

IMPACTS 2010



UNIVERSITY OF WYOMING

COOPERATIVE EXTENSION SERVICE

IMPACTS 2010



Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Glen Whipple, Director, Cooperative Extension Service, University of Wyoming, Laramie, Wyoming 82071.

Persons seeking admission, employment, or access to programs of the University of Wyoming shall be considered without regard to race, color, religion, sex, national origin, disability, age, political belief, veteran status, sexual orientation, and marital or familial status. Persons with disabilities who require alternative means for communication or program information (Braille, large print, audiotape, etc.) should contact their local UW CES Office. To file a complaint, write the UW Employment Practices/Affirmative Action Office, University of Wyoming, Dept. 3434, 1000 E. Univ. Ave., Laramie, Wyoming 82071.

Contents

Wind River Reservation farmers market receives positive reception..... 3

Wyoming Youth Leadership Education develops youth capacity..... 5

Increasing capacity of county and state 4-H leaders councils..... 7

Cool-season perennial grasses tested for hay production and/or grazing..... 9

4-H helps youth explore college and careers 11

Farm-to-Plate Service learning project captures community..... 13

High tunnels/hoop houses extend Wyoming’s growing season for specialty crop production..... 15

Unit cost of production program provides ranchers effective tool to improve ranch profitability 17

Cent\$ible Nutrition Program makes a difference in Wyoming lives 19

Workshop helps rural Wyoming residents renewably energize east-central Wyoming 21

Basic workshop helps municipal clerks, treasurers excel 23

Cody Business Boot Camp bolsters entrepreneurial skills..... 25

Grasshopper applied research, extension publications contribute to successful grasshopper control program 27

Restaurant sanitation classes gain momentum in West Area 29

Wind River

FARMERS MARKET

STREET
CLOSED

Reservation farmers market receives positive reception

Situation:

A farmers market was established on the Wind River Indian Reservation in 2010 to promote healthy living through sales of locally grown produce, agriculturally related products, and crafts.

A survey distributed across the reservation the summer of 2009 assessed perception of a farmers market. By the end of the summer, almost 400 responses had been collected, revealing a strong interest in a farmers market. A local market would provide easy access to nutritious, fresh fruits and vegetables helping to combat high rates of obesity and diabetes commonly found among tribal people. A farmers market would enable farmers, ranchers, and other vendors to sell locally produced goods near their home, simultaneously providing a way to supplement incomes and support the reservation's economy.

Farmers market committee members from local communities were recruited to serve as an advisory group for the market's establishment. Four out of the five committee members participated in the farmers market manager training in March 2010 as a result of funds received through a Western Sustainable Agriculture Research and Education grant. This training provided how to develop and support a successful market.

To reach many residents on the reservation, farmers markets were conducted on a rotating basis in Arapahoe, Ethete, and Fort Washakie. Rotating the market location made it possible for each community to have three market days during the primary growing/harvest season. The market averaged eight to 10 vendors per day. Wide varieties of products were sold, including vegetables, local fruit, jams and jellies, baked goods, and Native American crafts.

The Ethete and Fort Washakie markets brought in roughly 30 to 50 customers, and the Arapahoe market had about 15 to 20 customers. The Wind River extension office had a booth where free samples and recipes of snacks made from the market's produce were handed out. This encouraged community members to think of ways to use the products, such as making salsa, coleslaw, and grilled zucchini slices.

Impacts:

There appears to be a greater understanding of the purpose of the farmers market amongst tribal members. Many vendors and consumers commented on the success of the market and are inquiring about selling or buying goods during this year's market.

Throughout the market season, CES noted a number of customers returning week after week to seek out local products they had purchased the prior week. The market has also increased awareness about varying ways to promote healthy lifestyles. For instance, the extension educator was approached by Tribal Health and Indian Health Services to offer programs to their clientele on the benefits of growing and selling locally.

Justina Russell
University Extension Educator
Wind River Indian Reservation
(307) 332-2135
jtoth1@uwyo.edu



Wyoming



Youth Leadership Education develops youth capacity

Situation:

Workforce preparedness training is a focus of programming for youth. 4-H provides youth with life skills they can use as adults. With the Daniel's Fund identifying some of those same areas, 4-H educators in Converse and Natrona counties provided programming that directly correlated with the need for workforce preparedness training.

The Converse County Junior Leaders had identified the need for training in workforce preparedness, and the decision was made the Converse, Natrona, and Niobrara (CNN) Area would use Daniel's Fund monies for a WYLE training for the CNN Area. The three-day event was in Casper in November 2009.

Educators partnered with 4-H leaders and the Strong Families, Strong Wyoming program to provide sessions on relationships, communication, workforce preparedness, and leadership skills. The program was planned for 50 youth, but 75 participants from three counties registered. Six different presenters conducted this training.

Objectives of the program included:

Youth will become better leaders in their 4-H programs and in their communities.

Youth will gain better communication skills and self-confidence in all areas of their lives, particularly their interpersonal relationships and social situations.

Youth will be able to communicate more effectively and will be tolerant of other people and ideas.

Youth-adult interactions were used – critical to the program's success.

Impacts:

A leadership skill pre-test and post-test determined knowledge gained. Youth ranked themselves in leadership qualities and indicated if

they had that quality, are pretty good at it, and need to work on or need help. There were 10 areas: enthusiasm, preparedness, communication with others, caring, creativity, problem solving, character, adaptability, dependability, and cooperation. Post-test scores determined that knowledge increased in all areas.

Youth were asked to share one idea they plan to use:

- *"I am going to project my ideas more than I have been because I've found out I have some good ones."*
- *"I have learned a lot of leadership skills and life skills I will be taking back to my school, my home, and my community. Thank you!"*
- *"I'm going to try and be a better leader to everyone. I am going to try to see the good in others and not the bad."*
- *"I'm going to continue to be a great leader but this time with more experience under my belt."*
- *"I will work harder to be more accepting of others."*

Adult leaders have reported youth in WYLE are demonstrating their leadership skills more frequently at 4-H events by being active participants in club and county events, helping club leaders, and mentoring younger 4-H members more often.

Tansey Sussex
Converse County 4-H/Youth Educator
Converse County
(307) 358-2417
Sussex@uwyo.edu

Colleen Campbell
4-H Program Associate II
Natrona County
(307) 235-9400
ccampbell@natronacounty-wy.gov



A person is rappelling down a large, textured rock formation. The sky in the background is a vibrant mix of blue, purple, and orange, suggesting a sunset or sunrise. The rock is a light brown color with a rough, porous texture. The person is silhouetted against the sky, and a rope is visible extending from the top of the rock down to the person.

Increasing

Situation:

One objective of the 4-H Initiative Team is to “empower volunteers to become key players in 4-H youth development programs.”

The Wyoming State 4-H Leaders Council consists of 11 elected adult volunteers and two youth representatives. The council has struggled with its purpose, ineffective communication, and poor participation in meetings. There was a disconnect between the state 4-H leaders council and the state 4-H office.

County 4-H councils can be instrumental in providing valuable input for county 4-H programs. To improve the function of both the state and county leaders councils, the state 4-H volunteer specialists facilitated a workshop to help state 4-H leaders council members identify the purposes of the group. Several workshops at both the county and state level provided leadership and organizational training to volunteers.

Impacts:

The Wyoming State 4-H Leaders Council members identified their purposes at their September 2009 meeting:

- To provide input for change to strengthen and unify the statewide 4-H program.
- To provide guidance to secure resources as well as educational advancements/opportunities.
- To promote the statewide recognition program.
- To assist and promote communication from state offices to counties as well as leaders, clubs, and 4-H members.

effectiveness of county and state 4-H leaders councils

The County 4-H Leadership Retreat planning team conducted two successful retreats. Feedback from participants in both was positive.

A process to make changes to the Wyoming 4-H Program was developed in collaboration between the state 4-H leaders council and the state 4-H office. The guidelines are on the Wyoming 4-H website under Volunteer Resources.

Use of Web meetings six times a year increased communication between the state 4-H council members and the state 4-H office. Evaluation to assess communication and partnerships with three different audiences was completed in 2010. While progress has been made in almost all areas, the evaluation revealed issues that need to be addressed.

A Likert scale was used to determine progress on issues identified with ratings two years ago and today: extremely poor=1; below average=2; average =3; above average=4; excellent =5

(Hardly hear a word
from anyone)

(Communication is open from anyone.
I can be actively involved)

Communication within the state 4-H leaders council (n=7)

- Improved from 1.4 two years ago to 4.1 today

Communication between the state 4-H office and the state 4-H leaders council (n=7)

- Improved from 2.8 two years ago to 4.7 today

Communication between the state 4-H leaders council and county 4-H programs (n=7)

- Improved from 1.2 two years ago to 2.8 today

On the following questions the following scale was used:

1=extremely poor 2=below average 3=average 4=above average 5=Excellent

(A partnership did not exist)

(We were full partners to effect
and implement a state-wide 4-H program)

Partnership between the state 4-H office and the Wyoming State 4-H Leaders Council (n=6)

- Improved from 1.6 two years ago to 3.3 today

Partnership between the Wyoming State 4-H Leaders Council and the state development committees (n=6)

- Improved from 1.1 two years ago to 2.3 today

Partnership between the Wyoming State 4-H Leaders Council and county 4-H programs (n=6)

- Improved from 1.1 two years ago to 3.1 today

We will continue efforts to improve partnerships and communication to enhance volunteer leadership in the program.

Kim Reaman
4-H Volunteer Management
Specialist
State 4-H Office
(307) 766-5027
kreaman@uwyo.edu





Cool-season perennial

Situation:

Alfalfa is raised on approximately 64,000 irrigated acres in Johnson and Sheridan counties for hay production. Stand longevity is generally five to seven years. Exhausted fields have to be tilled and planted to a non-alfalfa crop for a year or two before the field can be returned to alfalfa.

Cool-season perennial forage grasses could produce comparable yields of good-quality forage over an extended number of years and reduce hay production costs. A study of potential grasses to replace alfalfa as a forage source for this region was initiated in 2003 at Victoria Station Ranch along Clear Creek in Johnson County and on the Neltje Ranch along lower Piney Creek in Sheridan County.

Nine grasses were seeded into replicated plots at the two ranch sites in May 2003. Landowners irrigated and fertilized, controlled weeds, and, following sample collection for hay yield estimates, harvested the plot areas.

Five presentations for area producers and range professionals reached 140 individuals. Ten written reports also provided dissemination of applied research results.

Impacts:

Regar meadow brome and Manchar smooth brome have produced the most hay over the seven years of the study averaging 3.1 tons per acre followed by Luna and Mandan pubescent (intermediate) wheatgrass at 2.8 tons per acre. These yields are comparable to the 2004-2009 average of 2.7 tons per acre for alfalfa hay in Johnson and Sheridan counties. These four grasses along with NewHy hybrid wheatgrass have maintained their stands whereas the stands of Bozoisky-select Russian wildrye, Hycrest crested wheatgrass, Rosana western wheatgrass, and Critana thickspike wheatgrass have all but been lost, especially Critana. A possible explanation as to why stands of these grasses have waned is that Bozoisky-select and Hycrest are bunch grasses that allow invasion by rhizoma-

tous introduced grasses. Although the two native grasses, Rosana and Critana, are themselves rhizomatous, they begin growth later in the spring than the introduced species and thus may have not have been as competitive.

Management practices gleaned from this study and now implemented by the producers are:

- Nitrogen fertilization needs to be done by the first of May to obtain maximum benefits;
- Irrigation needs to occur by mid- to late May if April and early May are drier than average; and
- One mid- to late-summer irrigation may have a high impact on next year's yields.

Some hay producers in the area have planted fields to meadow brome instead of smooth brome – the standard – because meadow brome has better late-spring regrowth for grazing. Also, if pubescent (intermediate) and hybrid wheatgrasses are grown for hay, they need to be harvested prior to anthesis, unlike the bromes; otherwise, they become rank, and livestock will not readily consume the hay.

Although these wheatgrasses mature later than the bromes, harvesting them for hay needs to occur by late June, whereas harvesting the bromes can be delayed until mid-July without sacrificing palatability, although quality is less than ideal. Bromes are more forgiving with regard to when harvested and the palatability compared to the pubescent and hybrid wheatgrasses, thus providing a longer harvest window.

This project will continue until 2013 providing 10 years of hay yield results, resultant stand longevity over that period of time, and an economic analysis.

Blaine Horn
 University Extension Educator
 Northeast Area/Campbell, Crook, Johnson, Sheridan,
 and Weston counties
 (307) 684-7522
 bhorn@uwyo.edu

4-H



AGRICULTURE

helps youth explore college and careers

Situation:

Most high school graduates are confident they have done everything necessary to receive a high school diploma; they have completed four years of high school, taken required courses, and are excited and ready for college.

Are they ready? In reality, the answer is no for many.

According to Jon Whitmore, president of ACT, Inc., "Only 34 percent of students have skills and a plan in place to be successful." He says youth need three things to be successful: 1) College readiness, which includes critical thinking skills, analysis, problem solving, and reasoning skills; 2) Academic behaviors, which include time management, note taking, self awareness, and reading comprehension; and 3) College entrance skills, which include admissions process, placement testing, financial aid, and expectations of college life.

4-H programming provides youth hands-on educational opportunities to develop knowledge and life skills. Skill sets include team work, responsibility, confidence, public speaking, decision making, problem solving, time management, critical thinking skills, and more. Compared to Whitmore's three things needed to be successful in college, 4-H does an excellent job preparing youth for college and developing academic behaviors. However, the program could play a stronger role in relation to college entrance skills, such as providing guidance and educational opportunities, admission processing, placement testing, financial aid awareness, and college life expectations.

In November 2009, West Area 4-H educators Robin Schamber, Jesica Lozier, Kelli Kilpatrick, Tabitha Fleak, and Dawn Sanchez from Lincoln, Sweetwater, Sublette, Teton, and Uinta counties teamed to develop a program opportunity for youth ages 14-18 years old. Thirty-three

youth and 11 parents traveled to the University of Wyoming in Laramie on a career exploration adventure. Participants engaged in department tours, career assessments to match their personalities to possible careers, financial aid education and updates, life on campus, extra-curricular activity engagement, a community service project, and leadership activities.

Impacts:

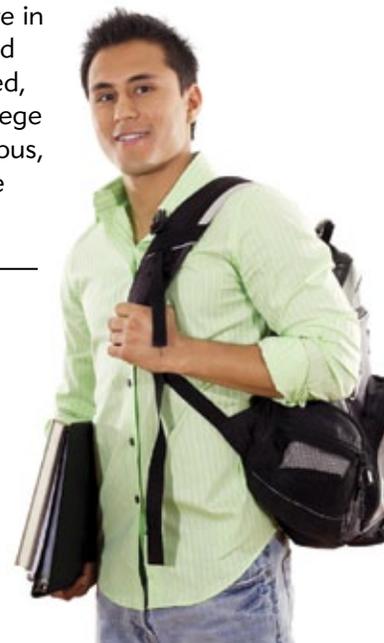
A post-evaluation sought to identify if their college entrance skills had been enhanced. Using a scale of 1-4, with 4 being high, the results were:

- Department tours – 3.64
- Career assessment – 3.26
- Financial aid tips – 3.29
- Community service project – 3.37
- Leadership activities – 3.22
- Extracurricular activities – 3.79

When asked if participants had a better understanding of degrees available to them, 88 percent said absolutely; 75 percent indicated they had a better understanding of what careers fit their individual strengths.

Prior to spending time on the UW campus, 76 percent were interested in attending UW. At the conclusion of the program, 100 percent said they were interested. Youth said they were motivated to participate in the program because they wanted to explore UW, they were recruited, they wanted to get a taste of college life, they wanted to tour the campus, explore classes, and the available degrees.

Dawn Sanchez
University Extension Educator
Uinta County
(307) 783-0570
dasanchez@uintacounty.com



Farm-



to-Plate Service learning project engages community

Situation:

Childhood obesity has become epidemic in the United States resulting in a rise in early onset diabetes, heart disease, and a myriad of other health complications. Contributing factors include more sedentary lifestyles, an increase in video game playing, computer games and television viewing, consumption of prepackaged and fast food on a regular basis, and a lack of exercise. Several members of the Sublette County Afterschool Advisory Board brainstormed to define ways in which the Sublette County 4-H Afterschool programs could be proactive in combating this sedentary life style. As several members of this group have wanted to implement a community garden in the Pinedale area, this quickly became an area of focus. Sublette County's harsh climate and extremely short growing season make season extension techniques almost essential.

The program received a Learn and Serve grant requiring that youth be involved in an intergenerational/community service learning project resulting in cultivation of fresh produce utilized as healthy snacks for program participants and also made available for the elementary school daily luncheon salad bar. Youth would learn the value of citizenship by giving back to their community through produce donations to the local food baskets. Finally, remaining produce would be marketed and sold at the local farmers market as an entrepreneurial business venture.

Southeast Area extension educator Jeff Edwards held a demonstration workshop to build high tunnel houses for the project. A local businessman and owner of property adjacent to Pinedale Elementary School agreed to donate nearly an acre of land. Although there are no utilities, there is a stream and pond adjacent to the property. With permission from the town of Pinedale, water could be pumped into a gravity-fed watering system.

Impacts:

Twenty-two volunteers constructed two high tunnel houses in May 2010 under the guidance of Edwards. Local Boy Scouts built raised beds inside the structures, the town of Pinedale agreed to provide liability and structural insurance for the property, the local Soil Conservation District agreed to assist with providing landscaping and landscaping design, and many community gardening enthusiasts lent expertise to the project. The first seeds were planted in late August. An open house showed community members their new business/community venture. Participants harvested fresh produce, learned to make healthy snacks, and donated fresh radishes to the school cafeteria salad bar. Finally, participants donated all produce from the final harvest to the local food basket.

Research on short-term impacts is underway. A partnership with the Wyoming Survey and Analysis Center has created baseline data that will be followed up this year. A compelling issue thus far is the surprising lack of understanding of the origins of produce. Of the nearly 50 participants in grades K-5 surveyed prior to program implementation, nearly 75 percent admitted never harvesting and eating a vegetable from a garden. Many could only identify the grocery store as a source for obtaining produce.

Robin Schamber
4-H/Youth Extension Educator
Sublette County
(307) 367-4380
rschambe@uwyo.edu





High tunnels/hoop houses extend

Situation:

Wyoming is known for short growing seasons, highly variable and often difficult spring planting conditions, and the all-too-frequent possibilities of early killing frosts. These conditions lead to frustrated producers and their inability to tap into the production potential of much of Wyoming's own food.

High tunnels/hoop houses are passive (no additional energy inputs required) greenhouses that have been in use for years in many parts of the world including the United States. These structures come in a variety of shapes and sizes, can be implemented over almost any crop, and will protect the crop from highly variable weather conditions. The greatest roadblocks to implementation are costs and daunting construction.

The Southeast Area extension educator partnered with an area specialist from New Mexico State University to develop and implement a hands-on workshop to teach participants how to construct high tunnels; remove factors that can be intimidating in the construction process; use local materials when available to cut costs; and utilize simple yet sturdy designs that can survive Wyoming's challenging weather. A grant from the Wyoming Department of Agriculture provided

Wyoming's growing season for specialty crop production

funding to support eight high tunnel workshops. With funding secured, extension educators were invited to submit requests for workshops and demonstration sites in their areas. Between May and August 2010, 14 workshops were held completing 17 high tunnels in eight Wyoming counties.

Impacts:

178 people participated in the 14 workshops, and a conservative estimate is an additional 300 people have toured, participated in seminars, and discussed these projects with the project leader and project owners in 2010. Of the 178 participants, 32 indicated they would build their own high tunnels within the next 24 months.

Using a modified Likert 1-5 scale (where 1 = information was of low value and 5 = information was invaluable), the average overall workshop was rated at 4.0.

When asked "What will you do as a result of this workshop?" answers included build another high tunnel, grow more crops longer, get a jump start on next spring.

- "I think the "hoop house project" is a fantastic way to show Wyomingites that we can grow our own food without the outrageous cost of a commercial hoop house."

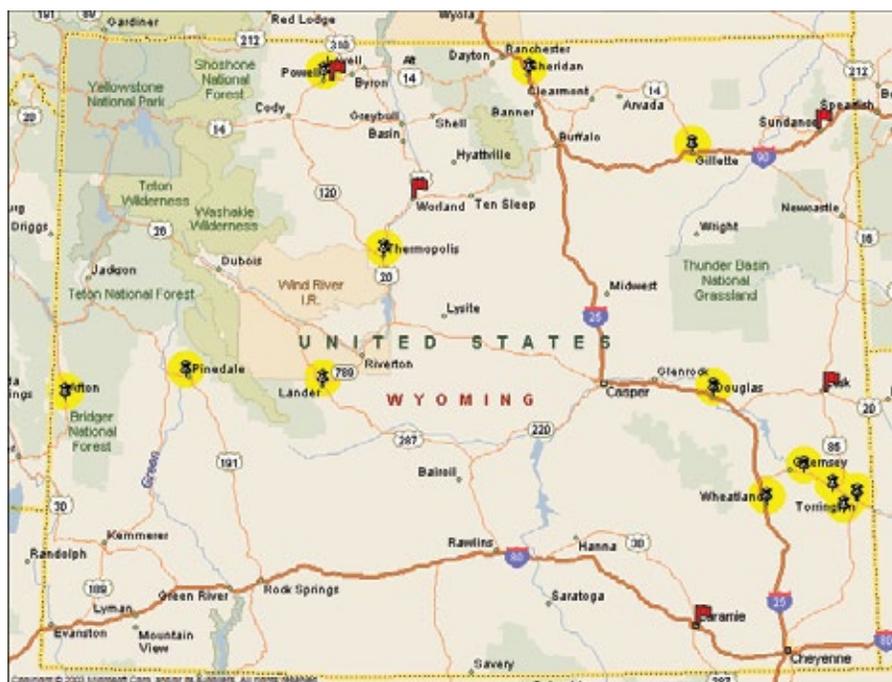


Figure 1. Schematic representation of High Tunnel workshop locations. Yellow pushpins = completed workshops and high tunnel locations in 2010; red flags = scheduled and proposed workshop sites for 2011.

An economical, easy to construct, and durable high tunnel/hoop house with the potential to increase crop diversity and local food production are top-of-mind areas of interest for food producers in Wyoming. Public participation in the workshops and seminars exceeded expectations. This project encourages hands-on learning and the opportunity to discuss unexplored methods of crop diversity and production. The possibility of building a low-cost high tunnel that provides protection against Wyoming's

variable growing conditions and extends the growing season piques the interest of many frustrated backyard and commercial producers of food.

Jeff Edwards
University Extension Educator
Southeast Area/Albany,
Carbon, Goshen, Laramie,
and Platte counties
(307) 532-2436
jedward4@uwoyo.edu





Unit cost of production program provides

Situation:

Ranching is a complex business that involves multiple resources and long-range planning. Even a savvy businessman can become overwhelmed by the complexities involving heifer development, land appreciation, and allocation of resources to multiple enterprises. However, for ranchers to conduct an analysis of their businesses, they must be able to handle these things in a way that makes sense and provide opportunities to understand where the income is coming from and where the costs of running the business are going.

Southeast Wyoming Area extension educator Dallas Mount updated the work of well-known livestock economist Harlan Hughes to fit today's livestock production environment. This ranch financial analysis tool is known as the Unit Cost of Production (UCOP) model and has been used in each of the last three High Plains Ranch Practicum schools conducted by the University of Wyoming Cooperative Extension Service and Nebraska Extension. The UCOP model has proven very popular among ranchers as it allows producers to compare the financial performance of their ranches with that of other ranches in the model. This comparison is known as benchmarking and allows ranchers to identify where their costs are high and where their costs are low, allowing them to identify areas needing management attention.

Unit Cost of Production lessons and information were available to ranchers in a variety of ways: the full ranch practicum school included approximately two full days of instruction and practice on UCOP; a series of one-day sustainable ranching schools were delivered to seven communities; five one-hour workshops at various venues; and YouTube videos and a website hosting material. Approximately 135 received in-person training on the tool, 630 watched the YouTube video, and 1,100 people downloaded tools and information from the website. Those who received in-person training were asked questions about the usefulness of the tool and its effects on their abilities to efficiently manage their ranches.

Impacts:

Those who attended the one-day Sustainable Ranching School were asked what actions they would take as a result of attending the class. Twelve individuals mentioned performing a UCOP as a specific action they planned to take. Dallas Mount also conducted 10 individual UCOP assessments for ranchers during 2009-2010.

The knowledge gained in the class helped the 22 students increase their ranch operation profits by an average of \$25 per head. The total estimated economic impact for producers attending the High Plains Ranch Practicum would be \$195,000.

Before the practicum, only 10 percent of participants stated they often used UCOP in decision making; after attending the practicum, 100 percent indicated they would often or almost always use UCOP in their decision making.

Dallas Mount
University Extension Educator
Southeast Area/Albany, Carbon, Goshen, Laramie,
and Platte counties
(307) 322-3667
dmount@uwyo.edu





Cent\$ible Nutrition

Situation:

Wyoming had 36,226 Supplemental Nutrition Assistance Program Education (SNAP) recipients in 15,086 households in April 2010. These numbers have climbed more than 30 percent from April 2009. Food security is a challenge for those with limited resources and makes nutrition education, including food resource management, very important.

Low-income populations in the United States report high rates of diet-related health problems and often lack sufficient personal, social, and community resources for healthy food choices. Community nutrition education programs increase capacities for healthful food choices with the long-term objective of reducing diet-related diseases to improve health – a goal of the University of Wyoming Cooperative Extension Service Cent\$ible Nutrition Program (CNP).

CNP is available in 22 counties including the Wind River Indian Reservation. Through educational efforts the past year:

Program makes a difference in Wyoming lives

- 1,133 adults graduated from the program (8.5 average lessons) and 84 (4.1 average lessons) terminated. Total teaching contacts for graduating and terminating were 9,974.
- 4,634 adults and 4,735 youth participated in one-time educational lessons with 83.6 percent of adults reporting intent to change behavior.
- 2,574 youth participated in a series of five lessons in school classrooms, afterschool programs, and camps.
- Ten issues of Cent\$ible Nutrition News were distributed. For each issue, approximately 34,500 are printed in English and 1,900 in Spanish.
- Up to 58,200 (some duplicate) potential indirect contacts with eligible participants through 155 events including health fairs, educational events, newspaper, and radio.
- The CNP website provides information for potential clients and collaborators. There are on average 5,072 visitors and 24,999 hits per month.

Impacts:

Adults who enroll in a series of lessons complete a pre- and post-survey that includes a standard set of 18 behavior questions, a 24-hour food-recall, and demographic data. The following are significant impacts reported by adult and youth participants.

ADULTS – Adult participants reported the following.

- Families reported saving an average of \$53.82 per month.
- 82 percent showed improvement in one or more food resource management practices.
- 52 percent reported planning meals ahead of time more often.
- 42 percent reported comparing prices before purchasing food more often.
- 37 percent reported running out of food before the end of the month less often.

- 46 percent reported thinking about healthy food choices more often when deciding what to feed their families.
- 37 percent reported they or their children eat something in the morning within 2 hours of waking more often.
- 48 percent reported serving more than one kind of fruit to their families each day more often.
- 47 percent reported serving more than one kind of vegetable to their families each day more often.
- 54 percent showed improvement in one or more food safety practices.

YOUTH – 2,574 youth participating in Grazing with Marty Moose, Munching Through Wyoming History, Passports to Food Adventures, and WIN Kids curricula reported the following.

- 30 percent now eat a variety of foods.
- 36 percent increased knowledge of the essentials of nutrition.
- 18 percent increased their ability to select low-cost, nutritious foods.
- 21 percent improved practices in food preparation and safety.
- About 50 percent improved their knowledge of MyPyramid food groups.
- 37 percent more could correctly identify the physical activity recommendation for children.
- 28.5 percent increased their knowledge of body size diversity.

Mary Kay Wardlaw
 Director, Cent\$ible Nutrition
 Program
 Department of Family and Consumer
 Sciences
 (307) 766-5181
wardlaw@uwyo.edu





Workshop helps rural Wyoming

Situation:

Wyoming has a vast abundance of natural and renewable energy resources. Many rural landowners would like to take advantage of these resources and gain energy independence. In east-central Wyoming, including Natrona, Converse, and Niobrara counties, wind and solar energy resources are prevalent and have received media attention. However, most attention is centered on “Big Wind” projects such as the commercial wind farms along Interstate 25 between Douglas and Casper.

A random survey was sent to residences in Converse and Natrona counties to determine what types of renewable energy citizens would be interested in learning about. The survey also asked for questions they had about small-scale, home, or farm renewable energy projects. Not surprisingly, solar and wind energy were major areas of interest. Educators from the Converse County and Natrona County offices of the Cooperative Extension Service partnered with the University of Wyoming, School of Energy Resources, the Converse County Conservation District, and SunPower Energy to host a workshop and field tour showing the economics and installation of wind and solar power renewable energy projects for the home and farm/ranch.

The workshop not only covered renewable energy options available and the economics but also energy-saving techniques, selecting a contractor, and grant programs available. The 35 participants toured a small-scale wind and solar installation near Douglas and were able to interact with the contractor and the landowner.

Impacts:

Ninety-six percent of participants gave the classroom portion of the workshop an excellent-to-good rating. Particular areas rated excellent included instructors’ response to questions, material presented was useful and understandable, and the instructors’ knowledge of their particular topics. Comments from participants included:

- Very well-presented
- I am more aware of how Wyoming rates with the rest of the country in renewable energy
- We appreciate the presenters’ truthfulness in answering questions.
- Interesting and very informative.

A survey about the workshop’s impacts and outcomes was sent to a sample of participants approximately six months later. The following energy-saving techniques were reported to have been implemented as a result of the workshop:

- Compact florescent lighting
- On-demand hot water heater
- Timer for furnace thermostat
- Light-emitting diode (LED) lights
- Double pane windows in garage
- Fully insulated roof
- Low-energy garage door openers
- Wiring was brought up to code
- Installed new doors and windows
- Upgraded appliances
- Insulation of crawlspace

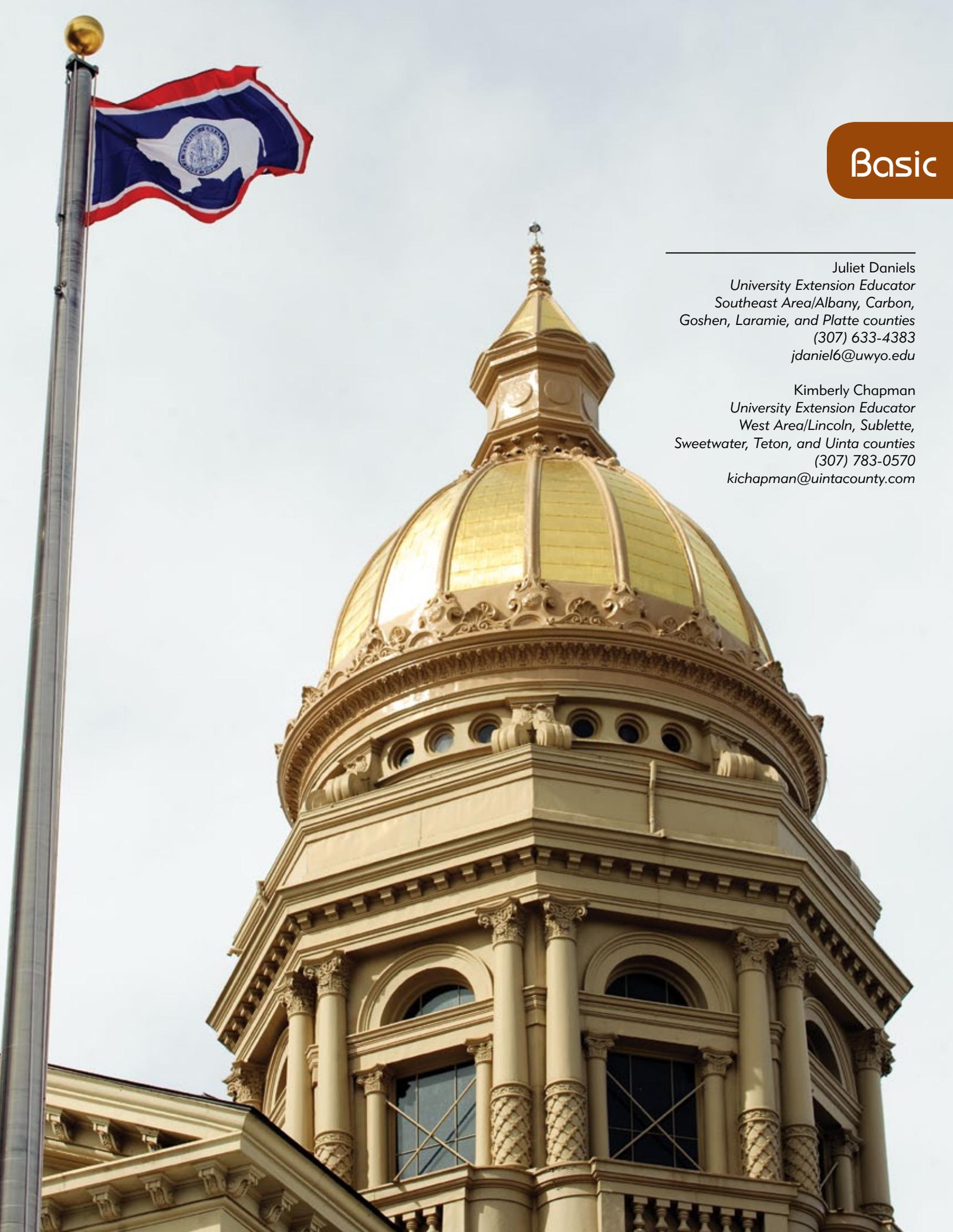
The following renewable energy generation mechanisms have been installed after the workshop:

- Solar panels by four participants
- Solar electric fence
- Solar yard lights
- Solar water well pump
- Wind turbine

Participants increased their knowledge of renewable energy options available to them as well as energy-saving techniques that could potentially save money. They implemented several energy-saving techniques and renewable energy generation mechanisms to help save money, gain independence, and decrease carbon footprints.

Ashley Garrelts
 University Extension Educator
 CNN Area/Converse, Natrona, Niobrara counties
 (307) 358-2417
 ashleyg@uwyo.edu





Basic

Juliet Daniels
University Extension Educator
Southeast Area/Albany, Carbon,
Goshen, Laramie, and Platte counties
(307) 633-4383
jdaniel6@uwyo.edu

Kimberly Chapman
University Extension Educator
West Area/Lincoln, Sublette,
Sweetwater, Teton, and Uinta counties
(307) 783-0570
kichapman@uintacounty.com

workshop helps municipal clerks, treasurers excel

Situation:

Municipal clerks and treasurers serve crucial roles in many functions of municipal government. In 2009, the president of the Wyoming Association of Municipal Clerks and Treasurers (WAMCAT) approached the Community Development Education team to explore opportunities to train WAMCAT members. An introductory training session for new clerks and treasurers was identified as one of their educational needs.

In spring 2010, Community Development Education Team members and the WAMCAT board began planning for what became the WAMCAT Basics Workshop. Community development educators Juliet Daniels and Tara Kuipers worked with Karen Guidice and Cate Cundall from WAMCAT to organize training. Representatives from the Wyoming State Liquor Division, City of Casper, University of Wyoming Cooperative Extension Service, Wyoming Chapter of the Association of Records Managers and Administrators, City of Laramie, and the Wyoming State Auditor's Office provided expertise to speak at the workshop.

More than 60 registered to attend. Twenty-five percent had been in their positions as a municipal clerk or treasurer for less than a year.

Sessions included instruction on parliamentary procedure; ethics; liquor licensing; bidding and publication procedures; document retention; municipal finance and audit; ordinances, resolutions and proclamations; and meetings, agendas and minutes. Participants learned in extension educator Kimberly Chapman's presentation "Governing Ethically and Responsibly" how to promote an ethical culture in their organization, avoid the most common ethical dilemmas faced in local government, and apply an ethical framework to the decision-making process.

Impacts:

A workshop evaluation was distributed at the conclusion of the workshop. Thirty-six participants provided feedback.

- Ninety-four percent stated the sessions either provided them new information or reinforced what they already knew.
- Ninety-seven percent of participants reported they were motivated to think and do something different while 100 percent were motivated to learn more.
- One hundred percent of participants believed the workshop was valuable.

When asked "What was the most important thing learned?" participants responded:

- *The document retention course was very informative. I didn't know you have to document the destruction of your records.*
- *Parliamentary procedures, liquor licensing, basics of auditing, ordinances, etc. The ethics was a great workshop to refresh and remind me that morals and virtues need to stay in place. No matter what the issue!*
- *I learned that other towns have similar problems or questions.*
- *I am glad I am not the only one with questions. Thanks for all the info!*

When participants were asked what they would do differently as a result of the workshop, they responded:

- *Look closer at ordinances, set up a retention schedule and see that it is carried out, take medical information out of personnel files, share with the mayor about e-mails and bidding process.*
- *Look at liquor licensing applications better; add a little more to minutes.*
- *I will be updating my recordkeeping.*
- *I feel more comfortable in having the knowledge and the ability to find resources to make my job easier and to make better decisions.*
- *Check ordinances to see if what was discussed in the workshop is in our ordinances and train new council members.*

Eighty-nine percent of participants reported they felt more confident and capable in their position as a result of the workshop.



Situation:

During a fall 2009 marketing workshop for Cody business owners, a presenter asked how many of the 30-plus individuals had a business plan. Only two hands were raised. Alarmed by the absence of such a critical business document among a large number of entrepreneurs in our community, several individuals began discussing what could be done to address this identified need.

The University of Wyoming Cooperative Extension Service community development educator, Forward Cody executive director, Wyoming Business Council regional director, Wyoming Small Business Development Center regional director, Northwest College Center for Training and Development coordinator, Park County School District No. 6 Entrepreneurship Program instructor, Cody Country Chamber of Commerce assistant director, and the Department of Workforce Services director began meeting twice monthly. The group created a list of topics, developed a multi-session course outline, brainstormed possible instructors and instructional methods, established evaluation criteria, and created publicity items to market the course. Each member committed to facilitating at least one of the course sessions.

Cody Business Boot Camp was designed as an eight-session program. Topics included a wide array of entrepreneurship-

Business Boot Camp bolsters entrepreneurial skills

related topics appropriate for new and existing business owners developing a business plan, including "Are You Ready to Be In Business?," "Business Intelligence," "Business Operations," "Finances," "Marketing," "Profit 101," and "Business Structures."

Thirty-two individuals representing 28 businesses enrolled. Several owned or managed established businesses in the Cody community. Others were at various stages of beginning a business; some entrepreneurs were near launching their ventures, while others were at the early "thought" stage exploring entrepreneurship possibilities.

Impact:

Of the 32 individuals in the course, 24 attended at least six of the eight sessions. Upon conclusion, each completed a class evaluation offering feedback and sharing ideas to improve the program. Some key comments are:

- *"I found the class to be very useful, in that it gave me an opportunity to organize various aspects of planning and implementing my idea."*
- *"It helped me think about the things I may have overlooked."*
- *"I enjoyed learning how supportive this community is to see business entrepreneurs succeed and how available they are if you are out there trying."*
- *"This class has set us up quite nicely with all the resources we need; it is now up to us to utilize and take advantage of the help."*

A pre/post assessment on the first and last nights of class assessed participants' readiness and basic understanding of entrepreneurial topics.

Question	Pre-class "YES" Response	Post-class "YES" Response
Do you think you are ready to start a business?	72%	93%
Do you know and understand the components of a business plan?	40%	100%
Do you know why some consider business planning to be the most important factor in determining business success?	52%	100%
Do you know how to prepare a marketing strategy for your business?	12%	93%

Key to the success of the Business Boot Camp was the strong team-oriented approach in the planning, delivery, and evaluation of the program. Each individual on the team represented a different organization and brought a variety of resources and knowledge. The collegiality of the group, coupled with the relevance of the topic and the enthusiasm of participants, combined to create an excellent learning environment.

Tara Kuipers
 University Extension Educator
 Northwest Area/Big Horn, Fremont, Hot
 Springs, Park, and Washakie counties and
 the Wind River Indian Reservation
 (307) 527-8560
 e-mail: tkuipers@parkcounty.us



Grasshopper applied research, extension publications

Alex Latchininsky
*Associate Professor/Extension
Entomologist*
*Department of Renewable
Resources*
(307) 766-2298
latchini@uwyo.edu



contribute to successful grasshopper control program

Situation:

Grasshoppers are serious rangeland and crop pests in Wyoming and 16 other Western states. The fall 2009 adult grasshopper survey predicted a potentially serious outbreak in 2010. The total acreage infested with 15 or more grasshoppers per square yard (the action threshold) increased more than 10-fold compared to 2008 and reached almost 3 million acres. Efficient, economic, and environmentally friendly methods were necessary to combat the grasshoppers and then make these practices familiar and available to landowners and pest managers across Wyoming.

University of Wyoming Cooperative Extension Service entomologists developed and refined the Reduced Agent and Area Treatments (RAATs) method for rangeland grasshoppers. Funding for recent improvements of RAATs came from the Wyoming Department of Agriculture, USDA-CSREES, USDA-APHIS-PPQ, IR-4, and other federal and state sources. The most recent enhancements included newly available insecticides, recommendations for efficient ultra-low dose rates, kairomonal attractants, and space tracking, which allowed decreasing the program costs as well as the environmental impacts. We developed numerous extension educational materials on grasshopper biology and management. These materials were a part of the joint University of Wyoming, Wyoming Department of Agriculture, and USDA-APHIS-PPQ statewide public educational program in 2010.

The educational materials developed and published by UW extension entomologists included *Pest Grasshoppers of the West: Identification and Management* poster (Latchininsky & Schell, UW Cooperative Extension Service bulletin B-1171), *Mormon Cricket Biology and Management* poster (Latchininsky & Schell, UW CES bulletin B-1191), *Field Guide of Common Wyoming Grasshoppers* (Schell, Latchininsky, & Shambaugh, UW CES bulletin B-1161, 4th edition), *Grasshopper*

Management Square Foot Job Aid (Schell & Latchininsky, UW CES MP-123), *Aerial RAATs* and *ATV-RAATs* brochures (Latchininsky, UW CES MP-95). The Square Foot Job Aid and the RAATs brochures were published in 2010.

Impacts:

As a part of the state-wide public education program, grasshopper materials were distributed free to landowners, pest managers, gardeners, and conservationists in all Wyoming counties. In the short-term, they provided accessible information to a wide range of clientele, from specialists to the general public. As predicted, the grasshopper outbreak in Wyoming was very serious in 2010 – the worst in about 25 years. To help save the state's agriculture, 5,903,616 acres were protected in Wyoming using the RAATs method developed and publicized by UW extension entomologists. About 4.7 million acres out of 5.9 million were treated by private landowners. Had ranchers used the traditional, blanket application of insecticides at conventional high rates, the cost, according to preliminary estimates, would have been \$3.70/acre – the entire program would have cost \$17.4 million. However, by using RAATs, the insecticide dose rate was only half of the maximum labeled one, and the chemical was applied to only 50 percent of the infested area. The RAATs treatments effectively reduced pest densities below the economic level, and the cost was \$8.7 million – a savings of \$8.7 million to Wyoming agriculture in 2010. This allowed Wyoming agriculturists to survive the unprecedented pest outbreak and maintain the viability of their operations. In the mid-term, the impact consists of providing ready-for-use tools for ranchers, farmers, pest managers, and gardeners for identifying pest grasshopper species and choosing appropriate control measures. Wyoming agriculturists learned about efficient and economic ways to control grasshopper outbreaks without doing environmental harm.





Restaurant

Situation:

Teton County has had an increased need for restaurant sanitation classes due to the number of restaurants in the county and the turnover of seasonal employees. For many years, Teton County has been using the ServSafe Starters course as an abbreviated version to the traditional two-day Managers ServSafe course taught throughout the state.

The Starters course allows employees to attend a four-hour class and gain insight and knowledge about proper food handling procedures without the strain on money and time for staff training, which is often lacking in the food service industry. ServSafe Starters is offered in both English and Spanish in Teton County. It was realized there was an increased need for restaurant sanitation classes in other locations in the West Area in both English and Spanish. In cooperation with the environmental health specialists in other counties, a decision was made to pilot ServSafe Starters in Sublette and Sweetwater counties.

The four-hour ServSafe Starters course involves various teaching methods and media use. The class is taught in conjunction with the environmental health specialists and the nutrition and food safety extension educator. Eleven ServSafe Starters classes were offered in the West Area throughout the year: seven in English and four in Spanish, with 170 people participating.

Impacts:

Participants ranged from restaurant workers and church volunteers to high school culinary arts students. Of the 170, 134 passed the 35-question final test with a score of 80 percent or greater, while 36 failed. The result is a 79-percent pass rate and a 21-percent fail rate. Participants can retake the class and retest without payment. This often results in a greater pass rate.

The 35-question test was created in Teton County. This test has been approved by county environmental health inspectors and covers the material taught. Participants must score 80 percent or greater to pass and receive a local ServSafe Starters certification card valid for three years.

Participants in the ServSafe Starters class gain knowledge of safe food handling with opportunities to ask questions outside their work environment. Those in the food service industry can work in their establishment with more knowledge of safe food handling practices, bring that to other establishments if they change jobs, and teach and influence coworkers. This leads to safer food handling throughout the counties and safer food for customers.

Through years of continued education, restaurant sanitation practices will be safer and lead to lower risks of food-borne illness.

Jennifer Jacobsen
University Extension
Educator
West Area/Lincoln, Sweetwater,
Sublette, Teton, and Uinta counties
(307) 733-3087
e-mail: jjacobsen@tetonwyo.org



