



Climate Conversations Farms for a Sustainable Future and How to Support Farmers

St Mark's Creation Care Ministry

May 2024



Agenda

- Land Acknowledgement
- Opening Prayer
- A Framework for farming and agriculture
- Discussion and sharing
- Buying food and supporting farmers
- Discussion and sharing
- Closing Prayer

Saint Mark's Cathedral acknowledges that we gather on the traditional land of the first people of Seattle, the Duwamish People, who are still here, and we honor with gratitude the land itself and the life of all the Coast Salish tribes



Opening Prayer

God of all Creation,
We give you thanks for those who cultivate the earth, for those who wake before dawn and labor in the fields, for those who care for livestock, for those who plant and tend with care.

We pray they know they are appreciated beyond measure.

Too often, we overlook the gift of farmers as we grow ever more distant from the processes that bring food to our tables.

We pray that we see and know those who do the planting, tending, and harvesting.

They are a community of sowers on whom our survival and flourishing depend.

Amen



We Depend on Farmers

- Farming: Growing crops and raising livestock
- 1.9 million farms in the US
- America's farm families represent 2% of the population and feed 100%
- One acre of land can grow a variety of crops, including 50,000 pounds of strawberries or 2,784 pounds of wheat
- One US farmer feeds 166 people annually
- The 4 largest US firms in each sector control 85% of the beef, 85% of corn seed, 90% of grain trading and 63% of food retail. 20% of farms control 70% of US farmland.



Agriculture and Climate Change

- Agriculture causes 10% of U.S. greenhouse gas emissions
 - 46.6% is nitrous oxide, 41.5% methane, and 11.9% carbon dioxide
- Climate change impacts in Washington
 - Changes in crop & livestock productivity
 - Decreases in water availability
 - Increased stress from extreme events, invasive weeds, diseases, and pests



Washington Department of Ecology

Eco-Friendly Farming

- State-of-the-art science-based practices maximize productivity and profit while minimizing environmental damage

Practices include:

- Rotating crops and embracing diversity
- Planting cover crops and perennials
- Reducing or eliminating tilling in ag
- integrated pest management
- Organic farming (eliminate chemical use)
 - 50% of ag emissions are from fertilizer
- Integrating livestock and crops



Bible-Friendly Farming

- Exodus 23: For six years you shall sow your land and gather in its yield, but the seventh year you shall let it rest and lie fallow
- Proverbs 27: Know the conditions of your flocks, give careful attention to your herds; for riches do not endure forever, and a crown is not secure for all generations
- Leviticus 19: Do not go over your vineyard a second time or pick up the grapes that have fallen



Tech-Enabled Farming

Traditional farming

- Farmers carry on traditions and “guesstimate” planting, input & labor

Tech-enabled

- Seed preparation and selection
- Automated, GPS and robotic technologies to plant, weed, harvest
- AI, big data, computer modeling & drones to monitor crops & manage water, fertilization & pests
 - Model fertilizer need to 1-yard areas
- Waste reduction
- Regenerative farming



Farming is Big in Washington

- 300 different crops on 15 million acres
 - Washington is the top US producer of apples, blueberries, hops, pears, sweet cherries & more
 - #2 in potatoes, asparagus & grapes
- Agricultural production >\$12.8 billion
 - 1/3 is exported
- 89% of farms sell less than \$250K/year
- Between 2017 and 2022, Washington lost 3,717 farms and ranches
- Farmers & ranchers receive only about 15¢ of every retail dollar spent on food



The Farming Cycle

- Winter: Farm preparation
- Springtime: Readyng the field
Planting
- Summer: Maintaining
Sales
- Autumn: Harvesting
Sales
Preparing for winter
- The real story – Tyler Morse

Tyler A. Morse
Owner & Operator



BRIER PATCH FARM

BRIER, WA

A Day in the Life of a Farmer

- The inside story, from Tyler Morse



Discussion & Breakout Session

Questions:

- How does your impression of farms differ from the reality of farms?
- What are your favorite aspects of farming in Washington?
- What questions do you have for Tyler?



Selecting our Food Well Benefits Us

- Lower cost
 - A vegan or vegetarian diet could cut your food bill by 33%
- Better health
 - Diets high in fruits, vegetables & legumes and lower in meats reduce risks of heart disease, diabetes, cancers
- A healthier planet & less climate change
 - Lower-carbon alternatives like plant-based or poultry once a day can reduce your dietary “carbon” footprint by 35%
- It still must have the taste, texture, aroma and appearance we expect



Food has Lots of Labels

Examples:

- Natural (FDA)
 - Nothing artificial or synthetic.
 - Does not address food production methods, such as pesticides, food processing or manufacturing methods
- Organic (USDA National Organic Program)
 - No prohibited substances for 3 years
 - Manage crop nutrients and soil fertility via rotations, cover crops, and the application of plant and animal materials.
- GMO (genetically modified organism)
 - Farmers have modified production - corn, cattle, etc. - for thousands of years
 - Biotechnology allows scientists to modify the DNA of crops, and animals directly.



Save Money via Organic or Non-Organic

- Clean: 15 types of produce can be eaten non-organic because of low pesticide residue
- The Dirty Dozen: Produce that has the most toxic residue and should be eaten organic
- Pesticides pose significant risks in 20% of the foods



How much risk do pesticides in fruit and vegetables pose?

View **Fruit** Vegetables

Lower risk Higher risk
Very low Low Moderate High Very high NA

Serving size	Conventional		Organic	
	US grown	Imported	US grown	Imported
Apples 1/2 large	NA	Low	Very low	NA
Applesauce 1/3 cup	Very low	Low	Very low	Low
Bananas 1 small banana	NA	Low	NA	Low
Blueberries 2/3 cup	High	Moderate	Very low	Low

Selecting Food Better

- Insights from Tyler Morse



Buying in Ways that Support Farmers

- Insights from Tyler Morse
- There are almost 40 farmers markets in King County



Engagement to Support Farming

- Organizations for farmers
- Organizations for consumers
 - Pick Your Own
- Farming cooperatives
- Non-profit organizations
 - National Sustainable Agriculture Coalition Directory
- Government
 - USDA Local Food Directories



[Eat Local First](#)

Reducing Your Climate Impact

- Avoid pre-chopped, pre-prepared foods
- Avoid convenience foods, which cost more, use plastic & are highly processed
- Buy seasonally - Buy extra & freeze
- Buy (nutrient-dense) frozen foods
- Simple substitutions decrease carbon footprints - chicken instead of beef
- Buy the amount you actually need
- Prepare meals at home
- Reduce waste
 - Eat, store or freeze leftovers



Sharing, Discussion and Q&A

Questions

- What surprised you about the life of a farmer?
- What actions can you take to support farmers better?
- How can you shop better for health, savings and the planet?



Make a Difference

Good farmers, who take seriously their duties as stewards of Creation and of their land's inheritors, contribute to the welfare of society in more ways than society usually acknowledges, or even knows. These farmers produce valuable goods, of course; but they also conserve soil, they conserve water, they conserve wildlife, they conserve open space, they conserve scenery. - Wendell Berry, [Bringing it to the Table: On Farming and Food](#)

Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bonds. - Thomas Jefferson

Closing Prayer

God of all Creation,
For farmers who keep food on the shelves
and make plenty a possibility, we give thanks.
Guide them and bless them, O God of
Abundance.

We pray for favorable weather, abundant
crops, communities of support, fair economic
practices, and strength and perseverance
as they live into your calling that we tend to
the gift of creation, stewarding life in
celebration of each new day.

Amen.

