

Small-Scale & Organic Vegetables

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Shared Position

FairShare CSA Coalition
- 50 farms
- 13 farms in Dane Cty
- most sell in Dane Cty
- all certified organic
Time in both offices



Grower Education

- field days & workshops
- cover crop & reduced tillage research
- Organic Vegetable Production Conference
- Organic Vegetable Farm Manager Apprenticeship NEW

Organic Vegetable Farm Manager Apprenticeship



Inspiration

- First accredited agricultural apprenticeship in the U.S.
- Started in WI
- Now in 10 states with more than 40 apprentice/grazer pairs
- Quality educational program



Stakeholder Meeting

- 10 established organic vegetable farmers
- 3 current or recent apprentices
- 7 agricultural educators from UW Extension and non-profit organizations
- 2 reps from WI Department of Workforce Development Bureau of Apprenticeship Standards

Outcome: Unanimous support for moving forward



Goals

Farmers:

Reliable, skilled labor
Standardized training resources
Network of farmer instructors
Farm succession?

Apprentices:

Comprehensive training
Experience
Relationship with farmer
Credentials for loans, etc.

Overview of the process:

- DACUM 1
- Validation Survey
- DACUM 2
- Working Groups: Job book and Classroom Curriculum
- Approval



Developing a Curriculum



"DACUM provides a foundation for development of education, training and performance improvement interventions by using information gathered from high-performers within an occupation during a focus group process"

Who was involved?

- **Farmers:** 12 "industry experts"
 - **Facilitator:** WIDS – Worldwide Instructional Design System
 - **DWD Bureau of Apprenticeship Standards**
- Observers:
- **UW Extension Dane County, UW-Madison Horticulture, FairShare CSA Coalition**
 - **Technical Colleges**
 - **Non-Profits:** Center for Integrated Ag Systems, Pennsylvania Association for Sustainable Agriculture



Organic Vegetable Growers DACUM * January 27, 2017

Duty	Task	Task	Task	Task	Task	Task
A Manage Fields	A1 Perform primary tillage	A2 Prepare seed beds	A3 Lay plastic mulch	A4 Assess field conditions	A5 Apply compost or fertilizers	A6 Perform stalk seed bed preparation
	A8 Seed cover crop	A9 Mow cover crop	A10 Terminate cover crop	A11 Perform deep tillage	A12 Maintain non-production areas	A7 Mow and incorporate crop residue into the soil
B Propagate Transplants	B1 Seed vegetable crop into trays	B2 Maintain proper temperature and moisture levels	B3 Maintain proper ventilation	B4 Prepare greenhouse growing media	B5 Harden off seedlings	B6 Maintain greenhouse equipment and structure
	B8 Record greenhouse planting	B9 Maintain seedling fertility	B10 Perform greenhouse sanitation	B11 Control greenhouse pests and diseases	B12 Assess germination and seedling growth	B7 Put up seedlings
C Seed and Transplant Crops	C1 Read the field plan	C2 Assess field conditions and plant status	C3 Determine planting method	C4 Prepare equipment, supplies, seeds and transplants	C5 Sow vegetable seeds in fields	C6 Transplant crops using hand or mechanical tools
	C8 Irrigate seeds/transplants if necessary	C9 Assess plant health	C10 Prepare equipment and supplies	C11 Perform side dressing and/or foliar feeding	C12 Record crop maintenance activity	C7 Record seedling and planting
D Maintain Crops	D1 Assess plant health	D2 Prepare equipment and supplies	D3 Determine cultural needs	D4 Prune plants	D5 Thin plants	D6 Trellis plants
	D8 Mow plants	D9 Irrigate plants	D10 Apply row cover	D11 Perform side dressing and/or foliar feeding	D12 Record crop maintenance activity	D7 Blanch plants
E Control Weeds	E1 Assess potential or actual weed pressure	E2 Identify weeds	E3 Determine weeding method	E4 Perform non-mechanical weeding	E5 Perform mechanical weeding	E6 Perform mulching

Validation Survey

- **What**
Asked for feedback on Duties and Tasks outlined in the DACUM
- Asked for input on frequency and importance of job tasks
- Allowed opportunity to identify things that were missed
- **Who**
Vegetable farmers and educators across Wisconsin and beyond

Organic Vegetable Growers DACUM * January 27, 2017
Finalized 2/17/2017

	OIT	PRI	BOTH
A Manage Fields			
A1 Consult soil fertility plan	X		
A2 Perform primary tillage	X		
A3 Prepare seed beds	X		
A4 Lay plastic mulch	X		
A5 Assess field and weather conditions		X	
A6 Apply compost or fertilizers	X		
A7 Perform stale seed bed preparation	X		
A8 Mow and incorporate crop residue into the soil	X		
A9 Seed cover crop	X		
A10 Mow cover crop	X		
A11 Terminate cover crop	X		
A12 Perform deep tillage	X		
A13 Maintain non-production areas	X		
B Propagate Transplants			
B1 Consult planting schedule	X		
B2 Seed vegetable crop into trays		X	
B3 Maintain proper temperature and moisture levels		X	
B4 Maintain proper ventilation		X	
B5 Prepare greenhouse growing media	X		
B6 Harden off seedlings	X		
B7 Maintain greenhouse equipment and structure	X		
B8 Pot up seedlings	X		
B9 Record greenhouse practices	X		

Organic Vegetable Farm Manager

Working Groups

Job Book – 90%

“Steps” for all Tasks

Drafted & facilitated by staff

8 farmers

Paid Related Instruction – 10%

3 courses, 144 hours

Facilitated by WIDS

2 farmers, tech college instructors, plus staff

Task	Step	Notes
A Manage Fields		
A1 Apply compost or fertilizer	Consult soil fertility plan	
	Apply compost or fertilizers at rates, locations, and times indicated in the plan	
A2 Perform primary tillage	Determine desired effect related to soil pans, incorporating crops, and soil conservation	
	Choose tillage implement based on desired effect	
	Check soil moisture to verify it is adequate for tillage	
	Connect tillage implement to appropriate tractor	
	Use tillage implement in the field	
	Verify desired effect has been achieved and make adjustments as necessary	
A3 Prepare seed beds	Determine type of seed/rooft bed needed based on crop to be planted	
	Choose implement(s) to create desired bed	
	Connect implement to appropriate tractor	
	Use implement(s) in the field	
	Verify that final seed/rooft bed is appropriate and make adjustments as necessary	
A4 Lay plastic mulch	Consult crop plan to determine timing and color of mulch needed	
	Measure/Mark bed widths	
	Apply plastic mulch and drip tape using hand or mechanical means	
A5 Assess field and weather conditions	Determine type of seed/rooft bed needed based on crop to be planted	
	Consult weather service to determine short and long term forecast	
	Check soil moisture	
	Check temperature, wind, and humidity	
A6 Perform stale seed bed preparation	Prepare seed/rooft bed	
	Germinate weeds with rain/irrigation, cultipacker, or other means	
	Kill weeds with shallow tillage, flamer, or other means at white thread stage	
	Repeat steps two and three until crop is planted	

50-xxx-xxx OVGFM 1 - Organic Farm Systems Course Outcome Summary

Course Information	
Alternate Title	Organic Vegetable Farm Manager Apprenticeship Related Instruction
Description	Introduces organic and systems approach to vegetable farming. Examines crop rotation plans, weed, pest, and disease plans, soil fertility and conservation plans, and organic certification paperwork. In addition, apprentices examine career pathways in organic vegetable farming and begin a career plan.
Career Cluster	Agriculture, Food and Natural Resources
Instructional Level	Technical Diploma
Total Credits	1.50
Total Hours	54.00

- Program Outcomes**
1. Manage fields
 2. Control weed, pests and disease
 3. Implement farm production plan
 4. Assist with managing employees

Linked DACUM
Title Organic Vegetable Grower Farm Manager DACUM

Target Tasks
A5 Assess field and weather conditions
E1 Take steps to prevent weed and weed seed formation
F1 Take steps to prevent pests and diseases
J14 Acknowledge the importance of work life balance

Timeline

Stakeholder meeting

DACUM 1 & 2

Finalize Program

2016

2017

2018



Grant Applications

Job Book & PRI Creation

Enrollment!

Program Basics

- Wisconsin's first **competency-based** program
- Estimated program length: 2500 hours/ 2 growing seasons
- **144 hours of PRI** (paid related instruction) through Northeast WI Technical College
- **Apprentices are paid** for both OJT and PRI
- **Apprentices pay for tuition**, books, and fees (\$540 for tuition)
- Farmer instructor and apprentice sign a **contract**
- Apprentices must be working/ paid at least **32 hours per week** when in "active status"

Program Basics

- **Minimum qualifications for all apprentice applicants:**
 - 18 years of age
 - high school diploma, GED, or equivalent
 - valid government-issued photo identification
 - ability to perform the work with reasonable accommodations
- **Minimum qualifications for farmer instructors:**
 - certified organic
 - 5 years in business

Next Steps

- Approval through Bureau of Apprenticeship Standards
- Expressly include farmers of color
- Kick off event & enroll first apprentices
- Make program adjustments after first year
- Farmer Instructor training
- Move program sponsorship to Fair Share?
- Partnerships with other states



Questions?

