

Wyoming Department of Agriculture (WDA)

Specialty Crop Block Grant Program – Farm Bill

Agreement No. 12-25-B-0859

Final Report

June 30, 2012

TABLE OF CONTENTS

DOWNTOWN MAIN STREET COMMUNITY GARDEN AND MOBILE KITCHEN	1
Project Summary	1
Goals and Outcomes	1
Beneficiaries	2
Lessons Learned	3
SPECIALTY CROP MARKETING AND TECHNICAL ASSISTANCE POSITION	4
Project Summary	4
Project Approach	4
Goals and Outcomes	5
Beneficiaries	6
Lessons Learned	6

COMMUNITY GARDEN AND OUTREACH PROJECT	7
Project Summery	7
Project Approach	7
Goals and Outcomes achieved	8
Beneficiaries	10
Leasons Learned	10
SMALL GRANT PROGRAM FOR SMALL FARM CROP IMPROVEMENTS	12
Project Summery	12
Project Appraoch	12
Goals and Outcomes achieved	12
Beneficieries	17
Leasons Learned	17
GRAPE AND WINE GROWER INDUSTRY	18
Project Summery	18
Project Approach	18
Goals amd Outcomes	18
Beneficieries	20
Leasons Learned	20

PROJECT SUMMERY

The goal of the Rock Springs Main Street program is to promote economic growth and sustained interest and promotion of the downtown area of Rock Springs. They bring together community volunteers, private businesses and government partnerships to accomplish this goal. Revitalization of downtown districts is not just about new businesses and services, but providing green space and areas that will attract residents to once again shop, work and play in downtown. The goal of this project is to increase specialty crop production, education and consumption by launching the first community garden in the historical district of downtown Rock Springs, Wyoming. The project will take place in a blighted and unused corner of land. By utilizing this space as a community garden, it will significantly improve the lot, create green space and cultivate locally grown crops. In addition, as part of the harvest from this community garden, the Main Street program would lease a mobile commercial kitchen to help prepare the harvested produce and conduct weekly demonstrations using local chefs and educators who will present and share recipes, canning procedures and food safety procedures using locally harvested produce and available products during the farmer's market from July to August.



GOALS AND OUTCOMES

The goal of this project is to increase specialty crop production, education and consumption by launching the first community garden in the historical district of downtown Rock Springs, Wyoming. The project will take place in a blighted and unused corner of land. By utilizing this space as a community garden, it will significantly improve the lot, create green space and cultivate locally grown crops. In addition, as part of the harvest from this community garden, the Main Street program would offer a commercial kitchen to help prepare the harvested produce and conduct weekly demonstrations using local chefs and educators who will present and share recipes, canning procedures and food safety procedures using local harvest and available products during the farmer's market from July to August.



In 2009 the Farmers' Market attracted over 8,000 people. This was 2,000 more than the estimated 6,000 attendants in 2008. The number of produce vendors also increased from 2008. There were approximately 6-8

vendors in 2009, up from four in 2008. The project utilized a mobile commercial kitchen during the 2009 Farmers' Market season.

A mobile commercial kitchen was leased but the overall class size decreased from the expected number of participants due to limited amount of comfortable space at the request of the demonstrators. Several advertisements were published in the local newspaper to show commercial kitchen availability. The kitchen was put to use in late August for the main street non-profit organization who are helping manage the project to host a fundraiser serving over 200 people in a local, downtown park. As July 2010, a land lease agreement between the lessors, William McCurtain, James R McCurtain, and Scott McCurtain, and the lessees, City of Rock Springs and the Rock Springs Urban Renewal Agency was established. The term of the renewable lease was per year and the lessees agreed to pay the lessors the sum of one dollar (\$1.00) per year for the full term of the renewable lease. Work continued on the Garden Project throughout the summer of 2010.

The Community Garden Project's status in 2011 was that the garden infrastructure was in place and produce was being grown. The garden is intended to be an opportunity for community growth and networking among community residents and local businesses. The design included garden plots for locals with little yard space, decorative plants to improve the look of the corner lot and a lawn or play area and small children's plot for younger gardeners. In 2011 the city renovated the M Street railroad and underpass and improved both the road and its surroundings. The lot where the Garden is located is directly across the street from the new waterfall. The Main Street/URA envisions the Garden lot to eventually be as attractive as it's across the street counterpart. The garden is continuing to provide opportunities for youth organizations this year and in the coming years.

BENIFICERIES

In 2011 several community partners participated with the garden. A local Girl Scout troop weeded, painted and laid down straw in order to earn a community service badge, there was approximately 12 girls along with their leaders. There is also a partnership with Community Connections in Rock Springs; this program provides extensive opportunities for junior high through high school students to serve their community. Approximately 40 students spend these critical summer daytime hours engaged in service with a focus on career exploration, personal growth, college preparation and resume-building. We have also had interest from the new local Boys and Girls Club, this agency is new to the community and is making a great impact.

The mobile kitchen was able to offer cooking demonstration classes on the dates listed below, as well as the number of attendees for each.

July 18:	Fruits and applesauce	8 attendees
July 25:	Canning tomatoes and peaches	6 attendees
August 13:	Jelly	7 attendees
August 18:	CANCELLED (cancelled due to death in family)	
August 19:	Applesauce cookies and applesauce	8 attendees
August 20:	Organic salads and homemade dressing	7 attendees

August 25: Canning tomatoes	5 attendees
August 26: Fresh salsa	6 attendees
August 27: Squash recipes	4 attendees

In 2012 we have recently invested about \$500 worth of plants and added new soil, weeded the beds and have the Community Connection Kids along with Boys and Girls Club doing the work. Suzanne Zutter the director of the United Way, Lisa Plant Community Connections, and Lisa Stewart of the Boys and Girls Club all co chaired this community event! It really has become a successful project. There are at least 250 youth and adults involved in the community garden. These include 95 in Community Connections and 135 in the Boys and Girls club, plus the chairs of the committee and some additional community people. Also the whole community is benefiting from this endeavor and we plan to advertise during harvest time to let people come and pick what they need. Also we are designing a sign that thanks the donor of the property for allowing us to use their land. The owners of a six unit apartment behind the garden received a community pride award for the work they did on improving the property. The owner indicated the garden had inspired him to clean up their property.

LEASONS LEARNED

A mobile kitchen was brought in the summer of 2009 but cooking classes had to be limited in number of trainees because of the size of the kitchen. Due to timing of the state contract and arrival and duration of kitchen trailer, no local entrepreneurs used the trailer to produce or market their produce. The garden part of the project initially was slow in getting started due to construction problems with the site. It was located adjacent to an urban renewal project that was behind schedule and there were heavy equipment parked on the site. It was discovered that part of the lot had multiple owners but these issues were resolved in the summer of 2010 and a garden was designed and developed. The lot was cleared of remaining debris and in 2011 was planted. The spring the weather was cold and delayed planting but the project eventually was able to provide opportunities for Rock Spring youth. The garden is continuing to provide opportunities for youth organizations this year and in the coming years the full potential of the garden project will be realized. We are also meeting several goals for other agency mentoring, and community pride, just to name a few. As an added impact the apartment complex by the garden has recently done a face lift. This is an example of how this community garden is helping improve community in general.

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PROJECT SUMMERY

One of the goals of the Wyoming Department of Agriculture is to increase the availability of specialty crops within Wyoming by providing support for marketing, education, season extension, research, food safety and product distribution. Funding to support the program allows for promotion and education of specialty crop opportunities. Specialty crop funds help support a technical assistance position to cooperate with other state agencies, the University of Wyoming, Community Colleges, producer groups, producers, processors and consumers to expand specialty crop production in Wyoming. In February of 2009 the WDA hired a contract employee to oversee enhancing specialty Crops in Wyoming that will impact approximately 200 people engaged in the specialty crop industry, provide education and marketing of the specialty crop program and grow the specialty crop industry in Wyoming by 5 percent.

PROJECT APPROACH

In order to enhance the development and availability of Wyoming produce and horticulture, the Wyoming Department of Agriculture (WDA) requested funding to support program efforts covering five key areas: marketing, education, season extension, research, food safety, and product distribution. The specialty crop grant program requires support for development, monitoring, and cooperation with agency partners and grantees. This support is critical to maintaining the integrity and stability of the program by providing overall marketing and technical outreach. The funding will be used to help support the Specialty Crop Technical Assistance position. The qualifications for this position are any combination of training and experience equivalent to a bachelor's degree in business administration, agribusiness, marketing or other closely related field PLUS 5 years professional work experience in business or public administration. The vacancy announcement also lists "knowledge and skills" to include the following: Skills required for this position include the following: understanding of Wyoming production agriculture and knowledge of the WDA's vision to serve this group; grant writing and administration; budgeting and strategic planning; ability to conduct appropriate research to gather and interpret data relating to production agriculture; oral and written presentation skills including the ability to lead group processes; decision-making; self-motivation as well as the ability to prepare timelines for projects, prioritize duties, and meet deadlines in order to plan, lead, and manage a variety of complex projects; computer skills including MS Office software experience; knowledge of state and federal agriculture programs; and knowledge of federal labeling requirements. This position is measured on incumbent's ability to write, obtain, and administer grant funds to enhance production agriculture in our state and on the ability to build and maintain relationships with a variety of constituents including producers, business leaders, volunteer board members, community and state government agencies, state legislators, and regional marketing associations. The performance standards include communication, teamwork, quality, and quantity of work as well as specific grant writing and reporting deadlines.

GOALS AND OUTCOMES

Goal: To develop the specialty crop industry in Wyoming through education and promotion.

A contract employee that was hired in February of 2009 managed and promoted the Specialty Crop Program. The following were efforts undertaken by the contractor in order to expand specialty crops in Wyoming. Partnerships with the following organizations were developed for expansion of Specialty Crops in Wyoming: the Wyoming Rural Development Council, the Wyoming Business Council, UW Cooperative



Extension in Torrington, Casper, Sheridan and Laramie, Rocky Mtn. Farmers Union, Main Street Program in Rock Springs, Pushroot Community Gardens in Lander, Wyoming Bee Keepers Association, Sheridan College, Wyoming State Fair, UW Master Gardeners Program, Wyoming Farmers Marketing Association, Heart Mtn. Center in Powell, UW Sustainable Agriculture Research and Extension Center Torrington, University of New Mexico Cooperative Extension, High Tunnel Program, Powell Seed Lab, Wyoming Growers and Grounds Keepers Association, Wyoming Lodging and Restaurant Association and Wyoming Grape Growers Association. The position provided a leadership role in the following activities.

1. A high tunnel workshop was conducted at the Wyoming State Fair to build a hoop house display on the fairgrounds that was highly visible to State Fair attendee's. A second workshop was conducted at the Research Station in Powell Wyoming. The workshops provided information on construction techniques and season extension techniques. The projects resulted in 5 requests for information on the small grants program to help producers construct high tunnels.
2. As an advisor to the Wyoming Farmers Market Association, the position provided technical and marketing support on specialty crop topics presented at the annual WFMA convention that impacted 45 market managers and vendors. Organic and high tunnel usage seminars, a preserving the harvest workshop and a high tunnel workshop were held in conjunction with the Farmers Market Conference for 45 producers and educators.
3. Efforts to promote specialty crops to consumers in Wyoming included speaking engagements at two conferences, a TV interview with Channel 13 at State Fair (the station reaches approximately 60,000 people).
4. Developed information for a feature article in the Backyards and Barnyards magazine, several newspaper articles and a how to manual on straight line high tunnel construction.
5. The position also supported other agencies and individuals with information to help increase awareness of specialty crop opportunities in Wyoming. In order to increase the number of applications to the specialty crop program, an updated online specialty crop application and manual were provided for marketing the specialty crop program.
6. The position provided site audits for the Season Extension Small Grants Program.

BENEFICIARIES

The position continues to work to expand the specialty crop industry in Wyoming. There are 46 vegetable farms, 25 orchards, 40 greenhouse, 23 floriculture growers, 9 greenhouse vegetable growers, and 103 dry bean growers according to the 2007 Wyoming census. Wyoming Ag Statistics showed that cash receipts for Wyoming specialty crop producers in 2010 were approximately 57 million dollars, an 11% increase over 2009. In 2010 there were 33 summer farmers markets and three winter markets. Two local schools were also able to build a hoop house exposing students on hoop house production. The Douglas and Powell workshops directly impacted 60 producers and agricultural professionals. The hoop house article in Backyard and Barnyards impacted 4000 readers. We continue to experiment with low cost hoop house designs that will withstand 80 mile per hour winds and look for opportunities to educate producers and consumers on specialty crops. The 40,000 attendees to the Wyoming State Fair have the opportunity to see firsthand the benefits of two separate hoop house designs.

LEASONS LEARNED

We are seeing an expansion of small acreage production in areas of the state that is conducive to their production. Many areas in Wyoming require wind and cold protection techniques in order to successfully grow specialty crops. At the same time consumers are requesting more local grown products. This has required the technical assistance person to spend a greater portion of his time on Specialty Crop promotion development and management than originally anticipated. The position continues to work to expand the specialty crop industry in Wyoming by developing educational, marketing and opportunities. There is a steep learning curve for many producers in the more weather challenged counties. Working with each segment of the industry has its own challenges. Some segments within the specialty crop industry such as the bean growers are a mature industry and require very little technical or marketing support. Others like the fruit and vegetable growers require much more in the way of research, education and marketing. The position has also had to take a more hands on approach with some projects in order to ensure successful outcomes. Often times the Wyoming Specialty Crop program is funding volunteer groups that need additional support in order to accomplish their goals. Technical assistance can come in a variety of forms. The Technical Assistance person helps in organizing a workshop, participating on an advisory board, or is physically present and assists in trainings. This position has had to continually stay on top of the latest trends such as the local food movement, plasticulture farming, Farm to School, Farmers Market development, energy efficiency of hoop houses, organic and conventional production techniques. A lesson recently learned by a producer in Douglas who did not attend any workshop but instead visited the State fair was that there are reasons the Specialty Crop Program hold workshops and developed a how to manual. He failed to properly anchor the hoop house down and it ended up blowing away. Had he attended a workshop or read the manual this would likely not have happened.

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HERE'S HOW TO BUILD

By Ted Craig, Jeff Edwards, and Del Jimenez

Wyoming's climate is not kind to high-value specialty crops.

Growers wanting to produce locally grown vegetables are looking at a variety of techniques to extend the production season. Over the last 15 years, hoop houses (also known as cold frame green houses or high tunnels) have become very popular. Hoop houses, except for the plastic covering, can be built using materials from local hardware stores. The plastic covering should have a UV inhibitor and should be purchased through a supply company specializing in these materials. Many producers

view high tunnels as essential for their operation to extend their growing season.

Picture 1.

There are many kits available, but this 12-foot x 36-foot x 6.5-foot-high hoop house is an inexpensive design costing under \$700. This hoop house was built at the Casper Community Garden on the Natrona County Fairgrounds. Following is a description of the construction process for this particular hoop house design.

Picture 2.

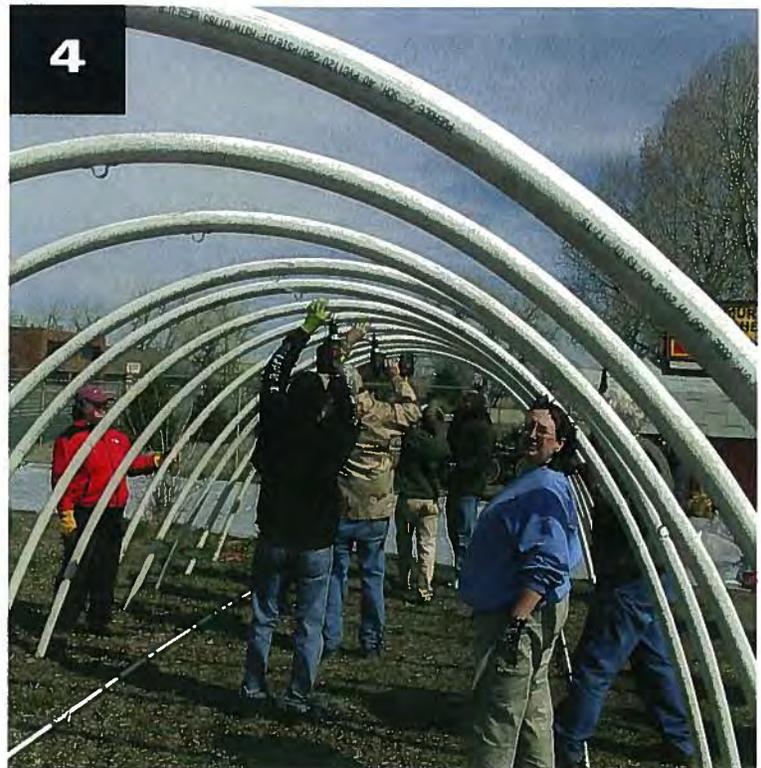
Determine the appropriate site. The ground should be relatively level with good soil and drainage for

planting and should have access to water year-round from a frost-free spigot. Position the hoop house so air currents help ventilate the hoop house on hot days. Set it parallel to prevailing winds. In Wyoming, wind direction varies from west-southwest to west-northwest and is often determined by local terrain. Choose the length of a hoop house that meets your need. Squaring the structure is extremely important. Square the corners by using the 3-4-5 rule. Measure 3 feet from the corner in one direction and make a mark. Measure 4 feet from the corner in the other direction. The distance of the diagonal between the

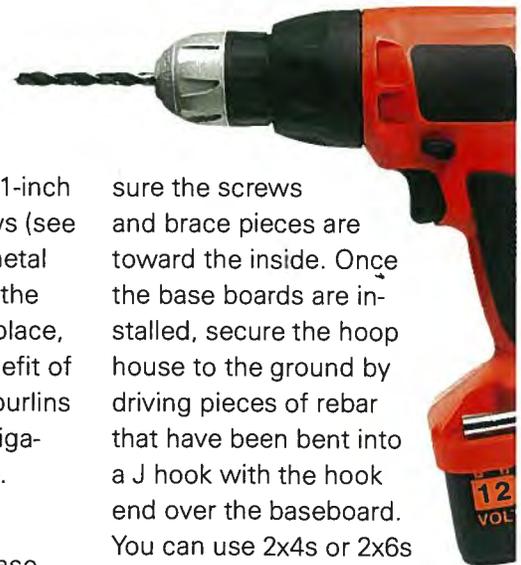
marks should be 5 feet if the corner is square. Once the four corners are square, string a line from one corner down the side to the other corner. This will be a side wall. Drive 2-foot long by ½-inch rebar 1 foot into the ground every 4 feet at an approximately 30-degree angle leaning inward. In more severe weather areas, putting rebar every 3 feet is recommended. You are now ready to put up the PVC ribbing. Lay out the plastic sheet to warm in the sun near the hoop house.

Picture 3.

The hoop house ribs are made from 20-foot lengths of 2-inch schedule 40 PVC pipe. This allows



A HOOP HOUSE



for a 12-foot wide greenhouse with a center height of about 6.5 feet. Using smaller diameter PVC pipe is not advisable. High winds and snow loads will significantly decrease the structure's lifespan. One end of the PVC pipe is placed over the rebar all the way to the ground and bent so the other end can be fitted similarly onto the rebar stake on the opposite side.

Picture 4.

To stabilize the hoop house, $\frac{3}{4}$ -inch schedule 40 PVC pipes are used as purlin bracing, one on each side and one down the middle. From the base of one of the end PVC hoops, measure up

60 inches and make a mark. Repeat this at the other end of the hoop house. String a line and mark the underside of each hoop rib and repeat the process on the opposite side. Measure and mark the underneath of the center of each hoop rib. Glue two 20-foot x $\frac{3}{4}$ -inch schedule 40 PVC pipes together end to end and mark it every 48 inches or every 36 inches, depending on your construction (note the pipes on the ground). This marking corresponds to the distance between each of the hoop ribs. Starting at either end of the hoop house, the $\frac{3}{4}$ -inch PVC pipe is attached using two-hole metal conduit straps

held in place by using 1-inch zinc plated deck screws (see photo). By using the metal conduit straps to hold the $\frac{3}{4}$ -inch PVC purlins in place, you get the added benefit of being able to use the purlins as a mechanism for irrigation in the hoop house.

Picture 5.

Side boards and baseboards are installed to stabilize the PVC hoops and provide attachment points for the plastic skin. For this unit, 10-foot long painted 1x4 boards were butted and fastened together using a 1-inch brace. These are then fastened to the outside of the PVC hoop pipe with 2-inch plated screws. Make

sure the screws and brace pieces are toward the inside. Once the base boards are installed, secure the hoop house to the ground by driving pieces of rebar that have been bent into a J hook with the hook end over the baseboard. You can use 2x4s or 2x6s for the baseboards for more structural strength.

Picture 6.

Doors at each end of the hoop house provide access and permit natural ventilation to remove excess heat. To finish the ends, stretch a tape measure between the base of the first hoop to find the center of the span.



This will provide a reference point to construct the entrance. From the center point, measure along the string two feet in each direction. Mark the spots and dig two 6-inch round holes 18 inches deep. Place an 8-foot 2x4 in each hole and angle cut the top so the wood fits under the end hoop rib. Level the 2x4 in both directions making sure they are 48 inches on center from one 2x4 to the other. Fill in the holes with dirt and tamp. From the top of the end rib, drill a pilot hole through the 2-inch PVC pipe into the top of the 2x4 and secure it with two, 4-inch plated screws. Attach a 2x4 "header" at the top of the door frame

and repeat on the opposite end (see Picture 10 for the finished door).

Picture 7.

The plastic skin should be at least six mil and have UV protection incorporated for protection from sunlight. Don't use regular plastic sheeting from the hardware store. It will become brittle within four months and fail. Greenhouse plastic comes in rolls of 100 feet in varying widths, and some companies will sell the exact size you need. The product used here is a woven plastic material and is available in several thicknesses. On this 12-foot x 36-foot unit, we used a piece of plastic that was 22 feet x 50

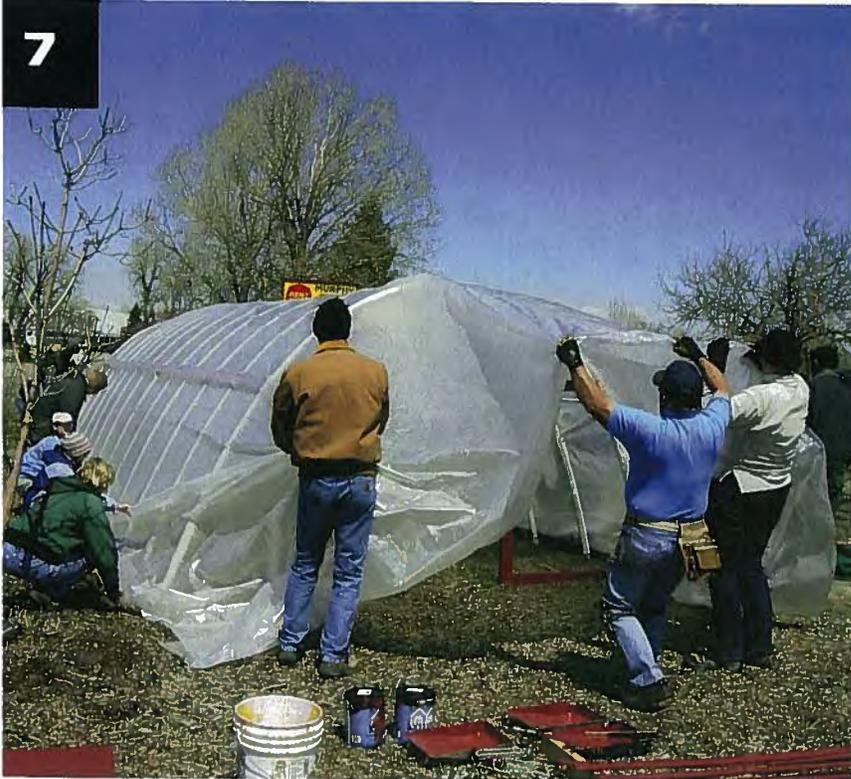
feet, which allowed for a 1-foot overlap on each side. Putting the plastic on can be the most difficult part so this is the time to have the neighbors and relatives over for lunch! Allow the plastic to warm so it can be stretched properly. It is not recommended to try to cover the hoop house in high winds. In fact, no wind is best, but, in Wyoming, that may not be an option. Pull the edge of the plastic over the hoops centering it. Leave it on the hoops for about 15 minutes to absorb more heat before working with it.

Picture 8.

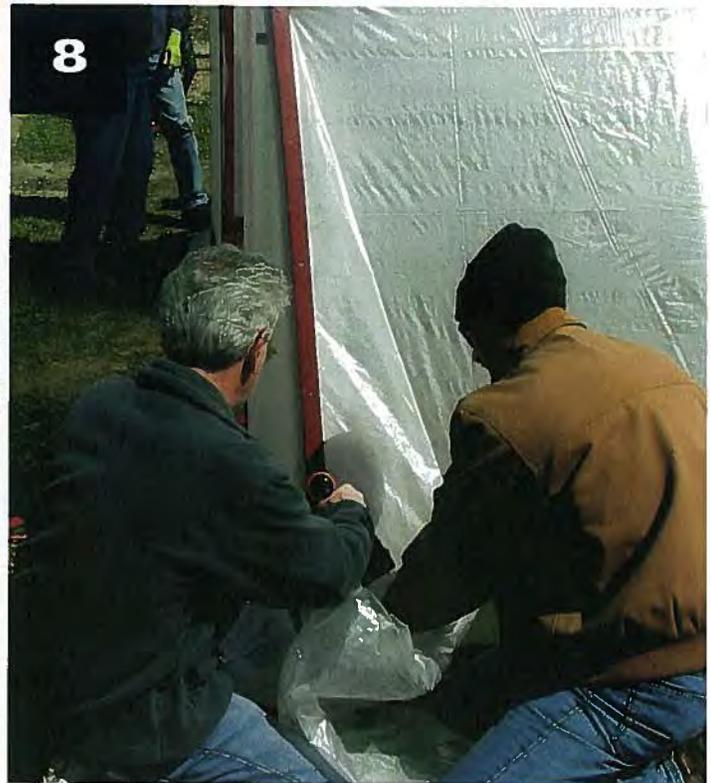
Stretch the plastic in both directions and attach the hoop house cover

to the side boards using ¼-inch thick by 1-inch wide by 8-foot wood slats. Drill pilot holes 12 inches apart into the slats to prevent splitting. Use 1-inch plated screws to attach the slats to the plastic cover and side board and repeat on the other side of the hoop house. Next, stretch and attach the plastic to the base boards on both sides of the hoop house. At each end, stretch the plastic tight and attach the slats to the 2-inch PVC pipe. Stretch the plastic and secure it to the 2-foot x 4-foot framed door opening with the ¼-inch x 1-inch wood strapping. Trim excess plastic from the opening. Cut the 4-foot x 8-foot piece

7



8



9



10



of plywood to fit the door frame opening. Using two hinges, attach the plywood door to one of the 2-foot x 4-foot uprights. Screw a latch onto the door so it can be secured, and repeat the procedure for the opposite end.

Picture 9.

After the plastic has been attached to the hoop house frame, dirt is piled on the excess plastic to help prevent heat loss and wind from entering.

Picture 10.

Finished hoop house!

For detailed information on how to build this hoop house and a materials list, go to cahe.nmsu.edu/pubs/_circulars/CR-606.

pdf or contact University of Wyoming Cooperative Extension Service educator Jeff Edwards in Torrington about scheduling a hoop house workshop in your area. He can be reached at (307) 532-2436 or at jedward4@uwyo.edu. For information about the Wyoming Department of Agriculture specialty crop season extension small grant program, go to <http://wyagric.state.wy.us> or contact agriculture production coordinator Ted Craig at (307) 777-6651 or tcraig@state.wy.us. Del Jimenez is an agricultural specialist for New Mexico State University. He can be reached at (505) 852-2980 or djimenez@nmsu.edu.

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HIGH TUNNELS BURROWING INTO WY

It appears that high tunnels are becoming all the rage. They have burrowed, quite rapidly, into our lexicon, our gardens, and into our lives. Most had not heard of them until last winter and now everyone is talking about them. They extend the growing season dramatically, increase crops, and expand crop varieties. At the October 8 meeting of the Wyoming Master Gardener Association,

Jerry Simonsen reported for Jeff Edwards on the WY Dept of Ag/Extension Service High Tunnel Grants. 17 high tunnels were constructed in 2010. The smallest was 12 x 12 feet and the largest was 24 x 72. Project funding looks good for 2011 and requests for applications will go out in February of 2011 for ten more structures. All further designs will be either straight hoop houses or gothic style.

Jeff & Ted, the builders and instructors, logged over 6,000 miles and over 170 people participated in the workshops. Hoop houses were constructed in the areas of Afton, Pine-dale, Lander, Powell, Thermopolis, Sheridan, Gillette, Douglas, Wheatland, Guernsey, and Torrington. Tentative plans call for construction in Lusk, Laramie, Sundance, Lovell and Worland for 2011. (This information came from a map with pushpins so may not be totally accurate.) Get your apps in!

Converse County goes Solar

Converse Co will utilize the sun to heat and cool their new hoop house (or high tunnel). Wy Dept of Ag's Ted Craig and Goshen Co Educator Jeff Edwards have installed a solar ventilation system for the new 20 X 72 hoop house in Douglas. When the temperatures reaches 70 degrees outside, louvers automatically open and a fan circulates the hot air to the outside, all using solar power. Hoop houses heat up in a hurry in the sun; and without ventilation, plants can cook. Opening and closing the doors is labor intensive and simply not possible at all times. The solar system frees workers from manually opening the doors, windows, or sides depending on the style of high tunnel. Becky will keep everyone informed at the State Meetings on how the solar ventilation system works.

Goshen Co MGs talk on radio show

Extension Educators Jerry Simonsen and Jeff Edwards host a Friday radio show and MGs frequently are by their sides to answer questions and talk about horticulture questions. The show is a great success with pre-screened call-in questions discussed and answered on air. The show expands the community awareness of the MG program and answers a lot of questions.

*A callused palm &
dirty fingernails pre-
cede a green thumb.*

Welcome Hot Springs County MGs

Hot Springs Co has a new program with 6 MGs. 5 were trained by or with Park Co MGs and one transferred in. They have organized, have By-Laws and officers and are working on payback hours. A Farmer's Market is also in the works for 2011. A delegate was sent to the WY MG Association meeting in Casper in October. The Association welcomed the new county MGs and wish them the best. They are a very active bunch with lots of enthusiasm and we look forward to many innovative projects from them. WELCOME!!

Garden Walk in Laramie County

Vegetable gardens and small gardens were featured in Cheyenne MG's educational Garden Walk in July. This is free to the public to get the word out about different types of gardens. Last year they featured yards in a specific areas of the city, this year it was vegetable and small gardens. MGs are available on site to answer questions and hand out information. Try it in your county! Or make it a fund raiser. Thanks Laramie Co for the innovative ideas.

CAMPBELL Co MG OFFICE MOVES

The MGs have moved, along with the Extension Office, back to Gillette Avenue in Gillette. They were in this George Amos Building in the 1980s and are now back to a remodeled building. Stop in and see them at 412 S Gillette Ave and help them unpack!

NATRONA CO PLANTS PLANTSELECT DEMO GARDEN

Casper, once again, plants a Plant-Select Demonstration Garden to trial a variety of new plants from the PlantSelect program. This is a valuable asset to the whole state as everyone can see what did good in Casper and how that plant did in other sites in the Rocky Mountain area. Go to PlantSelect.org for more information. Natrona Co Educator Donna Cuin says to go to the Demonstration Gardens and see the map and click on the Casper area to see the results of their trials. I couldn't get this work but there is lots of info on the site. I didn't look long for the Casper info but try it out, This is a valuable site to dream over all winter, plus you learn lots and it can help planning your flower garden for 2011. Check it out and thanks to Natrona Co MGs for their hard work in keeping the data and working the garden.

PARK CO TRAINS NEW MGs

Park Co trains it's largest class of Park Co & Big Horn Co residents in the 2010 MG class. Park Co is a leader in sharing information and training with surrounding counties. Their enthusiasm is contagious and refreshing. They trained a total of 10 people with 2 for education only. Six are out there putting in educational hours in the community and two are high school students that are still in training. Allowing high school students to take the classes is an innovative idea considering their limited time to make payback hours and long term commitments. Park Co 2010 Chairman Bob Prchal reported the project is working out well. Contact him if your program is thinking of expanding to highschoolers.

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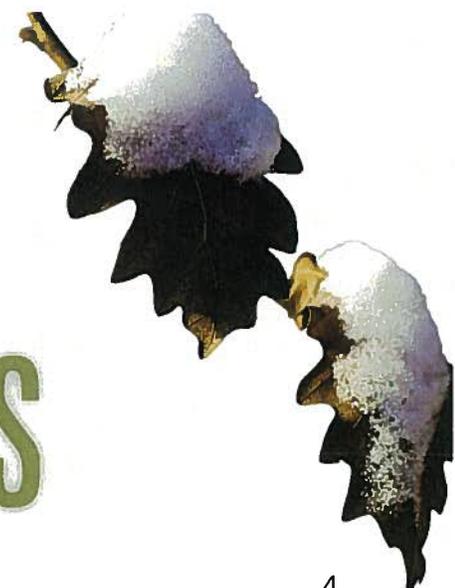
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table of contents



Five years and going strong!4

Educator describes how to achieve property management goals5

Featured landowners: Land manager's advice springs from half-century of experience.....8

Beetle epidemic provides landowners fresh start.....11

Beware the dreaded chimney fire.....14

Marketing at the market? Prepare for selling at a farmers market.....17

When Fido and Fluffy attack: Minimizing pet-wildlife conflicts20

Here's how to build a hoop house.....22

Ask Sam26

Resource professionals planning small-acreage workshops27

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Wyoming Specialty Crop Producer Season Extension Small Grant Program

1. The proposals should be typed, single spaced and in 12 point format.
2. Written proposals must be printed and legible or will not be accepted.
3. Each page should be numbered with applicant's name at the top of each page.
4. Application packets should not exceed 10 pages including supplemental documentation.
5. An electronic version of the application packet (in MS Word format) may be submitted to one of the email addresses listed in the contact information.
6. Submit ONE complete original application packet signed by the person authorized to receive funds and mail to Wyoming Department of Agriculture at the address below.

Submission of Application

1. If an electronic grant application is submitted it must be emailed to the contacts below no later than **August 1, 2010**. **Applications must be received by the grant deadline.** Applications that do not adhere to this deadline will not be accepted.
2. A signed printed copy of the application must be mailed to the Wyoming Department of Agriculture at the address below no later than August 1th 2010.

A signed hard copy must be mailed to:

Wyoming Department of Agriculture
Specialty Crop Producer Small Grants Program
2219 Carey Avenue
Cheyenne, Wyoming 82002

Contact Information

Mary Randolph
Wyoming Rural Development
(307) 777-6430
Email: mary.randolph@wybusiness.org

Ted Craig
Wyoming Department of Agriculture
(307) 777-6651
FAX (307) 777-6593
email: tcraig@state.wy.us



Wyoming Specialty Crop Producers Season Extension Small Grant Program

PURPOSE

Small grants will be awarded to specialty crop agribusiness operations to develop methods for season extension, increased productivity and native seed production. Eligible grants will also include water conservation methods.

ELIGIBILITY REQUIREMENTS

Wyoming farmers/ranchers are eligible to apply for a Wyoming Specialty Crop Grant if they meet the following criteria:

1. Be a private-sector Wyoming-based agricultural producer as defined by USDA.
2. Demonstrate that producer is capable of capitalizing on methods that will enhance their specialty crop production through season extensions, water conservation, and native seed production.
3. Has received a recommendation from a local entity or individual that can vouch for your involvement in agricultural production.

Eligible expenditures are limited to materials necessary to erect a high tunnel; equipment to develop drip irrigation system, seed/seed stock for production and enhancement of native seed plants.

Ineligible expenditures include travel such as lodging and meals and mileage, and expenditures directly related to the operation of the business, such as salaries.

AWARD LIMITATIONS

This is a matching program. The total grant award is limited to 75% to a maximum of \$3500 of the actual eligible expenditures per year. The minimum amount of a grant is \$500. Each Agribusiness is limited to no more than \$7000 over the life of the season extension program.

REQUIREMENTS OF THE AGRIBUSINESS PARTICIPANT

Documentation. The Farmer/Rancher must complete and submit to the Wyoming Department of Agriculture the following forms for reimbursement: 1) *Request for Reimbursement*; 2) *Itemized Expenditure*; and, 3) a detailed *Final Report* on the grant by September 1, 2010. Copies of, canceled checks (both sides), invoices, and other confirmation of payment must be submitted for reimbursement.

APPLICATION PROCESS

Potential participants of the Wyoming Specialty Crop Grant Program must complete and return the application and the required attachments by **August 1, 2010**.

PLEASE NOTE: Expenditures incurred without written or electronic confirmation from the Wyoming Department of Agriculture are not eligible for reimbursement. **The application process cannot be started after the company has purchased the materials or supplies for the project.**

GENERAL GRANT INFORMATION

The Wyoming Specialty Grant Program is a reimbursable grant; and as such, the applicant must pay all expenditures before the grant award can be disbursed. The business shall function independently in performing this activity and shall assume sole responsibility of any debts or liabilities that may be incurred in regard to this grant. The grant award cannot be assigned.

Return application forms to:

Wyoming Department of Agriculture
Wyoming Specialty Crop Producers Season Extension Small Grant Program
2219 Carey Ave.
Cheyenne, WY 82002

*****This program has a limited amount of funds. Preference will be given to qualified first time applicants and the Wyoming Department of Agriculture reserves the right to deny applications that are not complete or otherwise deemed not eligible.*****



Wyoming Specialty Crop Producer Season Extension Small Grant Program Application

GENERAL INSTRUCTIONS

- ◆ Application form must be completed in its entirety and required documentation attached.
- ◆ Please print or type.
- ◆ Incomplete applications will not be reviewed.

BUSINESS INFORMATION

1. **NAME OF AGRIBUSINESS** _____
2. **FEDERAL TAX ID NUMBER OR SOCIAL SECURITY NUMBER** _____
3. **MAILING ADDRESS** _____
4. **CITY/ZIP** _____
5. **AGRIBUSINESS ENTITY (Corp, Partnership, Sole Proprietor, Other)** _____
6. **PRESIDENT (if Corporation)** _____ **OR OWNER** _____
7. **MANAGER (If Different)** _____
8. **PHONE** _____ **FAX #** _____
9. **YEARS IN BUSINESS** _____ **NUMBER OF EMPLOYEES** _____
10. **E-MAIL ADDRESS** _____ **WEB ADDRESS** _____
11. **AGRIBUSINESS DESCRIPTION.** Give a brief description and history of your operation.

12. **SPECIALTY CROP EXPERIENCE.** Describe any experience you may have involving specialty crops.

13. **LETTER OF RECOMMENDATION.** Attach a letter of recommendation from you local extension office, County Commissioner, Farm Bureau etc with regard to the farm/ranch and your involvement in agriculture production.

14. **BUSINESS/MARKETING PLAN.** Attach a one-page summary of your business plan, which addresses your marketing strategy and includes the previous year's sales figures.

PROJECT INFORMATION

1. **PROJECT NAME** _____
2. **LOCATION OF PROPOSED PROJECT** _____
3. **START AND COMPLETION DATES** _____
4. **PROJECT INFORMATION.** Describe the Project and how it will benefit your operation.

5. **GRANT HISTORY.**

A. Is this the first time you have applied for this grant? No Yes

If no, what was the past project?

6. **PROJECT PURPOSE AND GOAL:** Clearly state the purpose of the project and explain why your project is important to your operation.

7. **POTENTIAL IMPACT:** Discuss the number of people or operations affected and the intended beneficiaries of the project. Any potential economic impact if such data is available and relevant to the project. No more than one page.

8. **EXPECTED MEASURABLE OUTCOMES:** For the project, describe at least two things that are measurable outcomes that directly support the projects purpose.

9. **WORK PLAN:** For the project, explain briefly activities that will be performed and include a time line to accomplish the project and indicate who will do the work.

PROJECT BUDGET. All items must be specific to this project.

ITEM	ITEMIZED EXPENSES	AMOUNT
1		
2		
3		
4		
5		
6		
7		
8		
TOTAL		

9. **GRANT AMOUNT REQUESTED** (not to exceed 75% of eligible expenditures) \$ _____

10. **MAXIMUM GRANT AWARD** (not to exceed \$3,500)

I certify that the information provided is true and correct to the best of my knowledge. If approved for the specialty crop grant, I agree that the business will assume sole responsibility of any and all debts or liabilities that may be incurred from this project; and will provide the required documentation to the Wyoming Department of Agriculture upon request.

Signature

Title

Date

Return application forms to:
 Wyoming Department of Agriculture
 Specialty Crop Producer Small Grants Program
 2219 Carey Avenue
 Cheyenne, Wyoming 82002

Applicant Name:



**Wyoming Department of Agriculture
Specialty Crop High Tunnel Grant Program
Application for Organizations**

1. Proposals need to be typed, single spaced and in 12 point format.
2. Each page should be numbered, with applicant's name at the top of each page.
3. Application packets should not exceed 10 pages including supplemental documentation.
4. An electronic version of the application packet (in MS Word format) must be submitted to one of the email addresses listed in the contact information.
5. Submit ONE complete original application packet signed by the person authorized to receive funds and mail to Wyoming Department of Agriculture at the address below.

Submission of Application

1. An electronic grant application must be emailed to the contacts below no later than **August 1, 2010**. **Applications must be received by the grant deadline.** Applications that do not adhere to this deadline will not be accepted.
2. A signed printed copy of the application must be mailed to the Wyoming Department of Agriculture at the address below no later than August 1th 2010.

Contact Information

Ted Craig
Wyoming Department of Agriculture
(307) 777-6651
FAX (307) 777-6593
email: tcraig@state.wy.us

Mary Randolph
Wyoming Rural Development
(307) 777-6430
Email: mary.randolph@wybusiness.org

A signed hard copy must be mailed to:

Specialty Crop Block Grant Program
Wyoming Department of Agriculture
2219 Carey Avenue
Cheyenne, Wyoming 82002

Applicant Name:



Wyoming Specialty Crop Small Grant Program Guidelines for Agricultural Organizations

PURPOSE

Small grants will be awarded to Agricultural Organizations to promote Specialty Crop season extension through high tunnel projects.

ELIGIBILITY REQUIREMENTS

Wyoming Agricultural Organizations are eligible to apply for a Wyoming Specialty Crop High Tunnel Grant if they meet the following criteria:

1. Be a registered nonprofit Wyoming-based agricultural organization or an educational institution in the State of Wyoming.
2. Demonstrate that organization is capable of promoting the use of specialty crop production through high tunnel season extension.
3. Have received a recommendation from a local agricultural entity that can vouch for their involvement in specialty crop agricultural education and promotion.

Eligible expenditures are limited to material cost necessary to erect a high tunnel.

In-kind matching expenditures may include cash, donated labor, travel such as lodging, meals, mileage and other preapproved expenditures directly related to the building of the high tunnel.

Ineligible expenditures include but are not limited to salaries and administrative costs

AWARD LIMITATIONS

This is a matching program. Agricultural organizations may receive a maximum of one grant for FY 2009. The total grant award is limited to 75% of the actual eligible expenditures. The minimum amount of a grant is \$500. The maximum a grant is \$3500.

REQUIREMENTS OF THE ORGANIZATION PARTICIPANT

Documentation. The Agricultural Organization must complete and submit to the Wyoming Department of Agriculture the following forms for reimbursement: 1) *Request for Reimbursement*; 2) *Itemized Expenditure*; and, 3) a detailed *Final Report* on the grant by September 1, 2010. Copies of, canceled checks (both sides), invoices, and other confirmation of payment must be submitted for reimbursement.

APPLICATION PROCESS

Potential participants of the Wyoming Specialty Crop Grant Program must complete and return the application and the required attachments by **Aug 1, 2010**.

PLEASE NOTE: Expenditures incurred without written or electronic confirmation from the Wyoming Department of Agriculture are not eligible for reimbursement. **The application process cannot be started after the organization has purchased materials.**

GENERAL GRANT INFORMATION

The Wyoming Specialty Grant Program is a reimbursable grant; and as such, the applicant must pay all expenditures before the grant award can be disbursed. The organization shall function independently in performing this activity and shall assume sole responsibility of any debts or liabilities that may be incurred in regard to this grant. The grant award cannot be assigned.

Return application forms to:

Wyoming Department of Agriculture Wyoming Specialty Crop
High Tunnel Grants for Agricultural Organizations
2219 Carey Ave.
Cheyenne, WY 82002

*****This program has a limited amount of funds. Money will be dispersed on a first come, first serve basis and. Wyoming Department of Agriculture reserves the right to deny applications that are not complete or otherwise deemed not eligible.*****

Applicant Name:

GENERAL INSTRUCTIONS

- ◆ Application form must be completed in its entirety and required documentation attached.
- ◆ Incomplete applications will not be reviewed.

APPLICANT INFORMATION

1. NAME OF APPLICANT _____
2. FEDERAL TAX ID NUMBER OR SOCIAL SECURITY NUMBER _____
3. MAILING ADDRESS _____
4. CITY/ZIP _____
5. AGRIBUSINESS ENTITY (Association, University, etc) _____
6. PHONE _____ FAX # _____
7. E-MAIL ADDRESS _____ WEB ADDRESS _____

PROJECT INFORMATION

1. HIGH TUNNEL PROJECT _____
2. LOCATION OF PROPOSED PROJECT _____
3. START AND COMPLETION DATES _____

ABSTRACT (150 words or less)

Applicant Name:

Project Purpose and Goals Clearly state the purpose of the high tunnel project and explain why your project is important to your organization.

Potential Impact Discuss the number of people or operations affected and the intended beneficiaries of the high tunnel project. The potential economic impact if such data is available and relevant to the project. No more than one page.

Expected Measurable Outcomes For the high tunnel project, describe at least two distinct, and measurable outcomes that directly and meaningfully support the projects purpose.

Applicant Name:

Work Plan For the high tunnel project, explain briefly activities that will be performed and include a time line to accomplish the project and indicate who will do the work.

Financial Feasibility How do you intend to use the grant funds? Provide a breakdown costs of the high tunnel project and where the grant funds fit into the project financing. Provide budget estimates for the total project cost. **Remember, no administrative funds may be included in the budget request. A 25% in-kind match is required. This may include in-kind labor to erect the high tunnel, equipment rental and other preapproved costs**

Budget

Sample table format

Category	SCBGP-FB Funds	Cash Match	In-Kind Match	Total	Comments

Budget Narrative Provide sufficient information in paragraph format about the budget categories listed for each project to demonstrate that grant funds are being expended on eligible grant activities that meet the purpose of the program.

Applicant Name:

Project Oversight Describe the oversight practices that provide sufficient knowledge of grant activities to ensure proper and efficient administration.

Project Commitment Describe your organizations commitment to and work toward the goals and outcome measures of the high tunnel project.

I certify that the information provided is true and correct to the best of my knowledge. If approved for the specialty crop grant, I agree that the organization will assume sole responsibility of any and all debts or liabilities that may be incurred from this project; and will provide the required documentation to the Wyoming Department of Agriculture upon request. I understand that if this proposal is funded, I will be required to sign a grant agreement and other necessary documentation containing terms and conditions upon which funds will be released.

Signature

Title

Date




WDA Specialty Crop Grant Program
 To enhance the competitiveness of Wyoming specialty crops
 Defined as fruits, vegetables, tree nuts, dried fruit, herbs, nursery crops


Hoop House Construction and Production in Wyoming


 Increased demand by consumers for locally produced food products stimulates interest in hoop house production methods




 Increased demand for longer period of locally produced fresh vegetables and fruit




 More hoop houses are being built in Wyoming




It all began with a Workshop
 By Del Jimenez from the University of New Mexico in the Spring of 2008




Why PVC

1. Inexpensive
2. Quick to put up
3. No specialized tools
4. Anyone can do it.





Build With Materials From The Local Hardware Store


**Wyoming PVC
Hoop House Projects**



**2009 Farmers Market Conference
Casper**



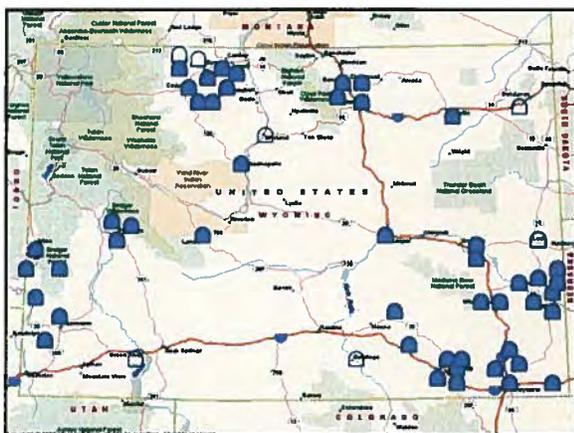
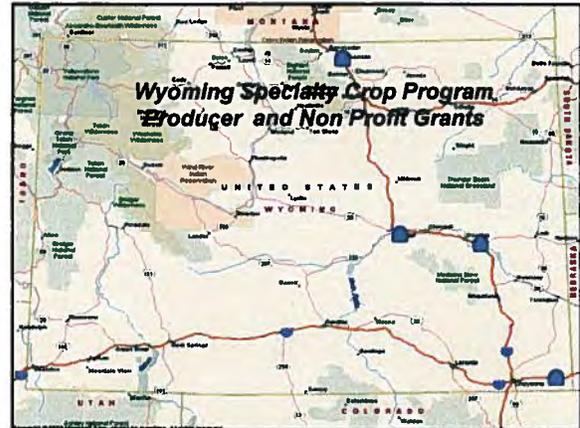

2009 Wyoming State Fair Workshop




**New Mexico Cooperative Extension
Hoop house Workshop**



2010 Wyoming Farmers Market Workshop




**UWYO Cooperative Extension Hoop House Workshops
UWYO Research Projects**




UWYO Cooperative Extension Hoop House Workshops




UWYO Cooperative Extension Hoop House Workshops Projects




UWYO Cooperative Extension Hoop House Workshops




UWYO Cooperative Extension Hoop House Workshops




UWYO Cooperative Extension Hoop house Workshops




**UWYO Cooperative Extension Hoop house Workshops
Community Projects**




Hoop house Workshops Community Projects




UWYO Cooperative Extension Hoop House Workshops




Hoop House Producer Projects



25


Hoop House Modifications for Wyoming Wind




Hoop House Producer Projects




Hoop house Producer Projects




Hoop house Workshops Modifications for Wyoming




Hoop house Workshops Modifications for Wyoming




Strap It down for wind



31


Wind is a problem in Wyoming



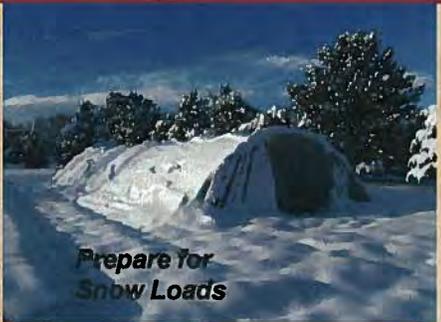
32


90 mile/hr Wind ripped the cover of this hoop house



33


Prepare for Snow Loads



34


And Extreme Snow Loads



35


This design has withstood four feet of snow.



36


Comparison of R Values

Polycarbonate 8mm quad wall	R = 1.70
Polycarbonate 8mm quad wall	R = 2.13
Polycarbonate 16mm triple wall	R = 2.8
Polycarbonate 8mm triple wall	R = 2.0-2.1
Polycarbonate 8mm double wall	R = 1.6
Acrylic double wall	R = 1.82
Glass double layer	R = 1.6 - 2.0
Glass double layer low-e	R = 2.8
Glass triple layer 1/4" (0.6 cm) air space	R = 2.13
Fiberglass glazing- single layer	R = .89
Polyethylene Double 6mil film	R = 1.6
Polyethylene Double 8mil film	R = 1.7
Polyethylene single film	R = 0.87
6 inches (16 cm) of fiberglass bat insulation	R = 19.0
Polystyrene (styrofoam) 1 inch (2.5 cm) thick	R = 4.0


Added Thermal Storage Will Extend the Season




Hoop House Mid April



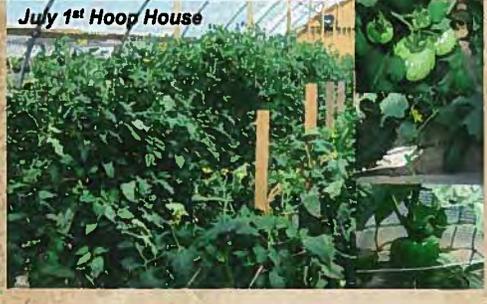

Torrington Hoop House April 7, 2010




July 1st Outside




July 1st Hoop House





Types of Hoop Material

- Wood
- Metal
 - Schedule 80
 - Schedule 40
- Aluminum
- Plastic PVC Pipe
 - Schedule 40
 - Light Weight




Greenhouse-Grade Polyethylene

- Sold By Thickness 1 mil = 1/1000 inch
- Rated
- Polyethylene Contains Additives Against UV
 - Increases Cost
 - Reduces Light
- Infrared Heat Blocking Additives



Shade Cloth

- Reduces Light Intensity
- Temperature
- Plant Exposure To Wind
- Made From Polyethylene
- Water Permeable
- Colors



Attachment of Plastic

- Between Two Boards
- Batten Tape
- Steel Stripping
- Wiggle Wire In Aluminum Channel
 - Poly Clip
 - Agrilock
 - Surelock



End Walls

- Access
 - Wide Enough For People and Equip.
- Summer Removal
- Ventilation
 - Summer
 - Winter




Wyoming
DEPARTMENT OF Agriculture

- Roll Up Sides
- Manage Temperature
- Promotes Ventilation
- Hand Powered Handles and Cranks



49


Wyoming
DEPARTMENT OF Agriculture

*With thanks to Del Jimenez University of New Mexico Cooperative Extension
And Jeff Edwards UWYO Cooperative Extension*

50

Seminar Sponsors



Wyoming Specialty Crop Program



Wyoming
DEPARTMENT OF Agriculture



BUSINESS COUNCIL
UNIVERSITY OF WYOMING
Cooperative Extension Service



DON'T MISS THIS OPPORTUNITY TO NETWORK WITH OTHER FARMERS MARKET MANAGERS AND VENDORS. FOR MORE INFORMATION, VISIT:

WYOMINGFARMERSMARKETS.ORG



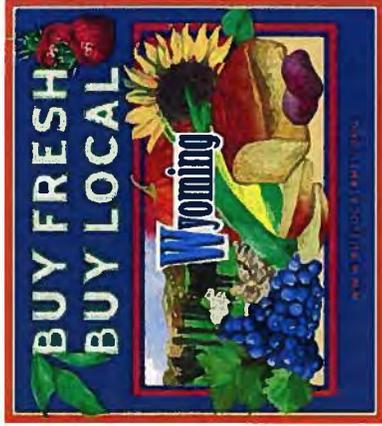
Wyoming Farmers Marketing Association
PO Box 20939
Cheyenne, WY 82003



4TH ANNUAL WYOMING FARMERS' MARKET CONFERENCE

MARCH 19-20, 2010

**WATT AGRICULTURE CENTER
SHERIDAN, WY**



4th Annual Wyoming Farmers Market Conference March 19 & 20, 2010
Watt Agriculture Center

Farmers Market Manager Certification
Friday March 19th, 2010

This course will assist critical members of Wyoming's farmers' markets in improving their market through some simple farmers' market trend knowledge, basic leadership skills, understanding regulations and risk management, basic know-how and through market evaluations.

- Characteristics of successful and failed markets
- Techniques for resolving conflict
- Mediation
- What can and cannot be sold
- Licensing, insurance and safety
- 2009 Cottage Food Business Regulations
- Business know-how
- Financial issues
- Marketing
- Assessing the customer and vendors

Welcome Reception, Holiday Inn: 5-8 p.m.
Cash Bar • Light Hors d'oeuvres • Early registration available

Food Preservation Workshop
Saturday March 20, 2010

Participants will have the opportunity for hands-on experiences with water-bath canning and dehydration led by University of Wyoming Extension Educators. Additional presentations will highlight the latest recommendations from the USDA on home food preservation. Bonus: each participant will get to take home some of the fruits of their labor!

Agenda: Saturday March 20th

7-8 a.m.	Registration		
8-8:55 a.m.	Welcome & Key Note Speaker		
TRACKS	Track 1	Track 2	Track 3
9-9:55 a.m.	Hands on Workshop Preserving the Harvest Do's and Don'ts of Preserving Fruits	Relationship Marketing It's all about You	Building a Cost Effective High Tunnel
10-10:30 a.m.	Break	Break	Break
10:30-11:30 a.m.	Preserving the Harvest Do's and Don'ts of Preserving Fruits Luncheon Association Annual Meeting	How CSA's Increase Your Bottom Dollar Luncheon	Building a Cost Effective High Tunnel Luncheon
1:00 p.m.	Preserving the Harvest Preserving Your Vegetables	Organic Production & Certification	How to Extend Your Season High Tunnel Production
1:05-2:05 p.m.	Break	Break	Break
2:05-2:30 p.m.	Preserving Your Vegetables	Small Grant Writing Workshop	Growing Pains in Wyoming
2:30-4:00 p.m.			

Farmers Market Manager Certification
March 19th, 2010 Registration:

Name(s) _____
 Address _____
 City/State/Zip _____
 Phone _____
 E-Mail _____

Registration Fee: (includes admission, lunch & reception)
 • \$50 for non-association participants
 • Free for association members
 • Pre-registration required for this course

General Conference
March 20th, 2010 Registration:

Name(s) _____
 Address _____
 City/State/Zip _____
 Phone _____
 E-Mail _____

Registration Fee: (includes admission and lunch)
 • Member \$25 per person
 • Non-Member \$35 per person
 • Registrations received after March 10th or at the door will be charged an additional \$10 fee.
 • First come, first serve for food preservation track (space available for only 30 participants) Check box for food preservation track reservation

Make checks payable to: Wyoming Farmers Marketing Association
Mail payment and registration form to:
 Wyoming Farmers Marketing Association
 P.O. Box 20939
 Cheyenne, WY 82003
PayPal: Please visit our website for additional information on this payment option.

Wyoming Farmers Marketing Association Membership

Name(s) _____
 Company _____
 Address _____
 City/State/Zip _____
 Phone _____
 E-Mail _____

Membership Information:

- Vendors, interested parties and others - \$15.00
- Farmers' markets with less than 25 growers, food processors, farm crafts - \$25.00
- Farmers' markets with 26-50 growers, food processors, farm crafts - \$50.00
- Farmers' markets with 51 or more growers, food processors, farm crafts - \$100.00

A block of rooms has been reserved at the Sheridan Holiday Inn for \$79.00 a night for conference participants. Please call the hotel at 307-672-8931 to reserve a room.

Make checks payable to:
 Wyoming Farmers Marketing Association

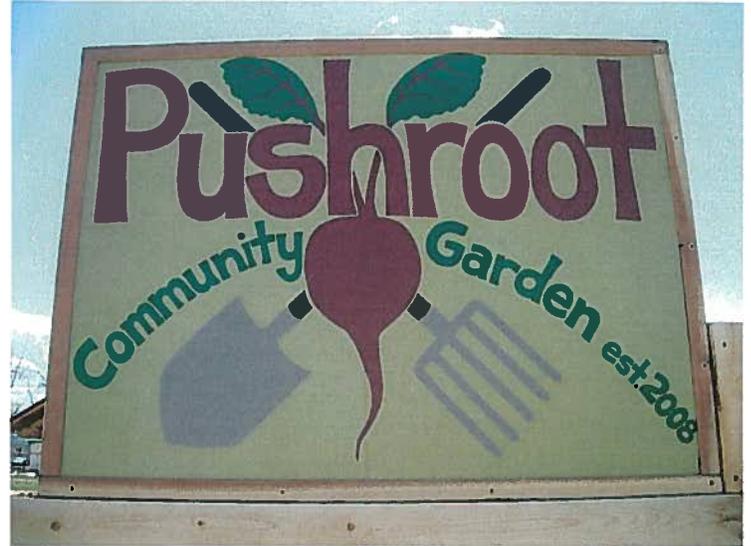
Cancellation policy: Cancellations received in writing before or on March 10, 2010 will receive a full refund. Cancellations after March 10, 2010 will be assessed a \$10 fee. **No refunds for no-shows.**

For more Farmers Market Conference information contact:
 Linda Straiton at 307-777-6592 or Renee King at 307-674-6446, ext. 3509

COMMUNITY GARDEN AND OUTREACH PROJECT

PROJECT SUMMARY

The mission of the Lander Pushroot Community Garden is to provide access to community gardens and resources while developing community through education and organically grown food. The purpose of this project was to produce nutritious vegetables that Lander residents can enjoy in place of non-local food trucked to Wyoming. The goals of this project were to provide assistance with plot development for families receiving food aid. The garden would provide food security and nutrition for these low income residents; utilize the garden to teach and promote organic, on-chemical growing techniques



to provide healthy and organic food starting with healthy organic soil; expand on-site educational workshops to enhance the knowledge of garden members and engage the young in sustainable living practices; utilize the garden to grow an assortment of local fruits and vegetables that are sold to markets and donated to the local food bank; provide habitat for backyard wildlife and provide education on how to plant vegetables that are native and sustainable in a particular climate. This project has become a model for other community gardens throughout the state.

PROJECT APPROACH

Pushroot Community Garden began in the summer of 2008, with four people collaborating to plant three demonstration plots. The spring of 2009 brought twenty one gardeners and three organizations growing produce in nineteen raised beds, ranging in size from 5 feet square, 5 feet by 10 feet, to 10 feet by 15 feet. In addition to the above impacts, Pushroot Community Garden has been featured in three articles in the local paper, the Lander Journal. Pushroot has also created a website which serves as a clearing house for Community Garden information as well as other local food issues. Informational brochures have been distributed at a dozen locations around town, spreading the word



about Community Garden programs. They also have widened their visibility through relationships with Community Entry Services, Lights On, and Care and Share Food Bank. Through these efforts and working at the Garden itself, they have been able to change some of the initial opinions about the Garden in the neighborhood. Much of the above has been accomplished with the support of our fiscal agent, Adventures in Learning. In 2010 there are 35 plots providing space for 25 individual gardeners and 5 organizations

including: Care and Share Food Bank {this donated plot provides produce to approximately 25 families through a local food shelf}, Community Entry Services {serving special needs adults}, Lights On summer education program serving about 10 kids, Parks and Recreation kids gardening class serving 6 kids, PCG Farmers Market {fundraiser for PCG and raising awareness of PCG and local produce opportunities}.

With a late start to the 2009 growing season and the Lander Farmers Market moving to a new location, harvest and sale of produce to date has been subsequently slow in developing. However, in the five gatherings of the market there has been an average of nine vendors selling produce to an average of 100 people attending the market so far. Those 500 people represent approximately seven percent of the greater Lander community and forty two percent of Pushroot Community Garden's goal of reaching 1,200 people. With four more farmers markets to come this season it is reasonable to expect another 400 people to purchase produce and be exposed to the idea of buying locally grown and produced food. In addition, Cristina Gonzalez, PCG Board Secretary, has attended a number of Lander Farmers Market steering committee meetings. There, Ms. Gonzalez has represented Pushroot Community Garden and helped to direct the vision and goals of the Farmers Market. While Pushroot Community Garden has just begun to have a presence at the Farmers Market, they are participating and learning how the market works and spreading the word about the garden. The project did not reach its goal of generating \$1,500 for the 2009 season. However, they are planning on building a plot or two for 2010 season which will be dedicated specifically for the market. This additional growing space should help toward revenue goals and will enhance educational opportunities both in growing and in marketing of local produce.

During the summer season of 2009, Pushroot Community Garden held 4 classes with the Lights on Summer Program. The classes consisted of six 3rd, 4th and 5th grade students. A PCG board member volunteered her time to work with the students teaching them garden education from the ground up. They started off with soil building and mulching, planting vegetables and flowers and discussing what plants need to grow and produce. Another class session discussed composting basics using our turn-style composter, donated to PCG by the Popo Aggie Area Conservation District. Other topics included what it takes to participate in a Community Garden and the responsibilities of its gardeners. Some of these responsibilities included: water conservation, mulching, weeding, picking up trash, taking care of one another's plots and the Garden's donated trees, shrubs and native wildflowers. Pushroot Community Garden's intent with these classes was to spark an interest in learning about gardening and to instill a sense of community responsibility. As the Garden grows, they plan to increase the number of classes and contract a part-time Garden Coordinator to develop and implement our 2010 education events. A more permanent deer fence was installed and a part time garden coordinator was hired this spring.

GOALS AND OUTCOMES ACHIEVED

The goals of this project were to provide assistance with plot development for families receiving food aid. The garden would provide food security and nutrition for these low income residents; utilize the garden to teach and promote organic, on-chemical growing techniques to provide healthy and organic food starting with healthy organic soil; expand on-site educational workshops to enhance the knowledge of garden members and engage the young in sustainable living practices; utilize the garden to grow an assortment of local fruits

and vegetables that are sold to markets and donated to the local food bank; provide habitat for backyard wildlife and provide education on how to plant vegetables that are native and sustainable in a particular climate. Since receiving the Specialty Crop Grant funds, PCG has been able to greatly expand its facilities, programs, and impact on the greater Lander community. In 2010 year we contracted with a Garden Education Coordinator. The Coordinator ran and continues to run our Lights On program that supplies 3rd, 4th, and 5th grade students with an introduction to gardening as part of their Lights On summer and fall programs. She also developed and taught courses in cooking and preserving fresh vegetables. These classes involved PCG gardeners and other Lander residents. The coordinator has also put together a Facebook page and has taken on the task of producing a monthly newsletter during the growing season. These last two greatly increase our communications with garden members and the larger community. We also hosted a City of Lander Parks and Recreation sponsored Kids Gardening class at the garden. This class introduced a number of young people to Vegetable productions, seeing it grow from seed to table. Each child was given a few square feet to plant as they chose. The class closed with a harvest meal that while too early to feast on the local produced vegetables and fruit, featuring the kinds of plants in the garden. Though the official period of the class has ended, the kids continue to tend and harvest their plants on into the year.

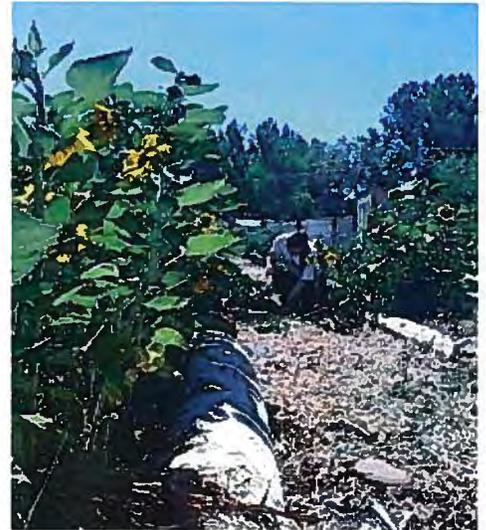
Officials with Parks and Recreation have said how happy they were with the program and are intending to offer the class again next year. The instructor for the class has been collecting ideas to increase the number of kids involved and to refine the class content. The 2010 season was punctuated once again with tremendous volunteer contribution. We had gardeners and community members combining for over 150 hours of labor from around 50 people. The eight members of our PCG board and our PCG steering committee added 570 hours. Added together that is over 700 hours of in kind labor. In addition to all volunteer hours the garden received in September it's single biggest donation of a shade pavilion valued around \$15,000. PCG also collaborated with one of our gardeners to bring two documentary films focusing on locally produced food to our public library.

The goal of Pushroot Community Garden for the coming years is to continue to grow. We will expand our number of gardeners renting and receiving free plots to grow vegetables and fruit for themselves and neighbors. We intend to expand our programs of education, through larger numbers of participants in the Lights On program, Lander Parks and Recreation kids gardening class, and cooking and preserving classes taught by our education coordinator. We also have folks interested in trying to take the garden and fresh produce directly into the schools and hope to partner with schools that are interested. We also have new board and steering committee members who intend to reach out to folks in senior housing or assisted living facilities to participate in the garden. This will be done by planting and maintaining perennial flowers that benefit garden vegetables, beneficial insects and birds, as well as the gardeners themselves. We also intend to continue our involvement with the Farmers Market with a more market focused mix of vegetables grown in our Farmers Market plots. This year we planted pumpkins with an eye toward a fund raiser. The physical harvest was limited, but we learned a great deal and have plans to improve our approach toward growing pumpkins next year. Regarding infrastructure, PCG does not have plans for any more large scale expansion at this time. The SCG funds provided our perimeter fence, a well appointed tool shed,

and increased watering equipment. The Harvest Celebration mentioned above was a fine example of how PCG has become a gathering place for community members. In addition to the local food, we had kids playing games, local musicians playing blue grass music, and a great bunch of folks focusing their attention on what it takes and how it feels to gather together to share in the work and reward of growing and consuming locally produced food. The Specialty Crop Grant has funded a good deal of our work in the last two years and has moved our organization ahead about ten years.

BENEFICIARIES

In 2010 there are 35 plots providing space for 25 individual gardeners and 5 organizations including: Care and Share Food Bank {this donated plot provides produce to approximately 25 families through a local food shelf}, Community Entry Services {serving special needs adults}, Lights On summer education program serving about 10 kids, Parks and Recreation kids gardening class serving 6 kids, PCG Farmers Market {fundraiser for PCG and raising awareness of PCG and local produce opportunities}. The garden also cared for half dozen beds of perennial flowers, a strawberry patch, six apple trees, and over 50 native shrubs. More than all the numbers can explain is the impact that PCG has had on the greater community and PCG gardeners. On September 25th the members threw a party at the garden as a way to celebrate the bounty of the garden and to say thanks to the Lander community and our numerous supporters and partners this year. The gathering featured locally raised meat from a small processing company in Hudson, WY barely ten miles from Lander. Dishes to pass came from gardens surrounding those who came to share in the festivities. Upwards of 35 people attended this event, gardeners and general community members alike.



In 2011 the garden continued to expand its outreach and improve the garden site so as to better serve the community. In April of this year a plot assignment meeting was held and over two dozen people interested in the garden plots were in attendance. Contributors and partners to developing the garden include City of Lander, Wyoming Department of Agriculture,, Adventures in Learning, Lights On, Lander Parks and Recreation, The Gated Garden, Popo Agie Conservation District, Nancy Debevoise, Whimpy Wolf Builders, Valley Lumber , Bob Scholl- Red Desert Design, Brian Hensien-Henchmedia, Fremont County Library Berthenia Crocker & Geoff O’Gara, Lander Farmers Market, Kristen and Mark Vogel, Folklore Coffeehouse, Apple Valley Market Sprouts Greenhouse, Shirts and More, Fred and Dawn Groenke and Wyoming Honor Farm.



LEASONS LEARNED

Several neighbors of the garden objected to the use of this land as a community garden as the site was designated as a future park. As there is no money in the budget for this in the foreseeable future the town has become much more supportive of the project. A sturdier deer fence was completed this spring. An extremely cold wet spring that caused flooding in the Lander area delayed planting in 2011. They are considering additional methods to help with season extension and to increase production because of late spring and early frosts. In 2010 a 150 square foot plot was designated to provide produce for the local Farmers market and serve as a fund raiser for PCG did not generate much revenue. While we were dramatically short of our financial goals for the market, we feel our participation in the market was worthwhile. In just its second season of existence, the Lander Farmers Market is gaining recognition as a great place for community members to purchase locally grown food. The Pushroot Community Garden continues to develop the site and outreach out to additional community groups who are interested in gardening. In 2011 they experienced some teen vandalism. When apprehended, the teens were turned over to their parents who in turn required them to do restitution by working at the garden.

Andy Eckart

PCG, Board Chair

307-349-0253

Pushroot Community Garden

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PUSHROOT

COMMUNITY

715 AMORETTI • LANDER, WYOMING

GARDEN

FIRST PLANTED 2008



Greetings fellow gardeners! This is the first installment of the PCG monthly newsletter. In addition to email updates from Andy Eckart, this newsletter will provide information about upcoming events in the garden. It will also contain gardening and cooking tips, as well as local news and events that pertain to gardening. We want this to be a community effort! If you would like to contribute to the September edition of the newsletter, or if you have any questions or comments about this edition, please email Kristin Vogel at kristinevogel@gmail.com. We plan to distribute this newsletter the old-fashioned way...via postal service. If you would prefer an electronic copy only, email Kristin.



Lights On gardener watering their plot

The Lights On gardeners have been hard at work this summer. Check out the pumpkin patch, and the bat boxes around the garden!

Lander Farmers Market Starts August 3rd

Is your garden overflowing? Would you like to make a few extra bucks selling the cookies or jam that all your friends rave about? Are your chickens laying too many eggs for you to eat? Well....it's that time of year. Why not consider selling your goods at The Lander Farmers Market? It will be starting up the 1st Tuesday of August from 5:00 to 7:00 and promises to be bigger and better than ever! The market will be held in the Pioneer Museum's parking lot each Tuesday night for as long as the weather will allow. Janet Smithson organizes the market and expects there to be veggies, crafts people, local meat vendors, a wide variety of baked goods, jams and jellies, eggs and cooked-food vendors. Prospective vendors should plan on arriving between 4:00 and 4:30 to set up. Market spaces will cost \$5.00 a week for local vendors, and \$40.00 for out-of-state and people reselling produce.

Here is some useful information for potential vendors:

- ✓ Contact the Consumer Health Services for the regulations and permit if you plan on selling hot, cooked foods.
- ✓ Ingredient lists are helpful on baked goods and jams and jellies, which are all permitted for sale under the Wyoming Cottage Food Rule.
- ✓ Produce sellers should display their product attractively, and clearly mark prices.
- ✓ Leafy greens and other produce should be shaken or brushed off to remove the majority of dirt, but left unwashed.
- ✓ Anything sold by weight will need a certified Wyoming scale.
- ✓ Eggs and meat need to be kept chilled.

If you are interested in being a vendor, or have any other questions about the market you can contact Janet Smithson at 332-0441, or juniperjan@wyoming.com.

What is Food Freedom?

As you may be aware, Wyoming Food Freedom, a grass-roots organization that is represented in the Wyoming legislature by Congresswoman Sue Wallis, has been working to draft and pass the Food Freedom Bill. Essentially, this bill would protect our right to buy clean, whole foods direct from our local farmers and ranchers without government interference. Under the current legislation called the Food Safety Modernization Act S. 510, a “one size fits all” approach is being applied to food safety that does not recognize the difference between small family farms and industrial agriculture operations. It places fees and very costly regulations on small direct market farmers and small food processors, which essentially prohibits them from selling their goods direct to the consumer. The worthy goal of this law is to protect consumers from E. Coli and salmonella. However, these health threats are directly caused by the enormous scale and nature of the industrial agriculture system. Check out the Food Safety and Inspection Service’s current recall list, http://www.fsis.usda.gov/fsis_recalls/open_federal_cases/, and you will discover that the “safe” food coming from USDA inspected facilities is not necessarily safe. Wyoming Food Freedom’s goal is to protect the informed consumers’ rights to buy clean food from whomever he/she chooses, including grass-fed beef, raw milk and dairy products, value-added goods such as salsas or pickles, and produce. If you want more information on the Wyoming Food Freedom organization, check out their website at <http://www.wyomingfoodfreedom.org>. You will find the full 2011 Food Freedom Bill, as well as upcoming events and contact information.

Summer Squash Time!



Summer squash is one thing Wyoming gardeners can count on each season. Without fail, more zucchinis, patty pans, crooknecks and yellow squashes than a person can eat or possibly count are harvested from just a couple plants. There is never a shortage of summer squash at the farmers market either. So, what do you do with such a bountiful harvest? Here are a few simple ideas (and one not so simple but delicious!) to help you make the most of your summer squash harvest this year:

- Slice squash lengthwise, brush with olive oil and salt and pepper. Then grill!
- Make a simple casserole: Layer blanched squash slices alternately with chopped onion sautéed with breadcrumbs and grated cheese of your choice (I use parmesan). Repeat two or three times and top with butter. Cook in a 350 degree oven until hot and bubbly.
- Freeze grated summer squash in freezer bags to use in breads and muffins during winter. Make sure to squeeze excess moisture from the squash before freezing.
- Double Chocolate Zucchini Cake!

¾ C. oil	3 T. cocoa
1 ¼ C. sugar	½ t. baking powder
2 eggs	1 t. baking soda
1 t. vanilla	½ t. each cinnamon and cloves
2 C. grated zucchini	2 ½ C. flour
½ C. sour or buttermilk	1 small bag of choc. Chips

Heat oven to 350 degrees; grease 9 x 13 pan. Mix all ingredients together and bake 30-35 minutes. Top with your choice of frosting: whip cream or powdered sugar



Putting the 'C' in PCG



There's a lot to do to at our community garden. We are a very young group, and are still working towards a vision of a beautiful and functional space that not only gardeners will enjoy, but the community at large. The Garden Beautification work party went down on Sunday, July 25th. It was a hot day to say the least! But, that did no stop our efforts. Garden members laid down weed barrier around their raised beds, and then hauled and spread mulch on top. Members also weeded around the fruit trees, and began to take down the temporary fence. There were snacks and cold drinks to keep everyone going. Mulch and weed barrier is now available for members who could not attend. The weed barrier is inside the garden shed. A width of three feet is recommended around each bed. Inside the garden shed there is also a communication board. Watering help requests, vegetable sharing, and tasks that you can do to help around the garden are all posted. If you have lost the combination to the lock, email Andy Eckart at andy@andyeckart.com. Thanks for all your help!



Do You Like to Cook and Preserve?

You've grown the vegetables and herbs, now what are you going to do with them? PCG will be offering cooking and preserving classes throughout August and September. The Lander Meatloaf Company has generously donated the use of their kitchen. The classes will be held on the 2nd and 4th Monday evenings from 6 to about 7:30 depending on the class. Dates and topics are as follows:

Aug. 9th - Pesto and Bruschetta
 Aug. 23rd - Pickling 101
 Sept. 13th - Scrumptious sauté greens
 September 27th - Sauerkraut and cabbage rolls

Please email Kristin Vogel at kristinevogel@gmail.com if you want to attend a class. Supply lists will be emailed prior to class. See you there!

Donate Your Extra Fruits and Veggies to the Care & Share Food Bank

If your garden runneth over, and you would like to donate some of your produce to those less fortunate, stop by the Care and Share Food Bank at 281 Garfield Street between 10:00 – 12:30 on Tuesdays, Wednesdays or Thursdays. You can also schedule a donation drop-off at a time outside their regular hours by calling 332-7364. Thanks!



Lander Parks and Recreation gardeners tending their vegetables.

LOOKING FOR A FEW GOOD MEN & WOMEN

PCG is looking for a couple folks to join our board of directors. Do you have some good ideas, or a vision of what you would like to see happen in the garden? Or, would you simply like to do more for the cause?

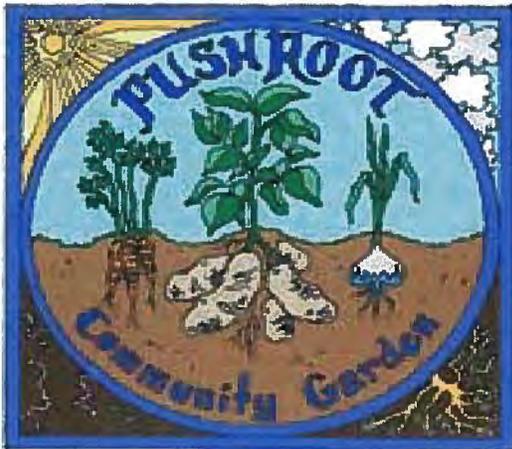
Responsibilities would include, but not be limited to, a regular monthly meeting. If you are interested, email Andy Eckart at andy@andyeckart.com.



Garden Members hauling mulch to spread around their beds at July 25th's Garden Beautification Party. Stay tuned for the end of the season Harvest Party!

GET YOUR PCG LOGO GEAR

Show your support! PCG is accepting orders for T-shirts, hats and bags. The T-shirt has the PCG logo on the front, and a groovy illustration by Virginia Moore on the back. The bags and hats have just the logo. T-Shirts cost \$15.00 (\$17.00 for XL and XXL sizes). Hats are \$17.00 and bags are \$13.00. Jessie Anderson will be taking orders. You can reach her at nursinmama@gmail.com or at (307) 221-3933.



Back of T-shirt design



Front Pocket of T- shirt
Logo on the bag and hat

PUSHROOT COMMUNITY GARDEN

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September/October Newsletter 2010

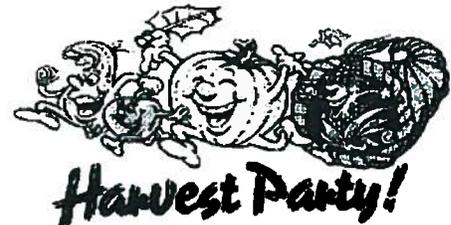
UPDATE FROM THE BIG CHEESE

a.k.a. Andy Eckart, PCG Board President

What a year we are having! I want to celebrate all we have done so far in 2010. This Spring we built more than a dozen new raised beds allowing us to add more gardeners to our ranks. We now have more than 30 gardeners sharing the work and the harvest. We have a well appointed tool shed and increased watering infrastructure. This year we contracted with Kristin Vogel to be our garden education coordinator. Kristin is running our portion of the Lights On program, teaching cooking and preserving classes, has set up a PCG Facebook page, and is distributing PCG newsletters to improve our communication with gardeners and to reach out to others interested in this community project. Renae Ragsdale taught a Parks and Recreation course on kids gardening, introducing kids to the wonders of being a part of what we grow. We built several hundred feet of fencing around the perimeter of the garden to define the garden space and to keep the deer and rabbits out. We have helped to support the Farmers Market and promote local food production. We laid weed barrier plastic and wood chips to keep weeds down and dress up the areas between raised beds. Oh yeah, and then there are the piles of vegetables and flowers we have reaped and shared. To carry on this celebration, we would like to invite everyone to a Harvest Party being held at the garden at noon on Saturday September 25th. This gathering will be an opportunity to gather with other gardeners and garden supporters, share in some of the bounty of the garden, and revel in what this community has done. Check your email or the Facebook page for coming details. Come to the garden early on the 25th and help raise the shade pavilion being donated by Whimpy Wolf Builders. This generous gift will provide relief from the sun in midsummer and a focal place for future events.

Andy Eckart

PCG gardener and board chair



It's time to reap what we have sowed! Grab the kids and come on down to the garden at noon on Saturday, Sept. 25th for some food, games, prizes, music and fun! This is NOT a work party! Bring a dish to pass potluck style, or some fresh veggies from your garden to grill. PCG will provide the meat and buns. Hope to see you there!



Soup-er Harvest time **Cooking**

Easy to make. Easy to store. Yummy to eat!

Soup is a much underappreciated cuisine. It can be as fancy and complex, or simple and hearty as you like. Soup is also a great way to combine lots of garden fresh vegetables. And, you can store it in canning jars, old yogurt containers or plastic bags in the freezer for an instant lunch or dinner. Soup recipes are also very flexible and forgiving. If you don't have a veggie or herb a recipe calls for, no worries. You can experiment and use what you have on hand, or what you prefer. The basic base for many soups is chopped onions, celery and carrots sautéed in butter (or oil). Then a liquid is added, usually water or a chicken or vegetable stock. (Milk, cream or rue can also be added towards the end to make the soup creamy.) Veggies, herbs, salt and pepper are then added and voila! You can also always puree a soup at the end to give it a thick, baby food like consistency. Potato and squash soups are usually pureed. Here is a simple vegetarian recipe to try! Have fun and experiment!

Vegetable Soup (adapted from *The Enchanted Broccoli Forest* by Mollie Katzen)

1 large potato, scrubbed and diced
2 cups chopped onion
2 cups chopped cabbage
½ lb. mushrooms, sliced
1 large celery, minced (or celeriac bulb, chopped)
1 large carrot, diced
6 cups of water or vegetable broth
2 tsp. salt
2 bay leaves

3 to 4 medium-sized ripe tomatoes
1 ½ cups tomato juice
6 medium cloves garlic, minced
1 med. Sized zucchini, diced
5 scallions, minced (greens and whites)
freshly ground black pepper
OPTIONAL: small amounts of minced fresh herbs (thyme, marjoram, basil, dill, parsely etc.)

- 1) In a soup pot or Dutch oven, sauté onions, celery, and carrots in a little oil or butter on medium high heat until onions start to soften. Add cabbage and mushrooms and continue to sauté for about 5 minutes. Add the water, potatoes, salt and bay leaves. Cover and bring to a boil. Lower the heat, and simmer, covered for about 20 minutes.
- 2) Meanwhile, core the tomatoes and gently drop them, whole, into the simmering soup. After about 20 seconds, fish them out with a fork. Pull off their skins, cut them open and squeeze out and discard the seeds. Mince the remaining pulp and add this to the soup, along with the tomato juice. Simmer another 20 minutes.
- 3) Add garlic, zucchini, and scallions and simmer for about 10 minutes more. Season to taste with pepper, and check to adjust salt. Top with fresh herbs.

Variations:

- Many other vegetables will blend in well. Add harder vegetables (broccoli, cauliflower) earlier, and softer vegetables (bell peppers, greens) closer to serving time. Or.....
- Leftover cooked beans, cooked pasta and/or other grains can be added the last 5 – 10 minutes of cooking. Or....
- Diced firm tofu or chicken can be added the last 10 minutes of simmering.

Pushroot Community Garden now has a Facebook page! In addition to our website (pushrootcommunitygarden.com) we have started posting upcoming events, gardening information, frost warnings!, and much more on our Facebook page. If you have a recipe, a great gardening tip, or an opinion or thought to share, become a friend on Facebook and post it on the wall for everyone to see.

LEARN TO MAKE YOUR OWN SAUERKRAUT

OUR LAST COOKING CLASS WILL BE MONDAY, SEPT. 20TH AT 6:00 PM AT THE CARE AND SHARE FOOD BANK. FRED GROENKE WILL BE TEACHING THE CLASS ON HOW TO MAKE SAUERKRAUT. EMAIL KRISTINEVOGEL@GMAIL.COM FOR MORE DETAILS.

Putting your bed to rest, or "What do I do with my garden now??"

After the potatoes have been dug, the winter squash has been picked and the last of the tomatoes have been harvested, there are many options for your garden. Carrots can be thickly mulched and left in the ground under the snow, to be harvested all winter long. Many crops can be planted in October for harvest in the spring. The seeds will lay dormant until early spring. When the snow begins to melt, and temperatures are just over 40* during the day, they will begin to grow. They include: spinach, mustard, turnips, some lettuces, peas and radishes.

Another great fall-planted crop that does well in Wyoming is garlic. Although you can plant garlic in the spring, fall-planted garlic will be much larger and have a fuller flavor. Cloves are separated and planted 6-8 inches deep. Spacing between cloves can vary. If you have room, 8-12 inches is good, but you can plant them as close a 4 inches. Don't forget to mulch with straw to protect the bulbs from too frequent freezing and thawing.

Cover crops or "green manures" are another great option for fall planting that will improve the quality of your soil. Cover crops are fast growing green plants that can be chopped up and spaded, plowed, or tilled into the soil, adding green organic matter that then composts into humus. Plants of the Legume family also add nitrogen to the soil. Some cover crops can be spaded into your garden and with others it is better to cut off the green tops, add them to the compost pile, and spade only the roots left behind into the soil.

Clovers, vetches, cereal rye, oats, wheat, and fava beans are all examples of cover crops.

PCG will be providing cover crop seeds for your plot, free of charge! Stay Tuned!

WE NEED YOUR HELP!

PCG is currently looking for a few good men or women to serve on the board. This is a volunteer position. Responsibilities include, but are not limited to, a monthly meeting during the gardening season. The needs are diverse and the Rewards are endless! Contact Andy at andy@andyeckart.com if interested.



PCG Gear is Available

T-shirts (regular and women's cut), tote bags and hats are still available! Contact Jessie Anderson at (307) 221-3933 or nursinmama@gmail.com for price, size and ordering information.

PCG would like to give a big shout out to all of our supporters and partners in 2010. Thank you for making it such a productive year!

City of Lander
Wyoming Department of Agriculture
Adventures in Learning
Lights On
Lander Parks and Recreation
The Gated Garden
Popo Agie Conservation District
Nancy Debevoise
Whimpy Wolf Builders
Bob Scholl, Red Desert Design
Brian Hensien, Henschmedia
Fremont County Library
Berthenia Crocker and Geoff O'Gara
Lander Farmers Market
Kristin and Mark Vogel
Folklore Coffeehouse
Apple Valley Market
Sprouts Greenhouse
Shirts and More
Fred and Dawn Groenke
Valley Lumber

SMALL GRANT PROGRAM FOR SMALL FARM CROP IMPROVEMENTS

PROJECT SUMMARY

The Wyoming Department of Agriculture in partnership with Wyoming Community Network continued and expanded the small grants program for agricultural producers and nonprofit organizations. Because of Wyoming short season and high altitudes many growers have limited production cycle limiting their ability to market products during prime farmer market season. Small grants will be awarded to farmer growers to develop methods for season extension/increased crop productivity and native seed production.

PROJECT APPROACH

Small grants were awarded to farmer growers to develop methods for season extension/increased crop productivity and native seed production. The grant application process, rules and reimbursement process were developed in the fall of 2007 and updated in 2009. Grants were awarded on a competitive basis during 2009 and 2010. Because of Wyoming's short growing season and high altitude many growers have limited production cycles which results in their not being able to supply farmer markets during peak market times. Grants were geared toward farmers utilizing high tunnel methods, water conservation and those developing alternative seed crops. Grants were awarded by the Wyoming Department of Agriculture and administered by the Wyoming Community Network. Application process included submitting an application, budget, and letter of support from a local entity that could vouch for an applicant's involvement in agriculture production. Applications were reviewed by the Wyoming Department of Agriculture and successful applicants notified by the Wyoming Community Network. Marketing efforts included two high tunnel workshops, articles in local newspapers and two interviews on local TV. Brochures on the program were designed, produced and distributed at trade events. A high tunnel photo article was published in the January Barnyards and Backyards magazine.

GOALS AND OUTCOMES ACHIEVED

Because of Wyoming short growing season and high altitude many growers have limited production cycle reducing their ability to produce and market during prime farmers' market season. Small grants will be awarded to grower and nonprofit organizations to develop and promote methods for season extension/increased productivity and native seed production. As a result, we saw season extensions, increased production, and educational opportunities. We increased the marketing efforts by distributing brochures at the University Sustainability Conference, the Local Foods Group gathering, the Farmers Market Conference, and the Master Gardeners Conference. A high tunnel photo article of how to build a high tunnel was published in the January of 2010 Barnyards and Backyards magazine and a how to manual for gothic style high tunnels was developed.

The following are grants awarded and projects completed The grants applications were received from various locations around the State for season extension projects

Project 1: Torrington Master Gardener Garden

Goals: To allow small scale research on production methods for high tunnel in order to make recommendations to local producers in Wyoming utilizing high tunnels for production.

Outcome: Six Torrington Master Gardeners constructed a high tunnel at the Goshen County Extension site next to a master gardener training garden. The new hoop house equipped was with a solar fan and solar vents (paid for by another grant) and can be prominently seen from the nearby highway and has generated much interest by the local town's people. A high tunnel workshop is now scheduled during County Fair time to increase exposure and education. A third grant paid for installation of a cinderblock wall painted black to act as a heat sink in order to analyze its effect on increasing growing season time.

Impact: It is estimated that over 500 people have visited the hoop house since it was built. There are 15 active master gardeners helping with the production. Produce from the hoop house is also being sold at the local farmers market and the proceeds going towards master gardener training.

The small scale research has helped the local extension educator and master gardener coordinator to better serve their local hoop house producers.



Project 2: University of Wyoming Research and Extension Center

Goals: The purpose of the project is to demonstrate, teach and construct high tunnels at the Research Center

Outcome: In a two day workshop three high tunnels of differing design were constructed and are being used in variety trials and as teaching tools and featured during field days at the station

Impact: On day one of the workshops 45 people were taught how to construct a hoop house and on day two 23 people. The hoop houses are also being used for vegetable yield trials comparing hoop house production with field production that will provide valuable information to local producers interested in plasticulture. Through field days and seminars the project has impacted well over 250 people over the last three years.



Project 3: Common Ground Farms

Goals: Expand the season of the Community Garden by protecting vegetable production from hail cold and wind through the use of a hoop house.

Outcome: High tunnel was constructed and vegetables were produced earlier in the season for members. The high tunnel also produced vegetables later into the season providing produce for the local farmers market.

Impact: The farm has raised the level of interest in local food production in the Cody area. See attached article. In 2010 there were approximately 15 core members. Several church youth groups that totaled 50 individuals volunteered to help with weeding to increase the knowledge of the students on gardening.

Numerous individuals throughout the summer would also stop by to learn about the garden. The hoop house raised the awareness of the potential to grow climate sensitive vegetables in the Cody area. (See article)

Project 4: Tronstad Farms

Goals: The project has two purposes. One is to lower the salt content of the soil and the second is to extend the season of the hoop house by lowering the summer temperatures and increasing winter ones.

Outcome: A second plastic cover was installed on the hoop house. This has reduced the summer temperatures and extended the season later into the fall and allowed for earlier planting in the spring. A rainwater collection and irrigation system for the hoop house was installed and has been effective in reducing the salt build up caused by well watering.

Impact: A group of 48 individuals visited the farm to inspect the hoop house system as part of a sustainability tour. Additionally approximately 25 families have toured the farm and learn about hoop house production.



Project 5: Shoshone River Farm

Goals: To provide cold weather protection to vegetables through the use of hoop houses.

Outcome: River Farms has constructed four high tunnels so as to increase production of early and late season crops for sale to restaurants, a small CSA and the Cody Farmers Market. The hoop houses allow for triple cropping of leafy greens and harvest time for tomatoes, cucumbers, peppers and eggplant has increased to four months.

Impact: In 2009 two restaurants, a 6 member CSA and approximately 30-50 people at each farmers market were impacted. This year the CSA number has increased to 50 shares.



Project 6: University of Wyoming Karen Panter

Goals: To demonstrate the feasibility of using high tunnels to extend the growing season for producing vegetables and small fruits and to provide a low-cost opportunity for graduate students to study season extension techniques.

Outcome: Twelve volunteers constructed two 12x16 high tunnel kits on the University of Wyoming campus. An open house and field day was held in at the UW College of Ag and Natural Resources and the high tunnels were featured. An open house and field day was held in at the UW College of Ag and Natural Resources and the high tunnels



were featured. The tunnels were constructed perpendicular to each other in order measure temperature and light differences.

Impact: The high tunnels are being used extensively for teaching, research and extension activities. A cut sunflower research project was conducted utilizing the structures. Light and temperature measurements indicate that the NS orientation warms up earlier in the morning with the EW catching up in the afternoon. Anecdotal observations also indicate the NS plant establishment is better than EW. Wind plays a larger role in the NS tunnel simply because the open sides allow easier air flow due the prevailing winds being form the west. Clear Polycarbonate ends have a noticeable impact on stability and allow for high light penetration.

Project 7: Northern Wyoming Community College Sheridan Wyoming

Goals: To increase the area of extended season cultivation for the Northern Wyoming Community College youth/community gardening project and provide an opportunity for students to learn about construction and usage of hoop houses at the college

Outcomes: Two high tunnels were constructed and the growing season was tracked showing nearly a two month extension to the growing season in 2010. A student intern presented a poster on use and benefit of high tunnel at the Department of Ag Advisory

Committee meeting in the fall of 2010. A manual on how to construct these high tunnels was developed documenting each step with photo illustrations. There are now two types of hoop houses on the grounds one of metal hoops and the others of PVC. Comparison of the two types will continue over the next several years.

Impact: Fifteen community members and Sheridan College students attended the two workshops to learn how to build a hoop house. Four participants of the workshops indicated they plan on building their own hoop house. There also 30 youth gardeners 20 community gardeners, and four tours of approximately 15 people each tour for an additional 60 individuals impacted.



Project 8: Medicine Bow Conservation District

Goals: To provide an opportunity to educate our students and community on earth sciences, nutrition and entrepreneurship.

Outcomes: Medicine Bow Conservation District constructed two high tunnels one at Elk Mountain School and the other at Medicine Bow school grounds for use as outdoor classrooms on earth science.

The school district personnel prepared the site and volunteers built raised beds. Community members donated topsoil, rental equipment and volunteer hours. The PTO members started seedling so students would have plants growing in the green house when school started. Parents, teachers and school personnel constructed the Elk Mountain hoop house and school personnel and members of the Conservation District constructed the Medicine Bow hoop house.



Impact: Because of the success of this project the Carbon County School District #2 has decided to construct a third hoop house and incorporate them into the science curriculum at their three elementary schools.

Project 9: University of Wyoming Sustainable Agricultural and Extension Center SAREC

Goals: Provide research and training for farmers, students and homeowners on the use of high tunnels for season extension

Outcome: University of Wyoming SARAC Research Station constructed a high tunnel and equipped it with raised beds to educate local producers on how to construct high tunnel from commonly available materials and to conduct research. The structure used no treated wood to allow for organic certification.



Impact: The project was featured in the SAREC field day reaching approximately 150 attendees. Regular tours from area schools and the college are used as an opportunity to educate students on season extension and economic opportunities of high tunnels. These impacted approximately an additional 75 individuals each year. Eastern Wyoming College is interested in working with SSAREC to use the greenhouse for teaching and internships.

Project 10: Big Horn County Cooperative Extension

Goals: Big Horn County Cooperative Extension constructed a high tunnel as a demonstration project for local producer on how to construct cost effective high tunnels using locally available materials.

Outcome: In 2010 a high tunnel was constructed in Greybull Wyoming near a bike path for high visibility. Other than the plastic covering materials were purchased locally. The high tunnel is allowing UW Coop Extension to experiment with growing in a high tunnel so as to better serve the local producers interested in this type of season extension.



Impact: Twelve individuals were trained on how to construct a high tunnel. They learned where to get the materials and the funding opportunities available. The high tunnel is used as a demonstration project to teach local producers and back yard gardeners about the value of high tunnel production.

Project 11: Wyoming Farmers Marketing Association State Fair

Goals: To promote specialty crop production in Wyoming the Farmers Marketing Association constructed a hoop house at the State Fair incorporating locally produced biocomposite materials made from wheat straw and recycled plastic milk jugs

Outcome: High tunnel was constructed during fair time and was able to showcase construction techniques and designs suitable for Wyoming. A solar fan, solar vents and roll up sides were also incorporated into the hoop house to showcase ventilation techniques.



Impact: The hoop house was used as a display during fair time and was highly visible to over 40,000 attendees at the state fair. The Douglas master gardeners, fair staff and other community individuals have since used the hoop house to grow vegetables and serve as a semi- permanent display that is open for the public for view. The raised beds continue to be cultivated by individuals for personal consumption and to be in full production during fair time to showcase vegetables that can be grown in a hoop house.

BENEFICIARIES

The benefits of this program have been substantial to the overall specialty crop program goals for Wyoming. We have seen overwhelming interest in the program spurring more trainings, increased growing seasons resulting in expansion of farmer markets and adding winter markets, a photo article in the Barnyards and Backyards magazine and extremely positive press. We have added money in subsequent Specialty Crop Grants to continue to promote and develop the use of high tunnels in Wyoming. It continues to be the most highly visible program in the Specialty Crop Program. The NRCS high tunnel grant addresses only one segment of the agricultural community. The expansion of our grant to include nonprofit organizations has increased interest and demand by producers as well. In Big Horn County the hoop house workshop there was conducted by a recently trained Coop Extension agent who had attended one of our earlier workshops. The demand for information on hoop house construction and use continues to grow in Wyoming and these small grants have gone a long way to stimulate interest. Not only has this program benefited the recipient growers but provided vendors for the ever expanding local farmer markets. In 2010 there were 33 farmer markets including 3 winter markets. In past years it was very difficult for market managers to find Wyoming vendors. As more and more producers invest in season extension techniques they have more products earlier in the season. As other producers see the value of high tunnel production through farm days, workshops, news articles and word of mouth interest in hoop house production continues to grow.

LESSONS LEARNED

This continues to be by far one of the most popular and successful programs we have undertaken. As more and more high tunnels are being built of various designs we are able to see what works best for Wyoming's weather. The thinner plastic green house covers have been shown to not withstand the hail storms we often get. The woven material has stood up much better. Given the high winds experienced in Wyoming it has become obvious that designs which work in other parts of the country may not work here. Common Ground Farms reported that a high wind came up as they were just finishing the structure and that they had to anchor it down with a tractor. The zippered ends supplied by the hoop house kit manufacturer were destroyed and a more solid end was constructed. As more and more high tunnels are being built in Wyoming the amount of information on what works and what doesn't continues to grow.

Contact:

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Below: The Common Ground Community Garden, located in the shadow of Heart Mountain, gets a big dose of helping hands from Episcopal Church youth campers completing a service project last summer.



Local-Motion

LOCAL FOOD MOVEMENT TAKES ROOT IN THE CODY AREA

By Amy J. Quick

There's a movement afoot in the Big Horn Basin. A movement that's sweeping the nation. A movement to get back to the basics and find our roots, literally. The local food movement that's received so much attention in flicks like "Food, Inc." and books like "Animal, Vegetable, Miracle: A Year of Food Life" by Barbara Kingsolver is beginning to thrive in Cody and beyond. Just a generation or two ago, some 80 percent or more of the food we consumed was grown locally. Now a mere fraction of that same nourishment — by some accounts less than 10 percent — is produced by our own hands and instead must travel an average of 1,400 miles to reach our dinner table. For a growing number of folks in the Big Horn Basin, this is an unacceptable trend and one that they are working diligently to reverse.

Common Ground - Philosophers to Farmers
The Common Ground Community Garden, in the shadow of Heart Mountain and the former Japanese relocation camp, builds on a piece of history as motivated citizens put their minds and muscles together to provide fresh, organic produce for locals and the local economy. The garden has become a lifeline bringing people together and binding them to the land.
"Farming was such a big part of what Powell and the Big Horn Basin used to be — the garden spot of Wyoming," explains landowner Rod Morrison. "That was the culture. Everybody raised food. I remember going into the GSA to buy bread



Below: Early season at the Common Ground Community Garden, volunteers assist with planting to ready the garden for the summer as the first water of the year is turned on, giving the plants a welcome drink.



Below left: Rod Morrison walks the lines on the irrigation system to connect the pipes and ready them for the summer. Below right: Volunteers help with tasks such as weeding the gardens and harvesting to help the plants continue to produce well.

“THAT CONNECTION TO THE LAND REALLY FED ME AND BEING ABLE TO DO IT THE NEXT DAY AND THE NEXT DAY.”

—Chuck Neustifter

and breakfast cereal only – everything else came from our garden and homestead.”

Common Ground got off the ground when a group of like-minded folks with a desire for access to healthy food alternatives met to visualize a local food movement. In the two years since, the garden has been a learning experience for everyone involved.

“In the beginning, everyone was so philosophical about being organic,” remembers Chuck Neustifter, who’s been involved in the endeavor from the start. “My grandfather was a farmer and I had all these memories of being out on his farm. I just wanted to grow things. I didn’t know anything about organics or the (local food) movement back then.”

After a difficult first season plagued by inexperience and lack of manpower, Chuck got a true education in organic gardening when he offered to take on full responsibility for planning,

planting, growing and harvesting the garden last summer.

“I said ‘I will do the whole thing,’ I didn’t realize how big that was going to be,” he says.

Chuck’s typical day began at 5:30 a.m. when he headed out to the garden on Rod and wife Lynn’s land approximately 20 miles from Cody. By 6 a.m. he was setting water, weeding and taking care of other necessary garden tasks until about 9 a.m. when he headed back into town to work his day job at Simpson Gallagher Gallery. After a full day’s work he drove back out to Heart Mountain and worked in the garden until sunset.

“I was finally fulfilling what I said at that first organizational meeting,” he explains. “My time in the garden ranks as the best in my life – being out there and hearing the meadowlarks and snips singing watching the horses in the pasture. That connection to the land really fed me and being able to do it the

next day and the next day.”

However, he also admits that one person tending one acre was just “plain crazy” and he vows not to do it alone again.

Chuck is quick to point out that although he was the one out there most days at daybreak and sundown, there were many volunteers who helped make Common Ground’s second season much more successful. People who showed up with their kids to weed or harvest vegetables, folks who came every week to wash and load produce for the local farmer’s market, and others who staffed the garden booth at the market so Chuck could get some rest were all crucial to the whole operation.

“Farming means you never sit down and say ‘I’ve got nothing to do,’” Rod states. “The work never ends. You actually have to condition yourself to take a break from time to time. Most people just don’t understand the work and energy it takes

to make healthy food.

“We had these little moments that were just magic when we thought this is what we wanted when we said we wanted a community garden,” Chuck recalls. “I’m the romantic. I love being down there. Getting there is sometimes hard but once I’m there, that’s the place that feeds me.”

Garden improvements last summer included installing an irrigation system and a hoop house. Plans for this year include hiring a full-time farmer to manage the operation and be on-site 24/7 to ensure watering, weeding, harvesting and other tasks are done in a timely manner.

Other ideas for coming years include increasing canning operations for seasonal produce and establishing the garden as a Community Supported Agriculture system to involve consumers more in the operation. See below for more on CSAs.

Shoshone River Farms Growing Community Support

Scott Richard has had his hands in the dirt since he was a young child, and since the age of 14 he’s been growing whatever he could. Today he’s growing an organic farming business and CSA in the Cody area.

According to the U.S. Department of Agriculture, a CSA is a community of individuals who support a farm operation and share risks so the farmland essentially becomes the community’s farm. Typically, members or “shareholders” of the farm or garden pledge in advance to cover anticipated costs of the farm operation and the farmer’s salary. In return they receive shares in the form of vegetables and other goods on a regular basis throughout the growing season. Members also share in the risks of farming, including poor harvests due



Below left: Volunteers help with harvesting the produce at the Common Ground Community Garden located near Heart Mountain. Below right: Chuck Meussther (blue hat), responsible for running the garden in the summer of 2010, coaches volunteers on tasks.

Learn more details on our website: www.common-ground.com

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14 Lincoln Road 728
Cody, WY 82414
307.587.5457

Common Ground Community Garden
Jordan Langdon
835.395.6507

POWELL HIGHLAND COMMUNITY GARDEN
1201 East 14th Street
Powell WY 82435
307.777.4548
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Cody, WY 82414
307.587.3713

Yellow Fence Tea Room -
Herbals & elegant dining
1013 Kamperle Avenue
Cody, WY 82414
307.587.0888

to unfavorable weather or pests. Since 1990, CSAs have become much more popular throughout the United States, with more and more shareholders buying their seasonal food directly from farmers like Scott. USDA data collected in 2007 indicates that more than 12,500 CSAs exist nationwide.

The advantages for both the farmer and consumer are plentiful:

- Farmers line up customers for their food early in the year, before their 16-hour days in the field begin.
- Farmers get paid early in the season when expenses are often highest.
- Farmers get to know the people who eat and enjoy the food they grow.
- Consumers eat ultra-fresh food packed with flavor and vitamins and are exposed to new vegetables and new ways to prepare them.
- Consumers usually visit the farm at least once per season and develop a deeper tie to their food.

• Consumers develop a relationship with the source of their food and gain a better knowledge about food systems.

During the past two years, Scott and his clients have recognized many of these benefits and his customer base has grown exponentially.

"It doesn't take much to get the word out," he explains. "There are just a lot of people interested in CSAs and getting fresh vegetables. Before I knew it, I had more people on my list than I know what to do with."

In addition to providing boxes of vegetables for his customers each week, Scott also hopes to provide recipes this season to help people use and enjoy the variety of food available throughout the growing season.

"It's difficult to find people who can do something with 12 different vegetables coming into their home each week," he shares. "You need to really be a vegetable eater or should be. There are lots of people who eat

carrots and tomatoes, but when they get a kohlrabi they don't know what to do with it."

Carrots, tomatoes and kohlrabi are just a few of the veggies available at Scott's farm, Shoshone River Farms, located eight miles east of Cody on the Powell Highway (14A). Some of the favorites include artichokes, broccoli, Chinese cabbage, leeks, eggplants, and all the usual vegetables like cucumbers, squash (winter and summer), beets (three different kinds), lettuce, spinach and more.

"I grow things I'm interested in, like artichokes. I just love them and they taste so much better and fresher," he explains.

The contents of Scott's vegetable boxes vary each week depending on what's ripe and ready to head to your table. In 2009, he delivered 18 weeks of vegetables. Last summer was a bit more difficult with a cool spring and

he missed five weeks of deliveries.

"This year I think I can deliver 22 boxes," he predicts. "My overall goal in the next five years is to deliver 26 boxes—that's six months of vegetables. I hope to be growing eight months out of the year. That's quite an extension of the growing season around here."

All this production takes place on approximately five acres of land where Scott utilizes biodynamic and French intensive methods of growing. Biodynamics is all about concentrating on growing the soil, bugs and other organisms necessary in a healthy ecosystem. The plants, in fact, are a secondary byproduct of this focus.

"Making sure you have a good, healthy soil ensures that everything else grows healthy too," Scott explains. "It's all about life!"

The French Intensive method, also known as "square foot gardening," dictates how you plant vegetables and organize the garden. These methods

are typically best for smaller scale operations and Scott says he's still learning how to scale things up.

Scott utilizes high tunnels and greenhouses to extend his growing season by creating microclimates with increased internal temperatures, allowing him to start many vegetables earlier and reap the benefits sooner. His long-range goals for the farm include installing more greenhouses, fencing, watering systems, utilities, and a facility with bathrooms and a kitchen for his customers.

"One plan is to have a workshop for canning and making cheese and other activities right there at the farm," he shares. "We just can't keep shipping things into Cody."

He also hopes one day to be able to hire somebody to help with all the work but in the meantime is so thankful for the numerous friends, family and volunteers who have made this endeavor a reality.

"MAKING SORE YOU HAVE A GOOD HEALTHY SOIL ENSURES THAT EVERYTHING ELSE GROWS HEALTHY, TOO. IT'S ALL ABOUT LIFE!"

Scott Reynolds

WYOMING HOOP HOUSE INFO NETWORK



SAREC (Lingle)



SAREC HARD-SIDED HIGH TUNNEL

This project was initiated during the Fall of 2010 (completed frame structure) and the Spring of 2011 (added the poly cover). It is a modified version of the 16-ft x 32-ft [Hard-Sided High Tunnel](#) (scaled up). This project features louvered vents and a solar powered attic fan to assist in the venting of excess heat. This project was funded by the Wyoming Department of Agriculture and the University of Wyoming.

Project Update Provided by Kelly Greenwald, Office Associate, University of Wyoming Sustainable Agriculture Research and Extension Center (SAREC), Lingle, WY.

What have you learned from growing things in the High Tunnel?

Ideal conditions. We couldn't keep up with the produce.

What changes have you made (or groups you represent) in your lifestyle(s) because of the HT – to rephrase that what 'impact' has the HT had on you or the groups you work with?

My family ate many more veggies during the summer because of what I was able to bring home.

What are some of the benefits you have identified of working in a HT?

No wind!!!

Would you recommend a High Tunnel (HT) to others?

Definitely. Especially if they get a drip system, timer, etc. I can't imagine what all could be done if someone could devote full time to it.

What issues/challenges have you discovered with the HT?

Still have pest issues (grasshoppers)

How has the design held up in Wyoming conditions (have you identified any issues)?

I have been amazed at how it has held up in the wind. We have had a horrible windy winter and I was over there the other day and the structure looks good.



**SAREC HIGH TUNNEL
PRODUCTION**

PROJECT SUMMARY

The Grape Growers Association continued to promote the industry in Wyoming through tours, its website and education. The association developed and printed materials based on local growers experience for the county ext offices and master gardeners programs on growing grapes suitable for Wyoming's climate. The projects purpose was to provide practical information to producers on growing grapes in Wyoming... The Wyoming Grape and Wine Association (WGWA) began in 2001 and have been dedicated to education and development of Wyoming's Grape, Wine and Alternative Crop industry.

PROJECT APPROACH

The association developed and printed handbooks based on local growers experience for the county ext offices and master gardeners programs on growing grapes suitable for Wyoming's climate. After solicit ting input from existing producer a booklet was produced. The booklet featured growing tips, variety info and how to successfully grow grapes in Wyoming. The publication is available in print and online to assist state groups and interested growers. The project reflected a more hands on educational program based on shared producer experience about growing grapes in Wyoming away from a pure research based focus.

GOALS AMD OUTCOMES

Goal: The association proposes to promote and expand the industry by development of a handbook publication based on local growers experience for the county ext offices and master gardeners programs on growing grapes suitable for Wyoming's climate. The booklet will feature growing tips, variety info and how to successfully grow grapes in Wyoming. The publication will also be available online to assist state groups and interested growers. The project will reflect a more hands on educational program based on producer experience about growing grapes in Wyoming.

WGWA finalized and completed its "Grape Growing Brochure" for distribution throughout the University of Wyoming Cooperative Extension Service as well as to its Master Gardener's program. The guide features information on vineyard selection, varieties suited for Wyoming as well as links to additional resources online. The brochure underwent various formats and publication layout designs. Due to the extensive amount of information, the brochures feature limited information and utilize links to the WGWA's website where full handouts and resources are more readily available for download or accessed online. The website was redesigned andre-launched in Mid-April upon. Finalized links, publications and member information will be included on the site.

WGWA has also been in contact and expanding our cooperative efforts with the University of Wyoming's Research and Extension Center in Sheridan, WY. Horticulturist Sadanand A. Dhekney was recently hired at the Center and is extremely excited and interested in expanding additional grape research for Wyoming Growers. WGWA will partner with Dhekney for the planting of a new experimental vineyard in Sheridan as well conduct

a presentation in May 2012. This presentation will allow WGWA to share its research, new member outreach, and expand the origination's efforts to continue grape information outreach to new and potential growers. As this partnership develops, additional handouts and research will be offered to growers both in print and through its website. WGWA will continue to revise, update and reprint revised publications as needed. The brochure was reduced in its content due to the ever changing information being developed in the upcoming year. While the brochure is more promotional in nature, it will promote the industry and point to WGWA resources on the website.

The brochures will be distributed to Wyoming Extension offices and at the 2012 Wyoming State Master Gardener's Conference to promote the industry and to reach those groups in a collective setting. The brochures were printed in batches of 250 for a total of 1,000 brochures for the first printing. This eliminated the potential for over-printing and the ability to edit, revise, and update the content as needed. (See Attached Brochure)

Grape Variety handouts were created during this period for use and educational purposes to various groups throughout Wyoming. Presentations included the Small Acreage Workshop in Powell, Wyoming where 200 handouts were distributed to attendees in 2010 and 100 handouts were distributed at the Eastern Wyoming College's Spring Gardening Conference in Torrington, WY in 2011.

Our 2011-2012 WGWA goals include: increase resource and information for new and existing growers; continue the annual WGWA Harvest Festival/Tour, as well as to expand our relations and contacts with various state agricultural organizations, institutions and industry groups. With the renewed interest and research projects now in the works by the Sheridan Research and Extension Center, WGWA feels this is a great opportunity to build membership and to increase awareness and the feasibility of our industry in Wyoming.

During the 2011 harvest, input was obtained from current producers in regards to the Association and its future plans in 2012 and beyond. Ten producers contributed to the 2012 harvest and were asked about current efforts and future needs. Two Nebraska producers were also questioned about efforts in their state and what could be done to improve the industry. All producers agreed additional efforts must continue to expand our research to ensure better yields, grape quality and weather survivability. Newsletters, meetings & public education will be expanded to continue these goals.

Producers offered the following input:

Disease Research/Education

Pest Prevention/Education

Harvest Education, Ripening Factors

Additional Meetings with outside experts

Research/Efforts with University of Wyoming Extension Services

Educating Public/Potential Consumers about the varieties grown in Wyoming

Increasing Wine Quality/Consumer Education to increase demand

Continuing Efforts for Spring Frost Protection

Promoting the industry to the public through Festivals, Fairs, Events

Analyze potential for Table Grape Production in Wyoming.

BENEFICIARIES

Existing and potential Grape Growers are the primary beneficiaries of this project. The Association was able to expose approximately 300 individuals to the information. Presentations included the Small Acreage Workshop in Powell, Wyoming where 200 handouts were distributed to attendees in 2010 and 100 handouts were distributed at the Eastern Wyoming College's Spring Gardening Conference in Torrington, The brochures were printed in batches of 250 for a total of 1,000 brochures for the first printing. This eliminated the potential for over-printing and the ability to edit, revise, and update the content as needed. (See Attached Brochure) The Association plans to continue to promote the industry in Wyoming through tours, its website and education.

LEASONS LEARNED

During the grant period, it was determined that there is still a large interest in small acreage agricultural opportunities throughout Wyoming. Presentations throughout Wyoming and interest have increased the need for WGWA to continue its efforts on varietal education, public promotion/acceptance, and to assist new growers in their production efforts. The original project had to be amended when the research station in Sheridan where the trials were to take place lost its researcher and the University was slow in finding a replacement. They were also in the process of moving the Research station in Sheridan and had been reluctant to take on projects that could not be continued at that site. In late 2011 a new research horticulturalist was hired and after meeting with him at the UWYO Sheridan Research Center, WGWA will assist in new test plots across the state, study/experiment with vine grafting, and increase current grower knowledge through this partnership.

Patrick Zimmerer

Table Mountain Vineyards

www.TableMountainVineyards.com

Find TMV on [Facebook](#) or Twitter [@tmvwinery](#)

[307.459.0233](tel:307.459.0233)

Taking Root in Wyoming

Obviously, it takes a tough vine to survive Wyoming's frigid winters, our extreme hot & arid summers and the ever-changing weather that Wyoming dishes. Traditional wine grape varieties (Cabernet, Merlot, Pinot, etc) are too tender to survive in Wyoming. Thanks to research and development of "Cold Hardy Hybrid" grape vines, grape growing in Wyoming is now possible.

"**Cold Hardy Hybrids**" are the result of crossing wild grapes with wine grapes. Some of the most hardy & successful wine grape varieties have come through the development & efforts of the University of Minnesota.

***Frontenac** – (-31 to -35 below) Very Vigorous Red, Cold Hardy, later bud break, most success in various sites and vineyards, high in acid.

***Valiant** – (-40 to -50 below) Very Vigorous Red/Purple, Concord Type Grape for jam or jelly, Earliest Bud Break, but very winter hardy.

***Marquette** – New MN Red Variety, Pinot Noir Heritage, Cold Hardy.

***Frontenac Gris** – White offspring of Frontenac, Ripens earlier than Frontenac w/ Bronze clusters.

***Frontenac Blanc** – (Released '12) White offspring of Frontenac, lighter in color than Gris.

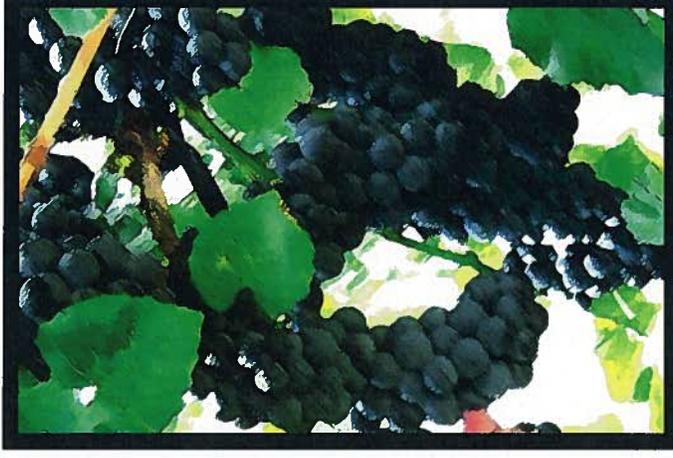
****LaCrescent** – (-30 to -35 below) White variety, cold hardy, but low in vigor/growth

To Learn about all the Varieties taking Root in Wyoming, visit www.WyoGrape.com

The Wyoming Grape &
Wine Association



Growing Grapes In Wyoming



For Membership Information,
Additional Questions and Grape
Information please visit:

www.WyoGrape.com

**Wyoming Grape &
Wine Association**

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Huntley, WY 82218

Ph: 307.459.0233
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*Wyoming Grape
and
Wine Association*

The Vines

Wyoming isn't known for grapes, vineyards, or wine. In fact, it is one of the fruits considered to be too tender to survive Wyoming's challenging seasons. However thanks to advances in grape vine varieties and cold hardy grapes,

Wyoming can successfully grow and support wine grapes. Thanks to the research, trials, and real world experiences from Wyoming growers, this guide serves as an introduction to grape growing in Wyoming.

The vines grown in Wyoming are a cross of wild and wine grapes. While the varieties are relatively unknown to the wine world, the vines can survive Wyoming's extreme winters and summers.

We invite you to learn more about our commitment to Wyoming agriculture and our newly emerging industry.

Startup

Every potential vineyard location provides its own set of challenges and characteristics for growing grapes. Preliminary study and testing is required and essential to ensure early vineyard establishment success and long-term viability.

One must consider many factors when considering vineyard establishment including:

- Slope - 3-5% for drainage, air flow, and frost protection
- Soil - Soil profile, pH, salt content, nutrient content
- Sun Exposure – Altitude & ripening considerations
- Zone/Location – USDA Hardiness Zone & Frost Free Days

Each vineyard site is its own “microclimate” and must be carefully studied in order to succeed in vineyard production.

Potential

Establishing a vineyard is only the beginning. Grape vines take at least three full years of growth before production begins. Each vine must be hand pruned, hand trained, and hand picked.

At its full potential, a vineyard can offer yields of 4-6 tons per acre. Additional factors to consider include: economics, market potential, startup costs, labor and site location/potential.

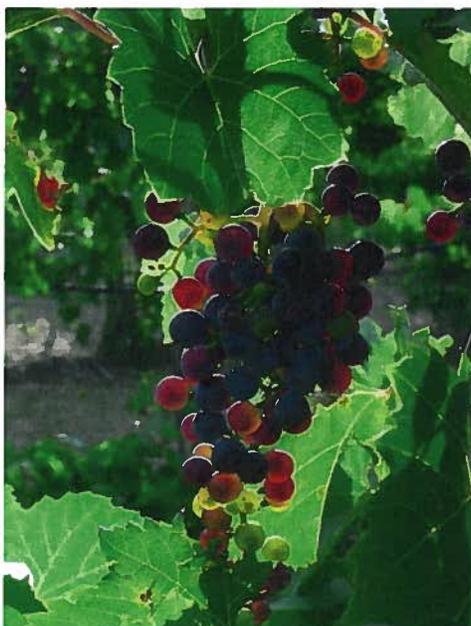
Vineyards have taken root across Wyoming in over 8 Wyoming counties. Through the efforts of WGWA, additional research is being conducted to continue and expand the grape industry throughout Wyoming. Become a member of WGWA today to join Wyoming's newest agricultural industry!

*Wyoming Grape &
Wine Association*

307-459-0233

www.wyogrape.com

Grape Varieties and Vineyard Establishment in Wyoming



**Prepared by the
Wyoming Grape and Wine Association
www.WyoGrape.Com**

and
*Table Mt. Vineyards and Winery
Huntley, WY*
www.WyoWine.com

Grape Varieties in Wyoming

*Indicates Preferred Variety

Reds-

Marechal Foch – (-15 to -20 below) Fruity, Vers Wine Grape, Early Bud Break, 2-4-D Susceptibility

***Frontenac** – (-31 to -35 below) Very Vigorous, Cold Hardy, later bud Break, most success in various sites and vineyards, high in acid. S

***Valiant** – (-40 to -50 below) Very Vigorous, Concord Type Grape for jam or jelly, Earliest Bud Break, but very winter hardy.

***Marquette** – New MN Variety, Pinot Noir Heritage, Cold Hardy.
Cons – Lower Vigor, Slower to grow and develop 3+ Years.

Whites –

LaCrosse – (-25 to -30 below) Vers Wine Grape, Moderate Growth , Low Trainer. PH issues, lower vigor and downward growth.

Elvira – Very Cold Hardy, Vigorous Growth, Wild (Foxy Grape), Acidic, Produces many small clusters and hard to train/control.

***Frontenac Gris** – (See Frontenac) Genetic mutation of Frontenac, produces dry white style wine with the same cold hardiness of the Frontenac.

***LaCrescent** – (-30 to -35 below) Fruity wine, moderate growth (Small Rootstock used). Not overly vigorous and slow to establish. 3+Years.

- Please Note the varieties listed are the most successful and cold hardy vines grown successfully in Wyoming for wine production, and not an extensive list. Table Grapes are not as developed for cold hardy production but there are many varieties that may be suitable for growing.

Questions?

Wyo Grape & Wine Association

www.WyoGrape.com

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Spotlight on Successful Varieties

While this is not an extensive list of the varieties in Wyoming, this section highlights some of the more successful varieties throughout Wyoming vineyards in many locations.



Frontenac – Introduced 1996 University of MN
Frontenac grapes reflect the best characteristics of their parents, *V. riparia* 89 and the French Hybrid Landot 4511. This vine has borne a full crop even at temperatures as low as -33 F. It is disease resistant, with near-immunity to downy mildew. A consistent heavy producer with small black berries in medium to large, open clusters. Frontenac produces a deep garnet color wine with strong cherry aromas with notes of blackberries and plums. It is being made into a variety of wine styles such as rose, red, and port.

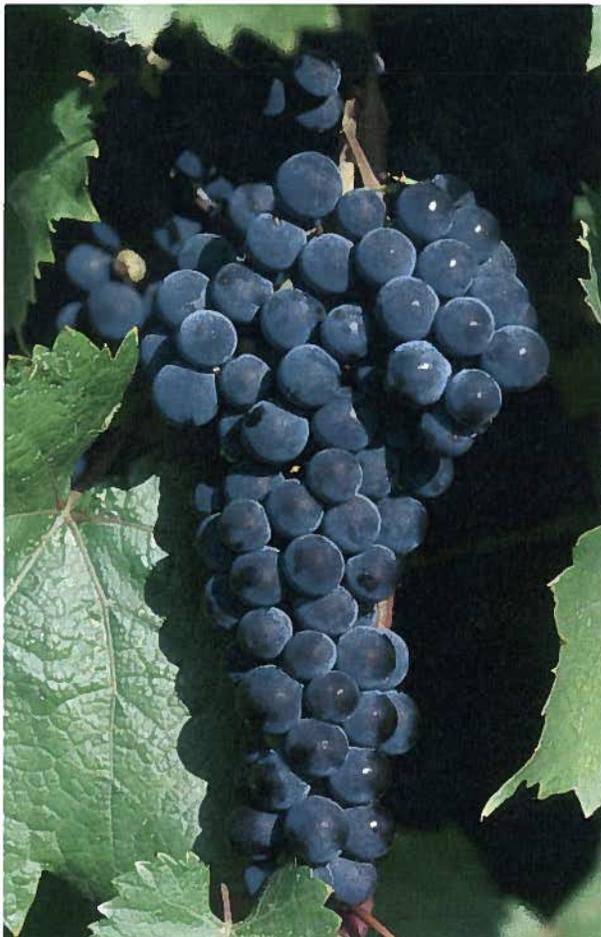


Frontenac Gris – Introduced 2003 University of MN
Frontenac gris, the white wine version of Frontenac, started as a single bud mutation yielding grey (thus named gris) fruit and amber-colored juice. The vine exhibits the same optimum growth characteristics as Frontenac, and requires the same viticulture practices. Arching canes and minimal tendrils provide for easy training and pruning to simplify vine management. Ripens in late mid-season (mid September) and produces clusters with an adequate to high sugar content. The wines present aromas of peach and apricot with hints of citrus and tropical fruits. A strong balance of fruit and acidity make this variety produce fresh, and unique table, dessert, and ice wines.



Valiant –

A cross between Fredonia and a wild *Vitis riparia* vine resulted in this recent introduction from South Dakota State University. Valiant is a very hardy blue table grape that ripens dependably throughout much of the region. It makes good quality juice and jelly, but produces a wild and unpredictable style of wine. As a table grape, its biggest drawback is the small size of both berry and cluster. It is susceptible to mildew. The vine has been documented to survive extremely low temperatures (-55F) throughout its plantings. The grape is early ripening and is perfect for arbors, cover, and winter survivability trials.



New Varieties – New varieties are released each year by plant breeders and nurseries. Additional varieties include: Frontenac Blanc (White), Marquette, and LaCrescent. These varieties are too new and are being studied at vineyards throughout Wyoming before being recommended for our climate. Please visit our website for full varieties and additional trials/plot information. It should be noted that each vineyard site and its microclimate can enhance or hinder grape production. Soils, site slope, drainage, climate, and elevation are just a few of the additional factors one must study to ensure proper variety and vineyard success.

Vine/Vineyard Sources

**** Denotes Preferred Sources**

****Winterhaven Vineyard and Nursery** 18103-628th Ave. Janesville, MN 56048,
Home #: 507-234-5469 Cell #: 507-317-7914 www.winterhavengrapevines.com

****Double A Vineyards** 10277 Christy Road, Fredonia, NY 14063 Phone 716-672-8493
vine@netsync.net www.doubleavineyards.com

Turnbull Nursery Inc. 10036 Versailles Plank Rd. North Collins, NY 14111 Phone 716-337-3812 Fax 716-337-0318 Email: turnbull@prodigy.net

Penoach Nursery 2667 N Ave. Adel, IA. 50003 Phone 515-993-4374
www.penoach.com

Vineyards Supplies Info-

Contact Bruce Zimmerer – 307-788-1707 or zimliv@wyomail.com for sources
Dripline; Bamboo Stakes, Trellis Supplies

Grow Tubes –

Protective Covers for newly planted vines for use in Year #1 and/or Year #2 – Great Results in Year #2. Blue X Vine Shelters – www.GrowTube.com – 1-888-472-5839

Fertilizers/Herbicides –

Humic Acid – Available at local Co-op – Enhances nutrient absorption, salt breakdown and assists in pH reductions

RELY – Used for Weed Control – Does not Transfer to Root – Kills what it touches only – Coop, WestCo, Simplot

Chateau Herbicide – Pre-Emergent (12oz/acre) – controls emerging weeds for 4-6 months. Keeps rows clean. Apply Pre-Bud Break (Coop)

Additional Sources

Agro-K – Vineyard Nutrient Program, KDL nutrient (frost prevention use)
www.Agro-K.com – 1-888-328-2418

Midwest Grower Supply – Hard to find Herbicides, Pesticides, Fungicides for grapes
www.MidwestGrowerSupply.com - 1-866-802-3431

Soil Testing

Harris Labs- (402) – 476-2811
Lincoln, NE

Midwest Labs -
402-334-7770



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Can Grapes Really Grow in Wyoming?????

Yes they can! Southeast Wyoming was home to many grapes during the homestead days - in fact many of those planted grapes still remain as a reminder of the past. Thanks to recent research and developments, cold hardy hybrid grapes are taking root in Wyoming - and Thriving.

All vineyards have vine varieties that can survive Wyoming's not so tropical winters and ripen early with our hot, dry summers. While Wyoming is no Napa Valley, growers can take small amounts of agricultural land and make it profitable as a value-added agricultural venture. Other considerations include site, soil, slope and pH. Below are the suggested varieties to consider when establishing a vineyard. More more information contact the Association at info@wyogrape.com

[Click here to download a variety handout](#) Requires Adobe .pdf

[Click here to download WGWA's Brouchure](#) Requires Adobe .pdf

<u>Grape</u>	<u>Color Red, White, Etc</u>	<u>Use: Wine, Table, Juice</u>	<u>Cold Hardiness</u>	<u>Vigor</u>	<u>Bud Break</u>
Frontenac	R	W	33 Below	Mod/High	Late
Frontenac Gris	W	W	33 Below	Mod/High	Late
Marquette	R	W	30 Below	Low/Weak	Mid
LaCrescent	W	W	25-30 Below	Low/Mod	Late
Valiant	R	W, T, Jelly	60 Below	High	Early
Marcheal Foch	R	W	15-20 Below	Moderate	Early

This is not an all encompassing list, however offers the varieties that have had the most success throughout Wyoming. Each vineyard site is unique in slope, pH, elevation and other factors. Contact us for more information.

