SOUTHWESTERN BRANCH

ENTOMOLOGICAL SOCIETY OF AMERICA

51ST ANNUAL MEETING
FEBRUARY 22 – 27, 2003

RENAISSANCE HOTEL
&
COX CONVENTION CENTER

OKLAHOMA CITY, OK
COX CONVENTION CENTER

ARENA

BALLROOM

A  B  C  D  E

16 17 18 19 20
TABLE OF CONTENTS

PROGRAM SUMMARY .................................................. 2
GENERAL MEETING INFORMATION ............................. 6
OFFICERS AND COMMITTEES .................................... 8

PROGRAM
MONDAY, FEBRUARY 24................................. 12
TUESDAY, FEBRUARY 25 ................................. 12
WEDNESDAY, FEBRUARY 26 .............................. 17
THURSDAY, FEBRUARY 27 ............................... 28

AUTHOR INDEX .......................................................... 29

PRESIDENTS & CHAIRMEN OF THE
SOUTHWESTERN BRANCH, ESA .............................. 35

COX CONVENTION CENTER MAP .... Inside back cover
# PROGRAM SUMMARY

## SATURDAY, FEBRUARY 22, 2003

**INSECT EXPO**

LOCATION: Oklahoma City State Fairgrounds  
TIME: 10:00 am – 5:00 pm  
CONTACT: Scott Russell, Brownfield, TX  806-637-4060

## SUNDAY, FEBRUARY 23, 2003

**INSECT EXPO**

LOCATION: Oklahoma City State Fairgrounds  
TIME: 12 NOON – 5:00 pm  
CONTACT: Scott Russell, Brownfield, TX  806-637-4060

## MONDAY, FEBRUARY 24, 2003

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>4:00 pm – 7:00 pm</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>Room: Kingkade – Hotel 2nd floor</td>
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<tr>
<td>2:00 pm – 3:30 pm</td>
<td>Southwestern Branch-ESA Executive Board</td>
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<td>Room: Kingkade – Hotel 2nd floor</td>
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<tr>
<td>3:30 pm – 5:00 pm</td>
<td>Southwestern Entomological Society</td>
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<tr>
<td>3:30 pm – 4:00 pm</td>
<td>Executive Committee Meeting</td>
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<tr>
<td>4:00 pm – 5:00 pm</td>
<td>General Membership Business Meeting</td>
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<td>Room: Kingkade – Hotel 2nd floor</td>
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<tr>
<td>6:00 pm – 8:00 pm</td>
<td>Student Mixer</td>
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<td>Room: Kingkade – Hotel 2nd floor</td>
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</tbody>
</table>
PROGRAM SUMMARY

TUESDAY, FEBRUARY 25, 2003

7:00 am – 6:30 pm  Registration
Room: Cox Center Foyer

9:00 am  Spouse Function:
Room: Caffeina’s / Hotel

8:00 am – 5:00 pm  Job opportunity room
Room: Native American Room
Cox Center

8:00 am – 5:00 pm  Presentations preview room
Room: Native American Room
Cox Center

8:00 am – 10:30 am  General Session
Room: 14 & 15 - Cox Center

7:00 – 8:00 am  Student Competitions
Poster set up: Room B – Cox Center

10:30 am – 5:00 pm  Student Competitions
Poster viewing: Room B – Cox Center

1:30 – 3:40 pm  Student Competitions
Papers: Room 14 & 15 – Cox Center

11:00 am – 4:30 pm  S-293, Southern Region IEG, Pecans, S-293 Meeting
Room: Kingkade – Hotel 2nd floor

5:00 – 7:00 pm  Linnaean Games
Room: 14 & 15 – Cox Center

7:00 pm  Social and Special Recognition Awards
Location: Bricktown Brewery
# PROGRAM SUMMARY

## WEDNESDAY, FEBRUARY 26, 2003

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 am – 5:00 pm</td>
<td>Registration&lt;br&gt;Room: Cox Center Foyer</td>
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<tr>
<td>8:00 am – 5:00 pm</td>
<td>Job opportunity&lt;br&gt;Room: Native American Room – Cox Center</td>
</tr>
<tr>
<td>8:00 am</td>
<td>Spouse Function:&lt;br&gt;Room: Caffeina’s / Hotel</td>
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<tr>
<td>7:00 am</td>
<td>General Session Submitted Posters set-up</td>
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<tr>
<td>8:00 am – 5:00 pm</td>
<td>Poster Viewing&lt;br&gt;Room: B – Cox Center</td>
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<tr>
<td>8:00 am – 10:30 am</td>
<td>Session 1, Room 14: Symposium: Stored-Product Integrated Pest&lt;br&gt;Management in the Southern Midwest</td>
</tr>
<tr>
<td>10:45 am – Noon</td>
<td>Session 2, Room 14: Submitted papers, Ecology, Behaviour and Biocontrol</td>
</tr>
<tr>
<td>8:00 am – 10:30 am</td>
<td>Session 3, Room 15: Symposium: New&lt;br&gt;Developments in Management of Pecan Nut Casebearer</td>
</tr>
<tr>
<td>10:45 am – Noon</td>
<td>Session 4, Room 15: Submitted papers/ Crop Protection</td>
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<tr>
<td>1:30 am – 3:15 pm</td>
<td>Session 5, Room 14: Symposium : Functional&lt;br&gt;Genomics: Emerging Technologies</td>
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<tr>
<td>3:30 pm – 5:00 pm</td>
<td>Session 6, Room 14: Submitted papers: Physiology, Toxicology, Systematics, Urban, Med/Vet</td>
</tr>
<tr>
<td>1:30 pm – 5:00 pm</td>
<td>Session 7, Room 15: Symposium 4: Regional Trends in Agriculture IPM Systems</td>
</tr>
<tr>
<td>5:00 – 7:00 pm</td>
<td>Linnaean Game&lt;br&gt;Room 14 &amp; 15 – Cox Center</td>
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</table>
PROGRAM SUMMARY

THURSDAY, 27 FEBRUARY 2003

8:00 am – Noon Final Business meeting – SW Branch ESA
Room: 14 & 15 – Cox Center
GENERAL MEETING INFORMATION

REGISTRATION: All persons attending the meetings or participating in the program must register. On-site registration fees include all meeting functions.

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
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<tbody>
<tr>
<td>Active ESA members</td>
<td>$80</td>
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<tr>
<td>Student ESA members</td>
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<tr>
<td>Youth members</td>
<td>$10</td>
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<tr>
<td>Non-members</td>
<td>$95</td>
</tr>
<tr>
<td>Spouse guest</td>
<td>$20</td>
</tr>
<tr>
<td>Honorary/Emeritus</td>
<td>No charge, but we request that you register.</td>
</tr>
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</table>

ESA CERTIFICATION BOARD INFORMATION: Information regarding the ESA Certification Board of the Entomological Society of America can be obtained at the Registration desk.

PROGRAM SCHEDULE AND MODERATORS: Speakers are limited to the time as indicated in the schedule and moderators have the responsibility and authority to enforce restricting time to that noted on the schedule. Moderators will sign in at the Presentation Preview room prior to the scheduled session and will receive timers and laser pointers.

SPONSORS: Thanks to all of our sponsors for their generous support of the student mixer, spouse functions, banquet and retiree functions.

AUDIOVISUAL: ONLY digital projectors with computers will be provided for oral presentations. Speakers must submit their presentations as Power Point files on CD or 3.5 inch disks to the Presentation Preview desk one day prior to the session at which they will present.

SPOUSE/GUEST HOSPITALITY: Spouse/guest function information will be available at the Registration Desk.

JOB OPPORTUNITY CENTER: The Student Affairs Committee of the SW-ESA Branch will operate a Jobs Opportunities Center during the meetings. Employers should provide copies of opportunities available which will be posted during the meeting. Potential employees/students should bring multiple copies of resumes which may be left at the Center during
the meeting. Volunteers operating the Center will serve as liaisons to arrange interviews schedules if needed.

BANQUET: The general mixer/social will be held at the Bricktown Brewery in Bricktown. The restaurant is within easy walking distance (two blocks) of the conference hotel.

LOST AND FOUND: Articles should be turned in to or reported to the Registration Desk or conference hotel main desk.

MESSAGES: A message board will be provided at the Registration Desk.
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ENTOMOLOGICAL SOCIETY OF AMERICA

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James Webster
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Dave Thompson (2004)
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Kim Cook White (2006)

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Heather Williams
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M.O. Way
Dave Richman
Phil Mulder
MEETING PROGRAM

MONDAY, FEBRUARY 24, 2003

4:00 – 7:00 pm  Registration
Room: Kingkade – Hotel 2nd floor

2:00 – 3:30 pm  Southwestern Branch - ESA Executive Board
Room: Kingkade – Hotel 2nd floor

3:30 – 5:00 pm  Southwestern Entomological Society
3:30 – 4:00 pm  Executive Committee Meeting
4:00 – 5:00 pm  General Membership Business Meeting
Room: Kingkade – Hotel 2nd floor

6:00 – 8:00 pm  Student Mixer
Room: Kingkade – Hotel 2nd floor

TUESDAY, FEBRUARY 25, 2003

8:00 am - Noon  GENERAL SESSION
OPENING AND KEYNOTE ADDRESS
ROOM 14 & 15, Cox Center

8:00 – 8:25  Open & Welcome, President Terry Mize

8:25 – 8:45  Oklahoma State University representative welcome

8:45 – 9:00  Opening Address, SW-Branch President Terry Mize

9:00 – 9:30  Keynote Address, ESA President Z.B. Mayo

9:30 – 9:40  ESA Governing Board report, Frank Gilstrap

9:40 – 9:50  ESA Foundation report, Frank Gilstrap

9:50 – 10:00  Honors and Presentations

10:00 – 10:10  Necrology report

10:10 – 10:20  Meeting Introductions, Jonathan Edelson
Committee chairs and other workers
10:30 - Noon  
STUDENT POSTER COMPETITION VIEWING,
Room B

1:30 to 3:40 pm  
STUDENT ORAL PRESENTATION
COMPETITION
ROOM 14 & 15, Cox Center

SO1 1:30  EFFECT OF THE RED IMPORTED FIRE ANT ON
ARTHROPODS AND KEY PREDATORS IN COTTON. Rodrigo
Diaz, Department of Entomology, Texas A&M University HEEP
Center; Allen Knutson, Department of Entomology, Texas A&M
University, Research and Extension Center; Julio Bernal, Texas A&M
University

SO2 1:40  DO Beauveria bassiana PELLETS CAUSE MORTALITY
OF 4TH STAGE RJFA LARVAE. Michael Schraeder, Texas Tech
University; Harlan Thorvilson, Texas Tech University

SO3 1:50  PRESENCE OF Thelohania solenopsae (MICROSPORIDA:
THELOHANIIDAE) SPORES IN FIRE ANT SECRETIONS: IMPLI-
CATIONS IN HORIZONTAL TRANSMISSION. Johnny S. Chen,
Texas A&M University; Karen Snowden, Texas A&M University;
Forrest Mitchell, Texas A&M University; S. Bradleigh Vinson, Texas
A&M University

SO4 2:00  THE USE OF PLANT VOLATILES BY Anaphes ione AND
EGG PARASITOID OF Lygus hesperus. Veronica Manrique, Texas
A&M University; Walker A. Jones, USDA-ARS; Julio S. Bernal,
Texas A&M University

SO5 2:10  IMPACT OF BOLL WEEVIL ERADICATION ON KEY
PREDATORS AND PESTS IN CENTRAL TEXAS. James Butler,
Texas A&M University; Allen Knutson, Texas A&M Research and
Extension Center; Julio Bernal, Texas A&M University

SO6 2:20  HOST SUITABILITY OF VARIOUS STORED PRODUCT
INSECTS FOR TWO STRAINS OF THE PARASITOID

13
Antisopteromalus calandrae (Hymenoptera: Pteromalidae). Mukti N. Ghimire, Oklahoma State University; Thomas W. Phillips, Oklahoma State University

SO7 2:30  ALCOHOL VERSUS SUCROSE PREFERENCE IN HONEY BEES (Apis mellifera L.) FORAGING IN A CONTAINED ENVIRONMENT. Audrey B. Sheridan, Oklahoma State University; Phillip G. Mulder, Oklahoma State University; Charles I. Abramson, Oklahoma State University

SO8 2:40  POLYMERASE CHAIN REACTION (PCR) FOR DETECTION AND IDENTIFICATION OF SMALL GRAIN APHID PARASITOID LARVAE. Douglas B. Jones, Oklahoma State University; Kristopher Giles, Oklahoma State University; Kevin A. Shufan, USDA/PSWCRL; Yi Chen, Alderson-Broaddus College; Norman C. Elliott, USDA/PSWCRL

SO9 2:50  WHEAT PROTEIN EXPRESSION IN RESPONSE TO APHID ATTACK. Bryna E. Donnelly, Oklahoma State University; Robin D. Madden, Oklahoma State University; David R. Porter, USDA-ARS; Jack W. Dillwith, Oklahoma State University

SO10 3:00  THE POTENTIAL OF Diglyphus isaea AND Opius dissitus FOR AUGMENTATIVE BIOLOGICAL CONTROL OF Liriomyza huidobrensis. Amy Bader, Texas A&M University; Kevin Heinz, Texas A&M University; R.A. Wharton, Texas A&M University

SO11 3:10  INSECTS, INQUIRY, AND ENTOMOLOGY. Lisa Brooks, Texas A&M University

SO12 3:20  FECUNDITY AND LONGEVITY OF GREENBUG, Schizaphis graminum, AFFECTED BY BIOTYPE AND TEMPERATURE. Anastasia L. Palousek, West Texas A&M University; Bonnie B. Pendleton, West Texas A&M University; Bobby A. Stewart, West Texas A&M University; G.J. Michels, Jr., Texas Agricultural Experiment Station; Charles M. Rush, Texas Agricultural Experiment Station

SO13 3:30  A COMPARISON OF A SQUASH TRAP AND AT-PLANT FURADAN® APPLICATION FOR SQUASH BUG AND CUCUMBER BEETLE MANAGEMENT IN WATERMELON. Mahmut Dogramaci, Oklahoma State University; J.V. Edelson and J. Shreiber, OSU

3:40  BREAK
3:45 – 5:00 pm    Poster Viewing – Student Competition Posters, Room B.

SP4    NO ADVERSE AFFECT OF COLEOPTERAN-SPECIFIC CRY3BB1 TOXIN FROM TRANSGENIC CORN POLLEN ON Coleomegilla maculata (DEGEER). Aqeel Ahmad, Kansas State University; Gerald Wilde, Kansas State University

SP5    EFFECTS OF DIFFERENT TILLAGE SYSTEMS ON BOLL WEEVIL MORTALITY IN DRYLAND COTTON. Greenberg, S.M., Kdela G SARC, ARS-USDA; Bradford, J.M., Kdela G SARC, ARS-USDA; Norman, J.W., Texas Agricultural Research and Extension Center

SP6    EFFECTS OF LANDSCAPE VARIABLES AND CULTURAL PRACTICES ON GENERALIST PREDATORS IN COTTON. Jarrad Prasifka, Department of Entomology, Texas A&M University; Kevin M. Heinz, Department of Entomology, Texas A&M University; Richard R. Minzenmayer, Texas Cooperative Extension

SP7    GREENBUG FITNESS ON SORGHUM AND NON-CULTIVATED HOSTS. Kishan R. Sambarju, West Texas A&M University; Bonnie B. Pendleton, West Texas A&M University; Clay A. Robinson, West Texas A&M University; Ronald C. Thomason, West Texas A&M University; Mark D. Lazar, Texas Agricultural Experiment Station

SP8    EFFECT OF DIFFERENT AMOUNTS OF SOIL WATER AND NITROGEN ON GREENBUG FECUNDITY AND LONGEVITY ON SORGHUM. Suresh Veerabomma, West Texas A&M University; Bonnie B. Pendleton, West Texas A&M University; Bob A. Stewart, West Texas A&M University; Clay A. Robinson, West Texas A&M University; G.J. Michels, Jr., Texas Agricultural Experiment Station

SP9    INFLUENCE OF PHORID FLIES AND LOW HUMIDITY ON FORAGING STRATEGIES OF Solenopsis SPP. Ricardo A. Ramirez II, New Mexico State University; David C. Thompson, New Mexico State University

SP10   EFFECTS OF TEMPERATURE, HOST PLANT AND WEEVIL STRAIN ON BIOLOGICAL CONTROL OF AQUATIC WEEDS (Salvinia spp.) USING Cyrtobagous salviniae. Jeremiah Dye, Texas A&M University; Kevin Heinz, Texas A&M University

SP11   SURVEY OF THE TERMITES (ISOPTERA) OF OKLAHOMA. Kenneth Brown, Oklahoma State University; Brad Kard, Oklahoma
State University; Mike Doss, Oklahoma State University

SP12 ARE FIRE ANTS AFFECTING SPIDERS IN PECAN ORCHARDS? Alejandro Calixto, Texas A&M University; Marvin K. Harris, Texas A&M University; Allen Knutson, Texas A&M University; Bill Ree, Texas A&M University; Allen Dean, Texas A&M University

SP13 A BANDING TECHNIQUE FOR STUDYING SPIDERS ON PECAN CANOPIES. Alejandro Calixto, Texas A&M University; Bill Ree, Texas A&M University; Allen Dean, Texas A&M University; Marvin K. Harris, Texas A&M University; Allen Knutson, Texas A&M University; Lisa Brooks, Texas A&M University

SP14 CHARACTERIZATION OF THE GRAPE INSECT PEST COMPLEX IN OKLAHOMA. Matthew T. Stacey, Oklahoma State University, Stillwater, Ok. 74078, Phillip G. Malder Oklahoma State University, Stillwater, Ok. 74078

SP16 COMPARISON OF ARTHROPOD SAMPLING METHODS ON SALTCEDAR, COYOTE WILLOW, AND SCREWBEAN MESQUITE. Howard Beuhler, New Mexico State University; David Thompson, New Mexico State University

SP17 COMPOSITION OF PREDATOR POPULATIONS IN SALTCEDAR FIELD PLOTS. Paul Smith, New Mexico State University; Dave Thompson, New Mexico State University

SP18 PHYSICAL AND SECONDARY CHEMICAL DIFFERENCES BETWEEN ROOT BORER-INFESTED AND UNINFESTED BROOM SNAKEWEED (Gutierrezia sarothrae). Andrine Morrison, New Mexico State University; Mary Lucero, USDA-JER, Marta Remmenga, New Mexico State University; David Richman, New Mexico State University

SP19 SEASONAL ABUNDANCE OF STABLE FLIES (Stomoxys calcitrans) IN RELATION TO DIFFERENT IPM STRATEGIES IN TEXAS HIGH PLAINS. Justin Talley, West Texas A&M University; Greta Schuster, West Texas A&M University; Alberto Broce, Kansas State University

SP20 RECOMBINANT EXPRESSION AND CHARACTERIZATION OF NECROTIC, A Drosophila SERPIN. Zhen Zou, Oklahoma State University; Haobo Jiang, Oklahoma State University

5:00 – 7:00 pm LINNAEAN GAMES ROOMS 14 & 15, COX CENTER
WEDNESDAY, FEBRUARY 26, 2003

8 am – 5 pm Submitted Poster Viewing, Room B.

8 – 11:30 am Session 1, Room 14.
Symposium: Stored-Product Integrated Pest Management in the Southern Midwest
Moderators: Tom Phillips and Terry Mize

SY 8:00 Welcome and Opening Remarks, Tom Phillips, Oklahoma State University, Stillwater, OK

SY1 8:05 POPULATION ESTIMATION AND DECISION SUPPORT SYSTEMS FOR STORED GRAIN IPM. Paul Flinn, USDA ARS Grain marketing, Production and Research Center, Manhattan, KS

SY2 8:30 CHALLENGES AND PROSPECTS FOR IPM IN FOOD PROCESSING AND VALUE-ADDED FOOD OUTLETS. Bhadriraju Subramanyam, Dept. of Grain Science and Industry, Kansas State University, Manhattan, KS

SY3 8:55 THE DYNAMIC TOOL BOX FOR CONTROLLING STORED-PRODUCT INSECTS. Frank Arthur, USDA ARS Grain marketing, Production and Research Center, Manhattan, KS

SY4 9:20 EXTENSION PROGRAMS FOR STORED PRODUCT IPM: HISTORICAL PERSPECTIVES AND FUTURE NEEDS. Roy Parker, Texas Cooperative Extension, Corpus Christi, TX

SY 9:45 Closing remarks and discussion. Tom Phillips and Terry Mize

10:30 – 10:45 am BREAK

10:45 - Noon Session 2, Room 14.
Submitted papers: Ecology, Behavior and Biocontrol
Moderator: Christian Nansen

S1 10:30 OPTIMIZING THE USE OF PHEROMONE TRAPS FOR ACCURATE MAPPING OF THE INDIANMEAL MOTH, Plodia interpunctella (Lepidoptera: Pyralidae). Philip K. Morton, Oklahoma State University; Christian Nansen, Oklahoma State University

S2 10:40 OVIPOSITIONAL STRATEGY OF THE INDIANMEAL MOTH, Plodia interpunctella (HUBNER) (Lepidoptera: Pyralidae).
**Christian Nansen**, Oklahoma State University; **William G. Meikle**, Oklahoma State University; **Thomas W. Phillips**, Oklahoma State University

**S3** 10:50 NEGATIVE ATMOSPHERIC PRESSURE TO CONTROL POST HARVEST INSECTS. **Hulasare R**, Oklahoma State University; **Phillips, T.W.**, Oklahoma State University

**S4** 11:00 REPRODUCTIVE PATTERN OF FEMALE CORN EAR-WORMS OBTAINED FROM DIFFERENT SOURCES. **Juan D. Lopez, Jr.**, USDA-ARS, SPARC

**S5** 11:10 SURVEY OF PARASITOIDS OF THE COTTON FLEA-HOPPER IN CENTRAL TEXAS. **Manuel Campos**, Texas A&M University; **Allen Knutson**, Texas A&M University

**S6** 11:20 THE WASP HOUND: DIS TINGUISHING AFLATOXIN-PRODUCING FUNGI WITH THE PARASITOID WASP *Microplitis croceipes* (Hermenoptera : Braconidae). **Jeffery K. Tomberlin**, Texas A&M University; **Moukaram Tertuliano**, University of Georgia; **Glen Rains**, University of Georgia; **W. Joe Lewis**, USDA-ARS

**S6.1** 11:30 CHEMICAL CONTROL OF STORED-PRODUCT PESTS AND STATUS OF INSECTICIDE RESISTANCE IN MEXICAN POPULATIONS. **Joel Perez-Mendoza**, USDA ARS Grain Marketing Production and Research Center

12 Noon – 1:30 pm LUNCH BREAK

8:00 – 11:30 am Session 3, Room 15.

8:00 – 10:30 am Symposium 2: New Developments in Management of Pecan Nut Casebearer in Pecan
Moderator – **Michael J. Hall**, Louisiana Agricultural Center, Pecan Research & Extension Station, Shreveport, LA

**SY** 8:00 **Michael Hall** – Introduction

**SY5** 8:10 DEVELOPMENT AND DELIVERY OF DECISION MAKING TOOLS FOR PECAN NUT CASEBEARER MANAGEMENT. **Harris, M.**, W. Ree, D. Stevenson, A. Knutson and J. Jackman, Texas A&M University, Dept. of Entomology, College Station, TX.

**SY6** 8:30 PECAN NUT CASEBEARER POPULATIONS IN NATIVE
PECAN AGROECOSYSTEMS. Reid, W. Pecan Experiment Field. Kansas State University & University of Missouri.

SY7  8:50  CHEMICAL AND BIORATIONAL APPROACHES TO MANAGEMENT OF PECAN NUT CASEBEARER. Mulder, P.G., J. McVay and M.J. Hall. Oklahoma State University; Auburn University, and Louisiana State University, respectively.


SY9  9:30  INTEGRATED BIOLOGICAL CONTROL OF PECAN NUT CASEBEARER IN NEW MEXICO. Ellington, J. and R. Creamer. New Mexico State University.

SY10  9:50  ECONOMIC IMPACT OF NUT FEEDING INSECTS BETWEEN FRUIT SET AND SHELL-HARDENING IN PECAN. Dutcher, J.D. and W. Hudson. University of Georgia, Coastal Plain Experiment Station.

SY11  10:10  A PRODUCER/COUNTY EXTENSION AGENT MONITORING PROGRAM FOR THE PECAN NUT CASEBEARER, Acrobasis nuxvorella NEUNZIG. Ree, W., S. Forest, J. Janak and A. Netardus. Texas Cooperative Extension; Bryan, Hallettsville, Victoria, and Dewitt, TX, respectively.

10:30 - 10:45 am  BREAK

10:45 - Noon  Session 4, Room 15.
Submitted papers, Crop Protection
Moderator: Tom Fuchs

S8  10:45  SOUTHWESTERN CORN BORER CONTROL WITH NEW INSECTICIDES. Greg Cronholm, Texas A&M University

S9  10:55  CLOTHADIN SEED—A NEW SEED TREATMENT UNDER DEVELOPMENT ON CORN. J.Terry Pitts, Gustafson LLC, Plano, TX, Bill Hairston, Gustafson LLC, Plano, TX

S10  11:05  EFFECT OF DISTANCE INTO FIELD ON EFFICIENCY OF TRECE® CORN ROOTWORM TRAPS. Gerald Wilde, Kansas State University; Jasdeep Singh, Washington State University

S11  11:15  BIOLOGY AND ECOLOGY OF Crepniades sp., A MIRID
PEST OF COTTON IN SOUTH TEXAS. **Randy J. Coleman**, USDA-ARS, Walker A. Jones, USDA-ARS

**S12 11:25** LORSBAN EFFECTS ON NON-TARGET PESTS AND BENEFICIALS: IMPLICATIONS FOR PINK BOLLWORM ERADICATION IN NEW MEXICO. **C. Scott Bundy**, New Mexico State University; Brad Lewis, New Mexico State University

**S13 11:35** PRIORITIZING PEST MANAGEMENT ALTERNATIVES FOR SMALL ACREAGE CROPS. **Rodney L. Holloway**, Texas A&M University; Noel Troxclair, Texas A&M University

**S14 11:45** TOWARDS DETECTING GREENBUG INFESTATIONS USING REMOTE SENSING. **N.C. Elliott**, USDA-ARS, M.Rao, Oklahoma State University; Z. Yang, Oklahoma State University; D. Kindler, USDA-ARS, K. Giles, Oklahoma State University

12 Noon – 1:30 pm LUNCH BREAK

1:30 – 5:00 pm Session 5, Room 14

Coordinator: **Jack W. Dillwith**, Dept. of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK.

**SY 1:30** Introduction. **Jack W. Dillwith**

**SY12 1:35** TRANSCRIPT PROFILING. **Arron C. Guenzi** and Yan Zhang, Dept. of Plant and Soil Sciences, Oklahoma State, University, Stillwater, OK and Forage Biotechnology, Samuel Roberts Noble Foundation, Ardmore, OK.

**SY13 1:55** PROTEOMICS. **Bryna E. Donnelly**, Robin D. Madden and Jack W. Dillwith, Dept. of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK.

**SY14 2:15** METABOLOMICS. **Lloyd W. Sumner**, David Huhman, Anthony Duran, and Cory Broeckling, Analytical Chemistry and Mass Spectrometry, Samuel Roberts Noble Foundation, Ardmore, OK.

**SY15 2:35** RNA SILENCING: A TOOL FOR PARASITE/HOST INTERACTOME STUDIES. **Majd N. Aljamali**, Richard C. Essenber
and John R. Sauer, Dept. of Biochemistry and Molecular Biology and Dept. of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK.

SY  2:55  Discussion. **Jack Dillwith.**

3:15 – 3:30 pm  BREAK

3:30 – 5:00 pm  Session 6, Room 14.
Submitted papers: Physiology, Toxicology, Systematics, Urban, Medical/Veterinary Entomology
Moderator: **Bryna E. Donnelly**

S14  3:30  CHARACTERIZATION OF THE MAJOR SALIVARY PROTEIN IN *Amblyomma americanum*: RELATIONSHIP TO MAJOR HEMOLYMPH PROTEIN. **Jack W. Dillwith**, Oklahoma State University; Robin D. Madden, Oklahoma State University

S15  3:40  DEVELOPMENT OF A CHEMICAL ATTRACTANT TRAPPING SYSTEM FOR STinging WASPS OF THE SOUTHWESTERN U.S. (*Hymenoptera: Vespidae*. **Hal C. Reed**, Oral Roberts University; Peter Landolt, USDA/ARS


S17  4:00  POPULATION DYNAMICS OF *Boophilus annulatus* ON PASTURED CATTLE IN SOUTH TEXAS. **Robert J. Miller**, Cattle Fever Tick Research Laboratory; Ronald B. Davey, Cattle Fever Tick Research Laboratory; John E. George, Knipling Bushland US Livestock Research Laboratory

S18  4:10  BIOLOGY OF *Triatoma rubida sonoriana* (*HEMIPTERA: REDUVIIDAE*) UNDER LABORATORY CONDITIONS. **Edgar Paredes Gonzalez**, Universidad de Guadalajara; Jose alejandro Martinez-Ibarra. Universidad de Guadalajara; Benjamin Nogueda Torres, Escuela Nacional de Ciencias Biologicas

1:30pm – 5 pm        Session 7, Room 15

1:30 – 3:30 pm   Symposium 4: Regional Trends in Agriculture IPM Systems
                 Coordinators: Carlos E. Bográn, Texas Cooperative Extension, Kristopher L. Giles, Oklahoma State University.

SY16  1:30  IPM PLANS FOR FLORICULTURE AND NURSERY. Carlos Bográn, Texas A&M University

SY17  1:50  TEXAS IPM PLANS: A CASE STUDY WITH HIBISCUS. Scott Ludwig, Texas A&M University

SY18  2:10 OPPORTUNITIES FOR HOST PLANT RESISTANCE IN ORNAMENTAL IPM SYSTEMS. Jim Reinert, Texas A&M University

SY19  2:30 PRESENCE/ABSENCE SAMPLING PLANS FOR APHIDS AND PARASITOIDS IN WINTER WHEAT. Kris Giles, Oklahoma State University

SY20  2:50  THE GREENBUG PEST MANAGEMENT DECISION SUPPORT SYSTEM. Tom Royer, Oklahoma State University

3:15 - 3:30  BREAK

SY21  3:30 COTTON ARTHROPOD RESEARCH DIRECTIONS AFTER BOLL WEEVIL ERADICATION. Megha Parajulee, Texas A&M University

SY22  3:50 COTTON IPM IMPLEMENTATION AFTER BOLL WEEVIL ERADICATION. Chris Sansone, Texas A&M University

SY  4:10  Discussion

8:00 am – 5:00 pm    Submitted Poster Session, Room B, Cox Center

PI  DEVELOPMENT OF PRAGMATIC SAMPLING PLAN FOR BENEFICIAL ARTHROPODS IN COTTON. Allen Knutson, Texas Cooperative Extension, Texas A&M University System, District IV Extension and Research Center, Mark Muegge, Texas Cooperative Extension, Texas A&M University System, District VI Extension and Research Center, Lloyd T. Wilson, Texas A&M University System, Agricultural Research & Extension Center
NONCOTTON HOST SOURCE OF *Lygus* BUGS IN THE TEXAS HIGH PLAINS. **M.N. Parajulee**, Texas Agricultural Research and Extension Center; **M.D. Arnold**, Texas Agricultural Research and Extension Center; **S.C. Carroll**, Texas Agricultural Research and Extension Center; **A.M. Cranmer**, Texas Agricultural Research and Extension Center; **R.B. Shrestha**, Texas Agricultural Research and Extension Center; **P.L. Bommireddy**, Texas Agricultural Research and Extension Center


INFLUENCE OF PIGWEED ON BEET ARMYWORM ACTIVITY IN COTTON. **S.C. Carroll**, Texas Agricultural Research and Extension Center; **M.N. Parajulee**, Texas Agricultural Research and Extension Center; **R.B. Shrestha**, Texas Agricultural Research and Extension Center; **M.D. Arnold**, Texas Agricultural Research and Extension Center

INFLUENCE OF PLANTING DATE AND CULTIVAR ON COTTON ARTHROPOD PREDATORS. **R.B. Shrestha**, Texas Agricultural Research and Extension Center; **M.N. Parajulee**, Texas Agricultural Research and Extension Center; **A.M. Cranmer**, Texas Agricultural Research and Extension Center

RESPONSE OF BANKS GRASS MITE POPULATIONS TO BIFENTHRIN AND DIMETHOATE. **Roxanne Shufran**, Texas Agricultural Experiment Station; **Robert Bowling**, Texas Cooperative Extension; **Bonnie Pendleton**, West Texas A&M; **Pat Porter**, Texas Cooperative Extension; **Greg Cronholm**, Texas Cooperative Extension; **Carl Patrick**, Texas Cooperative Extension; **Brad Lewis**, New Mexico State University

*Lygus hesperus*, AN EXPERIMENTAL VECTOR OF *Serratia marcescens*, THE CAUSAL AGENT OF CUCURBIT YELLOW VINE DISEASE. **A.C. Wayadande**, Oklahoma State University; **T. Al-Zaadjali**, Oklahoma State University; **J. Fletcher**, Oklahoma State University; **B. Bruton**, USDA-ARS; **S. Pair**, USDA-ARS; **F. Mitchell**, Texas A&M University

EVALUATING TECHNIQUES FOR DETECTING SOYBEAN STEM BORER AND MONITORING ADULT EMERGENCE IN
SUNFLOWER. Robert Bowling, Texas Cooperative Extension, Bonnie Pendleton, Texas A&M University; Carl Patrick, Texas Cooperative Extension

P9 EFFECTS OF RICE ROOT APHID ON FORAGE OAT GRAIN YIELDS OF WHEAT. Dean Kindler, USDA-ARS; Louis Hesler, USDA-ARS; Norman Elliot, USDA-ARS; Tom Royer, Oklahoma State University

P10 PHOSPHINE EFFICACY FOR THE RUSTY GRAIN BEETLE, Cryptolestes ferrugineus (COLEOPTERA; CUCUJIDAE): INFLUENCE OF TEMPERATURE, EXPOSURE TIME AND LIFE STAGE. Charles Konemann, Oklahoma State University; Thomas Phillips, Oklahoma State University; Paul Flinn, USDA-ARS GMPRC

P11 SPINOSAD: LABORATORY AND FIELD EVALUATIONS ON A POTENTIAL GRAIN PROTECTANT FOR STORED WHEAT. Edmond L. Bonjour, Oklahoma State University; Thomas W. Phillips, Oklahoma State University; Terry Pitts, Gustafson LLC

P12 MEASURING PEST MANAGEMENT. Rodney Holloway, Texas A&M University; Dudley Smith, Texas A&M University

P13 ANABIOSIS OF INFORMATION DELIVERY: RECUSANT QUADRAGENARIANS AND IT TOOLS THAT REALLY WORK. Patrick Porter, Texas Cooperative Extension; Mike Blanton, Texas Agricultural Extension Station

P14 WITHIN-PLANT SPATIAL PATTERNS AND PREFERRED FEEDING SITES OF Aphis craccivora KOCH (Homoptera: Aphididae) ON ALFALFA. Ali A. Zarrabi, Oklahoma State University; Richard C. Berberet, Oklahoma State University; Mark E. Payton, Oklahoma State University

P15 EFFECTS OF THREE NEEM-BASED INSECTICIDES ON DIAMONDBACK MOTH (Lepidoptera: Plutellidae). Tong-Xian Liu, Texas A&M University AES; Ge-Mei Liang, Texas A&M University AES

P16 CHEMICAL COTTON STALK TERMINATION IN THE LOWER RIO GRANDE VALLEY. John W. Norman, Texas Cooperative Extension Center; Charles Stichler, USDA-ARS; Sasha Greenberg, Texas Cooperative Extension Center

P17 DEVELOPMENT OF A DIETARY ASSAY FOR SOUTHERN CORN
ROOTWORM RESISTANCE TO PEANUT. J.S. Armstrong, Texas Tech University and Texas A&M University Experimentation Station, L. Camel, Texas Tech University and Texas A&M University Experimentation Station, K.Z. Salzman, Texas A&M University; F.L. Mitchell, Texas A&M University

P18 CUCURBIT YELLOW VINE DISEASE BACTERIUM IS RETAINED IN OVERWINTERING SQUASH BUG. S.D. Pair, USDA-ARS, SCARL, B.D. Bruton, USDA-ARS, SCARL, F. Mitchell, Texas Agricultural Experiment Station, J. Fletcher, Oklahoma State University; A. Wayadande, Oklahoma State University

P19 EFFECTS OF ROUTINE LATE SEASON FIELD OPERATIONS ON NUMBERS OF BOLL WEEVILS CAPTURED IN LARGE CAPACITY PHEROMONE TRAPS. Allan T. Showler, USDA-ARS SARC

P20 INFLUENCE OF MEXICAN FREE-TAILED BATS ON FLIGHT AND OVIPPOSITION OF BOLLWORM MOTHS. John K. Westbrook, USDA-ARS, Gary F. McCracken, University of Tennessee, Paul G. Schleider, USDA-ARS, Erin Gillam, University of Tennessee, Monika Rhodes, Griffith University

P21 PREPLANT TILLAGE IMPACTS CEREAL-APHID INFESTATIONS IN SPRING SMALL GRAINS. Louis Hester, USDA-ARS-NGIRL, Robert K. Berg, Southeast Dakota Research Farm

P22 STARVATION—INDUCED OOSORPTION IN THE BOLL WEEVIL. Charles P-C Suh, USDA-ARS, APMRU, Dale W. Spurgeon, USDA-ARS, APMRU

P23 ATTRACTANTS FOR SCARABAEID ADULTS. Robert L. Crocker, Texas A&M University; Juan D. Lopez, USDA/ARS, Michael G. Klein, Maricela Garcia-Bonilla, Texas A&M University

P24 INFLUENCE OF FLIGHT ON DIET-MEDIATED DIAPAUSE TERMINATION IN THE BOLL WEEVIL. Dale W. Spurgeon, USDA-ARS, Charles P-C. Suh, USDA-ARS

P25 PRELIMINARY ASSESSMENT OF Dorymyex AND Solenopsis INTERACTIONS. Alejandro Calixto, Texas A&M University; Marvin Harris, Texas A&M University; Allen Knutson, Texas A&M University; Charles Barr, Texas A&M University

P26 GENETIC SIMILARITY OF TREE GEOGRAPHIC ISOLATES OF Lysiphlebus testaceipes (Hymenoptera: Aphidiidae) DIFFERING IN
COLD TEMPERATURE TOLERANCE. K.A. Shufran, USDA-ARS, A.A. Weathersbee III, USDA-ARS, D.B. Jones, Oklahoma State University; N.C. Elliott, USDA-ARS

P27 EFFECTS OF GREENBUG INFESTATIONS ON WINTER WHEAT FORAGE. Dennis Kastl, Oklahoma State University; Kris Giles, Oklahoma State University; Emad Ismail, Oklahoma State University; Tom Royer, Oklahoma State University; Norm Elliott, Oklahoma State University; Clint Krebien, Oklahoma State University

P28 IDENTIFICATION AND SEQUENCE OF cDNA GENES ENCODING ACETYLCHELINESTERASE FROM HORN FLIES (Hematobia irritans) AND STABLE FLIES (Stomoxys calcitrans). Kevin B. Temeyer, USDA-ARS

P29 DOCUMENTING BIODIVERSITY IN NEW MEXICO: A COOPERATIVE EFFORT. David B. Richman, New Mexico State University; Carol A. Sutherland, New Mexico State University; Andrine A. Morrison, New Mexico State University

P30 THE CENTER FOR NATURAL HISTORY COLLECTIONS (CNHC) AND ARTHROPOD BIODIVERSITY AT NEW MEXICO STATE UNIVERSITY. David Richman, New Mexico State University; Carol A. Sutherland, New Mexico State University; Andrine A. Morrison, New Mexico State University

P31 CASN EDUCATION FACILITY FOR URBAN INSECT PEST CONTROL. Kevin T. Shelton, Oklahoma State University; Jim T. Criswell, Oklahoma State University; and Bradford M. Kard, Oklahoma State University

P32 THE USE OF AN ENID, OKLAHOMA HOUSING ADDITION FOR MANAGING ENVIRONMENTALLY-SENSITIVE LANDSCAPES: A MODEL SYSTEM FOR IPM EDUCATION. Patricia C. Bolin, Oklahoma State University; Michael A. Schnelle, Oklahoma State University

P33 THE PREDATION OF BLACK CUTWORM LARVAE Agrotis ipsilon BY THIEF ANTS Solenopsis molesta IN A TURFGRASS ECOSYSTEM. Tom A. Royer, Oklahoma State University; Nathan R. Walker, Oklahoma State University

P34 INSECTS IN THE NEWS: INSECTS THAT STIRRED EMOTIONS AMONG NORTHWESTERN TEXAS PANHANDLE COUNTY RESIDENTS DURING 2002. Robert Bowling, Texas Cooperative
P35  BIOLOGICAL CONTROL OF ALFALFA WEEVIL IN NEW MEXICO.  Jane Breen Pierce, New Mexico State Univ., P.E. Yates, NMSU, A.L. Richardson, NMSU, C. Sutherland, NMSU, J.J. Ellington, NMSU, C.S. Bundy, NMSU

P36  Effect of Cotton-Mung Bean Intercropping on Seasonal Activity of Cotton Arthropods.  Feng Ge, Institute of Zoology, Chinese Academy of Sciences and Megha N. Parajulee, Texas Agricultural Experiment Station

P37  INFLUENCE OF CONSERVATION TILLAGE SYSTEM ON COTTON ARTHROPOD PREDATORS.  R.B. Shrestha, Texas Agricultural Research and Extension Center, M.N. Parajulee, Texas Agricultural Research and Extension Center, A.M. Cramner, Texas Agricultural Research and Extension Center, P.L. Bommireddy, Texas Agricultural Research and Extension Center, S.C. Carroll, Texas Agricultural Research and Extension Center, M.D. Arnold, Texas Agricultural Research and Extension Center

P38  SEASONAL ACTIVITY PATTERNS OF Lygus SPECIES AS AF-FECTED BY PLANTING DATE AND COTTON CULTIVAR.  A.M. Cramner, Texas Agricultural Research and Extension Center, M.N. Parajulee, Texas Agricultural Research and Extension Center, J.F. Leser, Texas Agricultural Research and Extension Center, P.L. Bommireddy, Texas Agricultural Research and Extension Center, R.B. Shrestha, Texas Agricultural Research and Extension Center, S.C. Carroll, Texas Agricultural Research and Extension Center, M.D. Arnold, Texas Agricultural Research and Extension Center

P39  INFLUENCE OF IRRIGATION REGIME ON SEASONAL ABUN-DANCE PATTERNS OF Lygus SPECIES IN COTTON.  P.L. Bommireddy, Texas Agricultural Research and Extension Center, M.N. Parajulee, Texas Agricultural Research and Extension Center, D.O. Porter, Texas Agricultural Research and Extension Center, R.B. Shrestha, Texas Agricultural Research and Extension Center, A.M. Cramner, Texas Agricultural Research and Extension Center, M.D. Arnold, Texas Agricultural Research and Extension Center, S.C. Carroll, Texas Agricultural Research and Extension Center

P40  Texas IPM Internship Program.  Thomas W. Fuchs, Texas Cooperative Extension Service; Greta Schuster and Scott Armstrong, Texas Cooperative Extension Service
5:00 – 7:00 pm  LINNAEAN GAMES
                ROOMS 14 & 15, COX CENTER

THURSDAY, FEBRUARY 27, 2003

8:00 am – NOON  FINAL BUSINESS MEETING
                Room 14 & 15, Cox Center
AUTHOR INDEX

SO – STUDENT COMPETITION ORAL PRESENTATIONS
SP – STUDENT COMPETITION POSTER PRESENTATIONS
SY – SYMPOSIUM PRESENTATION
S – SUBMITTED ORAL PRESENTATION
P – SUBMITTED POSTER PRESENTATION

Abramson, C.I. SO7
Ahmad, Aqeeq SP4
Aljamali, M.N. SY15
Al-Zadjali, T. P7
Armstrong, J.S. P17
Arnold, M.D. P2, P4, P37, P38, P39
Arthur, F. SY3
Atkinson, T.H. S16
Bader, A. SO10
Barr, C. P25
Berberet, R.C. P14
Berg, R. P21
Bernal, J.S. SO1, SO4, SO5
Beuhler, H. SP16
Blanton, M. P13
Bogran, C. SY16
Bolin, P.C. P32
Bommireddy, P.L. P2, P37, P38, P39
Bonjour, E.L. P11
Bowling, R. P6, P8, P34
Bradford, J.M. SP
Breqitzer, P.P. P3
Broce, A. SP19
Broekling, C. SY14
Brooks, L. SO11, SP13
Brown, K. SP11
Bruton, B.D. P7, P18
Bundy, C. S. S12, P35
Butler, J. SO5
Calixto, A. SP12, SP13, P25
Camelo, L. P17
Campos, N. S5
Carroll, S.C. P2, P4, P37, P38, P39
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hesler, L.</td>
<td>P9, P21</td>
</tr>
<tr>
<td>Holloway, R.L.</td>
<td>S13, P12</td>
</tr>
<tr>
<td>Hudson, W.</td>
<td>SY10</td>
</tr>
<tr>
<td>Huwman, D.</td>
<td>SY14</td>
</tr>
<tr>
<td>Hulasare, R.</td>
<td>S3</td>
</tr>
<tr>
<td>Ismail, E.</td>
<td>P27</td>
</tr>
<tr>
<td>Jackman, J.</td>
<td>SY5</td>
</tr>
<tr>
<td>Janak, J.</td>
<td>SY11</td>
</tr>
<tr>
<td>Jiang, H.</td>
<td>SP20</td>
</tr>
<tr>
<td>Jones, D.B.</td>
<td>SO8, P26</td>
</tr>
<tr>
<td>Jones, W.A.</td>
<td>SO4, S11</td>
</tr>
<tr>
<td>Kard, B.M.</td>
<td>SP11, P31</td>
</tr>
<tr>
<td>Kastl, K.</td>
<td>P27</td>
</tr>
<tr>
<td>Kindler, D.</td>
<td>S14, P9</td>
</tr>
<tr>
<td>Klein, M.G.</td>
<td>P23</td>
</tr>
<tr>
<td>Knutson, A.</td>
<td>SO1,SO5,S5,SP12,SP13,S5,SY3,SY8,P1,P25</td>
</tr>
<tr>
<td>Koch, M.</td>
<td>P3</td>
</tr>
<tr>
<td>Konemann, C.</td>
<td>P10</td>
</tr>
<tr>
<td>Krebie, C.</td>
<td>P27</td>
</tr>
<tr>
<td>Landolt, P.</td>
<td>S15</td>
</tr>
<tr>
<td>Lazar, M.D.</td>
<td>SP7</td>
</tr>
<tr>
<td>Leser, J.F.</td>
<td>P38</td>
</tr>
<tr>
<td>Lewis, B.</td>
<td>S12,P6</td>
</tr>
<tr>
<td>Lewis, W. J.</td>
<td>S6</td>
</tr>
<tr>
<td>Liang, G.M.</td>
<td>P15</td>
</tr>
<tr>
<td>Liu, T.X.</td>
<td>P15</td>
</tr>
<tr>
<td>Lopez, J.D.</td>
<td>S4, P23</td>
</tr>
<tr>
<td>Lucero, M.</td>
<td>SP18</td>
</tr>
<tr>
<td>Ludwig, S.</td>
<td>SY17</td>
</tr>
<tr>
<td>Madden, R.D.</td>
<td>SO9, S14, SY13</td>
</tr>
<tr>
<td>Manrique, V.</td>
<td>SO4</td>
</tr>
<tr>
<td>Martinez-Ibarra, J.A.</td>
<td>S18</td>
</tr>
<tr>
<td>McCracken, G.F.</td>
<td>P20</td>
</tr>
<tr>
<td>McVay, J.</td>
<td>SY7</td>
</tr>
<tr>
<td>Meikle, W.G.</td>
<td>S2</td>
</tr>
<tr>
<td>Michels, G.J.</td>
<td>SO12, SP8</td>
</tr>
<tr>
<td>Miller, R.J.</td>
<td>S17</td>
</tr>
<tr>
<td>Minton, B.</td>
<td>S19</td>
</tr>
<tr>
<td>Minzenmayer, R.R.</td>
<td>SP6</td>
</tr>
<tr>
<td>Mitchell, F.L.</td>
<td>SO3, P7, P17, P18</td>
</tr>
<tr>
<td>Mize, T.</td>
<td>SY</td>
</tr>
<tr>
<td>Name</td>
<td>Page(s)</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Sambaraju, K.R.</td>
<td>SP7</td>
</tr>
<tr>
<td>Sansone, C.</td>
<td>SY22</td>
</tr>
<tr>
<td>Sauer, J.R.</td>
<td>SY15</td>
</tr>
<tr>
<td>Schleider, P.G.</td>
<td>P20</td>
</tr>
<tr>
<td>Schnelle, M.A.</td>
<td>P32</td>
</tr>
<tr>
<td>Schraeder, M.</td>
<td>SO2</td>
</tr>
<tr>
<td>Schuster, G.</td>
<td>SP19</td>
</tr>
<tr>
<td>Shelton, K.T.</td>
<td>P31</td>
</tr>
<tr>
<td>Sheridan, A.B.</td>
<td>SO7</td>
</tr>
<tr>
<td>Shotkowski, F.</td>
<td>S19</td>
</tr>
<tr>
<td>Showler, A.T.</td>
<td>P19</td>
</tr>
<tr>
<td>Shrefler, J.W.</td>
<td>SP15</td>
</tr>
<tr>
<td>Shrestha, R.B.</td>
<td>P2, P4, P5, P37, P38, P39</td>
</tr>
<tr>
<td>Shufran, K.A.</td>
<td>SO8</td>
</tr>
<tr>
<td>Shufran, R.</td>
<td>P6, P26, P34</td>
</tr>
<tr>
<td>Singh, J.</td>
<td>S10</td>
</tr>
<tr>
<td>Smith, D.</td>
<td>P12</td>
</tr>
<tr>
<td>Smith, P.</td>
<td>SP17</td>
</tr>
<tr>
<td>Snowden, K.</td>
<td>SO3</td>
</tr>
<tr>
<td>Spurgeon, D.W.</td>
<td>P22, P24</td>
</tr>
<tr>
<td>Stacey, M.T.</td>
<td>SP14</td>
</tr>
<tr>
<td>Stevenson, D.</td>
<td>SY5</td>
</tr>
<tr>
<td>Stewart, B.A.</td>
<td>SO12, SP8</td>
</tr>
<tr>
<td>Stichler, C.</td>
<td>P16</td>
</tr>
<tr>
<td>Subramanyam, B.</td>
<td>SY2</td>
</tr>
<tr>
<td>Suh, Charles P-C</td>
<td>P22, P24</td>
</tr>
<tr>
<td>Sumner, L.W.</td>
<td>SY14</td>
</tr>
<tr>
<td>Sutherland, C.A.</td>
<td>P29, P30, P35</td>
</tr>
<tr>
<td>Talley, J.</td>
<td>SP19</td>
</tr>
<tr>
<td>Temeyer, K.B.</td>
<td>P28</td>
</tr>
<tr>
<td>Tertuliano, M.</td>
<td>S6</td>
</tr>
<tr>
<td>Thomason, R.C.</td>
<td>SP7</td>
</tr>
<tr>
<td>Thompson, D.C.</td>
<td>SP9, SP16, SP17</td>
</tr>
<tr>
<td>Thorvilson, H.</td>
<td>SO2</td>
</tr>
<tr>
<td>Tomberlin, J.K.</td>
<td>S6</td>
</tr>
<tr>
<td>Torres-Escuela, B.N.</td>
<td>S18</td>
</tr>
<tr>
<td>Troxclair, N.</td>
<td>S13</td>
</tr>
<tr>
<td>Veerabomma, S.</td>
<td>SP8</td>
</tr>
<tr>
<td>Vinson, S. B.</td>
<td>SO3</td>
</tr>
<tr>
<td>Walker, N.R.</td>
<td>P33</td>
</tr>
<tr>
<td>Wayandande, A.</td>
<td>P7, P18</td>
</tr>
</tbody>
</table>
Weathersbee III, A.A. P26
Westbrook, J.K. P20
Wharton, R.A. SO10
Wilde, G. SP4, S10
Wilson, L.T. P1
Yang, Z. S14
Yates, P.E. P35
Zarrabi, A.A. P14
Zhang, Y. SY12
Zou, Z. SP20
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Pres. Russel E. Wright 1989-90
Pres. Russ Andrews 1987-88
Pres. Don Rummel 1986-87
Pres. John E. George 1985-86
Pres. Paul D. Sterling 1984-85
Pres. H. Grant Kinzer 1983-84
Pres. James R. Coppedge 1982-83
Pres. Bill C. Clymer 1981-82
Pres. Horace W. VanCleave 1980-81
Pres. Robert L. Harris 1979-80
Pres. J. Pat Boyd 1977-78
Pres. Weldon H. Newton 1975-76
Pres. Harry L. McMenemy 1974-75
Pres. Roger O. Drummond 1973-74
Pres. Dieter S. Enkerlin 1972-73
Pres. Stanley Coppock 1971-72
Chm. C.A. King, Jr. 1970-71
Chm. Ted McGregor 1969-70
Chm. Neal M. Randolph 1968-69
Chm. Walter McGregor 1967-68
<table>
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<th>Name</th>
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<td>Chm. Harvey L. Chada</td>
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<td>Chm. P.J. Reno</td>
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<td>Chm. R.C. Bushland*</td>
<td>1951-52</td>
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<tr>
<td>Chm. H.G. Johnston*</td>
<td>1950-51</td>
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* Southwestern Branch, American Association of Economic