

Organic Certification for Field Crops: a Guide

This guide provides an overview of the organic certification process for farmers who produce field crops. It includes sample forms that illustrate the kinds of records a farm must maintain for certification, and it provides tips for selecting a certifying agent.

To sell, label, or represent their products as “organic,” growers and processors who sell organic products valued at \$5,000 or more a year must be certified by a certifying agent accredited by the U.S. Department of Agriculture (USDA). The National Organic Program Final Rule (NOPFR) spells out requirements for organic crop and livestock production, handling, certification, and recordkeeping. (The NOPFR and other related documents are available on the Web at www.ams.usda.gov/nop/.)

Organic Certification: An Overview

Because all certifiers must follow USDA requirements, the organic certification process is similar across certifiers. The farmer-applicant, the certifying agent, and the inspector must complete specific steps.

The farmer. A farmer seeking certification must do the following:

1. Comply with the federal standards for organic production (Table 1).
2. Choose a certifier.
3. Complete an Organic Farm (or System) Plan, which is also considered the application for certification. The Organic Farm Plan must describe all relevant aspects of the operation, include farm maps, and document a three-year field history for crops planted and inputs applied. (See Recordkeeping Requirements on page 2 for more details.)
4. Submit the completed Organic Farm

Plan as the application with certification fees and other required documents to the certification agency.

The certifying agent

1. Reviews the Organic Farm Plan and accompanying documentation to ensure completeness and determine whether the applicant appears to comply or has the ability to comply.
2. Verifies information regarding any previous certifications, notification of non-compliance, or denials of certification.
3. Arranges an on-site inspection of the farm, the next step toward certification. The certifying agent assigns an organic inspector who calls the applicant to set up an appointment. The inspection may take 3 to 6 hours, depending on the complexity of the operation.

The inspector

1. Verifies information from the Organic Farm Plan. To accomplish this, he or she inspects fields, farm buildings, and equipment; assesses contamination risks; fills out an onsite inspection report; and gathers as much information as needed for the certifying agent to determine if the operation complies with federal standards.
2. Evaluates crop health and growth, soil tilth, the fertility management program, pest and weed management strategies, seed sources, adjoining land uses, and the applicant’s understanding of and commitment to compliance.
3. Reviews records to ensure monitoring and compliance. The inspector may be

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

authorized to take soil, tissue, or product samples for analysis. The inspector reviews any noncompliance issues at the time of the inspection.

4. Conducts an exit interview to confirm the accuracy and completeness of the observations and information gathered, to address the need for additional information, and to discuss issues of concern.
5. Completes a report based on the information gathered. The inspector does not make the certification decision, but identifies noncompliance issues with regard to organic standards.
6. Sends the inspection report and all associated paperwork to the certifying agent.

What happens next? After the inspection, the certifying agent assigns a certification committee, staff members, or review committee to review the Organic Farm Plan, the inspection report, and all associated documentation. If the certifying agent determines compliance in all procedures and activities, the applicant is granted certification and is issued a certificate of organic operation that must be updated each year. If the certifying agent determines any minor noncompliance issues, the applicant has the opportunity to correct these noncompliances as a condition of certification.

Maintaining organic certification. To maintain organic certification each year, the certified farmer must pay annual certification fees, submit an updated Organic Farm Plan detailing changes from the previous year, and submit an update on correction of any minor noncompliance issues previously identified by the certifying agent. Other records or information may be needed if deemed necessary. Each farm must be inspected at least once annually to maintain certification. The updated Organic Farm Plan and inspection report must also be completely reviewed by the certifying agent before the farm receives an updated certificate for the organic operation. (See Table 1.)

Denial of Certification

If certification is to be denied, the certifying agent must provide the applicant with a written notice of noncompliance, give the date by which any correction must be accomplished, and specify any documentation necessary to support correction. The applicant may rebut in writing any noncompliances identified by the certifying agent. When a correction is not possible, the agent gives the applicant notification of both noncompliance and denial of certification. The agent sends a copy of this notification to the USDA National Organic Program administrator.

Re-applying. The applicant can re-apply for certification when any noncompliances are corrected or request mediation with the certifying agent. When applying to a different certification agency, the farmer must submit a copy of the previous denial of certification with the application paperwork to the new certifier.

Filing an appeal. An applicant can file an appeal of the denial of certification with the USDA National Organic Program administrator. If the certifying agent has reason to believe that the applicant made false statements or otherwise misrepresented compliance, the agent can simultaneously deny certification and issue a notification of noncompliance.

Recordkeeping: A Critical Requirement

Recordkeeping is critical to organic certification. A certified operation must maintain records that document the production, harvest, and handling of agricultural products intended to be sold, labeled, or represented as organic. Records must be adapted to the particular commodity that the certified operation is producing. For example, an organic grain farmer must keep records pertaining to the processes and facilities involved in the production, handling, and marketing of the organic grain crops, such as storage, cleanout, and transportation records. Records must also fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

All records must be maintained for at least five years beyond their creation and be sufficient to demonstrate compliance with the National Organic Program rules and regulations. Split operations (organic and conventional production on the same farm) must also maintain records on the conventional processes and facilities to ensure that no commingling occurs. The certified operation must make all relevant records available for inspection and copying during normal business hours by authorized representatives of the Secretary of Agriculture, the applicable state program's governing official, and the certifying agent.

One of the primary recordkeeping requirements of organic certification is maintaining an audit trail—the records that show the commodity was produced using only approved inputs, processes, and facilities. This can be challenging. Many new applicants are unsure of what documents are needed, and they do not know what an inspector needs to review during inspection. The documents needed by the inspector depend on the production operation, but some basic documents are required for nearly every farm:

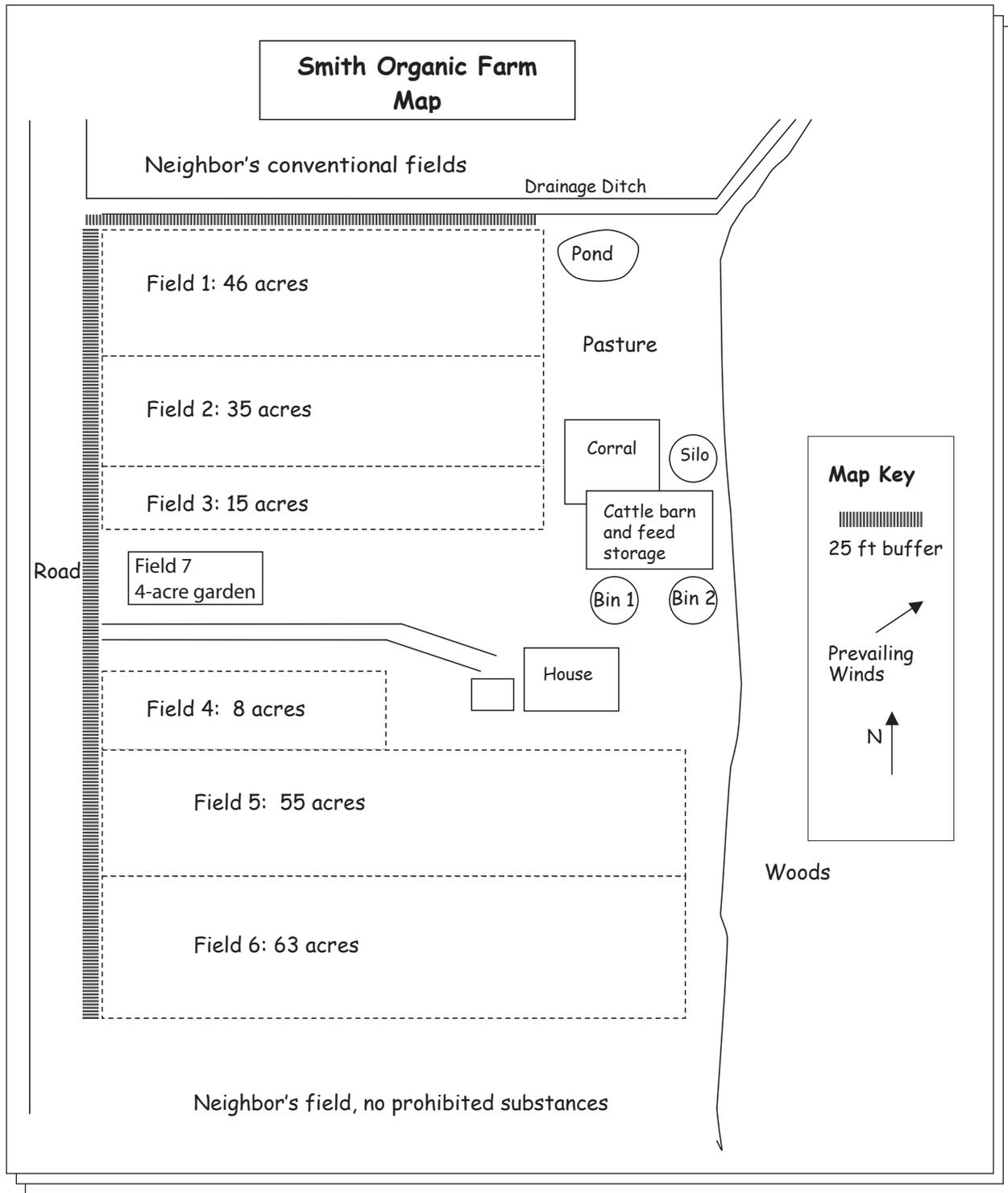
Farm maps. A farm map must clearly show the layout of the farm and the land use in areas surrounding the farm or the organic fields (Figure 1). Maps must depict the following:

- Outlines of the fields. Indicate the field number and acreage of each field.
- Adjoining land uses. Indicate if adjoining land is cropped or not, and if cropped, if it is conventionally or organically managed. If any farmland or adjoining land is not cropped, its use must be noted (such as pasture, woods or trees, rivers, and roads).

Table 1. Federal standards for organic certification

<p>To become a certified organic production operation, the farm and farm practices must comply with the Organic Foods Production Act of 1990 and the USDA National Organic Program rules and regulations (Federal Register, Vol. 65, No. 246, pgs. 80367-80663).</p>	
<p>In simplified terms, National Organic Standards for crop farms require</p>	
<ul style="list-style-type: none"> • Proof that no prohibited materials have been applied to the crop for three years (36 months) prior to harvest. (A list of prohibited materials is provided below.) • Distinct, defined boundaries for the organic operation. • Implementation of an Organic System Plan, with proactive fertility systems; conservation measures; and environmentally sound manure, weed, disease, and pest management practices. • Monitoring of the operation’s management practices. • Use of natural inputs and/or approved synthetic substances on the National List, provided that proactive management practices are implemented prior to use of approved inputs. • Management of compost production and use. If compost is used for fertility, it may be applied at anytime but must be managed according to very specific parameters under the National Organic Standard requirements for compost production. • Management of raw animal manure. If raw animal manure is used for fertility, it must be managed according to the crop being produced: <ul style="list-style-type: none"> Feed crops (crops not intended for human consumption): It may be incorporated at anytime into the soil before harvest. Crops for human consumption: It must be incorporated at least 90 days prior to harvesting a crop where the edible portion of the plant <i>does not</i> have contact with soil or soil particles, or 120 days prior to harvest of crops where edible portions <i>do</i> have contact with soil or could be splashed with soil particles. • Use of organic seeds, when commercially available (and no use of seeds treated with prohibited synthetic materials, such as fungicides, as noted below). • Use of organic seedlings for annual crops when commercially available. 	
<p>National Organic Standards prohibit</p>	
<ul style="list-style-type: none"> • Use of genetically engineered organisms (GMOs) defined in the rule as “excluded methods.” • Residues of prohibited substances exceeding 5 percent of the EPA tolerance. A certifier may require residue analysis if there is reason to believe that a crop has come in contact with prohibited substances or was produced using GMOs. • Use of sewage sludge. • Irradiation. • Use of any synthetic substance not on the National List. • Use of any other prohibited substances on the National List. • Field burning to dispose of crop residues. (Burning may be used only to suppress disease or to stimulate seed germination. Flame weeding is allowed.) 	
<p>In addition, organic producers must</p>	
<ul style="list-style-type: none"> • Maintain or improve the physical, chemical, and biological condition of the soil, minimize soil erosion, and implement soil-build-ing crop rotations. • Use fertility management systems that do not contaminate crops, soil, or water with plant nutrients, pathogens, heavy metals, or prohibited substances. • Maintain buffer zones, depending on risk of contamination. • Prevent commingling of split operations. (The entire farm does not have to be converted to organic production, provided that sufficient measures are in place to segregate organic from nonorganic crops and production inputs). • Maintain records for at least five years. 	

Figure 1. Sample farm map



- Location of any water crossing a field and in what direction it flows. If there are waterways established in a field, these need to be marked.
- Location of any structures on the land. Structures should be identified, whether they are bins, equipment storage areas, buildings, or homes.
- Location of fields in relationship to one another. If the farm is very large, include one map showing all fields

and their relationship to each other. Supplemental maps can depict individual fields or groups of fields.

Field history. The certifying agent reviews the field history to determine if a field is eligible for certification. This document must include the field number and acreage, what is grown currently and what has been grown for the past three years, the types of inputs used (both approved and prohibited), and the dates the in-

Figure 3.
Sample field activity log

YEARLY FIELD ACTIVITY LOG

Field Number 6 Producer John Smith Crop Year 2006

Acres 63 Previous Crop soybeans Crop Planted corn

Variety BF231 Expected Yield 95 bu/ac Crop Status organic

PLANTING INFORMATION

Date Planted 5/4/06 Seeding Rate 30,000 seeds/ac Final Stand _____

TILLAGE INFORMATION

Preplant disc (4/17/06); field cultivate (5/4/06)

Post Harvest disc (10/3/06); field cultivate (10/14/06)

INPUT APPLICATION INFORMATION

Date	Type/Analysis	Rate Applied	Method of Application
<u>4/16</u>	<u>chicken litter (4:2:2)</u>	<u>3 T/ac</u>	<u>broadcast</u>

WEED CONTROL METHODS

Date	Method	Comments
<u>5/7</u>	<u>rotary hoe</u>	<u>field conditions fine</u>
<u>5/10</u>	<u>rotary hoe</u>	<u>soil slightly damp</u>
<u>5/25</u>	<u>cultivate-shovels</u>	<u>field conditions fine</u>

PEST/DISEASE CONTROL INFORMATION

Date	Product	Pest/Disease	Rate	Comments

COVER CROPS

Date Planted	Crop/Variety	Date Incorporated
	<u>Plan to plant rye and vetch</u>	

HARVEST INFORMATION

Date	Yield	% Moisture	Test Weight	Storage ID	Comments
<u>9/23</u>	<u>103 bu/ac</u>	<u>19%</u>		<u>ORG 2</u>	

Use of this form is optional. Another form accomplishing the same purpose may be used if appropriate to your operation.

EXAMPLE

If Smith Organic Farm makes an organic sale for a soybean crop stored on the farm, the farmer would use a lot number such as "SOF-SB06-01-03." This number would signify:

Smith Organic Farm	SOF-
soybeans harvested in 2006 and	SB06-
stored in bin number 01	01-
third load sold from that bin.	03

This lot number could be used to track the soybeans to the field where they were grown through the storage records, field activity logs, and field histories.

If Smith Organic Farm was selling soybeans directly from three fields numbered as 1, 3, and 9, a lot number could be SOF-SB06-F1, F3, F9. This would signify:

Smith Organic Farm	SOF-
soybeans harvested in 2006 and	SB06-
grown in fields 1, 3 and 9.	F1, F3, F9

This lot number would then be used to track the soybeans grown in each field through the field activity logs and the field histories.

The inspector uses the lot number to ensure that crops sold as organic come from fields that are eligible for organic certification based on field activities and inputs.

Split production records. Keep in mind that if an organic farm grows the same crop organically and conventionally, the inspector will need to see all harvest, storage, and sales records for both the organic and conventional crops. This is necessary to verify that no commingling occurs between organic and nonorganic crops. Additionally, the records must show that all equipment was cleaned between uses in organic and nonorganic fields (Figure 6). This kind of affidavit is required for any equipment shared between organic and nonorganic production, any rented equipment, or any field work completed by an outside contractor on a custom basis. The cleaning of transportation vehicles also must be documented. The cleanout date, previous product transported, organic product transported, cleaning activity,

and name(s) of the driver(s) are generally needed for the documentation (Figure 7). Consult the certifier about specific cleanout procedures. Storage bins or containers and areas used for organic crops should be thoroughly cleaned before use and clearly labeled “organic.”

This guide includes several samples of the kinds of documents needed to create an organic audit trail (Figures 1 through 9). These specific documents are not required, but they can be used as templates that you can modify to match your production needs. Contact your certifier if you have specific questions regarding the requirements for audit trail documentation. Additional recordkeeping templates can be downloaded from www.carolinafarmstewards.org or www.attra.org.

Figure 6. Sample cleanout affidavit for equipment

COMBINE CLEANOUT AFFIDAVIT

Please complete a clean-out affidavit before harvest and for each different crop harvested. Note field numbers and date clean-out procedures were performed.

Producer John Smith Clean-out Date 9/20/06

Crop Corn Field Number 6

Custom Operator Name John Smith

Address 12 Farmtown Road, Fairview, NC 27654

Type of Machine _____

Clean-out Procedure: (S) Sweeping; (C) Compressed air; (W) Washing
Please mark each part of the combine that was cleaned and the procedure used.

<u>C</u> Header	<u>C</u> Sieves and Chaffers
<u>C</u> Feederhouse	<u>C</u> Cylinder and/or Rotor
<u>S</u> Grain Tank	<u>C</u> Shoe Supply Augers
<u>C</u> Straw Walkers	<u>C</u> Unloading Auger
<u>S</u> Ledges, Frame Rails	<u>C</u> Rock Trap
<u>C</u> Clean and Return Elevators and Cross Augers	

I hereby attest that the above practices and procedures have been completed in accordance with Organic Certification Standards.

Operator

Producer

Date

Date

(Attach a copy of the invoice for contracted services.)

Use of this form is optional. Another form accomplishing the same purpose may be used if appropriate to your operation.

Figure 7. Sample cleaning affidavit for transportation

Off-Farm Transportation Cleaning Affidavit

This semi-trailer/container, license number _____ was swept/air blown/
flushed/washed (circle all that apply) prior to loading of organic product.

Landowner/Shipper: _____

Field/Lot Number: _____

Destination: _____

Trucking/Shipping Firm: _____

Date Loaded: _____

Date Delivered: _____

Crop/Product: _____

I hereby certify that the above equipment was cleaned thoroughly using the method indicated to keep
the integrity of the organically grown/processed product intact.

Date: _____

Signed: _____

Title: _____
(Owner, Truck Driver, etc.)

This form must accompany Bill of Lading to: _____

(Unloading or Delivery Point)

Certification Agencies

A list of all USDA-accredited organic certifying agencies can be found on the Web at www.ams.usda.gov/nop/CertifyingAgents/Accredited.html or by request through the National Organic Plan (NOP) office at 1400 Independence Avenue, SW, Room 2510 South Building, Washington, DC, 20250.

Choosing a Certifier

When choosing an organic certifier, an applicant should consider several factors. First, it may be helpful to choose a certifier that the end-user of your product recommends. For example, you could choose the certifier used by the organic mill who buys your organic grain.

Location and fees. Consider the location of inspectors that the certifier uses. Most certifiers require the applicant to pay all expenses associated with the on-site inspection, including travel. Because the USDA requires that certifiers fully disclose all fees, an applicant can also compare certifiers based on expense or fees.

Turn-around time and experience. Also consider the turn-around time required by certifiers to process an application, and the experience the certifier has in certifying a particular type of operation. Some applicants choose a certifying agent based on the agency’s level of involvement in organic certification policy and advocacy at state and national levels.

Organic Compliance in Grain Production

Organic grain production involves some specific requirements that may not apply to other farms because of the way grain is produced, stored, and sold.

Isolation buffers. The size requirements vary for isolation buffers between organic land and adjacent nonorganic land, depending on land uses, prevailing winds, runoff directions, ditches, and other barriers. An isolation buffer is usually between 20 and 50 feet wide. However, cross-pollinated or wind-pollinated organic crops (such as corn) should be isolated from GMO crops of the same type by a larger buffer to maintain seed purity. Part of a field buffer can consist of the outside rows of a crop field, harvested and sold as conventional (Figure 8). Confirm buffer distances with your certification agency. If an applicant can provide a written statement from his or her neighbors that no prohibited materials are being used on adjoining land, the organic operation may not need a buffer at all.

Organic seed. Organic seed must be used when commercially available. In many cases, however, the crop or variety desired is not commercially available

as organic seed. This is particularly true for organic grain production. Generally, the applicant must contact at least three seed companies or sources that carry organic seeds and try to obtain organic seed of the crop or variety desired. The three seed sources contacted must produce or supply seed of the crop desired. The applicant must document the contact, including the date; whether the contact involved a telephone, fax, letter, or email message; the crop and variety; and the most comparable variety with organic seed source and price (Figure 9). The certifying agent may require a copy of this documentation if nonorganic seed is used. Contact the following organizations for more information about organic seed availability for crop production:

N.C. State University, Organic Grain Web site

<http://www.organicgrains.ncsu.edu/production/production/seedsuppliers.htm>

National Sustainable Agriculture Information Service

1-800-346-9140

P.O. Box 3657, Fayetteville, AR 72702

<http://attra.ncat.org/attra-pub/altseed.html>

Figure 8. Sample buffer crop record

BUFFER CROP USAGE			
Producer Name <u>John Smith</u>	Crop Production Year <u>2006</u>		
<hr/>			
Field Number <u>6</u>	Crop Harvested <u>Corn</u>	Quantity harvested <u>50 bushels</u>	Stored in bin number <u>06</u>
Used for (check): <input type="checkbox"/> seed <input type="checkbox"/> On farm non-organic livestock feed <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Other _____			
Sold to: (invoice attached) <u>Milling, Inc.</u>			
<hr/>			
Field Number _____	Crop Harvested _____	Quantity harvested _____	Stored in bin number _____
Used for (check): <input type="checkbox"/> seed <input type="checkbox"/> On farm non-organic livestock feed <input type="checkbox"/> Sold <input type="checkbox"/> Other _____			
Sold to: (invoice attached) _____			
<hr/>			
Field Number _____	Crop Harvested _____	Quantity harvested _____	Stored in bin number _____
Used for (check): <input type="checkbox"/> seed <input type="checkbox"/> On farm non-organic livestock feed <input type="checkbox"/> Sold <input type="checkbox"/> Other _____			
Sold to: (invoice attached) _____			
<hr/>			
Field Number _____	Crop Harvested _____	Quantity harvested _____	Stored in bin number _____
Used for (check): <input type="checkbox"/> seed <input type="checkbox"/> On farm non-organic livestock feed <input type="checkbox"/> Sold <input type="checkbox"/> Other _____			
Sold to: (invoice attached) _____			
<hr/>			

Use of this form is optional. Another form accomplishing the same purpose may be used if appropriate to your operation.

Figure 9. Sample seed record

SEED VERIFICATION FORM					
Please list all varieties, lot numbers, and treatments (insecticides, fungicides, or inoculants) used, for seeds planted or to be planted on your farm. Indicate if the seeds are certified organic, untreated non-organic, or treated non-organic. If organic seed is not purchased, you must show proof of your attempts to source organic seeds. Give information on non-GMO verification analysis, if possible.					
Producer Name: <u>John Smith</u>			Crop production year: <u>2006</u>		
<u>Seed Information</u>			Lot #	Is seed organic (O), untreated non-organic (U), or treated non-organic (T)?	Type and Brand of Treatment
Crop	Variety	Supplier			
corn	BF231	Organic Seed, Inc.	46	O	none
soybeans	T385	Seed, Inc.	102	U	none

Save Our Seed

540-894-8866
 286 Dixie Hollow, Louisa, VA 23093
<http://www.savingourseed.org/>

Organic Materials Review Institute

541-343-7600
 Box 11558, Eugene, OR 97440
<http://www.seeds.omri.org>

Accidental contamination

Accidental contamination of a farm by prohibited substances can occur because of spraying by the Department of Transportation (DOT), electrical companies, or neighbors. It is important to communicate very clearly about your organic operation and display signs that indicate organic land. Inform the DOT and electrical companies about the location of organic land and specifically ask them to avoid spraying the area.

Conclusion

We hope this document provides a clear understanding of the organic certification process for field crops. Organic certification requires compliance with the national organic standards and documentation of farm practices that prove compliance. Recordkeeping to establish an audit trail is critical to certification. Additional information on organic certification, recordkeeping, and documentation can be found on the following Web sites:

Carolina Farm Stewardship Association
www.carolinafarmstewards.org

National Organic Plan
www.ams.usda.gov/nop

National Sustainable Agriculture Information Service
www.attra.org

Prepared by

Molly Hamilton, *Extension Assistant, North Carolina State University*

Jim Riddle, *Outreach Coordinator, University of Minnesota*

Tony Kleese, *former executive director, Carolina Farm Stewardship Association*

Amy Griner, *Organic Certification Inspector, North Carolina Crop Improvement Association*

Myron Fountain, *former executive director, North Carolina Crop Improvement Association*

Chris Reberg-Horton, *Organic Cropping Specialist, North Carolina State University*

The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact your county Cooperative Extension agent.

2,000 copies of this public document were printed at a cost of \$1,872, or \$.93 per copy.

Published by

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

COLLEGE OF
AGRICULTURE & LIFE SCIENCES
ACADEMICS • RESEARCH • EXTENSION