



Lesson Eight

Farm to Table

Lesson Overview

This lesson introduces children & youth to local farmers and local foods. Participants will get to try different local foods and learn about how they were produced and raised.

Lesson Objectives

Participants will meet one local farmer.

Participants will learn about local foods that are available.

Participants will learn about local farmers markets.

Participants will identify two reasons why sustainable practices are important.

Participants will be able to note a few differences between conventional and organic practices.

Introduction to Lesson Eight

It is time beat the summer heat! This lesson is simple, yet important. It builds on many of the concepts discussed in “The Food Chain” lesson. The focus is on learning about specific local farming operations, discovering that there are different types of agriculture (conventional monoculture versus organic polyculture), and on making recipes with and eating local foods.

If you have a farmer visiting this lesson does not require much preparation, other than having questions ready and being able to act as a good facilitator. Many of the farmer presenters are very well versed with children and youth, but others might need a little help directing the conversation and making it exciting for the age group.

It is also important to talk about participants about organic/sustainable practices and other agriculture practices that are more harmful to the environment. Needless to say, there are still pitfalls of organic agriculture as the best thing for our ecosystems would be a full recovery to its wild/natural state without civilization (which most likely would not involve human beings existing!)

Highlighting both **urban and rural farming** is another opportunity to discuss the changing trends in food production, and grow their interest in local food.

The second part of the lesson is inviting the participants to create farm-themed projects & food. Get them in the kitchen using products from farms in our area, read farm themed books, and have them dream about what living on a farm would be like. Use the key terms in this chapter to teach them new words and concepts related to sustainable & organic agriculture.

Organic Farming

Invite local producers – urban or rural farmers – who use organic practices on their farm. Encourage them to answer the following questions in their presentation:

- Where is your farm located?
- Why do you use organic practices? What is that like? What does that mean?
- What do you do on your farm (what do you produce, what animals do you have)?
- How long have you been farming? How did you get interested in farming?
- What are your favorite parts of being a farmer?
- Do you employ anyone at your farm?

Key Terms — From the Lexicon of Sustainability!

The 100 mile diet

A common unit of measure used to denote the maximum distance food can travel and still remain local to the consumer.

Antibiotic free

FRESH AIR + SUNSHINE + EXERCISE = HEALTHY ANIMALS (NO DRUGS REQUIRED)

Aquaculture

Refers to the cultivation of both marine and freshwater species and can range from land-based to open-ocean production.

Aquaculture

Also known as fish or shellfish farming — refers to the breeding, rearing, and harvesting of plants and animals in all types of water environments including ponds, rivers, lakes, and the ocean. Researchers and aquaculture producers are “farming” all kinds of freshwater and marine species of fish, shellfish, and plants. Aquaculture produces food fish, sport fish, bait fish, ornamental fish, crustaceans, mollusks, algae, sea vegetables, and fish eggs.

- National Oceanic and Atmospheric Administration

Battery cages

Industrial agriculture’s confinement system used for egg-laying hens. Floor space for battery cages ranges from 300 cm² per bird and up; the space allocated to battery hens has often been described as less than the size of a piece of paper. A typical cage is about the size of a filing cabinet drawer and holds from 8 to 10 hens. Animal welfare scientists have criticized battery cages because they do not provide hens with sufficient space to stand, walk, flap their wings, perch, or make a nest. It is estimated that over 60% of the world’s eggs are produced in such industrial systems.

Biodiversity

The interdependent communities of soil life, plants, animals and people.

Biodynamics

Holistic and regenerative farming practices focused on the integration of plants, animals, soil health and biodiversity. They keep the ecosystem in balance by producing the nutrients needed to nourish all aspects of the farm with a minimum of inputs imported from off site.

Broiler house

Buildings with little ventilation that serve as concentrated feed lots capable of holding up to ten thousand chickens at a time.

Key Terms — From the Lexicon of Sustainability!

Cage free

Chickens that are not kept in cages. This means chickens are still confined to a barn with limited or no access to outside. The term “barn-roaming” more accurately describes this principle.

CAFO

They are systems where livestock are kept in very crowded situations—usually in some kind of barn or facility—and fed a diet that consists mainly of grain, soybeans, and supplements (for milk cows, this include some forage like hay.)

Carbon sequestration

Excessive carbon in our atmosphere is considered a major contributor to climate change, so practices that remove carbon from the air and capture it in the soil are increasingly in vogue (among progressive farmers.)

Certified organic

“Certified” means that the food, feed or fiber has been grown and handled according to strict organic standards which are enforced by independent third-party state or private organizations. Certification includes inspections of farm fields, livestock and processing facilities, detailed record keeping and periodic testing of soil, water and produce to ensure that growers and processors are meeting the standards of the USDA National Organic

Community supported agriculture (CSA)

At the start of each growing season, members purchase a subscription. Each week they get a box of fresh produce containing whatever happens to be growing on the farm. That influx of cash at the start of the season allows the grower to purchase seed and farming implements, even hire workers. Essentially, a CSA subscription is a contract between a consumer and a farmer.

Compost

Turning food waste into valuable nutrients that can improve soil and feed plants.

Connected market

When producers and consumers can envision each other – even across great distances – a product transforms from a commodity to a carefully guarded precious resources.

Conservation easement

The Trust purchases the development rights to a piece of farmland to insure it stays in its current use. In exchange, these ranchers receive cash, which they can use to invest in improvements, expand operations, pay off debts etc.

Key Terms — From the Lexicon of Sustainability!

Direct trade

It closes the gap between farmer and consumer, it's less about the farmer and more about the company buying directly from that farmer.

Drip irrigation

A system of plastic tubing with sophisticated drippers spaced at a set distance that enables the slow, precise and targeted application of water and nutrients to a specific location at the root of the plant in a way which maximizes water utilization while preventing water evaporation, runoff and waste.

Eat-in

The gathering of communities to share a home cooked meal.

Eating in season

Eating food that is harvested during a particular time of the year that is best suited to the individual crop or animal due to it's cyclical relationship with weather.

Eating in season

Wild edibles grow everywhere. You need to be aware of what's around you. When you spend time outside, see how things change throughout the year.

Economies of community

1. Transparent equal access to information
2. Democratized equal voice and ability to take action
3. Frictionless simple transactions and feedback

Economies of scale

Focusing on single crops and reducing input costs to a minimum—then communities can leverage their greatest assets—proximity, familiarity, and private ownership—to compete with the global food system.

Edible schoolyard

Planting vegetable gardens at local schools, teaching kids how to grow and cook their own meals, and sometimes putting the school garden harvests on the menu in the lunchrooms.

Experiential learning

Education through direct involvement; offering staff-led tours, workshops, internship programs, volunteer opportunities and dinners to help a community engage with local food.

Key Terms — From the Lexicon of Sustainability!

External costs

A cost or benefit that results from an activity or transaction and that affects an otherwise uninvolved party who did not choose to incur that cost or benefit.

Face certification

A direct contact between farmer and consumer that creates an environment for trust and faith.

Fair trade

A way to address disparities between conditions of small scale farmers in developing countries from Africa, Latin America, and Asia (collectively referred to as the Global South), and those of subsidized farms and industrial countries in the Global North that have greater access to things like financing, crop insurance and other advantages.

Fair trade premium

A sum of money paid on top of the agreed fair trade price for investment in social, environmental or economic development projects, decided upon democratically by producers within the farmers' organization or by workers on a plantation.

Fair wild

An unwritten principle which guarantees a high level of sustainability and harvesting awareness regarding the practice of foraging wild food.

Fallen fruit

People search their cities and neighborhoods for unused or unwanted things: litter, refuse...even food. Fallen fruit is often overlooked (either after its fallen to the ground or while still on the tree). It can be harvested, gleaned, or just observed.

Food desert

Food challenges facing low-income communities, areas without supermarkets or neighborhood grocery stores, where nutritious food is scarce or non-existent.

Food justice

Food is a basic right for all people.

Food literacy

Consumers that learn about food production and agricultural practices can determine which systems to support and which to shun.

Key Terms — From the Lexicon of Sustainability!

Food security

Having consistent year round access to safe, local, affordable and culturally appropriate food that is grown, raised, produced and moved about in manners that are responsible to the environment while reflecting a consumption of natural resources that is equitable with a view to our offspring seven generations from now.

Food shed

A geographic area that supplies a community with all of the people's food needs.

Food sovereignty

A community's right to decide how they're fed. The term was coined in 1993 by a gathering of farm workers and small stake food producers from around the world. Their first meeting in Mons, Belgium led to the formation of La Via Campesina ("The Peasants' Way"), which protects the rights of cultures to defend their control over local and regional food systems.

Food waste

"Forty. That's the percentage of food in this country that never gets eaten, or that's grown and never comes to market. It's the food we distribute that never reaches a destination or sits on grocery store shelves without finding a consumer. And it's food consumers buy but never eat. "

Forage

The art of finding and enjoying wild food.

Free range

Outside the United States this term refers to a method of farming where the animals are allowed to roam freely rather than being contained in any manner. In the United States, USDA regulations apply only to poultry and indicate solely that the animal has been allowed access to the outside. These regulations do not specify the quality or size of the outside range nor the duration of time the animal must be allowed access to this space.

Gentrically engineered (GE)

GE describes the high-tech methods used in recent decades to incorporate genes directly into an organism. The only way scientists can transfer genes between organisms that are not sexually compatible is to use recombinant DNA techniques. The plants that result do not occur in nature; they are 'genetically engineered' by human intervention and manipulation

Genetically modified organisms (GMO)

Scientists take DNA from one plant species and add it to the DNA of another in ways that could never happen in nature or through natural plant breeding.

Key Terms — From the Lexicon of Sustainability!

Gleaning

A type of food rescue that involves collecting leftover fruits and vegetables from farms, with the food usually donated to school lunch programs, non-profits and food banks. By performing food rescues, communities can help re-distribute food that would otherwise go wasted, helping to turn food insecurity into food security.

Grass fed

Grass and forage shall be the feed source consumed for the lifetime of the ruminant animal, with the exception of milk consumed prior to weaning.

Heritage grain

A heritage grain is from a seed that embodies thousands of years of unbroken human-plant co-evolution, effort and reverence.

Land trust

A private nonprofit organization that actively works to conserve land by undertaking or assisting in land or conservation acquisition, and stewardship of such land or easements.

Local food system

A regional food system is one that supports long-term connections between farmers and consumers while meeting the economic, social, health and environmental needs of communities in a region. A food system includes everything associated with growing, processing, storing, distributing, transporting and selling food. A food system is local when it allows food producers and their customers to interact face-to-face; regional systems serve larger geographical areas, often within a state or metro area.

Locavore

“Locus” (latin root for “local”) + “vorare” (latin root for “to devour”) = locavore

Naturally raised

Livestock which was raised without the use of growth hormones, antibiotics, under these certified animals are allowed to have parasitic medicine, but not given food with animal byproducts to eat.

Non-GMO

Methods such as segregation, traceability, risk assessment, sampling techniques, and quality control management are emphasized to determine if a crop or food item contains GMO ingredients.

Organic

Food grown or made without the use of artificial/synthetic chemicals.

Pasture raised

Animals that have been raised on pasture with access to shelter. This term is being used by farmers who wish to distinguish themselves from the industrialized “free range” term.

Key Terms — From the Lexicon of Sustainability!

Permaculture

The development of agricultural ecosystems intended to be sustainable and self-sufficient.

Preservationist

Someone who advocates preservation of the diversity of seeds available in regions due to the traditional and ecological values of the plants.

Resilience

The ability to keep going even when things around you are going wrong.

Rooftop farm

Adds environmentally beneficially green space to cities, increases the local food supply, cools the building in the summer and absorbs rainwater (which reduces the burden on city sewer.)

Rotational grazing

Rotational grazing is periodically moving livestock to fresh paddocks, to allow pastures to regrow. Rotational grazing requires skillful decisions and close monitoring of their consequences. Modern electric fencing and innovative water-delivery devices are important tools. Feed costs decline and animal health improves when animals harvest their own feed in a well-managed rotational grazing system.”

Soil fertility

Soil teems with a multitude of organisms which provide the necessary work for healthy plants to grow free from disease, pests and infertility. These interconnected interactions and feeding relationships (quite literally “who eats who”) help determine the types of nutrients present in soil, its depth and pH, and even the types of plants which can grow.

Sustainability

Respect Mother Earth. Respect the land. Learn from the animals. When foraging always leave something behind for whoever comes next. In this way you’re sure to find something when you come back.

Transition

The fundamental challenge now facing ambitious farmers across the US: how to transition land from conventional farming back to its organic or “pre-chemical” state.

Urban farmer

People in cities who grow food for themselves, their friends, their neighbors and the larger community

Watershed

A watershed is a land sea, such as a river valley, where all water that falls as rain or collects as dew or cloud mist and drains into a common waterway.

Wild harvest

The collection of indigenous foods, an assembly of native plants, animals, vegetables, fruits and berries procured from the wild.

Activity One - Farmer Talk

Materials // A table and tablecloth. Ask your farmer or producer if there is anything else they would like you to bring and have available for them. Printed handouts with their information or pictures from their farm are always fun.

Ages // All Ages

Time // 20-30 minutes

Activity Description //

Invite a local farmer to visit your garden site. Ask them to bring products from their farm & talk about what they do on their farm and where they sell their products. Get participants thinking about the various places they could find food from their local farmers.

Activity Two - Local Food Meal

Materials // A wide variety of local products to show the various things that are grown, raised, created, produced right in here our own food shed!

Ages // All Ages

Time // 10-15 minutes

Activity Description //

This activity could take on various forms. You could set out different items on a table with signs (laminated or folded card stock) with the names of the farms and where they are located. Participants could come past the table like it is a potluck meal and take a sample from various farms. You could also create a meal together using all local ingredients and then put out a picnic blanket, thank your farmers, and enjoy the meal together! Remember — there are local, organic farms that produce more than just fruits and veggies. There are meat, dairy, legumes, bread, etc. If you don't know much about farms in the area then now is your chance to do some research!

Activity Three - Local Food Taste Test

Materials // Cloth for making blindfolds, different items (one not local and one local), jars or bowls or spoons.

Ages // All Ages

Time // 10 minutes

Activity Description //

Choose a few different items that you think the participants at your sites would enjoy.

Examples —

1 local heirloom tomato

Raw, local honey

Real, local maple syrup

1 local heirloom sweet pepper

Local cheese (sheep, goat)

Kalona milk with the cream top

or Burbach's Country Dairy

Delicious local fruit jam

Grass-fed, local beef

1 not local tomato from the grocery store

Fake honey (the kind that is not real honey)

Fake maple syrup

Green bell pepper, not local from the grocery store

Fake american cheese

Skim milk that is not local

A type of jam with mostly high fructose corn syrup/filler

Cheap, not local cornfed beef

Put these out so they are not obvious (maybe slice or put them on plates or with spoons). Then blindfold any participants that would be willing to try the taste test game. Can they taste the difference? Who will guess the right answers?

Activity Four - Local Food Challenge

Materials // Camera, Fliers with information about the challenge for participants to take home or hand out to their schools/centers/teachers. Participants could even help make these fliers if they would like!

Ages // All Ages

Time // 10 minutes

Activity Description //

This week we are doing a “Local Food Challenge!” We will be inviting our sites, participants, teachers, and anyone connected with The Big Garden to post pictures of local meals they are enjoying at home. Everyone who posts and submits a picture tagging @The Big Garden with the hashtag #golocalbiggarden will be entered for prizes!

During your Local Food Meal activity take pictures of the participants with the meal they made or the products they are trying. We will post these photos on our social media to invite the rest of the city to post their own pictures. Let’s see how many folks we can get to try to “go local” with one meal.

Activity Five - CSA Community Supported Agriculture

Materials // Grocery sacks, rubber bands, harvest baskets, visual aids to describe CSA

Ages // All Ages

Time // 10-15 minutes (depending on how many cards you have)

Activity Description // Talk to participants about the word CSA and the concept behind it. Use a visual aid to show how it works. A participant or teacher can dress up like a farmer. There will also be a community member(s). In the Springtime that community member invests in the farm by giving the farmer “seed money.” Show a participant giving the farmer money/cash. This person is now a “CSA member.” Then show the farmer going to purchase seeds and equipment (bring both of these) so that they can start their farming venture. Mention that for the farmer many of the costs come at the beginning of the season, so this relationship really helps the produce farmer when they don’t necessarily have a lot of income. Have the farmer then give a box or bag or basket of produce to the CSA member. Explain that every week a CSA member gets the farmer’s best items that are in season from the farm because they invested in the farm upfront. They also get to develop a special relationship with their farmer and the land where the food is grown. Have the farmer and the CSA member shake hands, high five or hug to show their relationship. This is the concept of CSA in a nutshell (for older participants feel free to explain it in more depth).

Next, have participants think about any friends, family, neighbors who might like a bag of produce from their garden. Have participants harvest and wash produce from their garden. Show them how to bunch greens or herbs. Then have them write index cards describing the different items and how they can be used to include with the bags of produce. Put these bags in the refrigerator and encourage them to take them home and give them out to their friends, family, neighbors or anyone they think would use the harvest!

Activity Six - Homemade Butter

Materials //

Baby food jars or small plastic containers with lids (plastic is always better than glass for little ones) a big bowl of ice, whipping cream, small bowl to put the butter in the ice, spoon to press butter on the bowl, measuring spoons

Ages // All Ages

Time // 20 minutes

Activity Description//

Put 2 tablespoons whipping cream in each baby food jar. Put lid on tightly and shake as long as you can, eventually it will turn into butter! Remove lid and pour off excess liquid. Spoon butter into the smaller bowl and set this bowl in the bowl of ice. As butter chills, continue to press it against the side of the bowl to get rid of any remaining liquid. When ready...enjoy on some good local bread or rolls!

Activity Seven - Conventional vs. Organic/ Sustainable Agriculture

Materials & Activity Description //

Laminated pictures from organic/sustainable farms. These farms should showcase a variety of crops (biodiversity) instead of monocultures, animals that are raised on pasture and not in confinement, animals that are eating foods they are supposed to eat, good soil health practices (no bare soil, no large equipment disturbing the soil). Also bring pictures from conventional agriculture. Make sure to highlight corn and soybean production since those are the largest crops grown in our state. They are more likely to be familiar with these. Feedlots and hog confinement are also large corporate farming ventures in the Midwest. Make sure to highlight these as well. Again, make sure the images are age appropriate. Animal confinement operations are unsettling and should be noted, however images must be appropriate. Have participants guess which ones are organic/sustainable agriculture and which ones are not. Observe and discuss each picture.

Ages // All Ages

Time // 10 minutes

Activity Eight - Local Egg Garden Scramble and Omelettes

Materials //

Camp stove, 1 dozen local eggs, 1 dozen not local eggs, tomatoes, peppers, cheese, herbs like basil or chives, zucchini squash, onions, skillet, plates and forks, cooking oil (olive or coconut)

Ages // All Ages

Time // 20 minutes

Activity Description //

Let the participants discover and taste the difference between store bought eggs (conventionally raised) and local eggs where the hens are free range or pasture raised.

Crack the eggs together. For younger participants teach them how to crack eggs if they do not know how. Note the difference in color, texture of the yolks. Ask participants what they notice about the shells as well. Go over the different distinctions when it comes to eggs and how animals are raised. Make laminated signs and play a matching game. One sign lists the type of animal welfare and the other sign shows a pictures of how the animals are actually raised.

Then — Have participants cut and dice all ingredients into small bowls to either make omelettes or scrambles. Using the cook stove cook up your eggs on the hotplate or camp stove. When the eggs are done (or cooking in the case of omelettes) let participants choose their own toppings.

Examples —

Egg scramble with basil, chives (or other herbs) & cheese

Egg scramble with zucchini & cheese

Omelet with green tomatoes & cheese

We can get local & organic eggs from Pin Oak Place in Harlan, Iowa or Big Muddy Urban Farm in Omaha. There are local eggs available at the farmers markets. Participants could also do a blind taste test. It could be food from their garden or other dairy products. They could compare different flavors of yogurt or produce. Another possibility would be to taste different kinds of cheese, for example cow, goat and sheep cheese or cheddar, swiss, mozzarella, etc.

Activity Nine - Trading & Bartering

Materials // Laminated “item cards” with a variety of items and products (produce, meat, cheese, eggs, chickens, sheep, cows, butter, thread, wheat, wood, honey, spices, soap etc.) There should be enough of these that every participant gets 5 different items. Enough cards for each participant that say what they need to trade their items for, or what they need to get. For example (you need to trade one item for three sheep). Use images on these cards so they are easier for all ages to understand.

Another way to play — Give each participant 5+ item cards from the deck by dealing them out at random. Make sure there are an even number of each item and that there is enough of any one item for each participant to have one. For example, in the deck there are 15 sheep, 15 carrots, 15 bunches of wheat, 15 cows. Participants need to trade until they have one of each of these items. There need to be other items in the deck as well, they might Once that happens everyone wins. This version might take more time especially if participants are more timid to trade.

Ages // All Ages

Time // 20 minutes

Activity Description //

Pass out the item cards to the participants from the deck. Make sure everyone has an even number of cards. Next, pass out the trade cards to each participant. You can have them all line up, use tables, use costumes, OR you can have them just stand together in a circle. Explain that before currency or money many people would just trade or barter for their foods. Mention that today we could also trade what we have and what we produce for other things we need. If we make pickles and our neighbor makes salsa we could trade. If we sew clothing and our neighbor keeps bees we could trade our skill/service for their honey. If we grow cabbages and our neighbor keeps chickens and has eggs, we could trade for the eggs we need.

For younger participants you might not use the trade cards, you might let them just trade for whatever they would like to have that they don't have. For older participants give them the trade cards that will direct them to what they need to have at the end. Let them loose to trade/barter. The idea (for older participants) is that the person or people who trade and end up with what they need.

Activity Ten - Local Food Guide/Farmers Markets

Materials // Local Food Guide, paper, pens/markers, etc, card stock paper

Ages // All Ages

Time // 10 minutes

Activity Description //

Talk to participants about all the local farmers markets that are happening right now. Highlight farmers markets that are closest to their location or where they live. Talk about the seasonality of vegetables and what you can find at the farmers markets right now. Make a seasons wheel — spring, summer, fall, winter. Have participants write or draw when different crops are ready. Laminate these so they can be hung up on the refrigerator at home.

Activity Eleven - Sustainability Artwork

Materials // Art materials, list of key terms that relate to organic or sustainable agriculture

Ages // 10+

Time // 15-20 minutes

Activity Description //

Have participants pick one of the key terms (from the Lexicon of Sustainability) that are listed at the beginning of this lesson. Give them poster paper, magazines, markers and all kinds of materials. Encourage them to pick a word they are not familiar with. Then have them make a poster or piece of artwork to describe the word they chose. Share with the entire group!

Activity Twelve - Reading in the Garden

Materials // Books!

Ages // 2-7

Time // 10 minutes

Activity Description //

To Market to Market

by Nikki McClure

All in A Day

by Nikki McClure

Before We Eat from Farm to Table by Pat Brisson

The Ox Cart Man

by Donald Hall

How Did That Get In My Lunchbox?

by Chris Butterworth