

Guide to Pre-School Gardens In Wyoming



WHO WE ARE

Wyoming Department of Education

Wyoming Department of Education Farm to School Website:
http://edu.wyoming.gov/Programs/nutrition/Farm_to_school.aspx

Susan Benning, Accountant
Wyoming Department of Education
Phone: 307-777-6280
susan.benning@wyo.gov

Brook Brockman, Training & Grants Coordinator
Wyoming Department of Education
Phone: 307-777-2579
brook.brockman1@wyo.gov

Wyoming Farm to Plate

Website: www.wyfarm2plate.org

Wyoming Department of Agriculture

Website: <http://agriculture.wy.gov/>

Ted Craig, Grants Program Manager
Wyoming Department of Agriculture
Phone: 307-777-6651
ted.craig@wyo.gov



The U.S. Department of Agriculture prohibits discrimination against its customers, employees, and applicants for employment on the bases of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866)632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339; or (800) 845-6136 (Spanish).

USDA is an equal opportunity provider and employer.

Published May 2015

Table of Contents

Why Preschool Gardens.....	4
Getting Started.....	4
Planning Your Outdoor Classroom	5
Policy	6
Screening and Liability	6
Fundraising	7
Preschool Food Service and Preschool Gardens.....	7
Allergies and Garden Activities.	7
Selecting the Site.....	8
Food Safety	8
Food Safety Resources.....	9
Pesticides, Herbicides, and Fertilizer Use.....	9
Water Safety.....	9
Harvesting.....	9
The Tools	10
Using Preschool Garden Produce in your Preschool Meal Program	11
Fresh produce Safety for Preschool.....	12
A Few Resources	13



Get Started: Creating Preschool Gardens as Outdoor Classrooms

Why a Preschool Gardens?

Wyoming recognizes that a healthy nutrition environment can foster and improve student health. Center gardens are recognized as a way to support this healthy environment.

A garden puts the natural world at students' fingertips. This living laboratory—whether a planter box, an outdoor garden, or an indoor growing area—offers a rich context for exploring and learning.

Many times if you ask a young child where food comes from, the most common answer is the grocery store. Understanding where food comes from and how fruits and vegetables are grown and harvested is essential to understanding better nutritional values and better food choices. The more exposure and understanding of this, the better chance a child has at eating healthier and avoiding bad food habits. The key is introducing more fruits and vegetable to a child's diet. What better way to start that process early in a child's life than by introducing a garden program where kids are growing their own fresh fruits and vegetables.

Gardening is fun and children will feel a sense of pride in their gardening efforts. Being interested in what is grown in the garden compels children to be more willing to try the "fruits of their labor." Eating fruits and vegetable may be a struggle at home; but with preschool garden activities, it connects them to the food.

Preschool gardens are encouraged by the United States Department of Agriculture (USDA) Food and Nutrition Service (FNS). Childcare centers can purchase produce from gardens, visit Farmers' Markets to purchase fresh produce, grow their own, or accept donations.

There are many types of plants that can be grown in a garden including those that produce edible fruits and vegetables. The following tips will help you get started with your own project.

Getting Started

Gardens thrive everywhere—in both cold and warm climates, and in urban, suburban, and rural communities. Gardens exist in preschools with no bare ground and in preschools with acres of land. All of these preschools have adapted strategies that work for them, tailoring gardens to fit their preschool's needs.

Preschool gardens are effective learning tools that create opportunities for our children to discover fresh food, make healthier food choices, and become better nourished. Gardens also offer dynamic, beautiful settings in which to integrate every discipline, including science, math, reading, environmental studies, nutrition, and health. There are many types of plants that can be grown in a garden including those that produce edible fruits and vegetables.



Don't forget: Preschool orchards look beautiful, and may be easier to maintain than preschool gardens or may be a great addition to a preschool garden and preschool grounds.

Remember: Preschool gardens can take various forms and do not have to follow any one set pattern to be successful! A fabric shoe caddy hung on a fence can make a wonderful herb garden.

Planning Your Outdoor Classroom (or indoor?)

Dream big, but start with a plan that is manageable for your preschool.



Your first step should be to create a garden plan that works for your preschool, your teachers, and your students. With the support of your preschool community, you can take the next step—planning for the future. What do you want your outdoor classroom to look like? Let a vision guide you in making reasonable attainable goals. And remember, bigger is not necessarily better. Consider the purpose of the garden: Is it to teach science or is it for nutrition education and for constructive outdoor time? Maybe your center's starting point is with an indoor container garden, planter boxes, a fence garden, or small patio plots.

Once a plan has been made or success at a smaller level has been achieved, perhaps the garden may take shape as a hoop house, vertical growing units, a larger container garden or another form to best fit the center's needs.

Just remember that the purpose should be defined. **Why do we want or have a preschool garden?**

Lastly, the center could apply to receive mini-grants to implement the garden. There are many opportunities available that can be found on the internet and many times from State Agencies.

Use of these living lessons will provide a positive learning atmosphere as well as provide students with a solid foundation for healthy living habits.

Preschool gardens involve growing fresh food on preschool grounds with students of all ages; therefore, there may be different policies that have to be considered for a preschool garden project.



Policy

- ✘ What are the relevant city, and/or county policies concerning preschool gardens?
- ✘ Are there any policies?

Always remember to use safe food handling protocols for fresh produce from any garden.

Screening and Liability?

Will the preschool be utilizing volunteers for the preschool garden? What are the policies and issues for screening volunteers and background checks? What other liability issues may arise from a preschool garden (volunteer injuries)? Are there policies concerning volunteers in preschools that define what kind of activities they are involved in with students and in gardens?

Using Garden Produce in the Preschool

- For Food Service?**
- For Snacks?**
- For Classroom Lessons?**
- All of the Above?**

What will happen to the harvest?

Can the students eat it in the classrooms for a snack? Can the harvest be given to the kitchen staff and be prepared for preschool lunch? Do you want to send some home with the students? Do you plan to sell some at a farmers' market to make money for the garden program? Do you want to donate a portion to a local non-profit agency?

Always be mindful of food handling, safety, and proper storage.



Fundraising

- Will we need to fundraise for a garden?
- Will we need to have donations?
- Grants?
- Support from local businesses?

Long-Term Sustainability of the Garden

Once a garden has been built and is in production the financial needs are not as high. Will there be funds available to sustain this activity or will steady donations and fundraising need to continue? **Eventually, the preschool garden program can or should become self-sustaining or even be a profit center that could support the development of larger projects or other gardens.**

Preschool Food Service and Preschool Gardens



Funds from the nonprofit preschool food service account can be used to make purchases for a preschool garden (seeds, dirt, watering cans) with the understanding that the garden is used for the preschool meal program.

Preschools can serve garden produce as part of any reimbursable meal.

The Preschools can also purchase produce from other organizations that maintain and manage gardens or from local Farmers' Markets.

It is important to ensure that safe growing principles are used to grow produce from any source, including gardens. Therefore, before using any produce from a local garden, visit the garden and ask about the growing practices.

Allergies and Garden Activities

As most gardens are not all the same, neither are the gardeners. Some gardeners have food allergies, which are considered to be a major food safety issue. It's a good rule overall to not bring any products with allergens in the garden to prevent cross contamination.



Keep activities with foods like peanut butter out of the garden. To be even safer and respectful of the fellow gardeners, do not grow crops of well-known allergens, such as peanuts or soybeans.

Select non-allergenic and non-toxic plants. Check with your local Cooperative Extension office or Master Gardener Group if you need assistance determining plant safety or toxicity.

Selecting the Site-

The following must be considered.

Sunlight

Location

Water

Accessibility

Visibility

Security

If possible, locate your garden within sight of classrooms and neighbors. **Make sure gardens don't obstruct visibility and hide intruders.** Create reasonable barriers to keep animals away from the garden.

Food Safety

There are small health and safety issues involved with preschool gardens, therefore, the center needs to be familiar with any state or local requirements and policies regarding health and sanitation issues.

See Attachment A –FOOD SAFETY REQUIREMENTS FOR FARMERS' MARKETS AND LOCAL PRODUCERS/PROCESSORS IN WYOMING

Special care should be taken with regard to food safety when it comes to children. They are more susceptible to food borne illness than healthy adults as their immune systems are still developing.

Food Safety Resources

- ❖ “Wyoming Food, Drug and Cosmetic Safety Act” 35-7-109 through 35-7-127: <http://legisweb.state.wy.us/statutes/statutes.aspx?file=titles/Title35/T35CH7.htm>
- ❖ Wyoming Food Safety Rule, Chapter 3, Section 40 Washing Fruits and Vegetables. <http://wyagric.state.wy.us/divisions/chs/food-safety>

Food Safety in the Garden:

There are three topics to think about as you design your safety procedures.

- Safe soil
- Safe water
- Food Safety
 - Clean and sanitized hands - Harvesting
 - Clean and sanitized surfaces



Pesticides, Herbicides, and Fertilizer Use

Preschool gardens usually practice pesticide-free methods (organic) of gardening. USDA recommends that all preschools **do not use any pesticides or herbicides due to potential health hazards to children.**

Water Safety

By ensuring the use of safe water for irrigation, the potential of microbial contamination of fruits and vegetables is reduced.

Know the water source. Most public water systems provided by cities or other municipalities should be safe, but testing facilities can give the best information on what is coming out of the spigot.

Uncontaminated water ensures a good quality harvest.

If you wouldn't drink the water, don't apply it to your edible plants!



Harvesting Growing and Harvesting Produce

A preschool garden provides an opportunity for children and volunteers to learn about how to handle food safely. The following are some food safety tips to follow when growing and harvesting produce.

- 🍏 Ensure that all persons, including staff, students, and volunteers receive basic food and gardening safety training instructions according to local health regulations.
- 🍏 Hand washing and personal hygiene.
- 🍏 Cleaning and sanitizing garden equipment and containers used to hold produce.
- 🍏 Handling produce during harvest, washing, and transportation.
- 🍏 Glove use.
- 🍏 If necessary, ensure that volunteers are covered by the preschool insurance policy in the event of accident or injury.
- 🍏 Require signed permission slips for all student gardeners. Permission slips should list potential hazards of working in a preschool garden and identify any allergies the child may have.
- 🍏 Do not allow anyone to work in the garden while sick, or until 24 hours after symptoms, such as vomiting or diarrhea, have subsided.
- 🍏 Ensure that all harvesters wash hands thoroughly in warm, soapy water for at least 10 to 15 seconds, and then rinse with potable water. Ensure that all open cuts or wounds on hands, arms, or legs are properly covered prior to participating in the harvest.
- 🍏 Require harvesters to wear closed-toed shoes to prevent cuts, stings, or other injuries. **NO Flip Flops!**
- 🍏 Consider using single-use disposable gloves when harvesting, or handling, fresh produce as an extra precaution.
- 🍏 Harvest the garden regularly and remove any rotten produce.
- 🍏 Use cleaned and sanitized food grade containers, such as plastic bins or buckets, to hold harvested produce. Do not use garbage bags, garbage cans, and any container that originally held chemicals. These types of containers are made from materials that are not intended for food use.
- 🍏 Clean harvesting tools with soap and potable water immediately before and after each gardening session.

The Tools!

- 🪵 While many gardeners just use their hands for harvesting, some use scissors, knives, and other tools to remove fruits and vegetables from plants. If there happens to be a pathogen on the crops and the tools go unwashed, it will likely be passed onto the next vegetable it touches.
- 🪵 Clean tools and containers should be stored in a place where animals cannot get to them, such as a locked shed.



- 🗑️ The containers for the harvest should be regularly washed and sanitized. Use containers that will not cross-contaminate the fruits and vegetables. Do not re-use plastic bags or harvest into wooden boxes or unwashed buckets. The containers should be protected while in storage so that they cannot be contaminated in-between uses.
- 🗑️ Clean off as much dirt and debris as possible while still in the field, so as to reduce the risk inside.
- 🗑️ Foods for immediate consumption: In preschool gardens, it is very common to eat fruits and vegetables right after they are harvested. However, all harvest should be washed and/or processed in a space with a clean and sanitized work surface, utensils, and hands.
- 🗑️ The lowest risk “best practice” in terms of contamination is to not wash the harvest until it is time to be consumed. The harvest should be stored in a cool, pest-free area in separate containers (or new plastic bags) for each crop, away from any chemicals. However, it must be washed before eating.



Remember

**CLEAN HANDS.
CLEAN WATER.
CLEAN SOIL.
CLEAN SURFACES.**



Using Preschool Garden Produce in your Preschool Meal Program

- 🥕 If the harvest from the preschool garden will be used in the preschool meals program, work cooperatively with the center’s cook to plan and implement the garden.
- 🥕 Accept produce harvested from local gardens only when food program staff is present to receive it. All produce dropped off or left when staff is not present should not be used in the preschool meal programs.
- 🥕 Reject produce that does not meet the preschool’s nutrition program standards.
- 🥕 Receive and inspect produce harvested from gardens according to the same procedures used to inspect produce from distributors or purchased from a grocery store.

- 🥕 Do not use any produce that has been noticeably contaminated by animals or insects.
- 🥕 Refrigerate garden produce immediately, unless the particular item is normally held at room temperature.
- 🥕 Store, prepare, and serve garden produce separately from other sources of produce to maintain **traceability**.



Gardens are a creative way of introducing fresh fruits and vegetables to preschool children. The goal of preschool gardens is to create healthier preschool environments by providing:

- 🌱 Healthier food choices.
- 🌱 Expanding the variety of fruits and vegetables children experience.
- 🌱 Increasing children's fruit and vegetable consumption.
- 🌱 Making a difference in children's diets to impact their present and future health.

Fresh Produce Safety for Preschools

Train everyone who prepares or serves food on how to properly wash and store fresh fruits and vegetables.

Receiving

Have established procedures for receiving and storing fresh produce.

Check produce for freshness by randomly examining the entire contents of a box rather than just the items on the top. If a product does not meet your standards of freshness, refuse to accept it.

Accept only produce that is not bruised or damaged.

Clean Produce

Wash all fresh fruits and vegetables thoroughly with cold running water—never in standing water—before serving.

Scrub firm produce, such as melons and cucumbers, with a clean produce brush.

Clean Equipment and Hands

Wash, rinse, sanitize, and air dry all food-contact surfaces, equipment, and utensils including cutting boards, knives, countertops, and sinks before and after use.

Wash hands thoroughly for at least 20 seconds with soap and warm running water before and after handling fresh produce.

Storage

Separate fresh produce from other refrigerated foods in refrigeration units. Cover and store washed cut produce above unwashed, uncut fresh produce. Store all produce off the floor.

Mark each item with the date it was received and practice First-In, First-Out inventory management methods.

Discard wilted or discolored products immediately.

Always store cut fruits and vegetables in the refrigerator. Refrigerate cut melons immediately.

A Few Resources

Attachments:

- ❖ A. Food Safety Requirements for Farmers' Markets and Local Producers/Processors in Wyoming
- ❖ B. USDA Memo: CACFP 11-2015 Local foods in the Child and Adult Care Food Program with Questions and Answers

Slow Food USA: <http://www.slowfoodusa.org/#>

Best Practices: Handling Fresh Produce in Schools:
<http://www.nfsmi.org/documentlibraryfiles/pdf/20100414060724.pdf>

The Edible Schoolyard Project: <http://ediblepreschoolyard.org/>

Kids Gardening (The National Gardening Association):
<http://www.kidsgardening.org/>

National Farm to Pre-School Network: <http://www.farmpreschool.org/>

USDA Food and Nutrition Services (FNS) Farm to Pre-School:
<http://www.fns.usda.gov/farmpreschool/farm-preschool>

Many, many more! With just a little research you will find many preschool garden resources from all over the United States.