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# Texas Tech News

UNIVERSITY NEWS AND PUBLICATIONS/P.O. BOX 4650/TEXAS TECH UNIVERSITY/LUBBOCK, TEXAS 79409/(806) 742-2136

## AFTER HOURS CALL:

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1-8-1-83

LUBBOCK--A challenge facing the further development of energy from wind is working out the bugs -- like those found on car windshields after a long trip.

The bug problem, reports Texas Tech University Professor J. Walt Oler, cuts dramatically into the efficiency of wind turbines.

"Over the course of a year, you can lose up to about 20 percent of your total annual energy production because of surface roughness," said Dr. Oler of the Mechanical Engineering Department.

Oler initiated research into blade roughness after a conversation with a manufacturer of horizontal-axis wind turbines. The manufacturer noted output reductions as blade roughness increased and significant improvements in power production after a rainstorm had cleaned the blades.

"In particular what he was talking about was bug guts on the blade," Oler said. "We've played it down in all our technical writing and called it surface roughness or roughness due to the impact of flying insects but really what we are talking about is bug guts like you have on your windshield."

Though windblown sand can cause problems over the long term of a turbine's life, the project funded by the Texas Tech Center for Energy Research has shown that a swarm of suicidal insects can cause immediate reductions in energy output.

"That could disappoint someone who had spent \$60,000 on a wind energy system, installed it and found it produced only 70 or 80 percent of the kilowatt hours it was expected to produce," he said.



"Another thing, on the bigger machines it would not be a simple task to clean the blades, even if you recognized the surface had gotten in bad condition."

To clean the blades on many machines requires removal of the turbine from its tower. That would involve special equipment and additional expense, particularly on the bigger models with a turbine disk diameter of a hundred feet.

Oler indicated a high pressure water line to clean off turbine blades in place might be a solution to the problem, but additional study is needed.

"You have to make some kind of trade off in the cost of the energy you are losing and the cost of the cleaning process," he said.

Oler based his findings on a numerical study using a computer model to simulate blade roughness effects on turbines with diameters of 32, 100 and 200 feet. He calculated the total potential energy output of a turbine for a year and then compared that with the diminished output attributable to blade roughness from insect remains.

"What you really want is what it costs you in dollars and cents over a year," Oler said."

With a 20 percent loss of energy output, the costs can be sizeable. Finding a suitable method of dealing with the problem is important, Oler said, because it is doubtful the efficiency of wind turbines can be improved more than 5 percent over the next century. The gains from perfecting wind energy machines will have to come from other areas.

"What you can hope to do through research," Oler said, "is to produce machines more economically, to operate them more reliably and to more efficiently utilize the materials you use to manufacture them."

Wind energy systems are sound economic investments in remote places where the cost of running electric lines is prohibitive, but remain uneconomical for large-scale energy generation, he said.

"As far as using wind for municipal energy production, it is not really feasible," Oler said. "The reliability of the wind is not what the reliability of the gas-powered generating plant would be. That reliability is a big factor in municipalities."



CONTACT: Terri Lloyd

2-8-1-83

LUBBOCK--When some 23,000 plus students begin classes at Texas Tech University this month, they will see the new blended with the traditional academics and activities that are an integral part of Red Raider life.

Leading the list of new for the 1983 fall semester is a new computerized registration system. There will be new deans in the College of Arts and Sciences and the College of Education. A new college of Home Economics program in Restaurant, Hotel and Institutional Management is expected to attract students from all over the state.

With each fall comes a new football team and a rekindled hope that this will be the year the Red Raiders wind up in the Cotton Bowl. Adding to the annual fall fervor is the "Goin' Band from Raiderland" going into the second season with its new look, a matador style which is actually reminiscent of earlier Red Raider Bands.

And, most important among all the new will be those incoming freshmen and transfer students who will be making Texas Tech their academic home for the first time.

The new computerized registration system has been designed to improve the registration process. Many students pre-registered for 1983 fall classes back in the spring and are ready to report for the first day of classes Aug. 29. Many incoming students have already registered during summer orientation conferences, but many still must register before classes begin.

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Since this is the first time through for computer registration, some lines and delays are expected as students and staff grow accustomed to the new process. Officials are confident the new system will improve services to students. Their estimation has been confirmed, in part, by the way the system has worked so far and by the decision of two other large state universities to adopt the system.

In addition to doing away with Coliseum registration, the new system will improve the student advising process and help move students toward a degree with improved faculty supervision.

New picture identification cards will be issued to all students this fall. A student will use a single card for dorm meals, library checkout, check cashing and other campus services. The permanent cards will be used each semester after enrollment and fee information is updated. Cards will be distributed Aug. 24-29 in the University Center.

Residence halls will open at 10 a.m. Aug. 24 for occupancy.

New deans at the university will be Dr. William B. Conroy in Arts and Sciences and Dr. Richard E. Ishler in Education. Both will assume their positions Sept. 1.

The new program in Restaurant, Hotel and Institutional Management will begin this fall as only the second four-year program of its type in the state. The field is projected as a growth area for Texas and the Southwest. A new doctoral degree in Computer Science also will be offered this fall for the first time.

This fall promises to be an exciting year for Red Raider football fans. Since Jerry Moore took over as head coach two seasons ago, the Red Raiders have been on a marked course of improvement. This year Moore will have the depth that has plagued his competitive teams the past two seasons.



In addition to footballs, there is a lot of music in the air each fall thanks to the Texas Tech Marching Band. Band practice this year will begin Aug. 21 with tryouts on Aug. 24.

Both the band and the football team will perform to a packed Jones Stadium during six home games. The home schedule is: Texas A&M, Oct. 1; New Mexico, Oct. 8; Rice (Homecoming), Oct. 15; Tulsa, Oct. 22; TCU (Family Day), Nov. 5; and Arkansas, Nov. 26.

Other extracurricular activities this fall will include a full schedule of intramural sports, movies -- Raiders of the Lost Ark, Tootsie, Victor/Victoria, Rocky Horror Picture Show among others, sorority rush on Aug. 20, fraternity rush on Aug. 24, a talk by "Today Show" host Bryant Gumbel on Nov. 4, Texas Tech Intercollegiate Rodeo from Nov. 10-12 and a variety of other activities designed to offer both entertaining and educational breaks from the classroom.

Despite all the extracurricular opportunities, the emphasis at Texas Tech remains on education. Numerous special services are available for students through the Texas Tech Counseling Center. Students needing help with career choices, personal or social problems and academic difficulties will find a professional staff there to assist.

The center also operates Interchange for troubled students to call after hours and talk with a volunteer. New Tech-Tele-Tapes are available for students on a variety of subjects.

With more than 23,000 students on campus, no problem is unique and all students need to do for help is ask when the need arises.

And finally, students who attend Texas Tech will find themselves changing and discovering new things about themselves and their world. That is what education is all about.



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3-8-1-83

LUBBOCK--Texas Tech regents, meeting Friday (Aug. 5), will consider fiscal year '84 budgets totalling about \$208.7 million for the university, museum and health sciences center.

The meeting will begin at 8:30 a.m. in the board room in the Administration Building.

The regents also will consider revised admission and retention standards for university students.

Under discussion also will be a management plan to deal with a rising level of water under the campus.

Also due consideration is a proposal for the university to offer the master of arts degree in philosophy; authorization for the administration to plan for the 1984 sale of an additional \$1.5 million in general tuition revenue bonds; and several matters relating to construction on campus.

Among these are proposals to award contracts for an addition to the feedmill and construction of a feedlot at the Texas Tech University Agricultural Field Laboratory in Lubbock County and for renovation and expansion of Central Heating and Cooling Plant No. 2.

The regents will discuss future reconstruction of the university's Livestock Arena, damaged in a snowstorm last winter, and proposals for completion of the Art Building sub-basement, a University Theatre addition and renovation of the Industrial Engineering Building.



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6-8-2-83

LUBBOCK--Russian language classes for children in grades 4-6 will be offered through the Texas Tech University Department of Germanic and Slavic Languages Sept. 15 through Nov. 17.

The course will be taught 4:30-5:40 p.m. each Thursday in the Qualia Room of the Foreign Language Building by a faculty member of the department. A public graduation ceremony will conclude the last class period.

Russian Professor W. T. Zyla said the need is growing for Russian language knowledge in fields such as education, business and governmental affairs.

Children will learn Russian folk dances and songs. Two Texas Tech students who study Russian will assist with the class.

Registration is open to students from all elementary schools on a first-come, first-served basis. A \$10 fee for supplies may be paid at the first class meeting. To pre-register students, parents should call the Department of Germanic and Slavic Languages, 742-3282, 8 a.m. to noon or 1-5 p.m. weekdays.

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7-8-2-83

ATTENTION: Business Editors

LUBBOCK--Dr. Timo J. Santalainen, developer of an internationally recognized management concept called results management, has been appointed visiting professor in the area of management, College of Business Administration, Texas Tech University.

Dr. Carl H. Stem, dean of business administration, announced the appointment.

"Professor Santalainen, with his experience as director of human resources for the largest bank in Finland, brings a wealth of expertise in business and management and an international perspective to a business school.

"He will greatly enrich the learning and research environment in this college," Stem said.

Santalainen's management approach centers on a blend of life planning between a company and its employees.

The Finnish banker says that his technique has been taught for executives in more than 50 countries, including many European countries, several developing countries and the United States.

The method shows similarities to management by objectives, a concept popular world-wide, but the difference is an emphasis on a blend of individual goals with company goals, he said.

"Results management is a three-step approach which begins with planning, defining desired results, both by a company and individuals," he said.

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Santalainen, using a round loaf of bread as a pie graph, illustrates several aspects of personal planning. Areas include work, family, physical condition and health, motivation, human relationships, hobbies, finances and religion. Employees decide how to cut their loaves of bread to match their goals.

This employee life planning combined with organizational goal-setting brings effective results, Santalainen said.

He said that Finnish employees tend to be best motivated by quality of life. He contrasts Finns to Americans who, he said, appear to him to be motivated more by money.

"The changes in the world economy and industries have cause many people to listen to someone from a small country. Finland makes up less than .1 percent of the world's population; yet it contributes .9 percent of the world's trade," Santalainen said.

The second step, implementation, focuses on practicality. Matching employee and company goals helps meet requirements of the company as well as the employee's personal lives.

"We often make plans and then don't know how to use them," Santalainen said.

Santalainen said that implementation in results management is a complex and long process. Time spent implementing goal-oriented behavior is as vital to the process as is the goal-setting step.

"This is a situational management process and managers seem to like it because it is so practical. The daily management process looks at essential external and internal situations which affect managerial style," Santalainen said.

The implementation process focuses on practical techniques to help in day-to-day business operation, Santalainen said.

Evaluation, the final step, examines how well the planning has been implemented and fosters future planning.

Santalainen said his management approach has been well-received by companies because it works.

"The main reason is that a results management frame implies a managed change process to implement set goals," he said.

Santalainen has published a major book on results management. Articles in management journals and business magazines have been published in Finland, Denmark, Sweden, West Germany, Switzerland, Belgium, Spain and the United States.

Santalainen's degrees are in business, sociology, economics and business administration.

His Texas Tech appointment is for the second summer term and the 1983 fall semester.



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8-8-4-83

LUBBOCK--Members of the search committee for a new dean in Texas Tech University's College of Engineering have been announced by Academic Affairs Vice President John R. Darling.

Dr. Sam E. Curl, dean of the Agricultural Sciences College, is chairperson of the search committee.

Committee members will be Dr. Marion O. Hagler of electrical engineering, Dr. Joseph E. Minor of civil engineering, Dr. Milton L. Smith of industrial engineering, Dr. James H. Strickland of mechanical engineering, A. Dudley Thompson of architecture and David L. Smith, president of the Engineering Student Council.

Dr. Leonard J. Brownlee, assistant vice president for academic affairs, will serve as an ex-officio member.

The search for an engineering dean was re-opened after the man named earlier to that position, Dr. Robert D. Dryden, requested to be relieved of his commitment.

Darling said a national search will be conducted for a permanent dean.

"All members of the university community, and in particular the College of Engineering, are asked to become active participants in nominating appropriate individuals to be considered by the committee, and in the interview and selection process," Darling said.

Dr. Jimmy H. Smith has served as interim dean since previous dean John R. Bradford became vice president for development in March 1982.



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9-8-4-83

ATTENTION: Farm Editors

LUBBOCK--By taking the guesswork out of cotton harvesting, a Texas Tech University industrial engineer aims to help cotton farmers take more profits to the bank.

Dr. Milton L. Smith has developed a microcomputer program which will allow farmers to review their harvesting options and find the least costly way of picking cotton.

"A farmer can take the program, put in his data and simulate various harvesting scenarios. He can play 'what if' questions with various types of harvesting equipment," Smith said.

The result of figuring each harvesting option is a dollar figure which Smith calls the modified gross profit because it does not include production costs. Since that portion of production costs not included are fixed before harvesting begins, a farmer's profit is enhanced by every reduction in harvesting costs.

"The objective is to select the equipment that will maximize that modified gross profit figure," Smith said. "Minimizing harvesting costs will maximize profits."

Smith's research was funded by Cotton Inc., which plans to eventually make the computer program available to farmers. The program can run on any microcomputer with 64K of memory, a disk drive and a printer.

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Factors fed into the computer by the farmer include the number of acres, number of different fields, significant differences among fields, harvest dates, number of harvesters in each field, harvest hours per day, acres per hour of harvesting equipment and seed cotton storing and handling equipment.

Some factors are necessary for the farmer's gin community. Primarily, these are the number of acres, harvesters and trailers for other farmers using the same gin and the gin's daily operating hours and bales per hour.

Combined with these figures are the region in Texas where the crop was grown and the harvesting weather pattern, either good or bad. When this data is run through the microcomputer model, a day-by-day calendar of harvest activities is produced for the various harvesting and handling combinations available to the farmer.

"The model simply evaluates some solution that the user describes," Smith said. "The solution we are describing is harvesting and seed cotton handling equipment. So we have to specify what we think is a good combination and then the model will evaluate it and tell us what dollar level that will give us.

"We keep searching through some that are reasonable until we find one that maximizes the profit," he said.

CONTACT: Cheryl Duke

10-8-4-83

LUBBOCK--The National Golden Spur Weekend, filled with Western flavor in food, fun and art Sept. 15-17 at Texas Tech University, will be highlighted by the presentation of a prestigious lifetime achievement award to Texas Rancher John B. Armstrong.

Events will include Livestock Day, Friday, Sept. 16, and Ranch Day, Saturday, Sept. 17, at the Ranching Heritage Center. Both are free to the public, except for meals. The Golden Spur Award will be presented at the annual Prairie Party, beginning at 7:30 p.m. Friday at the Civic Center.

A National Western Artists Show and Sale, featuring 40 artists from throughout the nation and Canada, will be open to the public, 10 a.m. to 5 p.m. Saturday at the Civic Center.

Artists will participate in the weekend activities. A public meet-the-artist barbecue will be at 6 p.m. Thursday, Sept. 15, at the Ranching Heritage Center. Cost is \$6 per person. For reservations, call the Ranching Heritage Association, (806) 742-2498.

Livestock Day, 8:30 a.m. to 2:30 p.m. Sept. 16, will include a livestock judging contest, beef jerky demonstration, style show with natural fiber designs, barbecue luncheon and talk on the Savory Grazing Method by Dr. Stanley D. Parsons, a range management consultant.

Parsons will give a slide-lecture at 9:30 a.m. on "Can the Savory Grazing Method Make Ranching Profitable?" He has worked with grazing method originator Allan Savory and now heads Ranch Management Consultants Inc.



The livestock judging for professionals and amateurs will run 11 a.m. to 12:30 p.m. Results will be announced following the \$8 luncheon, catered by the Agriculture College's Saddle and Sirloin Club, and the style show, presented by the Department of Clothing and Textiles. Meal tickets are available through the College of Agriculture, 742-2811.

Linda Pittman, with the Texas Agricultural Extension Service, will go through the procedures for making beef jerky, including drying the beef in an oven or food dehydrater. Continuous demonstrations will be from 8:30-11 a.m. Tasting samples will be available.

Food and nutrition Professor Clara McPherson, said beef jerky is becoming popular as a snack because of its taste and low-fat content. She said the demonstration was planned to help those who want to make it themselves.

Livestock Day is presented by the Texas Tech University Colleges of Agricultural Sciences and Home Economics. It is sponsored by the American National CowBelles, American Quarter Horse, National Cattlemen's, National Wool Growers, Ranching Heritage, Texas and Southwestern Cattle Raisers and the Texas Sheep and Goat Raisers associations (all sponsors of the National Golden Spur Award) and by the Texas Cattle Feeders Association. Presidents of the associations will be recognized during the luncheon.

The National Golden Spur Award, the focal point of the weekend, will signify Armstrong's contributions to the industry. John B. Armstrong Ranch representatives will present his life achievements through slides and biographical sketches during the banquet. He will be the sixth to receive the coveted Steuben-designed, gilded OK spur encased in a crystal presentation piece.



Entertainment will include rope tricks by Sonna Warvell, Miss Lubbock. She did rope tricks for her talent competition in the recent Miss Texas pageant. Rick Sudduth will provide dinner music and perform at a dance following the Prairie Party.

Prairie Party ticket holders will have a preview of the Western Art Show and Sale, 1-7:30 p.m. and 9:30 p.m. to midnight Friday. Art awards will be announced at the Prairie Party. Tickets, which include the meal, show, art catalog and poster, will be \$25 each. For tickets, contact the RHA, 742-2498.

Ranch Day, 9 a.m. to 5 p.m. Sept. 17 at the Ranching Heritage Center, is sponsored by the Ranching Heritage Association and serves as the association's annual meeting. The Ranching Heritage Center depicts the history of ranching through more than 30 authentically restored structures.

The connection between ranching and railroading will be emphasized Ranch Day with the 10:30 a.m. dedication of new exhibit items added to the Ranching Heritage Center's section on cattle shipping. Items to be dedicated include a 1923 steam locomotive moved to site in July from its former location near the Municipal Coliseum, cattle cars obtained in the Texas Panhandle and cattle pens from the world famous early 1900s Caesar's Pens on the King Ranch.

Representatives from Burlington Northern and Santa Fe railroads and from the King Ranch will take part in the dedications. The items are located adjacent to the 1918 Santa Fe Ropes Depot and a caboose, dedicated during Ranch Day 1982. Burlington donated the steam engine to Texas Tech in 1964.



A flag ceremony by Lubbock's Indian Guides will open Ranch Day. There will be coffee and donuts on the patio. Demonstrations of ranch chores and crafts will take place throughout the site.

Representatives of the Crosby County Pioneer Museum will present "The Cowboy Story" at the Las Escarbas Ranch Headquarters. The Kyle family will cook sourdough donuts and campfire coffee at the chuckwagon. Phil Nickel, a retired Santa Fe brakeman and conductor, will provide railroad history at the Ropes Depot.

The Blacksmith Shop will be busy with branding and horseshoeing. Visitors will see ranch animals in the corrals, including Longhorns from the H.C. Lewis Ranch.

Quilting and piecing will be demonstrated by members of the Retired Senior Volunteer Program in the Box and Strip House. Members of the Scurry County Heritage Society will depict early ranch life in the Harrell House. Betty Albers and other Barton family members will be at home in the Barton House.

Muleshoe school children will provide a school days scene in the one-room Bairfield Schoolhouse.

The Texas Tech German Dancers will present new German Dances learned on the summer tour to Germany. They will perform at the Hedwig Hill Double Log Cabin.

Items befitting the general county store of yesteryear will be on display in the Devitt and Mallet Ranch Building. Toys, games, boots, shoes, food containers, a sewing machine and dishes are included. The items were recently donated to the Ranching Heritage Center by Furr's Supermarkets, Furr's Inc.

A barbecue lunch will be catered by Bigham's Smokehouse. Tickets will be \$6 for adults and \$3 for children. Music will be provided by Rick Sudduth and the Triple C Express, a group from the Crosbyton area. For meal tickets, contact the Ranching Heritage Association, 742-2498.



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11-8-5-83

LUBBOCK--Texas Tech University regents Friday (Aug. 5) appointed 33 new members of the Texas Tech Foundation and reappointed 34 other members.

New appointments include Frank Burke, Dallas; Terry Caviness, Hereford; Ron Davenport, Friona; Jack Harvin, Borger; Jim Humphreys Guthrie; Don Lee, Houston; Donavan Maddox, Gastonia, N.C.; Tom McMinn, Odessa; George Sell, Amarillo; Wayne Sellers, Palestine; Ray Ward, Dallas; Jim Williams, Borger;

And from Lubbock, Bill Barnett, Tom Battin, Mabry Brock, Steve Cone, Lloyd Croslin, Wayne Culp, M.D., Harold Deavours, Dan Griffis, Bill Horton, Duane Housouer, Jack Kastman, Roger Kuykendall, Jerry Lane, Ed Langston, Jerry Nash, Reuel Nash, Phil Price, Sam Spikes, Travis Ware, Ben Williams and Don Workman.

Members reappointed were Tom Edmonds, Borger; J. W. Gordon, Pampa; O. Brandon Hull, Santa Fe, N.M.; A.M.L. Kube, Borger; G. J. Parkhill, Crosbyton; V. M. Peterman, Littlefield; Eugene Steel, Houston; Harold Wall, Amarillo; Mrs. Gayle Wilson, Fort Worth;

And from Lubbock, Floyce Masterson Bates, Maxine Blankenship, M. Warlick Carr, C. B. Carter, Solon Clements Jr., W. R. Collier, Wayne Finnell, S. S. Forrest Jr., R. P. Fuller; J. Frank Gray, Don L. Harris, Mike Higgins, Roy J. Holmes, Lonnie Langston, Mrs. Louise Maedgen, Carroll McDonald, Robert McKinsey, James G. Morris, M.D., Robert Norris, W. D. O'Brien, Charley Pope, Robert Salem, M.D., Edward R. Smith, former Gov. Preston Smith and Fred Q. Underwood.



"For example, an aerospace firm may be fast-changing. The products are constantly being updated and the work force must be willing and able to shift tasks easily. One leader may not be able to deal with this pace, while another leader can deal with it effectively. The second leader may dislike slow change because it seems boring," Hunt said.

In contrast, a family leader may find that the family is more conservative in its willingness to change. Here a leader must deal with slow-paced changes.

Technology within an organization also influences leadership. Leadership for a traditional mechanized assembly line differs from leadership for research scientists, Hunt said.

"Try not to think of technology as something involving just machinery. Technology defines work-flow process. How is the job to be done? How does the organization accomplish its goals?" Hunt said.

A teacher has technology to deliver information to students and this technology influences leadership behavior, Hunt said.

The final factor affecting leadership is organizational structure.

"Organizations differ, varying from tightly to loosely structured. The loosely structured organization, called organic, allows group participation. In contrast, the tightly structured organization may deal with management in many levels each feeding up still another organizational level," Hunt said.

Large organizations are not always tightly structured and small organizations are sometimes very tightly structured. Differences are not affected merely by size, Hunt said.

The organic organization works well with few written procedures and an informal approach to reaching goals. The tightly structured organization has clearly defined procedures.



"This organization may have a thick policy manual and decisions may pass through several levels of management," Hunt said.

Hunt said organic organizations work best in fast-changing volatile environments where leaders must quickly assume responsibilities.

Hunt said business, industry, government, schools, civic clubs and families are each a blend of these three situations.

Environments range from fast- to slow-paced and technology will be somewhere between the Stone Age and the Space Age. Organizational structures vary from the tightly to loosely structured.

The best leader, Hunt said, will be the one who can determine just what leadership is best.

CONTACT: B. Zeeck

12-8-5-83

LUBBOCK--The 15,000-member Southwestern and Rocky Mountain Division of the American Association for the Advancement of Science will hold its 60th annual meeting March 28-31 at Texas Tech University.

Meeting in conjunction with SWARM will be the AAAS Committee on Desert and Arid Zones Research. A call for papers is to be issued in September to scientists in 9 states: Texas, New Mexico, Oklahoma, Kansas, Nebraska, Montana, Wyoming, Colorado and Arizona. Approximately 400 are expected to attend the meeting which addresses topics of current interest in the physical, natural and social sciences.

Section chairmen include: Agricultural Sciences, Dr. Bruce Buchanan, New Mexico State University; Botanical Sciences, Dr. Keith Redetske, University of Texas-El Paso; Environmental Sciences, Dr. Loren D. Potter, University of New Mexico; History and Philosophy of Science, Dr. Sigfredo Maestas, Northern New Mexico Community College;

Physical Sciences and Engineering, Dr. William C. Herndon, University of Texas-El Paso; Psychological Sciences, Dr. Robert W. Bell, Texas Tech University; Science Education, Dr. James R. Trammell Jr., Arapahoe Junior College; Social Sciences, Dr. Rex Gerald, University of Texas-El Paso; Computer Sciences, Dr. Bill Beyer, Los Alamos Scientific Laboratories; and Biomedical Sciences, Biochemistry, Microbiology, Dr. Kenneth Barker, Texas Tech University Health Sciences Center.

A chairman for the Zoological Sciences Section is to be appointed.

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On the arrangements committee, all from Texas Tech, are:  
Dr. Henry J. Shine, Horn Professor of Chemistry, chairman;  
Drs. John A. Anderson, Russell D. Larsen and Robert W. Shaw,  
chemistry; Drs. Robert W. Bell, Douglas Chatfield and Jeffrey W. Elias,  
psychology; Drs. Mary E. Doohan and Joe R. Goodin, biological sciences;  
Dr. Eileen Johnson, anthropology; Dr. Stephen R. Jorgenson, home  
economics; Dr. Charles W. Peek, sociology; Dr. Kenneth Barker,  
biochemistry, and Dr. Joe A. Fralick, microbiology, both of the  
School of Medicine in the Texas Tech University Health Sciences Center;  
and Dr. Idris R. Traylor, International Center for Arid and  
Semi-Arid Land Studies.

Story leads for week of  
Aug. 7-13, 1983  
14-8-5-83

**Texas Tech University**  
University News & Publications  
BOX 4650/LUBBOCK, TEXAS 79409/(806) 742-2136

# Radio & Television New Service

**CLOTHES OFF THEIR BACKS**--Anthropologists Donald and Dorothy Cordry spent 30 years traveling to remote villages in Mexico to record through costume and photograph an Indian culture in flux. Their famous costume and photo collection, now belonging to Texas Tech University, is part of an exhibit produced by San Antonio's Institute of Texas Cultures. "Mirrors of Changing Traditions: Mexican Indian Costumes," opens Aug. 21 at The Museum of Texas Tech. For information, contact David Dean, 742-2462.

**BIG BUGS**--Simply stated, it's bug guts. And, it's a problem confronting the future development of wind power as a source for generating electricity. The problem, says Texas Tech mechanical engineer Walt Oler, is that the remains of bugs striking wind turbine blades increase the surface roughness. That, in turn, decreases the efficiency of wind turbines. How big a problem is it? Dr. Oler can answer your inquiries at 742-3563.

**BIG SHORTFALL**--The glut of oil on the world market has helped draw attention away from the international energy crisis many experts say will eventually confront us all. Something is being done about the crisis, though, through Texas Tech's Center for Energy Research where studies are going on in areas as diverse as gasification and earth-sheltered structures or pulsed power physics and window treatments. For an overview of the research or the world energy situation, contact Dr. Marion O. Hagler, center director, 742-2212.

**COST OF EDUCATION**--Texas Tech is a quarter of a billion dollar operation annually, and the operating budgets of \$208.7 million for the university, museum and health sciences center has been approved by regents. For details on the Texas Tech budget and financial operations contact Dr. Eugene E. Payne, vice president for finance and administration, 742-2196.

For assistance in developing these and other story ideas, contact Dave Clark, UN&P, at 742-2136.



# Texas Tech News

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LUBBOCK--Regents of Texas Tech University Friday (Aug. 5) adopted annual operating budgets totaling \$208.7 million for the university, museum and health sciences center.

They reelected B. J. Pevehouse of Midland as chairman and Mrs. Anne Sowell of Fort Worth as vice chairman of both the Texas Tech University and Texas Tech University Health Sciences Center boards.

In affairs directly affecting students, regents revised regulations pertaining to undergraduates' academic status. These require that students maintain a 2.0 (C) grade point average; institute an academic warning to students before they can be placed on probation; and provide for students on academic warning or probation to work closely with their dean's office and counselors to bring their GPAs up to 2.0. Students who attend summer sessions cannot be placed on academic warning, probation or suspension as a result of summer school performance.

Regents approved a reinstatement fee for students who fail to pay tuition and fees by state mandated deadlines. Because the university loses state support for these students, they will be asked to pay \$70 per credit hour for reinstatement.

Regents approved a proposal to offer the master's degree in philosophy.

They also gave authority to plan the sale of an additional \$1.5 million in university general tuition revenue bonds early in 1984, with funds to be used for development of the health sciences center. This brings to \$35 million funds from sales of tuition revenue bonds -- the total authorized by the state legislature to be used for construction, improvement and equipping the health sciences center.

REGENTS/ADD ONE

Regents extended a contract for use of city of Lubbock sewage effluent for 10 years, to the year 2002. The effluent is used on university farm lands.

Regents approved designs and authorized the university to receive bids for reconstruction of the university's Livestock Arena -- damaged in a 1983 snowstorm, for a University Theatre addition to provide a new laboratory theater; for completion of the Art Building sub-basement; and for renovation of the Industrial Engineering Building.

Armstrong Mechanical Inc. of Lubbock was the successful bidder for a \$1,995,800 expansion of the cooling capacity of Central Heating and Cooling Plant #2 which serves the Health Sciences Center and Lubbock General Hospital.

Regents approved amendments to the master coordinating agreement with the Lubbock County Hospital District. Among the amendments was one bringing Lubbock General Hospital support for medical residents to more than \$1 million, almost doubling residents' support initially approved by the district.