Appendix A: Specialty Farmer Survey — Methodology and Results

Methodology

The survey contained a variety of types of questions, including multiple choice, check-all-that-apply, open-ended questions requiring text answers, and 5-point scales[34] (for example, "On a scale of 1-5, what is your level of interest in…?").

The answers to the open-ended questions were directly reported, with minor and careful deletions to remove information that might identify an individual respondent.

Multiple-choice questions, where only one answer was allowed, are reported as a function of "# of Respondents," or the number of people who took the survey, and "% of Respondents," the percent of people who took the survey and answered that specific question.

Check-all-that-apply questions are reported as a function of both "respondents" and "responses," where "respondents" refers to the number of people who took the survey and "responses" refers to the total number of answers provided (for example, if person A checks 3 options, and person B checks 2 options, a total of 5 answers, or responses, were provided for that question). In this situation, "% of Respondents" will total to a number greater than 100% since each respondent provides multiple responses.

The 5-point, forced-response Likert scales were used for two purposes: (a) to gauge the relative interest of the respondents in having access to various educational opportunities and infrastructure investments, and (b) to solicit their views about the relative importance of a variety of challenges to expanding their own operations. These questions ask the respondent to choose a number between 1 and 5 that represents their interest in a provided option, where 1 represents "Not at All" and 5 represents "Extremely." Since 3 is designated as "Moderately" and is not a neutral designation, the survey respondent is forced to take a position. The answers to these questions are reported as a function of the number of respondents that took each position on each option, and as a function of weighted analysis. The weighted analysis involves assigning a relative value to each position (Not At All = 0, Slightly = 1, Moderately = 2, Very = 3, Extremely = 4). The weighted total is the number of respondents taking each position multiplied by the assigned value, and then all the products for each option are summed together. The weighted total facilitates comparison of relative interest across options. Weighted averages are calculated in similar fashion and are also provided as a means of comparison.

[34] Technically known as a forced-response Likert scale.

Data and Results

Response by County

CR	Fruits	Veg	County	# of Respondents	% of Respondents
	*	*	Anderson	6	11%
		*	Beaufort	3	5%
			Berkeley	2	4%
	*	*	Charleston	5	9%
	*		Cherokee	1	2%
		*	Chester	1	2%
	*	*	Chesterfield	2	4%
			Clarendon	1	2%
		*	Darlington	2	4%
*			Dillon	1	2%
		*	Dorchester	2	4%
		*	Florence	7	12%
	*	*	Greenville	1	2%
			Greenwood	1	2%
		*	Horry	1	2%
*			Kershaw	2	4%
*	*	*	Lexington	2	4%
			Marlboro	1	2%
			Newberry	2	4%
	*	*	Oconee	1	2%
*	*	*	Orangeburg	2	4%
		*	Pickens	4	7%
			Richland	3	5%
	*	*	Saluda	1	2%
	*	*	Spartanburg	1	2%
		*	Williamsburg	2	4%

** denotes the top commodity-producing counties by cash receipts (cr), over 200 acres of orchards (f), or over 150 acres in vegetables (v), as measured by NASS 2007; No responses from Bamberg (v), Calhoun (f), Colleton (v), Clarendon (v), Barnwell (v), Allendale (f,v), Aiken (f,v), Edgefield (f,v), Sumter (v), or York(cr,f,v) County farmers.*

Counties with the larger numbers of respondents appear to correlate with proximity to urban markets in Charleston, prime agricultural land near Florence, and engagement with CFSA in the Up Country. There may also be a relationship to membership in other farmer networks that is difficult to discern from these data.

Age of Principal Operator

Categories	# of Respondents	% of Respondents
Under 30 years	2	3%
30-39 years	9	15%
40-49 years	13	22%
50-59 years	19	32%
60 years and above	17	28%

Average age of South Carolina Principal Operator: 59 years (2007 Ag Census)

Over half of respondents are age 50 or over.

Gender of Principal Operator

	# of Respondent	% of Respondents	%, 2007 Ag Census
Male	40	67%	84%
Female	20	33%	16%

Women were more highly represented in this survey than farm ownership patterns would suggest.

Years of Operation

Years of Farm Operation	# of Respondents	% of Respondents
Less than 1 year	3	5%
1-5 years	15	25%
6-10 years	6	10%
11-20 years	7	12%
20-40 years	7	12%
40 years or more	22	37%

One concentration of growers were farms with more than 40 years' experience, involving more than one of every three respondents; a significant number of farms with less than five years' experience also filled out the survey.

Number of Farms, by Size

Size of Farm by Acres	# of farms, Survey	% of farms, Survey	# of farms, 2007 Ag Census	% of farms, 2007 Ag Census
1-9	12	20%	1970	8%
10-49	14	23%	8959	35%
50-179	17	28%	9033	35%
180-499	8	13%	3981	15%
500-999	2	3%	1059	4%
1000-1999	1	2%	553	2%
2000+	6	10%	312	1%

Number of Farms, by Percent of Farm Acres Left Fallow

	# of Respondents	% of Respondents
0%	13	22%
1-25%	7	12%
26-50%	12	20%
51-75%	15	25%
76%-100%	13	22%

Sixty individuals responded, representing 60 farms and 27,104 total acres (compared to 26,500 farms and 4.9 million total acres, as recorded by NASS in 2011). Average farm size for the state of South Carolina as a whole is 185 acres (ERS 2011). The average farm size represented in the survey is 452 acres with 331 acres in production, and 121 fallow acres; however, this does not represent a "typical" farm operation.

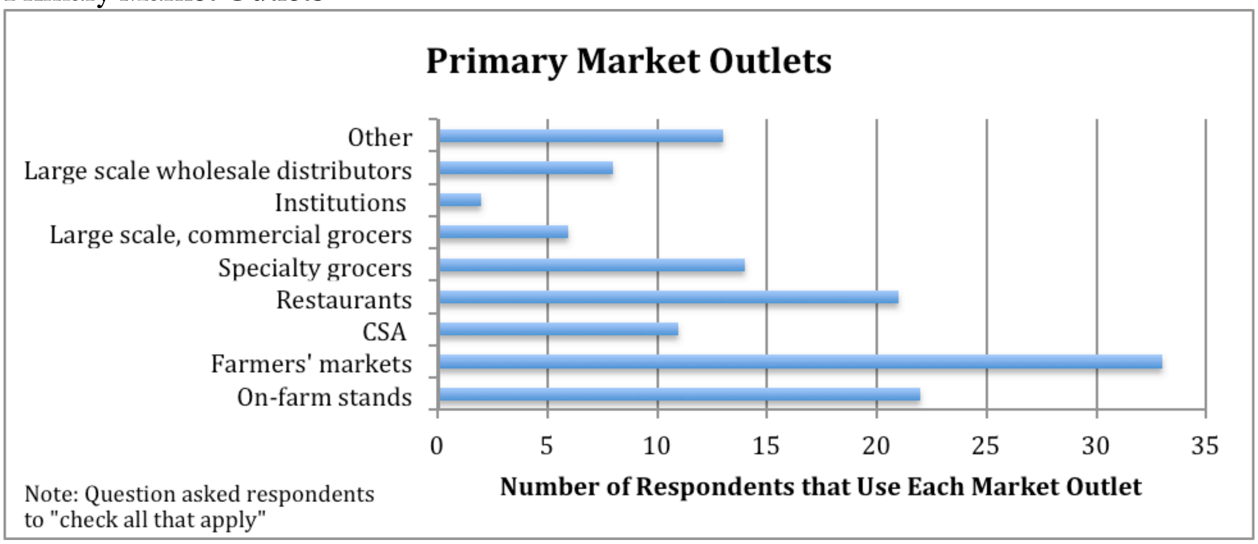
Primary Market Outlets

Primary Market Outlet	# of Responses	% of Respondents	% of Responses
On-farm stands	22	37%	17%
Farmers' markets	33	55%	25%
CSA	11	18%	8%
Restaurants	21	35%	16%
Specialty grocers	14	23%	11%
Large scale, commercial grocers	6	10%	5%
Institutions	2	3%	2%
Large scale wholesale distributors	8	13%	6%
Other	13	22%	10%
Total (given check all that apply)	130	*	100%

**% of Respondents total is greater that 100% due to the ability to "check all that apply"*

Direct sales are the most frequently used market channels for farmers who responded.
CSA farms were relatively few in number, in this sample. This may also reflect a higher work load that made it difficult for CSA farms to take time to respond.

Primary Market Outlets



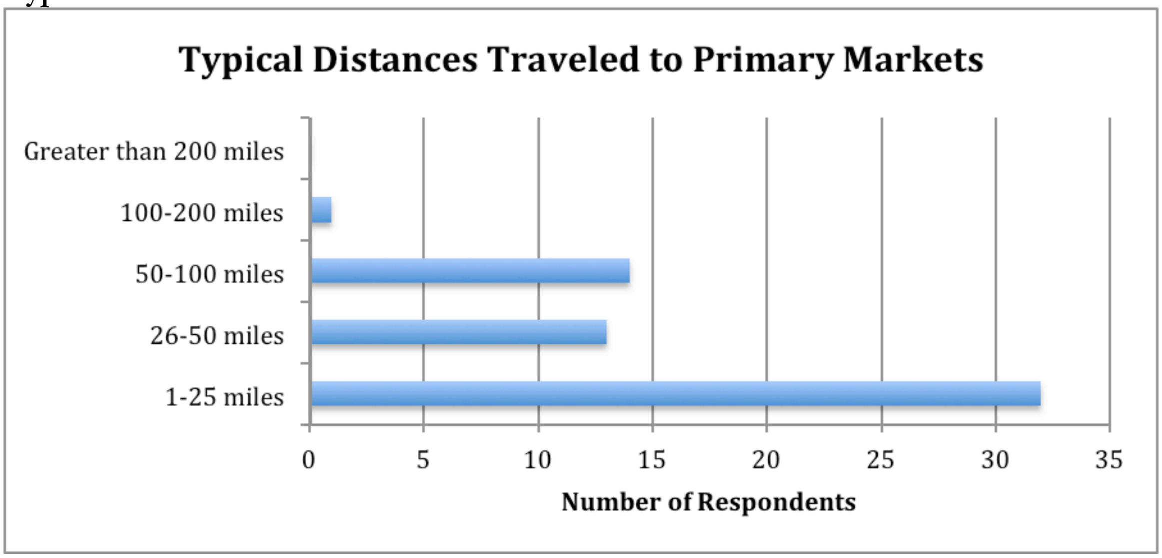
Those that responded with "other" supplied the following answers:

- Friends and family
- Internet (3 responses)
- Milk plant
- Livestock (2 responses)
- Food hub
- GrowFood Carolina (3 responses)
- Word of Mouth
- Herbalist

Distance to Primary Markets

	# of Responses	% of Respondents
1-25 miles	32	53%
26-50 miles	13	22%
50-100 miles	14	23%
100-200 miles	1	2%
Greater than 200 miles	0	0%
Total	60	100%

Typical Distances Traveled



Interest in Expansion

Survey Response	# of Respondents	% of Respondents
Yes, I am interested in expansion through investing in training or infrastructure.	28	47%
No, I am satisfied with my current operation and I have no desire to change it.	7	12%
Maybe, depending on the opportunity.	24	41%

Interestingly, 6 of the 7 farmers that indicated no interest in expanding are over 60 years old. The 7th respondent is between 40 and 49 years old. Furthermore, three of the seven comments left regarding reasons for not expanding referenced retirement and age.

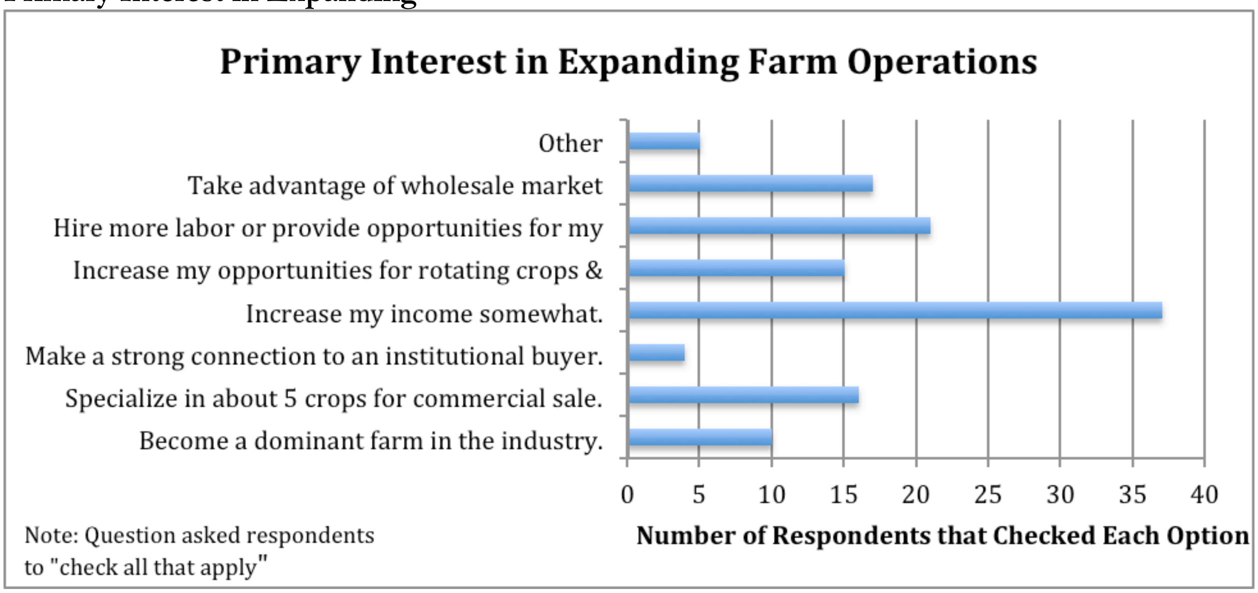
Primary Reasons for Expanding

Primary Reason for Expansion	# of Responses	% of Respondents	% of Responses
Become a dominant farm in the industry.	10	19%	8%
Specialize in about 5 crops for commercial sale.	16	30%	13%
Make a strong connection to an institutional buyer.	4	8%	3%
Increase my income somewhat.	37	70%	30%
Increase my opportunities for rotating crops & livestock.	15	28%	12%
Hire more labor or provide opportunities for my family.	21	40%	17%
Take advantage of wholesale market opportunities.	17	32%	14%
Other	5	9%	4%
Total (given check all that apply)	125	*	100%

**% of Respondents total is greater that 100% due to the ability to "check all that apply"*

Farmers who responded hold limited goals for expansion.

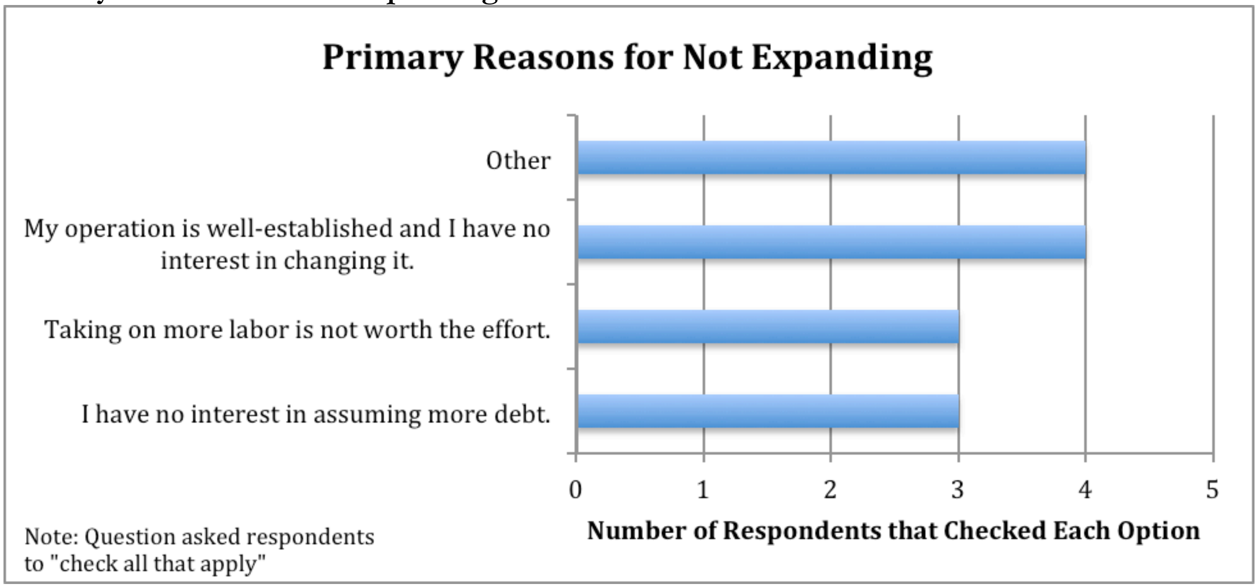
Primary Interest in Expanding



Those that responded with "other" supplied the following answers:

- CSA opportunities
- Grow more mushrooms
- Provide high quality produce to SC residents
- Increase supply and development of value added products
- Bring awareness to heritage breeds and heirloom veggies

Primary Reasons for Not Expanding



The number of farms responding to this question was so limited that no clear patterns emerge from the data. More important, perhaps, are the specific comments made:

Those that responded with "other" supplied the following answers:

- I do not want to get rich. I just want to make a living and be part of my community
- Retired-- hobby farm
- I am semi retired.
- There is limit to what one man can say grace over and be responsible to maintaining and improving our soils and the environment.
- This size operation is all that I can handle at my age. It demands almost more than I can give.
- We are caterer as well as a farm. Currently we grow for our operation and to sell in markets as well as a 40 member CSA. After several years of evaluation, we can maximize our profits by concentrating on catering and creating value added items, and loss on truck/market sales.
- Happiness is roof over our head, significant relationships and doing something that contributes to my community and having time to enjoy what I do. At the end of the day I can look back with pride and say I did that.

Although 13 farms reported being at 100% capacity, only 7 farms reported no interest in expanding their operation. Respondents with no desire to expand their operation were not surveyed further.

Opportunities for Expansion

Level of Interest in Various Training and Education Opportunities

	Not At All (w=0)	Slightly (w=1)	Moderately (w=2)	Very (w=3)	Extremely (w=4)	Weighted Total	Weighted Average
Crop planning for restaurants and institutional sales (schools, hospitals, etc.)	16	6	13	10	6	86	1.62
Nutrient management for vegetable systems (soil testing, increasing fertility, purchasing inputs)	10	5	11	12	14	119	2.25
Nutrient management and forage crop mixes for livestock (soil testing, increasing fertility, purchasing inputs)	17	5	6	12	11	97	1.83
High tunnel production practices and fertility management	7	9	9	16	11	119	2.25
Cover crops: how to integrate into vegetable cropping systems	9	5	13	10	15	121	2.28
Using native pollinators (e.g., bees) in production systems	9	6	9	15	12	117	2.21
Pest management for common vegetable insects	9	3	8	21	11	126	2.38
Pesticide training (chemicals or organics — equipment, calibration, record-keeping, storage, worker protection)	9	8	16	13	6	103	1.94
Compost systems (compost testing, understanding nutrient content and impact on crops)	8	5	9	14	13	117	2.21
Finding stock for livestock systems	21	6	6	8	8	74	1.40
How to effectively scale up production	3	3	20	13	12	130	2.45
GAP/HAACP/Food Safety training	10	5	16	11	6	94	1.77
Business management and enterprise planning (record keeping, labor management, taxes, etc.)	5	7	19	11	8	110	2.08
Marketing and branding	5	3	13	18	11	127	2.40
Forming or strengthening cooperatives	9	9	10	11	12	110	2.08
Other	4	0	2	1	0	7	0.13

Respondents were somewhat divided in their interest in learning production planning for larger markets, with 16 farms very interested, and 16 farms lacking interest of any kind.

Those that responded with "other" supplied the following answers:

- Granting writing and resources
- Organic farming
- Do not allow any agendas to risk our private property rights that would limit what we grow, who we sell to and how much we sell, and where to.
- Irrigation help
- Ours is a fiber business. Always looking for markets to expand our products.

Level of Interest in Various Infrastructure Investments

	Not At All (w=0)	Slightly (w=1)	Moderately (w=2)	Very (w=3)	Extremely (w=4)	Weighted Total	Weighted Average
High tunnels or greenhouses	12	8	10	13	10	107	2.02
On-farm washing and packing house	13	9	7	11	12	104	1.96
On-farm cold storage	9	4	10	15	14	125	2.36
Box truck for local distribution	18	10	11	6	7	78	1.47
Refrigerated box truck for regional distribution	20	6	8	9	8	81	1.53
Community kitchen for value-added processing	17	9	6	9	10	88	1.66
Aggregation and distribution center	18	7	16	7	3	72	1.36
Close access to produce auction or farmers' market center	9	15	14	8	4	83	1.57
Mobile processing for poultry	32	3	4	2	10	57	1.08
Mobile flash freezing unit for produce	25	8	5	5	8	65	1.23
Shared off-farm produce processing facility (washing, chopping, freezing, packing, storage, etc.)	16	10	10	6	7	76	1.43
Commercial produce processor nearby	23	11	7	4	5	57	1.08
Meat processor closer to farm	25	3	6	6	10	73	1.38
Dairy processing plant closer to farm	32	7	7	0	2	29	0.55
Other	4	0	0	0	2	8	0.15

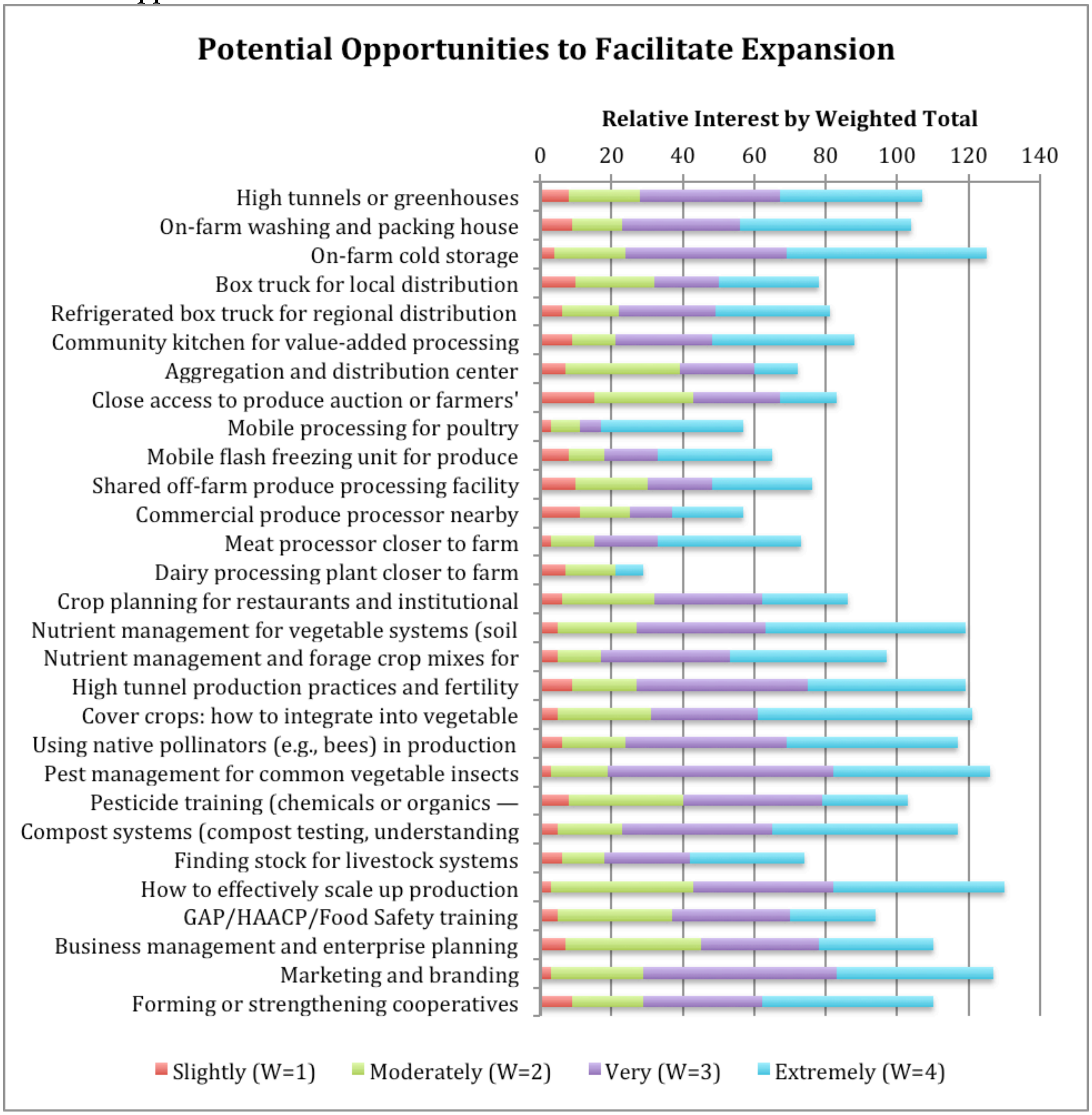
Interest in aggregation was low.

Interest in meat and poultry was low in terms of the overall sample, but relatively strong given the small number of farms involved in livestock production.

Those that responded with "other" supplied the following answers:

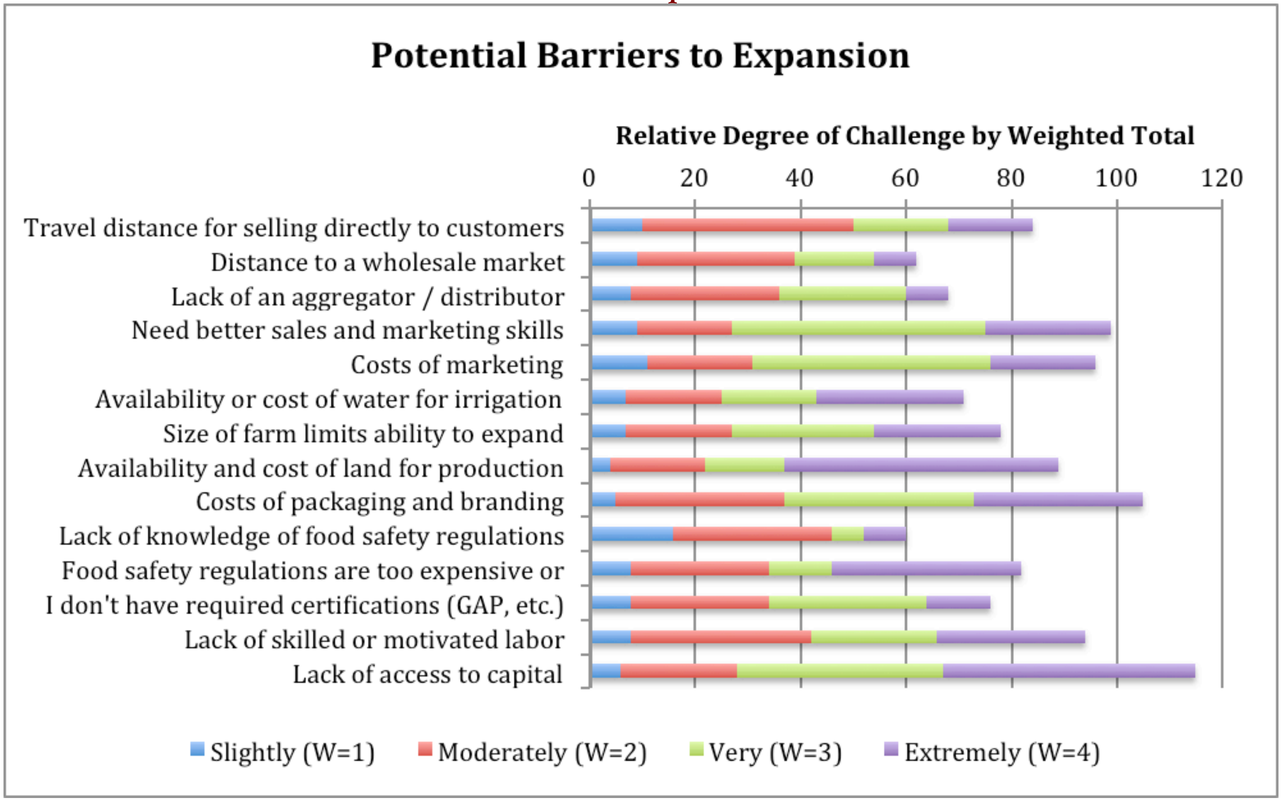
- Having a peanut sheller or a closer buying point.
- Interested in a fiber processing textile mill in SC. Processing from raw fleece to yarn or goods made from that fleece in SC.
- Farm foods distribution.
- A multi species processing facility located in close proximity to my up state farms. with proper certifications for all meat to include Organic certification.
- A processing plant close to farm.

Potential Opportunities



Given the small sample size, it is difficult to reach solid conclusions about the most important opportunities. Nevertheless, the data suggest that despite limited interest in expansion, farmers are open to exploring new opportunities, especially in learning new skills and techniques.

Barriers to Expansion



Lack of access to capital is the paramount concern, although this is not necessarily statistically more significant that cost items identified. All of the top barriers mentioned reflect limited access to financial resources.

Respondents clearly indicated strong concern with the potential costs involved in marketing or packaging products — this could apply to both direct sales and larger sales channels.

	Not At All (w=0)	Slightly (w=1)	Moderately (w=2)	Very (w=3)	Extremely (w=4)	Weighted Total	Weighted Average
Travel distance for selling directly to customers	10	10	20	6	4	84	1.58
Distance to a wholesale market	17	9	15	5	2	62	1.17
Lack of an aggregator / distributor	18	8	14	8	2	68	1.28
Need better sales and marketing skills	9	9	9	16	6	99	1.87
Costs of marketing	7	11	10	15	5	96	1.81
Availability or cost of water for irrigation	20	7	9	6	7	71	1.34
Size of farm limits ability to expand	18	7	10	9	6	78	1.47

Availability and cost of land for production	19	4	9	5	13	89	1.68
Costs of packaging and branding	9	5	16	12	8	105	1.98
Lack of knowledge of food safety regulations	14	16	15	2	2	60	1.13
Food safety regulations are too expensive or burdensome	15	8	13	4	9	82	1.55
I don't have required certifications (GAP, etc.)	15	8	13	10	3	76	1.43
Lack of skilled or motivated labor	9	8	17	8	7	94	1.77
Lack of access to capital	8	6	11	13	12	115	2.17
Other	4	0	0	0	2	8	0.15

Those that responded with "other" supplied the following answers:

- It is very difficult to shift mindset from "big" to local, small farms. Finding product liability insurance, as a small farm, has been difficult. Finding a meat processor, willing to work with small farms, has been difficult, and results in very expensive trips several hours away, adding to the cost of the product. Our South Carolinians need access to healthy, locally grown food that is affordable. And until small farmers are supported better, and are considered a priority, it will continue to be an uphill battle.
- Time!
- As a 68 year-old female beginning farmer (the land was farmed for all of those years, but I was away), I have physical limitations, which make finding good farm help necessary to my expansion. My son is currently working with me, but he is not available all the time. So far, I have not found an able bodied person who wants to work on a farm [here]. This is the major barrier to expansion.
- Probably, not necessarily the labor itself, but the costs associated with labor such as payroll taxes, paperwork required for state and federal gov., cost of workers comp and other liability insurance, record keeping in general.
- Biggest problem for me is the distance I have to travel to have my birds processed- it is not cost effective for me to drive to Kingstree not once but twice to have birds done- you have to drive there drop off by 8 in the morning then come back a week later- I can not manage a fall flock with this added cost
- Labor to help do the job. Can't afford to hire anyone yet.
- Lack of USDA slaughtering plants.
- Available capital to purchase specialized mushroom production equipment to compete with Pennsylvania and California.
- Capital for expansion is the biggest barrier, in my particular situation I need to purchase at least 100 head of livestock to satisfy the markets that I have already created or have access to.
- High cost of fiber processing.

Additional Comments about Challenges and Opportunities to Expanding Specialty Crop Operations

- The biggest issue we've faced is expanding while keeping current crops in production. We have hired contractors for some of the work on building cold storage and packing facilities, but in an effort to keep costs down, we are doing a lot of the construction ourselves.
- We don't have a very good farmers market in Moncks Corner. The rules are not enforced and it has become a free spot to set up a roadside vegetable stand every day of the week for a few who buy from Colombia.
- I am fortunate to have had NRCS help in getting a high tunnel and drip irrigation for the 4 acres I am transitioning to organic vegetable production. I have purchased a very old used walk-in cooler but have not gotten it set up. When I can afford the concrete pad and a shed for the cooler and a processing area, I will complete that phase of my operation.
- Lack of facility for value added items and regulations associated with the production of value added products.
- There needs to be more USDA slaughtering plants for small producers at competitive cost.
- It would be great to allow farmers to apply and compete to receive grants or funds designed to enhance the production of organic produce and livestock in SC. Personally I have been growing mushrooms here for 20 years, and NC has tobacco funds to help alternative farmers, such as mushroom farm startups, and I have seen NC surge ahead of us, leaving me feeling like we can do more to support specialty crops like mushrooms. I am the leader in the industry, supplying growers with laboratory grade spawn, and most of it goes to NC!
- There is a strong need for a processing facility. In the interest of Animal Welfare (not good for the animals to transport 2 or 3 hours) and the cost of fuel, and time off farm. Fuel for travel to processing is my biggest expense for the farm operation, taking away money that could be used to expand the operation.
- Unless you grow or make a very special/unique product. Don't believe a small farm can survive and prosper. Must take on responsibility and direct market products to consumer. Will go broke wholesaling.