



DRAFT

Record-keeping and Budgeting Workbook for Organic Crop Producers

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Dedication:

I dedicate this notebook and give credit for its development to all the organic farmers whose record-keeping systems I have reviewed and audited as an organic inspector.

— Ann Baier

Abstract: This publication contains forms for keeping records and developing production and marketing budgets from those records.

Introduction

This publication contains a set of forms for farmers to use to keep records required for organic certification. It includes basic templates for records that are ready for the barn, packing shed, pickup truck, or kitchen table – wherever is the focus of your daily farming activities. They may be used as is or readily adapted for different operations. Farmers are encouraged to modify these forms and tailor them to their production activities and farming business management. Records that are clear and easy to understand will be most effective in achieving their intended purposes of meeting organic certification requirements, improving farm management, and developing farm (whole farm, crop, or enterprise) budgets.

Rewards of record-keeping

These forms are designed to help farmers keep records in order to:

- **Meet compliance requirements for organic certification** to USDA National Organic Program (NOP) standards (and some international standards, when applicable), by providing templates for documenting all required information
- **Improve farm and business management** by tracking and organizing relevant information about production and finances.
- **Develop a farming systems approach** (a process of continual improvement) by making it easier to keep records; organize information; recognize patterns; consider the relationships across the farm; understand, solve, and prevent problems; and develop plans.

Please understand the following: None of these forms is specifically required for certification. For certification, NOP

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standards require that producers keep records that are “adapted to the operation...disclose all activities and transactions ... [are] maintained for not less than 5 years...and [are] sufficient to demonstrate compliance” (NOP 205.103); these standards do *not* dictate *how* you keep records. Although all of these forms were designed to address organic compliance requirements, they serve multiple purposes, including fostering better observation, problem solving, farm production, planning, and business management.

Areas of Record-keeping Required

Organic standards for crop production require sufficient records to verify that the producer is following his or her Organic Systems Plan. The main areas of record-keeping (described in NOP 205.201 and 205.103) are:

- A) Farming activities and practices (and their frequency)
- B) Input substances (composition, source, and location(s) used, and documentation of commercial availability, as applicable)
- C) Transactions (harvest and sales records)
- D) Monitoring practices and procedures (frequency)
- E) Management practices and physical barriers to prevent commingling and contamination

Select the Forms You Need

The attached record-keeping forms are grouped (A through E) according to the type of information they track. They include different options for diversified crop producers to keep the documentation required for NOP (and occasionally international) organic compliance. In some cases, there are several variations of forms to record the same type of information. For example, there are several different types of harvest and sales record forms. Each one is designed to provide record-keeping options and ideas to cover the gamut of diversified crop production and marketing arrangements across geographic regions. *One record form for each purpose will usually suffice for organic compliance. Please choose the ones that best suit your needs, and recycle the rest.* Think of this as a smorgasbord of record-keeping options. You will probably want to choose at least one form from each group, so that your records include the main areas required. *No one will use all the forms in this packet.*

Guide to the Forms

The next section of this publication is a guide to the forms. It is organized to help you understand the purpose and use of each form. The Appendix contains a clean copy of each form, so that you can photocopy and use them as is, filling in your own headings. You may also download or recreate these forms, customizing them to meet the needs of your operation.

Each group of record-keeping forms (A-E) includes references to relevant organic standards from the USDA National Organic Program (NOP) Final Rule and the actual regulatory language from that section of the Rule. These are followed by a summary or clarification of standards as they apply to the forms, suggestions for use of this form, including possible adaptations, and the layout of the form with examples for how it can be used.

Time and Financial Information Tracking

These record forms have been developed or could easily be adapted to include space or information fields for time (management and labor) and financial information. This information is *not* part of the requirement for organic compliance. Presence of those fields is merely intended to provide a convenient way to consolidate information on one form at that moment when you have it in front of you. It can then be easily transferred to budget forms for summarization and analysis. You may have a different system in place for tracking financial information and budgeting, and you may prefer not to mix it up with your organic compliance records. If so, leave that column blank, or modify these forms to eliminate the financial information fields.

Feedback Invited for Ongoing Improvement of Forms

A great deal of work with certified organic farmers, inspectors, and certifiers has gone into developing these forms. Even so, learning is an ongoing process. Every day farmers find better ways of doing things, including keeping records. Please look at these forms as ideas. We encourage you to modify and adapt these forms so that they best meet the needs of your operation. Please let us know if you have suggestions for improving these forms. We plan to revise this publication to provide farmers with the best possible record-keeping tools.

Disclaimer

As with all matters of organic compliance for certification, always check with your certifier to verify that the forms you plan to use constitute sufficient documentation for the activity.

Contents

A) Activity Records

- Activity Log
- Activity Calendar
- Seeding/Planting and Harvest Record (simple)
- Seeding/Planting and Harvest Record (detailed)

B) Input Records

- General/Whole Farm
 - Input Application Record
 - Purchase and Receiving Log
- Soil Management and Fertility
 - Compost Production Record
 - Manure Application Record
- Seed and Planting Stock

- Part A: Seed Sources
- Part B: Organic Seed Search
- Part C: Inoculant and Seed Coating Log
- Annual Transplant Purchase Record
- Crop Rotation Plan/Record
- Pest Management
 - Pesticide Use Report
 - Pest Management Materials Use Record
- C) Harvest and Sales Records
 - Farmers' Market and Farm Stand Sales Record ("Load List")
 - Harvest and Sales Record ("Pick List")
 - Harvest Instructions
 - CSA Harvest and Cost Records
 - Total Sales Records – Farm or Enterprise
- D) Monitoring Practices Logs
 - Water Log
 - Pest Monitoring and Management Log
- E) Commingling and Contamination Prevention Documentation
 - Equipment Cleaning Log
 - Buffer Crop Disposition Record

A) Activity Records

NOP References

205.2: Records. Any information in written, visual, or electronic form that documents the activities undertaken by a producer, handler, or certifying agent to comply with the Act and regulations in this part.

205.103. (a) A certified operation must maintain records concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented as “100 percent organic,” “organic,” or “made with organic (specified ingredients or food group(s)).”

Purpose of this Form. The most important first step in record keeping is to write things down, whether the goal is organic compliance or business management. Many farmers keep excellent records, using the simple, daily discipline of making clear, detailed notes of their observations and activities. If these records are kept consistently with due diligence to noting relevant details, they may suffice for many types of documentation.

Two simple formats for keeping records of activities and observations on the farm are included:

- Activity Log: a notebook of consecutive entries of activities
- Calendar Log: notes on a calendar that has clear boxes with space to write

Use of These Forms. The Activity Log and Calendar Log below offer flexible alternatives for keeping notes of activities and observations. These forms offer no particular advantage over any other notebook or calendar you can carry with you. Information noted can be transferred to any other record form for summarization or further analysis. Activity logs can be records of the past and planning tools for the future. For example, one grower uses a blotter-sized calendar hung on the wall and writes plans in blue, actual events in red, and adds notes in green about what he plans to do next year. When the next year’s calendar comes out, he transfers what he has written in green on the previous year’s calendar to the new calendar in blue ink. Ink color can be used on a computer or hard copies of these forms. Including as much detail as possible in this record will enable you to use the information to its full advantage for farm and business management – budgeting and planning. Details to record include crop and variety, field location, inputs applied, irrigation, pest monitoring and management, time spent on each activity, equipment used, and operator and labor costs. You may also want to include notes about weather – temperatures, precipitation, wind, frost, freezes, and any unusual patterns.

ACTIVITY LOG

Farm/Location: Orchard Creek Farm_Beds A and C Year 2004-2005

Date	Activities
11/1/04	<i>Planted cover crop in Beds A and C. Hand broadcast and raked. 1 hr Bell bean-oats-vetch, untreated, organic unavailable; 3 letters in file</i>
4/15/05	<i>Mow cover crop with weedwhacker. Rake organic matter onto bed. 1.5 hrs</i>
4/20/05	<i>Rototill beds. Two passes in each direction. 2 hrs including servicing machine.</i>
5/9/05	<i>Transplant tomatoes into Bed C. Early Girl, Sungold, Sweet 100 cherry, Brandywine, organic transplants from the Homeless Garden Project, CCOF certified. Receipt in input file. 20 miles RT. 2 hrs.</i>

Notes: *Rainy spring weather.*

ACTIVITY CALENDAR

Month August Year 2005 Farm/Location Orchard Creek Farm

	1 High of 84F Low 47 F	2 Water tomatoes, drip 4 hrs	3 Hot – 90s Mowed weeds between beds with weedwhacker 2.5 hrs	4 Harvest: Early Girl and cherry tomatoes, lemon cucumbers; home use	5	6
7	8 Water tomatoes, 4 hrs drip	9	10	11	12	13 Water tomatoes; 4 hrs drip
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEEDING/PLANTING and HARVEST RECORD, DETAILED

Crop	Variety	Days to harvest (estimated /actual)	Green House date	Field Pre-irrigation date	Field Date (seed or transplant)	Field Wet Date (if irrigated, direct seeded)	Germ Date	Start Harvest	End Harvest	Total harvest	Total acres	Total \$	\$ per acre

B) Input Records

NOP References:

205.2: Agricultural Inputs. All substances or materials used in the production or handling of organic agricultural products.

205.201. An Organic System Plan must include a list of each substance to be used as a production or handling input, indicating its composition, source, location(s) where it will be used, and documentation of commercial availability, as applicable.

205.103. (a) A certified operation must maintain records concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented as “100 percent organic,” “organic,” or “made with organic (specified ingredients or food group(s)).”

(b) Such records must:

- (1) be adapted to the particular business that the certified operation is conducting; and
- (2) fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

Purpose of this Form. Organic farmers must keep records of all inputs to the soil or plants, including but not limited to seed, fertilizer, soil amendments, potting soil, mulches, and pest management materials. These records will be used by your certifier to verify that all the materials that you are using are compliant. Status may be allowed or restricted by an annotation to the National List. For example, use of some micronutrients requires verification of deficiency; some substances may only be used as pest management agents (not soil amendments); and sodium nitrate may be used to supply no more than 20% of a crop’s nitrogen. Use of a product that has an annotation requires documentation for verification of compliance.

Use of this Form. If a number of different inputs are used, you may wish to keep a sheet for each location. To avoid writing in the same location several times, location could then be written at the top of the form, eliminating that column in the chart. If the same inputs are used every year for a given crop, regardless of location, producers can write in “all” under field code, keeping a record of the locations where that crop is grown.

This form can also be adapted to track expenses for budgeting by including the column for cost. The cost figure may be for the entire purchase, if applied all at once, or for the proportion of the cost/amount applied. Many people will prefer to track financial information separately and would use this form without this expense column.

ORGANIC FARM INPUT REPORT

Farm Name: _____ Year: _____

Date Applied	Location and Crop ¹	Material ²	Source/ Manufacturer / Distributor ³	Purpose ⁴	Organic Status ⁵	Rate of application / Total amount	Cost \$
10/10/04	Field 1 (1 acre)	"Soil builder" Cover crop seed	L .A. Hearne	Organic matter and fertility	R (non-GMO, untreated) See seed search log.	80 lb/acre	
4/24/05	Field 1	Compost	New Era	Soil fertility and health	A (NOP compliant, OMRI list)	6 tons /acre	
5/1/05	Field 1	Tomato starts	Headstart Nursery	Plants	A (CCOF certified)*	5000 plants /acre	
1/1/05	Orchard peaches	Champion WP	Nu-Farm Americas, Inc.	Disease control-peach leaf curl	R, used as disease control		

Notes: * Headstart's organic certification is in input purchase receipts file.

¹ Farm, Field, Parcel or Bed, Crop (including cover crops, green manures, pasture, etc.)

² Generic material or brand name product

³ Source or Manufacturer: It is necessary to correctly identify the Manufacturer (the one that formulates, manufactures and packages a product) in order to verify whether a product is allowed for use in organic production. Be careful to distinguish the Manufacturer from the Distributor (the business from which one purchases a product).

⁴ Purposes may include soil fertility, pest or disease management, etc.

PURCHASE AND RECEIVING LOG

NOP References:
205.103 (a) Record-keeping: A certified operation must maintain records concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented as “100 percent organic,” “organic,” or “made with organic (specified ingredients or food group(s)).”
(b) Such records must:
 (1) Be adapted to the particular business that the certified operation is conducting;
 (2) Fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

Purpose of this form. Use of this form to record purchases and deliveries of inputs and supplies.

Use of this form. Having purchase and delivery information in one place provides a convenient way to track invoices, locate filed receipts or other information, and summarize quantities or costs. During inspection, this can increase the efficiency of an audit. The Notes section can be used to indicate location of filed records or for comments regarding quality or quantity of supplies for future ordering.

Date of Purchase or Delivery	Item	Source or Manufacturer and Distributor ¹	Invoice #	Quantity	Price	Notes
11/1/04	Cover crop seed – bell bean, oats, vetch and pea	Distributor: General Seed and Feed	20051A	50 lb.	39.90	See seed search for documentation of commercial unavailability of organic seed.
12/1/04	Chipped branches and leaves	Jack Davis Tree trimming service	N/A	Truckload approx. ½ ton	free	Oak and pine trimmings

¹ Source or Manufacturer and Distributor: Some materials will have only a Source (cow manure from Cow Dairy); others only a Manufacturer (brand name materials). A common mistake in record keeping is to confuse the Distributor with the Manufacturer. It is necessary to correctly identify the Manufacturer (the one that formulates, manufactures and packages the product) in order to verify whether a product is allowed for use in organic production. Sometimes the Manufacturer and the Distributor (the business from which one purchases the product) are one and the same; often they are different.

COMPOST PRODUCTION RECORD

NOP References: Section 205.2 definition of Compost and 205.203 (c)(2).

205.2: Compost. The product of a managed process through which microorganisms break down plant and animal materials into more available forms suitable for application to the soil. Compost must be produced through a process that combines plant and animal materials with an initial C:N ratio of between 25:1 and 40:1. Producers using an in-vessel or static aerated pile system must maintain the composting materials at a temperature between 131°F and 170°F for 3 days. Producers using a windrow system must maintain the composting materials at a temperature between 131°F and 170° for 15 days, during which time the materials must be turned a minimum of 5 times.

Purpose of this form. Document that your procedures for producing compost meet the standards.

Use of this form. Carbon-nitrogen ratio of the feedstock mixture can be calculated by using the C:N the ratio of each component material and its proportion in the pile, adjusted for moisture. This form does not provide for this level of detail, but it provides a place to note the estimated C:N ratio. If the mixture of high-carbon (“brown”) and high-nitrogen (“green”) materials is in the appropriate range outlined in the standards, and the mixture has sufficient moisture and air, the pile will likely achieve the desired temperatures readily. Temperature should be measured in a manner that is consistent and reliable—in a representative location, deep enough into the pile that the reading does not reflect edge effects.

Farm Name _____ Production Year _____

Compost System: Windrow Static Aerated Pile In-Vessel
Other (specify) _____

Compost Pile, Windrow or Unit ID:

Location/Method of Temperature Reading:

MANURE SOURCE AND APPLICATION RECORD

NOP References: 205.2 Manure, 205.203

205.2: Manure. Feces, urine, other excrement, and bedding produced by livestock that has not been composted.

205.203 (b) The producer must manage crop nutrients and soil fertility through rotations, cover crops, and the application of plant and animal materials.

(c) The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances. Animal and plant materials include:

- (1) Raw animal manure, which must be composted unless it is:
 - (i) Applied to land used for a crop not intended for human consumption;
 - (ii) Incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles; or
 - (iii) Incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles.

Purpose of this form. Raw manure must either be composted or applied and incorporated at least 90 or 120 days (depending on whether the edible portion doesn't or does have contact with soil) before harvest of a crop intended for human consumption. The days to harvest requirement does not apply to pasture, cover crops, or other crops not intended for human consumption. Nonetheless, it is useful to have a record of manure applications to comply with requirements for input records and manure management standards.

Use of this form. This form can be used to document that the requirement for the interval between application and harvest has been met. For pasture production, this form can be an input application record to document manure management. In the case of crops that are not intended for human consumption, the columns for days to harvest are not applicable.

For certification to international standards, additional notes can be added or documentation attached to verify compliance. If the product may be exported to the European Union, manure used in its production must meet the EU organic regulation EEC 2092/91 that prohibits use of manure from factory-farmed animals. Different certifiers may define this differently. It may include requirements to document that manure products are from animals that have not been treated with the bovine growth hormone rBST (dairy animals) and are not caged poultry (with at least 1 sq foot per broiler and 1.5 feet per layer). *Check with your certifier about their working definition of factory farm and the type of documentation they consider sufficient to meet this requirement.*

Location and Crop	Date of Manure Application	Date of Harvest		Days to harvest required / Actual interval		Method of Application and Incorporation	Manure type, form and source	Documentation of EU Compliance?
		Anticipated / Actual (if food)						
<i>Field 1 Lettuce</i>	<i>3/1/05</i>	<i>7/1/05</i>	<i>7/15/05</i>	<i>120</i>	<i>135</i>	<i>Manure spreader disk in</i>	<i>Chicken dry on farm</i>	<i>Organic certificate</i>

SEED AND PLANTING STOCK RECORDS

NOP References: 205.2, Commercially Available; 205.204, Seed and Planting Stock Practice Standard

205.2: Commercially Available. The ability to obtain a production input in an appropriate form, quality, or quantity to fulfill an essential function in a system of organic production or handling, as determined by the certifying agent in the course of reviewing the organic plan.

205.204 Seeds and planting stock practice standard.

(a) The producer must use organically grown seeds, annual seedlings, and planting stock: Except, That,

(1) Nonorganically produced, untreated seeds and planting stock may be used to produce an organic crop when an equivalent organically produced variety is not commercially available, Except, That, organically produced seed must be used for the production of edible sprouts;

(2) Nonorganically produced seeds and planting stock that have been treated with a substance included on the National List of synthetic substances allowed

Purpose of this form. Producers must use organic seed and planting stock if available. The grower may use non-organic seed and planting stock when it can be documented that organic seed is not commercially available (appropriate form, quantity and quality), as long as it is non-GMO and not treated with prohibited materials.

Use of this form. Part A, Seed Sources, tracks potential sources of organic seed. It contains several references for your convenience, with spaces for you to add others. Part B, Seed Search, is a log to document your search for organic seed and stock, as well as any notes about commercial availability (quantity, quality and form) and future availability or advance ordering requirements. Part C is provided to record compliance of any seed coatings or inoculants used.

**SEED AND PLANTING STOCK RECORDS
PART A: POTENTIAL SEED SOURCES**

Company or Seed Source	Contact Information	Abbreviation
Abundant Life Seed Foundation	541-767-9606 866-514-7333 FAX <i>www.abundantlifeseeds.com</i>	ALF
Johnny's Selected Seed	955 Benton Avenue Winslow, ME 04901 Home Gardeners: 800-879-2258 (toll-free) 207- 861-3901 800-437-4290 FAX Commercial Growers: 800-854-2580 (toll-free) 800-738-6314 FAX <i>www.Johnnyseeds.com</i>	JSS
Baker Creek Heirloom Seeds	2278 Baker Creek Rd. Mansfield, MO 65704 417-924-8917 <i>www.RareSeeds.com</i>	BCH
The Cook's Garden	P.O. Box 535 Londonderry, VT 05148 800-457-9703 (toll-free) <i>www.cooksgarden.com</i>	TCG
Fedco's	P.O. Box 520 Waterville, ME 04903 207-873-7333 207-872-8317 FAX <i>www.fedcoseeds.com</i>	FED
Ferry Morse Seeds	Source of Nature line <i>www.ferry-morse.com</i>	FMS
High Mowing Seeds	813 Brook Rd. Wolcott, VT 05680 802-888-1800 802-888-8446 FAX <i>www.highmowingseeds.com</i>	HMS

Heirloom Seeds	P.O. Box 245 W. Elizabeth, PA 15088 412-384-0852 <i>www.heirloomseeds.com</i>	HLS
Nichol's Garden Nursery	1190 Old Salem Road NE Albany, OR 97321-4580 800-422-3985 <i>www.nicholsgardennursery.com</i>	NGN
Pepper Joe's Inc.	Tyburn Court Timonium, MD 21093 <i>www.pepperjoe.com</i>	PJI
Peaceful Valley Farm Supply	P.O. Box 2209 Grass Valley, CA 95945 888-784-1722 (toll-free) <i>www.groworganic.com</i>	PVF
Ronnigers Potato Farm	Star Route Moyie Springs, ID 83845 208-267-7938 <i>www.ronnigers.com</i>	RPF
Seeds of Change	P.O. Box 15700 Santa Fe, NM 87592-1500 888-762-7333 (toll-free) <i>www.seedsofchange.com</i>	SOC
Sow Organic Seed	P.O. Box 527 Williams, OR 97544 888-709-7333 (toll-free) <i>www.organicseed.com</i>	SOS
SourcePoint Organic Seeds	220 2640 Rd. Hotchkiss, CO 81419	SPO
Seed Savers Exchange	3094 North Winn Road Decorah, IA 52101 563-382-5990 563-382-5872 FAX <i>www.seedsavers.org</i>	SSE
Territorial Seed Company	P.O. Box 158 Cottage Grove, OR 97424-0061 800-626-0866 888-657-3131 FAX <i>www.territorialseed.com</i>	TSC
Turtle Tree Seed	Camphill Village Copake, NY 12516 800-620-7388 518-329-7955 FAX <i>www.turtletreeseed.com</i>	TTS

SEED AND PLANTING STOCK RECORDS
PART B: SEED SEARCH LOG
DOCUMENTATION OF COMMERCIAL AVAILABILITY OF ORGANIC
SEED AND PLANTING STOCK

Farm Name: _____ Crop Year and
 Season _____

Date	Crop and Variety	Company (see list)	Organic Seed?	Un-treated, non-GMO seed?	Comments (include notes about documentation that seed is untreated and non-GMO and whether seed coatings or inoculants are used. (If so, use Part C.)
11/1/04	<i>Spinach; whale</i>	JSS	Y		
91/105	<i>Strawberries; Seascape</i>	JSS	N		Not available at all (organic or otherwise)
9/1/05	<i>Strawberries; Seascape</i>	NGN	N		

ANNUAL TRANSPLANT PURCHASE RECORD

NOP References: 205.2, definition of Annual Transplant, and 205.204(a)
205.2: Transplant. A seedling that has been removed from its original place of production, transported, and replanted.

205.204. (a) The producer must use organically grown seeds, annual seedlings, and planting stock: Except
 (3)...when a temporary variance has been granted in accordance with §205.290(a)(2) or
 (5)... when the application of the materials is a requirement of federal or state phytosanitary regulations.

Purpose and use of this form. Document purchase of certified organic annual transplants.

Crop and Variety	Seed Source ¹	Quantity	Transplant Producer	Certifier ²	Comments

¹ If seed is located by the farmer, then he or she must document seed source here or in seed records..

² Keep a copy of the transplant producer’s organic certificate on file.

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CROP ROTATION PLAN/RECORD

NOP References: 205.2, definition of Crop Rotation; and 205.205, Crop Rotation practice standard.

205.2: Crop Rotation. The practice of alternating the annual crops grown on a specific field in a planned pattern or sequence in successive crop years so that crops of the same species or family are not grown repeatedly without interruption on the same field. Perennial cropping systems employ means such as alley cropping, intercropping, and hedgerows to introduce biological diversity in lieu of crop rotation.

§205.205 Crop rotation practice standard.

The producer must implement a crop rotation including but not limited to sod, cover crops, green manure crops, and catch crops that provide the following functions that are applicable to the operation:

- (a) Maintain or improve soil organic matter content;
- (b) Provide for pest management in annual and perennial crops;
- (c) Manage deficient or excess plant nutrients; and
- (d) Provide erosion control.

Use of this form. Crop rotations can be easily documented on field maps. This chart is a form that can serve that purpose for many different farms, though it is certainly not the best or easiest way to record crop rotations. In fact, field maps can be used to document inputs as well. Some farmers use maps as mainstays of their record-keeping systems – with one copy for soil fertility, another for pest management inputs, and so on. Document the rotation of crops from different plant families to fulfill practical functions of crop rotation. Please note that the term *crops* includes all kinds of crops – those intended for harvest and sale, as well as cover crops or green manure crops that are incorporated, or pasture crops that are grazed.

CROP ROTATION PLAN/RECORD

Farm: Orchard Creek Farm

Location ⁹	Year <u>2002</u> Crop(s) or cover crop (plant family ¹⁰)	Year <u>2003</u> Crop(s) or cover crop (plant family)	Year <u>2004</u> Crop(s) or cover crop (plant family)	Year <u>2005</u> Crop(s) or cover crop (plant family)
<i>Field 1</i>	<i>Summer: Tomatoes (Solanaceae); Winter cover crop: bell bean (fabaceae)</i>	<i>Summer: Broccoli (Cruciferae), Fall (12 mo) Strawberries</i>	<i>Winter cover crop: Soil builder mix (oat, barley, bell beans, winter peas)</i>	<i>Summer: Cucumbers (Cucurbitaceae) Winter cover crop: oats and vetch (poaceae and fabaceae)</i>
<i>Field 2</i>	<i>Butternut squash (Cucurbitaceae) Cover crop: oats and vetch (poaceae and fabaceae)</i>	<i>Potatoes and eggplant (Solanaceae); Cover crop: bell bean (fabaceae)</i>	<i>Cauliflower (Cruciferae) Fall: Strawberries</i>	<i>Fava beans (fabaceae)</i>
<i>Field 3</i>	<i>Summer: Green beans (fabaceae)</i>	<i>Mustard greens, collards, kale (Cruciferae)</i>	<i>Summer: Bell peppers (Solanaceae)</i>	<i>Cabbage (Cruciferae)</i>

Notes:

⁹ Farm, field, parcel, plot, or bed.

¹⁰ Include all crops, including cover crops, the season or month planted, and plant family.

PESTICIDE USE REPORT

NOP Reference: 205.103, 205.201 (a) (6)

205.103. Records must fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

205.201. Organic system plan must include additional information deemed necessary by the certifying agent to evaluate compliance with the regulations.

Purpose of this form. Document materials used in pest management as required for record keeping and to fulfill the plans listed in your OSP. The many details included on this form are intended for pesticide materials with EPA registration numbers. Other materials or biological control agents used for pest management can be listed on an Organic Farming Input Record.

Use of this form. Use this form to track pertinent information if reporting is not required in your state. Some states have mandatory reporting of 100% of pesticides applied to commercial crops. If that is the case in your state, use the appropriate form provided by the responsible state agency. Record all relevant information related to use of materials for pest management, including product name, manufacturer, and lot number. When a company reformulates a brand-name product without renaming it, the lot number is the key to determining whether a material is allowed or prohibited. One form should be used for each application. Because much of the information will be repeated from one application to the next, the producer may wish to save this form in the computer, changing only those information fields that change.

PESTICIDE USE REPORT

Permittee:

Operator Identification Number:

County	Section	Township	Range	Base and Meridian	Location	Site ID
Planted Area	Treated Area	Crop or Site	Crop ID	Pest	Date/Time Proposed	Date/Time Actual
Product	Manufacturer	Restricted Material?	Chemical Number	Registration Number from label	Lot number	
Total formulated product used	Rate per acre	Dilution volume	Weather conditions	NW	N	NE
Days re-entry	Days pre-harvest	Environmental Changes/Comments:		W	Target Area	E
Application supervised by	PCA Name			SW	S	SE

PEST MANAGEMENT MATERIALS USE RECORD

Date	Permit#	Permit Name	Crop	Field	Acres	Material, Manufacturer, and Lot Number	Amount Used	Township	Range	Section
8/1/05	12345	Joe's crops	Walnuts	1	60	GF120, DOW 08-2005	2 gallons			

C) Harvest and Sales Records

NOP Reference: 205.103 (b), Recordkeeping

205.103. (b) Such records must (1) Be adapted to the particular business that the certified operation is conducting;
(2) Fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

Purpose of these forms. The following forms, each one useful in a specific application, serve the purpose of an audit trail – paperwork that tracks a product from its production in the field, through harvest, transport, and sale. The farmer is responsible for keeping documentation of this journey as long as he or she owns the product. Some records, such as direct marketing records, can serve the dual purpose of harvest and sales records. The audit trail is complete when the producer relinquishes custody of the product. When the product is transported in other than the farmer’s own vehicle and sold, harvest records should be accompanied by transport records (i.e., delivery tags, receiving tags, bills of lading) and sales records (purchase orders, invoices, or other type of record of the transaction).

- Harvest Plan and Record “Pick List”
- Farmers’ Market Load List
- Harvest Instructions
- CSA Sales records

Use the harvest and sales record forms that best meet the needs of your type of operation. The Harvest Plan and Record is useful when sales are made in larger quantities – such as several boxes to retail stores or wholesale customers. Some forms lend themselves to small quantities, such as those sold directly to consumers.

HARVEST PLAN and RECORD
"PICK LIST"

Date _____ Farm or Location _____

	Markets (across)	<i>Sunnyside Market</i>	<i>Natural Foods</i>	<i>Shopper's Corner</i>	<i>Farmers' Market</i>	<i>New Leaf Market</i>	CSA Shares
Crops (down)	Harvest Location (specific)						
<i>Arugula</i>	<i>Field 1</i>	<i>1 box (12 bunches)</i>	<i>1 box</i>	<i>1 box</i>	<i>1 box</i>	<i>2 boxes</i>	<i>34 bunches</i>
<i>Beets</i>	<i>Field 1</i>	<i>1 box (12 bunches)</i>	<i>2 boxes</i>	<i>2 boxes</i>	<i>1 box</i>	<i>1 box</i>	<i>34 bunches</i>
<i>Chard</i>	<i>Field 1</i>	<i>1 box (12 bunches)</i>	<i>1 box</i>	<i>4 boxes</i>	<i>2 boxes</i>	<i>4 boxes</i>	<i>34 bunches</i>
<i>Daikon</i>	<i>Field 1</i>	<i>2 boxes</i>	<i>2 boxes</i>	<i>2 boxes</i>	<i>2 boxes</i>	<i>1 box</i>	<i>17 lb</i>
<i>Endive</i>	<i>Field 1</i>	<i>3 boxes</i>	<i>6 boxes</i>	<i>5 boxes</i>	<i>3 boxes</i>	<i>3 boxes</i>	<i>68</i>
<i>Fennel</i>	<i>Field 1</i>	<i>3 boxes</i>	<i>3 boxes</i>	<i>4 boxes</i>	<i>3 boxes</i>	<i>6 boxes</i>	<i>68</i>
<i>Tomatoes</i>	<i>Field 2</i>	<i>10 boxes</i>	<i>6 boxes</i>	<i>10 boxes</i>	<i>8 boxes</i>	<i>8 boxes</i>	<i>34 lb</i>
<i>Eggplant</i>	<i>Field 2</i>	<i>10 boxes</i>	<i>10 boxes</i>	<i>8 boxes</i>	<i>10 boxes</i>	<i>12 boxes</i>	<i>34</i>
<i>Red Bell Peppers</i>	<i>Field 2</i>	<i>8 boxes</i>	<i>2 boxes</i>	<i>3 boxes</i>	<i>2 boxes</i>	<i>2 boxes</i>	<i>68</i>

CSA WEEKLY HARVEST AND COST SUMMARY

Use of this form. This record can document weekly harvest and sales to CSA members. It is as much a farm and financial management tool as a compliance document.

Farm Name: _____ Week of: _____

Weekly share price for full share:

PRODUCE	Crop/variety	Source (Farm or Purchased Product ¹¹)	Quantity of Product	Value of Product ¹²	Quantity (Number of Shares)	Total Value or Revenue ¹³
1						
2						
3						
4						
LABOR	Worker	Rate		Hours		Total
DELIVERY	Route	Miles	Rate			Total
Other CSA- related Travel or Expenses						
					Summary of Total (variable) Costs this Week	

¹¹ Purchased Product should be indicated on this list as well as in any written communication (such as a weekly newsletter) that shareholders receive, so that anyone can tell where each product comes from and whether or not it is certified organic.

¹² Value: This column is included to help the farmer to align future share price with the box contents (generally established by the price of that item if it were to be sold at a farmers' market).

¹³ This column may be used to record either total value of produce sold or total revenue. These are two different pieces of information, both of which may be useful to the farmer to help determine the profitability of current practices and future pricing. CSA shares are generally purchased by the season or month. If used to record revenue, the column merely provides a reference to compare costs with revenues on a weekly basis.

HARVEST INSTRUCTIONS

NOP References: 205.103, 205.201

205.103. Records must fully disclose all activities and transactions of the certified operation in sufficient detail as to be readily understood and audited.

205.201. An organic system plan must include...a description of practices and procedures to be performed and maintained, including the frequency with which they will be performed.

Use of this form. Harvest instructions can provide clear written directions to accomplish detailed harvest operations that vary frequently from day to day with the changing of the season. This is often the case with a market garden harvesting for direct markets. In terms of compliance, if followed consistently, it can meet the need for harvest records. It is intended as more of a management improvement form, especially useful when working with new farm employees or interns. There are several other options for harvest records; use the one that best meets your farm's needs.

Date _____ Market (or CSA Distribution) _____

Location	Crop	Variety	Quantity	Comments (Quantity, special harvest instructions, post-harvest handling, storage, etc.)	Initial when complete
<i>Bed A</i>	<i>Parsley</i>	<i>Curly</i>	<i>10 bunches</i>	<i>Size of bunches – loosely gathered, should fill the space between thumb and index finger.</i>	
<i>Bed B</i>	<i>Basil</i>	<i>Thai</i>	<i>10 bunches</i>	<i>Harvest stems at nearest branch point; trim to uniform length, 8-12 inches; stand bunches in bucket of water; store in cooler overnight. (They will look wilted otherwise).</i>	
<i>Lower Field</i>	<i>Bok Choi</i>	<i>Joi Choi</i>	<i>40 heads</i>	<i>Count out 40 rubber bands; use a knife to cut at soil level. May need to trim to make a tidy head. Rubber band around middle of head to hold together. Go around twice if you can without squashing the head.</i>	

D) Monitoring Practices Logs

PEST MANAGEMENT AND MONITORING RECORD

NOP References: 205.103, 205.201, 205.206 Crop pest, weed, and disease management practice standard

(a) The producer must use management practices to prevent crop pests, weeds, and diseases including but not limited to:

(1) Crop rotation and soil and crop nutrient management practices, as provided for in §205.203 and 205.205;

(2) Sanitation measures to remove disease vectors, weed seeds, and habitat for pest organisms; and

(3) Cultural practices that enhance crop health, including selection of plant species and varieties with regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.

(b) Pest problems may be controlled through mechanical or physical methods including but not limited to:

(1) Augmentation or introduction of predators or parasites of the pest species;

(2) Development of habitat for natural enemies of pests;

(3) Nonsynthetic controls such as lures, traps, and repellents.

(c) Weed problems may be controlled through:

(1) Mulching with fully biodegradable materials;

(2) Mowing;

(3) Livestock grazing;

(4) Hand weeding and mechanical cultivation;

(5) Flame, heat, or electrical means; or

(6) Plastic or other synthetic mulches: Provided, That, they are removed from the field at the end of the growing or harvest season.

(d) Disease problems may be controlled through:

(1) Management practices which suppress the spread of disease organisms; or

(2) Application of nonsynthetic biological, botanical, or mineral inputs.

(e) When the practices provided for in paragraphs (a) through (d) of this section are insufficient to prevent or control crop pests, weeds, and diseases, a biological or botanical substance or a substance included on the National List of synthetic substances allowed for use in organic crop production may be applied to prevent, suppress, or control pests, weeds, or diseases: Provided, That, the conditions for using the substance are documented in the organic system plan.

(f) The producer must not use lumber treated with arsenate or other prohibited materials for new installations or replacement purposes in contact with soil or livestock.

Use of this form. Record notes about evidence of crop damage, signs of presence of insects or diseases, preventative control measures (such as enhancement of habitat for beneficial insects, biological control, cultivation, mechanical control, etc.) Pests may include insects, mites, vertebrates (birds, rodents), or invertebrates (slugs, snails). Each observation should include a date. Notes may include observations about pest presence, location, intensity, stage of development (eggs, larvae, pupae, nymphs, adults), preventative practices used, and conditions that are met before resorting to a material response.

Farm Name: Orchard Creek Farm Crop Season / Year: Mixed vegetables, 2005

Crop/Location	Pest	Disease	Weeds
<i>Fava Beans Lower orchard field</i>	<i>5/20/05 Gopher digging – mounds Set macabee traps; checked daily in AM. 5/23/05 Caught one gopher. 5/24/05 No evidence of digging.</i>	<i>5/12/05 Some rust along west end of planting where soil is thinner and drier. Plants not as vigorous; lower yields. Need more water and OM.</i>	<i>5/15/05 Pulled by hand around plants; weeds used as mulch.</i>

WATER LOG: IRRIGATION AND RAINFALL RECORD

NOP Reference: 205.2 Cultural Methods. Methods used to enhance crop health and prevent weed, pest, or disease problems without the use of applied substances; examples include the selection of appropriate varieties and planting sites, proper timing and density of plantings, irrigation, and extending the growing season by manipulating the microclimate with green houses, cold frames, or wind breaks.

Purpose of this form. Water management is a critically important cultural practice for enhancing crop health and preventing diseases. Irrigation is an important element of water management. Clearly, one cannot stop the rain (or the substances that comes with it in some parts of the country), but it may be helpful to keep track of it. Good water management also includes site selection (avoiding low-lying sites), tillage and soil amendment practices (prevent compaction; promote infiltration), shaping of beds (facilitate drainage from root zone), and other practices. Many areas now have weather stations that can provide the daily evapotranspiration rate. Knowledge of that can help in irrigation scheduling and duration.

Use of this form. This form is intended as an organic certification compliance document that contributes to preventing pests and diseases, but it is also a farm management and planning tool. The source of water is relevant to assessing potential contamination issues, if the source presents a high risk of contamination from prohibited materials or biological contaminants that may present a food safety hazard. Testing may be warranted under certain circumstances. As with any test, it is important to identify concerns and know what one is looking for.

Farm: _____

Source of Water: _____

Test(s) for Contamination and Dates (if applicable): _____

Date	Location	Crop	Rainfall or type of irrigation (drip, sprinkler, furrow, flood, water gun, etc.)	Comments (include quantity or time, any fertilizer materials and rate, etc.)

Notes:

E) Commingling and Contamination Prevention Documentation

NOP References: 205.201(a) (5 and 6), 205.103 (Producers), and 205.272 (Handlers)

205.201 (a). An organic production or handling system plan must include: (5) A description of the management practices and physical barriers established to prevent commingling of organic and nonorganic products on a split operation and to prevent contact of organic production and handling operations and products with prohibited substances

205.103 (b) ...records must (4) Be sufficient to demonstrate compliance with the Act and the regulations in this part.

205.272. Commingling and contact with prohibited substance prevention practice standard. (a) The handler of an organic handling operation must implement measures necessary to prevent the commingling of organic and nonorganic products and protect organic products from contact with prohibited substances.

The following forms are for documenting how you maintain the integrity of your organic land and products when there is some risk of contamination. Organic producers must be aware of potential sources of contamination and take measures to prevent and avoid each potential problem. Some risks may be under your direct control – in a mixed operation, where conventional production is under your management. Other risks call for risk-management measures such as notification, establishment of communication, and making requests for cooperation of others – neighbors, county road departments, utility companies, etc – to minimize opportunities for contamination.

EQUIPMENT CLEANING LOG

Purpose of this form. Equipment that is used for non-organic materials must be cleaned adequately to ensure that non-organic products and/or prohibited materials do not contaminate the organic product. The method of cleaning must be appropriate to the material that needs to be removed (how it adheres) and to the equipment (whether surfaces are smooth or rough, have corners or crevices). Cleaning methods may be either wet – for spray equipment (rinsing, washing, scrubbing – or dry (wiping, sweeping, or blowing with compressed air). Some types of equipment can be effectively cleaned by running them empty. For equipment that has no practical means of cleaning, a purge procedure may be the best approach.

Use of this form. Whatever the cleaning or purging method, you should be able to explain and/or demonstrate how you have determined that the method you are using is effective in removing potential contaminants. This procedure may be documented in your Organic System Plan. Or the form may be printed to include cleaning methods in columns, with boxes to be checked off when completed.

EQUIPMENT CLEANING LOG

Date	Equipment	Cleaning Methods and Materials	Responsible Party

BUFFER CROP DISPOSITION RECORDS

NOP References: 205.2 and 205.202(c)

205.2 Definitions: Buffer zone

An area located between a certified production operation or portion of a production operation and an adjacent land area that is not maintained under organic management. A buffer zone must be sufficient in size or other features (e.g., windbreaks or a diversion ditch) to prevent the possibility of unintended contact by prohibited substances applied to adjacent land areas with an area that is part of a certified operation.

205.202 Land requirements

Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must: (c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.

Purpose of this form. Buffer zones may be non-crop areas (such as windbreaks), or they may be used to produce crops. If crops are produced in buffer zones where there is some risk of contamination with prohibited materials from neighboring land, the crop cannot be sold as organic.

Use of this form. Use this form to document the disposition (harvest and sale or other use) of any crops grown in buffer zones. Use a separate form for a single buffer zone, and keep track of buffer crop disposition over multiple years. Clear mapping, corresponding marking in the field, and consistent documentation of crop disposition will increase your inspector’s confidence and capacity to report to the certifier that there is a reliable system to identify the buffer zone and track disposition of any buffer crop.

Documentation should be appropriate to the size of the buffer zone and the quantity of crop produced there. Buffer crop disposition options may include harvest and sale as non-organic, harvest for home use, donation to workers or to gleaners, or disking under. In most cases, plans for disposition of buffer crop will be part of your OSP, and you must keep documentation adequate to be verified at inspection. Commercial quantities of crops usually require formal documentation, such as delivery receipts and sales records that show that the buffer crop has not been represented as organic. If the amount of product is small and not sold, less formal documentation—such as this form—may suffice. *Always check with your certifier to agree on what constitutes sufficient documentation—before harvest season arrives.*

BUFFER CROP DISPOSITION RECORD

Buffer Crop: Fuji Apples

Location: North side of Parcel 1, one row of apple trees (25 trees).

Map: Shows neighboring conventional apple orchard to the south of parcel. Note indicates that the land is flat; no slope. Arrows indicate cardinal direction, north, and prevailing winds from the east.

Marking: Red ribbon is tied around the trunks of all buffer trees before harvest.

Date	Crop / Variety	Location	Disposition (sold, donated, home use, disked, etc.)	Quantity (if harvested)	Sales Revenue (gross \$)	Documentation (type and location)
10/1/02	<i>Fuji apples</i>	<i>Parcel 1 North side Single row</i>	<i>Sold as conventional</i>	<i>1 4x4 bin</i>		<i>Delivery tag and sales record, Apple Bob's, In filing cabinet, buffer crop folder</i>

Reminder: Other record forms may be found in the ATTRA publication *Forms, Documents, and Sample Letters for Organic Producers*. This publication includes a Land Use History Verification form, a Neighbor Notification letter, an Adjoining Land Use Verification form, a Clean Transport Affidavit, a Complaint Log, a GMO-Free Affidavit for Production, a GMO-Free Affidavit for Input Purchases, a Transaction Certificate Authorization, a Sample Farm Inspection Report Form, a Sample Farm Map, and an Exempt Organic Farm Affidavit.

APPENDIX

Blank Forms

The following forms are the same forms as described above, minus the NOP References, text of the Rule, and examples. They may be used as is.

ACTIVITY CALENDAR

Month _____ Year _____ Farm/Location _____

SEEDING, PLANTING, and HARVEST RECORD

Crop	Variety/Lot	Location	Seeding Date or Wet Date (if irrigated)	Transplant Date	Dates of Harvest	Yield

SEEDING/PLANTING and HARVEST RECORD, DETAILED

Crop	Variety	Days to harvest (estimated /actual)	Green House date	Field Pre-irrigation date	Field Date (seed or transplant)	Field Wet Date (if irrigated, direct seeded)	Germ Date	Start Harvest	End Harvest	Total harvest	Total acres	Total \$	\$ per acre

MANURE SOURCE AND APPLICATION RECORD

Location and Crop	Date of Application	Date of Harvest		Days to harvest required / Actual interval		Method of Application and Incorporation	Manure type, form and source	Documentation of EU Compliance?
		Anticipated / Actual (if food)						

SEED RECORDS
PART C: INOCULANT AND SEED COATING LOG

Date	Location	Crop /Variety	Inoculant or Seed Coating	Documentation of non-GMO and allowed status

Notes:

CROP ROTATION PLAN/RECORD

Location <small>¹⁶</small>	Year _____ Crop(s) or cover crop (plant family ¹⁷)	Year _____ Crop(s) or cover crop (plant family)	Year _____ Crop(s) or cover crop (plant family)	Year _____ Crop(s) or cover crop (plant family)

Notes:

¹ Farm, field, parcel, plot, or bed.

¹⁷ Include all crops, including cover crops, the season or month planted, and plant family.

PESTICIDE USE REPORT

Permittee:

Operator Identification Number:

County	Section	Township	Range	Base and Meridian	Location	Site ID
Planted Area	Treated Area	Crop or Site	Crop ID	Pest	Date/Time Proposed	Date/Time Actual
Product	Manufacturer	Restricted Material?	Chemical Number	Registration Number from label	Lot number	
Total formulated product used	Rate per acre	Dilution volume	Weather conditions	NW	N	NE
Days re-entry	Days pre-harvest	Environmental Changes/Comments:		W	Target Area	E
Application supervised by	PCA Name			SW	S	SE

PESTICIDE MATERIALS USE RECORD

Date	Permit#	Permit Name	Crop	Field	Acres	Material and Manufacturer	Amount Used	Township	Range	Section

CSA WEEKLY HARVEST AND COST SUMMARY

Farm Name: _____ Week of: _____

Weekly share price for full share:

PRODUCE	Crop/variety	Source (Farm or Purchased Product ¹⁸)	Quantity of Product	Value of product ¹⁹	Quantity (Number of shares)	Total value or revenue ²⁰
1						
2						
3						
4						
5						
6						
7						
LABOR	Worker	Rate		Hours		Total
DELIVERY	Route	Miles	Rate			Total
Other CSA- related travel or expenses						
				Total variable costs this week		

¹⁸ Purchased Product should be indicated on this list as well as in any written communication (such as a weekly newsletter) that shareholders receive, so that anyone can tell where each product comes from and whether or not it is certified organic.

¹⁹ Value: This column is included to help the farmer align future share price with the box contents. (generally established by the price of that item if it were to be sold at a farmers' market).

²⁰ This column may be used to record either total value of produce sold or total revenue. These are two different pieces of information, both of which may be useful to the farmer to help determine the profitability of current practices and future pricing. CSA shares are generally purchased by the season or month. If used to record revenue, the column merely provides a reference to compare costs with revenues on a weekly basis.

HARVEST INSTRUCTIONS

Date _____ Market (or CSA Distribution) _____

Location	Crop	Variety	Quantity	Comments (Quantity, special harvest instructions, post-harvest handling, storage, etc.)	Initial when complete

PEST MANAGEMENT AND MONITORING RECORD

Farm Name: _____ Crop Season / Year: _____

Crop/Location	Pest	Disease	Weeds

EQUIPMENT CLEANING LOG

Date	Equipment	Cleaning Methods and Materials	Responsible Party

BUFFER CROP DISPOSITION RECORD

Buffer location(s): Describe the location(s) (cardinal direction of field border, neighboring land, number of trees, rows, or feet, and any other relevant description.

Map: Sketch (or attach) a map that shows the location of buffer area, distance to neighboring land, and the nature of the neighboring land use. Include arrows to indicate cardinal direction (north), prevailing winds, and slope.

Marking: How can the buffer zone crop be readily distinguished from organic crop by harvesters at the time of harvest?

Date	Crop / Variety	Location	Disposition (sold, donated, home use, disced, etc.)	Quantity (if harvested)	Sales Revenue (gross \$)	Documentation (type and location)

Budgeting Forms for Crop Producers

Introduction:

While many producers rely on financial management software or other systems, others are just starting to use record keeping to understand and improve the management of their organic farm business. Developing budgets can be difficult and time consuming; however, it is possible to develop reasonable estimates of production and marketing costs and returns, and thus get an idea of the profitability of the business. This document contains a set of simple budget development forms for organic farmers. These forms are designed to be based mainly on information from the record-keeping forms in the first part of this workbook, in order to make budgeting easier and more convenient. Rules of thumb for estimating many types of costs are included.

Contents

Individual Crop Budgeting Forms

Mixed Crop Budgeting Forms

Fixed Costs Forms

Whole Farm Budgeting Form

Break-even Analysis Form

Cash Flow Form

Individual Crop Budgeting Forms

Instructions

These forms will assist in developing budgets for individual crops. These individual crop budgets serve as the building blocks for developing a whole-farm budget, as well as allowing the operator to evaluate the profitability of the individual crop.

Use these forms for crops that can be separated out as distinct enterprises, such as larger scale production of one crop. The level of detail needed to treat individual crops as distinct enterprises in a smaller scale market-gardening operation can be burdensome. If the producer is producing and selling a relatively small quantity of many different crops to the same market, the mixed crop budget may be easier to use.

CROP:				
1. REVENUE				
Date of Sale	Market or Buyer	Quantity Sold	Price/Unit	Revenue
Box 1: Total Annual Revenue (sum Revenue column)				

Enter all your sources of sales revenue for this crop from your Sales Records.

Box 1: Revenue sources may include produce sales through any of the following marketing channels: Wholesale sales, Farmers' Market, U-Pick, Farm Stand, CSA, etc.

CROP:				
2.A. PURCHASED INPUT COSTS				
Date of Purchase	Item	Quantity	Price	Cost
Box 2A: Total Input Costs (sum Cost Column)				

From your Input Purchase and Receiving Log, enter input purchases and costs. If you have not entered them in your Input Purchase and Receiving Log, you may enter seed and transplant purchases and cost information from your Seed Records.

Box 2A: Purchased inputs should include all

- fertilizers and soil amendments (compost, manure, micronutrients, greenhouse soil mixes);
- pest management materials (allowed pesticides, lures, traps, repellants, barriers, beneficial organisms for biological control);
- seed, planting stock, and annual transplants;
- production materials and supplies (trellising, irrigation systems, stakes, twine, ties);
- marketing materials and supplies (packaging and containers such as boxes, bags, cartons, bins, baskets, crates, clamshells, rubber bands, twist ties, etc.).

CROP:						
2B. MACHINERY COSTS (VARIABLE)						
Date of Machine Use	Machinery Used	Hours Machinery Used	Fuel Cost/Hour	Lube Cost (15% of fuel cost)	Repairs and Maintenance	Total Machinery Use Cost/Date
Box 2B: Total Hourly Machinery Cost (sum Cost column)						

From your Activity Log, for each date in the Log, enter the hours you used machinery and what type of machinery it was.

The main variable costs for tractors and headers are fuel, lubricants, repair, and maintenance. For implements and other non-engine operated machinery, variable costs will loosely equal repair costs. Variable costs can be accurately estimated if good machinery records are kept. Instruction manuals sometimes give information on typical fuel and oil use and the expected life of any moving parts on the machine.

However, you can estimate machinery costs for each operation as follows.(1)

Fuel and Lubrication Costs

You can record these actual costs on the date you paid for them. However, for planning purposes you may want to estimate your annual fuel and lubrication costs.

Fuel use varies proportionally with the power of the engine, and is affected by the engine load, or how much work the engine has to do. A rule of thumb for tractor fuel use in gallons/hr. under normal working conditions is the PTO power in kilowatts divided by 16.

Lubrication costs are 15 percent of the fuel costs of agricultural machinery. These costs can be estimated by multiplying the fuel costs (gallons consumed by the price per gallon) times 15 percent.

Repairs and Maintenance

You can record actual repair and maintenance costs on the date they are incurred. However, for planning purposes you may want to estimate your annual repair and maintenance costs. A rule of thumb for “normal” use is around 3% of the engine-operated machinery's replacement price, or 5% of an implement's replacement price per year.

CROP:				
2.C. LABOR HOURS AND COSTS				
Date	Hours Operator Labor	Hours Hired Labor	Wage/Hour of Hired Labor	Total Hired Labor Cost
Box 2C1: Total Operator Labor (sum Hours Operator Labor)				
Box 2C2: Total Hired Labor Cost (sum Cost column)				

From your Activity Log, for each date in the Log, enter the hours that you worked to produce this crop and the hours of hired labor used to produce this crop.

CROP:						
2.TOTAL PRODUCTION COSTS						
Box 2A: Purchased Input Costs						
Box 2B: Machinery Costs						
Box 2C2: Hired Labor Costs						
Box 2: Total Production Costs (sum of boxes 2A-2C)						

CROP:								
3A. MARKETING TRANSPORT & MISC. COSTS								
Date	Market or Buyer	Market Fees	Miles to Market	Mileage Cost @\$0.45/ mi	Other Costs	Total Costs		
Box 3A: Total Marketing Transport Costs (sum Total Costs column)								

You can enter this information from your Sales Records. Including the market or buyer allows you to see at a glance how transportation costs compare across markets.

CROP:					
3B. MARKETING LABOR HOURS AND COSTS					
Date	Market or Buyer	Hours Operator Labor	Hours Hired Labor	Wage/Hour of Hired Labor	Total Hired Labor Cost
Box 3B1: Total Operator Labor (sum Hours Operator Labor)					
Box 3B2: Total Hired Labor Cost (sum Cost column)					

You can enter this information from your Sales Records. Including the market or buyer allows you to see at a glance how marketing labor costs compare across markets. For example, farmers' markets require more marketing labor than wholesale markets.

You may also want to note in your Activity Log time spent in other marketing activities, such as time spent on the Internet and telephone communicating with buyers. If you do this, you can also enter this time here.

CROP:				
3..TOTAL MARKETING COSTS				
Box 3A: Total Marketing Transport Costs				
Box 3B2: Total Hired Labor Cost				
Box 3: Total Marketing Costs (sum of boxes 3A and 32B)				

CROP:		
4. TOTAL CROP INCOME		
Box 1: Total Revenue		
Box 2: Total Production Costs		
Box 3: Total Marketing Costs		
Income Over Variable Costs		
Crop Share of Fixed Costs		
Total Income		

Subtract Box 2 and Box 3 from Box 1. This will give you the income from that crop over variable costs.

From the Fixed Costs Worksheet, enter the Crop Share of Fixed Costs that you calculated for this crop. Subtract the Crop Share of Fixed Costs from Income over Variable Costs to give you the net income for this crop.

Reference:

- 1) Davies, Lloyd, and Dean Patton. 2000. Calculating machinery costs and contract rates. New South Wales (Australia) Department of Primary Industries. Agriculture Agfact M2.6. 6 p.

Mixed Crop Budgeting Form

Instructions

These forms will assist you in developing budgets for mixed crops that cannot easily be separated out into individual crops, such as a smaller scale market-gardening operation, where you are producing and selling a relatively small quantity of many different crops to the same market.

1. REVENUE				
Date of Sale	Market or Buyer	Quantity Sold	Price/Unit	Revenue
Box 1: Total Annual Revenue (sum Revenue column)				

Enter in the table above all your sources of sales revenue for this crop from your Sales Records. Box 1: Revenue sources may include produce sales through any of the following marketing channels: Wholesale sales, Farmers' Market, U-Pick, Farm Stand, CSA, etc.

2.A. PURCHASED INPUT COSTS				
Date of Purchase	Item	Quantity	Price	Cost
Box 2A: Total Input Costs (sum Cost Column)				

From your Input Purchase and Receiving Log, enter input purchases and costs in the table above. If you have not entered them in your Input Purchase and Receiving Log, you may enter seed and transplant purchase and cost information from your Seed Records.

Box 2A: Purchased inputs should include all

- fertilizers and soil amendments (compost, manure, micronutrients, greenhouse soil mixes);
- pest management materials (allowed pesticides, lures, traps, repellants, barriers, beneficial organisms for biological control);
- seed, planting stock and annual transplants;
- production materials and supplies (trellising, irrigation systems, stakes, twine, ties);
- marketing materials and supplies (packaging and containers such as boxes, bags, cartons, bins, baskets, crates, clamshells, rubber bands, twist ties, etc.).

2B. MACHINERY COSTS (VARIABLE)						
Date of Machine Use	Machin-ery Used	Hours Machinery Used	Fuel Cost/ Hour	Lube Cost (15% of fuel cost)	Repairs and Mainten-ance	Total Machin-ery Use Cost/Date
Box 2B: Total Hourly Machinery Cost (sum Cost column)						

From your Activity Log, for each date in the Log, enter the hours you used machinery and what type of machinery it was.

The main variable costs for tractors and headers are fuel, lubricants, repair, and maintenance. For implements and other non-engine operated machinery, variable costs will loosely equal repair costs. Variable costs can be accurately estimated if good machinery records are kept. Instruction manuals sometimes give information on typical fuel and oil use and the expected life of any moving parts on the machine.

However, you can estimate machinery costs for each operation as follows.(1)

Fuel and Lubrication Costs

You can record these actual costs on the date you paid for them. However, for planning purposes you may want to estimate your annual fuel and lubrication costs.

Fuel use varies proportionally with the power of the engine, and is affected by the engine load, or how much work the engine has to do. A rule of thumb for tractor fuel use in gallons/hr. under normal working conditions is the PTO power in kilowatts divided by 16.

Lubrication costs are 15 percent of the fuel costs of agricultural machinery. These costs can be estimated by multiplying the fuel costs (gallons consumed by the price per gallon), times 15 percent.

Repairs and Maintenance

You can record actual repair and maintenance costs on the date you paid for them. However, for planning purposes you may want to estimate your annual repair and maintenance costs. A rule of thumb for "normal" use is around 3 percent of the engine-operated machinery's replacement price or 5 percent of an implement's replacement price per year.

CROP:				
2.C. LABOR HOURS AND COSTS				
Date	Hours Operator Labor	Hours Hired Labor	Wage/Hour of Hired Labor	Total Hired Labor Cost
Box 2C1: Total Operator Labor (sum Hours Operator Labor)				
Box 2C2: Total Hired Labor Cost (sum Cost column)				

From your Activity Log, for each date in the Log, enter the hours that you worked to produce this crop and the hours of hired labor used to produce this crop.

CROP:				
2.TOTAL PRODUCTION COSTS				
Box 2A: Purchased Input Costs				
Box 2B: Machinery Costs				
Box 2C2: Hired Labor Costs				
Box 2: Total Production Costs (sum of boxes 2A-2C)				

CROP:						
3A. MARKETING TRANSPORT & MISC. COSTS						
Date	Market or Buyer	Market Fees	Miles to Market	Mileage Cost @\$0.45/mi	Other Costs	Total Costs
Box 3A: Total Marketing Transport Costs (sum Total Costs column)						

You can enter this information from your Sales Records such as the Farmers' Market Load List and/or CSA Records. Including the market or buyer allows you to see at a glance how transportation costs compare across markets.

CROP:					
3B. MARKETING LABOR HOURS AND COSTS					
Date	Market or Buyer	Hours Operator Labor	Hours Hired Labor	Wage/Hour of Hired Labor	Total Hired Labor Cost
Box 3B1: Total Operator Labor (sum Hours Operator Labor)					
Box 3B2: Total Hired Labor Cost (sum Cost column)					

You can enter this information from your Sales Records. Including the market or buyer allows you to see at a glance how marketing labor costs compare across markets. For example, farmers' markets require more marketing labor than wholesale markets.

You may also want to note in your Activity Log time spent in other marketing activities, such as time spent on the Internet and telephone communicating with buyers. If you do this, you can also enter this time here.

CROP:				
3..TOTAL MARKETING COSTS				
Box 3A: Total Marketing Transport Costs				
Box 3B2: Total Hired Labor Cost				
Box 3: Total Marketing Costs (sum of boxes 3A and 32B)				

CROP:	
4. TOTAL CROP INCOME	
Box 1: Total Revenue	
Box 2: Total Production Costs	
Box 3: Total Marketing Costs	
Income Over Variable Costs	
Crop Share of Fixed Costs	
Total Income	

Subtract Box 2 and Box 3 from Box 1. This will give you the income from that crop over variable costs.

From the Fixed Costs Worksheet, enter the Crop Share of Fixed Costs that you calculated for this crop. Subtract the Crop Share of Fixed Costs from Income over Variable Costs to give you the net income for this crop.

Reference:

- 2) Davies, Lloyd, and Dean Patton. 2000. Calculating machinery costs and contract rates. New South Wales (Australia) Department of Primary Industries Agriculture Agfact M2.6. 6 p.

Fixed Costs Budgeting Form

Instructions

Fixed costs are costs that do not vary with use. You must pay property taxes and insurance premiums whether or not you actually produce any crops. Ownership costs are incurred for assets, and you pay these costs every year, regardless of whether you use your buildings or machinery at all or use them every day.

It is often easier to calculate fixed costs on a whole-farm basis rather than attempting to allocate them to specific crops. However, costs can be allocated to specific crops by the percentage of the total land that each crop represents. For example, if 10 of your 20 acres are in sweet corn, 50 percent of the fixed costs can be allocated to the corn "enterprise." If machinery or other equipment is only used to produce one crop, all the costs associated with that machinery would be allocated to that crop.

Taxes

Taxes would include property taxes.

Insurance

Liability, fire, and casualty insurance payments are included here. If your machinery is not covered by an overall farm insurance policy, a rule of thumb for estimating a machine's insurance cost is 1 percent of the machine's average value.(1)

Machinery and Equipment

Cropping machinery and equipment, irrigation equipment, and other long-term assets incur fixed costs, also known as ownership costs, regardless of the use of the asset.

Estimating the fixed costs for these items can be done using the Capital Recovery Charge (CRC). The CRC takes into account the ownership cost of an asset associated with obsolescence, depreciation, and interest on its value.

How to calculate the annual CRC

Step 1: $\text{CRC Percentage} \times (\text{Original Value} - \text{Salvage Value})$

Step 2: Add $\text{Salvage Value} \times \text{Interest Rate}$ to get CRC per year

Salvage value is an estimate of the sale value of the machine at the end of its economic life. It is the amount you can expect to receive as a trade-in allowance,

an estimate of the used market value if you expect to sell the machine outright, or zero if you plan to keep the machine until it is worn out.

For Step 1, a typical CRC percentage for machinery is 12.5 percent and equipment is 15 percent (assuming a 10 percent interest rate.⁽²⁾ More exact CRC percentages can be found in the table below using the specific economic life in years of the machinery and the appropriate interest rate. The economic life of a machine is the number of years for which costs are to be estimated. It is often less than the machine's service life, because most farmers trade a machine for a different one before it is completely worn out. A good rule of thumb is to use an economic life of 10 to 12 years for most farm machines and a 15-year life for tractors, unless you know you will trade sooner.

Table 2. Capital recovery factors.

Int. rate	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
Years														
1	1.020	1.030	1.040	1.050	1.060	1.070	1.080	1.090	1.100	1.110	1.120	1.130	1.140	1.150
2	0.515	0.523	0.530	0.538	0.545	0.553	0.561	0.568	0.576	0.584	0.592	0.599	0.607	0.615
3	0.347	0.354	0.360	0.367	0.374	0.381	0.388	0.395	0.402	0.409	0.416	0.424	0.431	0.438
4	0.263	0.269	0.275	0.282	0.289	0.295	0.302	0.309	0.315	0.322	0.329	0.336	0.343	0.350
5	0.212	0.218	0.225	0.231	0.237	0.244	0.250	0.257	0.264	0.271	0.277	0.284	0.291	0.298
6	0.179	0.185	0.191	0.197	0.203	0.210	0.216	0.223	0.230	0.236	0.243	0.250	0.257	0.264
7	0.155	0.161	0.167	0.173	0.179	0.186	0.192	0.199	0.206	0.212	0.219	0.226	0.233	0.240
8	0.137	0.142	0.149	0.155	0.161	0.167	0.174	0.181	0.187	0.194	0.201	0.208	0.216	0.223
9	0.123	0.128	0.134	0.141	0.147	0.153	0.160	0.167	0.174	0.181	0.188	0.195	0.202	0.210
10	0.111	0.117	0.123	0.130	0.136	0.142	0.149	0.156	0.163	0.170	0.177	0.184	0.192	0.199
11	0.102	0.108	0.114	0.120	0.127	0.133	0.140	0.147	0.154	0.161	0.168	0.176	0.183	0.191
12	0.095	0.100	0.107	0.113	0.119	0.126	0.133	0.140	0.147	0.154	0.161	0.169	0.177	0.184
13	0.088	0.094	0.100	0.106	0.113	0.120	0.127	0.134	0.141	0.148	0.156	0.163	0.171	0.179
14	0.083	0.089	0.095	0.101	0.108	0.114	0.121	0.128	0.136	0.143	0.151	0.159	0.167	0.175
15	0.078	0.084	0.090	0.096	0.103	0.110	0.117	0.124	0.131	0.139	0.147	0.155	0.163	0.171
16	0.074	0.080	0.086	0.092	0.099	0.106	0.113	0.120	0.128	0.136	0.143	0.151	0.160	0.168
17	0.070	0.076	0.082	0.089	0.096	0.102	0.110	0.117	0.125	0.132	0.140	0.149	0.157	0.165
18	0.067	0.073	0.079	0.086	0.092	0.099	0.107	0.114	0.122	0.130	0.138	0.146	0.155	0.163
19	0.064	0.070	0.076	0.083	0.090	0.097	0.104	0.112	0.120	0.128	0.136	0.144	0.153	0.161
20	0.061	0.067	0.074	0.080	0.087	0.094	0.102	0.110	0.117	0.126	0.134	0.142	0.151	0.160

EXAMPLE

For example, a tractor cost \$50,000. Its economic life is 15 years and it has a salvage value of \$10,000. The interest rate is 9 percent. (From the table above, the CRC percentage would be 12.4 percent).

Step 1: CRC Percentage x (Original Value - Salvage Value)

In the example, you can use the typical CRC percentage of 12.5 percent. If you do, the calculation will be

$$.125 \times (\$50,000 - \$10,000) = .125 \times \$40,000 = \$5,000$$

Step 2: Add (Salvage Value x Interest Rate) to get Total CRC per year
 (\$10,000 x .09) = \$900 + \$5,000 (From Step 1) = \$5,900 (CRC per year)

Buildings

You would calculate CRC for buildings in the same way you calculated it for machinery and equipment. A typical CRC percentage for buildings is 10 percent (assuming a 10 percent interest rate) (2).

Other

Periodic Repair and Maintenance

Other Repair and Maintenance

Regular maintenance and repairs that do not change with use of the assets, such as annual servicing of heating and cooling equipment, would be included here.

Also, other non-periodic repairs such as roof repairs that do not change with the use of the assets would be included here.

ANNUAL FIXED COSTS		
Fixed Cost	Payment Date	Amount
Taxes		
Insurance		
Whole Farm		
Specific		
Machinery		
Item 1		
Item 2		
Buildings		
Building 1		
Building 2		
Other 1		
Other 2		
Total Fixed Costs per Year		

References:

- 3) Davies, Lloyd, and Dean Patton. 2000. Calculating machinery costs and contract rates. New South Wales (Australia) Department of Primary Industries. Agriculture Agfact M2.6. 6 p.
- 4) Frank, Gary G. 1997. Enterprise Accounting. Center for Dairy Profitability. University of Wisconsin at Madison Cooperative Extension. 4 p.

Whole Farm Budgeting Form*Instructions*Revenue

Sum of all Box 1, Total Annual Revenue amounts from each of the Individual Crop worksheets. Or just use the Box 1, Total Annual Revenue from the Mixed Crops worksheet, if this is a market garden operation where it doesn't make sense to break it out by individual crops.

Variable Costs

Sum of all Box 2, Total Production Costs, and Box 3, Total Marketing Costs amounts from each of the Individual Crop worksheets. Or just use Box 2, Total Production Costs, and Box 3, Total Marketing Costs amounts from the Mixed Crops Income Form, if this is a market garden operation where it doesn't make sense to break it out by individual crops.

Examples of variable costs for crop production: Equipment and labor for soil preparation, cultivation and weed management, irrigation, soil amendments and plant nutrients, pest management materials, harvest, post-harvest handling and packing, packaging containers and supplies.

Examples of variable costs for livestock production: Equipment and labor for animal care, animal purchase or breeding expenses, housing, health care, fencing, equipment and supplies for feeding and watering, feed, feed supplements, packaging for products, use of transport equipment for animals.

Fixed Costs

Because this budget form is for the whole farm, enter the Total Fixed Costs per Year from the Fixed Costs worksheet.

Examples of fixed costs: Land rent or mortgage payment, office maintenance and staffing costs, licensing or registration fees (state requirements, organic registration, certification costs, marketing association dues, farmer’s market fees, etc.), portable bathroom/handwash facility rental and servicing.

Total Income

Total Income = Revenue minus Variable Costs minus Fixed Costs.

Return to Labor and Management

Your labor and management needs to be valued. The returns to labor and management are shown by the Total Income divided by the number of hours you have worked (from the Activity Log). This is a good way to get an idea of how the per-hour “wages” you are earning compare to other potential uses of your labor (opportunity costs). Note that you can do this for each crop as well, if this would be helpful in figuring out how to allocate your resources.

4. TOTAL FARM INCOME	
Revenue	
Revenue Crop 1	
Revenue Crop 2	
Total Revenue	
Variable Costs	
Costs Crop 1	
Costs Crop 2	
Total Costs	
Total Fixed Costs	
TOTAL INCOME	
<i>Total Hours Operator Labor</i>	
RETURN TO LABOR & MGT.	

Break-Even Analysis Form

Instructions

Break-even analysis is a useful farm management tool because it allows the calculation of various combinations of price and yield that will cover anticipated costs. At the break-even point, you are not making any money, but you are not losing any money either (assuming you are tracking your work hours and including a wage for your time). Since most enterprises take time to become profitable, if you are breaking even, you are more likely to be able to last long enough to make it to profitability.

In the short term, you can use break-even analysis to make production decisions, based on the break-even price or yield required to cover your variable costs. If revenue from a crop or market garden is greater than the variable costs to produce it, then you should continue the enterprise. If not, you would be losing money if you continue.

You can do this analysis before beginning production to estimate what your costs would be and then to get an idea of the price or yield you would need to make it worth your while to continue. For example, if your estimated costs would require that you get \$10 per pound of tomatoes to break even, it is clear that you shouldn't produce tomatoes unless you can increase yields and decrease production costs – unless you are blessed with a market that will buy tomatoes at this price.

You can do this analysis at different points in the production season as well. If prices drop during the season, you can estimate whether to continue and produce and market a crop or whether to disk it all under to avoid losing more money.

In the longer term, however, you must cover all your costs including fixed costs. If anticipated receipts are less than variable costs, losses would be minimized by not continuing the enterprise. In this situation, if you choose to disk the crop under and start over, losses would be limited to the amount of fixed costs that you would have to absorb, as well as any money already spent on that crop. Don't be afraid to cut your losses.

Break-even price = anticipated total costs / anticipated yield

This is the minimum price per unit required to cover all costs at the anticipated yield.

Break-even yield = anticipated total costs / anticipated prices

This is the minimum yield required to cover all costs at the anticipated price per unit.

Break-even Example 1				
Total Acreage	10			
Total Fixed Costs	500			
	Crop 1	Crop 2	Crop 3	Total
Yield	20	100	50	
Price	\$5	\$0.5	\$1	
Total Income (Yield x Price)	100	50	50	200
Acres in Crop	5	3	2	
Crop % Acreage	50%	30%	20%	
Variable Costs	\$100	\$50	\$50	\$200

In the example above, for Crop 1, the break-even price to cover variable costs would be $\$100/20=\5 . So each unit of Crop 1 must sell for at least \$5 to make producing Crop 1 worthwhile in the short term. Break-even price for Crop 2 would then be \$0.50 and for Crop 3 would be \$1.

Break-even Example 2				
Total Acreage	10			
Total Fixed Costs	500			
	Crop 1	Crop 2	Crop 3	Total
Yield	20	100	50	
Price	\$17.50	\$2	\$3	
Total Income (Yield x Price)				
Acres in Crop	5	3	2	
Crop % Acreage	50%	30%	20%	
Variable Costs	\$100	\$50	\$50	\$200
Crop Share Fixed Costs (Crop % * Fixed Costs)	\$250	\$150	\$100	\$500
Total Costs (Variable + Fixed Costs)	\$350	\$200	\$150	\$700

In the long term, however, total costs, including fixed costs, must also be covered. In this example total costs are \$700. You can figure out what percentage of your total acreage is in each crop and then allocate your fixed costs to each crop based on how much of your acreage is in each crop. For example, 5 acres or 50 percent of the total acreage is in Crop 1, so 50 percent of the fixed costs of \$500, or \$250, is allocated to Crop 1. So total costs for Crop 1 are \$350. Break-even price for Crop 1 would then be $\$350/20 \text{ boxes}=\17.5 per box. Repeating this for each crop gives the new break-even prices you would need.

Breakeven							
Total Acreage							
Total Fixed Costs							
	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5	Crop 6	Total
Yield							
Price							
Variable Costs							
Share Fixed Costs							
Acreage							
Total Income							
Total Costs							
Net Income	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Cash Flow Form

Instructions

Cash flow records are an important planning and management tool. Keeping track of your cash flow helps ensure that you understand when expenses are incurred and when revenue is coming in, so that your farm will have cash when it is needed. To begin developing cash flow records, transfer the information from your Input Purchase Records, your Sales Records, and your other financial records. Since each of these record forms includes the date of the transaction, costs and revenue can be tracked easily.

Tracking fixed expenses is relatively simple, since you usually know when each cost will be incurred and how much it will be. Examples include mortgage and

other loan payments, insurance, taxes, machinery and equipment replacement, and so on. You can transfer dates and amounts from your Fixed Costs Form.

CASH FLOW BUDGET

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
EXPENSES												
Fixed costs												
Variable costs												
REVENUE												
MONTHLY NET												

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