DATE	Stories and Cutlines	Locals	Reg. Dai.	Reg. Wee.	50 M's	Reg. Rad.	x-list	Adj. Co.	Hometown	Explanations
1-7-17-78	Sowell special story								✓	Corsicana
2-7-17-78	KTXT - FM	✓								TY supplement
3-7-17-78	German Nite - PSA									local radio
4-7-18-78	Exper Sim - Cogan	✓	✓							3 cy Dr. Cogan
5-7-18-78	Ackerson research	✓								Ag list
6-7-19-78	KTXT - FM watts increase							✓		Mass Comm (10-)
7-7-19-78	Lake Site conference	✓						media ✓		
8-7-19-78	Mary Greene - visit Lake Site	✓	✓					media ✓		
9-7-19-78	L. M. Hargrave	✓	✓							
10-7-19-78	Kleingrass (Grass Combinations)	✓	✓	✓						attached Ag. list
11-7-20-78	Judge - Seminar									special listing
12-7-21-78	Resource depletion	✓	✓							
13-7-21-78	Farm Safety	✓	✓	✓						Ag list
14-7-21-78	Long - grading feedercattle	✓	✓							

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CONTACT: Dan Tarpley

LUBBOCK--Keith L. Sowell, junior engineering student from Corsicana, was listed on the dean's honor roll for the spring semester at Texas Tech University.

Sowell is the son of Mr. and Mrs. M. L. Sowell of 1912 Dartmouth, Corsicana.

To qualify for the dean's honor roll a student must make at least a 3.0 grade point average on a 4.0 system.

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The increase will take place this fall, according to Dr. Dennis A. Harp, director of the telecommunications division of the Mass Communications Department.

The power increase will give the station a coverage area ranging from a 21-mile radius to a 70-mile radius of Lubbock, according to Maurice Strout, manager of broadcast operations.

The project to increase KTXT-FM's power began in 1974. Financial problems plagued the station for two years, but the acquisition of tower space for the new antenna has been the most recent concern.

Ray Moran, owner of KTEZ-FM, a Lubbock commercial station, has offered space on the KTEZ tower at no charge to the Texas Tech station.

KTXT-FM is currently using KTXT-TV's (Channel 5) tower on the western edge of the Texas Tech campus. The proximity of Channel 5's tower made it a logical candidate for the radio station's new antenna.

A study conducted by Stainless Tower Company stated that Channel 5's tower could not stand the load of a new antenna without reducing the wind load factor of the tower below 100 miles per hour. The addition

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of the 600-pound antenna would decrease the tower's resistance to high wind gusts common to West Texas.

Although the report did not favor the addition of the new antenna because of the tower's vulnerability to high winds, the findings did not include a bend in the tower structure. The bend was caused by a 1970 tornado, Harp said.

In June of this year, Allied Tower Company from Houston inspected Channel 5's tower. Company representatives found several lamps out on the tower and noted the structure's paint was badly faded but otherwise reported the tower to be in good condition. Again there was no mention of the bend in the tower structure.

KTXT-FM officials withdrew consideration of the use of the KTXT-TV tower for the new antenna.

Before the power is finally increased, many details must be handled. The station seeks to move its transmitter site from its present campus location to the KTEZ tower on South University. Therefore, it had to reapply with the Federal Communications Commission for the site change.

The application requests permission to do the following: change the station's frequency from 91.9 to 88.1 megahertz; increase the transmitter outpower from 10 watts to 5,000 watts; increase the effective radiating power (ERP) of the station, (ERP refers to exactly what an antenna is radiating with the efficiency factor and gain included); and add stero operation.

The application also requests permission to obtain subsidiary communications authority, or sidebands. The center frequency of the station is 88.1, and 67 kilohertz above and below that center frequency are additional broadcasting bands, or carriers. The carrier above

the center frequency will be used for remote control operations and the carrier below the center frequency has been tentatively designated to broadcast programming for the blind. Harp sees no problem in gaining approval of the application from the FCC.

After the application has been approved, the station's transmitter building will have to be moved to the KTEZ tower site, a power supply for the transmitter will have to be obtained and telephone lines will have to be set up to carry the station's programming to the transmitter.

KTXT-FM officials are taking bids from tower companies to erect the antenna on the KTEZ tower. Bids are ranging from $2,900 to $8,000, Strout said. He noted that a major problem may develop in waiting for tower crews to come through the West Texas area.

Harp said the station is trying to complete arrangements for the power increase with as little expense as possible. But the project will increase the station's utility costs.

There will be an increased mileage charge on the telephone lines to carry the station's programming from the KTXT-FM studios, located in the Journalism Building on the Texas Tech campus, to the KTEZ tower site. The rate will increase from $50 to approximately $70 a month, Strout said. KTXT-FM will absorb the cost.

The station's electricity costs will increase from an estimated $30 a month to approximately $500 a month. Strout attributed the cost increase to the larger power supply needed to operate a 5,000 watt transmitter and associated equipment. The $6,000 a year expense will be absorbed by the university, Harp said.

"Most important is the opportunity to serve the general public," Harp said. "There has been a problem because the station has been

considered a service only for Texas Tech, but with more power and a new antenna we will be a station with a new and broader service area." There will be no major changes in the contemporary program format. There will be an increase in public affairs programming because of the increased coverage area, Harp said.

The power increase will make KTXT-FM comparable to some 20 other school operated radio stations in the state. "KTXT-FM will not be at the top of the heap, but then again some of those stations have 50,000 watts of power and that would not do a bit of good out here except to reach cottonfields and jack rabbits," Harp said.

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CONTACT: Pat Broyles

ATTN: PSA Directors (Kill August 17)

THERE'LL BE DANCING...FOOD...AND FUN FOR THE WHOLE FAMILY WHEN A LITTLE BIT OF GERMANY COMES TO THE TEXAS TECH UNIVERSITY CENTER, WEDNESDAY, AUGUST 16TH. THE GERMAN NIGHT CELEBRATION BEGINS AT 6:30 P.M. WITH A DELICIOUS GERMAN-STYLE DINNER...FOLLOWED BY DANCING TO THE POLKA SOUNDS OF PEHL'S (PELL'S) OOMPAH BAND. TICKETS ARE $3 FOR TECH STUDENTS AND $5 FOR THE PUBLIC. CALL 742-3621 FOR RESERVATIONS.

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LUBBOCK--Exper Sim, experiments and Exxon are special subjects of discussion these days in the Psychology Department of Texas Tech University.

The relation among these terms is not as strange as it may appear: Dr. Dennis C. Cogan, professor in the department, received a $5,567 grant from the Exxon Education Foundation to study the impact of Exper Sim (experimental simulation), a new system for teaching research design through computer simulation.

Cogan, with the assistance of John Eatwell, a graduate student, has established a new undergraduate course for the fall semester, "Introduction to Experimental Psychology",to compare Exper Sim directly with the conventional approach to the subject, conditioning experiments on humans and animals.

The new course will feature each of the methods in various sections. All students will take the same final examination and fill out an opinion questionnarie. This will permit the evaluation of the learning quality, the learning efficiency and the relative interest level of the two approaches, Cogan said.

Exper Sim, which requires psychology students to get extensively familiar with computer operation and terminology, is not completely new. It has been developed on the basis of MESS, Michigan Experiment

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Simulation Supervisor, which introduced the large scale use of computer simulation to teach experimental design.

On a limited scale, Exper Sim has been shown to produce better learning than conventional techniques and the students have typically found the simulation approach more interesting and enjoyable, according to Cogan.

The importance of the activities at Texas Tech is to show and evaluate the performance of Exper Sim on a comparative interinstitutional level.

"We hope to promote efficient, interesting, high quality learning of the basic elements of research design and analysis," Cogan said. "The changes we have made in our curriculum demand that we achieve these goals in a very short time in order that our students be well prepared for their advanced work."

Cogan believes that Exper Sim has the potential to replace its traditional alternative completely.

He started the program July 17 and expects it to be completed by the end of June, 1979.

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LUBBOCK--Man no longer has to trek over forbidding terrain to collect reliable data on its slope, geology and vegetation.

Virginia C. Ackerson, the first person to be granted a doctoral degree in land use planning, management and design at Texas Tech University, has shown that it is cheaper and takes a lot less time to gather reliable data using high altitude photography.

The method is only about a decade old for civilian use, and Ackerson has developed expertise in interpretation of the aerial photos.

While the method is considered valuable in the remotest regions of the world, Ackerson's research area was in the United States, in Guadalupe National Park in Texas.

She was able to test the data gathered in aerial photos against information obtained by other Texas Tech researchers making studies on the ground.

"Attempts to divide the surface of the earth into areas or units which are internally homogeneous and distinct from adjacent areas have been undertaken throughout recorded history," Ackerson said.

"These efforts usually are founded on the recognition that, if we are to use our lands in the best possible ways, it is necessary to develop some form of order or structure within the range of the natural variety which surrounds us."

-more-

Money and time can be saved through the method she calls "the land system concept." Landscape units can be effectively delineated in a region of extreme diversity and complexity, and there is special value for the application of the land system concept to rugged or remote areas.

Ackerson earned her bachelor's and master's degrees in geography at the University of California, Riverside, before entering the interdisciplinary doctoral program at Texas Tech. Her emphasis was in natural resource planning. The other two options in the program are public policy and administration and resource utilization and management.

This year the Elo J. and Olga Urbanovsky Fellowship Endowment was announced, providing a $12,000 a year scholarship for doctoral students enrolled in the land use planning, management and design program at Texas Tech.

Ackerson first began using Earth Resources Technological Satellite data as a part of a pink bollworm control program in southern California. She also worked at the Environmental Remote Sensing Laboratory at Oregon State University and was involved there in the planning of aerial surveys, field work and data interpretation for various agricultural research programs.

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EDITOR'S ADVISORY

There will be a news conference at the Lubbock Lake Site, beginning at 1:30 p.m., Tuesday, July 25, to give you an opportunity to interview Mary Greene, Associate program director for anthropology for the National Science Foundation. She will be able to provide information on the significance of the site in relation to other U.S. archeological projects supported by the NSF; summarize the results of the project to date; and discuss future expectations in continued research at the site.

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LUBBOCK -- Mary Greene, associate program director for anthropology for the National Science Foundation, will visit the Lubbock Lake Site July 25 to discuss future plans and future funding with the principal investigator of the archeological research project, Dr. Eileen Johnson.

Greene's visit will be the latest in a series bringing distinguished scientists to the site, one of the nation's most significant in terms of increasing man's knowledge of a wide range of changes in his past.

Dr. Richard Ford, director of the anthropology museum of the University of Michigan, Ann Arbor; Dr. James Gunnerson and Dr. Dolores Gunnerson of the University of Nebraska, both authorities on the Plains Apache; and Dr. Vance Haynes, University of Arizona paleoindian expert and widely recognized for his special expertise in Quaternary geology, were earlier visitors this year.

Dr. James Gunnerson is director of the Nebraska State Museum. Haynes is a consultant to the Lubbock Lake Site project.

The Gunnersons' visit was of special interest to their own research in that they had found a gap in knowledge of the Apache Indians on the Llano Estacado.

What they found in discoveries made by Lubbock Lake Site archeologists convinced them, Johnson said, that the material now is becoming available to help them fill a frustrating gap in the chronology of Apache movement.

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Crews working at the Apache level this year have discovered several tools indicating Apache activity in the Lubbock area before they were pushed to the Southwest by encroaching Comanche tribes. Found during the 1978 dig have been bones of butchered horse and bison, Apache potsherds, projectile points and butchering tools.

The public is invited to visit the site every Saturday between 9 and 11 a.m. when tours are given. Maps giving directions to the site are available at the information desk of The Museum of Texas Tech University.

Archeologists have been digging at the Lubbock Lake Site since 1939, but the current project began in 1973 and it is unusual in its scope. Dirt scraped from the surface is bagged, carried to a wash area and washed, screened and sifted to recover even the tiniest finds. Winters are spent in laboratories at The Museum of Texas Tech University in scientific study of the material saved.

The scientists are interested not only in man's continuous use of the site over the past 12,000 years, but also in the flora and fauna and the geological, climatic and environmental changes that have taken place.

One of the most unusual finds was a fossilized wing segment of a gray-breasted crake (rail), a bird almost unheard of in North America. That bit of prehistoric evidence still is being studied by national experts in the field of ornithology to determine its significance.

It is the meticulous record of a sweeping range of information that makes the Lubbock Lake Site project one of high interest to the nation's leading archeologists.

"At most sites the chief interests are in large bones and tools," Johnson explained. "But at the Lubbock Lake Site we are interested in the full range of the past, believing all of it is important to our future."

The project is conducted through The Museum of Texas Tech University. Principal funding has come through the National Science Foundation but the project also has been supported by the National Geographic Society, the Center for Field Research (Earthwatch), the Texas Historical Commission and both the county and city of Lubbock.

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CONTACT: B. Zeeck

EDITOR'S NOTE: You are invited to a news conference for Mary Greene at 1:30 p.m. Tuesday, July 25, at the Lubbock Lake Site.

LUBBOCK -- Mary Greene, associate program director for anthropology for the National Science Foundation, will visit the Lubbock Lake Site July 25 to discuss future plans and future funding with the principal investigator of the archeological research project, Dr. Eileen Johnson.

Greene's visit will be the latest in a series bringing distinguished scientists to the site, one of the nation's most significant in terms of increasing man's knowledge of a wide range of changes in his past.

Dr. Richard Ford, director of the anthropology museum of the University of Michigan, Ann Arbor; Dr. James Gunnerson and Dr. Dolores Gunnerson of the University of Nebraska, both authorities on the Plains Apache; and Dr. Vance Haynes, University of Arizona paleoindian expert and widely recognized for his special expertise in Quaternary geology, were earlier visitors this year.

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LUBBOCK-- Prof. Emeritus L. M. Hargrave, of Texas Tech University's Department of Agricultural Education, is featured in this month's issue of "Agricultural Education" magazine. The article was written by Dr. Jerry D. Stockton, assistant professor of agricultural education and agricultural engineering at Tech.

Hargrave has been honored numerous times for his work with the Future Farmers of America (FFA), 4-H, Texas Young Farmers Association and other youth organizations.

He has also been presented several teaching and service awards, including the Gerald Thomas Outstanding Agriculturalist Award; the Teacher Trainer of the Year for Texas, 1970; the Vocational Agriculture Teachers Association of Texas Distinguished Service Award for 35 and 40 years of service; the award of appreciation from the South Plains Junior Livestock Show, 1963, and Outstanding Teacher of the Semester, fall 1976, at Texas Tech.

A scholarship was begun in 1977 to honor both Hargrave and T. L. Leach, chairperson of Tech's Department of Agricultural Education.

Hargrave taught agricultural education for 42 years, 11 years at Frenship High School, Wolfforth, and 31 at Texas Tech.

He served 13 years as general superintendent of the Tech judging contest and 27 as assistant general superintendent of the Southwestern Livestock Show. He has supervised the Market Barrow Show at the State Fair of Texas and the educational exhibits at the Panhandle South Plains Fair.

Leadership training materials he developed for FFA Areas I, II and IV in Texas are still being used, as are his parliamentary procedure workbooks and FFA manual workbooks, used in 24 states.

He is still active in both the FFA and Texas Young Farmers organizations.

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ATTN: Agricultural Editors

LUBBOCK--By mixing kleingrass, sideoats grama and tobosagrass together in pastures where tobosagrass and mesquite have been dominant, ranchers can help provide year-round grazing for their livestock.

Dr. Billie E. Dahl, professor of range and wildlife management at Texas Tech University, along with graduate students W. E. Bean and John P. Goen, has been studying cattle acceptance of seeded kleingrass and sideoats grama in native tobosagrass-mesquite pastures.

"It is the combination of forage that appears to work," Dahl said. "By seeding native pastures with kleingrass and sideoats grama, a rancher can provide enough types of forage to give the cattle a preferred species no matter the season or weather conditions."

Preliminary research has shown that while cattle prefer kleingrass when it is green and growing and at its peak nutritionally, when the grass is dormant in drought or in winter, cattle will select the native grasses over kleingrass.

In experiments near San Angelo in Tom Green County, mechanically cleared tobosagrass-mesquite rangeland was seeded to kleingrass and sideoats grama.

"In the growing season, kleingrass was the preferred forage by livestock and was higher in quality, as measured by crude protein,

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moisture, phosphorus and digestibility. Sideoats grama was intermediate in quality, with native tobosagrass ranked last," Dahl said.

In this period, cattle were found to gain almost 1.5 pounds per day on kleingrass as compared to slightly less than a pound on tobosagrass.

Cattle also ate considerably more per day of the kleingrass as compared to tobosagrass, consuming 22 pounds per head per day of kleingrass versus 14 pounds per head per day of tobosagrass.

Another study in the same area revealed, though, that when kleingrass and sideoats grama are dormant, either during drought or in winter, kleingrass was the least selected grass by livestock.

With less than normal rainfall from June through November in 1977, the period of the study, it was found that sideoats grama, previously eaten only lightly by the livestock, was the main forage grass in mid to late summer.

Tobosagrass was the next preferred forage during this period, followed by kleingrass, which was eaten only lightly.

In the winter, kleingrass again was the least selected forage by livestock. Sideoats grama was most preferred, followed by native grasses.

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AMARILLO--A seminar for Texas municipal court judges will be held here Tuesday through Thursday (July 25-27) at the Quality Inn.

The instructional session is co-sponsored by Texas Tech University School of Law, Texas Tech Division of Continuing Education and the Office of Traffic Safety-State Department of Highways and Public Transportation.

The seminar is a 24-hour course which is fully accredited by the Texas Judicial Council to meet requirements regarding continuing legal education for municipal judges.

Instructors for the seminar will be Charles P. Bubany, Daniel H. Benson, and Bruce M. Kramer, all members of the Texas Tech School of Law faculty.

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CONTACT: Heinrich H. Steiner

LUBBOCK--The people of the western region of the United States have the necessary resources and can develop the appropriate technology to lead contemporary industrial civilization toward its own salvation, a Texas Tech University economist believes.

The first step in such an attempt should be to sell the rights to the abundant energy resources of the West on the very best terms that can be negotiated, Dr. Lewis E. Hill, economics professor, says.

For Hill there is no doubt that a salvation is needed, an immediate salvation.

In a paper, "The Energy Crisis in the American West: A socioeconomic Prognosis," prepared for the Western Social Sciences Association, Denver, Colo., he examines the modern American society and its problems.

"The technological revolution has raised levels of living to phenomenally high levels, but has involved heavy costs and caused several very serious problems," Hill said. "Ordinary middle class citizens of the United States live better in many ways than the wealthiest people of the 19th century, and the most wealthy and powerful noblemen of the middle ages lived under conditions of sanitation and comfort that any contemporary social worker would condemn as substandard."

For Hill, the essential factor in the cost and problem area is an increasingly severe overpopulation and the resulting environmental pollution and resource depletion.

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He focuses his thoughts on the theme "Resource Depletion." Referring to a contemporary scientific study, Hill points out that the United States accounts for 33 percent of the world consumption of petroleum and for 63 percent of the natural gas consumption.

The same study also indicates that, if world consumption continues to increase at present rates, the known global reserves of petroleum will be exhausted in 20 years and natural gas will be gone in 22 years.

Hill said the resulting threat of a collapsing western civilization in the near future simultaneously represents a great opportunity, the opportunity to develop and promote new and more efficient forms of energy.

"The threat falls more heavily on the West because cheap and abundant energy is more important in arid lands than in humid lands. The opportunity offers greater promise because the western states are blessed with an abundance of actual and potential energy resources such as petroleum, natural gas, and coal, oil shale, uranium and solar energy," Hill said.

He set up the technological equation, energy is water, and explained that inexpensive energy can be used in a number of ways to produce water, from purification and recycling to desalination and even transportation from distant sources.

To realize the positive aspects of the energy crisis, Hill calls for an appropriate and effective national energy policy. Such a policy should include the areas of pricing, production and research development, disciplines which are closely related.

By deregulation of energy prices, increasing revenues for the producers will provide the needed funds for the research toward new energy sources and technologies.

Hill is convinced that the energy challenge can be met, but "the greatest research and development program of all history will be absolutely essential to solving the crisis in the future." To achieve it in time, a research and development program of greater magnitude than the effort during the 1960s to explore space is needed, he said.

Hill regards nuclear fusion and solar energy as the most promising fields to explore further.

Besides the technological and financial aspects of the energy problem, there is also a distinctive social one to recognize, Hill warns.

"A technological revolution can never solve the complex syndrome that has culminated in the energy crisis, unless appropriate changes are made in typical American lifestyles and in the contemporary institutional setting of the United States," Hill said. "Americans can no longer afford the luxury of assuming that 'bigger' is synonymous with 'better' and that 'more' is always an affirmative normative value."

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ATTN: Agricultural Editors

LUBBOCK--Farming is the third most dangerous occupation in the nation, surpassed only by the mining-extraction and construction industries.

Many farm accidents can be prevented, though, simply through self-education, according to Dr. Willie L. Ulich, professor of agricultural engineering at Texas Tech University.

Several safety tips to follow, Ulich said, include knowing how to use equipment correctly, making sure people are clear of machinery, avoiding the use of equipment when overtired and knowing how to handle common potentially hazardous situations when they arise.

Ulich said there are a number of reasons for the inherent occupational hazards in farming.

Farmers generally work long hours, longer than people in most other occupations. Accidents happen most frequently when people do not react fast enough, Ulich said. This occurs when they become too tired.

Nearly 50 percent of all farm accidents involve farm machinery, including trucks and automobiles, he said.

Farming also involves many different jobs, from mechanics to chemical application to planting to engineering. A farmer doesn't always have the opportunity for safety training for each job he handles. Lacking

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knowledge on safe equipment operation or chemical application can lead to many accidents, Ulich said.

A farmer also doesn't have a safety engineer with him as someone in a manufacturing plant might have, Ulich said. There is no one there to warn the farmer when he is not handling the equipment safely or even to tell him how to handle it safely.

There are usually three answers to the question "What happened?" he said. The most frequent answer is "I didn't know," followed by, "I didn't see it" and "I wasn't mentally alert."

"By educating themselves on the dangers of everyday chores, farmers can reduce the 'I didn't knows' and help avoid the 'I didn't sees' by knowing what to look for," Ulich said.

Mental alertness can also come from education, by knowing when to stop, he said.

Misuse of chemicals and equipment is frequent cause of farm accidents. One of the most common abuses on the farm is the misuse of gasoline.

"The explosive power of one gallon of gasoline is equal to about 44 sticks of dynamite," Ulich said, "and yet many farmers use gasoline to clean equipment parts rather than using commercial cleaners."

Commercial cleaners will not burn below 132 degrees Fahrenheit, Ulich said, but gasoline is combustible at minus 42 degrees F. Using commercial cleaners rather than gasoline can help eliminate gasoline-related accidents, he said.

As in medicine, prevention may be the best cure for farming accidents, Ulich said. Knowledge and responsible handling of equipment and materials are a farmer's best insurance against accidents.

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ATTN: Agriculture Editors

LUBBOCK--Dr. Robert A. Long, professor of animal science at Texas Tech University, has been invited to participate in a National Cattlemen's Association (NCA) advisory meeting in Denver, July 24-25.

The meeting is for discussion of the pros and cons of proposed changes in the feeder cattle grading system.

The United States Department of Agriculture (USDA) recently sponsored an experiment to determine the relationship between feeder cattle frame size and muscling, feedlot performance and the final slaughter grading.

Using data collected from the feeder cattle, selected for frame size (large, medium and small) muscling (very thickly muscled, slightly thickly muscled and inferior muscling), the USDA is considering changing the current feeder cattle grading system, from one based on predicting the final slaughter grade to one based on actual cattle frame size and muscling as the animals enter the feedlot.

Long has been involved for some time in research with the objective of finding better methods of predicting performance, optimum slaughter time and carcass value among feeder cattle.

Large frame cattle need to be fed a longer period of time than small frame cattle to reach optimum slaughter quality, Long said. The cattle should be seperated as they come into the feedlots according to their frame size and muscling, he said.

-more-

long/add one

Long's research has been directed toward determining how to group the incoming feeder cattle in order to separate them according to optimum time in the feedlot.

The end result of the NCA advisory meeting, according to Gene Schroeder, chairperson of the NCA Feeder Cattle Grading subcommittee, will be in the formulation of the NCA position on the proposed feeder cattle grading changes.

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ATTN: Agriculture Editors

LUBBOCK--Dr. Robert A. Long, professor of animal science at Texas Tech University, has been invited to participate in a National Cattlemen's Association (NCA) advisory meeting in Denver, July 24-25.

The meeting is for discussion of the pros and cons of proposed changes in the feeder cattle grading system.

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ATTN: Travel Editors

LUBBOCK--A place of beauty can be a plague to a pioneer, but, once civilization settles in, the same place can attract tourists by the score.

One of Texas' most scenic surprises is Dickens Springs in the Croton Breaks of Dickens County, a handicap to early travelers and yet a place of spectacular beauty.

An advanced planning and design class in Park Administration at Texas Tech University has completed a comprehensive development plan for the area. Their instructor was Dr. James W. Kitchen. Students participating were Salle Abbe, Carolyn Adams, David Dahle and Philip Rogers.

They have sent their report to the City of Dickens in the hope that the 75-page document might serve as a guide in considering any future development of the Dickens Springs area.

The report proposes a scenic canyon overlook, picnic and camping grounds, a multi-use facility and an interpretive trail.

The 10 acres that comprise the Dickens Springs site are just outside the city limits of Dickens, the county seat of Dickens County. The canyon is characteristically rugged, with rough, rocky terrain and spectacular vistas from several points.

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A flat top bluff overlooks the springs and, eventually, the study team suggested this might be used as a campsite.

The site is in its natural and unspoiled state with the exception of two unpaved access roads leading in from State Highway 82 and a concrete stairway leading from the lower access road down into the canyon and to the spring.

There were many early travelers who were thwarted by the Croton Breaks. It is between Dickens and the city of Quanah, which once was the closest supply point.

To go for provisions meant a two-week round trip, with good luck. In bad weather, travelers could be forced to camp for days on the eastern edge of the breaks, only three miles from home but stranded by a sea of red mud. Today the trip from Dickens to Quanah takes two hours.

Cattlemen knew the canyon as part of the Matador Ranch, and Zane Gray's "The Thundering Herd" was set in the general area, but cattle were not run in the canyon because, as more than one cowboy said, it was "one hell of a place to lose a cow."

On the other hand, there is natural beauty in the canyon. Most of the plants are hardy species requiring little water, but a unique feature is the fragile maidenhair fern which flourishes there.

Although mostly small animals are found now in the area, early settlers saw buffalo, wolves, mountain lions, black bears, panthers, antelope and deer. Even earlier there were mammoth, prehistoric horses, bison and camel.

The report completed by the students reviews such things as

the climate, geology, soils, topography, history and archeology of the area; gives a detailed development basis, program for development and a cost schedule. It includes detailed suggestions for funding and promotion.

"It provides the city," Prof. Kitchen said, "the information necessary for arriving at sound decisions on whether or not to develop the springs area and to what extent the city should become involved in such a development.

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