Hill County, MT
~1,580 MI northwest of St. Louis

• “Big Sky Country”
  • MT population 1.05 M; 82% of MT is “Frontier”
  • Hill County population 16,000; area 2,916 MI² = “Frontier” (< 6 persons/MI²)
  • Larger than states of Delaware and Rhode Island

• 40 MI to Havre, MT (pop. 9,800)
• ~150 MI to Great Falls, MT (pop. 59,000)
• ~100 MI to Medicine Hat, AB (pop. 63,000)

• Typical crop mix: Wheat – fallow
• Average Farm size: 1,992 acres
• Typical Farmland Value: $800/acre
• Annual precipitation: 11”
Who we are, Where we came from...
2018 Crop Plan:
• 7,309 Total acres
  • 3,816 (52%) harvested for seed/sale;
  • 1,564 (21%) green manure cover crops;
  • 1,929 (26%) non-crop conservation area
    • Native rangeland;
    • CRP; and
    • Field Borders & Conservation Strips
Our “farming philosophy”: Vilicus, Latin for “steward of the land”

• Do NOT grow food using poisons;
• Nature is the best teacher;
• Farming is the highest and best calling;
• Farmers must be professional land stewards;
• Farming can (and must) be practiced in a manner that improves the soil and associated natural resources;
• Tillage is the “ART” of farming; and
• The best “fertilizer” is the farmer’s boot-prints

(adapted from Wendell Barry)
Farming Practices

• Certified Organic
• Transitioning to Biodynamic
• Diverse Crop Rotations
  • 5-year; 7-year; and “perennial phase”
• Strip Farming
• Field Borders
• Pollinator-friendly plantings
• Inter-cropping
• Continuous Cropping
• Cover Crops/Green manures
Crop Rotations

5-year

• **Lite Grain:** spelt, emmer, Kamut, oats, etc.

• **Green Fallow:** clover, vetch, peas, etc.
  – *Crop terminated at flowering and incorporated as green manure; also incorporate feedlot manure*

• **Heavy Grain:** “modern grains” (spring or winter wheat, etc.)

• **Green Fallow:** buckwheat, cocktail mix, clover, etc.
  – *Crop terminated at flowering and incorporated as green manure*

• **Spring Legume:** peas, lentils, vetch, etc.
7-year

- **Lite Grain:** spelt, emmer, Kamut®, etc.
- **Green Fallow:** clover, vetch, peas, etc.
  
  *Crop terminated at flowering and incorporated as green manure*

- **Heavy Grain:** “modern grains” (spring or winter wheat)

- **Green Fallow:** buckwheat, cocktail mix, clover, etc.
  
  *Crop terminated at flowering and incorporated as green manure*

- **Spring Legume:** peas, lentils, vetch, etc.

- **Broadleaf/Oat:** oats, buckwheat, flax, **mustard**, etc.

- **Green Fallow:** clover, vetch, peas, etc.
Perennial Phase

• Substituted into every third cycle of rotation
• Alfalfa, under-seeded with a cereal grain;
• Left standing for three years;
• No harvest or tillage;
• Enhances soil building;
• Out-competes perennial weeds;
• Allows soil to “rest” and reset
Business / Marketing Practices

• Use DIVERSITY to manage risk
• CONSERVATION Pays... SOIL is our most important resource
• Production ≠ Profit (Net is not Gross)
• TIMING is critical
• Do what others won’t (or don’t) do...
• Organic Certification... Biodynamic
• Specialty Crops
• Production Contracts
• Multiple Buyers
• Grow our own seed
Sustainability

- Diversity is the key
  - 15 – 20 crops
  - 8 – 12 Buyers
  - Spring, summer and fall-seeded crops
  - Grain, pulse and broadleaf crops
  - Additional income sources
  - Diverse perspectives (staff, friends, partners, visitors)

- The farm is a self-sufficient organism
  - Grow the fertility (and seed);
  - Be your own agronomist;
  - There are NO solutions in a bag!
  - The easiest revenue to earn is what you don’t spend
When we see land as a community to which we belong, we may begin to use it with love and respect... That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics. That land yields a cultural harvest is a fact long known, but latterly often forgotten.”

Aldo Leopold, 1948