Organic Agriculture in Montana

An overview

Jonda Crosby

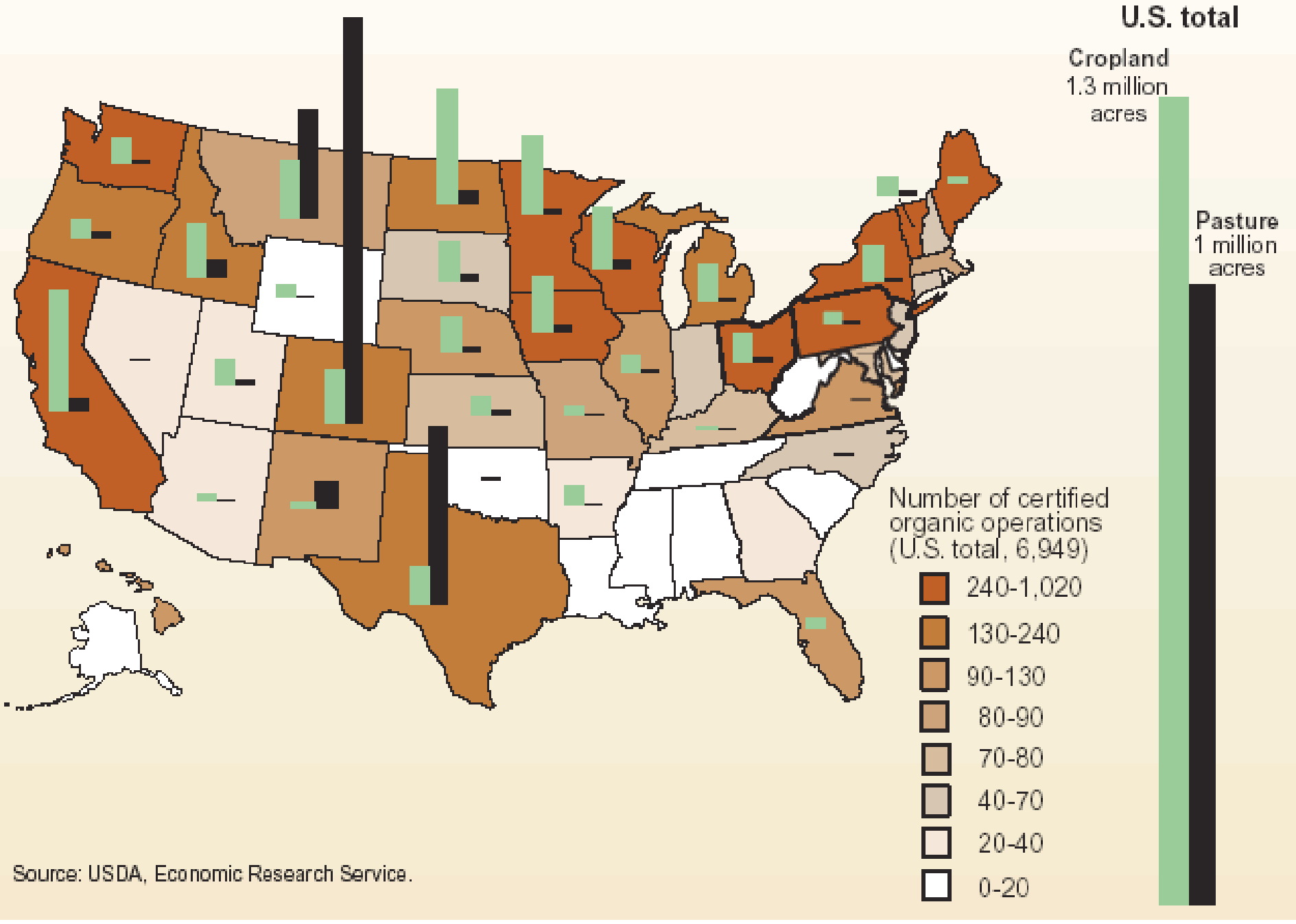
Alternative Energy Resources Organization (AERO)

Organic Production in United States

2.3 million Total Organic Acres

- 1.3 million crop acres
- 1 million of Pasture / Rangeland
- Increased 161% since 1997

Certified organic acreage and operations, 2001



Source: USDA, Economic Research Service.

Percent Crop Growth in US since 1997

- Pasture 109%
- Wheat 55%
- Peas/Lentils 80%

Percent Livestock Growth in US since 1997

- **Beef** 243%
- **Sheep** 497%
- **Poultry** 2,110%
- **Hogs** 550%

Organic Production in Montana

- 209,000 Total Certified Organic Acres
- There are 180 certified organic farmers and ranchers in Montana
- Average size operation 1200 acres
- 72,000 crop acres
- 137,000 of Pasture / Rangeland

Organic Production in Montana

Rank among States

- **# 1 in wheat production and green manures**
- **# 2 in all grains; Primarily, Wheat, Barley, Peas, Lentils and Flax**
- **# 2 in all acres**
- **Top 8 in Herbs, Rye, Oats, Sunflowers, and Millet**

Organic Production in Montana

Growth Opportunities

- **Livestock**
- **Processing for every product**
- **Grain, Beans, Oilseeds**
- **Herbs**
- **Vegetable Crops**

What is "Organic”

Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity..

The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

(National Organic Program final rule, definitions)

What does *certified organic* mean?

- Products have been grown and processed according to national standards. USDA National Organic Program

- Product production has been verified by an independent state or private USDA accredited inspection agency.

- Producers must submit an organic system plan that includes practices that support and enhance the principles of organic systems set in the national standard.

Converting to Organic (a few short facts)

- Takes three years to transition from conventional to organic systems
- Must use approved inputs
- Must have clear audit trail and records of all inputs, production yields, sales, bin logs, practices and treatments etc.
- Must have buffer zones separating your land from non organic fields

Making The Transition
What's it Take?

- Imagination, systems thinking, clear goals
- Understand nutrient, pest and disease cycles
- Keeps good records
- Experiment with one change at a time
- Soil health will determine how smooth the transition is

What successful Organic Farmers Keep Track of:

Soil Health

- OM-going up or down, tilth- getting more mellow or hard, water retention better filtration or worse, basic nutrients staying in balance?

Pest Management

- Are pest cycles being interrupted, are crops providing enough competition, are the mechanical controls working?

Organic production systems include:

- Cultural and mechanical controls
- Crop rotation
- Biological diversity
- Cover crops and green manures
- Intensive management
- Detailed record keeping

Organic production systems exclude:

- Genetic Engineering
- Irradiation
- Sewage sludge
- Synthetic fertilizers and pesticides
- Growth hormones
- Antibiotics

Every rotation should include:

- Cereals <—> broad leaved
- Deep-rooted <—> shallow-rooted
- High biomass root crops <—> low biomass root crops
- Legumes <—> high N feeders

Every rotation should include:

- Green manure & cover crops
- Warm season crops <—> cool season
- Spring planted <—> fall planted
- Perennial mixed forages with legumes
- Weed suppressive crops before slow growing crops

Every rotation should include:

- High moisture users <—> low moisture users
- Intercropping
- Allopathic crops
- Row crops

Example Rotation

Year 1

Spring: Barley and clover

Fall: Winter Wheat

Year 2

Winter Wheat

Year 3

Peas, Lentils or Flax

Example Rotation

Year 1	Year 4
Winter Wheat	Alfalfa (hay/seed)
Year 2	**Year 5**
Lentils	Green Manure the Alfalfa
Year 3	**Year 6**
Barley +Alfalfa	Winter Wheat

Weed Management Practices

1. Interrupt Cycles by using:

- Well designed crop sequences
- Green manures
- Allelopathic crops
- Mowing, haying, or grazing

Weed Management Practices

2. Increase Competition by using:

- Increased seeding rate
- Decreased row spacing
- Timed seeding
- Competitive crop varieties
- Intercropping/overseeding
- Cover crops
- Nurse crops w/slow growing legumes
- Perennial forage crops

Weed Management Practices

3. Mechanical/Physical Control

- Mow, hay, graze perennials
- Rogue (by hand or mechanical)
- Put in a Row crop and use tillage
- Well-timed tillage
- Flaming
- Fallow

Weed Management Practices

4. Well-timed Tillage

- Before seeding
- Stale seed bed
- Pre-emergence
- Post-emergence harrowing

Insect Pest Management Practices

- Crop rotation
- Time seeding & harvest
- Weed control
- Isolate pests
- Bio controls
- Botanical and approved insecticides
- Habitat for beneficials

Marketing Organic Products

Over the past 10 years have seen a 20% increase in sales of organic products in the US

- Organic marketing is **based largely on relationships**, who you know and who knows you and the reputation you develop by providing quality product.
- The best organic farmer/marketers are planning years ahead to offer specific products to specific buyers.
- Contracting with buyers for most products seems to work well for most farmers.

Marketing Channels for Organic Products

- Local direct marketing to consumers
- Direct to processors or feed processors
- Export markets (Japan and Europe) through Brokers like Timeless Seeds in Conrad, MT

Marketing Organic Products

Organic marketing is more difficult and time consuming than selling conventional agricultural products, and may entail:

- **Strict quality requirements**
- **On farm storage, cleaning, bagging, testing**
- **Increased risk if the market is flooded**

How to Get Certified?

- **Contact a Certifying agency**
  - Submit complete application and system plan forms
  - Review of forms with agency,
  - Inspector comes to farm/business to verify operation
  - Inspector writes report, agency follows-up with any questions/concerns
- **Whole process takes 6-8 months the first year**

Organic Certifier Agencies

Montana Department of Agriculture

Ph: 406-444-3730

OCIA (Organic Crop Improvement Assoc.)

Ph: 402-477-2323

FVO (Farm Verified Organic)

Ph: 701-486-3578

OTCO (Oregon Tilth Certified Organic)

Ph: 503-378-0690

GOA (Global Organic Alliance)

Ph: 937-593-1232

Frequently Asked Questions

- Can a farmer be certified that is creating serious soil erosion year after year?
- **NO**
- **This would be a serious NON Compliance**

Frequently Asked Questions

- Do organic farmers have to comply with the Montana Noxious Weed laws?
- **Yes**
- **Organic farmers are no different than conventional when it comes to noxious weed control management. AND as part of their organic certification pest management plan, farmers must be managing weed problems or they could be out of compliance.**

Frequently Asked Questions

- What if an organic farmer's land gets sprayed by a conventional neighbor, or crop duster by accident?

- **They lose their certification on that field or portion of the field and have to start over to get it certified organic.**