



# Organic Certification

Daniel Parson

[Daniel.parson@emory.edu](mailto:Daniel.parson@emory.edu)

404.452.4321



# USDA and Organic

- 1990 -- Congress passes Organic Foods Production Act (OFPA)
- 1992 -- USDA establishes the National Organic Program
  - USDA appoints National Organic Standards Board
- 2000 -- USDA publishes approved standards
- 2002 -- NOP rules fully enforced



# Me and Organic

- 1998-Wildflower Organics:
  - Certified Organic by Georgia Land Stewardship Association
  - 2000--Certification dropped, now bernadette' s garden
- 2002-Clemson student farm certified 2005
- 2004-Gaia Gardens Certified by Georgia Crop Improvement Association
- 2009-Parson Produce: Certified by Clemson in 2012
- 2014-Oxford College Farm Certified by QCS in October



156 Spriggs Rd, Dawsonville, GA 30534

Image U.S. Geological Survey

2009 Google



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Imagery Date: Mar 31, 2008

34°28'21.07" N 84°08'40.27" W elev 0 m

Eye alt 628 m



Image U.S. Geological Survey

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130 m

Date: Mar 21, 2008

34°40'22.23" N 82°50'40.24" W elev. 0 m

Elev. alt. 450 m



Crestview Avenue

Dancing Fox Road

88 m

Pointer 33°44'13.05" N 84°18'26.59" W

© 2007 Tele Atlas

Streaming 100%

© 2006

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Eye alt 304 m



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50 m

Imagery Date: 11/24/2011

1994

34°25'03.28" N 81°52'00.86" W elev 181 m

Eye alt 401 m



# Organic Production Definition

“A production system that is managed... to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity”



# The Organic Rule

- Definitions
- Applicability
- Organic Production and Handling Requirements
- Labels, Labeling, and Market Information
- Certification
- Accreditation of Certifying Agents



# The Organic Rule

- Administrative
- State Organic Programs
- Fees
- Compliance
- Inspection and Testing, Reporting, and Exclusion from Sale
- Adverse Action Appeal Process
- Miscellaneous



# The Certification Process

- Implement organic management
- Select certification agency
- Submit application
- Clarify as requested by agency
- On-farm inspection
- Ruling by the agency's board



# General Information

Who, where, what, and why

- Who is in charge
- Where is the location/directions for inspector
- What type of crops do you grow
- Do you understand NOP rule
- Certification history



# Farm Plan Information

- List crops on seed plan sheets
- Field maps show field numbers
- Acres per crop on field maps
- Challenges:
  - Diversity of crops and small acreage
  - Keeping accurate records

# Field Rotation Plan 2007

| Field | Crop                         | Season |                        |
|-------|------------------------------|--------|------------------------|
| 1     | Oats and Clover              | Winter | Mulch/mineral Addition |
|       | Mix Spring Veg               | Spring |                        |
|       | Buckwheat/SudanGrass/Soybean | Summer |                        |
|       | Mix Fall Veg                 | Fall   |                        |
| 2     | Rye and Vetch                | Winter |                        |
|       |                              | Spring |                        |
|       | Pepper, Eggplant, and Okra   | Summer |                        |
|       |                              | Fall   |                        |
| 3     | Rye/Vetch                    | Winter |                        |
|       |                              | Spring |                        |
|       | Mix Beans                    | Summer |                        |
|       | Garlic/Onions                | Fall   |                        |
| 4     |                              | Winter | Mulch/mineral Addition |
|       |                              | Spring |                        |
|       | Sunnies/Cowpea               | Summer |                        |
|       |                              | Fall   |                        |
| 5     | Clover and Oats              | Winter |                        |
|       | Mix Spring Veg               | Spring |                        |
|       | Buckwheat/Sudan/Soybean      | Summer |                        |
|       | Mix Fall Veg                 | Fall   |                        |
| 6     | Rye/Vetch                    | Winter |                        |
|       |                              | Spring |                        |
|       | Cucurbits then Flowers/Basil | Summer |                        |
|       | Rye/Vetch                    | Fall   |                        |
| 7     |                              | Winter | Mulch/mineral Addition |
|       | Tomatoes                     | Spring |                        |
|       |                              | Summer |                        |
|       | Fava Beans                   | Fall   |                        |
| 8     |                              | Winter |                        |
|       | Cowpeas/Sudan Grass          | Spring |                        |
|       |                              | Summer |                        |
|       |                              | Fall   |                        |
| 9     |                              | Winter |                        |
|       | Sweet Potato/Flowers         | Spring |                        |
|       |                              | Summer |                        |
|       | Oats and Clover              | Fall   |                        |
| 10    |                              | Winter | Mulch/mineral Addition |
|       | Mix Spring Veg               | Spring |                        |
|       | Buckwheat/Sudan/Soybean      | Summer |                        |
|       | Mix Fall Veg                 | Fall   |                        |
| 11    | Overseed Oats                | Winter |                        |
|       | Potatoes                     | Spring |                        |
|       | Flowers                      | Summer |                        |
|       | Rye/Vetch                    | Fall   |                        |
| 12    | Rye/Vetch                    | Winter |                        |
|       |                              | Spring |                        |
|       | Winter Squash                | Summer |                        |
|       |                              | Fall   |                        |

crop  
cover crop



|          | Variety | Crop | Field | Date-Seeding Est | Date-Seeding Actual | Days SD to TD | Date-Transplant Est | Date-Transplant Actual | Days to Harvest | Date-Harvest Est | Date-Harvest Actual | # of Beds | Rowfeet | Feet per Cunce | # seeds per foot | Plants / Foot | # of Rows / Bed | # of Plants | Flat Size | # of Flats | # of Seeds | # of Seeds / Oz | Ounces of Seed |
|----------|---------|------|-------|------------------|---------------------|---------------|---------------------|------------------------|-----------------|------------------|---------------------|-----------|---------|----------------|------------------|---------------|-----------------|-------------|-----------|------------|------------|-----------------|----------------|
|          | Arugula |      |       |                  |                     |               |                     |                        | 28              | 29-Jan           |                     |           | 0       | 500            | 30               |               | 3               |             |           |            | 0          | 15000           | 0              |
| Herb     | Arugula |      | 1     | 5-Mar            |                     |               |                     |                        | 28              | 2-Apr            |                     | 1         | 150     | 500            | 30               |               | 3               |             |           |            | 4500       | 15000           | 0.3            |
| Herb     | Arugula |      | 1     | 26-Mar           |                     |               |                     |                        | 28              | 23-Apr           |                     | 1         | 150     | 500            | 30               |               | 3               |             |           |            | 4500       | 15000           | 0.3            |
| Herb     | Arugula |      | 1     | 9-Apr            |                     |               |                     |                        | 28              | 7-May            |                     | 1         | 150     | 500            | 30               |               | 3               |             |           |            | 4500       | 15000           | 0.3            |
| Genovese | Basil   |      | 11    | 23-Apr           |                     | 42            | 4-Jun               |                        | 68              | 11-Aug           |                     | 2         | 200     |                |                  | 1             | 2               | 200         | 72        | 4          | 576        | 18000           | 0.032          |
| Genovese | Basil   |      | 11    | 4-Jun            |                     | 42            | 16-Jul              |                        | 68              | 22-Sep           |                     | 2         | 200     |                |                  | 1             | 2               | 200         | 72        | 4          | 576        | 18000           | 0.032          |

### Field 1 Layout

|                      |                                                |                         |                 |
|----------------------|------------------------------------------------|-------------------------|-----------------|
| Chioggia Beets       | Scarlet Nantes Carrots/ Cherry Belle<br>Radish | Chioggia Beets          | Leaf Mulch      |
| Lettuce Mix          | Scarlet Nantes Carrots/ Cherry Belle<br>Radish | Arugula Rockette        | Leaf Mulch      |
| Braizing Mix         | Scarlet Nantes Carrots/ Cherry Belle<br>Radish | Spring Onions (Failure) | Leaf Mulch      |
| Georgia Sweet Onions | Red Ace Beets                                  | Red Ace Beets           | Leaf Mulch      |
| Sugar Snap Peas      | Sugar Snap Peas                                | Sugar Snap Peas         | Sugar Snap Peas |

\*All beds 50 feet on 5 foot centers

|           |                                                           |
|-----------|-----------------------------------------------------------|
| Tillage   | Tillage and bed preparation March,<br>2004                |
| Planting  | March, 2004                                               |
| Harvest   | April-June, 2004                                          |
| Fertility | Fertrel 4-2-4 OMRI approved band<br>applied at 100#N/acre |



# Seeds and Seed Treatments

- Organic if available in required quantity, quality, and variety
- Use NO treated seed
  - Be careful of suppliers/specify untreated
- Keep seed receipts and compile
- Challenges:
  - Finding all organic seed
  - Diverse cropping system

| Variety  |            |   |   |         |         |         |                 |  |
|----------|------------|---|---|---------|---------|---------|-----------------|--|
| Beans    | 1 pound    | 3 | F | C205PO  | \$7.50  | \$22.50 | x               |  |
| Cabbage  | 14 gram    | 1 | F | C3324EJ | \$2.00  | \$2.00  | no              |  |
| Cilantro | 28 gram    | 1 | F | C4517RO | \$2.50  | \$2.50  | x               |  |
| Tomato   | 2 grams    | 1 | F | D4069JO | \$5.50  | \$5.50  | x               |  |
| Tomato   | 1 gram     | 1 | F | C4233JS | \$7.00  | \$7.00  | no              |  |
| Beans    | 1 pound    | 2 | H | 2230    | \$7.50  | \$15.00 | x               |  |
| Cucumber | 1 ounce    | 1 | H | 2450    | \$5.00  | \$5.00  | x               |  |
| Kale     | 2 ounce    | 1 | H | 2535    | \$10.00 | \$10.00 | x               |  |
| Squash   | 1/2 pound  | 1 | H | 2925    | \$59.70 | \$59.70 | x               |  |
| Basil    | 1 ounce    | 1 | J | 911G    | \$5.60  | \$5.60  | x               |  |
| Beets    | 1000       | 7 | J | 2841    | \$1.93  | \$13.51 | x               |  |
| Broccoli | 1000       | 3 | J | 2413    | \$6.35  | \$19.05 | no              |  |
| Broccoli | 1000       | 3 | J | 143     | \$8.30  | \$24.90 | no              |  |
| Broccoli | 1000       | 1 | J | 151     | \$6.35  | \$6.35  | no              |  |
| Cabbage  | 1000       | 1 | J | 168     | \$7.95  | \$7.95  | no              |  |
| Collards | 1/2 ounce  | 1 | J | 2190X   | \$8.95  | \$8.95  | no              |  |
| Pea      | 1 pound    | 5 | J | 2855    | \$5.63  | \$28.15 | no crop failure |  |
| Soybean  | 1 pound    | 7 | J | 104     | \$10.92 | \$76.44 | no              |  |
| Soybean  | 1 pound    | 2 | J | 105     | \$13.00 | \$26.00 | no              |  |
| Squash   | 1/4 pound  | 1 | J | 675G    | \$18.00 | \$18.00 | x               |  |
| Tomato   | 1/16 ounce | 1 | J | 2372    | \$6.60  | \$6.60  | x               |  |



# Source of Seedlings and Perennial Stock

- Annuals must be organic certified
  - Seedlings grown on farm or certified OG
- Perennials must be organic if available
  - If not, 1 year of organic management required
- Opportunity for growth?



# Soil and Crop Fertility Management

- Biological:
  - Cover crops, compost, animal products
- Mechanical:
  - Ground rock: lime, phosphate, greensand, etc.
- Cultural:
  - Rotations, legumes, contour plowing, etc.

# Soil and Crop Fertility Management

- Monitoring of fertility:
  - Soil testing
  - Observation of soil and plant
- Fertility sources
  - Cover cropping
  - OMRI listed fertilizer
  - Decomposed mulch: brewery grains





# Soil and Crop Fertility Management

- Compost and manure use
  - ‘Compost’ refers to specific process
  - Non-manure sources OK without composting
- Natural resources
  - Conservation practice
  - Water quality and sources



# Crop Management

How do you confront challenges?

- Weed Management
- Pest Management
- Disease Management

Evaluation of all areas

# Weed Management

- What are the problem weeds?
- Cultivation
- Mulching
  - Plastic mulch must be removed at season's end
  - Natural materials decompose to improve soil
- Flame weeding
- Rotations and crop timing





# Pest Management

- Managed by everything else
  - Rotations, cover crops, diversity, attracting beneficials
- Limited use of OMRI approved products
  - Dipel DF for cabbage worms
  - Safer Soap for aphids
- Hand picking and trap cropping

Monitoring is most important





# Disease Management

- Start with healthy crops
- Keep a clean greenhouse
- Rotations break up disease cycles
- Good drainage and air flow
- Proper fertility management
- Keep up with developments in control





# Maintenance of Organic Integrity

- Adjoining Land Use
  - Buffer zones of forest and grass strips
  - Neighbor' s policies of pesticide use
- Conventional cross-over
  - Split operations can raise conventional crops
  - Prevent commingling of products and tools



# Maintenance of Organic Integrity

- Harvest and preparation
  - Containers used--new, source verified
  - Storage of crop including pest control
- Transportation and marketing
  - Dedicated vehicle, or document cleaning
  - Containers



# Record Keeping

- “adapted to the particular business”
- “sufficient detail”
- Maintained for at least five years
- Available for certifying agent, federal secretary, state official



# Record Keeping

The hardest and best aspect of certification

- Seed order records
- Planning changed to record of season
- Daily diary of what's done
  - Land preparation and pest/weed control
  - Planting and fertilization
  - Harvest: where and how much



# Record Keeping

- Planning turns to records
  - Revise seed order plans to actual orders
  - Record plantings on planning sheets
- Keep good business records
  - Receipts from seed and fertilizer companies
  - Sales records: invoices and CSA lists



# Affirmation

- Records kept
  - Keep the records you say you do
  - Keep enough to verify claims
  - Be thorough and use these records
- Marketing: CSA, market, and restaurant sales
- Documents attached



# Allowed Synthetic

“A substance included on the National List of synthetic substances allowed for use in organic production and handling”

# Annual Seedling

“Plant grown from seed that will complete its life cycle or produce a harvestable yield in the same crop year or season in which it is planted”



# Buffer Zone

“...must be sufficient in size or other features to prevent the possibility of unintended contact by prohibited substances...”





# Commercially available

“The ability to obtain a production input in an appropriate form, quality, or quantity to fulfill an essential function...”

# Compost

...a managed process...that combines plant and animal materials with an initial C:N ratio between 25:1 and 40:1...

- Static pile: between 131F and 170F for 3 days
- Windrow: 131F and 170F for 15 days, turned at least 5 times



# Compost Tips

- Vegetable based 'mulch' doesn't need composting
- Use a regular formula of ingredients
- Keep records and take temperatures



# Crop Rotation

“...a planned pattern or sequence in successive crop years so that crops of the same species or family are not grown repeatedly without interruption in the same field”





# Crop Rotation

“Perennial cropping systems employ alley cropping, intercropping, and hedgerows...in lieu of crop rotation”

# Crop Year

“That normal growing season for a crop as determined by the Secretary”





# Cultural Methods

“Methods used to enhance crop health and prevent weed, pest, or disease problems without the use of substances...”



# Excluded Methods

“A variety of methods used to genetically modify organisms...”

“Methods do not include traditional breeding, conjugation, fermentation, hybridization, in vitro fertilization, or tissue culture”



# Handling Operation

“...operation that receives... agricultural products and processes, packages, or stores such products”

# Planting Stock

“Any plant or plant tissue other than annual seedlings... used in plant production or propagation”



# Prohibited Substance

“A substance the use of which in any aspect of organic production or handling is prohibited...”



# Sewage sludge

“...generated during the treatment of domestic sewage...”



# Synthetic

“A substance that is formulated or manufactured by a chemical process... except...substances created by naturally occurring biological processes”





# Applicability: who must certify

- Production or handling operations
- Products sold as organic
- Products intended for processing or resale as organic



# How long before I can certify?

“No prohibited substances...applied for a period of 3 years immediately preceding harvest of the crop”



# Organic Production Definition

“A production system that is managed... to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity”



# Thank you!

This field day paid for by  
USDA SE TOPP

United States Department of Agriculture  
Agricultural Marketing Service  
National Organic Program  
Transition to Organic Partnership Program





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