Iftikhar and <u>Hanu R. Pappu</u> |
| GLOBAL ANALYSIS OF THE POPULATION STRUCTURE, HAPLOTYPE DISTRIBUTION AND EVOLUTIONARY PATTERN OF IRIS YELLOW SPOT VIRUS | Afsha Tabassum, S.V. Ramesh, Ying Zhai, Romana Iftikhar, and <u>Hanu R. Pappu</u> |
| DOWNCAST IS AN EFFECTIVE MODEL FOR TIMING FUNGICIDE APPLICATIONS FOR ONION DOWNY MILDEW IN ONTARIO, CANADA | Mary Ruth McDonald, Kevin Vander Kool, and Tyler Blauel |
| EVALUATION OF WEATHER-BASED MODELS FOR MANAGEMENT OF ONION DOWNY MILDEW IN CALIFORNIA | Alexander I. Putman and Jacob R. Goldberg |
| ONION MAGGOT AND ONION THRIPS OVER FORTY YEARS OF IPM | Mary Ruth McDonald, Kevin Vander Kool, and Tyler Blauel |
| EVALUATION OF HERBICIDE COMBINATIONS FOR WEED CONTROL IN ONION IN NEW MEXICO | Brian Schutte, Leslie Beck, Stephanie Walker, Ram Acharya, and Christopher S. Cramer |
| RESPONSE OF YELLOW SWEET SPANISH ONION VARIETIES TO ETHOFUMESATE HERBICIDE | Mike Thornton, Deron Beck, Kyler Beck, Ransey Portenier, and Oksana Morgan |
| SELECTION PROGRESS FOR REDUCED IRIS YELLOW SPOT DISEASE SYMPTOMS AND ASSOCIATED TRAITS IN ONION | Stephanie Torres and Christopher S. Cramer |
| SURVEYS OF BACTERIAL PATHOGENS IN ONION PRODUCTION REGIONS OF THE US: PRELIMINARY RESULTS FROM 2020 AND 2021 | Lindsey du Toit, Brian Kvitko, Heather MacKay, and Stop the Rot project team members |
| A STUDY ON THE BACTERIAL INHABITANTS OF STORAGE ONIONS: IDENTITY AND FUNCTION | Verushka Ibanez, Christopher Liakos, Jacqui van der Waals, Teresa Coutinho, and Pedro Lebre |

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| THE METAVIROME OF ONION BULBS SYMPTOMATIC AND ASYMPTOMATIC FOR BACTERIAL BULB ROTS SAMPLED FROM GEORGIA AND WASHINGTON STATES IN THE USA | Pedro Lebre, Verushka Ibanez, Christopher Liakos, Jacqui van der Waals, and Teresa A. Coutinho |
| INFLUENCE OF APPLIED NITROGEN ON BACTERIAL BULB ROT IN MUCK-GROWN ONION IN NEW YORK | Christy Hoepting and Emma van der Heide |
| INFLUENCE OF VARIETY ON BACTERIAL BULB ROT OF ONION IN NEW YORK STATE | Christy Hoepting and Emma van der Heide |
| EVALUATION OF BACTERICIDES AND PLANT DEFENSE INDUCERS TO MANAGE BACTERIAL ROTS OF ONION IN SEVEN STATES IN THE U.S. | Brenna Aegerter, W.M. Donahoo, Jane Davey, Michael Derie, Lindsey du Toit, Bhabesh Dutta, Eric Feibert, M.J. Foster, Christy Hoepting, Antoinette Machado, Claudia Nischwitz, Stuart Reitz, Jaspreet Sidhu, Mark Uchanski, Timothy Waters, and James Woodhall |
| ALLIUMNET.COM WEBSITE REDESIGN TO SUPPORT COLLABORATIVE ONION RESEARCH AND EXTENSION | Joe LaForest, Sarah Jean Swain, and Heather MacKay |
| GENETIC ANALYSIS OF RESISTANCE TO FUSARIUM BASAL ROT OF ONION | E. Straley, J. Marzu, and Michael J. Havey |