Going Virtual: IT Tools to Enhance Water Quality Education with Farmers

Dr. Heather Darby

www.uvm.edu/extension/cropsoil/



The University of Vermont

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Welcome

Northwest Crops and Soils Program

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Grains

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Hops

Soil Health and Nutrient Management

Organic Farming

Events and Calendar

Videos

Out Croppings

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What's Hoppening

NW CROPS & SOILS PROGRAM



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The mission of the <u>UVM Extension Northwest Crops and Soils Team</u> is to provide the best and relevant cropping information, both research-based and experiential, delivered in the most practical and understandable ways to Vermont farmers.

OUT CROPPINGS: Important crop news from the field!

Northern Corn Leaf Blight Once again, We have seen increased Northern Corn Leaf Blight (NLB) pressure in our area. Northern leaf blight is a fungal disease found in humid climates wherever corn is grown. Click <u>here</u> to download entire article.

Cereal Grain Testing comes to the Green Mountains! UVM Extension Northwest Crops and Soils Team Grain Quality Laboratory is up and running! Our lab is currently accepting samples and will continue to do so until December 1, 2010. Click <u>here</u> to download a Cereal Grain Test Submission Form.

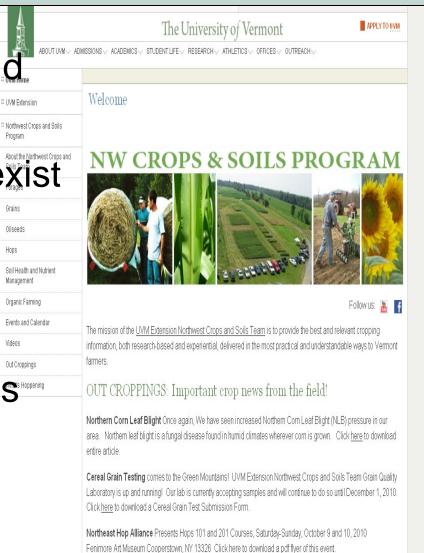
Northeast Hop Alliance Presents Hops 101 and 201 Courses, Saturday-Sunday, October 9 and 10, 2010 Engineer Art Museum Cooperstown, NY 13326. Click here to download a pdf fiver of this event.

Websites

- Effective if they can be found
- People need to know they exist
- Googlicious
- Extension web information is often difficult to locate

XTENSION

CULTIVATING HEALTHY COMMUNITIES



Websites

- People want new information
- Need to be easy to update

 Wordpress
- Needs to be updated
 Extra time



APPLY TO UVM The University of Vermont ABOUT UVM & ADMISSIONS & ACADEMICS & STUDENT LIFE & RESEARCH & ATHLETICS & OFFICES & OUTREACH & Welcome UVM Extension "Northwest Crops and Soils Program About the Northwest Crops and **NW CROPS & SOILS PROGRAM** Soils Team Forages Grains Oilseeds Hops Soil Health and Nutrient Management Organic Farming Follow us: 👗 🧗 Events and Calendar The mission of the UVM Extension Northwest Crops and Soils Team is to provide the best and relevant cropping Videos information, both research-based and experiential, delivered in the most practical and understandable ways to Vermont farmers. Out Croppings What's Hoppening OUT CROPPINGS: Important crop news from the field! Northern Corn Leaf Blight Once again, We have seen increased Northern Corn Leaf Blight (NLB) pressure in our area. Northern leaf blight is a fungal disease found in humid climates wherever com is grown. Click here to download entire article. Cereal Grain Testing comes to the Green Mountains! UVM Extension Northwest Crops and Soils Team Grain Quality Laboratory is up and running! Our lab is currently accepting samples and will continue to do so until December 1, 2010. Click here to download a Cereal Grain Test Submission Form.

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Content Types

- Articles
- Narrated powerpoints
- Video
- Webinars
- Moodle Courses

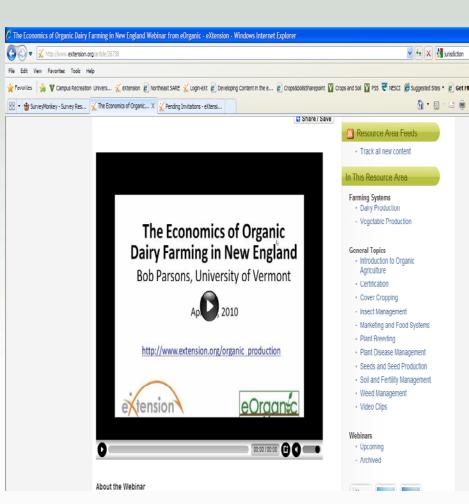
Good example of what is possible eXtension.org



Webinar

- Live & archived presentations
- Can have multiple audiences
 - Researchers, extensions
 - Farmers
- Many services
 - Elluminate, Adobe Connect,
 - Go to Webinars
- Archived and can be viewed and used over and over again.





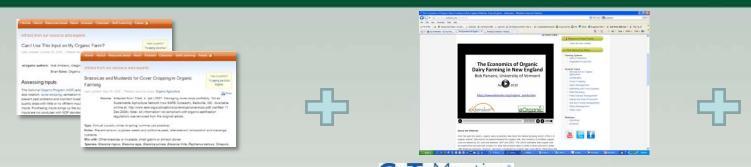




- Present research projects & results
- How-To videos
- Success stories
- Immediate Info to clients







New Articles/Bulletins

GoToMeeting"

archived webinars





instructional video clips on equipment use/production methods whole farm case study videos

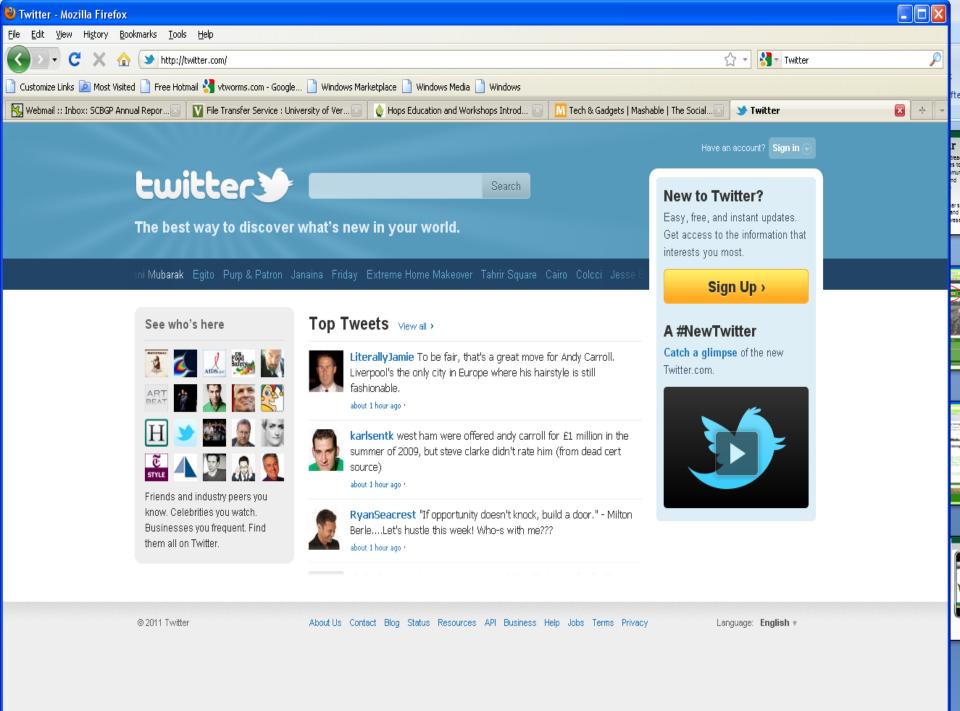


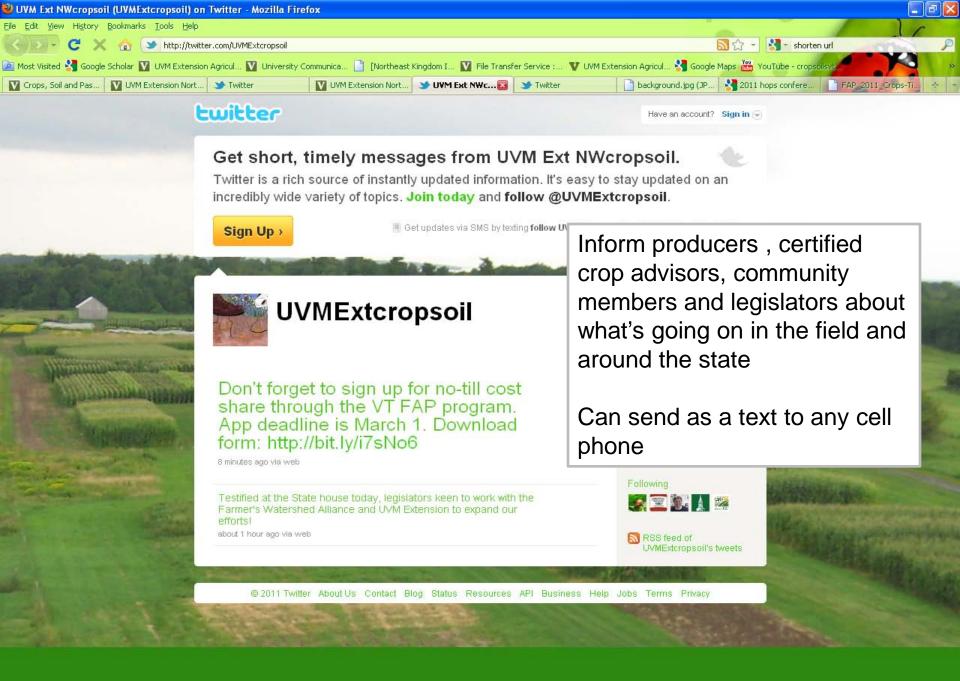
Narrated PowerPoint Presentations

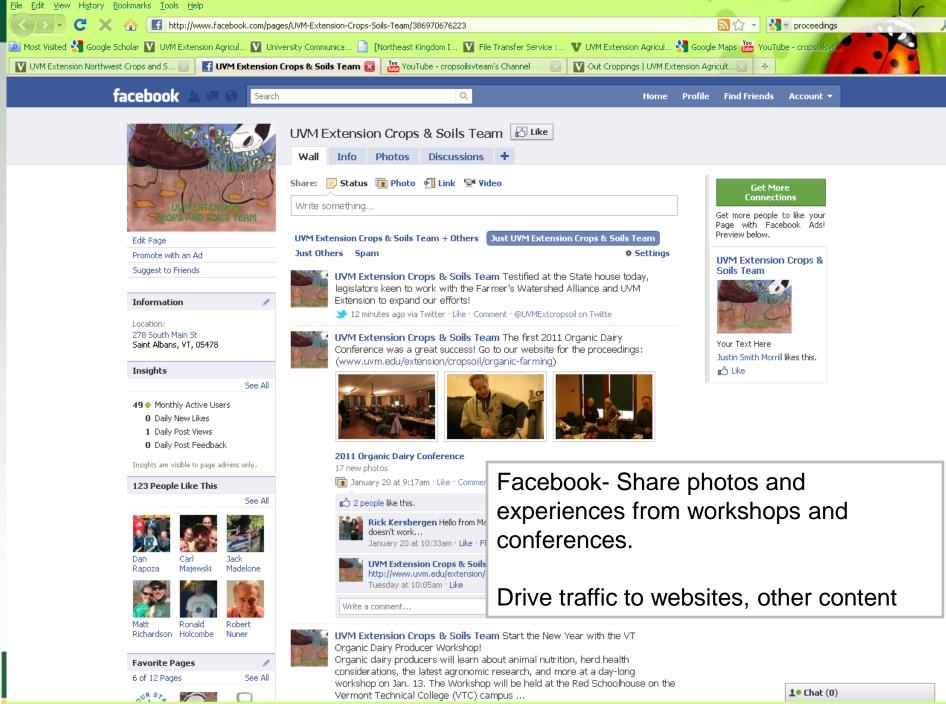


Asynchronous Moodle Courses

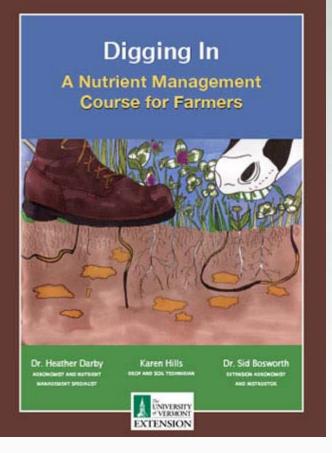
Good example of what is possible eXtension.org







Nutrient Management



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- Five week course
- Over 100 farms have completed the program
- 95% completion rate

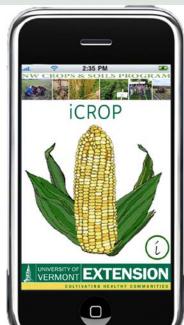
Nutrient Management



- 100% understood their plan
- Implemented 50 75% of plan
 - 30% of course participants keeping adequate records

Bridging the Gap



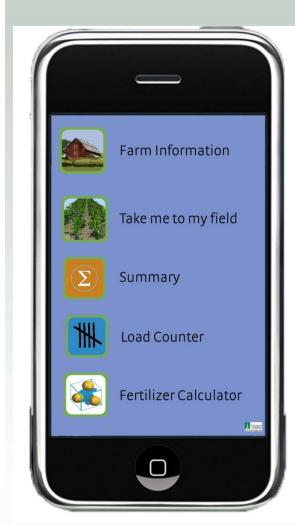






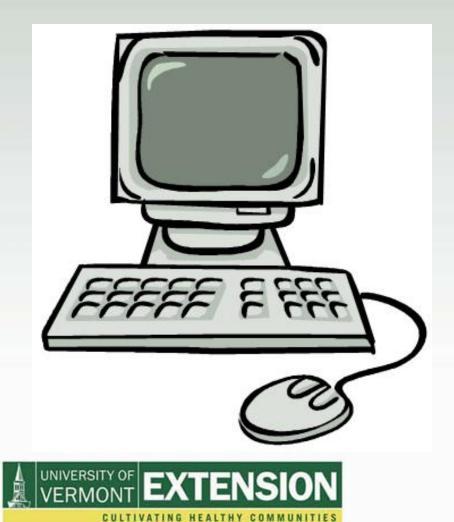


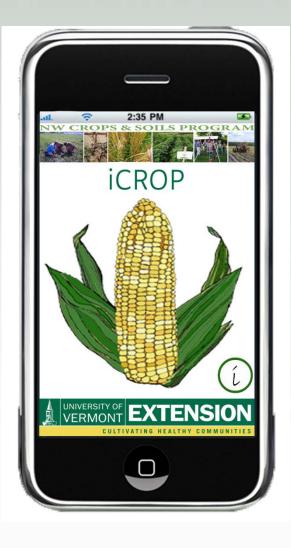


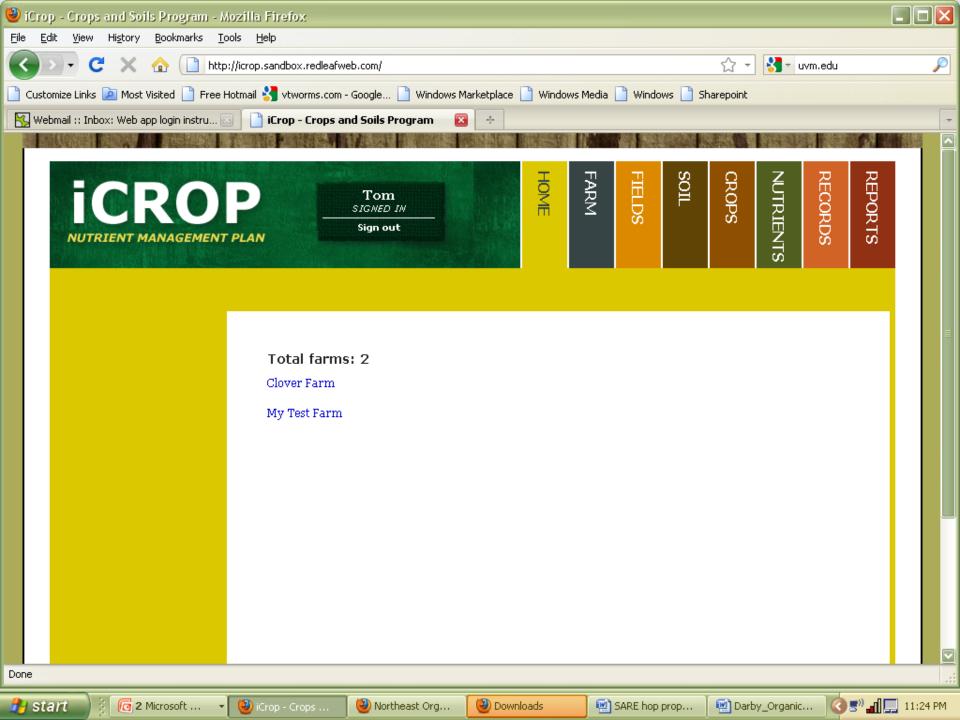




Web Application to Connect with Iphone Application







Olover Farm: A2312 Field - iCrop - Mozil	la Firefox							
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🕙 Corn Silage 10/24 : A2312 - iCrop - Moz	illa Firefox					
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Corn Silage 10/24 : A2312 + Add new crop	CROP	INFORMATION	ı			
	CROP TYPE		RECOMMEN	DATIONS		
	Crop Type:	Corn Silage	Nutrients per Unit:	N150.0 - P20 Zn5.0	.0 - K160.0 -	
	Yield Goal / Acre:	20.0	Linne		Ø	
	Yield Unit:	Ton	Lime (tons/acre):	1.0		
	Legume Percentage:	0-20% legume				
	Surface Cover %:	0 - 20 %				
	Planting Date:	Oct 🔽 24 🔽 2011 🔽				
	Update Crop	Cancel			Ī	

http://icrop.capdbox.redleafweb.com/member/farms/21/fields/5/crops/pew

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					PLANTING				TILLAGE					
					Planting Date:	Oct 🔽 24	2011 🔽		Primary Tillage:	Moldbo	oard Plov	N	~	
					Seed Depth:	3			Secondary Tillage:	Field C	ultivator	-	~	
					Seed Depth Units:	inches	~							
					Seed Rate:	5								
					Seed Rate Units:	lbs/acre	~							
					Variety:	F2F297								
					Update Crop									

iCrop



Farm Information



My Fields



Farm Summary



Load Counter



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Back Farm Information



General Information

Demo Farm 400 Acres Owned 100 Acres Leased



Equipment Primary Tillage: Moldboa...

Secondary Tillage: Disk 2 Spreaders



Livestock Holstein

253705632 Rolling Average



Notes and Rotation

Add / Edit Cancel Save Name By the river FSA Tract Field Number 123-1 County Franklin Acres 20 Elevation 0 Distance To Stream 25 Vegetated Buffer Width 25 Manure Spread Setback 25 Sediment Trap Structure None Ownership Type Owned Drainage Class Moderately Well

Back Farm Information

Tillages

Primary: Moldboard Plow Secondary: Disk

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Spreaders

Houle	
Liquid	
Bodco	
Solid	

Add a new Spreader

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Cancel	Add / Edit	Save
	Name Bodc o	
	Type Liquid	
	Size 0	
	Unit gallon	s
ASI	R T Y U D F G H X C V B	JKL
.?123	space	return

Back Farm Information

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Livestock

Type Breed: Holstein Rolling Herd Average: 25000

Animals

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Dairy - Heifer (6 - 18 months) 60 with average weight of: 800 lbs	>
Dairy - Lactating Cow 250 with average weight of: 1400 lbs	>
Dairy - Calves (< 6 months) 25 with average weight of: 250 lbs	>
Dairy - Dry Cow 25 with average weight of: 1400 lbs	>
Add a many Animal	
Add a new Animal	0

Back Farm Information Nutirent Management Spring / Summer / Fall > Custom Application: No Manure Storages **Behind The Barn** > Liquid Stack > Solid/Semi-Solid \bigcirc Add a new ManureStorage **Fetilizers** Urea > Dry Nitan > Liquid



Back Plan
Nutrients Required
N: 150
P: 80
K: 60
Past Years
Last Year Corn Silage I 6000.0
Two Years ago Corn Silage I 6000.0
Planned Manure
Fall Total Applied: 60000 Incorporation Metho



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iCrop



Farm Information



My Fields



Farm Summary



Load Counter



Settings



Back

Farm



Demo Farm®

278 South Main St Suite 2 St. Albans, Vermont 05478

Land

400 acres owned 100 acres leased Watershed: St. Albans BAy



Holstein I Herd Average: 25000

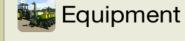
Dairy - Calves (< 6 months) Weight: 250

Dairy - Lactating Cow Weight: 1400

Dairy - Dry Cow Weight: 1400

New Animal

New Manure Storage



	Bodco Solid Houle
	iquid
	New Tillage New Spreader
	📪 Fertilizer
ſ	Urea
	Urea Dry
1	Dry Nitan
1	Dry
	Dry Nitan
1	Dry Nitan Liquid
	Dry Nitan
	Dry Nitan Liquid



Stack Solid/Semi-Solid Behind The Barn Liquid

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Demo Farn		
278 South Main S Suite 2	t 400 acres ow 100 acres lea	
St. Albans, Vermo		
05478		
Cancel	Add / Edit	Save
Eives	Animal Type Dairy - Calves (< 6	months)
Holstein I Herd	Number 25	
Dairy - Calves / Weight: 250	Weight 250	
Dairy - Lactating	Always Confined Yes	
Weight: 1400 Dairy - Dry Cow	Grazing Type Continuous	
Weight: 1400	Stocking Rate 0	
Manure	Fertilizer	-
Stack	Urea	
Solid/Semi-Solid Behind The Barn	Dry Nitan	
Liquid	Liquid	
		ertilizer

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Back Farm
Demo Farm 278 South Main St Suite 2 St. Albans, Vermont 05478Land 400 acres owned 100 acres leased Watershed: St. Albans BAy
Livestock Equipment
Name Behind The Barn Animal Type Dairy - Lactating Cow Manure Type Liquid DM Percentage 8 Total Manure Produced 3000000 Total Manure Applied 0
Behind The Larn Nitan Liquid Liquid New Manure Storage New Fertilizer

CULTIVATING HEALTHY COMMUNITIES

Back	Fi	eld: By th	e river		
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20 Ac		Dat	te 2011-05-30 00:0	00:00 UTC	
Owne Mode		Rate/Acr	•	8	
		Application Typ	e Starter Fertilize	r	
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Back Field: By the river	
By the river 20 Acres Owned Moderately Well drained	Field Prep and Planting (2)
Nutrients	Applications Manure Application 8 Loads on 2011-10-25
Manure 40 32 80	Fertilizer Application Starter Fertilizer on 2011-05-30
N P K	
Fertilizer 50 20 0	Add Fertilzer Add Manure
Total Yield: 11000 Tons	Pests
	Weeds Quack Grass on 2011-06-30
Add Take	Add Scouted Pest Add Control Application



Delivery/Evaluation Winter of 2011/2012

Training and transition

For sale on iTunes - \$50 to \$99 yearly updates

Evaluation winter 2013



Funding National CIG grant awarded in 2010 - \$45,000

Additional funds from UVM Extension

Total Cost - \$98,000

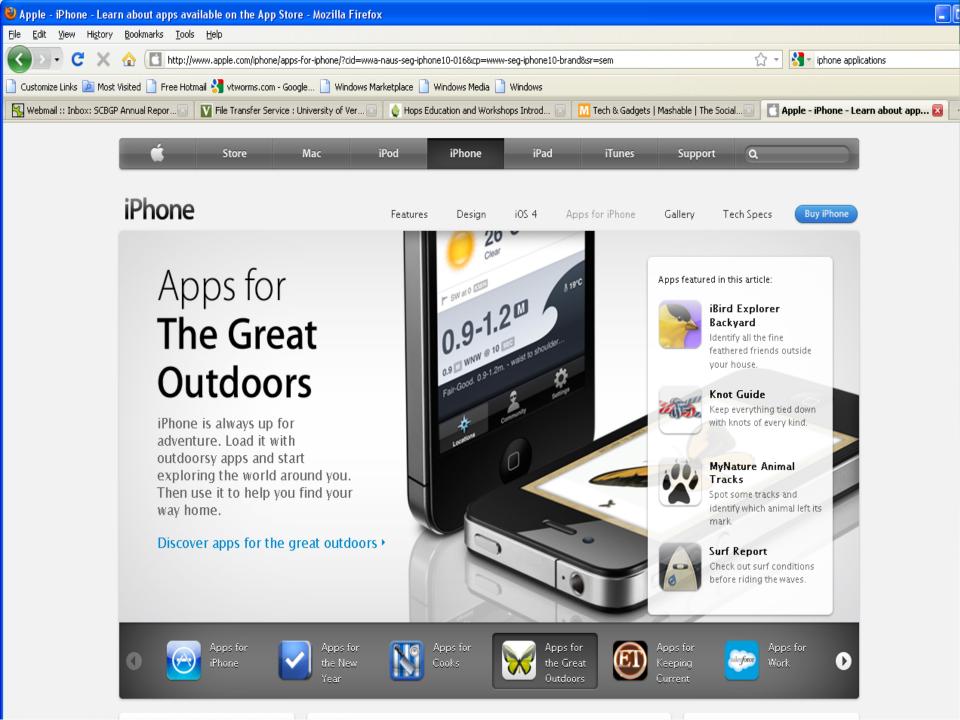
Proceeds from sales of iCrop

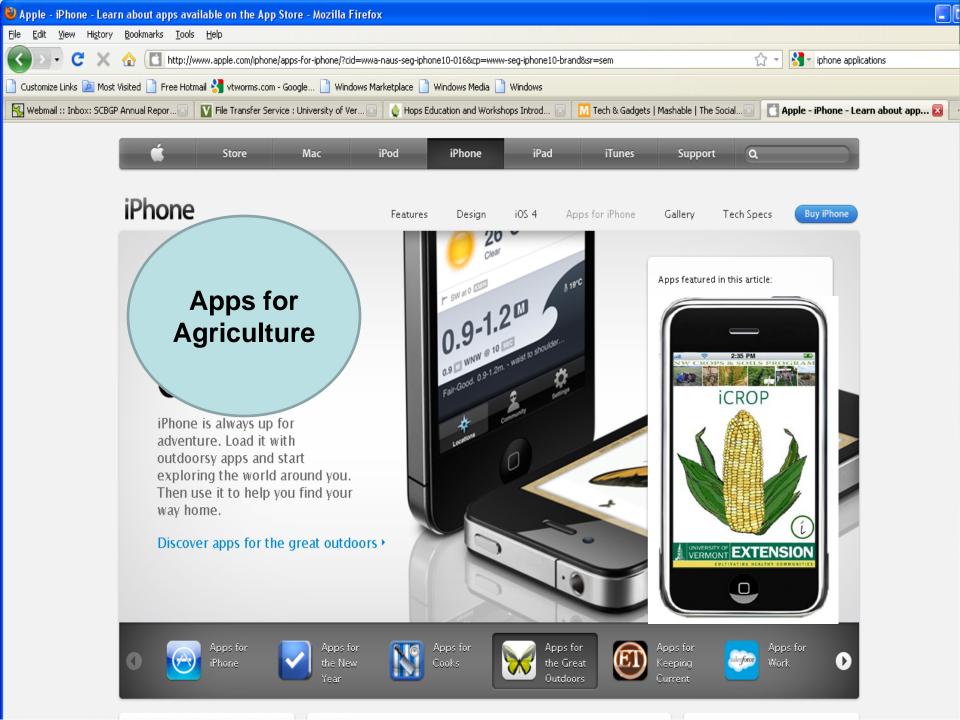


Next Steps

- Finish Application & Beta Test
- Launch on iTunes
- Develop nationwide applicability
- Develop GIS enabled application
- Develop application for other growers
 - Vegetable
 - Organic







Applied Research and Education