Approved: 2-3-00
Date

MINUTES OF THE SENATE COMMITTEE ON AGRICULTURE.

The meeting was called to order by Chairperson Steve Morris at 10:00 a.m. on February 2, 2000, in Room 423-S of the Capitol.

All members were present except:

Committee staff present: Raney Gilliland, Legislative Research Department
Jill Wolters, Revisor of Statutes
Nancy Kippes, Committee Secretary

Conferees appearing before the committee:
Dr. Marc Johnson, Dean of Agriculture, Kansas State University
Dr. Walter Fick, Associate Professor, Department of Agronomy, Kansas State University

Others attending: (See Attached)

Senator Umbarger made a motion to approve the minutes of the February 1, 2000 meeting as submitted. Senator Stephens seconded. The motion carried.

Dr. Marc Johnson, Dean of Agriculture, Kansas State University, presented information on expansion of the Grain Science Department and potential revisions in state extension law (Attachment 1).

Dr. Walter Fick, Associate Professor, Department of Agronomy, Kansas State University, gave a review of the sericea lespedeza research (Attachment 2).

A letter from Derl Treff, Director of Investments, Pooled Money Investment Board, concerning **HB 2527** was handed out (Attachment 3).

The next meeting will be February 3, 2000.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

SENATE AGRICULTURE COMMITTEE GUEST LIST

DATE: 2-2-00

NAME	REPRESENTING
Rodney Biesenthal	County Weed Directors
Julie Jamison	Ks Grain + Feed Assn.
Elaine Frisbie	DOB
Jenny Dudley	Ks Dept of Comm - Ag Prod Div
Walter Fick	KSU - Agronomy
Marc Johnson	K-State Res. & Extension.
Tom Sim	Ks Dept. of Agriculture
Greg Krissek	KS Dept Ag
Mike Beam	Ks LVSTK. ASSN.
Tony Tunnell	Kansas Fert & Chem Assn

Information Relating to Proposed Changes in the
Kansas County Extension Council Law
K.S.A. 2-608 through 2-622
to Change Procedures for Electing County Extension Councils

Purpose: Currently, Kansas citizens of voting age elect a 24-member County Extension Council, in each county, by one of three methods:

a) at a meeting in each County Commissioner district,
b) at a countywide meeting, or
c) by mail ballot.

Most County Councils have chosen at large elections at a countywide meeting.

In more than 90 percent of counties, the County Extension Council is elected with less than one percent of voters participating.

The purpose of this change is to permit citizens to select a county extension governing body with a general election method with greater public access to voting.

Additionally, the current two-year term is considered too short for effective leadership.

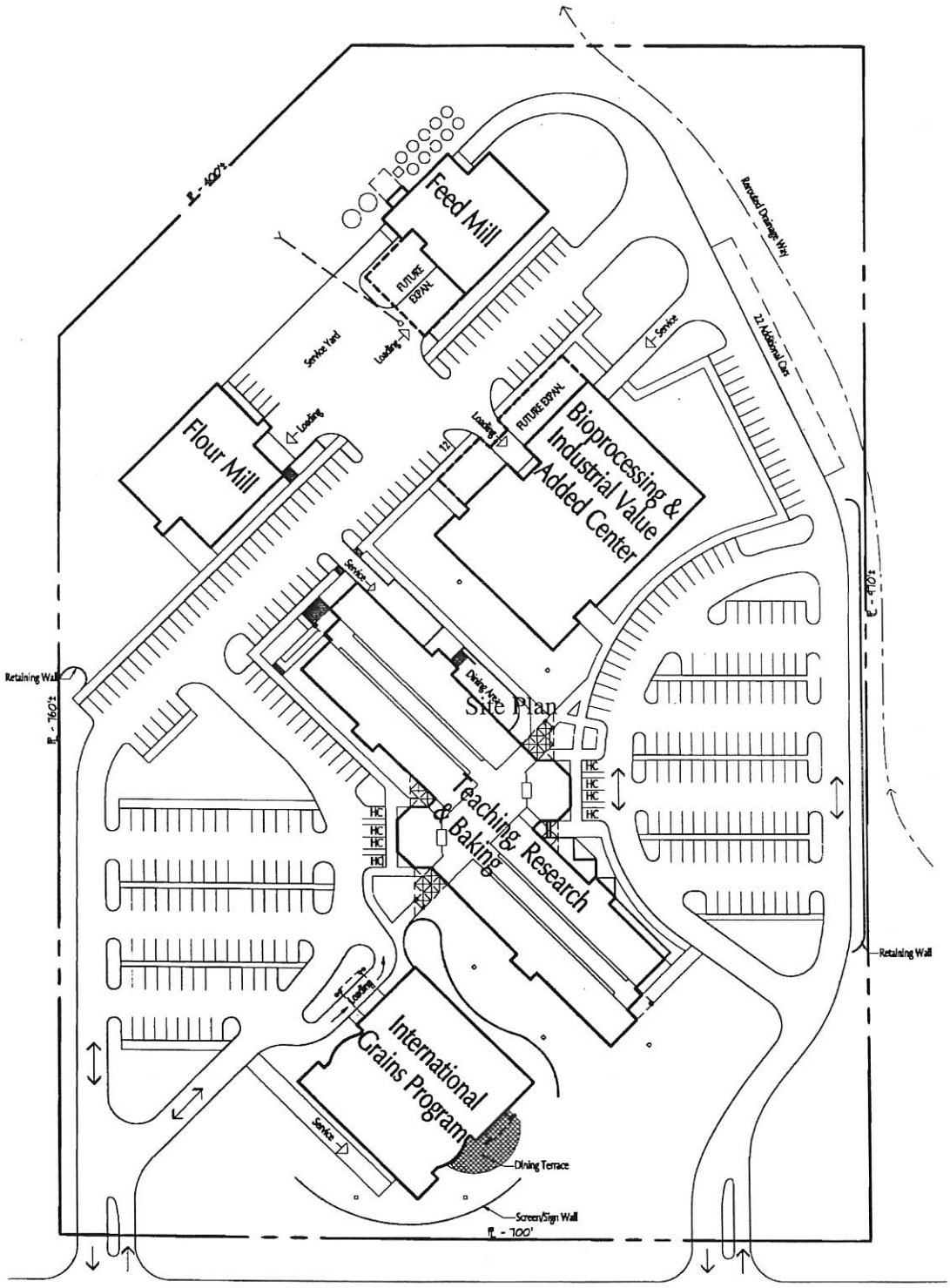
Proposal: Elect a 7-member County Extension Council in regular, nonpartisan, spring elections held during odd-numbered years. Four members would be selected in one election and three in the next, with four year terms.

Procedures: The election procedure is to be designed by county election officials to resemble existing spring election procedures.

> "Elections to choose members of the county extension council shall be conducted, the returns made, and the results ascertained in the manner provided by law for general county elections. Each person desiring to be a candidate for membership on the council, in any election, shall file a declaration of candidacy with the county election officer following county election procedures."

No changes in the county extension budgeting process are proposed.

Senate Agriculture
2-2-00
Attachment 1



PROPOSED SITE DEVELOPMENT PLAN

GRAIN SCIENCE & INDUSTRY COMPLEX KANSAS STATE UNIVERSITY

HORST, TERRILL & KARST ARCHITECTS, P.A.

1-2

Functionality of Buildings

Feed Mill: 1999 Cost: $5.5 million	Feed Science and Management: Teaching/ Research Feed Milling Capacity (60 T/day) Industry Service (Processing/Short Courses)
International Grains Program: 2000 Cost: $4.0 million	Executive Conference Center Commodity Marketing, Processing, Utilization and Technical Training Center Custom Designed Programs - Industry and Grain Trade
Flour Mill: 2001 Cost: $5.2 million	Milling Science and Management: Teaching/Research Wheat Milling Capacity (20 T/day) Industry Service (Processing/Short Courses)
Bioprocessing and Value Added Center: 2004 Cost: $5.9 million	Pilot Plant/Scale Up Processing Flex Plant/Equipment Processing Evaluation Value Added Product Development Extrusion/Fermentation/Food and Non-Food Applications
Teaching/Research/Baking: 2008 Cost: $40.6 million	Baking Science and Management: Teaching/Research Undergraduate Teaching Classrooms/Laboratories Faculty/Graduate Students Offices and Research Laboratories Baking/Dough Rheology Laboratories Administrative Offices

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January 28, 2000

TO: Representative Dan Johnson
Senator Steve Morris
Senator Harry Stephens
Jamie Clover Adams
Dee Likes
Mike Beam
Stan Ahlerich
Patty Clark

FR: Marc A. Johnson Marc
Dean and Director

RE: Update on KSU Sericea Lespedeza Projects

I would like to update you on our two Sericea Lespedeza projects.

A) The first project "Biology and Control of Sericea Lespedeza in Kansas" was funded by the 1998 Legislature in H.B. 2289. It added $26,000 from the State General Fund in FY 1999 to allow the institution (KSU) to establish a research project to study the biology and control of Sericea Lespedez. The 1999 Legislature funded this same project in the amount of $24,260 for FY 2000.

This project was to be a two-year project and it will end June 30, 2000. I am happy to say we have made good progress on publications and research during the first two years. We will be reporting to the Legislature on this project very soon and will finish our work on the project by this June 30.

B) During the 1999 legislative session, some lawmakers and members of the Kansas Livestock Association felt the original project (discussed above in A) did not direct enough effort towards this invasive weed which is showing up in more pastures across the state. KSU was asked to submit a funding proposal to address some of the needs not addressed in the original project. We submitted a three year project that would include efforts in collaboration with Emporia State University. The project was projected to cost $50,000 per year for three years.

Since the KSU budget had already passed the Board of Regents and Governor's office, the Legislature decided to fund the project and put the money in the Kansas Department of Agriculture's budget for FY 2000. The Department of Agriculture then contracted with KSU and ESU. KSU received $40,000 and ESU received $10,000.

The project, "Developing a Research and Extension Program to Limit the Spread and Enhance the Management of Sericea Lespedeza in Kansas," has seen good progress this fiscal year (See attached report). Meetings with producers and continuing research are scheduled for this winter and spring.

I wanted to alert you to the fact that the second year's funding of $50,000 was not put in the Kansas Department of Agriculture's budget. Based on the understanding that this was to be a three year project, we hired an assistant scientist, as spelled out in our project proposal. Of the $40,000 received by KSU, $36,000 goes to the salary and benefits of the assistant scientist. With no funding in FY 2001, we will be forced to terminate his employment and our work on the project.

I thought it would be helpful to provide this update, so you could consider options available. Thanks.

"Knowledge for Life"

cc: Raney Gilliland, Sue Peterson, Dave Mengel, Steven Graham

1-4

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JAN 2 0 2000
DEAN OF AGRICULTURE

MEMO

To: Marc Johnson, Dean
From: Walter H. Fick
Date: January 20, 2000
Subject: Sericea Lespedeza Project

The purpose of this memo is to give you an update and status report on the Kansas Department of Agriculture funded sericea lespedeza project. The project, "Developing a Research and Extension Program to Limit the Spread and Enhance the Management of Sericea Lespedeza in Kansas", was originally submitted as a 3-year project. Research plans and the hiring of an assistant scientist were done with that time frame in mind.

The scope of work for FY2000 included 1) development and initiation of a rancher survey, 2) extension education, and 3) applied research. Progress to date is on track to complete the deliverable outcomes stated in the FY2000 scope of work. Accomplishments include:

- hiring an assistant scientist (Rodney Kunard as of September 27, 1999)
- development of a questionnaire for surveying ranchers and subsequent approval by the Committee on Research Involving Human Subjects
- presentations made at: Sericea Lespedeza Work Group Meeting, Ft. Riley, KS, July 29, 1999; Controlling Sericea Lespedeza in Nemaha County Meeting, September 20, 1999; Using Goats to Control Sericea Lespedeza Field Day, Reading, KS, September 28, 1999; Colorado Weed Management Association Annual Meeting, Pueblo, CO, December 7-8, 1999; Fertilizer & Ag Chemical Conference, Salina, KS, January 11, 2000.
- KKSU Radio interview on "Sericea lespedeza history, characteristics, and identification", October 7, 1999
- plot established October 11, 1999 to assess the influence of applying herbicides at 5, 10, and 20 gallon/acre spray volumes for sericea lespedeza control
- plot established October 25, 1999 to assess the effect of herbicide application on sericea lespedeza seed viability
- preliminary density sampling completed at site to be used in spring, 2000 to determine the influence of burning on seedling germination and establishment and the effects of herbicides for seedling control
- two symposia scheduled for February 26 and March 11, 2000

Lack of funding in FY2001 would primarily affect the assistant scientist position. About 3 months of budgeted salary will remain on July 1, 2000 and I would hope we could obtain a 3 to 6 month extension to carry this position. That would allow us to complete field work during the summer and fall, 2000. Additional funding is available in my state project addressing the biology and control of sericea lespedeza but that would preclude me hiring a graduate research assistant. FY2001 funding at $39,653 is needed to continue the project as planned.

BIOLOGY AND CONTROL OF SERICEA LESPEDEZA

Walter H. Fick
Associate Professor

I. Introduction

- Collaborators: Gary Kilgore, SE Area Agronomist, Chanute and Jeff Davidson, CEA-Ag, Greenwood County, Eureka
- Funding History: $26,000 FY 1999 and $24,260 FY 2000
- Problem in Kansas - 335,000 acres

II. Research Objectives and Progress

a. Basic Research

- investigate factors influencing the translocation of a ^{14}C-labeled herbicide to the bud zone

  An undergraduate research assistant will conduct a study in 2000 to determine the absorption and translocation of four herbicides applied to sericea lespedeza in the seedling stage.

- determine the size of the sericea lespedeza seed bank in the soil, level of seed dormancy, and germination percentage

Sericea Lespedeza Seed Bank and Germination Percentage			
	% Germination		Number of Seed
Location	Un-scarified	Scarified	Per Acre
Blaine	16	82	47 million
Maple Hill	4	83	31 million
Eureka	2	72	15 million

b. Applied Research

- determine the appropriate spray volume to use to achieve optimum control

  Aerial application of metsulfuron (Escort) at 0.5 oz/acre in 3 or 5 gpa spray volumes in September 1998 in Greenwood County resulted in equivalent control.

  Another plot was established near Maple Hill, KS on October 11, 1999 to assess the influence of ground applying herbicides at 5, 10, and 20 gpa spray volumes.

Senate Agriculture
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Attachment 2

- determine the efficacy of longer residual herbicides such as tebuthiuron for control of sericea lespedeza

  Tebuthiuron (Spike 80W) was ineffective in controlling sericea lespedeza treated in a late vegetative or late bloom stage. Longer term residual control, up to 2 years after treatment, has been obtained using 0.5 oz/acre metsulfuron (Ally/Escort) or 1.5 pints/acre triclopyr (Remedy).

- compare repeated annual mowing with recommended herbicides and mowing + herbicides for sericea lespedeza control

  Plots mowed in July 1998, were re-mowed in July 1999 and will be monitored for control in 2000. Mowing sericea lespedeza at a late vegetative stage (early July) combined with applications of triclopyr at 0.5 pints/acre or metsulfuron at 0.2 oz/acre 4 to 7 weeks after mowing have resulted in greater than 70% control of sericea lespedeza 1 to 2 years after treatment. Triclopyr at 1 to 1.5 pint/acre applied during the vegetative or early bloom stage has resulted in 70-99% control. Metsulfuron at 0.3 to 0.5 oz/acre applied during early bloom to early seed set has generally resulted in greater than 90% control.

- investigate ways of increasing grazing use of sericea lespedeza, e.g. enhancing palatability, grazing systems, kind and class of animal

  Grazing goats at 3.5 head/acre at a site near Reading, KS in 1998 and 1999 resulted in 56-78% utilization of sericea lespedeza. The number of seeds produced per stem in 1998 was 979 and 3.5 on ungrazed and grazed plants, respectively. In addition, the size of the seed bank is decreasing on the grazed site. (Dr. James Mayo, Emporia State University)

c. Extension

- publication of a color brochure detailing identification and control of sericea lespedeza

  Kilgore, G., J. Davidson, and W.H. Fick. 1998. Sericea lespedeza. Forage Facts Publication Series. Kansas State Univ. Agr. Exp. Sta. and Coop. Ext. Serv., Manhattan.

  Davidson, J., W.H. Fick, G. Kilgore, and P.D. Ohlenbusch. 1999. Sericea lespedeza: history, characteristics, and identification. MF-2408. Kansas State Univ. Agr. Exp. Sta. and Coop. Ext. Ser., Manhattan.

- demonstration plots showing proper timing and application of herbicides for sericea lespedeza control

  Fick and Kilgore establish a number of research plots each year that provide information used in regular extension meetings.

- conduct fi[illegible] days and workshops to view and disc[illegible] management options regarding sericea lespedeza

See attached Report of Progress for Kansas Department of Agriculture Project

Other Publications

Dudley, D.M. 1998. Integrated control of sericea lespedeza in Kansas. M.S. Thesis, Kansas State Univ., Manhattan.

Dudley, D.M., and W.H. Fick. 1996. Integrated control of sericea lespedeza in Kansas. Proc. North Central Weed Sci. Soc. 51:25-26.

Dudley, D.M., and W.H. Fick. 1997. An integrated approach to sericea lespedeza control. Proc. North Central Weed Sci. Soc. 52:19-20.

Dudley, D.M., and W.H. Fick. 1998. Sericea lespedeza control in eastern Kansas rangelands. Abstracts, Soc. Range Manage. Annual Meeting, Guadalajara, Mexico, Feb. 8-12, p.62.

Fick, W.H. 1990. Biology and control of sericea lespedeza. Proc. North Central Weed Sci. Soc. 45:64.

Fick, W.H. 1992. Biology and control of sericea lespedeza. p. 10. In: Managing Problem Exotic Plant Species in Missouri & the Midwest, Oct. 6-7, Columbia, MO.

Fick, W.H. 2000. Alternative herbicides and mowing for sericea lespedeza control. Abstracts, Soc. Range Manage. Annual Meeting, Feb. 13-18, Boise, ID (In Press)

Fick, W.H. 2000. Integrated sericea lespedeza control in Kansas. Report of Progress, Kansas State Univ. Agr. Exp. Sta. and Coop. Ext. Ser. (In Press, Cattlemen's Day, March 3)

Mayo, J.M., and T. Eddy. 2000. Biological control of sericea lespedeza (*Lespedeza cuneata*). Abstracts, Soc. Range Manage. Annual Meeting, Feb. 13-18, Boise, ID (In Press)

Miller, B., W. Fick, and G. Kilgore. 2000. Herbicidal activity of triclopyr and fluroxypyr on sericea lespedeza. Abstracts, Soc. Range Manage. Annual Meeting, Feb. 13-18, Boise, ID (In Press)

Ohlenbusch, P.D. and J.M. Mayo (eds.). 2000. Sericea lespedeza and the future of invasive species: A symposium with a look to the future. Feb. 26, Eureka, KS and March 11, Wamego, KS. Kansas State Univ. Agr. Exp. Sta. and Coop. Ext. Ser., Manhattan (In Press)

KANSAS DEPARTMENT OF AGRICULTURE
Contract No. 1454

Project Name: Developing a Research and Extension Program to Limit the Spread and Enhance the Management of Sericea Lespedeza in Kansas

Investigators: W.H. Fick, G. Kilgore, P. Ohlenbusch, J. Davidson, and R. Kunard

Report of Progress

1. An assistant scientist, Rodney Kunard, was hired to assist with the project. His official start date was September 27, 1999. He recertified as a Commercial Pesticide Applicator.

2. A questionnaire was developed and approved by the Committee on Research Involving Human Subjects. The questionnaire will be used to survey selected ranchers to determine the known history and management of sericea lespedeza on infested and non-infested sites.

3. The following educational activities were done:

   a. Presentations on "Introduction to sericea lespedeza" and "Current control technologies" at Sericea Lespedeza Work Group Meeting, Ft. Riley, KS - July 29, 1999
   b. Presentation on "Sericea lespedeza control" at Controlling Sericea Lespedeza in Nemaha County meeting hosted by Nemaha County Noxious Weed Department, Nemaha County K-State Research and Extension, and Dow Agrosciences - September 20, 1999
   c. Presentation on "Control options for sericea lespedeza" at Field Day, Using Goats to Control *Sericea lespedeza*, Kansas Department of Wildlife and Parks, Reading, KS - September 28, 1999
   d. KKSU Radio interview, "Sericea lespedeza history, characteristics, and identification" - October 7, 1999
   e. Invited presentation, "Sericea lespedeza - potential weed of the High Plains" at Colorado Weed Management Association Annual Meeting, Pueblo, CO - December 7-8, 1999
   f. K-State Research and Extension and Emporia State University are planning two symposia entitled, "Sericea Lespedeza and the Future of Invasive Species" for February 26, 2000 at Eureka, KS and March 11, 2000 at Wamego, KS.

4. A plot was established near Maple Hill, KS on October 11, 1999 to assess the influence of applying herbicides at 5, 10, and 20 gallon/acre spray volumes for sericea lespedeza control.

5. Seven herbicide treatments were applied to a sericea lespedeza stand during seed production on October 25, 1999 at a site near Eureka, KS. On November 10, 1999 the plots were evaluated for defoliation and seed collected for germination tests. Herbicides resulted in 55 to 88% defoliation. Seed production ranged from 81 to 501 seeds/plant and averaged 267 seeds/plant. Dry weather and early freezes probably reduced seed production in 1999. Germination tests are yet to be done.

6. A site near Blaine, KS has been flagged and initial sericea lespedeza density determined. The site will be used in the spring, 2000 to determine the influence of burning on seedling germination and establishment and the effects of herbicides for seedling control.

Sericea Lespedeza: History, Characteristics, and Identification

Figure 1. *The flowers of Sericea lespedeza are born in the axils of the leaves.*

Sericea lespedeza *(Lespedeza cuneata)* or Chinese bush clover is an introduced perennial legume native to eastern Asia. It was first recognized as a potential weed problem in southeast Kansas in the early 1980s. Sericea lespedeza is most common in the eastern third of Kansas, but has spread westward, with more than 50 counties reporting its occurrence. Counties began declaring it a "county option" noxious weed in the late 1980s. More than 300,000 acres are currently infested by sericea lespedeza. The Kansas Legislature has passed legislation that will make it a statewide noxious weed July 1, 2000. Sericea lespedeza is the first federally listed crop to be declared a noxious weed.

Sericea lespedeza was first planted in the United States in 1896 by the North Carolina Agricultural Experiment Station. Little study or use of sericea lespedeza was done until 1924 when the USDA secured seed from Japan and planted it at the Arlington Experiment Farm in Virginia. Its value for erosion control, hay, wildlife, and seed production were soon demonstrated. It was not widely used for pasture until the late 1940s.

Sericea lespedeza is adapted to climatic conditions extending from Florida to Texas, north to Nebraska, and east through Michigan and New York to the Atlantic Coast (Figure 2). It grows best where annual precipitation is 30 inches or more and has survived winter temperatures of minus 17 degrees Fahrenheit.

It is recognized for its tolerance of drought, acidity and shallow soils of low fertility. It will tolerate soils ranging from very acidic to slightly alkaline, but is best adapted to a pH of 6.0 to 6.5. It does best on clay and loamy soils that are deep, fertile and well drained, but also will grow on poor sites. It has few insect and disease problems.

In the 1930s it was grown at Hays and planted on strip-mined areas in southeast Kansas. Plantings were made on federal and state reservoirs for wildlife habitat in the 1940s and 50s. It was also used in Soil Bank plantings along with tame grasses in the 1950s. Most recent introductions of the plant occurred while establishing native grass on Conservation Reserve Program (CRP) acres, a provision of the 1985 Farm Bill.

Figure 2. *The known area of adaptation of Sericea lespedeza.*

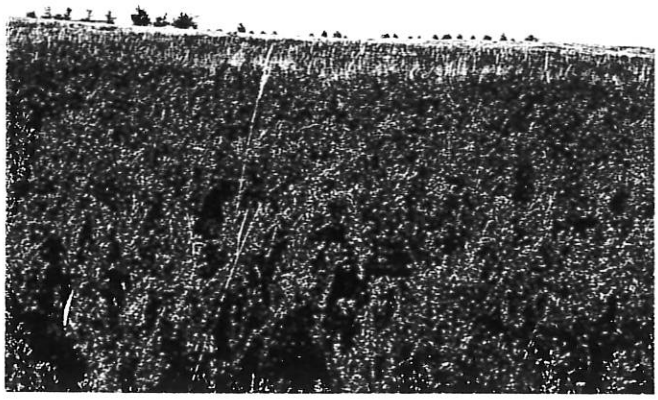

Figure 3. *A field view of Sericea lespedeza as it approached the bud stage.*

The native grass seed harvested from rangeland and used in these plantings contained sericea lespedeza seed. Sericea lespedeza was not recognized as a potential weed at that time.

Identifying Sericea Lespedeza

Sericea lespedeza is a shrubby, deciduous perennial about 2 to 5 feet tall (Figure 3). Stems are single or clustered with numerous branches (Figure 4). Each year, new growth comes from buds located on the stem bases or crown about 1 to 3 inches below ground (Figure 5). Stems and branches are densely leaved. Leaves are trifoliate and attached by short petioles. Leaves are club-or wedge-shaped (wider at the tip than the base), 1/4 to 1 inch long, and 1/16 to 1/4 inch wide. The leaf has a round to flat tip. The lower leaf surface has silky hairs. Scalelike stipules are present on the stem.

Figure 4. *The multi-stemmed growth habitat of Sericea lespedeza at an early stage.*

Flowers are yellowish-white with purple to pink markings from mid-July to early October. The flowers occur in clusters of 1 to 3 in the upper leaf axils (Figure 1). Flowers are 1/4 to 3/8 inch long and fused at the base. Seeds are 1/16 to 1/8 inch long and tan or greenish in color (Figure 6).

Several species of lespedeza occur in Kansas. All are perennial except Korean and common lespedeza. These two annuals are introduced and commonly used in tamegrass pastures and are a valuable forage in southeast Kansas. Native perennial lespedezas in Kansas include roundhead, violet, and slender lespedeza. None of these species has shown the invasive nature of sericea lespedeza. Slender lespedeza is the easiest to confuse with sericea lespedeza. Slender lespedeza has the same tall, coarse, branched stems as sericea lespedeza but has different colored flowers and a different leaf shape. Flower color of slender lespedeza ranges from purple to pink and the leaves are linear or elliptical with both a rounded tip and base.

Competitive Characteristics

Established sericea lespedeza plants will reduce or eliminate competing vegetation. It is relatively slow to establish, having a rather weak, vulnerable seedling stage. At the same time, it is opportunistic, and will establish itself in full sun or partial shade. Sericea lespedeza tolerates shade quite well, establishing in dense shade where direct sunlight does not reach during the day.

Germination and seedling growth are regulated by day length and temperature. Growth increases as day length exceeds 11 hours with maximum seedling growth at 13 to 15 hours of day length. Optimum temperatures for germination and growth range from 68 to 86 degrees Fahrenheit.

During establishment, sericea lespedeza uses most of its energy producing a root system. It has a deep woody taproot producing numerous branches that spread laterally and downward to a depth of 3 to 4 feet. Finer more fibrous roots also are produced. This extensive root system helps make sericea lespedeza competitive and somewhat drought resistant.

Sericea lespedeza has been found growing in ditches or fence rows without invading adjacent

well managed range and pasture with good plant cover. Sericea lespedeza appears to establish best where competing vegetation is very short and light is allowed to reach the germinating seed and seedlings. Many legumes need good exposure to sunlight during the seedling stage, which is the situation found in a burned pasture. Fire is assumed to enhance establishment possibly due to more sunlight available to the seed and seedlings. Seedlings will germinate and survive at low population levels where ground cover and other plant competition is quite dense such as fence rows, brushy and grassy areas, and where fire and grazing have been excluded for years.

When sericea lespedeza becomes established, it restricts the amount of light reaching other plants. Its tall, upright growth with multiple branches and dense foliage provides heavy shading. Cool-season grasses such as Kentucky bluegrass are better able to survive shading caused by dense stands of sericea lespedeza. Warm-season grasses such as big bluestem may survive some shading but will be weak and produce little forage unless the shading is removed.

The photosynthetic rate of sericea lespedeza is only half that of alfalfa. It requires more water to produce foliage than other warm-season plants, creating a "drought" for competing vegetation. The plant produces allelopathic chemicals, which inhibit seed germination and growth of some plants. These chemicals are released from the roots and leached from other plant residues, chiefly leaves.

Figure 5. *The root and stem growth of Sericea lespedeza.*

Sericea lespedeza is a legume, but has a low nitrogen fixation rate and has little effect on the status of soil nitrogen. It has been shown to increase the nitrogen content of associated grass, but what nitrogen is supplied is offset by the allelopathic substances produced. Grass shoots exposed to allelopathic substances have lower nitrogen content resulting in reduced forage quality. Nitrogen fertilizer is required to maintain production of introduced forage grasses grown in mixtures with sericea lespedeza.

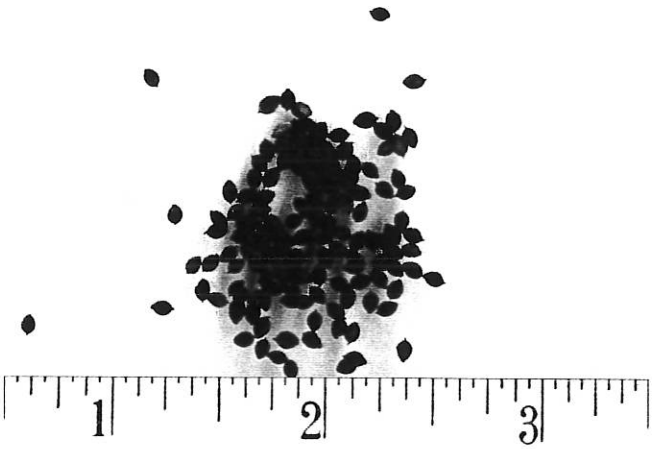

Figure 6. *The seed of Sericea lespedeza.*

Sericea lespedeza is a prolific seed producer. Individual stems may produce in excess of 1,000 seeds with 300 to 600 pounds of seed produced per acre. There are about 350,000 seeds per pound. Most sericea lespedeza seed is hard with normal germination rates of only 10 to 20 percent. The seeds are nearly impervious to water so they must be scarified to enhance germination.

Forage Quality

Sericea lespedeza has been recognized as a quality forage due to its high levels of crude protein. The sericea lespedeza that is invading has a high tannin content unlike newer varieties that have been developed. Livestock do not like to graze sericea lespedeza high in tannins. The level of tannins appears to increase with maturity of the plant, high air temperatures, and low rainfall. Tannins bind with proteins causing them to be unavailable for digestion. This combination makes sericea lespedeza unpalatable and reduces

intake and digestibility. The tannins also reduce insect feeding.

Livestock readily consume the hay since field drying decreases the tannin concentration. Cattle will graze sericea lespedeza mainly early in the growing season, under management-intensive grazing, or intensive early stocking. It is especially available for grazing if the previous years growth has been removed by a spring burn. Sheep and goats will more readily select and consume sericea lespedeza.

Wildlife Considerations

Sericea lespedeza was originally considered valuable as food and cover for wildlife. This has not been supported by research or practical experience. Deer will utilize sericea lespedeza that is kept short by mowing or grazing. They also will use sericea lespedeza as browse in winter but their role in spreading sericea lespedeza is unknown. Quail consume the seeds in fall and early winter, but the energy content of the seeds will not sustain quail through adverse weather conditions. Seeds have also been found in the stomach contents of cotton rats. Sericea lespedeza probably holds its greatest wildlife benefit as a source for cover. However, when dormant, little cover is provided since sericea lespedeza is deciduous and shade prevents other plants from developing.

Summary

Sericea lespedeza has occurred in Kansas since the 1930s but was not considered a problem until the 1980s. Its highly competitive and invasive nature together with low palatability make it undesirable on rangeland, improved cool-season pasture, and roadsides. Early identification and prevention of seed production are essential for long-term management and control.

Jeff Davidson
Extension Agriculture Agent
Greenwood County

Walter H. Fick
Range Research Scientist
Department of Agronomy

Gary Kilgore
Extension Specialist
Crops and Soils, Southeast

Paul D. Ohlenbusch
Extension Specialist
Range and Pasture Management

The authors would like to acknowledge the contributions of Dr. Jim Mayo, Dr. Tom Eddy, and Joan Young from Emporia State University and Bill Scott from the Kansas Department of Agriculture. Printing financed all or in part through a special appropriation from the Kansas Legislature for the Biology and Control of Sericea lespedeza.

Brand names appearing in this publication are for product identification purposes only. No indorsement is intended, nor is criticism implies of similar products not mentioned.

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF-2408 August 1999

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STATE OF KANSAS

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February 1, 2000

Senator Steve Morris
Chairman
Senate Agriculture Committee
Statehouse, Room 143 N
Topeka, Kansas 66612

RE: HB 2527

Dear Senator Morris:

New Section 2. of House Bill No. 2527 states that an "agriculture production loan" means an investment account placed by the director of investments under the provisions of article 42 chapter 75 of the Kansas Statutes Annotated. As stated I do not see how Farm Credit banks could comply with the collateral requirements as defined in K.S.A. 75-4201.

Should you have any questions or need any clarifications please give me a call.

Sincerely,

DERL S. TREFF
Director of Investments

DST:mcg

cc: Senate Agriculture Committee Members
Raney Gilliland, Legislative Research
Sharon Schwartz, Representative 106th District
Jill Walters, Revisor of Statutes
Chuck Stones, Kansas Bankers Association

Senate Agriculture
2-2-00
Attachment 3