PAWC

USDA, USDA and Other Federal Agencies

North Carolina A&T State University

Southern University and A&M College

Prairie View A&M University

Alabama A&M University

Fort Valley State University

Alcorn State University

Tennessee State University

South Carolina State University

Lincoln University

Central State University

West Virginia State University

University of Maryland—Eastern Shore

Kentucky State University

Florida A&M University

Tuskegee University

Delaware State University

Langston University

Virginia State University

University of Arkansas—Pine Bluff

1862 and 1994 Universities, Hispanic Serving Institutions and Other Universities

Community-Based Organizations and State and Local Agencies

Private Sector and Non-Profit Organizations
### 78th Professional Agricultural Workers Conference

**Disparities & Racial Injustices in Agriculture & Rural Communities: Ways Forward**

**December 6 -8, 2020**

<table>
<thead>
<tr>
<th>SUNDAY, December 6, 2020</th>
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<td><em>all times are in CST</em></td>
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<tr>
<th>Time</th>
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<tr>
<td>10:00 am -5:00 pm</td>
<td>Help Desk</td>
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<tr>
<td>12:30 pm -5:00 pm</td>
<td>PAWC – GSD student Competition</td>
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<td>Graduate Student Competition I</td>
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<td>Part I: Success Story Presentation</td>
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<td>Success Story 1: SRDC Heir Property</td>
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<td>Success Story 2: Tuskegee University</td>
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<td>Session 6: COVID-19 Financial Planning</td>
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<td>2:00 pm – 3:00 pm</td>
<td>George Washington Carver Public Service Hall of Fame Award</td>
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<td>3:15 pm – 4:00 pm</td>
<td>PAWC Advisory Board Meeting</td>
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<td>4:00 pm – 4:45 pm</td>
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<td>From the Soul Productions</td>
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<td><strong>Part I</strong></td>
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<td>Memorial Presentation</td>
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<td><strong>Part II:</strong></td>
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<td>Featured Presentation:</td>
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<td>Soul Food for Healing</td>
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<td>By Dr. Lindsey Lunsford</td>
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<td>1:00 pm – 1:45 pm</td>
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<td><strong>Session 15:</strong> Farmer Cost Share Program for Sustainable Irrigation</td>
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<td>4:00 pm – 5:00 pm</td>
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SUNDAY, DECEMBER 6, 2020

10:00 am – 5:00 pm   Help Desk

12:30 pm- 5:00 pm   PAWC – GSD Student Competition
   (detailed agenda provided at the end of program)
   Undergraduate Student Competition
   Graduate Student Competition I
   Graduate Student Competition II
   Graduate Student Competition III

1:00 pm – 5:00 pm   Tomorrow’s Agricultural Professional Symposium (TAPS)
   TAPS for Pre-College Youth
   (detailed agenda provided on last page)
   TAPS for Collegiate: Unmanned Aerial Vehicle (UAV)/Drone Applications in Wildlife Mitigation
   (detailed agenda provided at the end of program)
   1890 HBCU/Fire Consortium – Student Fire Training Program

5:15 pm – 6:30 pm   Tuskegee University Christmas Concert
MONDAY, DECEMBER 7, 2020

9:15 AM – 10:00 AM  
78th PAWC Opening Session  
Host: John Williams & Tasha Hargrove

Invocation: Gregory Gray  
Welcome: Charlotte Morris, Interim President (invited)

Greetings & Welcome from PAWC Leadership Team  
- Tasha Hargrove  
- Robert Zabawa  
- Walter Hill  
- Karen Craig  
- John Williams

Recognition of Sponsors & Advisory Board Members: Tasha Hargrove

Virtual Speed Networking Session: Tasha M. Hargrove

Closing Comments & Instructions: Tasha Hargrove

10:00 AM – 10:45 AM  
Fireside Chat with Rev. Lennox Yearwood, Jr., Hip Hop Caucus  
Host: Lindsey Lundsford & Tasha Hargrove

11:00 AM – 11:45 AM  
Breakout Session I

Session 1  
1890 Land Grant University Centers of Excellence: Multi-University Models for Success

Moderator: Mortimer Neufville  
Panelists:  
- Socially Disadvantaged Farmers and Ranchers Policy Center- Eloris Speight  
- Sustainable Meat Goat Production & Marketing in the Southeast United States – Terry Gipson  
- The Center for Innovation and Sustainable Small Farms, Ranches, and Forestlands (CISFRF) – Albert Essel  
- Reducing the Impact of SARS-Cov-2 and Related Disruptions on the Local Food Supply in Minority Communities in the 1890 Land Grant Regional Network – Albert Essel  
- The Center of Excellence for International Engagement and Development (CEIED) – Alton Thompson  
- The Virtual Center to Motivate and Educate for Achievement (MEA) - Alton Thompson
Session 2  Protecting Farm & Family: Emergency & Disasters Preparedness Resources for Producers

Moderator: Rashidah Farid

Session 3:  A Review of Executive Order 13950 (Combatting Race & Sex) & Related Policies

Moderator & Host: Robert Zabawa

12:00 PM – 12:45 PM  L. A. Potts Success Stories

Host: Raymon Shange

Part I: Success Story Presentation
Success Story 1: SRDC Heir Property
Success Story 2: Tuskegee University

Part II: Special Presentation
She Did That Food
by
Fiona Lewis, Vegan Chef

1:00 PM – 1:45 PM  Breakout Session II

Session 4: Connecting Urban & Rural Forestry Communities: Challenges and Benefits

Moderator: Wilhelmina Bratton, USDA Forest Service

Panelist:
Beattra Wilson, USDA Forest Service
Elrand Denson, USDA Forest
Cherie Hamilton, USDA Forest

Session 5: Hemp and Marijuana: 1890 Land Grant University Perspectives

Moderator: Orlando McMeans, Southern University

Panelist:
Jana Snowden, Southern University
Shawn Lucas, Kentucky State University

Session 6: COVID-19 Financial Planning

Moderator: Candice Wright, The Tennie Group

Speaker: Darrell Tennie

2:00 PM – 3:00 PM  George Washington Carver Public Service Hall of Fame Award Presentations

Moderator: Robert Zabawa
GWC Address: Savonala Horne, North Carolina Association of Black Lawyers and Land Loss Prevention Project
Awardee:
Carver 1: TBA
Carver 2: TBA

3:15 PM – 4:00 PM  PAWC Advisory Board Meeting

4:00 PM – 4:45 PM  Virtual Happy Hour featuring From the Soul Productions
Tuesday, December 8, 2020

9:30 AM – 11:00 AM  Virtual Keynote & Fireside Chat with Leah Pennington, Soul Fire Farm
Moderator & Host:  Dawn Mellion-Patin

11:15 AM -12:00 PM  Breakout Session III

Session 7:  An Overview of the Socially Disadvantaged Farmers and Ranchers Policy Center
Moderator:  Cinda Ayers, Footprint Farms
Speaker: Eloris Speight

Session 8:  Low-Resource Producers Focus Group: Understanding the Limitations of Seeking State and Federal Emergency Preparedness Funds
Moderator: Rashidah Farid, Tuskegee University

Session 9:  Agricultural Artificial Intelligence
Moderator: Olga Bolden-Tiller, Tuskegee University

12:00 PM – 1:00 PM  Soul Food as Healing & Memorial Presentation

Part I
Moderator:  M. Ray McKinnie, Virginia State University

Part II: Soul Food for Healing
Moderator:  Catherine Barrett
Introduction of Speaker: Tia Perrot
Speaker: Lindsey Lunsford, Tuskegee University

1:00 PM – 1:45 PM  Breakout Session IV

Session 10: Conversations on Racial Disparities in Minority Health Care
Moderator: John Williams, USDA APHIS (retired)

Session 11: The Intersectionality of Racism, Globalization, and Climate Change with the Current Immigration and Humanitarian Crisis
Moderator: Raymon Shange
Panelist:  Mikiela Sherrod
Monyai Chavers
Sara Tekola

Session 12: Student Spotlight & Announcement of Student Competition Winners
Moderator: Zelia Wiley, Kansas State University
2:00 PM – 3:00 PM  Breakout Session V

Session 13: Sustaining the Next Generation: Heir Property and Estate Planning
Moderator: Robert Zabawa, Tuskegee University
Panelist:
Kara Woods
Conner Bailey
Savi Horne
Lorette Picciano

Session 14: Marketing with Myles Radio Show
Moderator: Jerome Myles & Elizabeth Myles

Session 15: Farmer Cost Share Program for Sustainable Irrigation
Moderator: Sara Bolds

4:00 PM – 5:00 PM  Virtual Happy Hour & Networking Session
SPONSORS

Diamond

Alcorn

SOCIALLY DISADVANTAGED FARMERS
AND RANCHERS POLICY RESEARCH CENTER

Platinum Plus

Sapphire

Alabama AG Credit

Land & Farm Lenders
# TAPS for Pre-College Youth

**Sunday, 12/6/20 at 1PM-5PM**

<table>
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<tr>
<th>Time</th>
<th>Event Description</th>
<th>Presenter(s)</th>
<th>Organization</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Opening</td>
<td>Janet Sullen</td>
<td>TUCEP</td>
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<tr>
<td>1:05</td>
<td>TAPS Overview &amp; Welcome</td>
<td>Nyesa Gordon</td>
<td>TUCEP</td>
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<tr>
<td>1:15</td>
<td>FFA Career Finder Activity</td>
<td>Camryn Granger, Krystal Pyles, Nia Reeves</td>
<td>TU Students</td>
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<tr>
<td>2:00</td>
<td>Dairy Farm/Dairy Demo</td>
<td>TU Dairy Challenge Team with Lauren Mayo</td>
<td>TU Students</td>
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<td>3:00</td>
<td>Break and Transition to TAPS for Collegiates Session</td>
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<td>3:15</td>
<td>Essentials of UAV applications in wildfire mitigation (TAPS for Collegiates Session)</td>
<td>Satyanarayan Dev</td>
<td>FAMU</td>
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<td>4:00</td>
<td>Transition from TAPS for Collegiates Session</td>
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<td>4:10</td>
<td>Keynote Speakers</td>
<td>Candace Clark, Agriculture Something New...International Ag</td>
<td>TU, IPPD PhD Student</td>
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<td>Lauren Mayo, 2050 Challenge and You</td>
<td>TU, IBS PhD Student</td>
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<td>4:55</td>
<td>Closing and Adjournment</td>
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<tr>
<td>5:00</td>
<td>Impromptu Speaking Contest</td>
<td>Morgan Banks</td>
<td>MANRRS</td>
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Unmanned Aerial Vehicle (UAV)/Drone Applications in Wildfire Mitigation
Sunday, 12/6/20 at 3PM-5PM

1890 HBCU Fire Consortium - Student Fire Training Program - Orientation Workshop & Drone Symposium

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<tr>
<th>Time</th>
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<th>Affiliation</th>
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<tr>
<td>3:00</td>
<td>Opening</td>
<td>Rashida Farid</td>
<td>TU</td>
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<td>3:05</td>
<td>Overview of 1890 Wildland Fire Consortium</td>
<td>Darrius Truss</td>
<td>USDA-FS</td>
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<tr>
<td>3:15</td>
<td>Essentials of UAV applications in wildfire mitigation*</td>
<td>Satyanarayan Dev</td>
<td>FAMU</td>
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<td>4:00</td>
<td>BREAK</td>
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<td>4:10</td>
<td>Advanced UAV techniques for wildfire mitigation</td>
<td>Satyanarayan Dev</td>
<td>FAMU</td>
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<td>4:55</td>
<td>Wrap Up &amp; Evaluation</td>
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<td>5:00</td>
<td>Partner Debrief</td>
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<td>5:30</td>
<td>Adjournment</td>
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*May be joined by high school participants
COMMITTEES
Walter A. Hill, Tuskegee University PAWC Chair
Tasha M. Hargrove, Tuskegee University, PAWC Co-Chair
Robert Zabawa, Tuskegee University, Co-Chair
Karen Craig, PAWC Co-Chair
John Williams, USDA/APHIS (ret.), Chair PAWC Advisory Board

Advisory and Planning:
Catherine Barnett, Restaurant Opportunities Centers United, LLC
Rhonda Benton, Rhema Ranch
Sarah Bobrow-Williams, SRWI, and Bobrow-Williams Group, LLC
Wilhelmina Bratton, USDA/FS
William Buchanan, Farmer
Carl Butler, NetworkAG
Ralph Christy, Cornell University
Iris Cole-Crosby, University of Arkansas Pine Bluff
William A. Crutchfield, Virginia State University
Carlton Davis, University of Florida (retired)
Vivian Dickson, USDA/NRCS
Amadou Diop, US Forest Service
DeAnthony Hall, First Choice
Ronald Harris, USDA/NRCS
Rosalind Harris, University of Kentucky
Kathryn Hill, USDA/OC
Karla Martin Hollis, USDA/OAO, Fort Valley State University
Terrell Hollis, Fort Valley State University
Larry Holmes, USDA/NRCS (retired)
Ken Johnson, USDA/APHIS (retired)
Shelton Jones, Farm Foundation
Peter Kanyi, Tuskegee University
Lila, Karki, Tuskegee University
Lindsey Lunsford, Tuskegee University
Suchet Lois, Tuskegee University (Retired)
Dyremple Marsh, Delaware State University
Christopher Mathis, University of Arkansas Pine Bluff
Jimmy McAlpine, USDA/ARS
Donald McDowell, North Carolina A & T State University
Ray Mobley, Florida A & M University
Dawn Mellion-Patin, Southern University
Shannon Payne, Tuskegee University
Miles Robinson, Tuskegee University
Raymon Shange, Tuskegee University
Nii Tackie, Tuskegee University
Zelia Wiley, Kansas State University
Wylin Wilson, Tuskegee University
Dreamal Worthen, Florida A & M University
PAWC Local Planning Committee

**Program Committee:** T. Hargrove, R. Zabawa, C. Bonsi, N. Baharanyi, & W. Hill

**Budget:** S. Payne, T. Hargrove, R. Shange, & W. Hill

**Registration:** B. Green, Y. Wright, C. Pollard, S. Payne

**PAWC Help Desk:** VFairs

**PAWC Virtual Network Session:** T. Williams and T. Hargrove

**Posters and Exhibits:** P. Kanyi, K.Craig, & D. Eaves

**Student Competition:** TU Gamma Sigma Delta, F. Quarcoo, R. Zabawa & B. Vaughan

**Publicity:** T. Hargrove, K. Craig & P. Kanyi

**Evaluation & Note takers:** A. Paris, G. Paris, P. Young, C. Pollard & Y. Wright,

**Awards:** C. Bonsi, B. Green, W. Hill, R. Zabawa & K. Craig

**PAWC Highlights and Journal:** N. Tackie, T. Hargrove, R. Zabawa, & W. Hill

**Printed Materials:** T. Hargrove, K. Craig, O. Hill and V. Singleton

**Audio-visual, Communication Aids, Logistics and Technology:** K. Craig, D. Eaves, P. Kanyi,

**Tomorrow’s Agricultural Symposium:** O. Bolden-Tiller and J. Sullen

**Website:** K. Craig, P. Kanyi, & T. Hargrove

**PAWC:** Faculty, Staff, Students, and College of Agricultural Environment and Nutrition Sciences

Headquarters: 110 Henderson Hall is the official conference headquarters. The telephone number is (334) 727-8157. The conference registration desk can be reached via (334) 332-9201 or (334) 552-1321. Select papers, posters and workshops presented at the conference will be considered for inclusion in the proceedings. Presenters should leave an e-copy of the paper and two hard copies with the Program Coordinators. Papers in final form will still be considered for publication if sent by January 31, 2021 via email to pawj@tuskegee.edu.
STUDENT COMPETITIONS PROGRAM
AND BOOK OF ABSTRACTS

17th ANNUAL STUDENT RESEARCH COMPETITION

Sponsored by the

Tuskegee University

Chapter of

Gamma Sigma Delta
The Honor Society of Agriculture

&

78th Annual Professional Agricultural Workers Conference

Tuskegee University, Tuskegee, Alabama
ACKNOWLEDGEMENTS

The Tuskegee University Chapter of The Honor Society of Agriculture, Gamma Sigma Delta expresses sincere thanks to all of the manuscript and abstract reviewers, judges, moderators, Participating Students, DAES & GSD-PAWC Organizers for their invaluable service in making the Student Research Competition a success.

2020

Chapter Interim President: Dr. Barret Vaughan
Immediate Past President: Dr. Lila Karki
President-Elect: Dr. Barret Vaughan
Treasurer: Mrs. Janet Sullen
Secretary: Dr. Jasmine Ratcliff
Historian: Mr. Marquess James

Ex Officio members: Dr. Marceline Egnin, Dr. David Tackie, Dr. Janette Bartlett, Dr. Norma Dawkins, Dr. Lila Karki, Dr. Gregory Bernard, and Dr. Franklin Quarcoo
Chapter of

The Honor Society of Agriculture

Gamma Sigma Delta

PROGRAM

Sunday, December 6, 2020

1:00 a.m. - 5:00 p.m.: Student Research Competition

➢ Judges and Moderators pre-meeting at 11:30 a.m.
➢ Oral and poster presentations begin at 1:00 p.m.
➢ Participants can sign into their zoom session at 12:30 pm.

Tuesday December 8, 2020

1.00 p.m. - 1.45 pm (Central Time): Student Competition Award Ceremony

Join Zoom Meeting
https://us02web.zoom.us/j/87564257618?pwd=aVRtTkhlVjNhRnkwa0NPWEJzRTc4dz09
Meeting ID: 875 6425 7618
Passcode: 742939
One tap mobile
+13126266799,,87564257618#,,,,0#,,742939# US (Chicago)
+19292056099,,87564257618#,,,,0#,,742939# US (New York)

Judges
Dr. Gbenga Ojumu, Dr. Anthony Kumi, Dr. Gregory C. Bernard, Dr. Kwame Matthews, Dr. Franklin Quarcoo, Dr. Osagie Idehen, Ms. Adrianne Brown, Ms. Sonu Koirala B K and, Dr. Rammohan Balusu, Ms. Dawn Burton, Ms. Nicole Nunoo, Dr. Barret Vaughan, Dr. Olufemi Ajayi, Dr. Zelia Wiley, Dr. Peter Ampim, Dr. Eric Objeng, and Dr. Alberta Aryee.
UNDERGRADUATE ORAL PRESENTATIONS

1:00 p.m. Central Time (US and Canada)

Moderator: Ms. Halli Collins, Environmental and Plant Sciences Student, Tuskegee University

Judges: Dr. Anthony Kumi, Dr. Olufemi Ajayi, and Ms. Sonu Koirala

Date: December 6, 2020
Join Zoom Meeting
https://zoom.us/j/97242347400?pwd=YXIwLzRCRkZWL0V3UDc3YjQwG5uZz09
Dial In: 312 626 6799 US (Chicago)
Meeting ID: 972 4234 7400
Passcode: GSD

1:00 p.m.
THE EFFECTS OF NITROGEN RATE ON THE GROWTH OF GREEN MALABAR SPINACH (Basella alba L.) IN A SANDY LOAM SOIL IN SOUTHEAST TEXAS

PAGE, LAUREN, P.A.Y. Ampim (faculty advisor), E. Obeng, C. Laura, A. Weerasooriya, and G. Osuji, Prairie View A&M University, Prairie View, Texas.

1:15 p.m.
AN ASSESSMENT OF THE SUCCESS OF THE MAPS PROGRAM: COLLEGE OF AG COHORTS

GREEN, BRANDON, Z. Wiley (faculty advisor), and L. Hobbs Jr., Kansas State University, Manhattan, Kansas

1:30 p.m.
EWE SEXUAL BEHAVIOR

WHITAKER, JAZMINE, W. I McElhenney (faculty advisor), and A. Crane (Department of Animal Sciences & Industry, Kansas State University, faculty advisor), Tuskegee University, Tuskegee, Alabama.

1:45 p.m.
THE IMPACT OF NITROGEN FERTILIZATION ON THE GROWTH AND YIELD OF EGYPTIAN SPINACH IN SOUTHEAST TEXAS
ISABELLE, FAITH, P.A.Y. Ampim (faculty advisor), E. Obeng, C. Laura, A. Weerasooriya, and G. Osuji, Prairie View A&M University, Prairie View, Texas.

2:00 p.m.
PERCEIVED BENEFITS OF LESSON STUDY TO 4-H MEMBERS: A THREE-YEAR MIXED METHODS STUDY
KOMUNJERU, BENITA and F. Janet (faculty advisor), Louisiana State University, Baton Rouge, Louisiana.

2:15 p.m.
ANALYZING THE MICROBIAL POPULATION ON THE FRESH PRODUCE COLLECTED FROM THE COMMUNITY GARDEN
PALMER, LENAYE, T. Green, A. Johnson, M. Moussavi (faculty advisor), S. Bandara (faculty advisor), L. Carson (faculty advisor), Prairie View A&M University, Prairie View, Texas.

2.30 p.m. 15 min break

2:45 p.m.
A POTENTIAL SOLUTION TO PVAMU’S FOOD INSECURITY PROBLEM
DAVIS, DILAN, A. Johnson, T. Green, C. Jackson, D. Bradford, S. Bandara, and L. Carson (faculty advisor), Prairie View A&M University, Prairie View, Texas.

3.00 p.m.
THE RESPONSE OF RED BEAUTY AND RED LEAF VEGETABLE AMARANTH VARIETIES TO NITROGEN FERTILIZATION
ROBINSON, ALEXANDER, P.A.Y. Ampim (faculty advisor), E. Obeng, A. Weerasooriya, and G. Osuji. Prairie View A&M University, Prairie View, Texas.

3.15 p.m.
A TIMELESS QUEEN: UNVEILING THE FASHION INFLUENCES OF QUEEN ELIZABETH I ON SOCIETY THROUGHOUT HISTORY
ROBERTS, LA TAVIA D., and J. Seo (faculty advisor), Southern University and A&M College, Baton Rouge, Louisiana.

3:30 p.m.
DEVELOPING A NUTRIENT SOLUTION FOR GROWING SWEET POTATO USING HYDROPONICS
TISDALE, DARIAN and S.K. Ponniah (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.
GRADUATE ORAL PRESENTATIONS

BREAK OUT SESSION 1
1:00 p.m. Central Time (US and Canada)

Moderator: Adrianne Brown, I.B.S. Ph.D. student, Tuskegee University
Judges: Dr. Osagie Idehen, Ms. Dawn Burton, and Dr. Eric Obeng

Date: December 6, 2020
Join Zoom Meeting
https://zoom.us/j/93105501232?pwd=QW5rQWp0SnBwMnpCNWIHV1BOalVTdz09
Meeting ID: 931 0550 1232
Passcode: GSD
One tap mobile
+16465588656,,93105501232#,,,,0#,,665773# US (New York)
+13017158592,,93105501232#,,,,0#,,665773# US (Washington D.C)

1:00 p.m.
PHARMACOLOGICAL INHIBITION OF LIPID ACCUMULATION IN BOVINE OOCYTES TO IMPROVE CRYOSURVIVAL
MAYO, LAUREN, O. Bolden-Tiller (faculty advisor), and G.G. Wirtu, Tuskegee University, Tuskegee Alabama.

1:15 p.m.
APPLICATION OF NANO-SIZE CHITOSAN-ZNS-FOLIC ACID AS A POTENTIAL PHOTOTHERMAL AGENT IN CANCER THERAPY
JOHNSON, ANDRE, S. Bandara (faculty advisor), L. Carson (faculty advisor), and A. Oki, Prairie View A&M University, Prairie View, Texas.

1:30 p.m.
EVALUATION OF BEEF CATTLE AND GOAT PRODUCTION WORKSHOP HELD AT 126TH ANNUAL FARMERS CONFERENCE THROUGH POST EVENT SURVEY
GURUNG, RESHMA, F. Abrahamsen, R. Davis, R. Johnson, and N. Gurung (Faculty Advisor), Tuskegee University, Tuskegee, Alabama.

1:45 p.m.
BIOSYNTHESIS OF ZNO NANOPARTICLES FROM SWEET POTATO LEAF EXTRACT AND EFFECTS OF SEED PRIMING TREATMENT ON CARROT SEED
ANIL, TIMILSINA and H. Chen (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

2.00 p.m.
COMPARING STABLE CARBON NITROGEN ISOTOPES TO EXAMINE FEEDING TRENDS IN BLUE CRABS (Callinectes sapidus) ACROSS VEGETATION ZONES IN BLACKBIRD CREEK, DELAWARE
MAINA, JACQUELINE, A. Bland, and G. Ozbay (faculty advisor), Delaware State University, Dover, Delaware.

2:15 p.m.
FIRST YEAR STUDENT PERCEPTIONS AND EFFECTIVENESS OF SOCIAL MEDIA INFLUENCE IN COLLEGE OF AGRICULTURE RETENTION EFFORTS IN SOUTHEASTERN LAND-GRAIN UNIVERSITIES
WISE, JAMIE P. and C. Clemons (faculty advisor), Auburn University, Auburn, Alabama.

2:45 p.m.
COMPARING THE IMPACT OF ARTIFICIAL OYSTER REEFS AND OYSTER FARMS ON WILD OYSTER RESTORATION, AQUATIC SPECIES DIVERSITY, AND WATER QUALITY IN DELAWARE INLAND BAYS
NAKAZWE, MEMORY, M. Gadde, A. Bland, V. Kalavacharla (faculty advisor), and G. Ozbay (faculty advisor), Delaware State University, Dover, Delaware.

3.00 p.m.
ANALYSIS OF CARBON AND NITROGEN ISOTOPES TO ASSESS NUTRIENT LOADING IN REHOBOTH BAY, DE, AND ITS EFFECTS ON OYSTER ACTIVITIES
GADDE, MOHANA, M. Nakazwe, A. Bland, V. Kalavacharla (faculty advisor), and G. Ozbay (faculty advisor), Delaware State University, Dover, Delaware.

3:15 p.m.
INVESTIGATING TURBIDITY-TOTAL SUSPENDED SOLID RELATIONSHIPS IN REHOBOTH BAY AQUATIC SYSTEMS
ALLISON, ROBERT, A. Bland, M. Gadde, M. Nakazwe, and G. Ozbay (faculty advisor), Delaware State University, Dover, Delaware.
3:30 p.m.
IDENTIFICATION OF PHENOLIC AND ANTIOXIDANT COMPOUNDS IN SWEETPOTATO (Ipomoea Batatas (L.))
MITCHELL, IVI L., J. Tumwebaze, M. Egnin (faculty advisor), D. Mortley (faculty advisor), C. Bonsi (faculty advisor), and G.C. Bernard (faculty advisor), Tuskegee University, Tuskegee, Alabama.

3:45 p.m.
THE SOCIOECONOMIC IMPACT OF NATURAL RESOURCES EXTRACTED BY MULTINATIONAL CORPORATIONS: THE CASE OF THE STATE OF ALABAMA, USA AND SUDAN, NORTH AFRICA
ALKORDI, DALAL, R. Zabawa (faculty advisor), and Y. Diabate (faculty advisor), Tuskegee University, Tuskegee, Alabama.

4.00 p.m.
THE IMPACT OF VIRTUAL VS. NON-VIRTUAL SUMMER RESEARCH PROGRAMS
THOMAS, RAYMOND J., Z.Z. Wiley (faculty advisor), and Lonnie Hobbs Jr., Kansas State University, Manhattan, Kansas.

GRADUATE ORAL PRESENTATIONS
BREAK OUT SESSION 2
1:00 p.m. Central Time (US and Canada)

Moderator: Mr. John Myers, Cooperative Extension, Tuskegee University
Judges: Dr. Gbenga Ojumu, Dr. Zelia Wiley, and Dr. Kwame Matthews

Date: December 6, 2020
Join Zoom Meeting
https://zoom.us/j/97267293174?pwd=dmJrZXRLU2ZGUVJVVjgzeDAvbUgwQT09
Meeting ID: 972 6729 3174
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+13017158592,,97267293174#,,,,,,0#,,502764# US (Washington D.C)
+13126266799,,97267293174#,,,,,,0#,,502764# US (Chicago)
1.00 p.m.
SOLAR PHOTODEGRADATION OF METHYLENE BLUE DYE BY CELLULOSE-TIO2 BIOCHAR PREPARED BY SOL-GEL METHOD
AQUIB, MOHAMMED AYMAN and H. Chen (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

1:15 p.m.
KEEP CALM AND TEACH ON: A STUDY OF MOTIVATIONAL FACTORS FOR SCHOOL-BASED AGRICULTURE EDUCATION TEACHERS DURING COVID-19
HALL, MEREDITH, C. Clemons (faculty advisor), J. McKibben (faculty advisor), and J. Lindner (faculty advisor), Auburn University, Auburn, Alabama.

1:30 p.m.
IMMERSIVE AND ONLINE LEARNING AND 360 DEGREE VIDEO: A SYNTHESIS OF LITERATURE IN SUPPORT OF FACULTY DEVELOPMENT AND STUDENT SUCCESS
COOK, CARRIE, and J. C. Ricketts (faculty advisor), Tennessee State University, Nashville, Tennessee.

1:45 p.m.
RESTORATION AND EVALUATION OF ANTHROPOGENIC EFFECTS ON COASTAL SEAGRASS IN MOBILE, ALABAMA
DAMES, KATIE C., R. Farid (faculty advisor), Tuskegee University, Tuskegee, Alabama.

2.00 pm.
SEASONAL DIET COMPARISON OF HYBRID STRIPED BASS AND LARGEMOUTH BASS IN DEGRAY LAKE, ARKANSAS: PRELIMINARY RESULTS
SALINGER, JEREMIAH M. and S. E. Lochmann (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

2.15 pm.
CHANNEL CATFISH CLCA5.2 GENE, A POTENTIAL INHIBITOR OF BACTERIAL PATHOGENESIS
BOHARA, KAILASH, G. Sriramoju, and G. Ramena (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.
2.30 p.m. 15 min break

2.45pm.
EFFECTS OF PROTEIN AND LIPID CONTENT IN COMMERCIAL FISH FEED ON THE RELATIVE FECUNDITY OF FEMALE GOLDFISH *Carassius auratus*
JONES, JACOB H., S. B. Bhattarai, H.E. Fischer, and D. A. Perera (faculty advisor), The University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

3.00.pm.
HUMAN HEALTH EFFECTS OF PESTICIDE USE
MOORE, FANAYE A., G. El Afandi (faculty advisor), R. Ankumah (faculty advisor), and S. Fall (faculty advisor), Tuskegee University, Tuskegee, Alabama.

3.15.pm.
LOAD OF GASTROINTESTINAL PARASITES IN SMALL RUMINANTS WITH OR WITHOUT LEGUMINOUS FORAGES DURING THE FALL SEASON

3.30.pm.
CHALLENGES POSED BY COVID-19 ON COMMUNITY ENGAGEMENT: A CASE OF AUBURN UNIVERSITY COMMUNITY GARDEN
ADU-GYAMFI, AKUA and J. McKibben (faculty advisor), Auburn University, Auburn, Alabama.

3.45.pm.
WINTER HAIR SHEDDING LEVEL AFFECTS COW-CALF PERFORMANCE IN DEXTER COWS.
HURT, KAYLEE, R. Browning, Jr. (faculty advisor), E. Hayes, S. Thomas, and M. Leite-Browning, Tennessee State University, Nashville, Tennessee.

4.00.pm.
CULTIVATING A COMPREHENSIVE MODEL OF PIPELINE SUSTAINABILITY FOR MINORITY-SERVING FANH SCIENCES DEGREES
HOLLER, KELLY H., J. C. Ricketts (Tennessee State University), J.R. Linder (faculty advisor), Auburn University, Auburn, Alabama.
1.00 p.m.
EFFECT OF FOLIAGE REMOVAL ON SWEET POTATO (IPOMEA BATATAS) ROOT YIELD AND THE ANTICANCER EFFECTS OF SELECTED CULTIVARS

1.15 p.m.
AN EVALUATION OF DISTANCE SAMPLING FRAMEWORKS TO ASSESS WOOD STRUCTURE ABUNDANCE IN ARKANSAS RESERVOIRS
KINDSCHUH, JAMIE, M. Richardson, and J. Spurgeon, University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

1.30 p.m.
HEALTH AND PERFORMANCE OF SMALL RUMINANTS BEING RAISED BY ALABAMA FARMERS DURING THE FALL SEASON
NORWOOD, KENDRA C., U. Karki, J. Johnson, A. Tiwari, Tuskegee University, Tuskegee, Alabama.
1.45 pm.
CHARACTERIZATION OF RENEWABLE BIOMASS FROM MORINGA SEED PODS AS POTENTIAL BIOPOLYMERS
SHAHI, NARESH, B. Min (faculty advisor), and D. Mortley (faculty advisor), Tuskegee University, Tuskegee, Alabama.

2.15 pm.
BROWN TROUT REDD SITE SELECTION IN THE GREERS FERRY TAILWATER
OWENS, DEREK K., and S. Lochmann (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.

2.30 p.m. 15 min break

2:45 p.m.
THE PERCEIVED BARRIERS OF THE USDA FARMS SERVICE AGENCY AFFECTING AFRICAN AMERICAN FARMERS IN THE BLACKBELT OF ALABAMA
RONALD J. DAVIS, J. D. McKibben, J. R. Linder (faculty advisor), Auburn University, Auburn, Alabama.

3.00 pm.
EVALUATING THE IMPACT OF MUSTARD TRAP CROP DENSITY ON THE MANAGEMENT OF HARLEQUIN BUGS IN COLLARD
OWUSU, LAWRENCE, L.E.N. Jackai (faculty Advisor), and B. N. Dingha. North Carolina Agricultural and Technical State University, Greensboro, North Carolina.

3.15 pm.
THE INFLUENCE OF FERTILIZER RATE AND HARVEST INTERVALS ON YIELD AND DEVELOPMENT OF CANNABINOIDS IN FLOWERS OF INDUSTRIAL HEMP
OSBORNE, MELONDRIA, D. Mortley (faculty advisor), S. Vincent (faculty advisor), W. Collier (faculty advisor), Tuskegee University, Tuskegee, Alabama.

3:30 p.m.
EFFECT OF ANIMAL WASTE BIOCHAR ON CONTAMINANT REMOVAL
JACKSON, MALCOLM, A., and H. Chen (faculty advisor), University of Arkansas at Pine Bluff, Pine Bluff, Arkansas.
3.45 pm.
FEEDING STRATEGIES AND HABITAT UTILIZATION OF INDIVIDUAL DOLPHINS IN MOBILE BAY
HARLOW, JAIERE E., K. Dames, and R. Farid (faculty advisor), Tuskegee University, Tuskegee, Alabama.

4.00 pm.
LEGUME-GRASS PASTURES ENHANCED THE GROWTH OF YEARLING KIKO DOES
TIWARI, ANAND, U. Karki (faculty advisor), B. Paneru, N. Ellis, L. Karki. Tuskegee University, Tuskegee, Alabama.

4.15 pm.
USE OF YEAST CULTURE RESIDUE AS A PRE-HARVEST TREATMENT IN THE CONTROL OF CAMPYLOBACTER IN BROILER CHICKS
BENSON, PRAISE, H. Adams, V. Stanley, and M. Daley (faculty advisor), Prairie View A&M University, Prairie View, Texas.