Michigan Youth Farm Stands:

Youth Engagement in Community Food Systems

Project Tool Kit

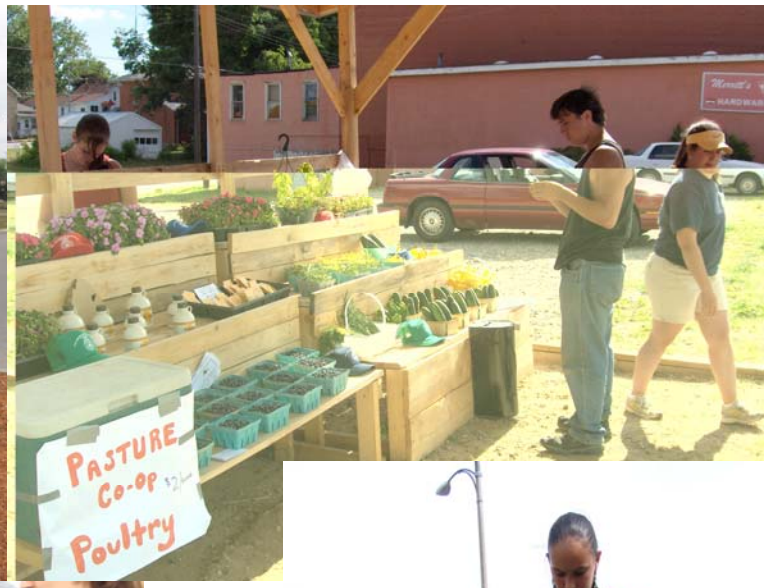
developed and produced by the CS Mott Group for Sustainable Food Systems at MSU

the c.s. mott group for Sustainable Food Systems at MSU

MICHIGAN STATE UNIVERSITY

Youth Farm Stand is a project of the CS Mott Group for Sustainable Food Systems at MSU.

CS Mott Group at MSU engages communities in applied research and outreach to promote sustainable agriculture and food systems to improve access to and availability of healthy, locally produced food.



MICHIGAN STATE UNIVERSITY

Youth Farm Stand Toolkit, (2009) is a publication of the CS Mott Group for Sustainable Food Systems at Michigan State University.

Dedication and Appreciation:

All the Youth Farm Stands from 2005 to 2008

Kalkaska MSUE/Forest Acres Middle School, Kalkaska

Earthworks Farm, Detroit

Otto Middle School, Lansing

Peckham Vocational, INC, Lansing

The Henry Ford Academy, Dearborn

Shiawassee Michigan State University Extension(MSUE)/Lincoln High School, Owosso

Cheboygan MSUE/ Straits Area Youth Promotion Academy (SAYPA), Cheboygan

Springport Agriscience Program, Springport

UM Center for Civic Engagement/Holmes Middle School, Flint

Berrien MSUE/Van Buren Co. 4H/Ninth Grade Academy, Benton Harbor

Saginaw MSUE/Houghton Jones Neighborhood Task Force, Saginaw

The Greening of Detroit, Detroit

Operation Weed and Seed of Highland Park, Highland Park

Mixed Greens at Blandford Nature Center, Grand Rapids

Monroe MSUE/Arthur Lesow Community Center, Monroe

Growing Hope, Ypsilanti

Also, thank you to:

Dr. Mike Hamm,
CS Mott Chair of Sustainable Agriculture,
Michigan State University, for transplanting the seeds of the Youth Farm Stand Project from Rutgers University, New Jersey, and nurturing their growth in Michigan.

Emily Reardon and Dixie Sandborn for all their work in creating the first Youth Farm Stand Activity Guide

All of the local Youth Farm Stand Project coordinators, and youth growers, who did so much and positively affected their communities

Youth Farm Stands would not be possible without the fantastic support from our funding partners:

USDA Supplemental Nutrition Assistance Program
Blue Cross Blue Shield of Michigan
Michigan State Housing Development Authority
USDA Farm Service Agency
MSU College of Agriculture and Natural Resources
Michigan State University Extension
C.S. Mott Group for Sustainable Food Systems at MSU

Thank you to the other community based organizations and foundations that have supported Youth Farm Stand Projects at the local level.

THANK YOU

MICHIGAN STATE
UNIVERSITY

A Note from the Michigan Youth Farm Stand Project Toolkit Author and Editor

January, 2009

Dear reader:

The story of the Youth Farm Stand Project starts in New Jersey at Rutgers University. The Michigan incarnation of the youth farm stand model was transplanted with one of it's founders, Dr. Michael Hamm, when he left Rutgers to accept the position of C.S. Mott Chair of Sustainable Agriculture at Michigan State University. He founded the CS Mott Group for Sustainable Food Systems at MSU, and the Michigan Youth Farm Stand Project began in the late Fall of 2005, with two pilot sites: the Earthworks Urban Farm at the Capuchin Soup Kitchen in Detroit, and the Forest Acres Middle School with the Kalkaska County MSU Extension office. Since it was planted in Michigan soil, the project expanded and grew to sixteen communities, continually shaped and invigorated by the people that took the project to heart, and made seemingly impossible tasks surmountable and continually brought more and more people into the fold, young and old, neighbors and policy makers, farmers and urbanites.

Since the time the project was conceived, it has been a catalyst for gathering young people and their community into conversation about food: What we eat and how, where, and who we get it from matters. Food affects us all, not just in terms of nourishment, but it affects our landscapes, our neighborhoods, our economies and quality of life. If we wish to have a vibrant Michigan food system in our future that preserves our farm land, greens our cities, nourishes and employs our citizens, then we have to whet the appetite for it now, with our young people, who will be the actors of Michigan's food future. The Youth Farm Stand Project has been part of the planting of seeds for this future harvest.

And so, I hope that this Toolkit helps you and your community start a garden for your food future. May it grow lush and bountiful, and may the young people of your city or town be nourished by the experience, and gain the appetite for building Michigan's future, and their own.

Sincerely,

Anne Scott
Michigan Youth Farm Stand Project
C.S. Mott Group for Sustainable Food Systems at MSU
303 Natural Resources Building
East Lansing, MI 48824
(517) 353-0751
scottann@msu.edu

CARRS
DEPARTMENT OF
COMMUNITY, AGRICULTURE, RECREATION, AND RESOURCE STUDIES
College of Agriculture and Natural Resources
Michigan State University
131 Natural Resources
East Lansing, MI
48824-1222
517/353-5190
fax: 517/432-3597
web: www.carrs.msu.edu

Table of Contents

Introduction

How to Use this Tool Kit

This tool kit is designed to guide a group from start to finish through learning about, planning and putting into action a local food project— a youth farm stand. It is based on three years of experience and lessons, as well as feedback from 16 different Michigan communities that participated in the Youth Farm Stand Project between 2005 and 2008, and the CS Mott Group for Sustainable Food Systems at MSU.

Adaptation is the key

This tool kit was intended to provide a resource for every part of developing a youth farm stand, however, not every lesson must be followed in exact order to learn the concepts. You can pick and choose activities that fit your needs, or adapt lessons and activities to best utilize the people and resources you have, or to surmount the obstacles you may face. Every community has different assets and obstacles—no two youth farm stands will ever be the same!

Whole Group

You may notice that this guide is addressed to a whole group, instead of just to one adult leader. The idea is that youth as well as adults can read and use this guide, and can be leaders in the process of planning the farm stand. Youth need to be empowered, engaged, and responsible in every step of the project!

What's with the BIG paper?

Because activities are designed to be used in a group setting, notice that almost every activity calls for BIG paper (a.k.a. flip charts, butcher paper, newsprint) and markers. You will be writing down ideas in big visual ways A LOT. This is a important technique for guiding group discussions and brainstorming. This helps the "group-think" process by: (1)Visually listing ideas to affirm that a person's idea is being recognized, (2) Preventing "talking in circles" - writing down ideas helping avoid revisiting the same idea or issue over and over, and (3) Create a great record of the group's progress.

If you don't have a plentiful supply of large paper, you may always substitute writing on a white board or black board, but you may want to snap pic-

tures of your work before it gets erased.

Ground Rules

When sharing ideas in a group setting, it is important to set some ground rules. Ground rules are agreed upon by the group, and they help create an environment of mutual respect. They allow participants to share their thoughts and be listened to without cut downs or nasty responses. They also help keep people on task, and regroup. A leader or anyone else can refer back to the ground rules at any time in a session. It might also be important to decide as a group what the response will be for individuals who continue to disregard the ground rules. Some example ground rules might be: "Every idea will be acknowledged treated respectfully" "No interrupting when someone has the floor to speak" "You must take three bites of a new veggie or food before you can say you don't like it" "Disagree respectfully, no put downs or attacks"

Nutrition Education

The Veggie Icon, seen here, indicates activities that are approved by the Michigan Nutrition Network as allowable nutrition education activities as outlined by the USDA Supplemental Nutrition Assistance Program (SNAP-Ed). Look for this symbol to identify specific activities of a youth farm stand that are allowable uses of SNAP Ed funded time and resources.

Evaluation

Three methods of evaluation are built into the Youth Farm Stand Toolkit, Skill Cards, Veggie Voting, and Journaling. In section six of this tool kit, *Evaluation Tools*, you will find these tools to copy and use to record and measure important developments within your group through your farm stand project. Note that some activities in this toolkit have an "SC" in their headers. Theses activities correspond with the Skill Card evaluation tools. Journal questions are included in each activity worksheet, and it is recommend to have participants keep a journal through out the project, to respond to these questions in. Veggie Voting, which captures aptitude to try

and like new fruits and vegetables, is another method included. Veggie Voting can be done anytime a new vegetable or fruit is tried or served in snacks.

Additional Resources

There are tons of great gardening, marketing, and nutrition information materials out there. Whether in books, online, or from brochures and information handouts, you can find many resources that will help inform your youth farm stand.

For instance, gardening books have information that can supplement what is here about planting and maintaining a garden. Also, a guide that helps you identify pests and common plant diseases might be helpful. After activities and at the end of this guide you will find many great resources referenced. We encourage you to look into these resources to find the information you need. Many of them may be available through your local library.

Your county's Michigan State University Extension (MSUE) office can offer help with youth development, nutrition, gardening, and more. They are a resource for all communities, and you are encouraged to get in contact with them. Go to www.msue.msu.edu to connect to your county office. You may also contact the CS Mott Group for Sustainable Food Systems at MSU, at www.mottgroup.msu.edu or (517) 353–0751.

There is another kind of resource that is most important to a Youth farm stand. Those are the local resources all around you: People. Get as many people- whether they be a neighbor with a skill to share, a local organization that has expertise or technical assistance to offer, or a local farmer with years of experience- involved with the development and success of your Youth farm stand. Take a field trip, invite speakers, call your neighbors and parents to get involved in the garden. This is a big part of building community through your project, and building a *community* food system. And that is what the Youth Farm Stand Project is all about!

Materials Needed for Youth Farm Stand

Coordinators have found that a few essentials help to have a smooth running youth farm stand. Keep materials together in storage bins, in a secure on-site location, so you are always prepared. Have a supply of essentials for activities at the project start, so you can be ready for anything!

Essentials for Activities:

- 3x5 cards
- Painters tape (wall safe tape)
- Markers
- Pencils and pens
- Play money
- Measuring cups and spoons
- String or thin yarn
- BIG paper (call a local print supply store)
- Seed catalogs
- Scissors (several pairs)
- *Get Fresh Too Cookbook*
- Paper towels
- 3 large plastic tubs (like dish tubs) or translucent kitchen garbage bags
- Graph paper

Essentials for Cooking Demonstrations

- Mixing bowls
- Cutting board
- Paring knife and chopping knife
- Measuring cups and spoons
- Paper plates
- Disposable utensils- composting ones are the best!
- Sample cups (Paper cups work fine)
- Salt and pepper
- Olive oil

Essentials for Farm Stand

- Coolers
- Plastic storage bins
- Table
- Cash box
- Poster board
- Banner or sandwich board for farm stand signage
- Pop up tent (or a shady location)
- Tablecloths
- Baskets and containers for display
- Sales record/receipt book
- Access to a copy machine or computer printer to make worksheets for activities

Essentials for Gardening

- Space with sun and light!
- Metal rake (2)
- 3 prong cultivator (2)
- Spade (1)
- Trowel (4)
- Roll of chicken wire (4 x 25ft)
- 1ft stakes
- 4ft stakes
- Compost (quantity varies)
- Wheel barrow
- Hose & water access
- Multi-setting spray hose attachment

There are many other optional materials you may choose to invest in, or have shared with you from the community. Each project is unique and has different resources available. Remember, you do not have to purchase everything – try to use your community connections as much as possible to borrow and share!

Section One

It’s All About Food

It's All About Food

This section will get you acquainted with the food system, and the concept of sustainable, healthy food systems. For healthy people in healthy communities, we need healthy food systems.

In addition to the activities presented, here are other suggestions that will enrich this experience:

- Eat together: It *is* all about food, after all. Preparing and sharing food together is important: Have a healthy snack together made from fresh fruits and vegetables whenever possible. Ideally, you can use food from your own garden when in season.

- Learn the basics of cooking and preparing food: All this knowledge of how to eat healthy and learning to like more veggies is pointless if participants do not also become skilled and comfortable with preparing food themselves. Perhaps a student from a local community college culinary program can offer a few lessons in cooking 101?

- Explore *your* community food system: Unfortunately, healthy food is not equally available or accessible to all people. It is important to remember that your youth farm stand will become part of the local food system, and can make a positive impact to food availability in your community. Get to know what food is available, where, and more importantly, who is it not available to? How can the youth farm stand meet that need?

Food Values

Objective: Everyone has their own beliefs about what is good or bad food, and what healthy food is. In this activity, every student can share what food means to them. The "Sticky Wall" allows the group to gather ideas from every participant, and to try to find themes and common ideas among the group.

Skill Development: Group brainstorming and discussion, respecting others opinions, and concept organization.

Definitions:
Values are the relative worth, merit, or importance we give objects or actions. It is the meaning or significance we give to something. It also means our liking or affection for something.

Activity: Sticky Wall
Materials Needed:
- Big paper or a blank wall
- Markers
- 3x5 cards
- Pencils or pens for all participants
- Wall safe tape

Set Up: Create a "sticky wall" space—clear at least 4x6 ft of wall space. Write the following on three sheets of paper, and tape up as category headers: GOOD FOOD, BAD FOOD, HEALTHY FOOD

Steps:
Part 1 –Gathering Group Ideas
1. Set the ground rules:
2. Use the *Food Values* worksheet.
3. Begin session with each person responding to the activity questions on the worksheet individually.
4. After everyone has had a chance to respond to their activity worksheet, distribute three 3x5 cards to each student with a writing utensil.
5. Each person will select ONE response from EACH question to wrote on a 3x5 card.
6. Next, each person may tape their 3x5 card under the corresponding question on the "sticky wall".

Part 2—Group brainstorming

1. Begin the group discussion by asking questions:
    - Who would like to share what you posted and why?
    - Do you see some similar responses?
    - Do you see any items/ideas that show up under more than one categories?
2. After this initial conversation, everyone can go to the sticky wall and organize the cards. Creative use of space is encouraged!
    - Put similar ideas close together; move ideas far away if they are really different
    - Try arrangements that best show how the ideas relate to each other.
3. End this activity with a discussion of the Sticky Wall results. Ask two volunteers to scribe (write down the group's responses) to the following debriefing questions:
    - What did we learn about our values involving food?
    - Were there unexpected things revealed about our group ideas and values involving food?
    - After this activity, what would be a good representation of our food values? Can we make a statement about "Our Food Values?"
    - What would be a good group statement about our food vales?

4. Post your "Food Values" statement somewhere it can always be visible to the group and others.

Trouble Shooting:

Trouble answering questions: Try to write the first thing that comes to mind, something they associate with the words "healthy", "good", or "bad". It is OK if it seems to not make sense or is strange. Ask for volunteers to organize the sticky wall or post 3x5 cards if having the whole group in action causes problems. Remind everyone to be RESPECTFUL of others in group activities. Remind group of the ground rules. If people are shy about talking in the whole group setting, break into small groups, and have a spokesperson from each share key ideas.

More Challenges:

If using a big paper for the Sticky Wall, try using markers in Part 2 as another way to creatively group or link the relationships of responses.

Worksheet: Food Values

Each of us places values on food. Think about what you value about food by answering the questions below.

What does GOOD FOOD mean to you?

_____

What does BAD FOOD mean to you?

_____

What does HEALTHY FOOD mean to you?

_____

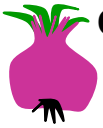
What common values do people in your youth farm stand share? Write these shared value as a statement in the box below.

Our Food Values Statement

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What do you value about food?

What am I Eating? SC



Objective: Understand how to read food labels for information about what is in the products we eat, and consider the difference between a processed and fresh food.

Skill Development: Critical thinking, interpreting food labels and ingredients, becoming a more informed consumer, meal planning & preparation. SKILL CARD:FOOD: Impacts of Food Choices (Skill 2)

Definitions:
Food labels are loaded with information - they give information about what the ingredients are, what a serving size is, and the amount of calories, fat, cholesterol and sodium in each product.

Serving size refers an amount of food determined from nationwide consumption surveys to be necessary for good health.

Activity: Reading Food Labels
Materials Needed:

- Snack food and beverage packages
- Measuring cups
- Optional: one copy of *What am I eating* worksheet per participant
- Pencils
- *Reading Food Labels 101*, Appendix A, p.145

Set Up: Group into teams of 3-4. Each team needs at least 3 snack food packages with ingredient and nutrition labels on them. Use *What am I Eating* worksheet and the *Reading Food Label Labels 101* from the Alliance for a Healthier Generation, found on Appendix A, p.145.

Steps:

Part 1

1. Collect calorie, fat, and carbohydrate information from the snack items in teams, using Part 1 of the worksheet.
2. Using the Food Label Guide, compare the snack items to the healthy daily nutrition intake on the Food Label Guide.

Discuss the findings by having each team report back what they learned about their items. Ask: Are these snack items healthy choices according to the guide?

Part 2

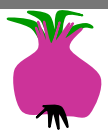
1. Back in small groups, open up the snacks. Using the measuring tool, find out what ONE serving size looks like. How many servings of soda are in one bottle/can? How many chips make up a serving? Is this how much you usually eat?
2. Read the ingredients. Do you know what each one is? How many can you identify? How many do you not know?
3. Group discussion: Have each group share what they learned about their snack foods. Ask probing questions:
    - What does this information tell us about these foods?
    - Is it important to you to know what is in your food? Why or why not?
    - Consider fresh and locally produced food: What snacks can you think of from fresh food and food grown near here? Would there be a need for as many preservatives? Do you think it would cost more or less than processed food that travels great distances? (Consider fuel, preservatives, additives, packaging, etc…)

Additional Resources: Check out the following websites to learn more about food labels.

Figuring Out Food Labels: Kids Health web site supported by Nemours Foundation
www.kidshealth.org/kid/stay_healthy/food/labels.html

Nutrition Facts Food Label Database
www.nutri-facts.com/search.php.

Worksheet: What am I eating ?



Part 1
What is My Food Made From?

Examine the food labels from three snack foods. Compare nutritional values. Consider the calories, carbohydrates and grams of fat per serving.

Food Item	Calories	Carbohydrates	Fat	Protein
1.				
2.				
3.				

Part 2

What do I eat?

Measure the serving size. Is this what you typically eat?

_____

Which ingredients are you familiar with?

_____

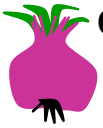
Which ingredients are you NOT familiar with? Why do you think they were added to this food?

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Is it important to know what is in the food we eat? Why or why not?

What is "Healthy"? SC



Objective: Learn the recommendations for healthy eating.

Skill Development: Think critically about food choices and making healthy food choices. SKILL CARD: FOOD, Eating (Skill 3)

Definitions:
My Pyramid: The food pyramid is a guide to making smart choices from every food group, finding a balance between food and physical activity, and getting the most nutrition from your calories.

Activity:
Materials Needed:

- Lunch items: Whole grain bread, fruits, veggies, peanut butter, cheese, milk, cold cuts, etc.– something from every food group represented on the USDA "My Pyramid", found in Appendix B, p. 147
- Paper plates, cups, and silverware
- Measuring cups
- One copy of *What is "Healthy"?* worksheet per participant

Set up:
Create a station for the food items and lunch assembly on a clean table, away from where the Part 1 activities will take place. Use the *What is Healthy?* Worksheet. You can work together in a whole group or in small groups of 3-4 to find the daily recommendations using the My Pyramid Plan tool at www.mypyramid.gov). The daily dietary guideline pyramid is also found in Appendix B, on page 147. In part two, work in teams of 3-4.

Part 1
Working together in small teams or as a whole group, use the My Pyramid handout to determine the nutrition and activity recommendations for your age group. Use part one of the *What is Healthy?* worksheet as a guide. Have the group share their findings. Do we eat the way the recommendations guide us? Do we exercise our recommended amount? Understanding the dietary and activity recommendations, prepares the group for the next step.

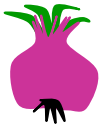
Part 2

1. Break into small teams of 3 –4.
2. Using the information from Part 1, design a meal or snack that contain a serving from each of the food groups.
3. Once groups have assembled their balanced meal, have a speaker from each team share what they made. Did they include all five food groups? If not, what do they need to add or take away? Does every meal need to include food from all five groups? What if you were planning a meals for a whole week, how would that be different?
4. Once every group has shared, and every group has a balanced snack…..DIG IN & ENJOY!

More Challenges

1. Visit www.mypyramid.gov and use the online food pyramid to explore recommendations and see how age, gender, and activity level effect daily nutritional guidelines. This web site is provided by the United States Department of Agriculture.
2. What steps can you take to increase your physical activity and improve your diet?

Worksheet: What is Healthy?



Part 1

My Pyramid

The Pyramid factors your activity level into it's dietary recommendations for you. What physical activities do you like to do? How often do you do them?

_____

_____

_____

Find your daily recommendations using the information from the My Pyramid :

Food Group	**Daily Recommendations**
Vegetables	
Fruits	
Dairy Products	
Meats and Beans	
Grains	

Part 2

L**unch Box**

In a group, design a lunch that you would like to eat that includes all the food groups from the pyramid. Enjoy!

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Would it be easy or difficult for you to follow your My Pyramid guidelines? Why?

Where did my Food Come From? SC

Objective: To understand where our food comes from, consider the consequences of long-distance food transport on environment and nutrient content, and the benefits of "buy local."

Skill Development: Critical thinking, understanding systems. SKILL CARD: FOOD: Food System (Skill 1)

Definitions:
Eat Locally: Eating locally grown foods helps the environment by reducing the use of fuels for shipping. Foods are fresher and the local economy is supported.

Local food: Local means as near as possible; shortening the distance from the farm to your table. Local has many definitions but is usually associated with a scale of "place;" i.e. neighborhood, city, county, and region.

Activity: Map my Breakfast
Materials Needed
- String (thick) or yarn (thin)
- United States map
- Scissors, several pairs
- Wall space to hang map and big paper
- Wall safe tape
- 3x5 cards, cut in half (3 x 2.5 squares)
- BIG paper (flip chart or butcher paper)
- Markers
- Optional: One copy of *Where did my Food Come From?* worksheet per participant.

Set Up:
Tape the map on the wall . Cut the 3x5 cards in half, making 3 x 2.5 squares. Use *Community Based Food System* (Appendix D, p. 151) *Farm to Table: The Potato Story* (Appendix E, p. 153), *The Food Dollar* (Appendix F, p. 155), *Lets Look at the Food System...*(Appendix G, p. 157), and the *How Far Did my Food Travel* worksheet. Work in groups of 3-4. Each group will need several (about five) 3 X2.5 squares, markers, string, tape and scissors.

Part 1

Talking about our food system: Using the *Farm to Fork* information sheet, have a discussion about the steps of the food system—how we get food from farms to our plates (answers can be recorded on the flip chart). What steps have to happen for an apple grown in West Michigan to get to us? What about an apple from Washington State, or China? How does the food system differ in the farmer market example vs the potato chip?

Part 2

1. Break into small groups of 3-5. Within each group, each person should list what they had for breakfast.
2. Once each individual has listed their breakfast items, create a list for what the group had for breakfast. (You can eliminate duplicate items.)
3. Group members should now brainstorm what the ingredients of their breakfast items might be. Be as specific as possible.
4. Draw a sketch and label each ingredient on a 3 x 2.5 card. Tape to the back on end of a long piece of string.
5. After the ingredient cards are constructed, and research is done, each group should report where their breakfast items came from. Each presenter should tape the ingredient card to its place of origin, (For other countries, place the food card in the ocean and label accordingly). Leave the string on for now.
6. After all the ingredient cards are on the map, mark on the map with a sticker or a marker for your location. Collect all the loose ends of string and attach them to the marked location.
7. Group Thinking: Look back at the answers from the opening discussion about our food chain. What are the consequences of food traveling so far? What resources are consumed from farm to plate? (More packaging materials used and more fuel used in transport and refrigeration,) What happens to the nutrients in food as the time from harvest to eating increases? Given our thoughts, can we make a better choice about where we buy some of our food? If local food is not available, what are some ways that we can off-set the resources used? (Recycle and save energy.)
10. Display the map for others to see.

Trouble Shooting

- It may be wise to use a “cheat cards” with information about some common food items, such as ingredients and the origin of those ingredients.
- It may be helpful to do this activity over two sessions so youth can re-

search between times or to use a computer lab or library to look up information.

- Research where each ingredient originate? Where is wheat grown? Oranges? Milk? Where are they processed?
- Be creative with the map and how you attach the food cards. Finding the right sized map can be tricky, just remember you want it big enough (and zoomed in enough) to stick the ingredient food cards on the States. You can draw an outline of the US on large paper too—it does not have to be 100% accurate!

More Challenges:

- Deepen the discussion by exploring in greater detail the steps from farm to plate: cultivation, harvesting, cleaning, packaging, transport and refrigeration. Discuss what kind of power/energy is used in each step: solar, animal, human, machine? Does it use fossil fuels? Map your breakfast: How many states or countries would you have to visit to gather the ingredients of your breakfast today? List as many as you can. Can you estimate how many miles your food traveled?
- It's a great idea to attach this activity to a cooking demonstration. That way the youth can research the ingredients in the meal and then eat it! They can also research the items that they eat for breakfast.
- Research the actual miles for the ingredients. Report on how many miles you had for breakfast.
- Consider a field trip to a food processor near you or inviting a food processor to speak with the youth farm stand group. Ask where the food they process comes from.

Research how vegetables loose nutrient content over time, and consider the nutrition and health impacts of eating the freshest food possible.

Additional Resources: Visit the following website to learn more about food miles.
A Tale of Two Tomatoes: http://www.sectionz.info/ISSUE_3/
Website supported by Ecotrust a nonprofit organization based in the Pacific Northwest, with programs for native people, fisheries, forestry, food & farms, and citizenship.

Worksheet: How far did my food travel?

My Breakfast

What did you have for breakfast today? Can you determine where the ingredients of your breakfast came from?

Foods	Fresh / Processed	Ingredients	Source or Origin

Research:
Use the internet, encyclopedias, or other references to find the answer to the following questions about your breakfast ingredients.

Where in the world does this food come from?

_____

Is it grown or produced in the U.S.? If so, where?

_____

Is this food available locally? If no, is there a local food that might be a good substitute?

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What do you think some benefits might be of purchasing ingredients that are produced locally (from your community)?

My Community Food System SC

Objective: To understand a community food system and how direct marketing shortens the distance between farm and fork.

Skill Development: Critical thinking, making food choices based on values, being an aware consumer. SKILL CARD: FOOD: Food System (Skill 2)

Definitions:
Community Food System: A community food system includes the who, what, where, why, and how our food travels from farm to plate. It is also based on the relationships that link each step of the process. A community food system means food production, processing, distribution and consumption are localized to capture all the environmental, economic, social and nutritional health benefits of the food system in that place.

Activity: Acting out
Materials needed:
- Play money
- *Roles of the Food System* , Appendix C, 149.
- A potato, or other produce item
- 3x5 cards (optional)
- Optional: One copy of *My community food system* worksheet per participant

Set Up
Use the *Community Based Food System* "Circle of Connections", (Appendix D, p. 151), as well as the *Farm to Table: The Potato Story* (Appendix E, p. 153) information sheets from the last activity, "Where Did My Food Come From?", for Part 1. It could be helpful to write each role from the *Roles of the Food System* on a separate 3x5 card for each actor to look on. Have space to move around in the room.
For Part 2, use *My Community Food System* worksheet to guide discussion.

Steps:
Part 1
1. Begin as a whole group, and revisit the concept of the food system.

Using the “Potato Story,” from the *Farm to Table* information sheet , review the parts of the food system. Introduce the activity, which includes acting out the food system.

2. Each person can volunteer for roles. Those without scripted roles are community members—local consumers.
3. Define the area of the room where the community is based. (there should be enough room for community members).
4. Give everyone a few minutes to learn their roles, and set up their station in the room.
5. Action! Have two community members approach and spend a food dollar at each the retail points (direct market and grocery). As the food dollar moves back from the retailer through each system, each person should act their role out, and share how much of the food dollar they take. (you can repeat this more than once, to give other community members a chance to participate and to extend the fun of acting it out.)
6. As each actor takes their piece of the food dollar, each actor should “make change” and pass the remainder of the dollar along.
7. After the dollars are spent, have a discussion about what happened. Use a big paper to take notes for the group to see.
    - How much money did our community spend on food? (write the total down)
    - Of those actors INSIDE the community, how much money stayed in our community? (write this down)
    - Of those actors OUTSIDE the community, how much left our community? (write this down)
    - Who ended up with the most money? (write this down)
    - Who ended up with the least amount of money? (write this down)
    - What food system will our youth farm stand be like? Discuss.

Part 2

1. Give participants the “Circle of Connections” diagram on the *Community Based Food System* information sheet.. The inner ring represents the components of the food system. The outer ring represents the outcomes of a community food system.

2. Use the *My Community Food System* worksheet to brainstorm together as a whole group, or in small teams. There is a great role playing activity to help youth understand the food system on the second website.

Trouble Shooting:
Understanding the complexity of the food system can be challenging for anyone. Take it slow and go step by step. Take time to ask and answer each other's questions and think. This activity could be broken up over two sessions. Let the acting be fun, it does not need to be serious to get the point across.

More Challenges

- Take Action! A community food system is not just about the farmer. Community food systems increase access to fresh, local fruits and vegetables. It also impacts the social health of a community by building bridges and relationships. It includes the local grocery store, restaurants, and even bakeries. Think about some local food places in your neighborhood. How can you support them?
- For a full script and a more advanced role playing Community Food System experience, check out this website:

Community Food Security 101: What's in the Food System Got to Do with it? Web site supported by the Community Food Security Coalition, a non-profit that works to build community food security.

http://www.foodsecurity.org/CFS101.pdf

Additional Resources: Visit the following websites to learn about community food systems.

A Primer on Community Food Systems: Linking Food, Nutrition and Agriculture. http://foodsys.cce.cornell.edu/primer.html Web site supported by Cornell University.

Community Food Security 101: http://www.foodsecurity.org/CFS101.pdf (Great role playing game!)

Web site supported by The Association of Arizona Food Banks and Community Food Bank of Tucson.

Worksheet: My community food system

The circle of connections

Community food systems are based on relationships. What are some relationships you have/will develop through the youth farm stand? Check out the "Circle of Connections" diagram given to you. The inner ring represents components of the food system. The outer ring shows outcomes of a community food system.

1. With which components of the food system is the youth farm involved (inner circle)?

_____

_____

_____

2. What community impacts might your youth farm stand make (outer circle)? Why do you think so?

_____

_____

_____

_____

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Think of a problem in your community. Are problem issues somehow connected to the quality or availability of food? How might developing a community food system help this problem?

Waste Not SC

Objective: Consider the costs and impacts of food choices, particularly the food waste we generate: Compost, recyclable material, and land fill waste. This is an activity that can continue throughout the year. .

Skill Development: Critical thinking, understanding food waste issues. SKILL CARD: FOOD: Impacts of Food Choices (Skill 1)

Definitions:
Compost is a mixture of various decaying organic substances, such as dead leaves or vegetation waste, used for fertilizing soils. To make compost means to use waste organic substances in a process to create fertilizer.

Recycle means to treat or process used material or waste to make suitable for reuse: to undergo reuse or renewal; be subject to or suitable for further use, or activity.

Land fill waste consists of used materials that cannot be recycled or composted and must be stored in landfills. Often these materials are not biodegradable, and take up space in landfills for hundreds or thousands of years.

Biodegradable materials are capable of decaying by action of living organism. Biodegradable materials will naturally "break down".

Activity: Waste Not
Materials Needed:
- 3 large clear containers or bags
- Food for snack
- Big Paper
- Markers
- Scale (optional)
- Optional: One copy of *Waste Not* worksheet per participant

Set up: Before snack or lunch time, set up 3 bins labeled "compost" "Recycle" and "Land Fill Trash". You may want to weight them empty, so later you can determine the weight of their contents when full. Create a chart on the large paper to fill in the weights. Leave room in your chart so

that you can track your waste over time.

Steps:

1. Before or during snack, discuss the definitions from above—what is a recyclable item in our snack? What is compost-able? What will have to be sent to the landfill with trash?
2. After snack/lunch, everyone must sort their waste accordingly into the three bins.
3. Next, weigh each container, and have a volunteer log the weight for each category: Compost, recyclable, and landfill trash.
4. Compare the total of compost and recycling vs. landfill trash.
5. Group Discussion: What's our balance? Do we put more in the landfill than we recycle and compost?
6. Use *Waste Not* worksheet to determine what recycling or compost programs exist at the school. If they don't exist, who would we need to talk to and how would we start one?

More challenges:

- Determine the percent of the total lunch waste that is recyclable, compost-able and landfill. Set a target goal to reduce the landfill waste from your snacks and meals by 10%. Measure waste each time you snack together, and work to meet that goal. Once you meet that goal, set a new one to strive for.
- Research vermiculture, or work composting. Could your group start a worm bin for your compost-able waste?

Trouble Shooting (what to do when things don't go exactly right)
If people are bothered by the look/smell of the combined wasted food than set outside until done with the discussion.

Worksheet: Waste Not

Our Trash
In the table below, track the weight of the three kinds of waste:

Date	Compost	Recycle	Landfill

What's the program?
What is my school's recycling program? Explain what items you can re-cycle at school. Where are the receptacles for these items?

_____

_____

_____

_____

What's the Policy?
Is there a place on school grounds where organic waste material can be composted? What would you need to do to start one at your school?

_____

_____

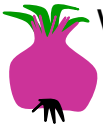
_____

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Why would it be important to choose foods that require less packaging? Is this important to you when you choose snacks?

Know your Veggies SC



We like to say that through youth farm stands youth become ambassadors of healthy food. What does this mean? An ambassador is someone who serves as a messenger or representative. In youth farm stands, youth are the representatives of the local food system and messengers to the community of the health benefits of eating nutritious fresh fruits and vegetables. Here is where you put what you have learned so far about healthy locally-grown food into action! In this activity, you will check on your own knowledge of fruits and veggies, and then practice how to talk to others about why and how to eat healthy local food.

Objective: Become in touch with the knowledge you have about eating fresh, healthy and local. Be able to share that knowledge with others.

Skill Development: Social skills, and sharing ideas. SKILL CARD: FOOD: Eating (Skills 1 & 2)

Activity: Veggie Games!

Materials Needed:

- Large papers and/or black board/white board
- Markers and/or chalk
- *Get Fresh Too Cookbook* (available through MSU Extension bulletin office, 517-353 6740 or www.msue.msu.edu)
- Small prize items or an incentive-(make it nutritious!)
- Clock or timer
- Advanced preparation of questions

Part 1: Veggie Brainstorm

Set Up: Break into groups of 4-6. Each group needs markers, a big sheet of paper, and a team name. Give each group enough space to gather around their paper. This activity needs a leader. The adult can be the leader—OR any other participant can volunteer to be the leader, and the adult can be the referee.

Steps: Part 1

- Explain that this is a friendly competition! Referee should review the group ground rules.
- Referee can explain the activity:
    - The timer will be set for 3 minutes.

- The leader will call out a fruit or vegetable. Each team must write down as many things as they know about this fruit or veggie: How it tastes, how it grows, how you can eat it or prepare it. How to store it, its origins, its nutrients, why it is important to eat (nutrition benefits)—anything they know!
- Leader will select a produce item from the *Get Fresh Too Cookbook* booklet (or whatever resource they are using) and call it out- wait for referee to have the timer ready. Time starts the *moment* the leader gives the produce item to the teams.
- When time is up, markers go down! Each team can read off and count how many ideas they had. Referee and leader will keep a count. Referee and leader can also judge if an idea does not count because it is inaccurate (using the *Get Fresh Too Cookbook*) or redundant (already stated in another idea they list).
- The winning team will have the most valid ideas generated.
- Repeat as often as you desire.

Part 2: Veggie Races

Set up: You will need SPACE for this activity. Break into 2 teams (you can do more if there are a lot of participants). For each team, you will need to clear a space on the black board/white board or hang a large paper on the wall for each as an answer board. Clear space in front of the wall so participants have room to "race". Each team line up, leaving enough space to run up to the answer board. (approx 10—20 feet). You again need a leader and a referee.

Steps:

- Using the *Get Fresh Too Cookbook* book as a guide, leader and referee must secretly make up questions to ask. Example: How do you tell if a carrot is fresh? Or: Name one dish that is made with tomatoes. Be creative!
- The first person in line gets ready to run with a marker or chalk in hand.
- The leader will ask the question out loud. NO Talking—until the referee says "GO" and each runner must get to the board an write their answer.
- The first one with their writing utensil down wins -IF their answer is correct. If the first person's response is incorrect, and the second person's answer is correct their team will steal the point. If both are wrong, the next two people in line get on the running mark and when the referee

gives the signal—have another race for the answer.

More ideas:
Relay race: Have multiple answer questions, like “Name three foods that contain squash” and have the next three in line “relay race” - give one idea per racer. The same applies for determining the race winner.

Vegetable Talk: Each team can write a sales pitch for their veggie—as if they are trying to make a sale to a farm stand customer. Example: “Squash is really delicious. It is a great carbohydrate for energy, and has lots of fiber and antioxidants. You can use it lots of ways: in soup, baked, roasted...you can even bake with it! Did you know pumpkin is a squash? Pumpkin muffins are my favorite!”

Trouble Shooting: Racing and competition can get a group pretty riled up. It is important to establish ground rules, and make sure everyone is playing in good spirit. If running creates too much chaos, you can eliminate the running part and just have participants from teams take turns starting at the board. To cool down frustration over contested answers, the referee (the adult) gets the final word. Consider a way that everyone can win the incentive to eliminate arguments over prizes.

Section Two

Growing in the Garden

Growing in the Garden

It takes work, patience, and some know-how to have a productive garden. It can be a very rewarding experience to see the seeds, water, and care result in a bounty of produce by summer's end. This section does not include all the information on gardening, but it will help you get through the steps. It would be good asking someone like an experienced gardener or Master Gardener from your extension office to pull on other resources, such as books or online tools, or even an experienced gardener in the community.

This section provides a variety of activities that will help your group create a garden plan, and maintain that garden using organic practices.

Why organic? There are many reasons:

Safety: In urban environments there is less space and more people than in the country-side. By reducing the use of dangerous pesticides the risk to the gardeners, neighbors and pets is greatly reduced. So when youth sample some of their produce right from the plant the heath hazard is greatly reduced on fruit or vegetables that are raised organically.

Cost: Organic methods can be less expensive when a "whole system" approach is used. In a garden it's feasible to hand pick off bugs and practice companion planting to deter bugs. Successful organic farming relies on knowing how the plant grows and thrives and how the insects and diseases harm the plants. This is a great way to offer hands on science for the youth while controlling the pests.

Example: The garden is a metaphor for our-bodies: When we

put bad chemicals in our bodies, we reduce our body's ability to thrive and keep us healthy. The same is true for plants. By providing good nutrients to our plants with healthy soil, our plants become stronger, healthier, and more resistant to disease and attacks by pests. Using organic gardening methods reinforces the concepts discussed in the *Its All About Food* section regarding the importance of eating healthy, fresh, nutrient—filled food.

In addition to the activities in this section:

- *Experiment with variety*: As you will notice in your seed catalogs, there is no such thing as "just a tomato"! Each variety offers something different: Some are better for healthy soils, some have a different color, some store better and longer after harvest, some have a different taste or texture. Try a few varieties of each crop you grow, and keep a record of how well they produced and tasted, as well as customer popularity. Next season, you will know your "best" variety!
- *Get to know local farmers and growers*: Farmers are often very happy to meet young people who have an interest in agriculture. Visit their farm, or shadow them through a harvest and market day. They have lots of experience to share, and can be great mentors to young apprentices.
- *Consider raised beds*: Depending on your location and soil quality, you may need to garden above ground in raised beds. They can be expensive to build, but they may be worth it for some of the following reasons:
    - They make it easier to create walking space between beds.
    - They are easier to reach for the elderly, people with issues of mobility, or those gardening in wheelchairs.
    - If you have a sea of asphalt instead of green, raised beds can be built over concrete and asphalt, expanding your green space.
    - If soil contamination in the ground is a concern, raised

beds are critical. If soil is very poor (clay, rocky, or sandy) you can bring in good soil and compost.

There are a variety of on-line resources and books available at your local library that can provide technical information on raised bed construction.

Good Ground SC

Objective: Identify components that make a good garden site and perform a garden site intake.

Skill Development: Assessment skills, making group decisions. SKILL CARD: GROWING: Establishment (Skill 1)

Definitions:
An *assessment* is a process by which a judgment is arrived at regarding the worth, quantity or quality of something.

A *scale map* is proportional but fits on a working surface. It allows you to see how things fit within the area or garden. (Example: A map with a 1 ft=1 centimeter scale, a building 40 feet wide would appear 40 centimeters wide on the map. (You can see a example of a scale garden map in Appendix H, p. 159 in the appendix)

Observation means to make note of an action or object of which you observe, notice, or see.

Activity: Garden Site Assessment
Materials:
- Graph pape***r***
- Pencils
- Measuring tape (25 ft is good)
- Plastic sandwich bags
- Trowel
- Clipboards (optional)
- BIG paper
- Markers
- Optional: Sticky dots
- Optional: One copy *Good Ground* worksheet per participant

Set Up: Use the *Good Ground* worksheet. Prepare participants to go outdoors for the assessment. Break group into teams of 2–4. This activity can work two ways: Each team can assess a single site at once, OR if there are multiple site possibilities, teams go to different sites to do their assessments.

Part 1

1. Prior to heading out, discuss each of the observation components listed on the Activity: Good Ground worksheet. Talk about what ideal conditions for each observation point might be.
2. Explain how to use graph paper to make a scale map. Each box can equal one unit of measure. (1 box=1 foot or 1 box = 5ft). By using the graph paper, you can make a fairly accurate scale map of the garden site.

Part 2

1. Distribute assessment materials to each team, and get dressed to go outside.
2. Set a time limit and a meet up place, particularly if splitting up to assess multiple locations.
3. Encourage each other to stay on task, and complete a site map and assessment of the potential site(s).

Part 3

1. After each team has made their assessment, reconvene as a large group. Hang a piece of paper up to make notes on. If you have multiple sites, hang a BIG paper for each of the sites and label them. List each category from the *Good Ground* Worksheet, leaving space to make notes.
2. Moving site by site, category by category, have teams share their observations, and note them on the papers.
3. Pros and Cons: What are the challenge of each site? Can you deal with them? What are the positive aspects of each? Do they outweigh any of the negatives? Indicate this with a "+" or a "-" on the BIG paper next to the observation.
4. Vote:
    - Single site assessment: Have group vote on whether the site is suitable.
    - Multi-site assessments: Vote on which site is the best suited for the garden. (You can have show of hands or use sticky dots).
5. Start problem solving on handling any challenges and planning the garden in the next activity, *Planning the Garden*!

***About Soil Testing:** A soil test can help you determine the quality of your soil, and give guidance as to how to improve the soil before planting. Your county MSU Extension will assist you with this process. Call 1-888-678-3464 to reach your county office.

Worksheet: Good Ground

Use this worksheet to assess your potential garden site. Look for features that will make a healthy garden site. On a separate sheet of graphing paper, create a map of the garden and include your observations on it.

OBSERVATIONS TO INCLUDE ON GARDEN MAP

SPACE:	Is there enough space for the quantity you intend to grow? MEASURE IT and note its dimensions.
SUN:	What is the exposure like? Are there objects near that can cause shadows or block light?
LOCATION:	What surrounds the garden space? Is the location heavily trafficked (people walking through)?
PROPERTY:	Is it on land you have permission to use? Do you need to acquire permission?
WATER:	Where are the water access points?
SOIL:	What is the soil like? Using a trowel, collect a few samples in a plastic baggie to have it tested.*
TERRAIN:	Is the ground level or sloped? Is it covered in grass or full of rocks?
SECURITY:	Is this in a location that can be supervised to avoid vandalism and protected from rabbits and other pests?
CHALLENGES	What do you notice that is a draw back to this site?
BENEFITS	What do you notice that makes this site appealing?
OTHER THINGS	Anything else you observe that could be important?

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Do you think a garden should be in a visible (easy to see) location, or should it be in a hidden place? Why?

Garden Space

Objective: Plot out the garden and determine the amount of space available for planting. This builds upon the initial garden assessment in the *Good Ground* activity.

Skill Development: Math, team work and strategizing.

Definitions:
Area is the total space within the edges (parameters) of a measured place. If the garden is a rectangle or a square, the area can be calculated by multiplying the length and width (A=lw). Example: a garden with a 20 foot width, and a 30 foot length has an area of 20x30=600 square feet. (600 1ft x 1 ft spaces within it.)

Garden *paths* are the area within a garden where gardeners can walk to reach all the plants in the garden beds. Paths can be mulched or marked out in a way that weed growth is inhibited, and garden visitors can clearly see where they are allowed to walk without damaging the plants.

Garden *beds* are the actual spaces within a garden area designated for plants to grow***.*** The garden bed soil will be prepared for planting (more on this in later activities). <u>It is important not to walk on or trample garden beds</u> because it compacts (squishes and makes hard) the soil, making it difficult for plants to root and thrive. The standard measure of a garden bed is 4ft wide with 2 ft paths between;. The logic to the dimensions of a garden bed is that a person should be able to navigate the paths and be able to reach the center of a garden bed from either side without stepping on the garden bed's soil and squashing plants. You will need to be able to reach into the garden beds frequently in order to weed and harvest ! Small children or those with physical limitations may need narrower beds and wider paths to access the garden beds.

Activity: Seeing the season
Materials:
- Tape measure
- One sheet of graph paper per participant
- Garden stakes
- Pencils

- String
- Rubber mallet or hammer (a nice sized rock works too)
- Clipboards (optional)

Set Up: Prepare everyone to head outdoors. To see an example of a scale map, see *Seeing the Season Crop Plan* in the Appendix I, p. 161.

Steps:

Part 1: Details of the Garden

1. Demonstrate to the group how to measure the garden area with a tape measure. Measure and write down the length and width of the area for the gardening, so the area can be calculated.
2. Draw the garden area using graphing paper and a scale, such as 1 box = 1 foot. Also note the water access points and other important information on your map. Measure their location from the garden and illustrate them on your map, (You may already have this from the *Good Ground* activity).
3. Stake out the area of the garden space by driving a stake into the ground at the corners and at the edges (spaced out). Wind the string around each stake and stretch it between them, so you have a visible outline of the future garden.
4. Next the garden beds will need to be measured and laid out. On your map, draw the bed placements. Tip: make sure you leave a path space at the edges of the garden to get around!
5. Using the 4 ft wide by 2ft wide standard, or your own adapted standard, begin marking out the beds with stakes and string. Sketch a map of the garden beds using graph paper. Remember to set a scale (Example: 1 box = 1 foot).
6. Once the accurate garden map is complete, and calculations of gardening area are done, you will need this map to plan your growing season of crops in the *Seeing the Season* activity.

Worksheet: Garden Space

1. Using a tape measure, measure the dimensions (length, width, etc) of your garden.

What is the garden length? _____ feet

What is the garden width? _____ feet

Length _____ft X Width _____ft = Area _____sq. ft

2. Measure the garden beds and paths. But first, test it out!

Beds are typically 4 ft wide. The gardeners need to be able to reach at least to the center of the bed to harvest and weed without squashing the soil or the plants.

- Measure 4 ft out with the tape measure and mark the 2 ft line.
- Standing at the edge of the tape, can everyone reach the 2ft mark
- easily?

Paths are typically 2ft wide. You need to be able to walk and pass by someone without stepping on the garden bed soil or plants. Also consider if wheel barrows or wagons will be used to bring in materials or for harvesting.

- Measure 2 ft out with the tape measure. Using string or tape, mark a short corridor that is 2 ft wide.
- Can one person move through this space easily without stepping on the beds or plants? Can two people carefully pass by each other without stepping out of the path?

Measure and determine the area of each bed, then add the areas of all the beds. :

Length of the bed _____ X Width of the Bed_____= Area of bed

Are beds the same size?

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

For a gardener with limited mobility, who is in a wheel chair, or is blind, what would be some adaptations to make to a garden design to enable them to garden themselves?

Getting to Know Seeds SC

Objective: Learn necessary information to make decisions about vegetables to plant in the garden.

Skill Development: Researching to collect information, SKILL CARD: GROWING: Garden Establishment (Skill 4)

Definitions:
Direct Seeding: Plants are started directly in the garden by seed. This is usually recommended for crops that do not transplant well or small crops that can grow close together and are easy to thin. Thinning is done after a crop is directly seeded in order to provide more growing space.

Transplanting: Plants are seeded in flats or small containers such as milk cartons in a greenhouse or in well-lighted warm areas, and can then be transplanted into a garden when they have 2-6 leaves on them. This is often done for longer season crops so they can get a head start (to start them early indoors).

Days to maturity: Number of days projected from planting the seed until harvest. Important information for planting consecutive times of the same crop.

Frost Dates: Important to know for your area. This can be found in a climate zone map. There are two frost dates, one in the spring (marking when it would be safe to put plants outside) and the fall (marking the date when frost is likely to occur). Make sure your planting schedule has plants reaching maturity before the fall frost date. If there is frost predicted you can protect plants using row covers or even sheets at night. Remove in the morning

Activity: Veggie ID Cards
Materials Needed:
- Seed catalog—contact Johnny Seeds and they will send a free catalog (www.johnnyseeds.com or 1-877-564-6697, toll free), or other catalogs will work too
- 3x5 cards
- Copies of *Getting to Know Seeds* worksheet, one copy per team.

- Pens and pencils

Set Up: You will need catalogs for researching veggie varieties and types. The *Getting to Know Seeds* worksheet can be used to make sure that the key info on each plant is collected. This info can be written onto 3x5 cards for the *Seeing the Season* activity.

Steps

Part 1

1. Group Discussion: Before the research can start, it is good to know what you are looking for! As a group, brainstorm a list of vegetables the group would like to see grown this year. Consider both personal interest, and also think about what customers might like to purchase. (Check out *What's my Product?*, pg 93). Generate a list.
2. Next, delegate each of the listed vegetables to a person or team to research and create a profile (Veggie ID card).

Part 2

1. Hand out seed catalogs. They contain the information to find varieties of vegetables to plant, and information on how to grow the crop.
2. Each person must consider their garden, climate, soil quality, light exposure, etc, to identify a good variety of veggies to grow.
3. Use *Getting to Know Seeds* worksheet to collect the necessary information.
4. Neatly re-write veggie information with the name and picture on a 3x5 card, creating Veggie ID cards.
5. When everyone has had a chance to finish, each group must present their vegetable, variety and the Vegetable ID card to the rest of the group. Each group should tell why the specific variety chosen is ideal for the youth farm stand garden.
6. Save Veggie ID cards for the next activity, *Seeing the Season*.

Trouble Shooting

- If there is trouble finding information, review together the general areas within the catalog where information can be found.
- For some people, staying focused on this task might be a challenge. Working with a partner or group might be helpful. If not, you might consider delegating a small "research team" of volunteers to do the research and create the ID cards for the whole group.

* Adapted from "Getting to know a seed catalog", *French Fries and the Food System*, by Sara Coblyn.

Worksheet: Getting to Know Seeds

Veggie ID Cards:

Plant/variety name:

Best time to plant:

Approx. # of days until harvest:

How to plant (depth, spacing of plants and rows):
By Transplant:

By Direct Seeding:

Special Care and important notes: (staking, tying, pruning, disease or insect issues, best soils?)

Harvesting Method (when and how):

* adapted from *French Fries and the Food System*, by Sara Coblyn.

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Were you aware so many varieties of your favorite fruit or vegetable existed? Why do you think only a few varieties are commonly found at groceries and restaurants?

Seeing the Season SC

Objective: Using information from the seed catalogs to make a visual plan of season's crops and planting schedule.

Skill Development: Group decision making , planning ahead, and strategizing. SKILL CARD: GROWING: Garden Establishment (Skill 3)

Definitions:
Successions: Planting several successions of a crop ensures a continuous supply of that vegetable. Good for shorter growing, single harvest crops, like cauliflower, lettuce or cabbage.

Activity:
Materials Needed:
- BIG Paper
- Markers
- Veggie ID Cards (3x5 cards created in the *Seeds for the Season* activity)
- Scale garden maps from *Garden Space* activity.
- Farmer's Almanac or online weather web site
- Optional: One copy *Seeing the Season* worksheet per participant

Set Up: This activity builds on the previous activities. You will need the Veggie ID cards from *Getting to Know Seeds*, and the scale map of the garden to provide the information needed to design the garden planting schedule. You will need two BIG sheets of paper. Hang one on the wall to start. The other big paper, will be used by the group to visually draw out the growing season, from March to October. (See *Scale Garden Map* (Appendix H, p.159) and *Seeing the Season Crop Plan* (Appendix I, p. 161) You may want to divide a large group into teams or pairs and delegate tasks.

Steps:

1. To start, use the BIG paper that was hung on the wall and document the crops that participants are interested in planting in the garden (this may be a re-cap if your group has already decided). Refer to this list in the "Getting to Know a Seed Catalog" activity.
2. Next, have one team draw the timeline for the season. Along the left

edge, leave space to list the crops to be planted. Use a Farmer's Almanac or Weatherchannel.com to figure out the frost dates of this year's season: when the last frost of the spring and fall is likely, and note them on the timeline.

3. Meanwhile, other teams need to use the Veggie ID cards and the scale garden map to determine the crop plan. Use the map to determine how much space can be allowed for each crop (this process may require a lot of teamwork and guidence).
    - Timing: Some crops are early season crops (like beans and cabbage) and others are late season (melon, squash). Some plants mature quickly, some take a long time. You can often have a succession of plantings—where you can use the same space to plant an early crop, and after it is done, plant a late season crop. The crop plan should take that into account.
    - Space: Some plants need a lot of space to sprawl out (melons), others are single harvest crops, and you need to plant a lot of the crop (cabbage). Some plants are able to be continually harvested, where a plant will produce for several harvests (tomatoes, beans, peppers). You may not need as much space for these plants.
    - These teams should use the scale map of the garden to draw the crop planting plan. They need to use the Veggie ID cards for this information, and to establish a schedule for plantings.
4. When the timeline is set up, Tape the Veggie ID Card on the timeline to show when it should be planted, and with markers, draw the duration of growing time until harvest.
5. Look at the map and discuss what will be happening over the weeks and how long will it take until vegetables are ready to harvest? When will there be a harvest for the first market?
6. Shift planting dates if necessary and adjust the harvest date. Use this map as a timeline for your garden and refer to it through he season.

More Challenges:

- Fill out your seed order, and send it off!

That's What I Call Compost!

Compost adds a lot of nutrients to your soil and keeps plants healthy. When a plant is healthy it has a greater chance of fighting off diseases and pests. As organic farmers say, "healthy soils = healthy plants = healthy people!"

Objective: Gain understanding of how farmers and gardeners recycle so-called "wastes" into fertilizer for plants. Eventually you will end up with some humus to put in the garden.

Skill Development: To understand how wastes are recycled into energy/ nutrients within a natural system. Use natural materials to fertilize the garden sp the plants/crops grown well.

Definitions:
Fertilizer: Anything that replaces nutrients used by plants to grow. Fertilizers are made from natural processes using organic matter or by chemical processes using petroleum.

Manure: Animal poop (cow, pig, chicken, rabbit, horse, goat) that is used to fertilize soil so that crops will grow well with it. Dog and cat poop is never used as manure.

Humus (a.k.a high quality compost): Dark black, soil-like material that is the product of fully decomposed natural materials such as food scraps and yard wastes. It is rich in nutrients and soil microorganisms and is an ideal fertilizer for the garden.

Activity: Building compost
Materials Needed: (all may differ with activity options chosen)
- Materials to compost (vegetable scraps, coffee grounds, egg shells..)
- 5 gallon bucket or similar container
- Thermometers
- Magnifying Glasses
- BIG paper
- Markers

Set up: This activity links well with the *Waste Not* activity from the *Its All*

About Food section. Explain that in the garden we also have an opportunity to recycle something that is often considered waste. Ask for ideas about what wastes might be recycled and write on Big paper. Some possibilities include Food Scraps: vegetable trimmings, egg shells, coffee grounds. Yard wastes: leaves, grass clippings, branches (avoid clippings from heavily sprayed or fertilized lawns and landscape services), and even newspaper can all be recycled into humus through composting.

For an activity to compliment this discussion you can choose from the following below:

If you have a compost pile you can take this opportunity to talk about the decomposition process. Taking the temperature of the pile with thermometers is a good way for the youth to collect evidence that decomposition is happening. Also youth can examine a sample of the compost pile with magnifying glasses to find the critters that are tearing the compost material into smaller and smaller pieces.

If you don't have a compost pile, take this opportunity to start one! (see *Let it Rot!*) If you do not have the space for a compost pile, or if there are concerns regarding outdoor compost, consider vermiculture. This is a form of composting that utilizes red worms with big appetites for compost-able material. Vermiculture can be done is small space and can even be kept inside. One place you can find direction for vermiculture composting is at (http://www.cityfarmer.org/wormcomp61.html).

If both of these activities sound like too big of an investment, then you also can create "compost cakes" (see *Digging Deeper*). This option is small and portable. In 5 gallon buckets, drill drainage holes on the bottom and start layering your compostable material (leaves, grass clippings, straw and soil) like a layered cake. Start with a layer of leaves and then layer brown and green materials, with a layer of soil after. Slightly dampen the layers in the bucket. Do not soak. Then wait two weeks and examine what has happened to the cake.

Expected Results

Youth should have a basic understanding of how farmers and gardeners recycle wastes into fertilizer for plants. Eventually, you will end up with some humus to put in the garden.

Trouble Shooting (what to do when things don't go exactly right)
If the food scraps and yard wastes are not decomposing rapidly enough for the youth's liking or the pile has a foul odor, you can show them a video on You Tube of fruit decomposing to reassure them that the process is taking place. You could also discuss the ideal conditions (temperature, moisture, pile content) and discuss if these are being met. What could you change to make decomposition happen faster?

Questions for Debriefing:

What was this whole process, taking organic materials and turning them into humus, called? (decomposition/composting) What/who was responsible for this transformation?

Think and discuss the implication of using synthetic fertilizers. What happens to all the waste materials if they are not recycled

Additional Resources

Appelhof, Mary. Worms Eat My Garbage. Kalamazoo MI: Flower Press, 1997.

Kiefer, Joseph, and Martin Kemple. Digging Deeper : Integrating Youth Gardens into Schools and Communities. Ed. Melanie Manaugh. Indianapolis: Food Works, 1998.

Campbell, Stu. Let It Rot! : The Gardener's Guide to Composting. Grand Rapids: Storey, LLC, 2003.

Worksheet: That's what I call Compost!

The recipe for compost is BROWN + GREEN + WATER +AIR.

What are some GREEN materials you could add to compost?

_____

_____

What are some BROWN materials?

_____

_____

How much moisture (WATER) is needed?

_____

_____

How does AIR help the composting process?

_____

_____

BONUS: Can a compost pile be too BIG or too SMALL?

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Composting can be a lot of work. Is it worth it to you to create your own compost or is it better to purchase it ready made from another person? What do you think?.

Building the Soil SC

When gardening, taking the time to prepare the soil is an important investment. Healthy and well prepared soil helps plants better access and maximize the benefits of nutrients. Draw upon local experts or experienced gardeners or farmers to help you. You can contact your county MSU Extension office to find Master Gardeners or other people resources that can help. Call 1-888-678-3464 to reach your county office.

Objective: Learn how to prepare the soil and garden beds for planting.

Skill Development: Basic chemistry concepts, soil science, and garden bed preparation. SKILL CARD: GROWING: Garden Establishment (Skill 2)

Definitions:
Organic matter is the animal and plant materials that break down into a nutrient rich humus over time.

Soil Nutrients are the chemicals and microorganisms that exist in soil and, in the right balance, give plants what they need to grow and thrive. Some critical chemical nutrients are:

Building Soil: You can add compost and nutrients in the first year to help feed the plants but you need to make a plan how to build the soil over the long term. Building soil is a long process, but by planning to do a little each year, you can develop healthy rich soil. The soil test will help to identify the nutrients that are lacking. You will never change the soil texture but you can build the soil so that it better responds to changes such as a new crop or a heavy rain. Building soil means not just adding nutrients but also compost and cover crops (see *Putting the Garden to Bed*, Appendix N, p. 171) that add organic matter every season. Organic matter will improve the soil tilth - the ability to hold moisture for times of drought and drain well during heavy rain-fall.

Nitrogen (N): Needed for develop healthy leaves and stems.

Phosphorus (P): Needed for healthy root systems, growth and flowering.

Potassium (K): Builds strong plant tissue, develops chlorophyll in cells, and resists disease.

Aeration means the level of air flow in the soil air flow allows nutrients and microbes to get the oxygen they need to do their job breaking down organic matter and releasing nutrients to plants.

Soil Tilth: If you take a trowel of soil and carefully look at it you will see little clumps of soil or "crumbs". Adding organic matter such as compost and good soil management will create good soil tilth. A plants grown in soil with good tilth will easily access the nutrients and water it needs to grow and be productive.

Soil Structure is the consistency and make up of the soil. This is affected by nutrient balance, presence of organic matter, microbial activity, compaction and moisture level. Well balanced in nutrients and microbial activity, to grow and thrive.

pH balance is the level of acid or alkaline (base) of the soil. Your soil test will tell you the pH balance of your soil. Typically, the optimal pH for plants is neutral or between 6.5-7.0. If the soil is too acid (lower than 5.5) you can raise it by adding lime. If the pH is too high or basic (greater than 7.5) then you many need to add sulfur or gypsum. An optimum pH allows the microbe organisms to work most effectively.

Activity: Preparing the garden space
Materials:

- Soil test results
- Soil additives, as needed, such as manure, compost, or fertilizing material
- Broad fork, pitch fork, or spade
- 3 prong cultivator or roto–tiller
- Metal garden rake

Set Up: You should have your soil tested prior to this activity. (Your county MSU Extension can help: Call 1-888-678-3464 to reach your county office.) You will need your soil test report in order to properly prepare the soil for your vegetable plantings. For tools, you may only need one of each for a small group, and work in an assembly line. For a large

group and/or a large space, it would be ideal to have several three person teams using the appropriate tools to prepare garden beds.

Steps:

Set a date for garden prep day:

1. You may need to prepare your garden soil 2–4 weeks in advance of the actual first planting time. Turning in sod or cover crops will need some time to break down and to obtain nutrient balance. Consider also that it may take a little time to track down the materials you need to balance and prepare your soil.

Nutrient and PH Balance

1. If your soil is off balance, consider : What does the garden need to become balanced, and what materials do we need to build a balanced nutrient -rich soil?
2. Create a plan about how to manage the soil over the long-term to bring it to optimal production and health. Research to determine what materials are needed to build soil, or consult a local gardening expert. Search your community to find out where you can access those materials for garden preparation day**.**
3. Local farmers may have manure, or compost. Make some phone calls, and reach out to get the materials you need from your community. Be prepared to talk to them about who you are and about your youth farm stand project.

Soil aeration and composition:

1. When you are ready to prepare your soil for the season, you need to properly mix nutrient additions and compost based on the results of the soil test. This requires three important steps. (see Common Garden Tools in Appendix K, p. 165 for illustrations of tools and techniques). Be aware that soil should not be too wet or too dry, or the soil composition can be wrecked and leave large hard clumps of soil. If soil is dry—use a sprinkler to gently add water. (Place a bucket in the area of the sprinkler and water until the bucket has collected 2-3 inches of water.) If too soil becomes too saturated, let the water drain out. Soil should easily clump when squeezed and break up when jostled in your hand—like brown sugar.
2. **Loosen up compacted soil.** Using a broad fork, a sturdy pitch fork, or a spade, deeply plunge and loosen the soil about two feet deep.
3. **Break up and mix nutrients in the soil.** Remove rocks and litter. Spread additives (compost or fertilizer) over the area of the garden

beds. Use a cultivator, or for large areas a roto-tiller, to break up large clumps of soil into an even texture. Soil should be lose, even in texture, and well aerated.

4. **Smooth and level the soil.** Using a metal rake, level out the garden bed end to end, side to side. Slopes and indentations will create uneven water flow and collection, making pools of water. You want water to flow evenly across the bed, allowing even distribution of moisture, and avoid “flooding” parts of the garden. This promotes even growth and production of your plants.
5. Now your beds are prepared for planting! *****

*Depending on the balance and pH of your soil, you may need to allow the bed to rest a few weeks so that nutrients are well released and balanced. You should water the beds during this time to start maintain good soil moisture for when planting time comes. You might need to re-work the soil a bit just prior to your first planting, to get a nice loose texture again.

Worksheet: Building the Soil

Soil needs to be in top condition and well prepared to make plants grow and seeds sprout. Look at your soil test results, and see if your soil is ready, or needs a little more work!

Soil component:	**Soil test results:**	**Ideal:**
Nitrogen (N)		
Phosphorous (P)		
Potassium (K)		
pH+		
Magnesium (Mg)		
Calcium (Ca)		
Sulfur (S)		
Other:		

What nutrients need help?

_____

Is the pH balance in the proper range? _____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Without soil that is rich in nutrients and minerals, plants cannot grow healthy and strong, and become susceptible to disease. What are some ways building healthy soil for a garden like maintaining a healthy diet for a human?

Plant Needs SC

Whew! You've worked hard preparing the soil and getting through your first planting! But the work doesn't end here! Plants have needs throughout their life span.

Objective: To learn the needs of plants in the garden.

Skill Development: Preparing ahead, identifying problems and determining solutions. SKILL CARD: GROWING: Maintenance (Skill 1)

Activity:

Materials:

- Garden books. Seed catalogs, online resources.
- BIG paper
- Markers
- Veggie ID cards
- Optional: One copy *Plant Needs* worksheet for each participant

Set Up: Use the *Plant Needs* worksheet and Veggie ID Cards from the *Getting to Know Seeds* activity. Break into teams of three or four. Use garden books, seed catalogs, or online tools to identify needs listed, and determine what the best way to meet the plant need is. This will be important information for the *Garden Maintenance Plan* activity. Each group needs a BIG paper, labeled "Plant Needs".

Steps:

1. Using the *Plant Needs* worksheet delegate each team to find information about some vegetables that will be part of the garden. Use one worksheet to collect the information.
2. Use the Veggie ID cards, gardening books, and seed catalogs to find information.
3. After each group has had time to research their plant need, each team should present back to the whole group what they found. Note the needs of each plant on BIG paper so everyone can see.

Troubleshooting:

Trouble finding the information? If websites don't work, consider **who in** the community might know the answer or to be able to share about how they meet their plant needs for their garden or farm.

Worksheet: Plant Needs

Use the chart below to find out what your specific plant's needs are. Different plants may have different light, moisture, nutrient, and temperature needs.

VEGETABLE VARIETY:_____

Need:	My Veggie needs:	How to meet the need:
Moisture		
Temperature		
Nutrients		
Light		
Support (staking or trellis)		
Harvest		
Other Needs:		

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Make a needs sheet for yourself. What do you need to grow healthy and strong?

Problem Solving SC

It has been said that 99% of farming is being a good problem solver — using creative ingenuity to deal with the many variables of food production: weather, soil health, harmful bugs, and disease. So remember, in gardening you need creativity, determination, and problem solving skills.

Objective: To learn to identify signs, or symptoms, of disease or pest activity, problems that can threaten a garden's health and ability to produce.

Skill Development: Problem solving, research skills. SKILL CARD: GROWING: Maintenance (Skill 2)

Definitions:
Pests are insects, animals, (even people!) that eat or damage plants.

Beneficials are bugs or animals that help keep pests under control, and promote a healthy garden. Some are referred to as *predators* because they eat and kill the pest insects.

Disease: Just like people, plants can get diseases that make them sick. Just like a human diseases, they can spread, so it is important to control them!

Weed: A weed is any plant that you do not want growing. Weeds compete for nutrients and moisture in the soil with your crop. Some plants are considered particularly nasty weeds because of how fast they spread and choke out other plants. Often they are tricky to remove.

Volunteer: A "volunteer" is what we call a vegetable plant that has sprung up unexpectedly or unintentionally. Volunteers are plants you deem not to be a threat to your intentionally planted vegetables, so they are like a bonus. Volunteers come from a re-sprout from a past year's planting, or a "drifter" seed from another location.

Symptom: Something that you can observe and that indicates that something is not right, or a problem exists. For example, if you have a sore throat, it is a symptom that indicates you might have a cold. The cold is the problem, the symptom is the sore throat.

Activity: Problem Solving

Materials:

- Gardening guides for common disease and pests (can be attained through county MSU Extension office or a public library)
- 3x5 cards
- Markers
- Pens and pencils
- Optional: One copy of *Problem Solving* worksheet per participant

Set Up: Ahead of time, different symptom scenarios need to be written on 3x5 cards to make "symptom cards". There are examples given with the *Symptoms in the Garden* sheet found in Appendix M, p. 169, but you may also scan through the guide books and take notes from there. Use the *Problem Solving* worksheet as a guide to diagnose the problem, and suggest a solution. Divide the group into pairs or small teams to work together.

Steps:

1. Gardening guides should be set out for the group to use.
2. Make sure everyone understands how to use the resource tools to look up symptoms or garden problems and find solutions.
3. Each pair (or team) needs one 3x5 symptom card.
4. Working together, each team must sift through resource materials to identify what problem the symptom indicates (In other words, what is the problem that this observation is indicating to us?)
5. Using the *Problem Solving* worksheet, identify the problem the symptom is signaling and, based on research, make a recommendation of how to solve it.
6. After everyone has finished their research, come back together as a whole group. Have pairs share what they found out.

- Collect your "Symptoms and Solutions" into a binder, and use through the gardening season to diagnose and solve garden problems.

More Challenges:

- Create a game using the 3x5 cards. Split into two teams and go head-to-head to find out who knows how to problem solve!

Worksheet: Problem Solving

Use this as a guide to identify the problem, and find a solution to solve it.

Garden SYMPTOM:

_____

What might be the PROBLEM?

_____

_____

What is the SOLUTION to this problem? What would you need to do?

_____

_____

_____

_____

_____

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What is a problem in the world that you would like to fix ? What are the symptoms of this problem? What could be a solution?

Garden Maintenance Plan SC

Objective: To establish a plan for maintaining the garden, including a schedule of gardeners.

Skill Development: Team work, planning**,** SKILL CARD: GROWING: Maintenance (Skill 3)
Definitions:

Activity: Create a garden maintenance plan!
Materials:
- BIG paper
- Markers
- Veggie ID Cards (from *Getting to Know Seeds* activity)
- Plant Needs Worksheets (from *Plant Needs* activity)
- Calendar

Set Up*:* Gather materials from past activities to help you construct a plan. On the BIG paper, make seven columns, one for each day of the week. Hang this up or work on a table together. This process may be heavily influenced by the logistics of transportation, the availability of the garden space, etc, so it would be good to include these factors in the plans.

Steps:
1. First review what the group has learned about what the garden is going to need to be maintained.
2. On the BIG paper, decide which days of the week will be gardening days. The garden will need maintenance at least three times a week. Create a schedule of tasks that will need to happen on each garden day in order to be well maintained. (Example: Monday, Wednesday, Friday may be watering days, and Tuesday,Thursday, Saturday may be weeding days. If your market time is Wednesday afternoon, harvest will have to happen first thing Wednesday mornings.)
3. Consider the size of the garden, the amount of work to be done, and the size of the group. Does everyone have to show up every gardening day? Can the group work in shifts or rotate days? Do you need more people on harvest or market day?
4. Next, use the calendar to have everyone sign up for days they will work the garden. (This might connect to the Job Descriptions activity in Sec-

tion Three, *Business Basics*).

5. Post weekly tasks and the schedule calendar somewhere visible — wherever gardeners gather before setting to work in the garden.

Troubleshooting:

- If there are issues about gathering a team large enough to keep up maintenance, consider looking into the community for volunteers who might be able to help.
- Consider making group rules about the schedule for workers. What if no one showed up? If someone is not going to able to attend their scheduled day, are they responsible to find a replacement?

More Challenges:

- Keep a garden log: At the end of each day, gardeners should leave a brief message about things they noticed and need to communicate to the next gardener. Make it a habit to check the log before you start working, and write in it before you leave.
- Get an eraser board or similar tool to have at your gathering place. Add tasks or things that need to happen to the “To Do” board.

Harvest SC

It's finally time to harvest, and head to market! Harvest is an important step, and needs to be done with timing and care so all those months of work do not go to waste!

Objective: Learn proper harvesting and storage techniques for market produce.

Skill Development: Team work, proper handling of food for market quality and safety. SKILL CARD: GROWING: Harvest (Skills 1 & 2)

Activity: Harvest and Handling

Materials:

- Online or book resources that describe indicators that a vegetable is ready for harvest. (Vegetable Harvest Guide provided by University of Tennessee Extension can be found in Appendix L, p. 167
- Veggie ID Cards (from Getting to know Seeds activity)
- Optional: One copy *Harvest* worksheet per participant

Set Up: This activity requires using research skills, and gardening resources. You should refer to your Veggie ID Cards, and also vegetable gardening books or print outs from online resources that feature information on determining ripeness, quality and harvest techniques for vegetables. Use the harvest worksheet to help guide the research. This activity is best done in pairs or small teams.

Steps:

1. Divide into teams of two to four. Assign each team a veggie to research for harvest information.
2. Use the *Harvest* worksheet as a guide for what information to collect.
3. If it is not already on the card, add this harvest information to the Veggie ID Card. If there is not room, make "Harvest Cards", with a picture of the vegetable and the specific instructions about how to harvest, wash, and pack that veggie.

More Challenges:

- On harvest days, pick out the Veggie ID cards (or Harvest Cards) for those veggies scheduled to be harvested. As gardeners head out to harvest, they can use take the cards with them to find that veggie, and have the information handy on how to properly harvest.

Suggested Websites:

Information on harvesting can be found at the following sites:

The University of Tennessee Extension web site
www.utextension.utk.edu

The Colorado State University Extension web site
http://www.ext.colostate.edu/

Vegetable Harvest: www.your-vegetable-gardening-helper.com/vegetable-harvest.html
This web site is supported by a gardener in British Columbia, who operates an organic farm

Worksheet: Harvest

Veggie: _____

How do you know it is ripe or ready to be harvested?

_____

_____

Do you take the whole plant? What parts do you harvest?

_____

_____

Any special tools or processes?

_____

_____

What is the best way to wash this for market?

_____

_____

How should this veggie be stored to be fresh for market?

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Harvest day is the day to reap the rewards of all the time and work put into garden. How does it feel?

Putting the Garden to Bed SC

At the end of the season, when all the garden harvesting is done, there is just one thing left to do. Put the garden to bed for the winter, so it may be ready to plant and grow again in the Spring!

Objective: Learn how to plant a cover crop in order to contribute organic matter and nutrients for the following year.

Skill Development: SKILL CARD: GROWING: Harvest (Skill 3)

Definitions:

A *cover crop* is a planted crop that covers and protects soil from erosion and replenishes organic matter after a season of crop production.

Activity: Selecting and planting a cover crop

Materials:

- Seed catalogs
- Garden Plan (from Seeing the Season and Good Ground activities)
- Optional: One *Putting the Garden to Bed* worksheet per participant

Set Up: This activity is very much like the seed selection process done at the start of the season. Finding an appropriate cover crop for your garden will draw upon your knowledge of the state of your garden soil extension of your garden's season into the fall months, and crop variety selecting skills. Use any information you have accumulated through previous activities to assist your group's decision. Also, see the article "Cover Crops Help Put the Garden to Bed" in Appendix N, p. 171. Use the *Putting the Garden to Bed* worksheet as a guide to making your selection. This activity is best when done in pairs or small teams.

Steps:

1. Break into teams of two to four. Assign each group a cover crop to research.
2. Using the available resources, use the *Putting the Garden to Bed* worksheet as a guide to find the information necessary to make a decision for the garden's cover crops.
3. After all teams have had a chance to gather their information, come back together as a whole group.
4. Review the specifics of your garden:

- When is the last crop expected to be harvested? What then would be the earliest date a cover crop could be seeded?
- How much space does the garden have? What quantity of seeds might you need to cover the beds that you want to put into cover crops?
- Are there specific issues or characteristics of your soil that might be important to note when selecting the cover crop?

5. Next, have each team present their findings for their cover crop. Have each team at the end of their presentation say why they would or would not recommend this cover crop for the garden.
6. After each team has made their presentations and recommendations, have a group vote to determine what cover crop seeds will need to be ordered, so the garden may be put to rest at the end of a busy season!

Worksheet: Putting the Garden to Bed

Cover Crop Profiles:

COVER CROP: _____

Does this cover crop need to mature before the winter "kills" the cover crop, or will it remain in the spring?

_____

What would be the earliest time this cover crop could be planted?

_____

When is the last date this cover crop could be planted?

_____

What are the benefits of this cover crop? (does it fix nitrogen? Is it especially hearty or easy to till?)

_____

Where can you get this seed? What is the price of this cover crop's seeds? Does it need to be densely seeded or can it be spread around?

_____

How and when do you work this cover crop into the soil?

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Reflect upon your season in the garden. What were the best parts? What were your least favorite parts? Write about your best memory from the garden this year. What would you like to do next year in the garden?

Pest Control Tag

This fun outdoor game is a great way to have some fun, and learn some principals of pest management.

Objective: Explore the concept of a "pest", and the best ways to create a healthy garden ecosystem

Materials Needed:

- Leader to narrate
- Flags to differentiate teams (brightly colored pieces of fabric pinned on shirt)
- Stopwatch

Set Up: Review information on pest damage from the *Problem Solving* activity. Split the group in three teams and also designate one really energetic person to be the "farmer." Give 1/3 the players a flag identifying them as **beneficial insects** and another 1/3 a flag identifying them as **pest insects** in the garden. The others are plants. The **farmer** can be identified with a third color flag to indicate his/her role.

Steps

Round 1:

1. Leader must explain the rules, and start the game. The game ends when all plants are out, or all pests are frozen.
    - Plants: Plants will be out if they are tagged by a pest. The pests want to eat the plants. Tagged plants go to the sidelines and remain out. The farmer and beneficials cannot tag plants, and are safe for plants.
    - Pests: Pests tag the plants and make them "out" . Pests can only tag plants. The farmer and the beneficials work together to tag and freeze pests. Pests are frozen until they are unfrozen by the tag of another unfrozen pest.
    - Beneficials: Beneficials only tag pests. They are a partner of the farmer. Their job is to tag and freeze all the pests. They can not be tagged by pests or plants.
    - In other words, the beneficial insects and the farmer are "it." Once a pest is frozen, it can only be brought back to life by the touch of another pest bug. Let this round play out until all the

pest bugs are frozen or just one or two are left.

2. When this round of the game ends, take a break and gather in a circle. Who won?
3. Reflect as a group on how this round of tag worked: the farmer works together with the beneficials to keep the pest bugs naturally limited. A farmer could purposefully attract and promote beneficial bugs by using pest management techniques that selectively remove pest invaders, and attract beneficial insects by planting flowering plants.

Round 2:

1. Divide again into the same roles again.
2. Start this round of the game with the same rules as before. But, after thirty seconds, the leader will call out “Spray Time!” . All bugs freeze—pest and beneficials. Plants can still move.
3. The leader will unfreeze two pests. The pest can unfreeze other frozen pests. After counting to a minute, the leader will unfreeze two beneficial. The beneficial can unfreeze other frozen beneficials.
4. Meanwhile, the farmer still needs to tag and freeze the pests. The farmer has a new tool: Pesticide spray. The farmer can call out “spray time!" and all bugs freeze. The plants that are out remain out.
5. After each spray time, the same process is followed. Two pests are released by the leader, and then after one minute, two beneficials are released.
6. When all plants are out, or all pests are frozen, the game stops. However, the leader may have to call play at a certain time, as the game can get stuck and go on and on.
7. Group Discussion: Regroup, and discuss the differences between the game with Spray Time and without. Who won? What did you notice about the difference? Discuss the concept:
    - Some farmers use organic practices to manage pests, like in round one. Some use chemical pesticides to regulate pests, but the pesticides also kill off beneficials. Which way worked best? Which was easier? Let the everyone share thoughts they have about the game.
    - How might a farmer and attract beneficials to their plants? What would a farmer need to do to keep healthy beneficial insects?
    - What are some beneficials we know?

Section Three

Business Basics

Business Basics

This section will guide your group through the components of a business plan. A business plan is like a map for where you want your business to go—essentially, what is the goal and how will your business reach that goal. Many business people will tell you establishing a business plan and a budget for their business was an important step to getting started.

A business plan also provide a way to measure whether a business is barely surviving or on its way to thriving! Without a business plan, it can sometimes be hard to know how well the business really is doing. How will you know when you have reached success? What does success mean for your business? Use these activities to help you find out.

Here are some other suggestions:

- Who is an entrepreneur in your community? What can be learned from them? See if some local business people or other farmers who market at farm stands and farmers markets can come share about their experience.
- Get to know what food is available, where, and more importantly, who is it not available to? How can the youth farm stand meet that need?

What's My Product? SC

The first step to a business is determining what the product should be. In order to be successful, you must have products that meet wants or needs of customers, so they will buy from you. A natural question is "What would customers want?". A survey can help reveal customer needs that you can fill it with your business.

Objective: To decide what products your youth farm stand might like to market, and what potential customers might like to purchase.

Skill Development: Make group decisions, surveying to understand customer needs. SKILL CARD: FARM STAND: Business Planning (Skill 3)

Definitions:
Product: Anything offered to a market that might satisfy a want or need.

Niche Market: A focused, target-able portion of consumers—customers that have a unique need or interest.

A Survey is a series of questions that are posed to potential customers in order to find out what they would need or want .

Activity: Customer Surveys
Materials:
Markers
BIG paper
Paper for surveys
Clipboards (optional)
Pencils or pens
Seed catalogs (optional) -for ideas

Set Up: See sample customer survey in Appendix O, p . 173. Hang the BIG paper in preparation to write down ideas as group discusses concepts.

Part 1 Designing the survey

- First, as a group, think about some things you would be interested in having as a product. What might you like to grow?

Where might you like to sell? At what prices? Write these ideas down on the BIG paper.

- Next, you need to see if you have some ideas that meet your customer needs. Work as a group to design a short survey. The questions should help you understand:
    - What products do customers want to buy?
    - How much they might be willing to pay?
    - Where and when they would be likely to buy?
- Who do you think you could sell to? Make a list of places where people you think might be customers would be found. Break into teams, and take your surveys to those people.

More Challenges

1. What are some specialty fruits and vegetables your customer might not be able to find near by?
2. Think of creative ways to make your produce more attractive. For example, discuss possible bagged combinations of produce, or recipe cards that could go along with different fruits and vegetables.

Additional Resources: Visit the following website for useful information.

Local Harvest: http://www.localharvest.org
This is a web site where customers can find farmers' markets, family farms, and other sources of sustainable grown food in their area to buy produce, grass-fed meats, and many other goodies.

Worksheet: What's My Product

Part 1
What would you like?

Put together a consumer survey. What kinds of fruits and vegetables are people most interested in purchasing? How much are they willing to pay? What other things are important to their purchase? Take to the streets, to grocery stores, or even to teachers at your school. Ask them to take your survey. What did you find? Make notes on your findings and keep them in mind when you're working on you're project.

_____

_____

_____

Part 2

I know my product

Now that you know what your customers might like to buy, now compare that to items you can provide. Are there any niche products you can provide (specialized products?) List you product (s) below.

_____

_____

_____

_____

Will you grow it or buy it from a farm? Review your seed catalogs to find what you can grow. Research what farms in your area grow that product.

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Is it important to know what you want to market first, or know what customers want first? What do you think?
- Do you have a product you would love to sell one day? What is it?

Mission Statements SC

Objective: To write a mission statement that reflects the values and goals of the youth farm stand business, as well as the values and goals of the individual participants.

Skill Development: Critical thinking, understanding business values and goals. Communication of what our business does and how. SKILL CARD: FARM STAND: Business Planning (Skill 1).

Definitions:
Mission Statement: A summary describing the aims, values, and overall plan of an organization or individual.

Activity: Our Youth Farm Stand Mission Statement
Materials:

- BIG paper five sheets
- Markers
- Optional: One *Mission Statements* worksheet per participant

Set Up: Use *Mission Statements* worksheet. Use the *Mission Statement* handout found in the Appendix P, p. 175 to get examples of mission statements other organizations have. Post big paper and label each with the headers: “Who we are”, “What we do”, “Why we are here” and “Our goal”

Steps:
Part 1

1. Review sample mission statements from *Mission Statement* handout.
2. Discuss: Do they tell us who they are? What do they do? Their goals?
3. Discuss the styles of mission statements. Which style seemed to communicate the clearest?
4. Next, write a mission statement for your farm stand. First, have everyone brainstorm using the worksheet about what the youth farm stand “stands” for. If the participants work alone, come

back together as a group for part 2

Part 2

1. Share the ideas generated in part one. Write them on big paper so all can see. (People can rotate around and write their ideas up, or one person can scribe as people share their ideas vocally to the group)
2. Working together, refine ideas to build a mission statement that tells people:
    - Who we are
    - What we are doing
    - Why we are here (our purpose)
    - Our goal

Troubleshooting:

- Having a concise mission statement will allow you to easily communicate it to others. If it is easy to remember, it will make an effective marketing tool.
- Remember to revise your mission statement if the goals of your business change! This is a fluid statement, and you always want it to lead what you do and why you do it.

More Challenges:

- Memorize your mission statement. Practice telling it to each other.
- Create a poem, song, picture or computer art to express your mission statement. Share it with the group.

Worksheet: Mission Statements

Part 1

Write a mission statement

Brainstorm why the youth farm stand is important—for you and your community!

Why are we here?

_____
_____
_____

What are our goals for the project?

_____
_____
_____

Use adjectives to describe our farm stand.

_____
_____
_____

Part 2

Use these answers to build a statement that tells people :

- Who we are
- What we are doing
- Why we are here (our purpose)
- Our goal

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What is your personal mission statement? It can be about school, hobbies, or other interests.

Goal Setting S C

Setting goals can give you a vision for the long term, and motivation for the short-term. Sometimes it isn't about whether or not the business itself was a success, it is whether or not the you reached your personal goals. When you set goals, you can work toward achieving them, and feel positive as you reach them.

Objective: To set goals for yourself and the project. This is one way to measure success: Did we reach our goal?

Skill Development: Critical thinking and understanding business values and goals. SKILL CARD: FARM STAND: Business Planning (Skill 2)

Definitions:
Goals: A objective or target to be reached; a objective that when attained, brings success or victory.

Activity: Goal Setting
Materials Needed:
- BIG Paper
- Markers
- Optional: Sticky dots
- Optional: One copy *Goal Setting* worksheet per participant

Set up*:* Use the Goal Setting worksheet. Set out two BIG sheets of paper out on top of tables where everyone can gather around. Write on the center of one paper the question: *How will we know if we are successful?* and on the other: *How will I know if I am successful?*

Part 1 : Group Goal setting
- Use the BIG paper with "*How will we know if we are successful"* question. Have everyone write their answer to the questions all over the paper .
- As a group, review the responses to the *How will we know if we are successful* question. Do we see some themes for our youth farm stand goals?
- After some group discussion, vote on what the top goals of the youth farm stand should be. You can use show of hands, or vote with a sticky

dot or an “x” by the goals liked best.
- Post the new youth farm stand goals somewhere visible to all.

Part 2: Personal Best
- Group discussion: A personal best in athletics means: an achievement of the individual athlete, breaking their own record. On a team, the team is striving to win and be the best, and the individual players are also striving to be their *personal best* — making the team better overall.
- Repeat the processes from Part 1, using the BIG paper with the question “*How will I know if I am successful*” on it. Everyone should identify their personal goals, or “personal best” on this paper.
- Each person should share to the group how each individual would know he or she is successful in this project. How will meeting their personal goal help the whole youth farm stand become better too?

More Challenges

1. Make a chart that includes everyone and their top personal goal. Throughout the project, give a star and recognize each other when each person reaches their “personal best”.

Additional Resources: Find websites focused on goal setting. A place to start:

Goal Setting Powerful Written Goals In 7 Easy Steps: http://www.topachievement.com/goalsetting.html
Web site supported by a company that sells products and services to support personal development.

Worksheet: Goal Setting

Part 1

YFS project goal...

Set some goals for the youth farm stand. As a team, what do you want to accomplish? When do you want to accomplish it?

GOAL	TIMELINE

What are some personal goals for your time with the youth farm stand ?

1._____

2._____

3._____

Keep these goals with you and add or change them as the year goes on.

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What are your goals? Write about a goal you have. What do you want to achieve? When do you want to achieve it by? What will it feel like when you reach your goal?

What's my Price?

Objective: To set product prices

Skill Development: Math, considering cost, and profit.

Definitions:
Overhead costs are all the expenses required to operate your business. This includes equipment, supplies, labor and materials required to make and sell a product. Overhead costs can be *fixed* or *variable.*

A *fixed expense* remains the same, whether you sell one or one thousand of an item. For instance, if you need a blender to make smoothies, the cost for the blender is the same whether you sell 10 or 500 smoothies using it.

A *variable expense* fluctuates depending on how much product is being produced or the season. For example, variable expense would be the printing costs for your smoothie sale advertising flyers. You can print a few or many flyers, changing the expense. You can adjust month to month how much you will spend on advertising flyers.

Unit is a single quantity of the product you want to sell. If you sell zucchinis individually, then one zucchini is a unit . If you sell potatoes by the quart, then one quart is a single unit of potatoes.

Activity: What's my price?
Materials needed:
- BIG paper
- Markers
- Pens and pencils
- Optional: One copy of *What's my Price?* Worksheet per participant
- Seed catalogs
- Internet or other catalogs to find prices of needed equipment and supplies

Set Up: Use the *What's my Price* worksheet to determine what the appropriate price per unit of product should be.

Steps:
Part 1

- Working together as a whole group, create a list of things you will need for your youth farm stand project. Include the necessary equipment, materials, fees, packaging, and advertising that will be required for your youth farm stand.*
- Determine which costs are FIXED costs and which costs are VARIABLE. Fill them into the worksheet accordingly.
- Determine the value of your labor - what the time and energy that will be invested is worth. Do this also for the percent profit you wish to gain from each unit you sell.
- Assess: What price do you end up with? Is this a reasonable price?
- Experiment: Change your variable costs, or your profit percent. How does the cost per unit change?

After you determine your prices, you may need to revisit them if:

Costs of supplies or material change

You purchase additional equipment

You think the price is too high or too low based on customer response

*You may need to repeat this process or break into teams for each product, or each variety of produce, you plan to sell.

Worksheet: What's my Price?

Use this worksheet to determine a price for each of your farm stand products.

Equipment	$ _____.____
Farmer market fees	$ _____.____
Farm Stand (tents, tables, etc)	$ _____.____

FIXED COSTS

Advertising	$ _____.____
Labor (Your time and energy—what's it worth?)	$ _____.____
Packaging	$ _____.____
Other?	$ _____.____

VARIABLE COSTS
Add all variable and fixed costs to get:

$_____Total Cost production cost

divided by _____ the quantity of units produced

equals _____ the cost per unit

multiplied by 0**.** _____ desired percent profit (10% = 0.10)

equals _____ sale price per unit

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Do FOOD VALUES figure into the price? Do you think customers are willing to pay more for produce that is produced locally? Why?

Budgets SC

A budget is very important to your business. Without it you can spend too much money, and not make enough. Your business will not be successful without a budget.

Objective: To create a budget for the growing season for the farm stand project.

Skill Development: Math and budgeting, learning about using resources wisely, planning/organizing, and managing a successful business. SKILL CARD: FARM STAND: Money (Skill 1 & 3)

Definitions:
Budget: A budget is a plan over time. It estimates your expenses and your income. A budget is important because it forces you to carefully consider how you will earn enough to cover expenses and make a profit.

Income: Money that is coming into the business. This includes money you start with, as well as additional money brought in by sales of product.

Expenses: Money that is going out of the business. This includes purchases of equipment or materials used to make a product for sale. Employee wages, taxes, fees, etc are also part of business expenses.

Profit:: To *break even* means you earn enough to pay your expenses, with no money left over. To earn a *profit,* you must have money left over after you cover all of your business's expenses.

Projected Sales are the total money you expect to make in the future based on how much product you predict to sell. It is an estimate.

Activity: Budget Building

Set up: Use information from the *What's my Price* activity . The budget may need to be revisited and revised as new expenses are encountered, or new sales opportunities are discovered.

Steps:

- Use information from the *What's my Price* activity. You will incorporate this information into the budget.

Using the *Budgets* worksheet, fill in the following lines:

1. For STARTING FUNDS, add up all the money that will be spent to start the business.
2. For PROJECTED SALES, you will have to do some educated guessing. Use the pricing information from the *What's my Price* activity, and make an estimate: How much can you expect to sell? Think about how often you will likely market, and how much of the product you take to market you can reasonably expect to sell (half of it? All of it?). This will help you figure your PROJECTED SALES.
3. This line is for any additional money you might expect to be part of your income.

Now, you know from the *What's my Price* activity that there will be expenses. Here, the group must determine how much money can be spent on these business needs without losing your profit.

4. GARDEN COSTS are all the equipment and materials you need to buy to establish the garden. Think about tools, lumber materials for raised beds, seeds, transplants…
5. FARM STAND COSTS includes the equipment and infrastructure you need for the actual farm stand where you will market.— like coolers, cash boxes, and baskets. Even if you go to a farmers market, you still might need to bring your own table, or tent. Check in on this to know exactly what you need.
6. FEES are costs that you may have to pay for a license to sell, or a space at the farmers market. Your group may need to research into what FEES you might encounter.
7. MARKTEING costs are for flyers, coupons, banners, signs, and other ways you will tell people about your business and your product.
8. PACKAGING includes boxes, bags, and crates you need for transporting and storing your product, and other packaging materials you might need to use.
9. Anything else that you can think of that will be part of your business costs.

Finally, total all your INCOME, subtract from it all of your EXPENSES, and find out your PROFIT. That is the estimated profit for your growing season. Keep working the budget until you arrive at your goal profit!

Worksheet: Budgets

Work together to create a budget for your youth farm stand project. Think about your expenses and how much you need to break even. How much do you need to make a profit?

INCOME

1. Starting Funds:	$ _____.____
2. Projected Sales:	$ _____.____
3.	$ _____.____

EXPENSES

4. Garden Costs	$_____.____
5. Farm Stand Costs	$ _____.____
6. Fees	$ _____.____
7. Marketing	$ _____.____
8. Packaging	$ _____.____
9.	$ _____.____

BUDGET

Total INCOME: **$**_____

Total EXPENSES: **—** **$**_____

PROFIT **=** **$**_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What is your profit goal (how much your group wants to earn)? What do you think the group should do with the profit this season?

Handling Money SC

Objective: To understand how to make change and why making the proper change is important.

Skill Development: Handling money and understand the concept of making change. SKILL CARD: FARM STAND: Money (Skill 2)

Definitions:
Making Change means to give the correct change back to a customer. Giving the correct change is important so the customer isn't losing money, and neither are you!

Counting Back: Starting at the amount charged, and counting up to the amount given.

Activity: Making Change
Materials needed:
- Play money (including coins)

Set up: Have everyone break up into small groups or pairs. Give each team 1 -$10 bill, 1—$5 bill, 5—$1 bills, and 4 quarters.

Steps:
Practice makes perfect– there isn't much to it! Try the scenarios on the handling money worksheet. You can add more. The more you practice the better you will be!

TIPS:
- Always count money twice, once out of the cash box, and once back to the customer out loud. This is a way to double check your math!
- CASH BOX RULE: one at a time! Too many people getting money out and putting it in can lead to confusion and mistakes!
- Keep the cash from the customer set aside while you make change. Then, if the customer thinks they gave you more money, you can show them what they gave you!

Worksheet: Handling Money

Practice making change with your group. Complete the following chart.

Now that you have practiced making change, think about how your prices can make your change making easier.

	Change Required
Cost was $3.50, you received $5.00	
Cost was $7.75, you received $20.00	
Cost was $8.25, you received $10.25	
Cost was $9.50, you received $10.00	
Cost was $11.75, you received $15.00	
Cost was $14.50, you received $20.00	

What are some rules you have to follow? How can you teach others to make change and handle money?

_____
_____
_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What would you do if a customer told you that you did not give them the proper change?

Keeping Records SC

Keeping records is important. It will help you know what your profit/loss was, what product is most popular, how your market did throughout the season, set prices and plan for the future. Keeping your records organized and together will make the job of recording faster and easier.

Objective: To create worksheets for keeping records throughout the season.

Skill Development: Understand business values, while learning how to keep accurate records. SKILL CARD: FARM STAND: Management (Skill 2)

Definitions:
Records document activities, events, and totals. They keep track of our financial transactions, provide inventory control, evaluate our goal achievement, and can even keep track of our personal lives .

Activity:
***Materials Needed*:**

- BIG paper
- Markers

Set up: Discuss as a group the importance of record keeping. Use the worksheet, *Keeping Records*. Establish what will be important things to record, and create a tool to keep those records.

Steps:

Part 1

1. As a group, determine what records might be important for the group to keep through the farm stand season.

Part 2

1. Design templates for keeping your records. Think about what will be easy to do on a regular basis, and how and where recordings will be made.
2. Determine where recording logs and tools will be stored. Add to you garden maintenance plan a record keeping task. Who will be responsible to record? When should recording activity occur?

Additional Resources:

Record-keeping and Budgeting Workbook for Organic Crop Producers:
http://attra.ncat.org/downloads/organic_cert/recordkeeping_budgeting.pdf

Web site supported by partnership between a private non-profit and a public agency.

Worksheet: Keeping Records

Part 1
What kinds of things should we record? Under the following headers, decide what specific things you think are important to record.

Financial records:

Customer records:

Product records:

Garden records:

Team records:

Part 2

Create worksheets to keep records. Consider how you might use this worksheet in action to keep records easily. Design these record keeping templates on a separate sheet of paper or on the computer.

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Why is it helpful to keep records on products? Would it be helpful to know how much of which product you sell?

Job Descriptions SC

Objective: To appreciate all team members and understand the significance of all farm stand roles.

Skill Development: Team work, accepting differences and understand that all of the work cannot be done by one person. SKILL CARD: FARM STAND: Management (Skill 1).

Definitions:
Teamwork: The success of a business is dependent upon everyone sharing the tasks that need to be done. Everyone has a job, and everyone's job is important.

Activity: Get a job!
Materials Needed:
- Big paper
- Markers

Set up: Begin with a group review and listing of all the different farm stand roles. Think about set-up, clean up, and taking money. Also, this is a good time to think about any special services your stand may offer to people. For example, watching children while parents shop, or taking bags out to the car of an elderly person. Use the *Job Description* worksheet.

Steps:

1. Determine as a group what jobs will be necessary to make the farm stand work. Write these on the BIG paper.
2. After jobs are determined, create a schedule for jobs each person will need to fill through the season. Post your schedule in a place visible to all. Integrate jobs into your garden maintenance plan, if they are not already.

More Challenges

1. What do others do? Ask people you know about their job. How are they part of a team? How is cooperation important to their business?

Worksheet: Job Descriptions

Working together as a team!

Think about a day at the farm stand. What has to be done?

_____

_____

_____

_____

Make a list of jobs and their responsibilities:

_____ _____

_____ _____

_____ _____ _____

_____ _____

What are your talents or skills that make you ideal for one of these jobs?

Job description:_____

My talents and skills:

_____

_____

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- What jobs do you like to do? Why would it be important to try all the jobs?

Section Four

Farm Stand Marketing

Where is my customer? SC

It is important to make sure you know your target customers , as you may have learned in the *What's my Product* customer survey. It is also important to know where your customer is, and where similar products to your own are available to them. The more you know about your customer, the more you can make your business welcoming to them.

Objective: To strategically locate your farm stand and understand your target customer.

Skill Development: Find the best place to locate a youth farm stand to reach a target customer. SKILL CARD: FARM STAND: Marketing (Skill 1)

Definitions:
Customer: Anyone who buys (or may buy) your product and/or service.
Target Customer: A specific group of people you wish to attract to your business.

Activity: Mapping my Market
Materials needed:

- Maps of the neighborhood or community
- Phone book with Yellow Pages (or an online search for area amenities and services)
- Google Maps (www.maps.google.com) (optional)
- Customer surveys from the *What's my Product* activity.
- Markers
- Dot Stickers ("Sticky dots")

Set up: Your group may already have a customer survey complete from the *What's my Product* activity, which would be helpful. If using paper maps, use maps at a large enough scale that street level is detailed .

Steps:

1. Using the phone book or online search and mapping tools, create a map that identifies of where fresh fruits and vegetables are available in your community, such as groceries, corner stores, or markets.
2. Now map where your target customers are based. Are they near the food outlets on your map?
3. Consider places on the map where you find target customers base, but there is limited or no fresh produce available. Are there any locations in those areas where you might be able to market such as a community center, church, farmer market or school?
4. Using the *Where is my Customer* worksheet, try to find an ideal location that offers a place to establish a farm stand, is accessible to your customers, is visible and will attract people. You may need to take a field trip to this location, and assess it yourself.

More Challenges

- Go to the stores or markets identified in Step 1, and survey what produce they sell. What is their price? What is the quality? Will your product be competitive?
- Get specific about the target customer: Seniors are a great customer base. Are there seniors in your community who would like to buy your produce? What are some considerations you will need to make about your farm stand in order to be inviting to seniors?

Additional Resources: Visit the following websites for ideas on how to better serve customers.

Innovation Strategies for Benefiting from both "Direct to Consumer" and Traditional Marketing Channels: Web site supported by Purdue University
http://www.ces.purdue.edu/sa/famfarm/market.html
Web site supported by Michigan Farmers Market Association:
http://www.farmersmarkets.msu.edu

Additional Resources:

If you have internet access, this activity can be done ideally using GOOGLE MAPS (www.maps.google.com). Google maps is free, and allows you to mark your location, surrounding businesses locations, on satellite image maps.

Activity: Where is my customer?

Location, location, location

A big decision is to determine the location of your market. You have to use the eyes of a potential customer to assess your location. Here are some things to consider:

Is this an inviting location?	
Will you have to pay a fee or be licensed to be at this location?	
Are there grocery stores or other vendors of similar products near by?	
Are there other farm stands near you?	
Is the place easily accessible to seniors or those with disabilities?	
What mode of transportation does your target customer use? Is this location easy for them to get to by car, bus, bicycle, or on foot?	
Is it visible from the street? Do you have places to post signage to attract customers?	
Is this location safe?	

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- If you build it, they will come. Is this true?

Marketing SC

Marketing is not only something you do before your grand opening, you are always marketing yourself and your business. Remember to interact positively with customers, keep good quality produce, and treat your fellow co-workers well. These are all examples of good marketing.

Objective: To understand the importance of marketing to customers.

Skill Development: Learn how to effectively communicate with customers and share ideas within the group about how to market your products. SKILL CARDS: FARM STAND: Marketing (Skill 2)

Definitions:
Marketing Plan: The purpose of a marketing plan is to introduce the public and your potential customers to you, your product, and your business.

Activity: Marketing Art!
Materials Needed:
- Magazines—with lots of ads!
- Glue
- Scissors
- Poster board or construction paper
- Markers

Part 1
Set Up: This is an artistic activity—which can also mean messy—so prepare accordingly. Make sure there are enough supplies and old magazines for everyone to use.
1. First, as a group, you may want to look at some examples of marketing—choose an advertisement and try to determine what audience that ad is trying to attract.
2. Each person may work on a marketing art piece. The object is to create a collage (a collection of images and words) that illustrate marketing to a target audience. With markers, add your own words that express who the target market is.
3. After everyone has had enough time to work on their marketing art, have each person share their collage, and talk about what they included and why, and how the marketing targeted a specific group of

people.

4. Group Discussion: Are logos, slogans, and images effective modes of marketing? What do advertisers assume these audiences value?

Part 2

Set up: Using the *Marketing* worksheet, design your own marketing plan for the youth farm stand.

1. As a whole group or in small teams, use the *Marketing* worksheet to develop a marketing plan.
2. Along with the plan, create a time line for when you need to get marketing materials out to potential customers.

More Challenges

- Use seed catalogs and magazine to design marketing materials for the farm stand. (Posters, signs, etc)
- Call your local paper and invite them to do a story on your project. Or, try to get an on-air interview at the local radio station.
- Host a grand opening or a gardening party and invite the community and the press.

Worksheet: Marketing

Design a marketing plan

Think about your marketing plan and complete the following chart:

Who is your audience (target customers)?	
What are their values?	
What is unique about your project?	
How does your product match your customer values?	

Create your own marketing:

- Make a sample sign using a slogan or logo you developed.
- Design a flier.
- Write a press release introducing your business. Send it to local papers or radio stations.

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- In marketing to teenagers and young adults, what do advertisers assume of their values? Do you think this is accurate?

Let's Add Value

Farmers can sell fresh fruits and vegetables straight from the garden, or they can add value to them. This allows them to sell the produce for more money or enter into a new market.

Objective: To understand what added value means and to utilize it during the youth farm stand.

Skill Development: Develop marketable skills and gain a better understanding of food processing.

Definitions:
Value added: A product that has been enhanced or made better through processing or services. The consumer is getting more than just the raw materials of the product. The idea is that additional processing or services with the product will get a higher price: The customer is not just buying a raw product, they are getting more than that, so the product is worth more.

Adding value may include drying, canning, or ways of packaging fruits and vegetables together. Value might also be added through a service, like home delivery. Example: You can add value to tomatoes by processing them into salsa.

Activity: Let's Add Value
Materials Needed
- BIG paper
- Markers
- Examples of value-added products (optional)

Set Up: Have everyone get into groups of 4-5. If possible, bring in and display some value added product examples. Each group will need big paper and markers for their ideas. You can also reprint the *What's my Price* worksheet to help determine a price point for the value-added product.

Steps:
1. Group Discussion: Discuss what "value added" means. Use the examples if you have them to illustrate.

2. Each team can brainstorm a way to add value to their products. Use the big paper to illustrate ideas.
3. Use the *Let's Add Value* worksheet to evaluate the ideas. Some research may be required to find the answers.
4. After each team has had a chance to come up with an idea and fill out the worksheet, gather back as a whole group.
5. Each team should present their value added idea, including the information from the worksheet to the group.
6. VOTE: Through show of hands, sticky dots, or using a marker, mark with a star the value added product they will offer at their farm stand.

More Challenges

- Adding Value can be really simple, and at little or no extra cost: bag combinations of fresh produce for easy shopping. For example, sell everything you need to make salsa pre-bagged.
- Create recipes cards for customers at the farm stand that will encourage them to buy all the ingredients at your stand.
- Take a field trip to a farmers market. What products do you see for sale beyond whole fresh produce?
- Contact the health department in your county to find out about any possible licenses or permits you might need to sell processed food. Also, Michigan Farmers Market Association (MiFMA) can direct you to where to get information about permits, fees, and other regulations that might apply to your business and the products you want to sell at your farm stand. Visit MiFMA's web site at www.farmersmarkets.msu.edu or call (517) 432-3381

Additional Resources: You may also want to visit the following website to learn more about adding value:

Adding Value to Farm Products: http://attra.ncat.org/attra-pub/valueovr.html
Web site supported by ATTRA

Worksheet: Let's Add Value

My Value Added Idea: _____

What additional inputs will be required to make this product?

_____

_____

_____

Will it require any licenses, such as a food safety permit or a licensed kitchen?

_____

What would you charge a customer for this value added product?

_____

Will this product help enhance youth farm stand profits? Why?

_____

_____

_____

_____

REFLECT: In your journal, write about what you learned today. Here is a question to start with:

- Can a quality of a food product add value? Do you think "Organic" or "Fair Trade" labels add value to a product?

Signs & Displays SC

Objective: To create appropriate signs and displays for your farm stand.

Skill Development: Understand how to attract customers and effectively communicate what they are selling through their signs and displays. SKILL CARD: FARM STAND: Marketing (Skill 3)

Definitions:
Signs include the name of your business, the products, etc to attract customers and inform them about your product.

Displays help you showcase your product by arranging and presenting your product in a pleasing and inviting way.

Activity: Create Signage
Materials needed:
- Poster board, foam board or even plywood
- Poster paint
- Markers
- Sturdy twine

Set up: As a group, discuss the importance of using good signs to advertise your farm stand. Think about ways to set up your stand to showcase your product and attract customers.

Steps:
Part 1
1. From the *Marketing* activity, refer to your marketing plan. Determine what signs or display additions you will need to attract customers.
2. Consider the variety and purposes of signs you will need
    - Large signs visible from far away and that attract attention.
    - Informational signs, describing products, your business, prices, and varieties.
    - Small price and information signs to go with each product
    - Signs to put at street corners or busy areas if your stand is “off the beaten path”
    - Market notices to tack on community bulletin boards.

Part 2
Using your materials, work as a team to create the signs you will need or your farm stand.

More Challenges

- Make signs appropriate for different audiences—kids, grandparents, and for people with English as a second language. Who is your target audience? What types of signs are appropriate for them?

Available Resources: Check out this website for some great advice on selling at farmers markets.

Farmers Market Information for Farmers: http://greenleaf.uncg.edu/farmermarkets_farmers.html
Web site supported by University of North Carolina Greensboro

Worksheet: Signs & Displays

Farm stand here today!

Part 1

Make a plan for what kind of signs you need, and what signs should include:

What should your signs include?	
How many and what variety of signs will we need?	
Where should we put our signs?	

Part 2

As you make signs, consider the following:

- Visibility
- Readability
- Legibility
- Consistency
- Attention grabbing
- Clarity

Business Tips

- The signs and the display are the first things people see about your business. How does the display represent your business? What does it say? Does it reflect your mission?

Customer Service SC

Customer service can bring people back over and over again or keep them from ever coming back. Visiting a farm stand is not only about the food, it is also about the personal relationships the customer builds with you and your farm stand business

Objective: To create a customer service guide that outlines the proper way to handle customers.

Skill Development: Develop social skills while understanding and communicating how to keep customers happy. SKILL CARD: Management (Skill 3)

Definitions:

Customer Service means to provide your customer with a positive and satisfying experience. Customers feel appreciated, that they got what they needed, and they were treated and charged fairly. Making customers feel welcomed- and that you care to do business with them-helps their experience be positive.

Activity: Customer Service Scenarios

Materials needed:

- 3x5 cards
- Markers
- Table or space for a pretend farm stand

Set Up: On 3x5 cards, write a scenario on each one. Below are some suggestions, but you can add your own too. Use the *customer service* worksheet with this activity.

- A customer comes every week and loves the produce. One week she comes and says her produce was rotten.
- A woman claims she handed you a $20 bill and you only gave her change for $10. You are right, she only gave you $10.
- A customer comes regularly to the farm stand. They always buy a lot of produce and think you are doing a great job.
- A customer sees one of your co-workers treat another co-worker poorly. They are upset because they don't want their

child to see people treating each other that way.

Steps:

- Talk as a group about what good customer service means. Use the *Customer Service* worksheet as a guide.
- Take volunteers to take turns acting out scenarios from the cards. Someone needs to be the farm stand staff, and someone needs to be the customer.
- Have fun, and after each skit, take a moment as a group to reflect on what happened, what good customer service skills were demonstrated, and suggest ways the situation could have been handled differently.

Additional Resources: Check out these websites for information about customer service. Give examples of how customer service is completed.

Maple Creek Farm: http://www.maplecreekfarm.com
Web site supported by a CSA farming operation.

Five Springs Farm: http://www.csafarms.org/csafarms2549023.asp
Web site supported by Community Supported Agriculture in Michigan, a group of farmers and CSA advocates

Worksheet: Customer Service

How can I help you?

Customer service is as easy as 1, 2, 3!

1.) **Greet your customer:** Say hi, welcome them to your farm stand, invite them over to try a sample.

2.) **Talk to you Customer:** Being knowledgeable about your product is important here. Remember *Know Your Veggies*? Even if you are shy, having a few things to say about your business or the product you sell lets the customer know you care. Tell the customer what your favorite veggie is, and the best way to prepare and enjoy it.

3.) **Thank your customer:** Always thank your customer for their business. Remember, without the customer, you will have no success! Even if they do not purchase today, you always want them to leave you wanting to come back! Invite them to come again soon.

Other things to keep in mind:

Smile—customers respond to your attitude, so keep it positive

Be Clean—nothing send customers away like seeing something unappealing near their food! Keep your hands washed, and clean.

Listen—often a upset customer can be calmed down by simply listening and hearing their complaint.

When it goes wrong, make it right: Ask a customer what they need to make the situation right again after a negative experience. You may lose a little money on the deal, but a repeat customer and a good reputation for service will give you returns many times over.

Section Five

Appendices

Appendix A

Alliance for a Healthier Generation

www.HealthierGeneration.org

Reading Food Labels 101

When you're at the grocery store it's hard to take the extra minute to look at the food labels of the items you're buying. But reading the label is really the only way to know for sure what you're eating. This cheat sheet will make the process a little easier:

Check the serving size, particularly how many servings there are in the container. If there are 2 and you eat the whole container, you're eating double the calories that are on the label!

This list gives percentages that are based on recommended daily allowances based on a 2,000 calorie per day diet. For example, a label may show that a serving of the food provides 30 percent of the daily recommended amount of fiber. This means you may need another 70 percent to meet the recommended goal. Remember this is just an estimate, but it serves as a good guide.

Try to minimize saturated and trans fat. These are both bad fats that clog arteries.

The less cholesterol and sodium you eat, the better. The latest recommendation for sodium is less than 2300 mg per day for adults and even less for kids, depending on their age.

Get enough fiber, vitamins A and C, calcium and iron.

Try to keep these low. More sugar means more calories.

Alliance for a Healthier Generation
William J. Clinton Foundation/American Heart Association
55 West 125th Street · New York, NY 10027

American Heart Association. CLINTON FOUNDATION

Appendix B


MyPyramid
STEPS TO A HEALTHIER YOU
MyPyramid.gov
GRAINS
VEGETABLES
FRUITS
MILK
MEAT & BEANS
PEACHES
RAISINS

Appendix C

Roles of the Food System

Producers: Also known as Farmers, Growers, etc…): Producers are the people who grow and cultivate our fruits, vegetables, and livestock.

Processor: Processors take raw food goods from the producers, and turn them into food products: This may be a very simple step, such as fabricating meat, pasteurizing milk, or washing and cutting produce. It can also be a more involved process, for example: turning corn to fructose corn syrup, grinding wheat into flour, making tomato sauce or salsa, or slicing and frying potatoes to make chips. A single raw food product might visit several processors before it become the final end product ready for retail.

Packaging: Packaging is very important in food transportation, preservation, and appeal. Canning, bagging, boxing: There are a variety of ways food products are packaged. Packaging also includes designing crates that will prevent damage to whole fresh fruit during transit from farms to grocery stores.

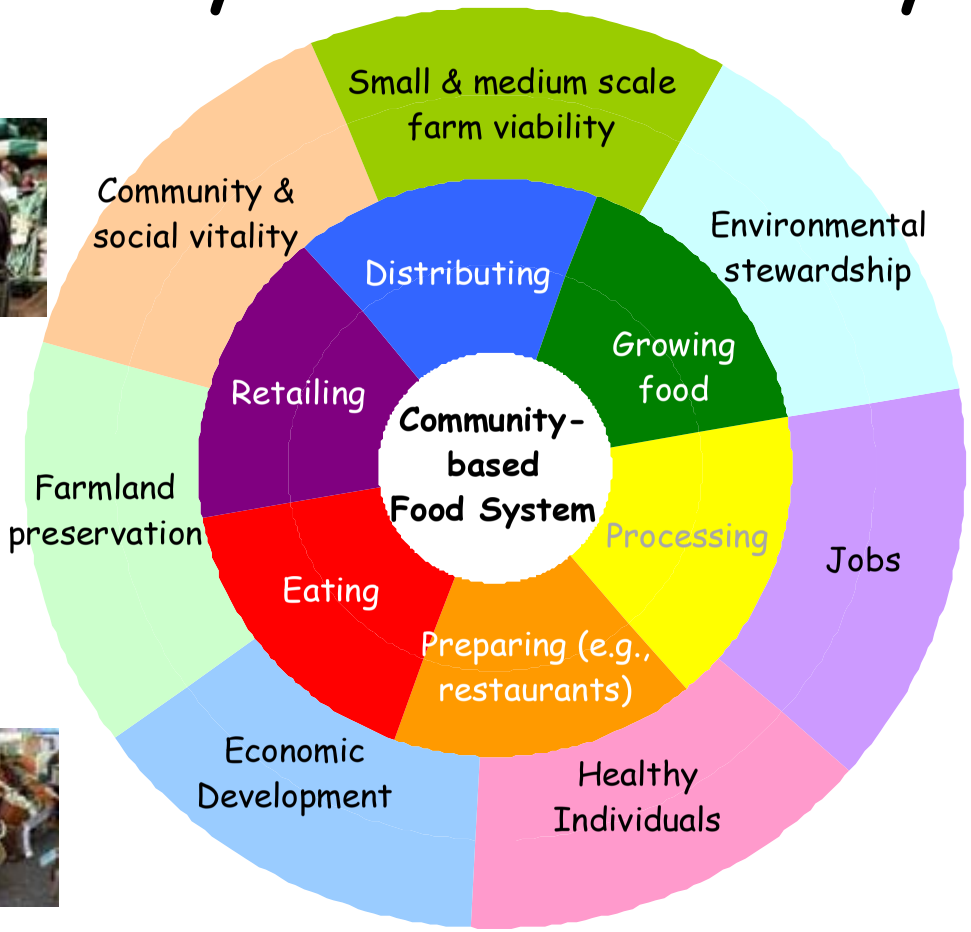
Distribution: Distributors are responsible to get food where it needs to go. They are the trucking companies, warehouses, and delivery trucks that move our food around, from the farm to the processor, the packager, and finally the retailer.

Marketing: Turn on the TV, and you will see what marketing food is all about. Ever heard of McDonald's? Marketing is the business of how food processors, distributors, and producers entice customers to choose their products.

Retailing: Retail is where food products and consumers finally come into contact. Retailers sell food products directly to consumers.

Consumers: Eaters, purchasers, ...consumers are the people who buy the product, and eat it. We all are consumers in the food system, one way or another. We all have to eat!

Community based food system



LOCAL FOOD = LOCAL BENEFITS

The Food System: Farm to Table

The potato story

TABLE (eater)

FARM (grower)

Production

Processing

Packaging

Distribution

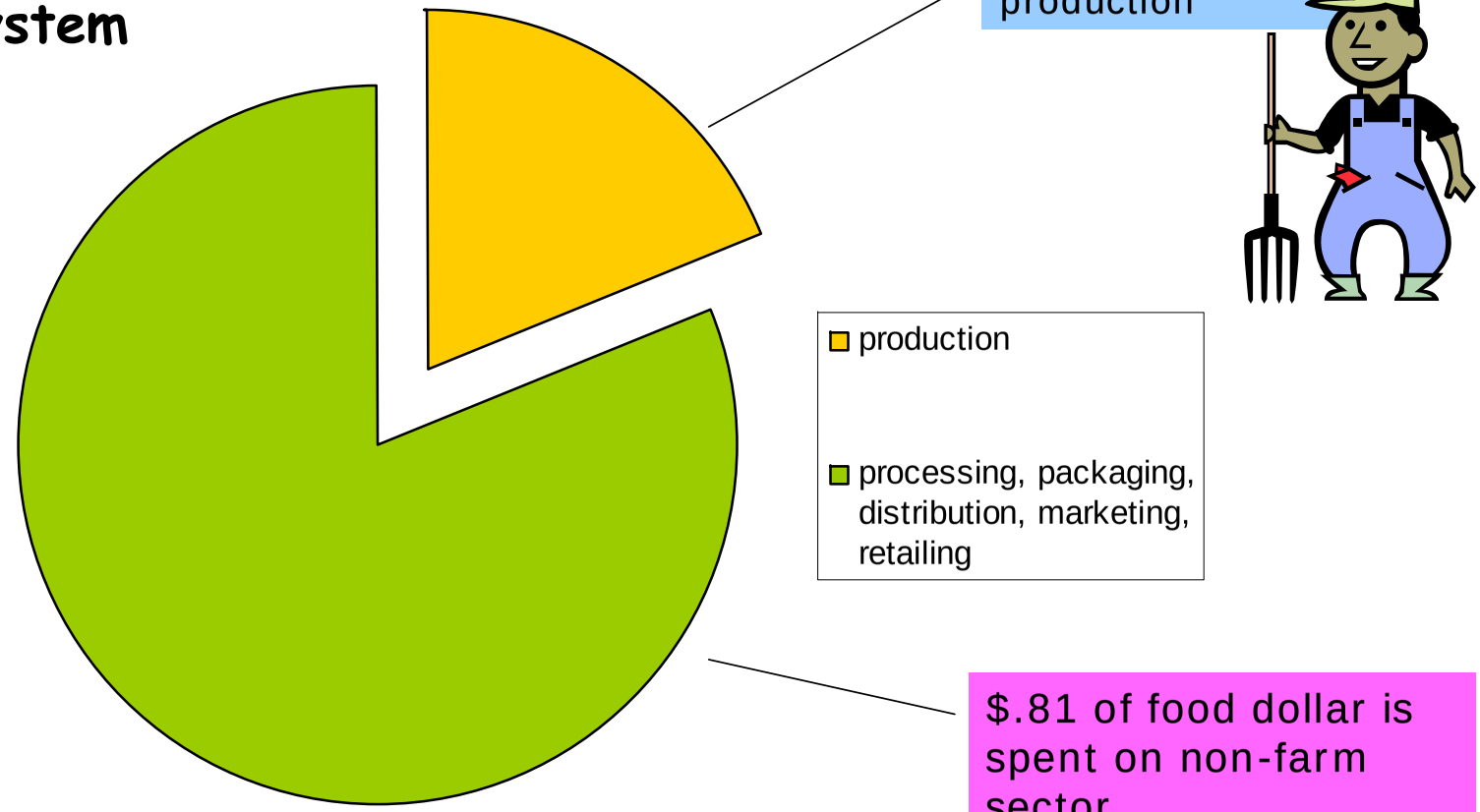
Marketing

Retailing

Appendix E

The Food Dollar

& the conventional food system



(Institute For Agriculture and Trade Policy, 2006)

Let's look at the Food System a different way…

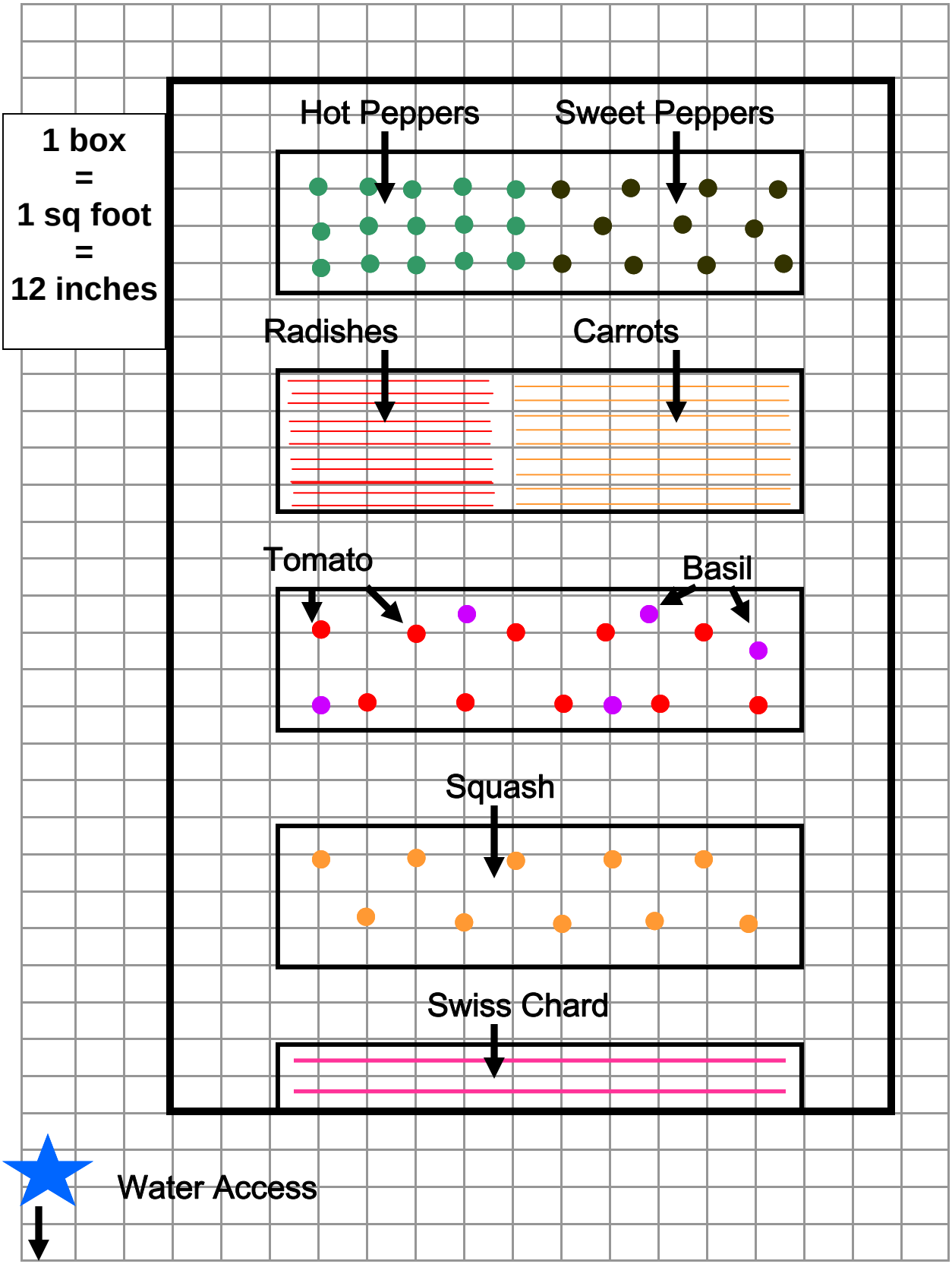
FARM (grower)

DIRECT MARKETING (Farmer is the processor, packager, marketer and retailer)

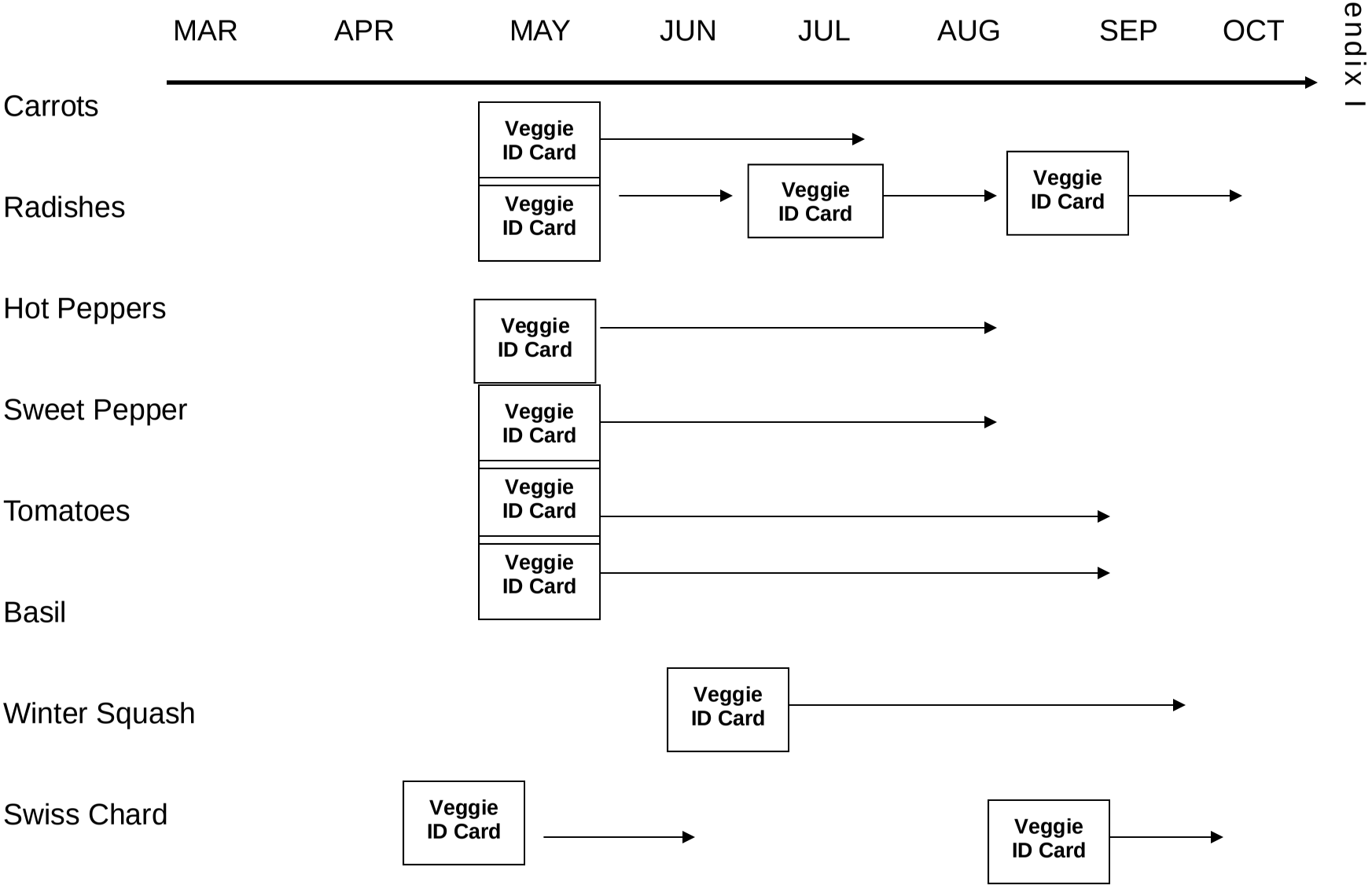
TABLE (eater)

Appendix H

SCALE GARDEN MAP



SEEING THE SEASON CROP PLAN



Appendix J

Vegetable ID Sheet*

Plant name:

When to plant:

Approx. # of days until harvest:

How to plant (depth, spacing of plants and rows):

Transplant or Direct Seed:

Optimum temperature for germination:

Thin to:

Care (staking, tying, pruning):

Insects/Diseases:

Harvesting Method:

Harvest size:

Parts of plant you eat:

* Adapted from *French Fries and the Food System*, by Sara Coblyn.

Common Tools for the Garden

Broad Fork: Lifts, loosens and aerates soil. Plunge tongs into soil, step on the center using your weight to shove tongs straight down deep into the ground. Push the arms down so they are at 45 degrees to the earth, lifting and loosening the soil. Working backwards, step back a few feet, and repeat.

Metal garden rake: A wide metal garden rake smooth and even the garden bed, remove large clumps, and can even be used to create guidelines for even rows seeds. By pushing and pulling across the garden soil, create an even plane. Avoid creating slopes, pits, or raised edges – that causes pooling and flooding, and uneven moisture distribution.

Cultivators: mixes and loosens top layers of soil. Working backwards, swing the cultivator in a up-down-and-back motion, (like a more forceful raking motion) breaking up and tossing the soil to a light aerated texture. There are also wheel cultivators that use a back and forth motion to mix soil.

Hoe: Used to remove weeds. This is an important tool that saves lots of time, but needs to be used carefully, as it can take out small baby plants just as well as the weeds! A stirrup hoe is especially helpful, as both the forward and backward stroke works to remove weeds, making the job that much faster.

Photos courtesy of Johnny's seed catalogue: johnnyseeds.com

Appendix L

VEGETABLE HARVEST GUIDE

When to Harvest Garden Vegetables

Vegetable	Vegetable appearance
Asparagus	When spears are 6 to 9 inches tall.
Beans, lima	When pods are full but seeds are green.
Beans, snap	While pods snap easily and are still smooth.
Beets	1½ - to 2½-inch beets have highest quality.
Broccoli	Before flowers show yellow color.
Cabbage	When heads become firm and heavy.
Cantaloupe	When melons can be lifted and the vine slips without pressure.
Carrot	Any time roots are firm and brittle.
Cauliflower	Before curd loosens and discolors.
Collard	When leaves are large but still green and firm.
Corn	When kernel juice is milky, silk begins to dry and ears are full to end.
Cucumber	When seeds are small, flesh is firm and color is green.
Eggplant	Before color begins to dull.
Kale	When leaves are large but before they yellow.
Kohlrabi	When 2 inches or more in diameter but still tender.
Lettuce	When tender and mild flavored. Before bolting.
Mustard	When leaves are crisp and tender.
Okra	When pods are 2½ to 3½ inches long.
Onion	For green onions: when bulb is 3⁄8 to 1 inch in diameter. For storing: after the tops have died down.
Parsnip	After cool weather has improved quality.
Peas, English	After pods have filled but before they turn yellow.
Peas, snap	After pods form but before yellowing.
Peas, Southern	For fresh use or freezing: When pods shell easily. For drying: After pods are dry and brittle.
Pepper, hot	After pods reach full size.
Pepper, sweet	When pods are full size and still firm.
Potato, Irish	For immediate use: After tubers are 1 inch in diameter. For storage: After vines have died and skin has set.
Potato, sweet	After reaching desired size but before cool fall rains.
Pumpkin	After they are full grown and mature colored. Before

	frost.
Radish	When firm and brilliantly colored.
Rutabaga	Before becoming tough.
Spinach	When leaves are crisp and dark green.
Squash, summer	When large end is 1-2½ inches in diameter and skin is still tender.
Squash, winter	When rind is not easily scratched by fingernail.
Swiss, chard	When leaves are crisp, tender and still green.
Tomato	When fully colored but still firm.
Turnip greens	While leaves are green and crisp.
Turnip roots	After 2 inches in diameter but while still tender.
Watermelon	When tendrils adjacent to fruit die and rind on ground becomes yellow.

FROM: The University of Tennessee and University of Tennessee Extension publication: “Growing Vegetables in Home Gardens” www.utextension.utk.edu/publications

Appendix M

Symptoms in the Garden:

Use the following scenarios to test your ability to problem solve and determine to source of these symptoms:

- You notice yellowing and black or grey spots on the lower branches of your tomato plants, but the tops seem fine.
- You see the leaves of your potato plants are disappearing, fast! Something is eating them, but what?
- Your corn plants are tall and almost ready to harvest. One morning you find the tops of the corn stalk broken and chewed up ears of corn torn from the plants strewn around.
- You notice that your cucumbers leaves are full of tiny holes, and the plants don't look that well.
- All of your bok choi and lettuces are becoming "lacy" - like something ate all the parts between the veins of the leaf! They look terrible, and you worry no one will buy them.
- You spent all day planting an entire bed of baby lettuce transplants. The next time you come to the garden, they are all gone!
- You are growing transplants in trays in a greenhouse. You water them every day so they stay wet. But the leaves of your transplants have started to look yellow and droopy. What's happening?
- The leaf edges of your lettuces are getting brown and shriveled.
- You notice a beetle with a shield shaped mark on its back on your eggplants. You hate bugs!
- You pull up your first harvest of turnips, but there are narrow deep holes in them. Is that how they are supposed to look?

Appendix N

Cover Crops help put the Garden to Bed
By Vicki Sorrone

Putting your garden to bed. Yes it is very sad to think about, but summer is drawing to an end and our vegetables are giving out their very best as they too know the end is near. But this does not mean that you stop gardening after your last harvest. This is your chance to make your soil stronger and be even more ready for next spring's planting. This is the time to consider a "cover crop" to plant where your vegetables were grown.

Above: Hairy vetch, which has quite pretty purple flowers.

A cover crop does just what it says plus more. It covers the soil in the winter and early spring months to reduce erosion from the wind and melting snow. But, it also adds organic matter to the soil, making it stronger and healthier for your next spring planting.

You can grow a cover crop that "fixes" nitrogen such as a legume, (much like your string beans and snow peas) or you can grow a grass like cereal rye or oats. These are the same type of oats grown to collect the seed to make oatmeal and the same type of rye used to make rye bread. But as a cover crop you grow it not for its seed but for the stem, leaves and roots. You can plant these by just place them in a can and spreading them with your hand, which is know as broadcasting.

Below: Beerseem Clover. In this picture you can see the nodule.

You can use other types of grasses or legumes too if you want. A mix of hairy vetch and rye is common in Michigan area or red clover with oats. If you end up waiting until October before you plant a cover crop you want to plant one that is hardier, that can start growing in the colder months, such as rye. But if you have some vegetables beds that are almost finished now you can plant some oats and clover in them , even with the tomatoes or peppers still in the ground. All you need to do is get the seed, sprinkle it on the beds (not quite as thick as if it was grass seed for your lawn) and gently rake it to cover lightly.

Here is a list of what can be grown in early September, and as you go down the list, the type of seeds that can be planted thru late November.

- Oats with Canadian peas (winter killed—dies with first frost)
- Daikon radishes (winter killed)
- Winter wheat
- Red clover with rye
- Hairy vetch (young plants are winter killed)
- Rye with hairy vetch

After your cover crop is planted, you wait and hope it grows enough before the frost it is a winter killed variety. If they are not a winter killed variety, you will want to mow them in the

spring before they set seed and you cover crop turn plants into your soil. You should turn them into the soil with a shovel or a roto-tiller at least three weeks before you plant your vegetables, especially if you are planting seeds. If you are planting transplants you can wait until two weeks before planting to turn them into the soil before you plant.

The author, Vicki Morrone, finding her way out of a sea of buckwheat.

Growing and turning in a cover crop will help your soil to resist mother nature's winds, heavy rains and heaving from freezing. The plants will provide organic matter which helps your soil's drainage. The roots help to hold onto nutrients like nitrogen and keeps them ready for the next year's vegetable plants. Roots from legume plants actually add nitrogen into the soil from their nodules, which are the little while balls on the roots. Take a look and you will see little white beads on roots of clover, peas, beans and other legumes. This a very neat thing that legumes can do without much help from us, they work with a bacteria that is found in most soil and covert it into nitrogen and store it in their nodules on the roots. So you see cover crops can give you free fertilizer plus help to "mellow" the soil and ready to grow better crops.

Vicki Morrone is a Organic Agriculture Outreach Specialist with the CS Mott Group for Sustainable Food Systems at MSU. Contact her at sorrone@msu.edu

Morrone, V. (2008), Michigan Youth Farm Stand Project Newsletter. Issue 10, August 2008.

Appendix O

Sample Customer Survey

This is an example of a customer survey. Your group may want to develop one that reflects your individual Farm Stand Project, and list only fruits and vegetables your farm stand could provide in question 5.. Remember to keep the survey brief or create incentive, for people that complete the survey!

1. Where do you usually get your fruits and vegetables?

___ Supermarket/grocery Store
___ Convenience/corner store
___ Dollar Store
___ Other:_____
___ Farmer Market/Farm Stand
___ Home Garden
___ I don't purchase them

2. If you purchase fruit and vegetables, how do you get to the place you get them?

___ Walk ___ Drive ___ Carpool with a friend/family member
___ Bike ___ Bus ___ Taxi ___ Other: _____

3. On a scale from 1-5, how important is it for you to buy locally grown produce?

- o 1- Not important
- o 2- Somewhat important
- o 3- Average importance
- o 4- Important
- o 5- Very Important

4. Would you purchase fruits and vegetables from a Farm Stand if it was here in the neighborhood?

Yes o
No o

5. What fruits and vegetables would you like to have available to purchase at a local farm stand? (Circle)

Apple	Celery	Parsnips	Rutabagas
Asparagus	Cherries	Peaches	Spinach
Beans	Corn	Pears	Strawberries
Beets	Cucumbers	Peas	Summer Squash (Zucchini)
Blackberries	Eggplant	Peppers	Sweet Potatoes
Blueberries	Greens	Plums	Tomatoes
BroccoliI	Kale	Potatoes	Turnips
Brussel Sprouts	Lettuce	Pumpkin	Watermelon
Cabbage	Melons	Radishes	Winter Squash (Butternut Squash)
Carrots	Mushrooms	Raspberries	
Cauliflower	Onions	Rhubarb	

6. Would you buy more fest vegetable if you could use a Bridge Card or Project Fresh coupon?

Yes o
No o

Would you like to receive more information about our Farm Stand?

Name: _____
Address: _____
E-mail: _____

Thank you for participating!

Appendix P

MISSION STATEMENTS

OUR MISSION:

To create a thoughtful and productive community of youth and adults from diverse backgrounds who work together to build a sustainable food system, This community produces healthy food for residents of the city and suburbs, provides youth leadership opportunities, and inspires and supports others to create change in their communities.

THE FOOD PROJECT

THE BOYS AND GIRL S CLUB OF AMERICA:

Our Mission is the Movement's Reason for Being

To enable all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens.

A Boys & Girls Club Provides

A safe place to learn and grow…

Ongoing relationships with caring, adult professionals…

Life-enhancing programs and character development experiences…

Hope and opportunity.

Mission Statement:

Titus Farms is committed to producing fresh, delicious, and unique horticultural products for the Mid-Michigan community, while also maintaining the health of the land by means of sustainable, organic inspired practices. We are dedicated to initiating a connection between people and the sources of their food through education, fun experiences, and active participation in the production process.

Section 6:

Evaluation Tools

Evaluation Tools

Evaluation is a critical part of any project: *How did we do? What were we able to accomplish? What was unexpected about this experience? What changed?* Showing impact is important, although truly capturing the depth of a project's impact can be difficult. Through our three years coordinating the Michigan Youth Farm Stand Project, we found that using simple, on-the-spot information collection tools worked best to measure change in youth that participated—the less complicated the better. We included here these three methods of collecting information that have been successful for us:

- Skill Cards to measure skill development for each individual youth across these topic areas: nutrition and food systems (FOOD), gardening (GROWING), and business planning and marketing (FARM STAND)
- Veggie Voting to measure changes in attitudes about trying and liking certain fruits and vegetables.
- Journaling to gather the hard to capture information of youth perceptions, experience, and new ideas.

Skill Cards

Some activities have an "SC" in their title bar. That stands for "Skill Card." Included in this section are the skill cards for the topics FOOD, GROWING, and FARM

STAND. To use them, just copy and cut them out. Use one card per individual participant.

In the *skill development* section of “SC” activities, the specific skill and skill card that activity corresponds to is listed. There are two levels of skill development a person can attain

If a person has fully participated in an activity with a corresponding skill card, they have “mastered” that skill. If a person is then able to teach that skill to another person, they achieve the second level of skill attainment: “taught”.

The idea is that by participating hands - on the participant can to gain new knowledge or a skills through the experience. This illustrates impact within the project upon the individuals participating. If a person can teach what they learned to another, they will have developed their understanding or ability to a level where they can transfer knowledge others. This indicates the potential for expanded impact—that a participant can spread the knowledge and skills learned within the project to others outside of the project (i.e., their family, peers, neighbors, other youth).

This simple “on the spot” evaluation tool is also nice because it allows a project leader to track the individual skill development of every person who participates, whether they participate once or participate over 20 times in the project. This is especially helpful for tracking change with a highly transient or inconsistent group of youth.

Veggie Voting

Veggie Voting cards are also included here. Just copy and cut to use. Give one Veggie Voting ballot to each participant each time a new veggie or fruit is tasted during snack time or cooking demonstrations. After participants have had a chance to vote, ballots are collected. Your group might tally and display results in a poster or another visual display.

Veggie voting offers another “on the spot” evaluation tool that measures participants appreciation for new veggies as they are introduced. They do not correlate with specific activities, can be done at anytime when cooking and tasting is done, and can be done as may times as you like. This is a particularly good evaluation tool to use to measure the nutrition education impacts, by illustrating participant’s aptitude for trying and eating new vegetables.

Journals

Journaling serves a dual purpose by allowing an opportunity for reflection as well as documentation of an experience. Each activity worksheet has a journal question in a grey box at the bottom. Taking a few minutes after each activity is a great way to help youth process information from a educational activity, develop their values and opinions, and probe for deeper self-reflection.

Journals are great evaluation tools because they docu-

ment an experience in a way that illuminates the unanticipated outcomes, and adds depth to understanding impact. However, some people do not want to share their journals, so if you intend to collect the group's journals at any time for evaluation purposes, it is important to state that from the start and get proper permission.

VEGGIE VOTE!

VEGGIE: _____

Before this class, I had tried this food.	yes	no
I tasted this food today.	yes	no
I liked this food	yes	no
I would eat this food <u>again</u> as a snack /meal.	yes	no
I would suggest others try this food.	yes	no

VEGGIE VOTE!

VEGGIE: _____

Before this class, I had tried this food.	yes	no
I tasted this food today.	yes	no
I liked this food	yes	no
I would eat this food <u>again</u> as a snack /meal.	yes	no
I would suggest others try this food.	yes	no

VEGGIE VOTE!

VEGGIE: _____

Before this class, I had tried this food.	yes	no
I tasted this food today.	yes	no
I liked this food	yes	no
I would eat this food <u>again</u> as a snack /meal.	yes	no
I would suggest others try this food.	yes	no

FOOD

Impacts of Food Choices

Skills:	Mastered	Taught
1. Understand costs and impacts of our food choices	☐	☐
2. Importance of fresh locally-produced food availability	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FOOD

Food System

Skills:	Mastered	Taught
1. Farm to Fork: the food system components	☐	☐
	☐	☐
2. My community food system	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FOOD

Eating

Skills:	Mastered	Taught
1. Know how to choose/store veggies for freshness	☐	☐
2. Know food safety and preparation techniques	☐	☐
3. Prepare a snack/meal using veggies	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

GROWING

Garden Establishment

Skills:	Mastered	Taught
1. Components of a good garden site	☐	☐
2. Preparing Soil	☐	☐
3. Garden Planning	☐	☐
4. Seed Selection	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

GROWING

Maintenance

Skills:	Mastered	Taught
1. Plant needs:Nutrients, light & water	☐	☐
2. Problem solving: pests, weeds, & disease	☐	☐
3. Establishing garden maintenance plan	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

GROWING

Harvest

Skills:	Mastered	Taught
1. Identify different veggies ripeness	☐	☐
2. Proper handling/harvest of veggies	☐	☐
3. End of season: Put a garden to bed	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FARM STAND

Business Planning

Skills:	Mastered	Taught
1. Mission	☐	☐
2. Goal setting	☐	☐
3. Know My Product	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FARM STAND

Management

Skills:	Mastered	Taught
1. Job Descriptions	☐	☐
2. Keeping Records	☐	☐
3. Customer Service	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FARM STAND

Money

Skills:	Mastered	Taught
1. Budgets	☐	☐
2. Handling Money	☐	☐
3. Saving Money	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

FARM STAND

Marketing

Skills:	Mastered	Taught
1. Know the Customer	☐	☐
2. Marketing techniques	☐	☐
3. Signage and Displays	☐	☐

I have demonstrated competency in these skills:

Leader Signature:_____

Michigan Youth Farm Stand Project was funded in part through the USDA Supplemental Nutrition Assistance Program (SNAP-Ed).

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs or disability. To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250- 9410 or call (800)795-3272 (voice) or (202)720-6382 (TTY). USDA is an equal opportunity provider and employer.

The Supplemental Nutrition Assistance Program provides nutrition assistance to people with low income. It can help you buy nutritious foods for a better diet. To find out more, contact the Department of Human Services office, online at www.foodstamphelp.org or 1-800-481-4989.

A note for USDA SNAP-Ed funded projects:

This Youth Farm Stand Toolkit contains some activities that support SNAP-Ed nutrition education, and are allowable under the USDA SNAP-Ed guidelines. These allowable activities are denoted by the Veggie Icon, shown here.

This Youth Farm Stand Toolkit includes many other activities and concepts that are not aligned with the SNAP-Ed guidelines and are not allowable for SNAP-Ed funded nutrition education program time and resources. Please consult your SNAP –Ed Agency that serves as your fiduciary if you have any questions about allowable and unallowable activities under the USDA SNAP-Ed guidelines for your program.

Additional References:

Coblyn, Sara. 2000. French Fries and the Food System: A Year Round Curriculum Connecting Youth with Farming and Food. Boston, MA. The Food Project.

Appelhof, Mary. 1997. Worms Eat My Garbage. Kalamazoo MI: Flower Press.

Kiefer, Joseph, and Martin Kemple. 1998. Digging Deeper : Integrating Youth Gardens into Schools and Communities. Ed. Melanie Manaugh. Indianapolis: Food Works.

Campbell, Stu. 2003. Let It Rot! : The Gardener's Guide to Composting. Grand Rapids: Storey, LLC.

USDA Food and Nutrition Services, www.fns.usda.gov

MSU County Extension, www.msue.msu.edu

National Gardening Association, www.garden.org

American Community Gardening Association, www.communitygarden.org

The Youth Farm Stand Tool Kit acknowledgements:

YFS Project Campus Staff 2005-2008:
Anne Scott (2006-08)
Susan Cocciarelli (2005-08)
Emily Reardon (2005-07)
Celestine Starks(2006-08)
Vikki Lorraine (2005-06)

Graduate Student Support
Ashley Brander
Margaret Fitzpatrick
Katherine Nault

Undergraduate Student Support
Patricia Alameda
Alyn Kiel
Ashley Powell

MSU College of Agriculture Multicultural Apprenticeship Program Intern:
Monika Kothari,
Plymouth High School, Canton, MI

CS Mott Endowed Chair of Sustainable Agriculture
Dr. Michael Hamm

CS Mott Group for Sustainable Food Systems, Director
Dr. Susan Smalley

Gardening/vegetable production consult:
Vicki Morrone
Organic Vegetable Production Outreach Specialist, CS Mott Group for Sustainable Food Systems at MSU

Nutrition Education
Barb Mutch, RD & Melissa Lonsberry, RD
Michigan Nutrition Network

YFS Tool Kit Development:
Emily Reardon
Dixie Sandborn
Margaret Fitzpatrick
Katherine Nault
Anne Scott

Template Design:
Ashley Brander
Anne Scott
Art Work:
Monika Kothari

Evaluation:
Dr. Jeno Rivera,
MSU CARRS Dept, CANR
Veggie Voting:
Anne Rauscher, The Garden Project
Skill Cards*:*
Growing Hope

Other MSU faculty/staff support:
Dr. Eunice Foster
Dr. George Rowan
Dr. Randy Showerman
Danielle Craft

Other support:
Michigan Nutrition Network
Michigan 4H Youth Development
Michigan Food and Farming Systems (MIFFS)
Michigan Farmer Market Association (MIFMA)
MSU Extension
The Food Project, Boston, MA
Michigan 4H Youth Development

For more Information:
Anne Scott
Youth Community Food Outreach
C.S. Mott Group for Sustainable Food Systems
303 Natural Resources Building
East Lansing MI 48824
(517) 353-0751 scottann@msu.edu