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**PROGRAM SCHEDULE ..... 2**

**Engineering, Math, and Physical Sciences**
*March 31st*

# Oral Presentation Abstracts

## Agricultural Sciences

### FUTURES PRICOh9URMRETEES

***~1***

# SUPERIOR REDUCTION OF SOIL LEAD BIOACCESSIBILITY VIA PHOSPHORUS SOURCE AND RATE SELECTION

**Chandima Wekumbura[1]**, Ganga M. Hettiarachchi[1], William Hargrove[2], and Christina Sobin[3]
*[1]Department of Agronomy; [2]Centre for Environment Resource, University of Texas at El Paso; [3]Department of Public Health Sciences, University of Texas at El Paso*

**BACKGROUND AND PURPOSE:** The study of low-cost and environmentally safe inorganic and organic amendments for the in-

# THE CANINE HOST APPEARS TO SERVE AS A SENTINEL SPECIES FOR TICK-BORNE DISEASES CAUSED BY *ANAPLASMA, EHRLICHIA* AND *BORRELIA* PATHOGENS IMPACTING HUMAN HEALTH IN THE USA

**Swetha Madesh**[1], Arathy D.S.Nair[2], and Roman R.Ganta[1*]
[1,2]*Department of Diagnostic Medicine/Pathobiology*

**INTRODUCTION:** Tick-borne diseases continue to threaten the health of people and dogs. In the USA, human Lyme disease cases, caused by *Borrelia burgdorferi*, are the highest followed by diseases resulting from *Ehrlichia* and *Anaplasma* species. We investigated the prevalence of these diseases in dogs and compared with human data. **METHODS:** Clinically suspected dog blood samples from across the US were assessed for pathogen-specific antibodies. An ELISA assay was performed for *B. burgdorferi*, while indirect immunofluorescence assay was used for *E. chaffeensis, E. canis* and *A. phagocytophilum.* **RESULTS/DISCUSSION:** A total of 1,340 samples were assessed for antibody analysis. A

***~1ST PLACE PRESENTATION~***

# EFFECTS OF PULMONARY HYPERTENSION ON MICROCIRCULATORY HEMODYNAMICS IN RAT SKELETAL MUSCLE

**Kiana M. Schulze**[1]

**FUNCTION INVESTIGATTT T**

**MODELING NEUTSBC UTAMNTSWIUTJDE**

**ENCAPSULATION OF NANOPARTICLES INTO SELF-ASSEMBLED RECOMBINAI/0wOTLEES I CAEOHSCLOGI(E)2(S)]TJETQq0.00000912 0 612 792 reW*nBT/F**



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# Poster Presentations

***~2ND PLACE PRESENTATION~***

# ASSESSING URBAN STRESS AND WELL-BEING IN HIGH-CRIME NEIGHBORHOODS

**Kastasya Jackson**

*Department of Lao4acArce*

***~1ST PLACE PRESENTATION~***

**FLOWER PRINTS: A VALUE-ADDED APPLICATION FOR FLORAL WASTE**

**Nadeeshani Ratnayaka** and Sherry Haar
*Department of Interior Design and Fashnat Studies*

**BACKGROUND:** Each year significant numbers of flowers from templ( )]BT/F3 12 Tf1 0 BT309woohip1 73(h

N73(a)4(ge)4( |)10( )] TJEBTQ q0.00000912 0 612 792 reW* nBT/F3 12 Tf1 0 0 1103.584 52.344 Tm0 g0 G[3