

CONTACT: Terri Lloyd

1-3-12-84

LUBBOCK--Dr. Allen Stubberud, chief scientist for the U.S. Air Force, has given \$1,000 to the Texas Tech University chapter of Tau Beta Pi, engineering honorary society.

Stubberud received a \$1,000 honorarium for speaking at Texas Tech as part of the Halliburton Distinguished Lecture Series in the College of Engineering. He donated the honorarium to Tau Beta Pi.

Ravi Vallabhan, a civil engineering senior and president of Tau Beta Pi, accepted the gift from Stubberud.

Vallabhan is the son of Dr. and Mrs. C.V.G. Vallabhan, 1802 Albany, Lubbock.

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2-3-12-84

SPEAKER GIFT--Dr. Allen R. Stubberud, chief scientist for the U.S. Air Force, has donated the \$1,000 honorarium he received as a Halliburton Distinguished Lecturer in the Texas Tech University College of Engineering, to the engineering honor society Tau Beta Pi. Participating in the presentation are, from left, Tau Beta Pi President Ravi Vallabhan and Stubberud.

CONTACT: Clifford Cain

3-3-12-84

LUBBOCK--Texas Tech University's 1984 junior meat judging team has wrapped up its spring competition by placing third among 13 teams at the Houston Livestock Show and Rodeo intercollegiate contest.

Counting the Houston competition, the team has placed first four times and never lower than fourth in the past eight contests and has competed against between 11 and 24 teams at each judging.

Last year, the university came in first overall at the Houston contest.

Two of Texas Tech's six agricultural sciences sophomore team members placed in the top 10 out of 71 participants.

Kary Kent, animal business major, placed sixth overall with 904 points. He is the son of Mr. and Mrs. Wendell Kent, Route 1, Sweetwater.

The other top-placer was Troy Jenschke, animal production major, who was seventh overall with 900 points. He also came in first in placings and fourth in beef grading. He is the son of Mr. and Mrs. Albert Jenschke, Route 1, Fredericksburg.

At the March 3 contest, the team received 3,574 points out of a possible total of 4,000 points. In two previous contests, Texas Tech was first overall at the National Western-Denver competition in Greeley, Colo., in January and at the Southwestern contest in Fort Worth in February.

The Houston show was the last meat judging contest of the spring semester. The team will resume competition in October.

The team is coached by animal science graduate teaching assistants Terry Rolan and Mark Miller and animal science Professor G.W. Davis.

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4-3-12-84

PLACED IN TOP 10--Texas Tech University's junior meat judging team placed third at the Houston Livestock Show and Rodeo intercollegiate contest. Two of the six members of the team placed in the top 10, including Kary Kent of Sweetwater. Participating in an awards presentation are, from left, graduate teaching assistant Terry Rolan, Kent and animal science professor G.W. Davis. Rolan and Davis coach the team. Kent is the son of Mr. and Mrs. Wendell Kent, Route 1, Sweetwater. (TECH PHOTO)

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5-3-12-84

PLACED IN TOP 10--Texas Tech University's junior meat judging team placed third at the Houston Livestock Show and Rodeo intercollegiate contest. Two of the six members of Texas Tech's team placed in the top 10, including Troy Jenschke of Fredericksburg. Participating in an awards presentation are, from left, graduate teaching assistant Terry Rolan, Jenschke and animal science Professor G.W. Davis. Rolan and Davis coach the team. Jenschke is the son of Mr. and Mrs. Albert Jenschke, Route 1, Fredericksburg. (TECH PHOTO)

CONTACT: Cheryl Duke

6-3-12-84

Attention: Science Editors

LUBBOCK--Characteristic differences among hominids -- primate mammals in the family of man and their ancestors -- will be discussed during a March 28-31 scientific gathering at Texas Tech University.

Perry Keith Randall of Southwest Texas State University will present a paper on the Australopithecus and the Plio-Pleistocene Homo during the Social Sciences Section of the Southwestern and Rocky Mountain (SWARM) Division of the American Association for the Advancement of Science annual meeting.

The Australopithecus is an extinct genus generally considered a relative or possible ancestor of man and possibly a transitional form between man and ape. The Plio-Pleistocene Homo is the first modern man, appearing during the Ice Age.

Randall says there is a consistent divergence from the ape-like characteristics of earlier ape-like forms distinguishing the Australopithecus africanus fossils unearthed in Africa and the Homo habilis fossils found in East Africa.

He says the same distinguishing features differentiate the graceful australopithecines from the earliest members of the genus Homo. The habilis fossils have been considered a transitional fossil between Australopithecus and extinct man, but they are usually classified with the latter.

In his diagnosis, Randall will use fossil remains from South Africa and East Africa, including those unearthed in Olduvai Gorge in Tanzania and the Lake Turkana basin in Kenya.

Other social sciences topics to be covered at the meeting will include the Neanderthal legacy, a Pleistocene Site in Central Saudi Arabia, archeological excavations at the Maya Site of Cerros in Belize, the dynamics of language with Hopi cultural "Eventing," women in world market factories in the East and West, Apache archeology, and bone technology and adaptive response to the late Holocene environmental dynamics of the Southern High Plains.

The SWARM meeting will also involve the New Mexico Academy of Sciences, the Southwestern Comparative Psychology Association and the AAAS Committee on Desert and Arid Zones Research.

Registration for any session is open to the public.

Texas Tech News

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CONTACT: Cheryl Duke

7-3-13-84

LUBBOCK--Fifty years ago, a party of Texas Tech University professors, Lubbock community professionals and a Harvard professor made one of the earliest scientific expeditions among the Yaqui Indians of Sonora, Mexico.

This April, a Texas Tech-based group, will return to those Yaqui villages seeking new ethnographic information on the Indian group of Northern Mexico.

The commemorative Yaqui expedition, funded partially by the Lubbock Cultural Affairs Council, is sponsored in conjunction with "The Year of the Yaqui," the fifth annual Texas Tech Native American Symposium scheduled April 25-27.

Leaders of the 1984 expedition, April 15-24, will be Dr. Jane Holden Kelley, chairman of the archeology department at the University of Calgary, Alberta, Canada, and Dr. Robert G. Campbell, Texas Tech anthropology professor.

Kelley is the daughter of Dr. William Curry Holden, Texas Tech professor of history emeritus and leader of the 1934 Yaqui expedition and successive expeditions. Kelley is a recognized authority on the Yaqui and author of many scholarly papers, articles and books. She is author of "Four Yaqui Women" and co-author (with Rosalio Moises and Dr. Holden) of "The Tall Candle, The Personal Chronicle of a Yaqui Indian."

Campbell has taught at Texas Tech since 1969 and has had anthropology field courses throughout Mexico and the Southwest. He earned a bachelor's degree in anthropology at Vanderbilt University and master's and doctoral degrees at the University of Colorado-Boulder.

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Others from Texas Tech in the 1984 expedition will include history and law Professor John R. Wunder; history Professor Dan L. Flores; telecommunications Professor Dennis A. Harp; mass communications Professor Ashton G. Thornhill; and history instructor Willard Rollings. Harp will videotape Yaqui celebrations, including the annual "Fiesta de Gloria," Easter ceremony, and other activities. Thornhill will be photographer.

The group will investigate and record changes among the Yaqui and their relationships within their villages and with the Mexican government. The effects of modernization on Yaqui transportation, communication, dress, household operations, food sources, social structure, entertainment, education, witchcraft, economy and language will be studied.

Findings will be reported during the April 25-27 symposium at The Museum of Texas Tech. Videotapes of the 1984 and films of previous expeditions will be shown.

Open to the public free, the symposium will include Yaqui dancers, musicians and artists and papers on various aspects of Yaqui life presented by Yaquis and non-Yaqui scholars. Kelley will be one of the key speakers.

April 26, Dr. Holden and his wife, Frances Holden, will discuss earlier expeditions among the Yaqui villages.

The 1934 expedition included the late Dr. C.J. Wagner of Lubbock who studied Yaqui medicine, sharing trade secrets with a medicine man; the late Dr. Richard A. Studhalter, then head of the Texas Tech Biology Department who studied plant life, and the late William G. McMillan, Lubbock contractor who studied Yaqui architecture and natural history of the region.

Others were Dr. Carl Seltzer, physical anthropologist from Harvard; and Texas Tech students Bennie McWilliams, Ross Edwards and Frank Maddox.

With the depression and the resulting bank holiday, the 1934 party set out with little money but much enthusiasm and zeal for what Dr. Holden viewed as an opportunity of a lifetime. They had had contributions of food, gasoline, truck equipment and services from the Lubbock community.

Holden obtained Mexican government permission for the expedition through Mexican cabinet member Ramon Beteta, a half-Yaqui and a former classmate of Holden's from the University of Texas-Austin.

Holden said the only scientist previously known to have penetrated the country of the feared tribe was Dr. Ales Hrdlicka, curator of the U.S. National Museum and later chief of the Smithsonian Institution. He had gone to Sonora in 1902 and collected limited data, including anthropometric measurements of the people.

Since the first Texas Tech expedition, Dr. Holden has led several expeditions. In September of 1934, he and Dr. Studhalter returned to observe the harvest and summer's effects on the plant life. They took the late Dr. Charles B. Qualia, linguist and Texas Tech foreign languages professor, as interpreter.

After a third expedition in April 1938, Holden reported the Yaquis were at that time gradually adopting modern products -- shoes for the once barefoot women and oxfords instead of sandals for the men.

"The Year of the Yaqui" is sponsored by the International Center for Arid and Semi-Arid Land Studies, Lubbock Cultural Affairs Council, The Museum of Texas Tech and the West Texas Museum Association.

CONTACT: B. Zeeck

8-3-13-84

LUBBOCK--About 275 participants from 18 nations are expected to attend the third International Symposium on Selenium in Biology and Medicine in Beijing (Peking), China, May 28-June 1.

Conference coordinator is Dr. S.P. Yang of the food and nutrition faculty at Texas Tech University. The symposium sponsor is the World Health Organization.

Selenium is a trace element essential for health of humans and other animals, but it becomes toxic when oversupplied to living systems. It is the substance which gives loco weed its capacity to effect livestock disorders. The same substance, however, is needed for normal function of the liver, pancreas and heart in humans as well as other animals.

The importance of the China conference, Yang pointed out, is the practical experience that country has in studying selenium deficiency in special populations. In isolated rural areas, where people and livestock eat food grown in selenium deficient soils, it has been possible to make special studies of the results of selenium deficiency in humans.

"Until recently, clinical symptoms of selenium deficiency in humans, even in the low selenium regions, had not been reported," Yang said. "Recent studies in China, however, have identified a fatal cardiomyopathy (Keshan disease) and an arthritic disease (Kaschin-Beck disease) to be associated with severe selenium deficiency.

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"In a long geographical belt in China where the soil is deficient in selenium, Keshan Disease is reported to affect about 1 percent of infants and children with a fatality rate approaching 80 percent."

"Selenium also is believed to have importance in the prevention of some cancers," Yang said.

"The collaboration of Chinese and Western scientists in the discussion and study of the roles of selenium in nutrition and health has been a natural consequence of two things: 1) the expertise available in the West in basic and applied areas of nutrition and biochemistry of selenium and other nutrients and 2) the practical experience of the Chinese with selenium and human diseases," he explained.

"This mix of complementary knowledge has already resulted in a series of collaborative research programs between Chinese and American scientists in the health and agriculture fields," he said.

Working with Yang and Dr. Julian E. Spallholz in the Texas Tech Institute for Nutritional Sciences are Chinese scientists Dr. X.M. Luo and Dr. H.J. Wei, both with special interest in the role of selenium in human nutrition. Spallholz, director of the Texas Tech institute, has made a special study of selenium for the past 20 years.

"Marco Polo described selenium toxicity in horses about the year 1265," Spallholz said, "and selenosis among horses and other livestock has long been known in the western United States where it is known to cause loss of hooves and hair from manes and tails.

"Some even claim too much loco weed might have contributed to Custer's defeat at Little Big Horn because of selenium in the plant which affects the animals' central nervous systems."

Texas Tech University was a sponsor of the second International Symposium on Selenium in Biology and Medicine, held in Lubbock in 1980.

Program co-chairmen for the third symposium are Dr. Gerry Combs Jr., Department of Poultry Science, Cornell University, and Dr. Shiru Niu, Institute of Health, Chinese Academy of Medical Sciences.

Participants can include in their trip 15-day tours including visits in seven cities within the People's Republic of China.

Among program topics are biochemistry and metabolism of selenium, selenium in the food chain, selenium in human diseases -- cancer, Keshan disease and Kaschin-Beck disease, selenium in human and animal nutrition, nutritional interaction of nutrients with selenium, adaptations and dose response effects of selenium, selenium toxicity, and analytical, biochemical and nutritional assessment techniques for selenium. There also will be sessions for short papers and a general poster session for researchers to display research results.

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9-3-13-84

SELENIUM SYMPOSIUM COORDINATORS--Planning for the third International Symposium on Selenium in Biology and Medicine, to take place May 28-June 1 in Beijing (Peking), China, are, left to right: Interim Chairperson S.P. Yang of the Texas Tech University Department of Food and Nutrition and his colleagues, Drs. Julian E. Spallholz and X.M. Luo. Spallholz, who has made a special study of selenium for 20 years, is director of the Texas Tech Institute for Nutritional Sciences. Luo, from the People's Republic of China, is an adjunct professor working with nutritionists at Texas Tech. (TECH PHOTO)

CONTACT: Cheryl Duke

10-3-13-84

LUBBOCK--A Texas Tech University home economics professor's cancer research is scheduled for presentation on a national television broadcast Thursday (March 15).

(Young)

The work of Dr. S.P. Yang, interim chairman of food and nutrition, will be part of a Lifecare Digest segment on esophageal cancer. The segment is to be aired during the "700 Club" talk show on the Christian Broadcast Network (CBN). In Lubbock, the talk show is aired 6-7 a.m. on KAMC-TV, Channel 28.

Dr. Yang has studied the effects of the trace element molybdenum on esophageal cancer. He said the element appears to be an effective anti-carcinogen for the organ-specific carcinogen which leads to cancers of the esophagus and forestomach.

The relationship between molybdenum deficiency and esophageal cancer was first reported in 1966 by scientists conducting research in South Africa. The soil was low in the trace element and this particular cancer was high.

Yang said subsequent research has been done in Russia, China and Iran where esophageal cancer kills 200 persons per 100,000 population and where the soil is molybdenum-deficient.

In the United States, Yang said, most people get adequate amounts of molybdenum in their diets. It is found in both plants and animals where the soil contains sufficient amounts.

Yang's continuing research seeks to determine the best dosage of dietary molybdenum in the prevention of esophageal cancer. He said too much of the element would be detrimental.

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CONTACT: Clifford Cain

11-3-13-84

LUBBOCK--Two Texas Tech University professors are studying the feasibility of introducing photosynthetic traits into a weedy plant species through hybridization as a way of improving the plant's efficiency in assimilating carbon dioxide.

A plant's ability to assimilate carbon dioxide relates to its role as a food and oxygen producer, said Texas Tech biological sciences Professor Mary E. Doohan. Production of oxygen is a byproduct of the plant's conversion of carbon dioxide, using light as an energy source, into sugars, proteins, carbohydrates and other foods necessary to human and animal health.

The project will be one of several presented during the 60th annual meeting of the Southwestern and Rocky Mountain (SWARM) Division of the American Association for the Advancement of Science at Texas Tech March 28-31.

The four-day meeting also will involve the AAAS Committee on Desert and Arid Zones Research, the New Mexico Academy of Sciences, and the Southwestern Comparative Psychology Association.

About 400 of the 15,000 members of SWARM are expected to attend the sessions which will address topics of current interest in the physical, natural and social sciences. Registration for any session is open to the public.

Texas Tech biological sciences Professor A. Scott Holaday, who is working with Doohan, said the plant being studied is common to Florida, Mexico and south central Texas and is a member of the genus *Flaveria*.

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Hybrids of species in Flaveria, which contains species with three different photosynthetic mechanisms, are being used to study the levels of photosynthetic features required for improving carbon dioxide assimilation and the genetic control of these features.

Preliminary studies have revealed that the plant offspring obtained certain photosynthetic traits, such as key photosynthetic enzymes and leaf anatomical features, from both parent plants.

The findings suggest that hybridization may be used to introduce certain traits into some photosynthetically inefficient species to increase their ability to assimilate carbon dioxide, he said.

In other species, genes controlling these traits might be introduced through genetic engineering, he said.

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12-3-13-84

1934 YAQUI EXPEDITION--This Texas Tech University group, led by Dr. William Curry Holden, far left, set out for one of the earliest expeditions among the Northern Mexico Yaqui Indians in the spring of 1934. To commemorate that event on its 50th anniversary, a Texas Tech party will visit Yaqui villages this April for a contemporary view of the native group. The 1984 expedition and a museum exhibit are part of "The Year of the Yaqui" public symposium planned at Texas Tech April 25-27.

(TECH PHOTO)

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13-3-13-84

"YEAR OF THE YAQUI"--The Yaqui Indians of Northern Mexico and Southern Arizona and the half century of Texas Tech University research on them will be highlighted this spring at the university. Information on the first Texas Tech expedition to the Yaqui Villages of Sonora, Mexico, which took place in 1934, is part of a museum exhibit on the Yaqui. A commemorative expedition will take place this April and activities will culminate in "The Year of the Yaqui" public symposium at the university April 25-27.
(TECH PHOTO)