

DACUM Occupational Profile for Northeast Small Scale "Sustainable" Farmer

© 2000, New England Small Farm Institute

DACUM Panel

Jeremy Barker-Plotkin
Simple Gifts Farm
Belchertown, MA

Marybeth Fuchs
Fox Brook Farm
Princeton, MA

Elizabeth Henderson
Peacework Organic Farm
Newark, NY

John Hoffman
Wilder Brook Farm
Shelburne Falls, MA

David Holm
Holm Farm
Amherst, MA

David Jackson
Enterprise Farm
South Deerfield, MA

Dan Kaplan
Brookfield Farm
Amherst, MA

Shane LaBrake
Ecosystem Farm
Accokeek, MD

Russell Libby
Maine Organic Farmers & Gardeners
Association
Augusta, ME

Matt Rulevich
Woolly Mammoth Farm
Belchertown, MA

David Tepfer
Brookfield Farm
Belchertown, MA

**With review by over 60
beginning farmers**

\$6.00

Sponsored by



**New England Small Farm Institute
PO Box 937
Belchertown, MA 01007
www.smallfarm.org**

Funded by

**Mid Atlantic Consortium/WK Kellogg Foundation
USDA/CSREES/Northeast SARE
Vervane Foundation**

Developed by



DACUM Facilitator
Robert E. Norton
CETE/OSU

Project Coordinator
Eric Toensmeier
New England Small Farm Institute

**November 29-30, 1999
Verified Summer 2000**

About this DACUM Profile

This DACUM (Develop A Curriculum) Occupational Profile is a systematic listing of duties and tasks performed by **small scale, 'sustainable' farmers located in the northeast US.** A product of the Northeast New Farmer Network *Farming Skills Curriculum Development Pilot Project*, it has been sponsored by the New England Small Farm Institute to guide development of competency-based training programs for beginning farmers in the northeast.

Convened by Dr. Robert E. Norton, Senior Research and Development Specialist, Center on Education and Training for Employment, The Ohio State University, a panel of "farmer experts" created a comprehensive list of the work they believe the northeast's successful small scale, 'sustainable' or 'environmentally aware' farmers actually DO (or should do): duties (large areas of work described in performance terms; clusters of tasks), and associated with each duty, a set of tasks (specific, meaningful units of work). Additions to this occupational profile (mainly tasks related to planning, land access and start-up) were offered by over 60 farming beginners convened in seven DACUM review 'focus groups'. To round out the profile, the original panel created lists of (1) required tools, equipment, supplies and materials, (2) necessary general knowledge and skills, (3) essential worker behaviors and (4) critical future trends and concerns.

In conducting a first review of their DACUM Chart, panelists noted the similarity between the practical duties and tasks of the small scale, 'sustainable' northeast farmer—our Project's target constituency—and the duties and tasks of all farmers. They agreed to further refine the Chart to highlight the occupation's three qualifiers—region, scale and farming philosophy—by adding four new elements. First, they prepared a list of their own fundamental principles of 'sustainable agriculture'—**Essential Values and Principles**, since farming philosophy and values shape the structure and practical management of every farm. Second, they agreed that, if the term 'sustainable' is to serve as a meaningful description of farming philosophy and practice, one or more definitions should be included in this document. (They have included three.) And finally, since the occupation we are describing is both scale and region specific, comments on scale (small) and on region (northeast) have been included. With the encouragement and support of Dr. Norton, these four new elements have been added to this otherwise traditional DACUM Occupational Profile.

* * * * *

Essential Values & Principles

Commitment to farming with respect for the constraints of ecological systems

Commitment to place—the farm is not a moveable unit of production, but a neighborhood presence

Decisions are made with knowledge of their ecological impact

Farm systems that respect the requirements of nature, farm family needs, and personal values and goals

Farming goals that address the community, the environment, education and quality of life as well as profit

Commitment to farming as a way of life, not simply a means of making a living

Commitment to sustainability, the regeneration of rural and farming communities, and the value of genetic diversity

Commitment to on-farm nutrient and materials recycling, and conserving and improving soil, water and air quality

Commitment to humane animal husbandry; respect for the ethological needs of all livestock (i.e., "the five

freedoms": freedom to stretch all limbs; freedom to groom; freedom to turn around; freedom to access adequate ventilation, light, food and water, and freedom to satisfy social needs)

Love and respect for nature and the soil

Love and respect for hard work

Concern for social justice and social and ecological responsibility

Reverence for all life—human, animal and vegetable

Humility about the place of human beings in the scheme of nature

DACUM Profile for Northeast Small Scale "Sustainable" Farmer

(C) 2000, New England Small Farm Institute

November 29-30, 1999

		← Tasks			
A Plan Whole Farm	A-1 Set whole farm goals (1)	A-2 Assess available resources & needs (2)	A-3 Conduct market research (e.g., research industry, competition, markets/customers, production)		A-4 Select farm enterprise(s) (3)
	A-10 Prepare conservation & land use plan (6)	A-11 Research legal requirements (7)	A-12 Assemble whole farm plan (8)		
B Set Up Farm Business	B-1 Obtain necessary financing (e.g., family, peer loan groups, banks, others)	B-2 Establish farm legal structure (e.g., sole proprietor, partnership, corporation, cooperative)		B-3 Establish farm management team (9)	
	B-10 Set up bookkeeping system (e.g. cash journal, asset ledger, payables & receivables; by hand or on computer)	B-11 Set up filing & record-keeping systems		B-12 Provide for farm family security (e.g., purchase life & health insurance, establish retirement plan)	
C Manage Farm Business	C-1 Establish tasks & timelines (e.g., administration, production, marketing)		C-2 Manage communications (e.g., phone, fax, email, on-site messages, correspondence)		C-3 Collect payments
	C-11 Keep good records (e.g., income, expenses, payroll)		C-12 Adhere to federal, state & local regulations (e.g., sales tax & exemptions, workers compensation, payroll reporting)		
D Pursue Education & Professional Development	D-1 Prepare plan to meet skill & information needs (e.g., goals, timeline, budget)	D-2 Apprentice to experienced farmer	D-3 Find farmer-mentor	D-4 Observe your farm <i>daily</i>	D-5 Read agricultural literature (e.g., books, journals, catalogs)

A-5 Prepare (e.g., process budgets; production potential; farm operations timeline; labor, supply & equipment needs)		A-6 Prepare marketing plan (4)		A-7 Prepare financial plan <i>pro forma</i> financial statements, annual budget, cash flow projections whole farm budget, farm capitalization		A-8 Secure access to land (e.g., rent, lease, or purchase)		A-9 Assess site (5)					
B-4 Establish farm policies (e.g., visitor, safety, personnel)		B-5 Obtain necessary licenses, permits & certifications (10)		B-6 Open business bank account(s)		B-7 Purchase liability & property insurance		B-8 Establish credit with key suppliers		B-9 Obtain necessary office equipment & supplies			
C-4 Pay bills		C-5 Manage payroll		C-6 Pay taxes & fees		C-7 Balance checking account(s)		C-8 Monitor cash flow		C-9 Manage short & long term debt		C-10 Take family living draw/owner's draw	
D-6 Visit other farms		D-7 Establish relationships with local institutions & organizations		D-8 Attend classes, conferences, workshops & trade shows		D-9 Consult with local experts		D-10 Dialogue with customers		D-11 Keep posted on current events & trends		D-12 Learn from experience (11)	

- 1) e.g., set farm vision, mission statement and 3-part sustainability goal, and farm/family priorities (economic, environmental, and quality of life); include farm partners, family members and other appropriate parties in process.
- 2) e.g. physical, capital, human; skills, experience, time, land, equipment, profitability, short and long-term owner's draw.
- 3) raw and/or processed crop and animal products; forest products; farm-based crafts; farm-stay and agri-tourism activities; custom work; consultation and educational services.
- 4) e.g., pricing, marketing strategies, logo, product line, target customers, sales potential, promotion, product placement, labor needs, consumer trends, brand name, organic/green label options, potential for value-adding.
- 5) e.g., map and analyze: soils, topography, water, drainage, threats to natural resources, access, infrastructure, climate and microclimate.

- 6) e.g. research conservation programs and regulations; prepare timeline and budgets for: infrastructure development, conservation practices, irrigation/ water projects; update maps.
- 7) e.g., zoning, organizational structure, product handling, liability, tax abatement options, development rights.
- 8) e.g. one year, five year and long range projections; general business description, roles, budgets and timelines; labor, equipment, infrastructure, supply and financial needs.
- 9) e.g., create management and professional job descriptions; hire lawyer, accountant, and/or other professional services; hire non-labor (e.g., clerical) employees; establish service contracts; conduct new employee orientation.
- 10) e.g. federal employer ID #, fuel storage, farm labor camp, tax exemption, organic certification, certified kitchen.
- 11) e.g., frequently compare actual outcomes to farm plan and adjust day-to-day operations accordingly.

DACUM Profile for Northeast Small Scale "Sustainable" Farmer

← Tasks →

E	Nourish Family & Community Relations	E-1 Set aside time for family & self	E-2 Establish friendly relations with neighbors	E-3 Participate in community organizations & activities	E-4 Maintain an attractive farmstead	E-5 Host community events & farm tours	E-6 Patronize local businesses	E-7 Establish cooperative relationships with other farmers, businesses & organizations		E-8 Promote sustainable, local farming & food system security			
		F-1 Prepare farm labor plan (e.g., self, family, hired [H2A, interns, other], volunteer, CSA work-share)		F-2 Create job descriptions (e.g., clear & comprehensive)		F-3 Fill out necessary state & federal labor forms		F-4 Recruit labor	F-5 Establish labor contracts	F-6 Conduct farm orientation (e.g., health & safety issues, where things are")		F-7 Assign daily tasks	F-8 Train farm workers (e.g., fieldwork, efficiency, equipment safety)
F	Manage Farm Labor Resources	F-9 Supervise farm workers (e.g., monitor performance, safety & well-being; communicate; motivate; resolve disputes)		F-10 Adhere to all state & federal labor regulations. (note 12)		F-11 Keep good records (e.g., time sheets, labor reports, records of disputes & injuries)							
		G-1 Inventory tools, equipment & supplies	G-2 Acquire necessary tools, equipment & supplies (e.g., purchase, borrow, rent)	G-3 Fabricate tools & equipment	G-4 Establish preventive maintenance schedule for tools & equipment		G-5 Establish parts & supplies inventories (including scrap pile)		G-6 Monitor condition of tools & equipment	G-7 Maintain tools & equipment	G-8 Repair tools & equipment	G-9 Provide storage for tools, equipment & supplies	G-10 Store tools, equipment & supplies (e.g., safely, in good order)
G	Manage Tools, Equipment & Supplies	G-11 Get rid of unneeded tools & equipment (e.g., sell, give away)		G-12 Keep good records (e.g., equipment manuals, repair records, expenses, capital repairs, future problems/needs)									
		H-1 Adhere to federal, state & local legal & regulatory requirements (e.g., zoning, permits, building codes, fuel & pesticide storage)		H-2 Build/install infrastructure	H-3 Crewe farm signage (e.g., promotional, safety, traffic, posting)		H-4 Establish preventive maintenance schedule for infrastructure		H-5 Establish parts & supplies inventory		H-6 Monitor condition of infrastructure	H-7 Maintain infrastructure	H-8 Repair infrastructure (e.g., emergency, seasonal, annual)
H	Manage Farm Infrastructure ¹³ (note 13)	H-9 Demolish unnecessary infrastructure (including salvage & recycling)		H-10 Keep good records (e.g., plans of land, "as-builts", expenses, capital repairs, future problems/needs)									
		I-1 Implement conservation practices & measures (note 14)	I-2 Test soil & water	I-3 Prepare annual plan to build soil health & productivity	I-4 Obtain necessary supplies & inputs	I-5 Manage soil fertility (note 15)	I-6 Monitor weather	I-7 Manage pests (e.g., insects, diseases, parasites, weeds, critters, predators; provide habitat for beneficials)		I-8 Manage crop & livestock rotations	I-9 Conduct trials of new breeds, crops, products & techniques		I-10 Monitor ecological impact of all production activities
I	Manage Production & Natural Resources	I-11 Manage crop residues & other farm by-products (e.g., compost)		I-12 Custom hire farm services as needed	I-13 Adhere to federal, state & local regulations	I-14 Keep good records (e.g., inputs, soil health, weather, pests)							

12) e.g., state and federal employment law (fair wage, workers' compensation, unemployment, equal opportunity, sexual harassment, etc.); state and local farm property tax abatement programs; volunteer protection; product and general liability; risk management.

13) e.g., grounds, farmhouse, barns, shop, sheds, utilities, roads/farm lanes, fences, ditches, irrigation systems, greenhouses

14) e.g., buffer strips, water quality management projects, wildlife habitat improvement, strip cropping.

15) e.g., make compost, plant and manage cover and catch crops, integrate crop and livestock production, install crop rotations, add organic amendments if and as required.

DACUM Profile for Northeast Small Scale "Sustainable" Farmer

← Tasks →

E	Nourish Family & Community Relations	E-1 Set aside time for family & self	E-2 Establish friendly relations with neighbors	E-3 Participate in community organizations & activities	E-4 Maintain an attractive farmstead	E-5 Host community events & farm tours	E-6 Patronize local businesses	E-7 Establish cooperative relationships with other farmers, businesses & organizations		E-8 Promote sustainable, local farming & food system security			
		F-1 Prepare farm labor plan (e.g., self, family, hired [H2A, interns, other], volunteer, CSA work-share)		F-2 Create job descriptions (e.g., clear & comprehensive)		F-3 Fill out necessary state & federal labor forms		F-4 Recruit labor	F-5 Establish labor contracts	F-6 Conduct farm orientation (e.g., health & safety issues, where things are")		F-7 Assign daily tasks	F-8 Train farm workers (e.g., fieldwork, efficiency, equipment safety)
F	Manage Farm Labor Resources	F-9 Supervise farm workers (e.g., monitor performance, safety & well-being; communicate; motivate; resolve disputes)		F-10 Adhere to all state & federal labor regulations. (note 12)		F-11 Keep good records (e.g., time sheets, labor reports, records of disputes & injuries)							
		G-1 Inventory tools, equipment & supplies	G-2 Acquire necessary tools, equipment & supplies (e.g., purchase, borrow, rent)	G-3 Fabricate tools & equipment	G-4 Establish preventive maintenance schedule for tools & equipment		G-5 Establish parts & supplies inventories (including scrap pile)		G-6 Monitor condition of tools & equipment	G-7 Maintain tools & equipment	G-8 Repair tools & equipment	G-9 Provide storage for tools, equipment & supplies	G-10 Store tools, equipment & supplies (e.g., safely, in good order)
G	Manage Tools, Equipment & Supplies	G-11 Get rid of unneeded tools & equipment (e.g., sell, give away)		G-12 Keep good records (e.g., equipment manuals, repair records, expenses, capital repairs, future problems/needs)									
		H-1 Adhere to federal, state & local legal & regulatory requirements (e.g., zoning, permits, building codes, fuel & pesticide storage)		H-2 Build/install infrastructure	H-3 Crewe farm signage (e.g., promotional, safety, traffic, posting)		H-4 Establish preventive maintenance schedule for infrastructure		H-5 Establish parts & supplies inventory		H-6 Monitor condition of infrastructure	H-7 Maintain infrastructure	H-8 Repair infrastructure (e.g., emergency, seasonal, annual)
H	Manage Farm Infrastructure ¹³ (note 13)	H-9 Demolish unnecessary infrastructure (including salvage & recycling)		H-10 Keep good records (e.g., plans of land, "as-builts", expenses, capital repairs, future problems/needs)									
		I-1 Implement conservation practices & measures (note 14)	I-2 Test soil & water	I-3 Prepare annual plan to build soil health & productivity	I-4 Obtain necessary supplies & inputs	I-5 Manage soil fertility (note 15)	I-6 Monitor weather	I-7 Manage pests (e.g., insects, diseases, parasites, weeds, critters, predators; provide habitat for beneficials)		I-8 Manage crop & livestock rotations	I-9 Conduct trials of new breeds, crops, products & techniques		I-10 Monitor ecological impact of all production activities
I	Manage Production & Natural Resources	I-11 Manage crop residues & other farm by-products (e.g., compost)		I-12 Custom hire farm services as needed	I-13 Adhere to federal, state & local regulations	I-14 Keep good records (e.g., inputs, soil health, weather, pests)							

12) e.g., state and federal employment law (fair wage, workers' compensation, unemployment, equal opportunity, sexual harassment, etc.); state and local farm property tax abatement programs; volunteer protection; product and general liability; risk management.

13) e.g., grounds, farmhouse, barns, shop, sheds, utilities, roads/farm lanes, fences, ditches, irrigation systems, greenhouses

14) e.g., buffer strips, water quality management projects, wildlife habitat improvement, strip cropping.

15) e.g., make compost, plant and manage cover and catch crops, integrate crop and livestock production, install crop rotations, add organic amendments if and as required.