

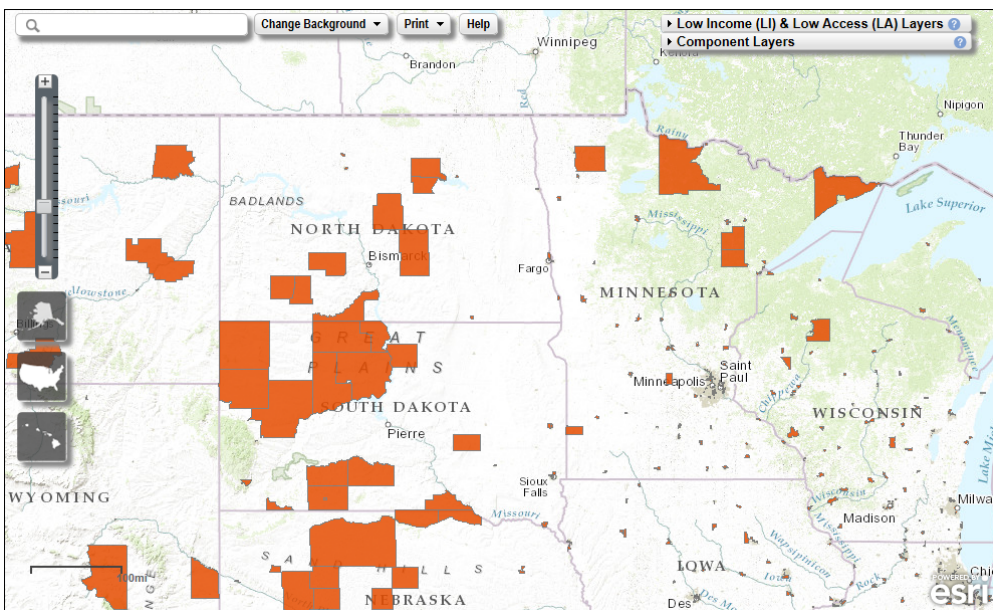
Food desert communities: Innovative gardening solutions



What is a food desert?

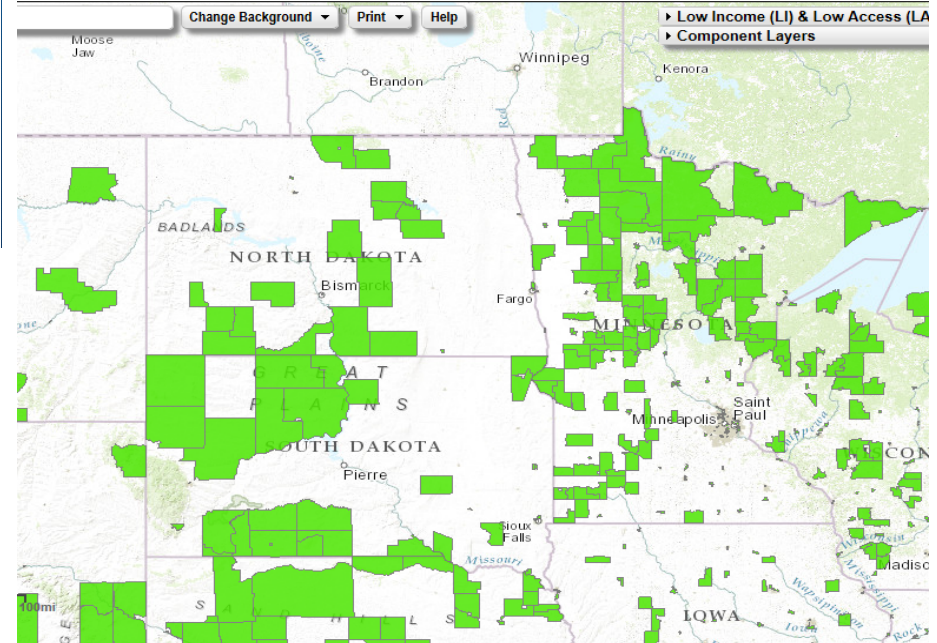
- An urban or rural community without access to fresh, healthy, and affordable food
- These communities have more convenience stores and fast food restaurants than grocery stores and supermarkets
- Lack of fresh, healthy, and affordable food contributes to poor eating habits and diet related diseases, like heart disease





United States Department of Agriculture (USDA)

- The USDA has studied food deserts across the United States and has created maps with layers of information pertaining to low income communities that are designated as a food deserts.
- The communities are identified using Census tracts that meet low-income and low-access definitions



<http://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx>

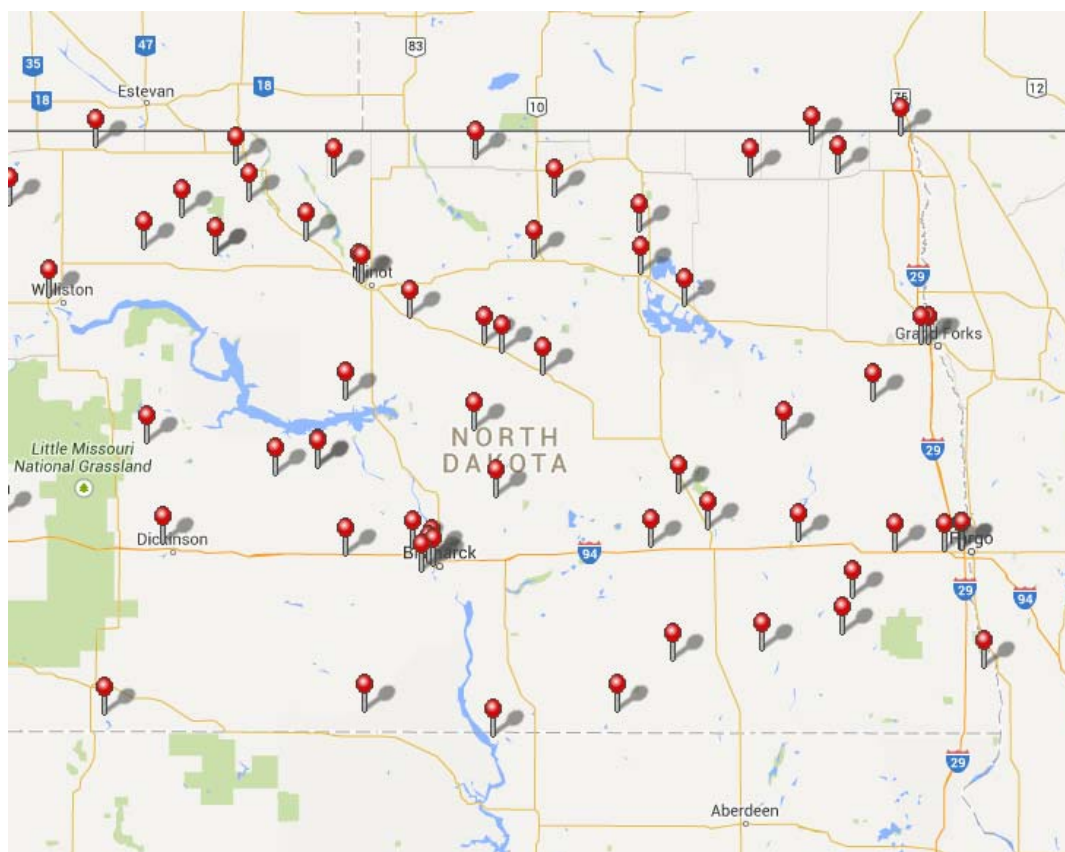
- Areas highlighted in green are low income and low access communities that are 1 mile (urban) or 10 miles (rural) from the nearest supermarket
- Areas highlighted in orange are low income and low access communities that are 1 mile (urban) or 20 miles (rural) from the nearest supermarket
- Do you see any similarities/differences between the green and orange maps?
- Is your hometown located in a food desert?

How can we overcome food desert situations?

- Farmers markets
- Community Gardens
- Innovative gardening

Farmers markets/community gardens

- Engage community leaders to designate a plot of land for a community garden
- Research any grants that are available for low-income/low-access communities to assist in growing a local community garden
- Encourage local farmers/gardeners to form a farmers market to sell produce to community members in need of healthy foods
- On the map to the right, each marker indicates a local farmers market in North Dakota



<http://search.ams.usda.gov/farmersmarkets/#>

Innovative gardening

- Use recyclables (i.e., milk jugs, pop bottles, cartons, cans) as pots
- Build a raised garden if soil is not conducive for a garden
- Don't have a yard or access to a community garden? Plant a potted vegetable/herb garden on your balcony/deck or an area that receives plenty of sun.
- Do you have a tendency to forget to water your plants? Use the inside of a diaper with water and mix the gel into potting soil. The diaper gel is biodegradable, non-toxic, and environmentally friendly.
 - <https://www.youtube.com/watch?v=sXb8rJ8Rm3I>



Traditional and local ND plants

- Grow a Three Sisters garden
 - Corn, beans, and squash are planted together in one plot. Corn is planted first. Once the stalk is 4 inches tall, plant the beans and squash. In each corn mound, plant 4 bean seeds. Then in between, the corn/bean mound plant 3 squash seeds.

Diagram of 10' x 10' Square Of Corn, Beans, and Squash Showing Spacing Of Mounds

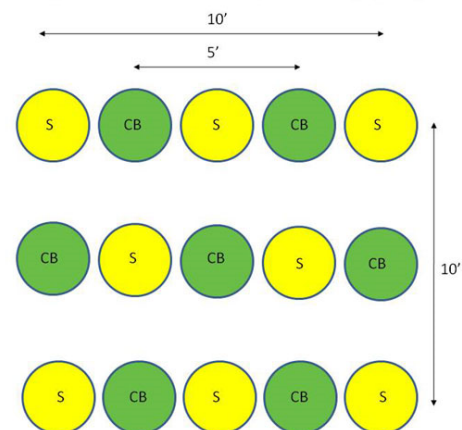


Diagram 2

Spacing of corn plants within corn/bean mounds

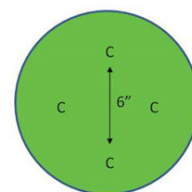


Diagram 3

Planting beans in corn/bean mounds

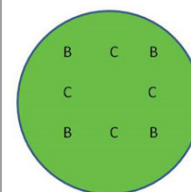
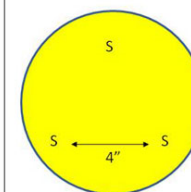


Diagram 4

Planting squash in squash mounds



<http://www.reneesgarden.com/articles/3sisters.html>

Edible plants that grow in North Dakota

Vegetable Planting Guide

Vegetables	Seeds or Plants for each 10 ft of Row	When to Plant*	Inches between Plant	Inches between Rows	Days until Edible	Yield per 10 ft. of Row
Asparagus	7 crowns	1	16-24	36-38	1-2 years	3-4 lb
Beans, bush	1½ oz.	3,4,5	2-3	24	50-70	6 lb
Beans, lima	1½ oz.	4	4-6	24	65-90	2 lb
Beans, pole	1 oz.	4	4-6	24	45-65	3-4 lb
Beets	½ packet	1,2,3,4	2-3	12-18	60-110	10 lb
Broccoli	5-7 plants	1,5	18-24	24-30	60-80	10
Cabbage	7-10 plants	1,2,5	18-24	20-28	60-100	10 heads
Carrots	½ packet	1,2,4,5	2-3	12-18	60-100	10 lb
Cauliflower	5-10 plants	1,5	18-24	24-30	60-80	10 lb
Cherry	20 plants	2,5	6	20-24	120-150	8-13 lb
Chinese Cabbage	7-10 plants	6	12-18	20-24	80-100	10 heads
Corn, sweet	1 packet	3,4,5	8-12	30-36	65-100	11-13 ears
Cucumbers	½ packet	4,5	15-18	48-60	50-80	10 lb
Eggplant	6-8 packets	4	18	24-30	75-85	20 fruits
Endive	1 packet	1	6	12	85	6 lb
Kale	1 packet	1,6	4	12-18	60-70	2-5 lb
Kohlrabi	½ packet	1,2,3	4-6	15-24	50-60	8 lb
Lettuce, leaf	1 packet	1,2,3,6	—	6-15	40-60	5 lb
Muskmelon	1 packet	4	18-24	48-60	90-120	10 melons
Mustard	1 packet	1,2,3,6	4	12-18	40-60	4-8 lb
Okra	¼ oz.	3	12	18-24	70-90	5 lb
Onion seed	1 packet	1,2,3	2-3	12-15	100-140	10 lb
Onion sets	60 sets	1,2	2-3	12-15	90-100	10 lb

Parsley	1 packet	1,2,3	4	12-18	80-100	½-1 lb
Parsnips	1 packet	1,2	3	18-24	140-160	10-12 lb
Peas	1½ oz	1,2	1-2	6-12	45-90	3 lb
Peppers	5-7 plants	4	18	18	70-75	80 fruit
Potatoes, Irish	10 pieces	1,2,3	12	24-36	14-150	30 lb
Potatoes, sweet	10 sprouts	4	18	36-48	140-150	12 lb
Pumpkins & winter squash	1-2 hills	4	4	60-72	90-120	40
Radishes	1 packet	1,2,6	1-1½	6-12	30-60	10 bunches
Rhubarb	3 crowns	1	36-72	36-60	1 year	12 lb
Spinach	1 packet	1,2,6	3	12-18	50-70	5 lb
Squash, summer	½ packet	4	4	24-30	60-75	60 fruit
Swiss chard	8 plants	1,2	6-8	15-18	50-75	12 lb
Tomatoes	2-5 plants	4	24-36	24-48	70-100	60 lb
Turnips	½ packet	5,6	18-24	18-24	60-90	10
Watermelons	¼ packet	4	60-84	60-84	90-130	4-10 melons

* Planting Date Code Numbers:

1. As soon as soil can be worked without becoming cloddy, generally mid to late April
2. Approximately 10 days later than number 1
3. Approximately 20 days later than number 1
4. After all danger of frost is past
5. Early June plantings of longer season vegetables for fall crops
6. Late June-early July planting of shorter season vegetables for fall consumption

<http://www.ag.ndsu.edu/pubs/plantsci/hortcrop/h1185.pdf>

Discussion

- Get in small groups (2 to 3 people)
 - Locate your community on the food desert map. Discuss why your community was/wasn't listed as a food desert. Are there more convenience stores than grocery stores in your area? How fresh are the fruits and vegetables when you do have access to them? Is there a farmers market or local farm near you that provides fresh produce to the locals?
 - Write down a list of potential ways that you could bring innovative gardening back to your community.
 - Are there barriers in your community that could prevent the creation of a community garden/farmers market? What barriers exist that could prevent a household from starting their own garden?

Discussion continued

- Group Discussion
 - Small groups share the barriers that exist in their communities.
 - As a group, address these barriers and come up with solutions. Is there something that is occurring in one community that has been successful and can be useful for the communities in need of food desert solutions?

Writing proposals

1. Define your issue
2. Define your solution
3. Think about your audience
4. Keep elements of style in mind
5. Make an outline



As a group, come up with a brief proposal to bring back to your community.

1. Who is your audience?
2. How are you going to present the situation to the audience? You want to present it in a way that the targeted audience will provide support and potentially offer funding.
3. What solutions are you going to include in the proposal?