

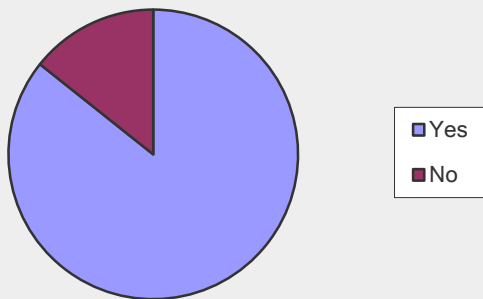
Expanding Winter Harvest and Sales - Final Survey Results

Question 1

Did your farm sell vegetables during the most recent past winter (December 2013 to April 2014)?

Answer Options	Response Percent	Response Count
Yes	85.7%	54
No	14.3%	9
<i>answered question</i>		63
<i>skipped question</i>		3

Did your farm sell vegetables during the most recent past winter (December 2013 to April 2014)?

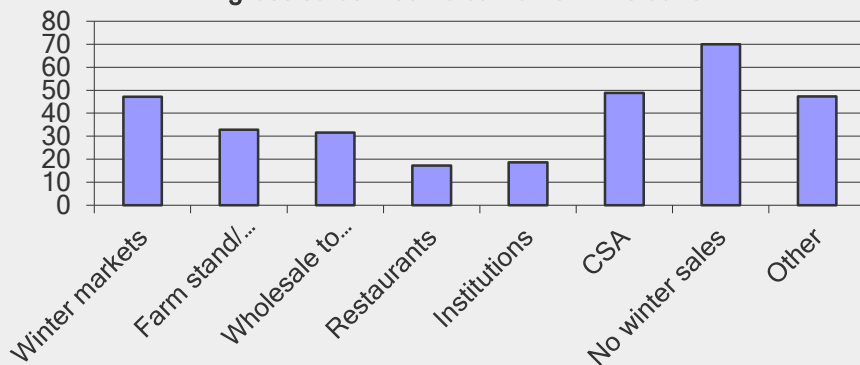


Question 2

Thinking back to 4 years ago (winter 2010-11), how did you market your crops? For each outlet, indicate what % of gross sales income came from this outlet.

Answer Options	Response Average	Response Total	Response Count
Winter markets	47.14	1,367	29
Farm stand/ farm store	32.81	525	16
Wholesale to stores	31.56	568	18
Restaurants	17.15	223	13
Institutions	18.57	130	7
CSA	48.90	1,418	29
No winter sales	70.00	700	10
Other	47.33	284	6
<i>answered question</i>			56
<i>skipped question</i>			10

Thinking back to 4 years ago (winter 2010-11), how did you market your crops? For each outlet, indicate what % of gross sales income came from this outlet.

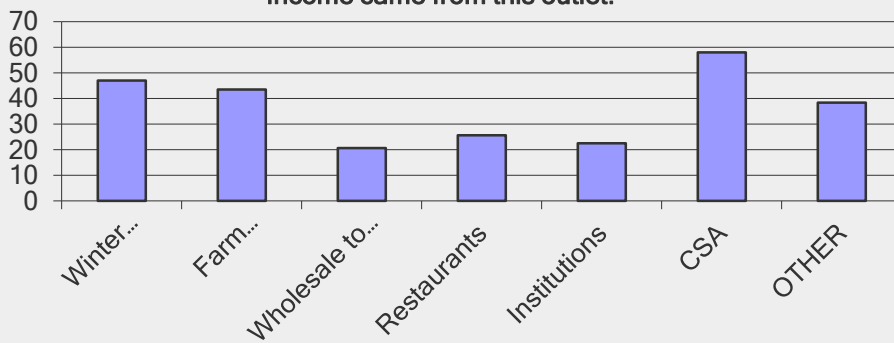


Question 3

Over the most recent winter (2013-14), how did you market your crops? For each outlet, indicate what % of gross sales income came from this outlet.

Answer Options	Response Average	Response Total	Response Count
Winter markets	46.94	1,502	32
Farm stand/farm store	43.53	740	17
Wholesale to stores	20.67	496	24
Restaurants	25.59	563	22
Institutions	22.50	180	8
CSA	57.91	2,027	35
OTHER	38.40	192	5
<i>answered question</i>			57
<i>skipped question</i>			9

Over the most recent winter (2013-14), how did you market your crops? For each outlet, indicate what % of gross sales income came from this outlet.

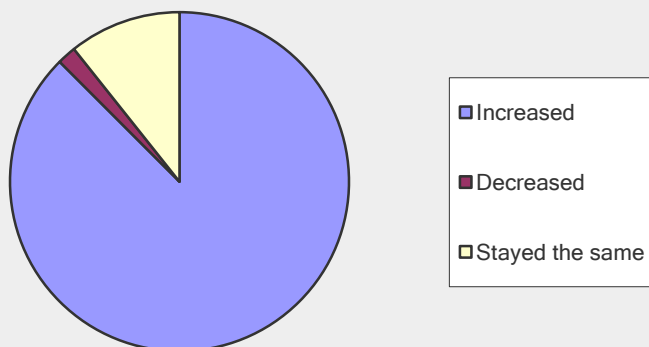


Question 4

In the last 4 years, how has the volume of crops you market in winter changed?

Answer Options	Response Percent	Response Count
Increased	87.5%	49
Decreased	1.8%	1
Stayed the same	10.7%	6
<i>answered question</i>		56
<i>skipped question</i>		10

In the last 4 years, how has the volume of crops you market in winter changed?

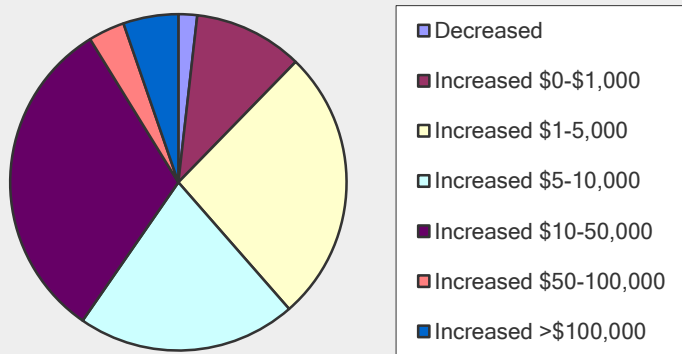


Question 5

In the last 4 years, how has your income from winter sales changed?

Answer Options	Response Percent	Response Count
Decreased	1.8%	1
Increased \$0-\$1,000	10.5%	6
Increased \$1-5,000	26.3%	15
Increased \$5-10,000	21.1%	12
Increased \$10-50,000	31.6%	18
Increased \$50-100,000	3.5%	2
Increased >\$100,000	5.3%	3
<i>answered question</i>		57
<i>skipped question</i>		9

In the last 4 years, how has your income from winter sales changed?

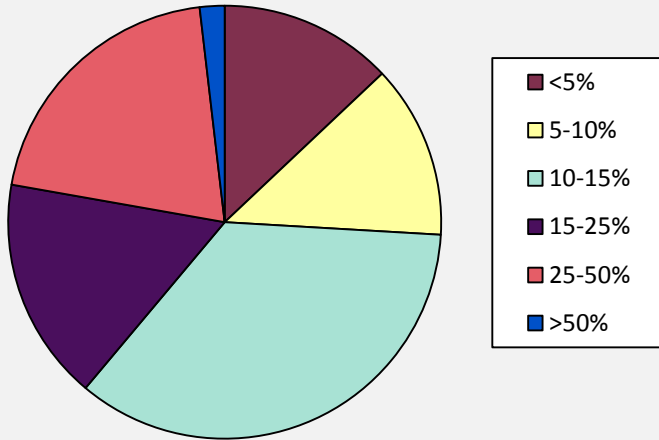


Question 6

What % of your farm's annual gross vegetable sales income is made during the winter months?

Answer Options	Response Percent	Response Count
<5%	13.0%	7
5-10%	13.0%	7
10-15%	35.2%	19
15-25%	16.7%	9
25-50%	20.4%	11
>50%	1.9%	1
<i>answered question</i>		54
<i>skipped question</i>		12

What % of your farm's annual gross vegetable sales income is made during the winter months?

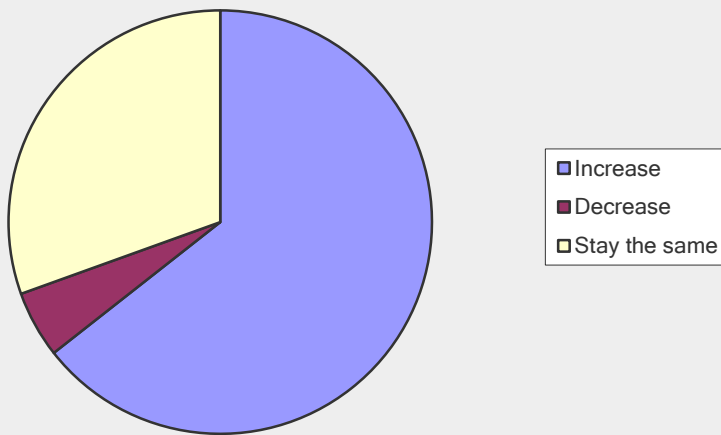


Question 7

Over the next 3 years, what are your plans for winter sales?

Answer Options	Response Percent	Response Count
Increase	64.4%	38
Decrease	5.1%	3
Stay the same	30.5%	18
<i>answered question</i>		59
<i>skipped question</i>		7

Over the next 3 years, what are your plans for winter sales?



Question 8

What is your main reason for doing winter sales?		
Answer Options	Response Percent	Response Count
To get or maintain a competitive advantage	1.7%	1
To reduce stress in summer	3.3%	2
To provide income through winter	21.7%	13
To increase total annual income	21.7%	13
To keep employees year-round	26.7%	16
To maintain contact with customers	6.7%	4
Other (please specify)	18.3%	11
<i>answered question</i>		60
<i>skipped question</i>		6

Other:

Just dabbling

Combo of 1,3,5,6 equally

To provide local products for a more than 6 months.

We do not sell (we conduct research)

to offer local food year-round

to feed people locally in winter

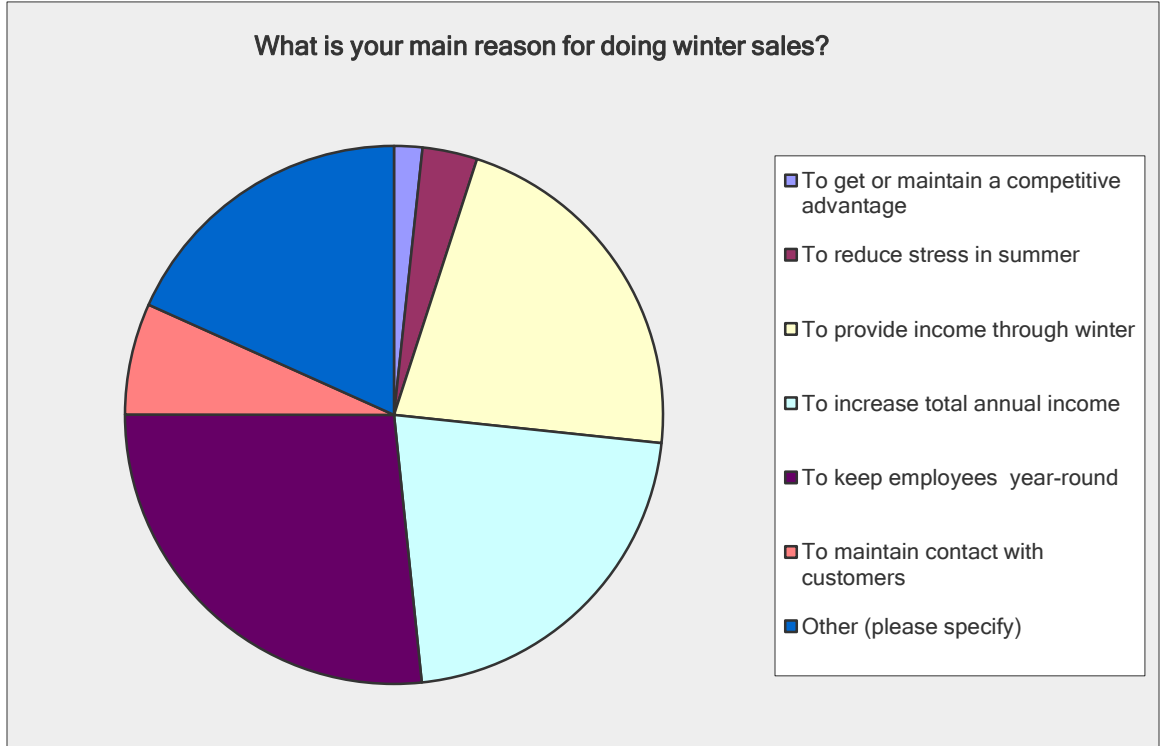
but also maintaining contact w customers and keeping on an employee

The first four and last response are all reasons to increase winter sales. (No employees yet)

We have been winter growers for 30 years and have year-round customers

fun, less competition

A combination of keeping employees employed longer and increase total income, and maintaining contact with customers



Question 9

What is the one biggest challenge to selling your products during winter?		
Answer Options	Response Percent	Response Count
Having enough product	58.6%	34
Getting products to market	0.0%	0
Getting customers to market	15.5%	9
Retaining customers	1.7%	1
Other (please specify)	24.1%	14
answered question		58
skipped question		8

Other:

variety

Not working too much - The winter break is important for vegetable growers

We do not sell (we conduct research)

demand is much lower

storage capacity

Dealing with increase competition and static pool of winter customers

watering, storage of root crops & prep area in warm area,

having enough/proper storage

sale quantities are smaller due to a limited number of crops

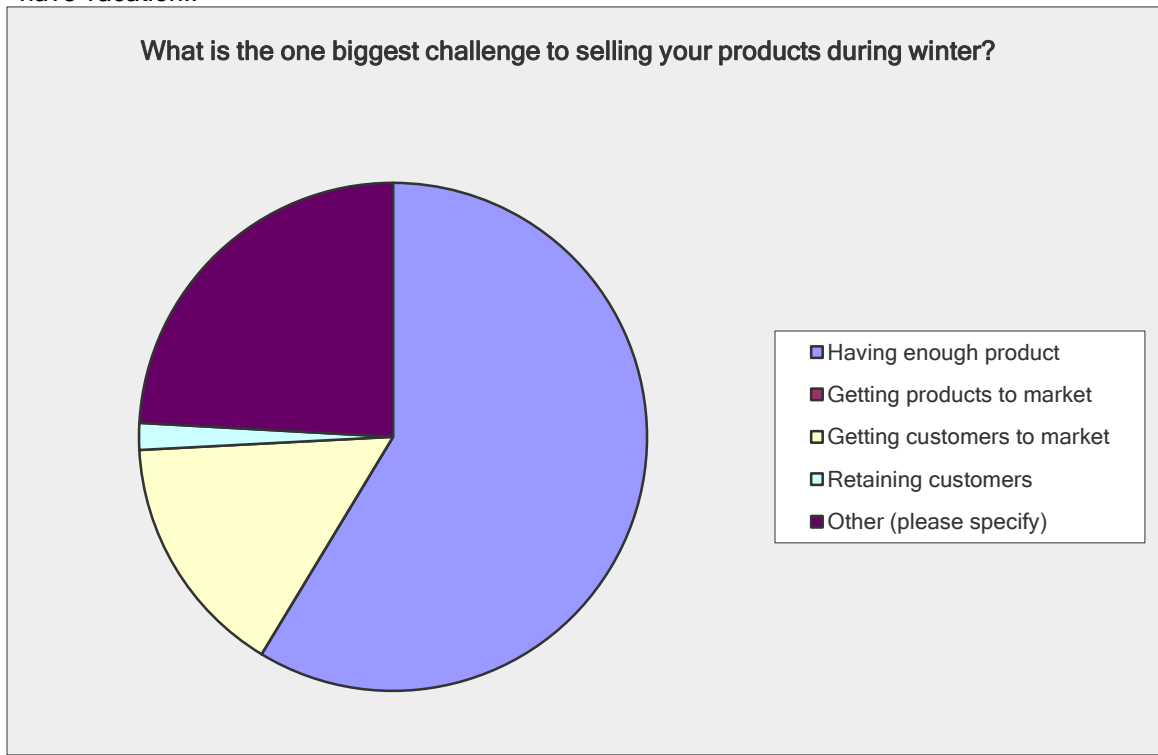
Storage and transport in freezing temperatures

prioritizing winter production among the many "off-season" to-do's

storage and a warm place to pack/distribute

storage and labor

Getting energy to go out and pick and do work in winter!!!... we used to be done by early November and have vacation!!



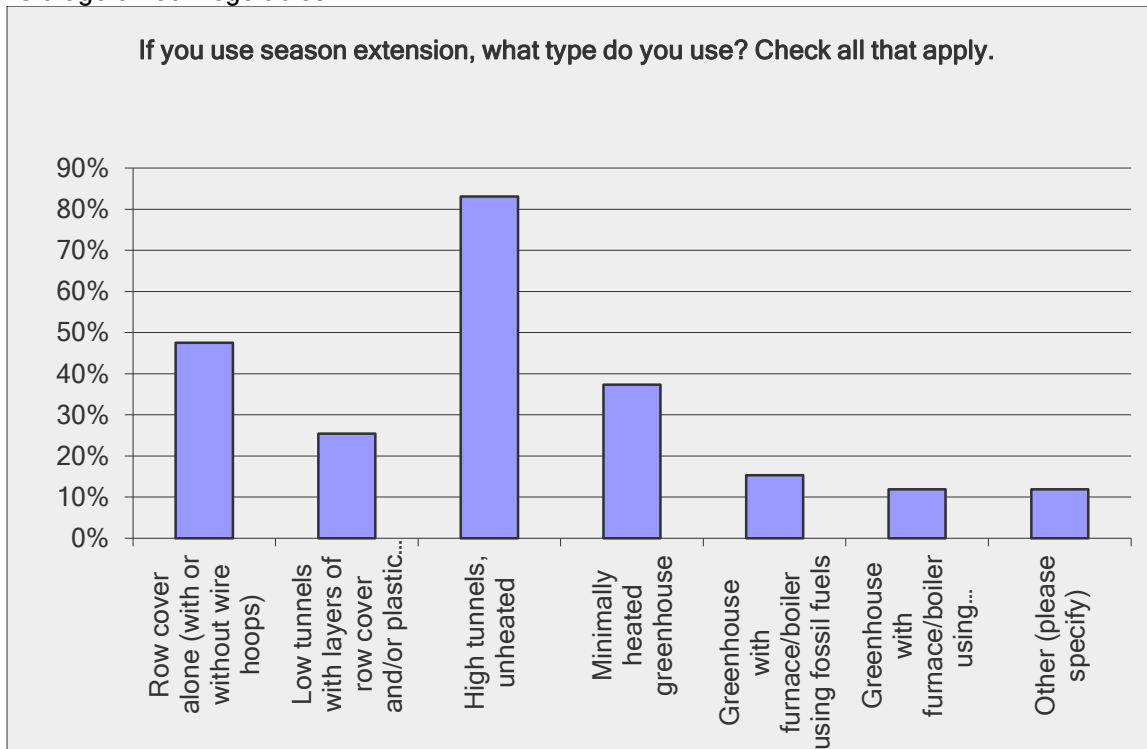
Question 10

If you use season extension, what type do you use? Check all that apply.

Answer Options	Response Percent	Response Count
Row cover alone (with or without wire hoops)	47.5%	28
Low tunnels with layers of row cover and/or plastic & hoops suited for snow load	25.4%	15
High tunnels, unheated	83.1%	49
Minimally heated greenhouse	37.3%	22
Greenhouse with furnace/boiler using fossil fuels	15.3%	9
Greenhouse with furnace/boiler using renewable fuels (solid or liquid)	11.9%	7
Other (please specify)	11.9%	7
<i>answered question</i>		59
<i>skipped question</i>		7

Other:

- root cellar!!!
- Caterpillar tunnels with beds covered with hoops and agribon.
- row cover in high tunnel
- root cellar
- specially constructed storage unit for brassicae
- main source of heat is wood, propane back up
- storage of root vegetables



Question 11

Where do you store your crops for winter sales?		
Answer Options	Response Percent	Response Count
Designed crop storage with climate control	39.0%	23
Modified area with limited climate control	32.2%	19
Area with no climate control	8.5%	5
Do not store crops	8.5%	5
Other (please specify)	11.9%	7
answered question		59
skipped question		7

Other:

walk in cooler

We do not sell (we conduct research)

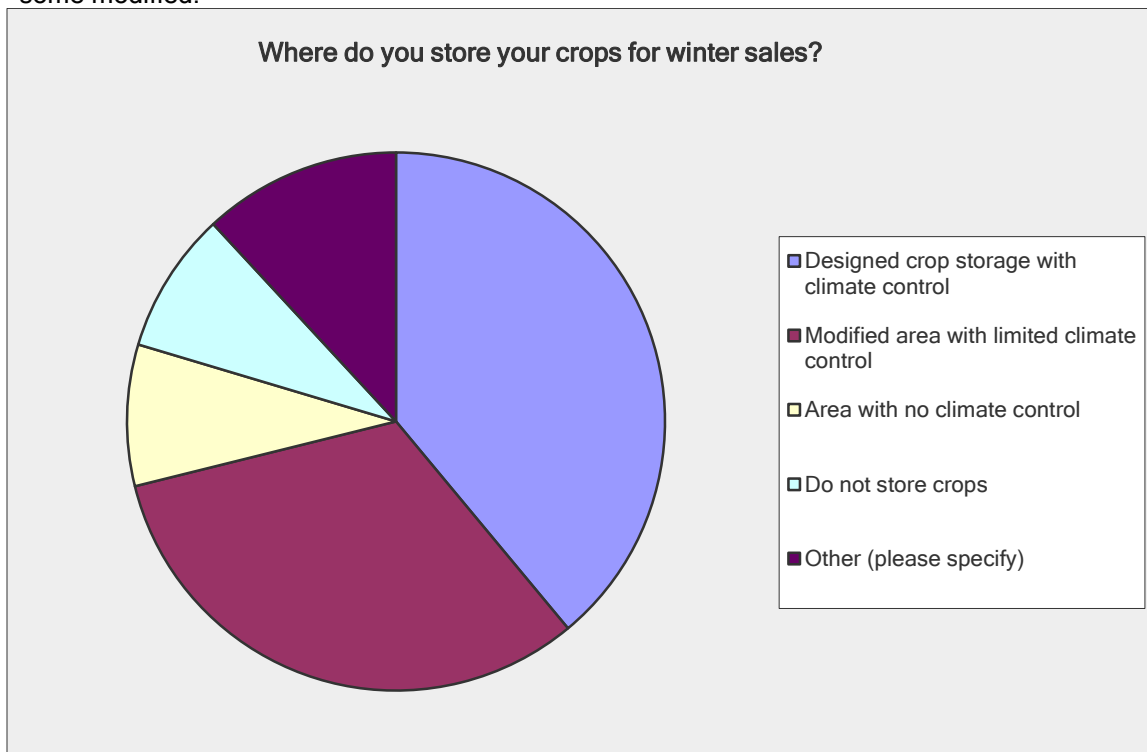
heated work area

walk in cooler, box truck, corner of garage, basement

both first and second options

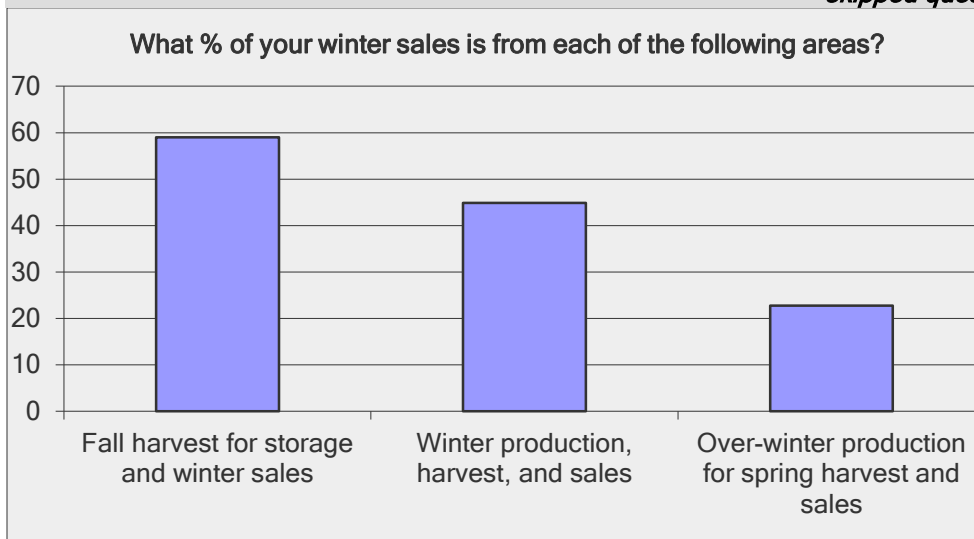
cooler

multiple storage areas for different crops - some specifically designed for storage with climate control, some modified.



Question 12

What % of your winter sales is from each of the following areas?			
Answer Options	Response Average	Response Total	Response Count
Fall harvest for storage and winter sales	59.00	2,655	45
Winter production, harvest, and sales	44.88	2,154	48
Over-winter production for spring harvest and sales	22.73	591	26
<i>answered question</i>			54
<i>skipped question</i>			12



Question 13

Which ROOT & STORAGE crops do you grow for winter sales?		
Answer Options	Response Percent	Response Count
Beets	80.4%	41
Brussels sprouts	45.1%	23
Cabbage	72.5%	37
Carrots	90.2%	46
Celeriac	58.8%	30
Garlic	66.7%	34
Kohlrabi	45.1%	23
Leeks	68.6%	35
Onions	74.5%	38
Parsnips	64.7%	33
Potato	78.4%	40
Sweet potato	56.9%	29
Turnip	80.4%	41
Winter squash	80.4%	41
Other (please specify)	31.4%	16
<i>answered question</i>		51
<i>skipped question</i>		15

Other:

cranberries

We do not sell (we conduct research)

Napa cabbage, Fennel, Radish,

Raddichio

Radishes = Watermelonn, BI Spanish,

etc

shallots, ginger

Radishes

Rutabaga

watermelon radish

sunchokes

Sunchokes, Winter Radish

watermelon radish

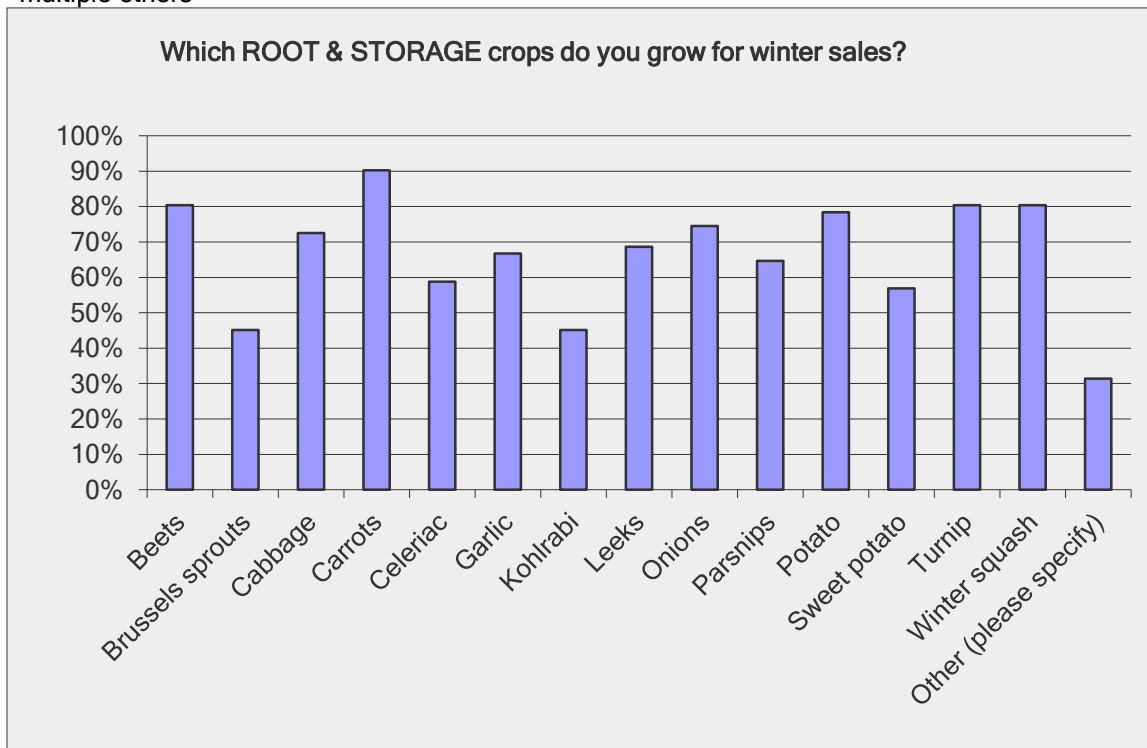
radish

Shallots, radishes

Radish, Salsify

Sunchokes, Radish

multiple others

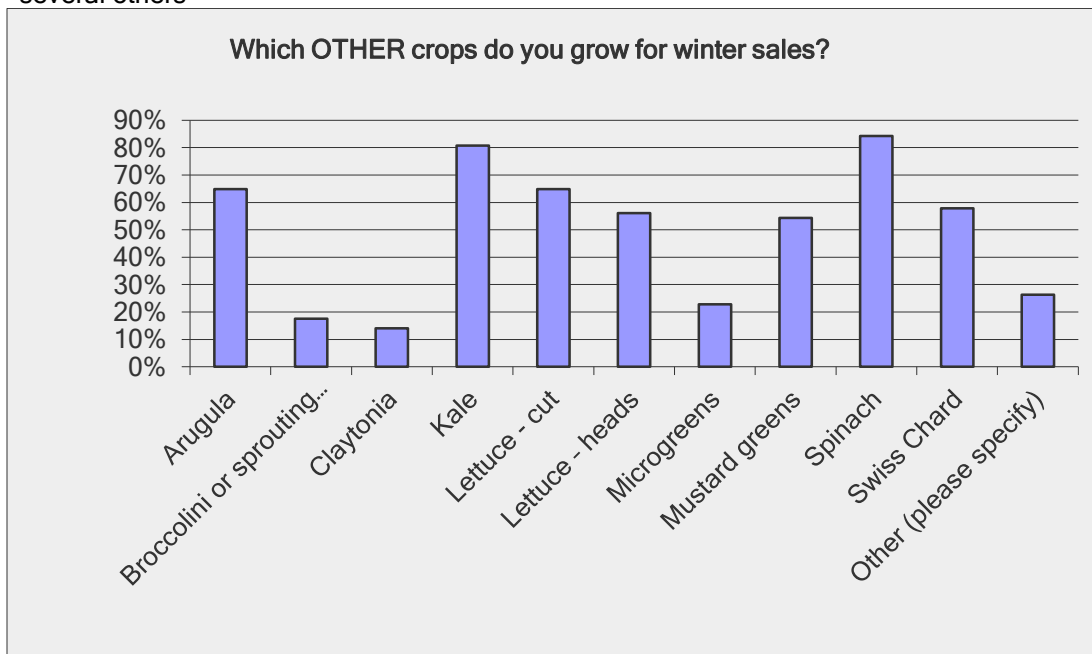


Question 14

Which OTHER crops do you grow for winter sales?		
Answer Options	Response Percent	Response Count
Arugula	64.9%	37
Broccolini or sprouting broccoli	17.5%	10
Claytonia	14.0%	8
Kale	80.7%	46
Lettuce - cut	64.9%	37
Lettuce - heads	56.1%	32
Microgreens	22.8%	13
Mustard greens	54.4%	31
Spinach	84.2%	48
Swiss Chard	57.9%	33
Other (please specify)	26.3%	15
answered question		57
skipped question		9

Other:

boc choy, Komatsuna, napa cabbage
 herbs bunchig onions
 Asian greens
 We do not sell (we conduct research)
 scallions, collard greens, radish
 cabbage, broccoli, herbs, celery, strawberries, pea tendrils
 mache
 cilantro
 pac choy
 cilantro,parsely,mache,radish
 pea & sunflower shoots
 collards, bok choy, carrots in hoop house
 Only in the beginning of winter
 choy, lots of greens and late season roots in the field
 several others

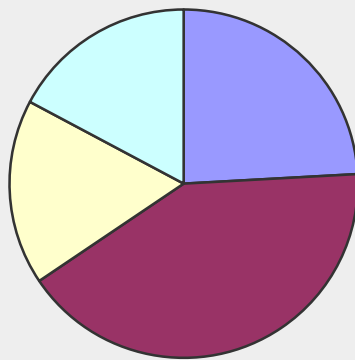


Question 15

For crops that benefit from washing, how do you handle washing for winter markets?

Answer Options	Response Percent	Response Count
Wash in fall before storage	24.1%	14
Wash in winter, in heated area	41.4%	24
Wash in winter, in unheated area	17.2%	10
Do not wash	17.2%	10
answered question		58
skipped question		8

For crops that benefit from washing, how do you handle washing for winter markets?



- Wash in fall before storage
- Wash in winter, in heated area
- Wash in winter, in unheated area
- Do not wash

Question 16

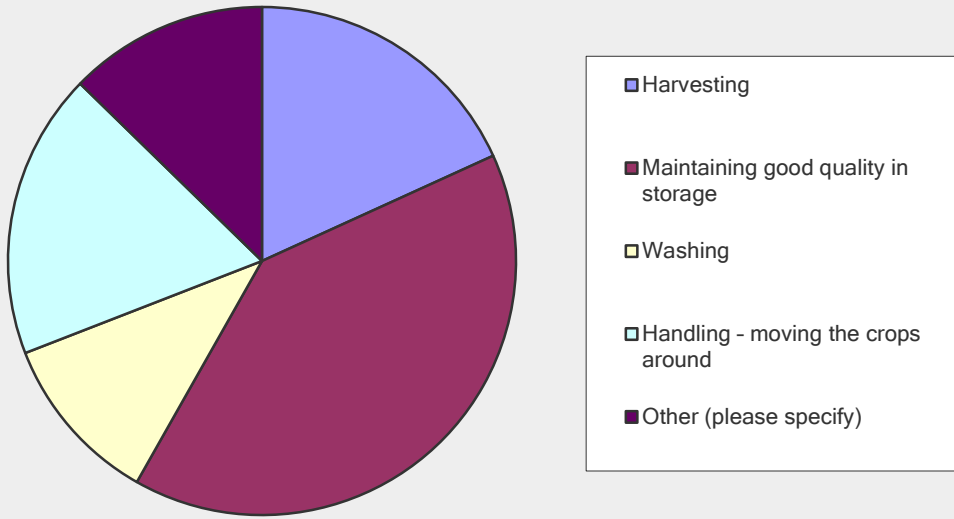
What is your biggest challenge in managing products for winter markets?

Answer Options	Response Percent	Response Count
Harvesting	18.2%	10
Maintaining good quality in storage	40.0%	22
Washing	10.9%	6
Handling - moving the crops around	18.2%	10
Other (please specify)	12.7%	7
answered question		55
skipped question		11

Other:

- fuel and temperatures
- disease, insects
- grower burnout
- the variety of storage conditions needed, none of the "perfect" for most crops, even within a group (cold moist/cold dry/etc)
- dealing w snow- last year was an issue. Snow removal from driveway, worrying about snow on roof of GH
- aphids
- not enough storage space and not the best storage due to not wanting to invest at this point

What is your biggest challenge in managing products for winter markets?



Question 17

On which issues would you like to see more local research done?

Answer Options	Response Percent	Response Count
Timing of plantings for fall/winter harvest	58.6%	34
Optimum harvest time & methods	43.1%	25
Variety trials	53.4%	31
Potential new crops for winter sales	53.4%	31
Low tunnels	24.1%	14
Unheated high tunnel production	43.1%	25
Heated greenhouses	10.3%	6
High tunnel - soil fertility	29.3%	17
High tunnel - crop rotations	25.9%	15
Marketing & market development	19.0%	11
Optimizing storage facilities to meet your needs	51.7%	30
Winter pest scouting & identification	31.0%	18
Winter pesticide efficacy & application methods	10.3%	6
Scaling up - systems for getting bigger	25.9%	15
Labor issues	12.1%	7
Information for customers about home storage and use of winter crops	19.0%	11
What happened to getting a rest in the winter? -- and related issues	31.0%	18
Other (please specify)	6.9%	4
<i>answered question</i>		58
<i>skipped question</i>		8

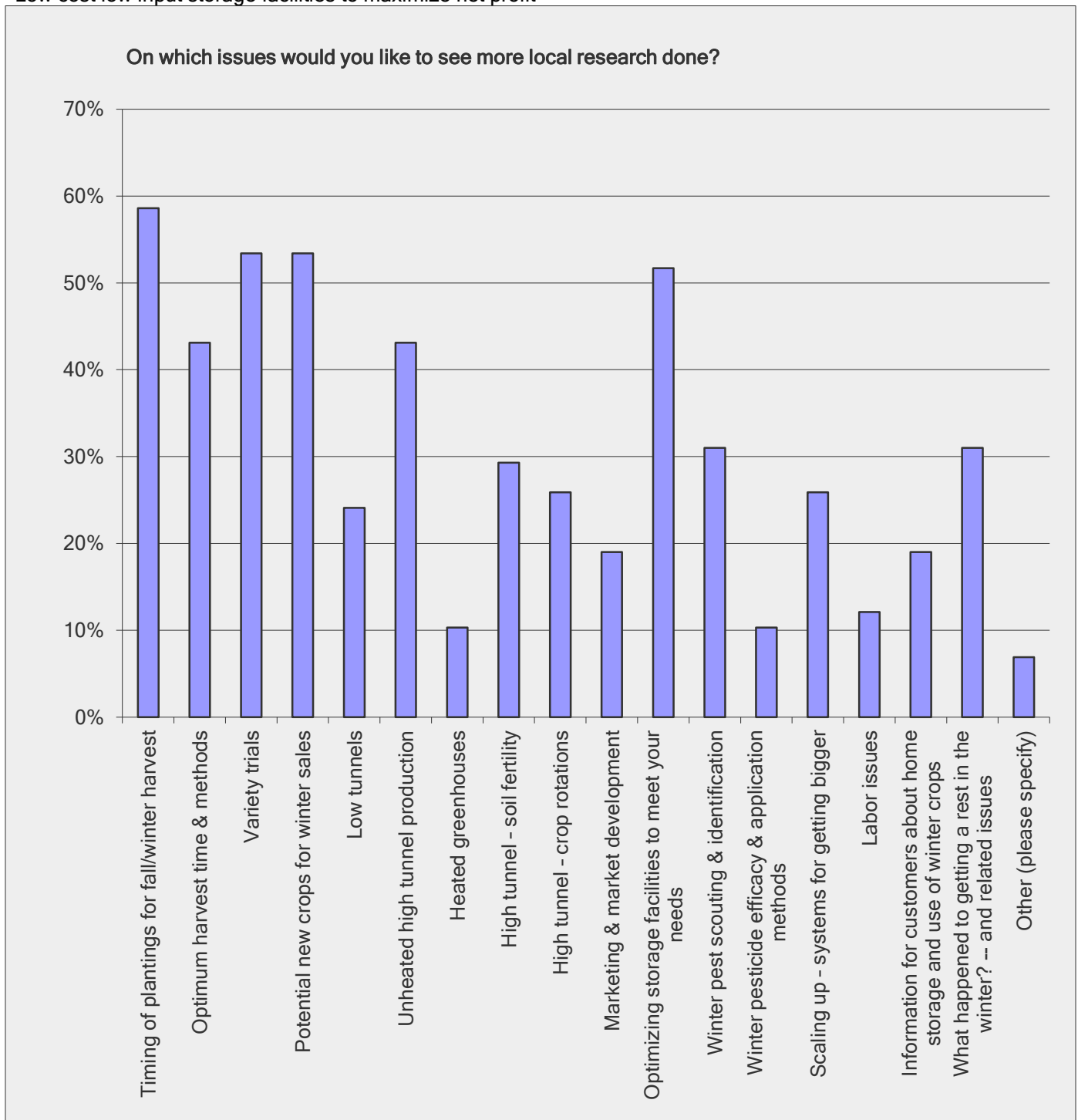
Other:

post harvest handling methods

verticle growing - growing in small spaces using the same space in layers

Teach new young growers that undercutting established growers on price is not good for anybody.

Low cost low input storage facilities to maximize net profit



Question 18

How else have your winter markets, your production for winter sales, or your knowledge changed over the past four years, and how have these changes impacted your farm?

We have found that the ratio of effort to sales \$ goes down fast the later in the season you go. So we have modified our crops to be all harvested out by mid to late January, and don't try to reach the February and March markets. Our market demand is too high to support small harvests in the hard months.

Learning to grow the greens to size while there is still adequate daylength has been the biggest change. In order to do that correctly, extra work is piled on in the later summer and fall months, which can be exhausting. Learned to grow certain lettuce varieties in minimally heated houses on a bench.

Always learning - improving - trying new ideas - need people energy efficient crops in small areas that will stand the cold. We sell all we can produce.

We've gotten better at harvest and storage. The winter markets have increased making competition stronger. This has helped us develop our niche and stick with it.

Maintained labor

Grown it

farmer slow to change

Each year we have grown our winter production, increasing root crops and high tunnel production (we now have ~ 1/2 ac of unheated high tunnels). We have continued to trial crops and varieties for storage and high tunnel production (who knew radicchio harvested in Nov. can be stored for up to 2 months) and increase infrastructure for storage and winter washing. While our farm income is still dominated by summer and fall sales, winter production and sales has allowed us to increase and maintain a loyal customer base and keep crew employed over the winter (and thus coming back for the next summer). This has become a key for us... nothing is more important to the profitability of our farm all year round than experienced employees.

We are cutting back. From three to two markets...need more time off; to fix and equipment and recharge.

Have become more familiar with production methods

Too many new winter growers saturating the market and driving price down. Need new alternative markets.

Knowledge has increased in large part thanks to the Arnolds in NY and Corey Pierce--very informative presentations at NOFA VT and elsewhere. We have increased production and honed our planting, harvesting and variety selections quite a bit, which have all greatly benefited the farm.

Has helped improve summer sales- developing relationships with restaurants for year round salad mix and arugula production. Important crops for my small scale (1 acre outdoor production space, 7000 indoor space)

We started with a minimal amount of greens in a high tunnel, now we've done low tunnels and heated our regular greenhouses through the winter to increase production. Honestly it sets your farm apart having year round production.

We now have a permanent location for a year round market

We have been experimenting for four years on what to grow and when to start it

Customers are now more intune with seasonal eating and continue to support winter markets

Once we have a good watering, storage capacity and heated/indoor processing room we should be able to increase our winter sales to 20 -25% of our yearly total.

Due to these changes and future changes, our farm is on the cusp of making adequate profit to provide a living wage for one owner.

support from local community, retention of employees, extra income

Have always felt that farming needs to continue year round and am glad to have others working to get

this done. Glad to see more winter markets showing up, need more customers though. Finally at a point

to add winter and spring CSA shares as we are producing more and there is interest among my faithful CSA members.

Feel like we are getting closer to making a living and keeping good employees year round

Helped keep our customers in the habit of stopping by the farmstand, even if it is just once a week. We've learned how to grow to size before the advent of short days. There does not seem to be any down time in the farming year, as winter harvesting is more time consuming and challenging due to the weather.

I've learned a lot about proper humidity/temperature optimums, introduced lots of customers to new items, made more \$

The weather this year made it a struggle to get to market. But even more so greens (pea shoots, sunflower sprouts etc) took much longer compared to the other Winter timing.

We do not grow winter crops.

We've been picking up bits of information from a variety of sources and have expanded our offerings. This was our first year doing a winter market and it was challenging but worthwhile. We plan to expand. We have put an unheated high tunnel on the farm to extend our season. We have added vegetables other than root crops to our winter production. These new crops have created a need for more knowledge of planting, harvesting, and management.

We offer a low-stress (for the farmer) winter CSA with distributions primarily Nov-Jan. In the next year or two we'll add a second high tunnel and market greens, etc into the spring. We'll also get a bit more crafty with winter storage crops. correct storage changed how I store my crops, gets too cold after first week in Dec so we stop distributing then, then begin again mid March. We don't have heated barn. What works best, what I can get away with with my particular situation effects how I do things and what I choose to grow and how it fits into my rotations.

We keep learning. This past winter (2013-14) was the most difficult and challenging for winter production ever. Too hot in October, too cold Nov-March with little to no snow cover available to aide in insulating the sidewalls. Considering insulating sidewalls this year.

Farmers markets became little profitable

Prices are too high for average customers and several farms began to enter the market

Stayed the same or increased

Question 19

Over the last 4 years, did you attend any meetings or workshops related to winter vegetable production, storage and/or sales hosted by the following organizations?

Answer Options	Response Percent	Response Count
University of Massachusetts Extension (UMass)	27.3%	12
University of New Hampshire Extension (UNH)	22.7%	10
Community Involved in Sustaining Agriculture (CISA)	2.3%	1
Seacoast Eat Local (SEL)	9.1%	4
New England Vegetable & Fruit Conference	54.5%	24
Other (please specify)	36.4%	16
<i>answered question</i>		44
<i>skipped question</i>		22

Other:

UNH lancaster office

nofa

Vern sponsored

NOFA NH

MOFGA Farmer to Farmer, UMaine Extension Vegetable School

EMass CRAFT

NOFA-VT, Cornell Extension

UVM Extension and NOFA-VT

books, online souces & score

UVM

Farmer 2 Farmer

UVM crop storage with Chris Callahan

nofa /MAworkshops, nofa winter conference, NOFA/R events, NE Veg & Fruit conference

UVM

NEFruit and veggie growers conference

uvm extension