THE AGRICULTURAL C·R·E·A·T·I·V·E E·C·O·N·O·M·Y

NEEDS, OPPORTUNITIES, AND MARKET ANALYSIS

A report to the Second Regular Session of the 123rd Legislature
by the Maine Department of Agriculture
January, 2008

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, FOOD & RURAL RESOURCES
OFFICE OF THE COMMISSIONER
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

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January 23, 2008

Senator John M. Nutting, Chair
Representative Wendy Pieh, Chair
Joint Standing Committee on Agriculture, Conservation and Forestry
100 State House Station
Augusta, Maine 04333-0100

Dear Senator Nutting, Representative Pieh, members of the Joint Standing Committee on Agriculture, Conservation and Forestry:

I am pleased to present this report to meet the requirements spelled out in Resolves, 2007 Chapter 13 ***"Resolve, To Study Maine's Agricultural Creative Economy Sector."*** This report is the first time we have been able to estimate the size of this agricultural sector which includes farmers who direct market their products to consumers, high end restaurants and to institutions. In this report we also conducted a first ever market analysis of consumer trends for buying local farm products based on research, focus groups and one-on-one interviews of consumers, farmers and other interested parties.

I want to thank all of those individuals who gave of their time and ideas for this report. I also applaud the many farmers who grow and direct market fresh, locally grown food for Maine people. This direct connection helps Maine consumers understand who is their farmer and provides them a close connection with their rural heritage. These farmers also provide much needed education on nutrition and how to use and prepare the many fresh vegetables, fruits and other produce sold through farmers markets, farmstands, farm restaurants and the growing CSA (community supported agriculture) enterprises.

In this report you will find an assessment of what types of programs would help increase consumer sales and the profitability of farm and food producers. Some of these needs will be met directly by the private sector. However, the public sector has an important role to play in research and education, technical assistance, and helping farmers better access land, labor and capital. One area that needs further research is how government can improve services and minimize regulatory oversight in order to reduce the burden on the family farm.

The Agricultural Creative Economy Sector has a bright future as more and more farmers find a way to directly connect with the consumer. Agriculture in Maine remains one of the most important industries in rural Maine, and is becoming more important as Maine citizens move toward a more healthy and sustainable environment in which to work and play.

Respectfully

Seth H. Bradstreet, III
Commissioner

Acknowledgements

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Methodology

This report represents the State's first effort to define and measure the economic contributions of the Agricultural Creative Economy sector in order to identify specific policies, personnel and programs necessary to increase its economic impact in Maine.

Research for this report was conducted from June to December, 2007, and included the following fact finding and information gathering techniques: literature search; review of relevant governmental and private sector research; review of various agricultural organization's and agency's strategic plans; and interviews with individual consumers and consumer groups, University of Maine faculty members, State agency personnel, agricultural community leaders, food distributors and food processors.

There was insufficient research time to interview *all* of the agricultural service providers of *all* of the agencies, non-profit organizations and producer membership groups that provide services to consumers, farmers and food retailers in Maine.

Additional understanding of current consumer and producer perspectives of the Agricultural Creative Economy was gained during a series of workshops entitled, "*Maine Feeds Maine*," held in different locations from November through December, 2007; and a consumer focus group conducted by the Heart of Maine - Resource Conservation and Development Council (RC&D) and the Maine Department of Agriculture held in Bangor in October, 2007.

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EXECUTIVE SUMMARY

During the First Regular Session of the 123rd Legislature the Department of Agriculture, Food and Rural Resources (DAFRR) was directed to undertake a study of the value-added agricultural creative economy sector of the State's economy.

Typically a *creative economy* is comprised of creative enterprises, including commercial, non-profit and individuals who together provide a significant contribution to local and regional economies. Maine's **Agricultural Creative Economy Sector (ACES)** includes a growing population of consumers who want fresh local produce, meats and artesian and other specialty food products *and* the community of farmers who modify their operations and products to serve them.

The Agricultural Creative Economy Sector includes approximately 15% of Maine's farmers and represents an estimated $75 million in sales of agricultural and agritourism products. This sector is very important to small and medium-size farms and food processors who have limited access to farmland or other resources (natural, financial, educational) that rely on adding value to their raw product to increase their profitability.

Maine's citizens and tourists are the consumers of Maine's Agricultural Creative Economy sector. These consumers seek foods and other agricultural products that provide them additional premiums in terms of connections to their community and a healthy environment. These consumers want to know "their farmer" and they want to have confidence in the source and safety of their food supply. They want to keep the local economy vital. They seek authentic and artisanal foods and value-added, hand-crafted gifts. They attend on-farm events and become members of Consumer Supported Agriculture to connect to a like-minded community. Maine's ACES consumers buy retail and wholesale products, year-round and seasonally. This group of consumers has an overall desire to "connect the dots" between where and how their food is grown, how their food was brought to market, what their food tastes like, whether their food improves their health and well-being, and the health of their local agricultural economy.

Farmers in this sector sell directly to these consumers at farm stands, farmers markets, farm restaurants, and through subscription membership Community Supported Agriculture (CSA) operations. These farmers also sell their product wholesale to grocery, convenience, restaurant or specialty stores who are willing to pay more for the farm fresh products that are sought by their customers. More and more farmers are including educational and recreational enterprises to their farms to capture the growing consumer interest in the farm experience.

The recommendations in this report address both the consumers' and farmers' barriers to market access; research and education, technical assistance and training; capital, labor and land resources; and governmental support and regulatory reform.

Barriers to the market growth in this sector: consumer awareness; consumer indifference; consumer preferences for other foods; lack of understanding of good nutrition and healthy eating habits; reduced income or ability to pay the premium for value-added, local foods; and lack of access to local foods, farms and farm experiences.

Barriers to the growth of agricultural enterprises and value-added processing of farm products: lack of understanding the ACES consumers' preferences; lack of marketing skills to attract ACES customers; lack of skilled farm labor; need for appropriately scaled equipment that improves production efficiency and reduces production costs; access to affordable capital; access to quality farmland; and the ability to keep pace with new industry and/or governmental regulations.

Public sector initiatives that may help to minimize or remove some of these barriers:

- Increased K-12 health and nutrition education through a comprehensive statewide Farm-to-School program initiative;
- Targeted market development programs for Maine food products that build upon "word of mouth," one of the most successful promotion methods in this agricultural sector, and other new modes of local advertising – web-based farm locator maps, community "buy local" coupon programs, community signage, etc., to attract more consumers to farm product outlets;
- Expanded education and technical assistance programs that provide farmers and food processors with new food production and processing, business management and marketing skills;
- Additional farm labor access programs that increase the farm labor supply and support the development of a labor pool of skilled farm managers;
- Comprehensive review of government regulations to eliminate unnecessary impediments to the growth of the Agricultural Creative Economy Sector.

Publicly funded educational, infrastructure development and food safety program investments in public health and safety will benefit all of Maine's citizens.

Additional study of specific segments of the Agricultural Creative Economy Sector is warranted as the State of Maine seeks to increase the health of the Maine consumer and the sustainability of rural community.

WHAT IS THE AGRICULTURAL CREATIVE ECONOMY?

The Agricultural Creative Economy is ***the community of Maine farmers who are directly marketing their farm products to their retail or wholesale customers***. These farmers are in all stages of business development – from start-up to fully-expanded production. They also typically are interested in diversifying their product lines to satisfy or increase market demand for locally-grown produce, meats, dairy and artisanal cheeses, herbs and other specialty value-added food products. They are also striving to meet new market demands for non-food, value-added products such as raw and processed fibers, fiber arts, compost, greenhouse/nursery products and floral products such as fresh-cut and dried flowers.

The greenhouse/nursery sector, not typically included in economic analysis of direct farm marketing, is, in fact, very important creative, value-added farm enterprises. Consumer trends show the need for more seed companies and gardening services that "do it all for the customer," providing technical assistance, and in many cases, landscaping services as consumers demand it. This industry also provides the educational and technical services necessary to help younger adults plan and implement gardening solutions for the household. This agricultural sector has had an extremely important role to play in helping Mainers develop and maintain gardens for food and pleasure.

Agritourism enterprises include those farms that encourage a consumer to come to the farm to enjoy the animals and the pastoral environment and experience of the farm. Such enterprises typically include educational tours, harvesting activities (Pick Your Own), or other recreational activities such as corn maizes, hayrides, haunted Halloween tours, etc.

A new subset of agritourism activities, called "Experiential Tourism," is gaining consumer interest across the United States. A greater understanding of this emerging trend can be found in a recent study from Kansas.[1] Maine's experiential tourism farms are adding educational experiences through full-day workshops and weekend farm stays in which consumers learn a farm skill or develop a better understanding the farm environment and lifestyle. Some farmers are joining up with nature-based, ecotourism or heritage tourism programs and successfully setting their farms into a broader regional context to capture tourism dollars.

Organic farming is a growing sub-sector of the Agricultural Creative Economy. According to MOFGA, the Maine Organic Farmers and Growers Association, the number of organic farmers and processors in Maine has increased from 21 producers in 1987, to 348 producers in 2007. A few of these farms and processors are additionally certified by other agencies and organizations. Currently, nearly 30,000 acres of farmland in Maine is in organic production. The principal market demands for organic vegetables, milk and dairy products, and maple syrup continue to increase. Maine is a regional leader in organic production and has the potential for substantial growth both within the State and through out the Northeastern and Mid-Atlantic regions. A number of young organic farmers have entered the sector in recent years, partly as a result of training and support through MOFGA's apprenticeship and journeyperson programs.

The market channels studied for this report included direct sales to Maine consumers and visitors at roadside stands, retail farm stores, farm restaurants, farmers' markets and subscription membership CSAs (Community Supported Agriculture). Attention is also given to wholesale markets where farmers are able to set the price for their product and thus capture a greater percentage of the consumer's dollar as opposed to selling their products at lower commodity prices. Types of wholesale market outlets included high-end restaurants, specialty grocery and natural foods stores, and schools or other institutions willing to pay for a higher wholesale price for the premium value of fresh direct-from-the-farm products.

ECONOMIC IMPACT OF THE AGRICULTURAL CREATIVE ECONOMY

The Maine agriculture and food processing and marketing system is the State's third largest industry[2] creating wealth for all of Maine, especially our rural communities. Direct sales and on-farm marketing methods utilized by the **Agricultural Creative Economy Sector** bring additional wealth from outside of Maine into these communities.

Direct Sales to Consumers

In the last USDA Agricultural Census of 2002, direct marketing of farm products was conducted by 1,454 of the 7,100 farms in Maine. Of that amount, the Maine Department of Agriculture currently lists approximately 766 farms selling direct to consumers. The Department also lists over 200 greenhouse/nursery operations. Many of these may duplicate those selling other farm products direct to consumers.

According to the 2002 Agricultural Census, the direct-to-consumer farm product sales generated approximately 2%, or $11.23 million of Maine's Gross Agricultural Receipts of $463.6 million.[3] That is an increase of 30% between 1997 and 2002.

Table 1. Conservative Estimate of Direct Retail Outlet Sales of Maine Farm Products

On-farm Retail Stores	$15,499,000
Roadside Stands	$4,271,000
Farmer's Markets	$4,073,000
Pick-Your-Own	$3,507,000
On-farm Restaurants	$424,000
Community Supported Agriculture (CSA)	$1,300,000[1]

Source: University of Maine REP Staff Paper #563.[4]

[1]CSA sales estimated by Maine Department of Agriculture.

The economic impact may be larger than the Census captures. A recent, 2005 University of Maine Agri-tourism survey[4] of 456 self-reporting farmers estimated sales direct to the consumer of $28.2 million (See Table 1) with $12.6 million of indirect impact for a total of $40.8 million of total economic contribution to the state. This is a conservative estimate as this study did not include all farms in this sector, just those in the Maine Department of Agriculture database. This study included a number of creative farm enterprises (Figure 1) but did not break out the income derived from on-farm food processing, subscription farming (CSA) or farm direct to consumer buying clubs. The Maine Department of Agriculture estimates CSA economic activity at around $1.3 million.

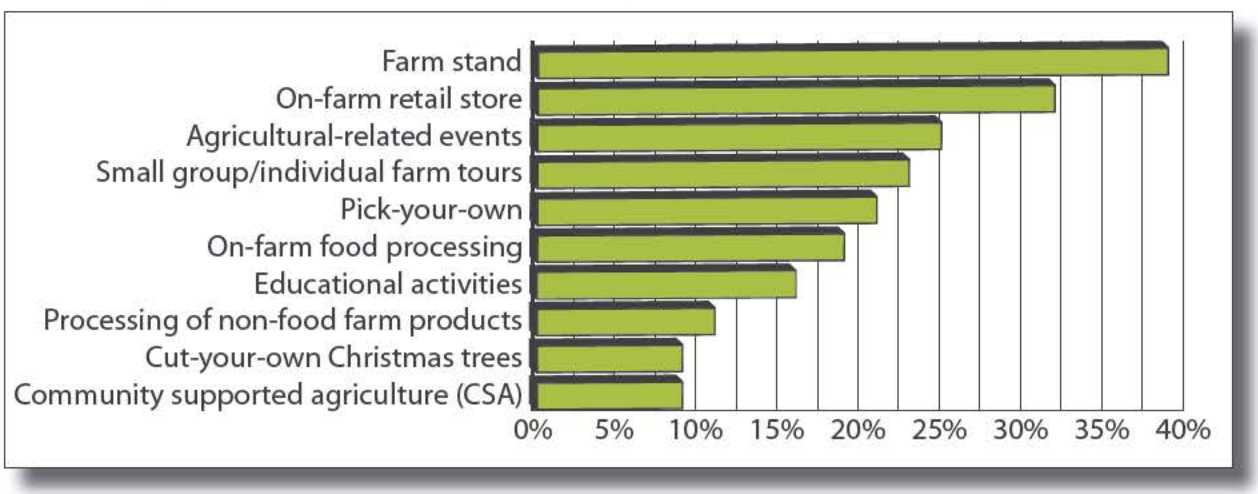

Figure 1. *Top Ten Agri-Tourism Farm Activities, Source: Allen et al. 2006[35]*

The university study also only represents a third of the possible farms represented in the census. Based on the University data, one can conservatively say there has been at least a 151% increase in direct farm sales since the 2002 census. In the University study, direct farm sales also supported 1,762 full and part-time jobs.

Value-Added Food Processing

We do not know the extent of the economic contribution of on-farm value-added food processing. According to the U.S. Economic Census, Maine had 199 food processors.[5] However, the Maine Department of Agriculture currently licenses 2,931 food processors producing a variety of products (See Table 2). The Economic Census of 2002 shows 24 firms engaged in fruit and vegetable and specialty food processing at a value of over $599 million (See Table 3). Of that amount, on-farm processing for direct sales was not broken out.

Table 2. Licensed Food Processors in Maine

Type of Processor/Product	Number
Bread	408
Brewery	35
Cakes Pies	456
Canned Processed	118
Crabmeat	98
Fruit Juices	119
Fruits and Vegetables	146
Ice	44
Jams Jellies	180
Maple Syrup	292
Meat raw	56
Meat ready to eat	42
Seafood raw	108
Soft Drinks	54
Vacuum Packed Products	46
Water	142
Other Type	587
Total	**2931**

Source: Maine Department of Agriculture Division of Quality Assurance and Regulation

A University of Maine food processor study[6] attempted to gather this data, where approximately 30% of food processors surveyed were using Maine grown ingredients but the sample size was small. The University of Maine study showed that 31% of respondents (34) grew their own ingredients for the processed product. The Federal Food and Drug Administration (FDA) does capture economic data from Maine food processors but the information was unavailable in time for this report.

The value-added, home food processing sector is expanding. A number of new, value-added dairy products are being produced and 91% of food processors surveyed in a recent forum of food processors[7] again stated that they expected to increase the size of their businesses in the near future. The University of Maine Food Survey study also showed that farmers and food processors were expecting to grow their businesses and 43.9 percent of food processors surveyed (out of 109 respondents) had been in business only 5 years or less.

Table 3. Food Manufacturing Income in Maine

Type of Food Manufacturing	Number	Gross Income ($1,000)
Grain and oilseed milling	4	D
Starch and vegetable fats and oils mfg	3	$ 43,241
Wet corn milling	3	$ 43,241
Sugar and confectionery product mfg	18	$ 10,791
Fruit and vegetable preserving and specialty food mfg	24	$ 599,060
Frozen food mfg	13	$ 458,335
Frozen fruit, juice, and vegetable mfg	11	D
Frozen specialty food mfg	2	D
Fruit and vegetable canning, pickling, and drying	11	$ 140,725
Fruit and vegetable canning	9	D
Specialty canning	2	D
Dairy product mfg	16	$ 213,246
Dairy product (except frozen) mfg	12	$ 206,477
Fluid milk mfg	7	$ 180,279
Animal slaughtering and processing	13	$ 109,727
Meat processed from carcasses	4	D
Seafood product preparation and packaging	32	$ 90,752
Seafood canning	8	$ 23,554
Fresh and frozen seafood processing	24	$ 67,198
Bakeries and tortilla mfg	74	$ 369,969
Bread and bakery product mfg	69	$ 362,244
Retail bakeries	50	$ 16,010
Commercial bakeries	17	D
Frozen cakes, pies, and other pastries mfg	2	D
Total Food Manufacturing	199	**$1,492,695**

Source: U.S. Economic Census 2002

Greenhouse/Nursery

The greenhouse/nursery and cut flower sector of the Agricultural Creative Economy has been a fast growing sector in the past 10 years. The Agricultural Census shows 769 farms with gross income of $37.3 million. This figure includes wholesale and retail sales, and sales in and out of state. A more comprehensive study, The New England Environmental Horticulture Economic Impact Study, with 2004 data valued this industry in Maine at $315 million.[8] Plant production and sales alone accounted for $114 million. This study surveyed 810 firms in Maine dealing in plant production, retail sales and landscape services.

Agritourism

Agritourism enterprises are also growing in Maine. The Department of Agriculture utilized the results of the Maine Tourism study[9] and the University of Maine Agri-tourism study to estimate the economic contribution of the agritourism sector. The Tourism study showed that out of state visitors spent $4.5 billion dollars in Maine in 2004. Of that amount, 3% of overnight marketable trips were to experience farms for PYO or recreational activities. While exact numbers are not available, we can infer dollars spent on farms. Overnight marketable trips for recreation represented $19 million in 2004, of which if 3% were for farm experiences that would be $570,000 in economic activity. The University of Maine Agri-tourism study conservatively showed, for the subset of farmers surveyed, income generated from on-farm recreational sales or lodging and accommodations at $1.979 million and $367,668 dollars respectively. Clearly both studies are conservatively low.

According to the Maine Tourism Study, eating out at restaurants takes in 28% of the tourism revenues, or $1.7 billion dollars per year. A small part of those dollars could be attributed to farm restaurant visits, as noted the University of Maine Agri-tourism Study. Farm restaurants generated approximately $424,000 in income for the farm. Again, these are conservative figures, based on limited survey data.

Wholesale to Schools and Institutions

The economic impact of farm sales directly to schools has not been determined. Partial sales estimates of Maine produced food sold through distributors to schools have been estimated to be approximately $846 thousand dollars.[10] The Maine-grown commodities most used by schools are Fluid Milk (90.8%), Apples (almost 57.5%), Potatoes (50.8%), Wild Blueberries (82.5%), Sweet Corn (33%), Tomatoes (20%), Winter Squash (20%), Strawberries (18.6%), Lettuce/Mixed Greens (12%) (See Table 4).

Table 4. Percent of Maine Grown Food in Schools

Food Item	Percent from Maine
Fruit	
Apples	57.5
Wild blueberries	82.5
Strawberries	18.6
Raspberries	*
Cranberries	*
Vegetables	
Lettuce/Mixed greens	12.5
Potatoes	50.8
Tomatoes	23.8
Green beans	12
Broccoli	7.5
Carrots	5
Cucumbers	12.5
Onions	5.7
Sweet Corn	33.6
Winter Squash	22.9
Dairy and Meat	
Fluid Milk	90.8
Poultry	11.1
Ground Beef	2.9
Pork	1.4
Eggs	66
Other Beef	2.9
Seafood	53.6

Source: A Study of the Use of Maine Produced Foodstuffs in Public Institutions, April 2004

Wholesale to Restaurants

Chefs and produce buyers at seasonal and year-round, high-end, lucrative restaurant businesses in Maine on the coast and Portland south purchase from Maine farmers but we do not know the total value of sales. For example, there are two Maine restaurants in the top 50 nationwide (Arrows & Fore Street). Steve Corry at 555 is one of Food & Wine's top new chefs 2007. Rob Evans, of Hugo's, is a Beard award winner. Maine is on the national map for high quality food, featuring local and organic ingredients. Harraseeket Inn alone buys $2 million worth of food, about 70% from Maine.[11]

Non-Food Products

No statistics were found for fiber and fiber products or other non-food value-added products direct from the farm. However, these products have a very important place in the farming community. The statewide Maine FiberArts organization has many farms producing value-added fiber products for local sales. Some of these enterprises have very high end products.

The composting sector of the Agricultural Creative Economy is just gearing up and economic impact figures do not exist for this sector. Utilizing farm wastes for consumer benefit for fertilizer and soil building is a very important part of building a sustainable food production system for consumers and farmers.

Overall Economic Impact and Relationship to Other Maine Agricultural Sectors

In all, for the purposes of the Agricultural Creative Economy Study, we conservatively estimate that the creative agricultural sector direct sales to consumers is much more than the agricultural census data of $10 million and more likely is in the range of $75 million if all types of enterprises above are included. This sector is growing quickly in Maine as noted above. The growth appears to be in numbers of families interested in getting involved in direct farm sales. The Department of Agriculture, Cooperative Extension and other non-profits annually count over 250 new inquiries interested in entering into this sector.

While this sector is growing, its relative impact on the overall agricultural economy is smaller than other sectors that are focused on wholesale sales. For example, the economic impact of the direct farming sector is 14% of the size of the potato industry sector at $540 million.[12] This sector is also slightly over 20% of the $364 million dollar equine industry.[13] The greenhouse/nursery sector, if separated from the direct farming sector, accounts for $315 million, four times the size of the direct market sector. Of the three comparisons, the equine industry is now one of the fastest growing sectors in Maine, preserving more farmland in southern Maine than any other sector aside from dairy. Maine's potato industry is relatively stable and mature, while the greenhouse/nursery industry has had a boom in the 1990's and is currently maturing in Maine.

RECOMMENDATIONS TO BREAK DOWN BARRIERS AND MEET THE NEEDS OF THE AGRICULTURAL CREATIVE ECONOMY SECTOR

The Agricultural Creative Economy farmers, as do all free market economies, rely on consumer demand. The recommendations in this report strive to encourage and support the future needs of consumers to pull market demand for Maine farm products. This report also analyzed the needs of farmers to attract those customers and food processors to increase production to meet that demand.

Clearly many needs exist and not all needs can be met by State Government. Many of these recommendations must be implemented by the private sector. However, the recommendations listed are the highest priorities for which the State can and should consider investing. This sector, if supported, will improve the health and welfare of the citizens of Maine and provide the environment for free enterprise to flourish.

Policy and program development must be weighed carefully so as not to impede the free market, nor selectively subsidize non-competitive sectors or individual businesses. State government can best support consumer market pull and farmer production and profitability through education and research, private infrastructure services support, and regulatory programs that protect citizen health and welfare but do not unnecessarily burden the private sector.

Proposed Initiatives

Given the above, this report has identified **10 major initiatives** which, if fully funded and supported, will help improve the direct sales of agricultural products to consumers and visitors and improve farm profitability.

1. Maine farm food aggregation, distribution and food safety program to meet wholesale demand for farm products.

1. Investigate venture funded brokering services to aggregate supply from multiple farms.
2. Create a master database of wholesale producers and specialty food producers, their capacity for production, availability, and make this available to wholesale outlets and distributors.
3. Establish a training and technical assistance program for meeting food safety GAP requirements and communicating GAP certification to consumers.

2. Consumer word of mouth market development initiative.

1. Develop and implement a word of mouth marketing program for ACES farm products. This would include hiring a marketing firm to teach farmers how to develop and apply word of mouth marketing techniques to improve consumer demand.
2. Provide additional funds to the University of Maine Cooperative Extension and to other local entities to provide local adult educational courses on establishing food collectives, food cooperatives and buying clubs for Maine grown farm products.
3. Direct the Department of Agriculture to contract to expand and further promote a master website where all direct market farms and their products can be listed and updated regularly, where appropriate links to other farmer lists are located, and where consumers and tourists can easily find and use the search function to find farms in their local area.
4. Direct the Maine Department of Agriculture to redirect the "*get real, get maine*" promotional program to provide targeted word of mouth promotion assistance and educational training for farmers in the local communities where direct farm markets exist.
5. Direct the Maine Department of Agriculture to expand the use of the Agricultural Development Grant program for matching grants to farmers to improve their word of mouth direct farm market advertising programs.

3. Development of a coordinated Farm-to-School Program.

1. Direct the Department of Education, in collaboration with the Maine Nutrition Network, Farm-to-School advocates, and interested teachers to develop comprehensive, learning results based, nutrition and health curriculum for K-12, which is incorporated into all areas, including math, science, English, and social studies curriculums. The comprehensive K-12 curriculum would expand nutrition and health education, food preparation and farming/gardening activities that would utilize the school grounds and local farm contacts, as well as the food service facilities.
2. Develop a program to build local coalitions of parent champions, farmers, food service directors, school committee, superintendents, business managers and distributors to create a communication and educational structure to increase healthy eating habits, increased use of local foods, and better connections with local farmers.
3. Provide funds to increase food storage capacity, increase labor pay and benefits for food service personnel, based on performance, and find increased subsidies for the cost of sourcing and preparing more nutritious local foods.
4. Work to change Federal USDA laws and rules on procurement of locally produced foods.

4. **Increase support to the University of Maine System including the Food and Nutrition Science Department[14]**
    1. Require that the University survey the agriculture community and processors to ensure their research is meeting the needs of agriculture today, and what needs will be required in the future.
    2. Add substantial funding to the University of Maine to add staff and continue to support specialty food producers. Add an additional food scientist to help with process improvements and new product development, as well as add teaching duties for nutrition and food science undergraduate programs.
    3. Expand on-farm research by state, federal and non-profit organizations for weed control, soil quality improvement, appropriate sized equipment for small farms, and market driven new crops and livestock market research.
    4. Improve access to MTI cluster grants for funding new technology research for appropriate sized equipment for small and medium sized farming operations, and for researching agricultural practices to replace pesticide use where necessary.

5. **Fund shared use kitchens to assist development of in-state food processing companies and local food distribution infrastructure.**
    1. Utilize MTI cluster development program to fund a shared use and test kitchen/ distribution hub, focusing first on a proposal that has already completed a business plan for such a facility, such as for the Penobscot Bay Commercial Kitchen.
    2. Establish additional cold and freezer storage in order to accommodate farmers who may need a distribution hub, or for a small food processor to develop enough product for test marketing purposes before ramping up production.
    3. Create an incubator facility and a pilot facility which, if successful, would be a model for future shared-use kitchens.

6. **Revise and expand the NxLevel business planning education program and the Farms For The Future Program to include on-farm food processors, aquaculture and new and beginning farmers.**
    1. Expand NxLevel business planning course “Tilling the Soil of Opportunity” for new farmers, existing farmers and on-farm food processors. Find ways to assist and partner with existing programs like Hancock County CAP “Incubator without walls” program and Cooperative Extension.
    2. Change the FFTF program requirements to add low interest loans as incentives for implementation phase of the program. Expand the program to include on-farm food processors and new and beginning farmers. Review results of the evaluation of the program for other changes to the program to better meet the needs of creative agricultural farmers and value-added food processors.
    3. Consider a program for other commercial food processors.

7. **Establish a FarmNet Program to assist farmers in identifying and solving business issues.**
    1. Develop a FARMNET program for targeted professional consulting services such as lawyers for estate planning, industry consultants to plan a business, accountants for record keeping, and social workers for family distress matters and experienced farmers for mentoring.
    2. Target individual new or existing farmers or food processors that have acute or specific needs for limited assistance to improve their operations.
    3. Provide more targeted professional consulting services to processors for meeting regulatory requirements for starting up micro-dairies and food kitchens.

8. **Improve labor sourcing and training programs for management and seasonal labor positions.**
    1. Direct the Department of Labor to conduct an agricultural labor needs assessment to determine what types of job skills are needed in this sector.
    2. Reestablish the Agricultural Recruitment Program of the Federal Department of Labor and strengthen the promotion of the Maine Career Centers to agricultural employers.
    3. Direct the Department of Labor and Agriculture to develop legislation to enhance the Agricultural and Labor Apprenticeship program to better fit the needs for new and beginning skilled farm management labor. Link the State Apprenticeship program with the MOFGA apprenticeship and journeyperson program.
    4. Fund the Department of Agriculture to source additional farmers and food processors from out of state much like what was done for Backyard Beauties, LLC of Madison.
    5. Consider State contracting with labor services companies to act as a clearinghouse for accessing H2-A, migrant, and seasonal foreign student labor.
    6. Develop a state cost share incentive program to support employment of youth who are learning to work and learning work ethic on farms.

9. **Improve access to capital through re-capitalization of the AMLF loan program and improvements to MTI cluster grant program.**
    1. Re-capitalize the Agricultural Marketing Loan Fund to assist private lenders in supporting new and beginning farmers and food processors with low interest, patient capital for:
        a. Farm business plans that show credible profitability for expansions into the local, direct farm sales sector.
        b. Increasing cold storages and distribution centers or systems for supplying local markets consistently, and preserving quality of perishables.
        c. Better signage for roadside stands and increasing the amount of roadside stands.
        d. Better adapted equipment for small farms.
    2. Expand the Economic Recovery Loan Program to include small scale farmers and food processors.
    3. Redevelop the FAME loan insurance program for help in supporting new entrant farmers.
    4. Change the criteria for funding MTI development awards for the specialty food sector in order to reduce return on investment and create more time for repayment of investment awards. Again, targeting the ramp up from home food processing to larger scale wholesale food processing. This policy change is already underway15
    5. Change MTI funding criteria to allow for targeted funding for commonly used agricultural technology not presently in use in Maine.

10. **Review existing (and enact new) state laws—affecting agricultural operations, land use, processing and marketing—to formulate a complement of agricultural economic development and land protection programs.**
    1. **Protect farmland.**
        a. Authorize a statewide Agricultural Protection District program in which landowners choose to voluntarily restrict non-agricultural development on their farms for terms of 5, 8, 10 and 20 years in order to become eligible for an array of tax abatement, tax exemption, grant, loan and cost-sharing programs.
        b. Recognize Maine's long-standing farm families. Create a "Century Farms" type program which celebrates farms that have been in operation for 100years or more. Massachusetts has a program that publicly recognizes farms with an award and a short descriptive profile in a brochure and on the state website.
        c. Reimburse towns for the theoretic tax loss (tax shift) for eligible lands enrolled in the Farm, Open Space, Working Waterfront current-use property tax programs as is currently done for the Tree Growth property tax program. Currently, the

reduction in assessed value that results from current-use taxation translates into a reduction in state valuation, which in turn avails a town to a greater share of school subsidy and revenue sharing as well as a reduction in county taxes.

d. Revise the "Circuit Breaker" property tax and rent refund program to allow natural resource business uses and increase the number of buildings and acres eligible for the refund. Currently, the program allows for one primary residence/building and only 10acres. This change would need to be balanced to complement the new Voluntary Municipal Farm Support Program.

2. **Reduce some of the costs of operating agricultural businesses in Maine.**
    a. Create a new personal property tax exemption for farmers, and eliminate the personal property tax on machinery and equipment across all food production, processing and greenhouse/nursery sectors.
    b. Reduce or eliminate the sales tax for farms that are not currently eligible for this benefit.
    c. Amend the State Constitution to allow for reduced assessment of farm buildings and agricultural storage and processing facilities.
    d. Provide income tax credits for new and beginning entrant farmers. Such tax adjustment credits are subject to limitations of IRS.
    e. Review environmental laws that negatively impact agricultural businesses and develop mechanisms for streamlining state control as it pertains to the regulation of: 1) the access and use of water; 2) generally accepted agricultural practices; 3) carbon sequestration and carbon credits; 4) air quality; and 5) new/emerging environmental concerns.
3. **Increase local, direct-market planning opportunities.**
    a. Promote formation of regional Agricultural Commissions for local leaders to focus on the question of how to measure and increase the amount of Maine food and farm products consumed at the local level. *The River Valley Agricultural Commission, serving Andover, Byron, Canton, Carthage, Dixfield, Hanover, Mexico, Peru, Roxbury and Rumford has an Economic Development Plan. "The intent of the Plan is to foster the retention and expansion of existing farms and the creation of new agricultural enterprises by capitalizing on the development of needed local agriculture infrastructure, understanding consumer market data, and creation of new business and value-added foods that will lead to more local products being consumed by the local consumer."*
    b. Encourage Soil and Water Conservation Districts and Regional Planning Commissions to conduct a market survey to create/update the Agricultural Profile of the region. *Such profiles are being conducted in Southern Aroostook (SWCD and Northern Maine Planning Commission) and Cape Elizabeth (local farmers have formed an Agricultural Commission).*
    c. Create a model town ordinance that supports and strengthens Maine's Right to Farm law at the local level. *This could be done in the same way that some towns currently augment or supplement the state Shore land zoning requirements.* Create incentives that would encourage towns to adopt the ordinance.
    d. Create several model town ordinances for conservation subdivision that allows farmland owners to protect their best lands and develop the rest at greater density.
    e. Develop a statewide mitigation program to counteract "loss of business" and other negative impacts state road repairs have on direct-market farmers.
    f. Amend the sign laws to allow more signs that identify local farm products for sale.
    g. Direct the Maine Department of Transportation to assist with erecting and maintaining the additional signs.

Proposed Funding Sources

These proposals will require state funding, and shifting of existing funds. Table 5 shows recommendations for sourcing and funding these changes:

Table 5. Priority Programs to Assist the Agricultural Creative Economy

Priority Area	Program/Investment	Funding Amount Recommended and Source of Funds
1 **Market Access**	Maine Farm Food Aggregation, Distribution and Food Safety program to meet wholesale demand	MTI Cluster Grant, USDA FSMIP Grant, Agricultural Development Grant, and General Fund
2 **Market Access**	Consumer word of mouth market development initiative.	$320,000 ($20,000per county) USDA Specialty Crop Program and $200,000 MTI Cluster grant to the Maine Vegetable and Small Fruit Industry Cluster
3 **Market Access**	Develop Farm-to-School program.	$160,000 (16 schools per year x $10,000per year) General Fund managed by the Dept of Agriculture.
4 **Education and Research**	Increase support to the University of Maine System including Food and Nutrition Science[16]	$200,000 General Fund
5 **Market Access Education and Training, and Technical Assistance**	Fund shared use kitchens to assist development of in-state food processing companies and local food distribution infrastructure.[17]	$1 million through targeted MTI Cluster Grant
6 **Technical Assistance and Education**	Revise and expand the NxLevel business planning education program and the Farms For The Future Program to include food processors, aquaculture and new and beginning farmers.	Reprioritize existing funds.
7 **Technical Assistance**	Establish a FarmNet program to assist farmers in identifying and solving business issues.	Up to $250,000 from Interest from AMLF program funds
8 **Access to Resources**	Improve labor sourcing and training programs for management and seasonal labor positions.	$70,000 General Fund
9 **Access to Resources**	Improve access to capital through recapitalization of the AMLF loan program and improvements to MTI cluster grant program.	$6 million bond
10 **Access to Resources and Government Regulation**	Reevaluate existing state regulations on agriculture and develop "freedom to farm" economic incentive zones and programs.	Funds generated through tax incentive programs offset by tax revenue increases through economic development activity.

MARKET ACCESS, TRENDS, BARRIERS AND OPPORTUNITIES FOR THE AGRICULTURAL CREATIVE ECONOMY SECTOR

While it is difficult to say with certainty what the future economic growth and impact of this sector will be, we can determine customer trends, needs and wants. Based on those trends we can project potential growth areas for the future. These trends can also help steer private sector and State investments that may help spur growth of this sector.

Maine Consumer Income and Demographic Trends

Maine consumers in 2003 were estimated to spend $2.58 billion in home prepared food purchases and $2.02 billion in food purchased away from home.[18]

Table 6. Number of households in Maine by income.

Household Income	Households	
	Number	Percent
$ 0 to $34,999	242,737	47%
$35,000 to $49,999	94,848	18%
$50,000 to $74,999	100,423	19%
$75,000 to $99,999	43,341	8%
$100,000 to $149,999	24,348	5%
$150,000 to $199,999	5,866	1%
$200,000 or more	6,809	1%
Total	**518,372**	

Source: U.S. Census, 2002

There are 1,010,318 people 16 years or older in Maine. Of those, 85.4% have a high school education or above and 22.9% have advanced degrees. Maine has 518,372 households (See Table 6) and 340,685 families.[19] These demographics suggest the possibility of at least 7% of Maine households with disposable income could fully support demand for local products. However, the demographics also show a substantial challenge for those 27% of households of moderate and the 65% of households of low income.

Food industry analysts have recognized the emerging trend of separating out the have's from the have not's. The market is bifurcating into those who will frequent fresh food and specialty markets versus those who will frequent grocery stores and general merchandise discount stores and dollar stores.[20] This fact will play an important role in how farmers target the consumer.

Families with disposable incomes more likely to purchase local foods

The 7% of Maine households with disposable incomes and the 27% with reasonable incomes represent purchasing power that can drive the creative agricultural sector. Many of these Mainers are looking for Maine farm products and farm experiences. Farmers must understand this consumer better, what they need for education, and how best to meet their needs.

Opportunities for Farmers: ***Family and individual purchasing patterns and trends are key to understanding and targeting this section and are summarized in the next section.***

Maine's low-income residents, a large population, find it hard to afford local foods without government subsidy

Based on the Federal Poverty Guidelines and Low Income determinants, 169,695 (50%) of Maine families are considered low income or poor.[21] The USDA report on hunger stated that from 2003 to 2006 the number of households that had very low food security jumped 40%.[22]

These numbers have a large impact on potential consumer demand and pricing for local food in Maine. As will be noted below, the majority of Maine people want reasonably priced food that they can afford, at convenient locations.

Many Mainers on low incomes just cannot afford foods perceived or actually higher priced than found in grocery stores. These Mainers focus on basic nutrition (milk and eggs), basic foods (such as soups, tuna fish and pasta) and many snacks. Many have their own gardens or utilize friend's gardens for produce.[23]

In recent forums, food bank agencies have stated that there is a critical need for more food to meet the growing needs of the poor and low income. Extension service personnel have stated a growing interest in food preservation programs for low and moderate income families.

Many State educational and financial incentive programs are ongoing to help low income and poverty stricken Mainers, as well as low income seniors, to access better food. Maine low income consumers get assistance from the Maine Nutrition Network, primarily through the federal food stamp program. So long as these programs continue to be supported by Federal tax dollars, focus on those families with children at risk.

There are other support programs funded by insurance agencies include the Healthy Futures Program, piloted in a number of communities in central Maine. This program works with individual families to improve wellness.

Some have argued the need for a family food allowance program or tax incentive program for families with children.[24]

One of the needs most expressed by these families and by policy groups is the need for good jobs and educational opportunities. Maine consumers who are low income or poor will only improve their ability to eat local foods if they have education that can lead to better paying jobs that create a livable wage.[25] A need exists to change state guidelines, if possible, not to penalize single parent households for working while getting benefits. Another need is to continue to support the work of the Maine Community College system to provide low cost education and training programs for Maine consumers who are low income or poor that can lead to better paying jobs that create a livable wage,[26] especially for low income Mainers.

The state cannot change federal mandates, but it can examine such things as earned income tax credits. This means examining the effectiveness of job training programs both in enrolling women and in placing them in jobs that will lift them out of poverty and addressing the barriers that prevent women from obtaining self-sufficiency through employment. Finally, some encourage DHHS to improve and enforce systems of effective payment of child support.

Opportunities for Farmers: ***Farmers can tap into this consumer demographic through the Food Stamp program. In addition, farmers, greenhouses, nurseries and seed companies can assist low income families in development of gardens, provide land for community gardens, and help other agencies and non-profits educate low income families on how to grow and prepare their own food. Value-added farmers can help provide manufacturing jobs for these Maine citizens.***

Children as future customers for direct market products

Children are consumers today, but more importantly, are consumers for tomorrow. Today's parental decisions and economic status are impacting child food selection and eating habits which will impact future food purchasing patterns as adults.

In Maine, 278,266 children live in low income or poor families. The trends are for Maine children to become more OBESE, less healthy and prone to eat less expensive, low nutrition food.[27]

We already know that childhood obesity is becoming a major problem, both for the poor and the well to do children. Over half of Maine adults (61%) are considered overweight or obese.[28] The breakdown for children is seen in Table 7 which follows:

Table 7. Children at Risk for Obesity

Age group	At risk for overweight	Overweight
High School	15%	13%
Middle School	18%	13%
Kindergarten	21%	15%

Source: The Maine Activity and Nutrition Plan, 2005-2010.

Children are getting the wrong messages. According to *Maine Guide 2004*:

- Over 40 percent of the calories consumed by children and adolescents come from added fat and sugars.
- More than 60 percent of children and teens eat too much fat and saturated fat and not enough fruits and vegetables.
- Only 39 percent of children eat enough fiber from fruits, vegetables, dried beans and peas, and whole grains.
- Nearly 90 percent of teen girls and 70 percent of teen boys do not consume adequate amounts of calcium. During the past 25 years, consumption of milk has decreased dramatically. At the same time, average soft drink consumption almost doubled among adolescent girls and almost tripled among adolescent boys.

While obesity is a key indicator, the real culprit is the lack of good nutrition and exercise.[29] Children need better nutrition education and role models for appropriate eating behaviors that will help build a healthy lifestyle into adulthood.

Opportunities for Farmers: ***Farm-to-School programs are beginning to focus on this market segment. Farmers can support school programs that teach good nutrition and eating habits. Farmers can meet local community needs through their own educational workshops, remembering that children in the community will be consumers of direct market products in the future. BUT, as stated before for low income students, before all that can happen, those children need to be in households that have an adequate household income.***[30]

Tourists

Maine is Vacationland. Maine consumers and tourists also like to recreate, and agricultural recreation and experiences are those activities of interest to them. Tourists are interested in eating local foods and going to the country to learn and experience rural life. In-state Maine consumers want to have a good time at seasonal events.

Visitors to the state also purchase agricultural products, and in a recent tourism study,[31] 35% of Maine tourists said that visiting local farms is important to them. While tourists make up a portion of the customer base for purchase of produce, their need is more for farm experiences, recreation, and eating unique local foods.[32] 34% of tourists rated eating unique local foods as one of the most popular experiences.[33]

A New Hampshire study[34] gives us a window into why tourists purchase local products. Key findings were:

- Open space was very important to the enjoyment of the visit.
- While a small percentage (30%) were intending to purchase a local product, they did not know where to find or were unaware of the origin of what they would purchase.
- Tourists stated they would purchase more if they were more available or more clearly labeled.
- Tourists were interested in U-Pick operations and sleigh/hay rides.
- The economy is becoming experience-based and people are looking for products and activities that involve more than just an exchange of goods.

Opportunities for Farmers: ***Maine direct market farmers who want to attract more tourists to the farm are being encouraged to interact more with the tourism industry and network with them for joint advertising and promotion[35] Maine farmers who offer roadside stands near tourist destinations can benefit with better road signs, better local advertising, a variety of Maine grown produce and good, friendly service. This will help create and maintain the "Maine" image of wholesome, friendly, down to earth goodness.***

Maine farmers who offer PYO, Farm B&B, educational "experiential" workshops can benefit from better networking connections with tourism agencies and other tourism companies. They will benefit from additional local television and radio advertising, joint tourism promotions, work with other non-farm groups that provide tourist attractions and promotion activities.

Consumer Purchasing Patterns and Opportunities for Farmers

Six key market studies have been done, in Maine,[36,37] New Hampshire,[38] Connecticut,[39] Nebraska[49] and Oregon[40] on consumer purchasing patterns from direct market farmers.

Maine people, in general, support all Maine farmers for a variety of well know reasons such as knowing where their food is coming from, keeping farms viable, open space, and rural values.[41] Supporting local farms garners much support from New England consumers. A study done in Oregon between a "blue collar" town and a more affluent, socially liberal community showed that both communities were supportive of local agriculture, a finding quite similar to Maine.

Opportunities for Farmers: ***Using this fact can become an important tool for farmer's advertising campaigns, where farmers can "tell their stories" to their customers and gain consumer advocates and make the personal connection with their farm and farm product.***

Where Consumers Shop for Local Farm Products

Consumers overwhelmingly are more likely to purchase produce in local grocery stores where they typically shop, where convenience and variety of selection was highly rated (Figure 2). Identifying local produce in grocery stores is very important to these consumers.

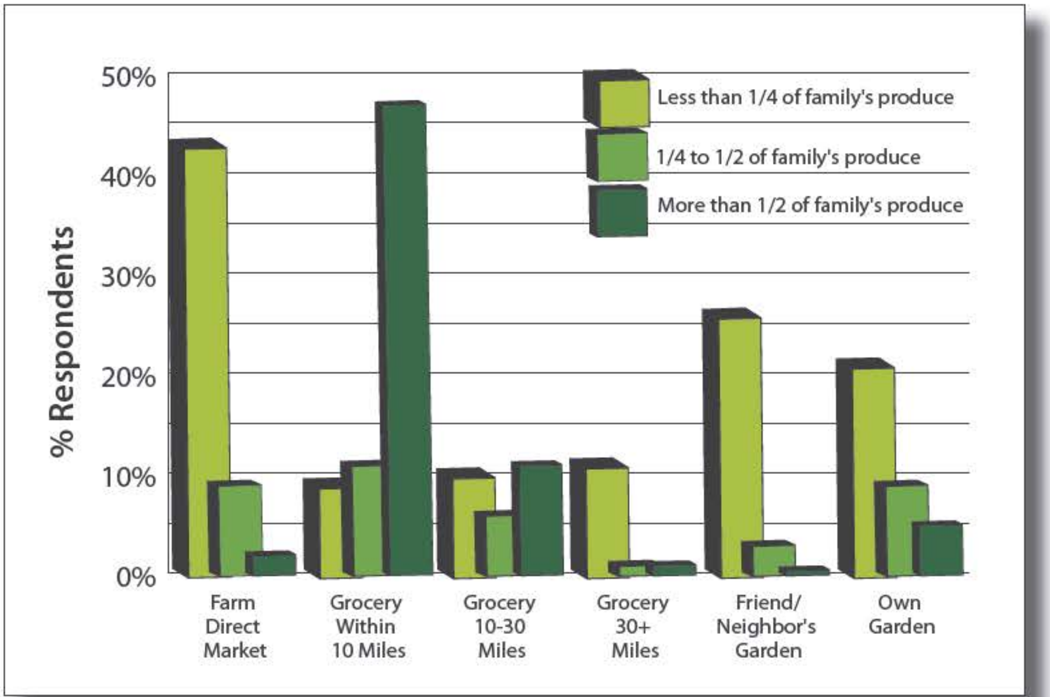

Figure 2. *Sources of Fruits and Vegetables for the Family. Source: Lamb and Cheng, 2005.*[37]

Maine farmers and food processors sell the most local food through wholesale market channels. However, most farmers in Maine produce for the wholesale market, whether it be to food processors located in Maine (Most potatoes, milk and wild blueberries), out of state food processors (canola, soybeans and potatoes for chips), or to fresh sales to wholesale distribution (milk, eggs, some meats, apples, livestock, vegetables and wild blueberries). Some crops are exported to foreign countries (eggs, apples, wild blueberries). The wild blueberry growers have two strong processors with strong markets. Maine's potato industry has moved more to food processing, with McCain Foods, Penobscot Frozen Foods, Basic American Foods and Frito-Lay being major purchasers of Maine potatoes. The Dairy industry has at least four major processors and a number of smaller processors. For the larger processing companies that sell local, their needs center on food safety and accessing good labor.

Table 8. Relative consumer food purchases in Maine by market outlet

Market Outlet	Gross Income (1000's of dollars)	Percent of Total Direct Sales to Consumers
Wholesale outlets		
Grocery Stores	$2,596,502	87%
Convenience Stores	$205,602	7%
Specialty Food Stores	$93,161	3%
Direct Farm Retail Outlets	$75,000- $100,000*	3%

*Source: US 2002 Economic Census and *Maine Department of Agriculture estimate*

Consumers love grocery stores, box stores, convenience stores and restaurants. They like the CONVENIENCE afforded by these outlets. A more detailed look comparing farm direct outlets with Maine grocery stores shows that most grocery outlets exceed farm sales by quite a margin (See Table 8). However, collectively Direct Farm Marketers compete well on gross income with some food chains (See Table 9).

Table 9. Comparison of food sales from retail grocery outlets and farm direct sales

Retail Food Outlets Maine	Estimated Gross Sales
Hannaford	$ 1,222,457,627
Shaws	$ 598,243,902
Independent Stores, Collectively	$ 563,287,401
Walmart	$ 500,000,000
Est. Farm Direct to Consumer Sales Combined	**$ 75,000,000**
Paridis Family Supermarkets	$ 56,998,200
Bud's Shop and Save	$ 30,900,000
Princeton Food Mart	$ 15,000,000
Wild Oats Markets	$ 11,625,000
Food City, Inc	$ 11,398,200
WSC, Inc	$ 10,000,000
Graves Shop and Save	$ 6,000,000
DECA East Reg/Virginia Beach	$ 3,000,000
Total Grocery Market in Maine (est.) Without Farm Direct Sales Included	**$ 3,028,910,331**

Source: The Griffin Report, October, 2007. Maine sales estimated by Maine Department of Agriculture by multiplying average per store income for New England. Farm Direct Sales conservatively estimated from combined information from various sources and from University of Maine REP Staff Paper #563.

Consumers also have favorite marketing channels, depending on the type of "trip Missions" they are on. This is a new area of market research.[42] Consumers can be segmented into Quick Trips, Special Purpose, Fill in and Pantry Stocking. While quick trips outnumber pantry stocking by four times, pantry stocking is a significant dollar volume for grocery stores.

When shopping at farm direct markets, rural consumers were more apt to frequent a farm stand, followed by a PYO operation and farmers market. Urban shoppers were more apt to visit a farmers market and tailgate marketer (Figure 2).

Community Supported Agriculture (CSA) market channels are beginning to become popular as consumers have been searching out more direct connections with farmers (Figure 1). CSA's can also provide more convenient pickup locations for consumers to purchase produce. A number of younger farmers are starting CSA's as a way to enter the farming business. In the recent University Agri-tourism study, of the 456 farms surveyed, 9% of them (41) were utilizing this marketing approach. MOFGA's new CSA directory lists 83 farms utilizing CSA marketing.

Opportunities for Farmers: ***Direct market farmers who can also profitably wholesale to grocery stores will capture more of the local consumer market. Individual farmers who want to access and maintain larger shares in the wholesale market need to get bigger, meet the demands of the market for price, quality, consistency and service.[43]***

Out of state farmers who want to enter Maine for the larger wholesale market need a community/ economic development advocate to assist them through the many regulatory, market and production issues.

Food processors could increase sales to both grocery chains and national retailers, but are having difficultly doing so. Access to better distribution and sales were two of the top three needs identified by food processors at the Food For Thought forum.

Shared trucking as well as information about stores and distributors such as buyers and key contacts could help and are important for both farmers and food processors.

Farmers can work with stores to improve farm visibility and tell their story through in-store identification of local products, package design, store brand signage, food samplings, and joint in-store promotions

Buyers express a desire for demonstrations, advertising and other promotions. Packaging and presentation are critical to gain shelf space. Buyers want aggregated supply as much as possible, but at least one grocery chain accepts individual farm accounts for local stores.

Farmers may also have farm outlets, and having wholesale outlets can help in the advertising for the direct farm outlet.

Farmers utilizing farm stands, farmers markets and CSA need to make the shopping experience as convenient for consumers to find and access their local markets.

Farmers who own roadside stands can capitalize on quick trips and fill in trips by stocking dairy foods, snacks, beverages and fruit drinks, produce and bakery items and condiments.

Type of Products Purchased and Reasons for Purchasing

Maine consumers who have disposable income, like consumers in the Northeast, do a lot more pleasure and indulgent eating. Some experts are suggesting that this phenomenon, "hedonic hunger" could be a form of addiction behavior found in affluent societies.[44] The types of foods most purchased in the Northeast confirm this type of consumer behavior (See Table 10) with carbonated and other drinks, and sugar laden snacks and foods leading the list of foods most purchased. This is an overriding issue as these "pleasure" foods out compete with nutritional and healthful foods. The trend is changing slightly with the work of the retail industry to provide more educational and promotion programs for good nutrition but consumers are still way behind on eating the daily requirements of fresh fruits and vegetables and other healthy and nutritious foods.[45] More companies are working on development of foods that have more nutritious value but are still ready to eat.

The other observation about major food purchases is that consumers with limited incomes tend to purchase basic food groups such as milk, eggs, cheese, cereals, and pastas (See Table 10 and 11). However, this group is also likely to purchase pleasure foods as well.

Opportunities for Farmers: ***Farmers need to understand and work on educational programs to change consumer behavior to attract these consumers to more local, fresh, nutritious products. Farmers can also use this behavioral trend to develop food products that will meet this pleasure food and experience need as well as be nutritious. Farmers can also provide role models and eat properly themselves and by supporting nutrition education, teach cooking classes and developing programs in the town that link eating their food with good food preparation education for their customers and townspeople.***

Table 10. Top 200 Best Selling Edible Items in the Northeast

Item	Local to New England Businesses	Other	Total Sales	Local Share (%)
Soft Drinks		$ 1,368,254,800	$ 1,368,254,800	0%
Pastry/Cookies/Crackers		$ 764,456,200	$ 764,456,200	0%
Juice Drinks/Tea Drinks	$ 94,474,120	$ 532,037,180	$ 626,511,300	15%
Cereal/Oatmeal		$ 578,553,830	$ 578,553,830	0%
Water	$251,982,000	$ 222,147,350	$ 474,129,350	53%
Soup/Broths		$ 471,884,550	$ 471,884,550	0%
Potato Chips	$159,340,450	$ 150,064,180	$ 309,404,630	51%
Spaghetti/Noodles/Pasta		$ 292,520,100	$ 292,520,100	0%
Tortilla Chips		$ 273,393,720	$ 273,393,720	0%
Beer/Ale/Incl. Non Alcoholic		$ 261,715,180	$ 261,715,180	0%
Coffee		$ 256,792,380	$ 256,792,380	0%
Cooking/Baking Oils		$ 206,562,390	$ 206,562,390	0%
Baby Food/Formula/Powders		$ 205,389,460	$ 205,389,460	0%
Tuna		$ 203,244,000	$ 203,244,000	0%
Salad Dressing/Salsa		$ 172,643,820	$ 172,643,820	0%
Pretzels/snack mixes		$ 145,885,030	$ 145,885,030	0%
Spaghetti Sauces		$ 134,398,700	$ 134,398,700	0%
Mayonnaise		$ 132,396,900	$ 132,396,900	0%
Nuts		$ 121,397,470	$ 121,397,470	0%
Sugar/Sugar Substitutes		$ 104,757,530	$ 104,757,530	0%
Candy		$ 98,393,400	$ 98,393,400	0%
Canned Fruit/Vegetables/beans	$ 19,293,030	$ 69,434,180	$ 88,727,210	22%
Spices/Seasonings		$ 86,525,890	$ 86,525,890	0%
Peanut Butter		$ 74,302,890	$ 74,302,890	0%
Popcorn		$ 65,500,580	$ 65,500,580	0%
Ketchup		$ 65,300,820	$ 65,300,820	0%
Pudding/Pie Filling/gelatins		$ 64,452,970	$ 64,452,970	0%
Baking Chocolate		$ 61,597,590	$ 61,597,590	0%
Flour/Cake Mixes		$ 58,892,270	$ 58,892,270	0%
Bread Stuffing/Hamburg Helper		$ 54,474,780	$ 54,474,780	0%
Gravy		$ 48,860,580	$ 48,860,580	0%
Apple Sauce		$ 41,589,160	$ 41,589,160	0%
Jams/Jellies/Preserves		$ 39,570,260	$ 39,570,260	0%
Dried Grains/Rice		$ 39,375,070	$ 39,375,070	0%
Baked Beans		$ 33,234,250	$ 33,234,250	0%
Dried Fruit/Raisons		$ 29,068,050	$ 29,068,050	0%
Dry Beans		$ 29,038,110	$ 29,038,110	0%
Food Coloring/Extracts		$ 28,703,120	$ 28,703,120	0%
Instant Potatoes		$ 25,239,320	$ 25,239,320	0%
Canned Meats (other than Tuna fish)		$ 21,059,700	$ 21,059,700	0%
Total All Products	**$ 525,089,600**	**$7,633,107,760**	**$8,158,197,360**	**6%**

(IRI data, 52 wks ending 9/04/05) Griffin Report of Food Marketing, November, 2006

Local Estimates based on company's product affiliation with a Maine farm. Estimates by the Maine Department of Agriculture

Table 11. Top 200 Best Selling Perishable Items in Northern New England sold in Grocery Stores

Item	Local New England	Other	Total All Sales	Est. Local N.E. Share (%)
Cottage Cheese	$ 5,387,233		$ 5,387,233	100%
Organic Milk	$ 2,442,046		$ 2,442,046	100%
Sour Cream	$ 1,249,505		$ 1,249,505	100%
Milk	$ 59,934,826	$ 3,877,654	$ 63,812,480	94%
Organic Yogurt Drinks	$ 1,463,487	$ 1,267,017	$ 2,730,504	54%
Coffee Creamer	$ 8,660,573	$ 11,170,541	$ 19,831,114	44%
Yogurt	$ 7,899,940	$ 21,287,756	$ 29,187,696	27%
Butter	$ 3,931,379	$ 14,304,394	$ 18,235,773	22%
Cheese	$ 8,938,124	$ 33,760,566	$ 42,698,690	21%
Orange Juice	$ 1,094,968	$ 26,331,997	$ 27,426,965	4%
Cut Salad		$ 27,965,504	$ 27,965,504	0%
Dough		$ 9,518,649	$ 9,518,649	0%
Cream Cheese		$ 6,425,146	$ 6,425,146	0%
Fruit Drink/juices		$ 5,317,475	$ 5,317,475	0%
Puddings		$ 4,729,551	$ 4,729,551	0%
Eggs (or substitutes)		$ 4,611,329	$ 4,611,329	0%
Ref Dinners/Entrees		$ 3,899,920	$ 3,899,920	0%
Spreads		$ 3,896,749	$ 3,896,749	0%
Soy Milk		$ 3,658,877	$ 3,658,877	0%
Snack Rolls		$ 3,327,443	$ 3,327,443	0%
Vegetable Dips		$ 3,309,136	$ 3,309,136	0%
Whipped Cream/Toppings		$ 1,073,031	$ 1,073,031	0%
Salad Dressing		$ 1,046,712	$ 1,046,712	0%
Yogurt Drinks		$ 1,008,161	$ 1,008,161	0%
Total All Products	**$ 101,002,081**	**$ 191,787,608**	**$ 292,789,689**	**34%**

(IRI data, 52 wks ending 9/04/05) Griffin Report of Food Marketing, December 2005
Estimated local share based on company location in New England and Maine farmer connection with that company's product.
Estimates by Maine Department of Agriculture

Regarding good food choices, for those families that purchase local foods, the Maine consumer purchasing study found that Maine consumers were willing to purchase local fruits and vegetables directly from the farm, followed by eggs and then jams and jellies (Figure 3).[37]

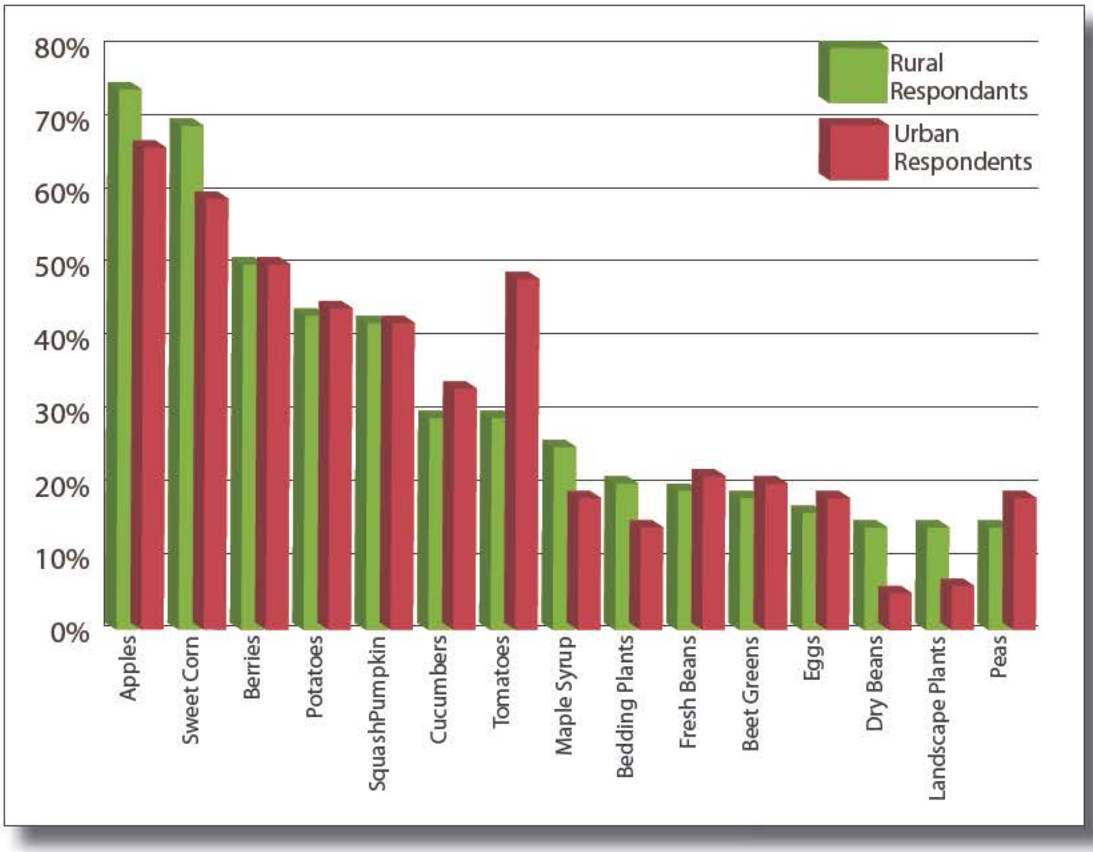

Figure 3. *Products Most Likely to Be Purchased. Source: Lamb and Cheng. 2005.*[37]

Consumers were willing to purchase larger quantities of some foods such as potatoes, tomatoes, squash, carrots and sweet corn for canning. A number of consumers got fresh vegetables from their own, or friends', gardens.

The results of the study for meat products were more telling with consumers purchasing over 70% from the grocery store. Only a small percentage said they purchased meat or fiber products from the local farm outlet. In the Oregon study, more rural and "blue collar" workers were likely to purchase meat from local direct farms during the summer than urban or more well-to-do customers. This mirrors a recently held Maine consumer focus group[47] where consumers stated they were hesitant to purchase meat products from the farm due to concerns about food safety. Food safety of meat products topped the list of important selection features in the Nebraska study (Figure 4). The meat food safety response is interesting given that most of the food-borne illnesses outbreaks associated with meat are from large processors from out of state. However, in a phone survey of Maine consumers, while 68% were more likely to purchase fresh produce, at least 22% would purchase Maine meat products, up from 11% in 2002.[48]

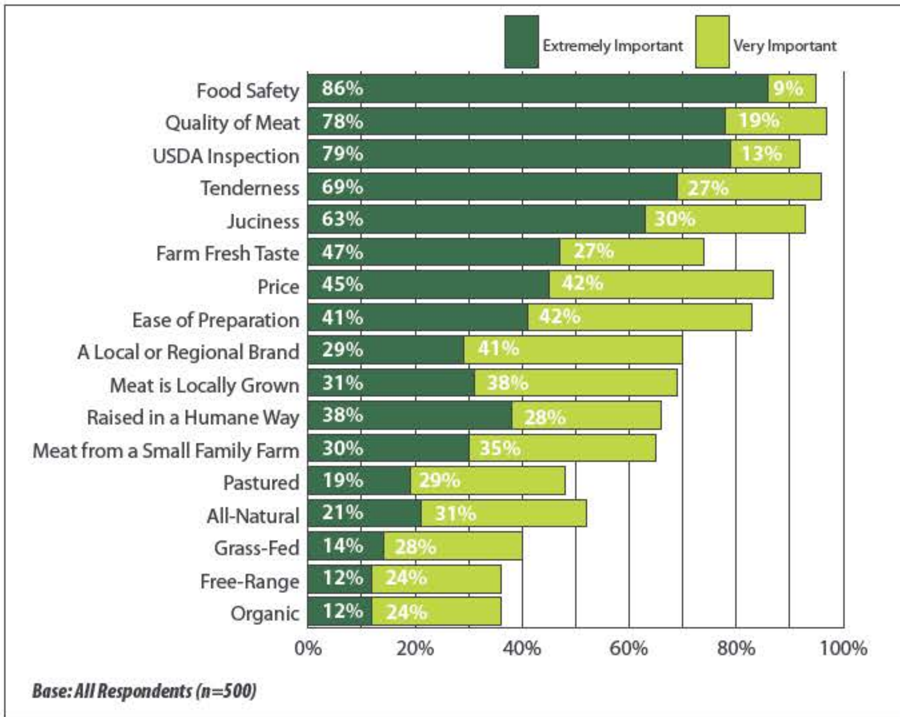

Figure 4. *Answers to the Question: "How important are the following in selecting the meat your purchase? Rate on a scale of 1 to 10 with 1 being not important and 10 being extremely important." Source: University of Nebraska*[49]

In all studies, FRESHNESS was the main reason consumers purchased from local farms. In the two Maine studies, freshness topped the list, followed by quality. In the Nebraska study, consumers purchased because of taste, quality, nutritious and healthy, price and support for local farmers.[49]

Opportunities for Farmers: ***Farmers must provide fresh, high quality foods, with guarantees of safe handling in order to capture and maintain consumers.***

Distance from Market Source Critical to Success

In both the Maine and New Hampshire study, consumers would only travel between 5 to 10 miles for local produce. In a New Hampshire study, consumers would only travel up to 5 miles to a market, and convenience of location was paramount to shopping a the market (Figure 5 and 6). Consumers will travel further to PYO operations.

Opportunities for Farmers: ***Farmers need to overcome this impediment by locating farm stands closer to population centers or travel routes and more distant advertising (radio and TV) becomes more important for PYO and entertainment operations.***

Farmers need to develop better internet savvy and may want to consider distribution systems to buying clubs, home delivery, internet sales and CSA's with local, convenient drop-off locations.

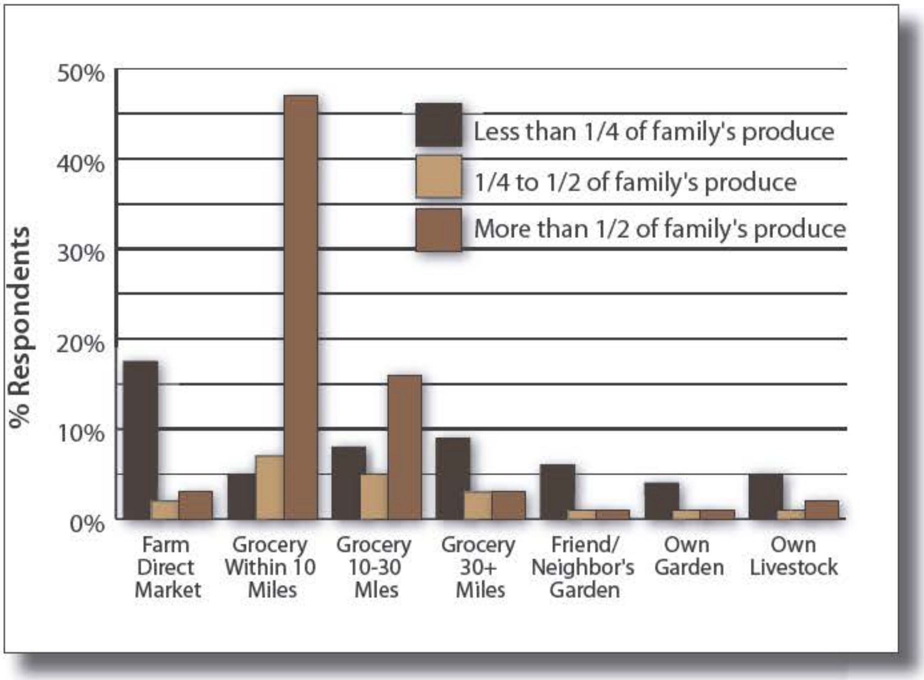

Figure 5. *Sources of meat and livestock products for the family.*
Source: Lamb and Cheng, 2005.[37]

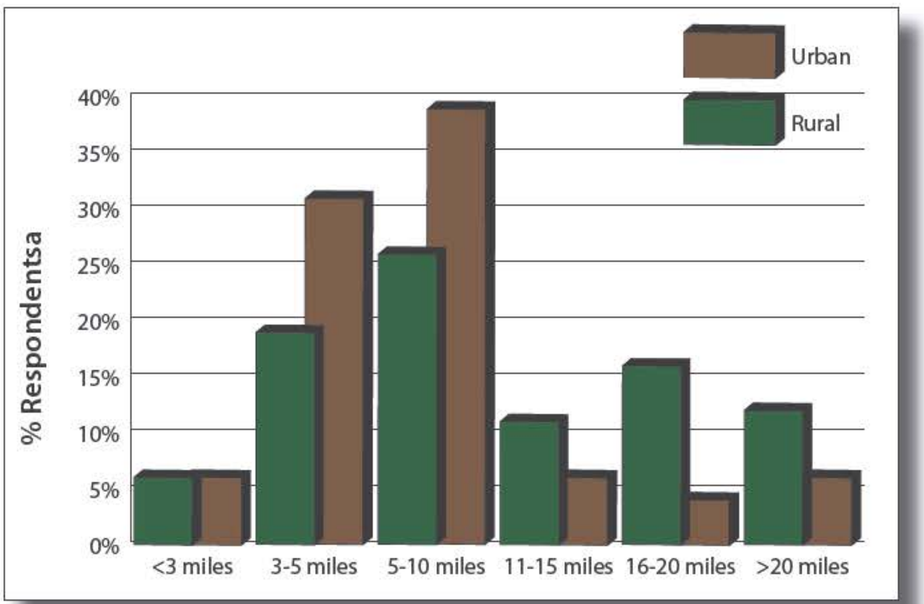

Figure 6. *Distance respondents were willing to travel to buy from farm-direct markets.*
Source: Lamb and Cheng, 2005.[37]

Local Advertising Key to Finding Farms and Promoting Availability

Consumers also stated they did not know where the farmers were located in their area. Consumers search for local information about farms. Sources include roadside signs, word of mouth and newspapers (Figure 7). Many farmers understand the need for local marketing. In all three Maine studies Word of Mouth was the most used method for consumers to find farms, farmers markets and CSA's. Printed directories and newspapers and use of the web are also a large part of advertising for these farms (See Table 12).

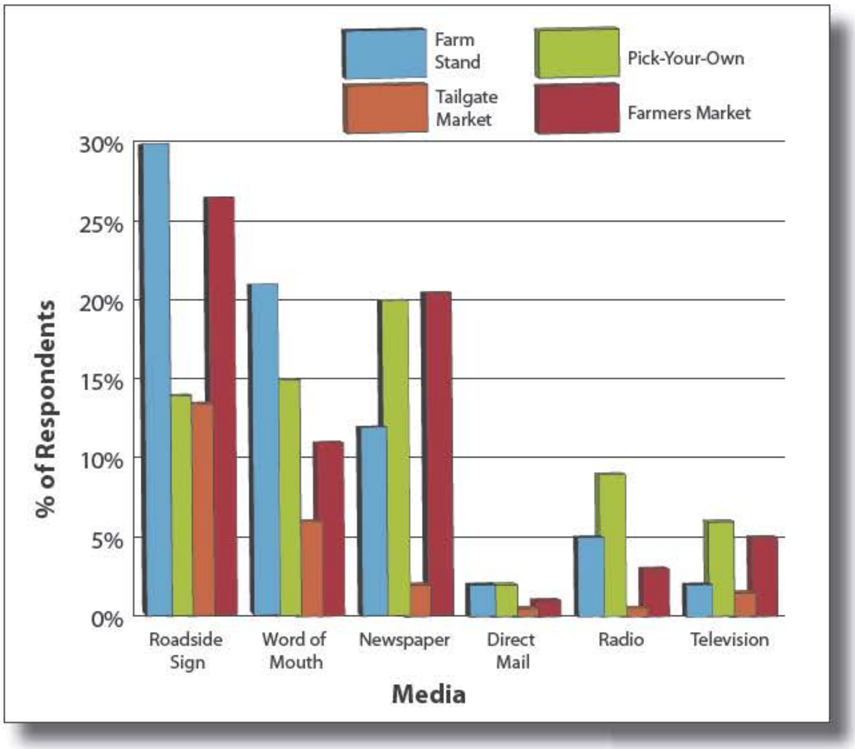

Figure 7. *Where Urban Residents Got Information About Outlets.*
Source Lamb and Cheng, 2005

Table 12. Top 10 Promotions for Agri-Tourism Activities

Type of Promotional Activity	Number of Farms	Percent of all Agri-Tourism Farms
Word of mouth	365	84%
Listing in printed directories	237	54%
Newspaper	233	53%
Listing on others' web page	221	51%
Your own brochures distributed off the farm	167	38%
Through an association	143	33%
Your own web page	130	30%
Direct mail to current and potential customers	92	21%
E-mail to current and potential customers	92	21%
Consumer trade shows, special events	91	21%

Source Allen et al. 2006[35]

Using methods to encourage Word of Mouth advertising is a new area of interest to the business world. At a recent marketing workshop, farmers found that consumers spread news of the farm from one person to another and from families to families.

In addition, recent research has found that consumers who have complaints are most likely to hurt business if the complaint is not rectified. If the problem is solved, those consumers are potentially the farmers best advocate to get new customers[50] by word of mouth advertising.

Opportunities for Farmers: ***Word of Mouth and local advertising is a KEY to helping customers find and shop at farms. Good road signage also critical. Using Word of Mouth techniques will increase the number of consumers faster than other methods. Tools are available to proactively increase consumer word of mouth activity.***

Farmers who want to improve ease of finding direct market outlets may need to create a master database of farm producers, locations, product availability that can be updated on the web or in local weekly newspapers. Consumers want ease of finding the farmers.

Availability and Price Influence Consumers to Buy Local

Price is the most important driver when purchasing local or organic products. In the Maine study, high prices, poor quality and grow their own food were the three top reasons for not purchasing local. In both the Maine and Nebraska study, when consumers were asked what would influence them to purchase more local products, they highlighted availability price and convenience as major factors Other factors are noted in Figure 8.

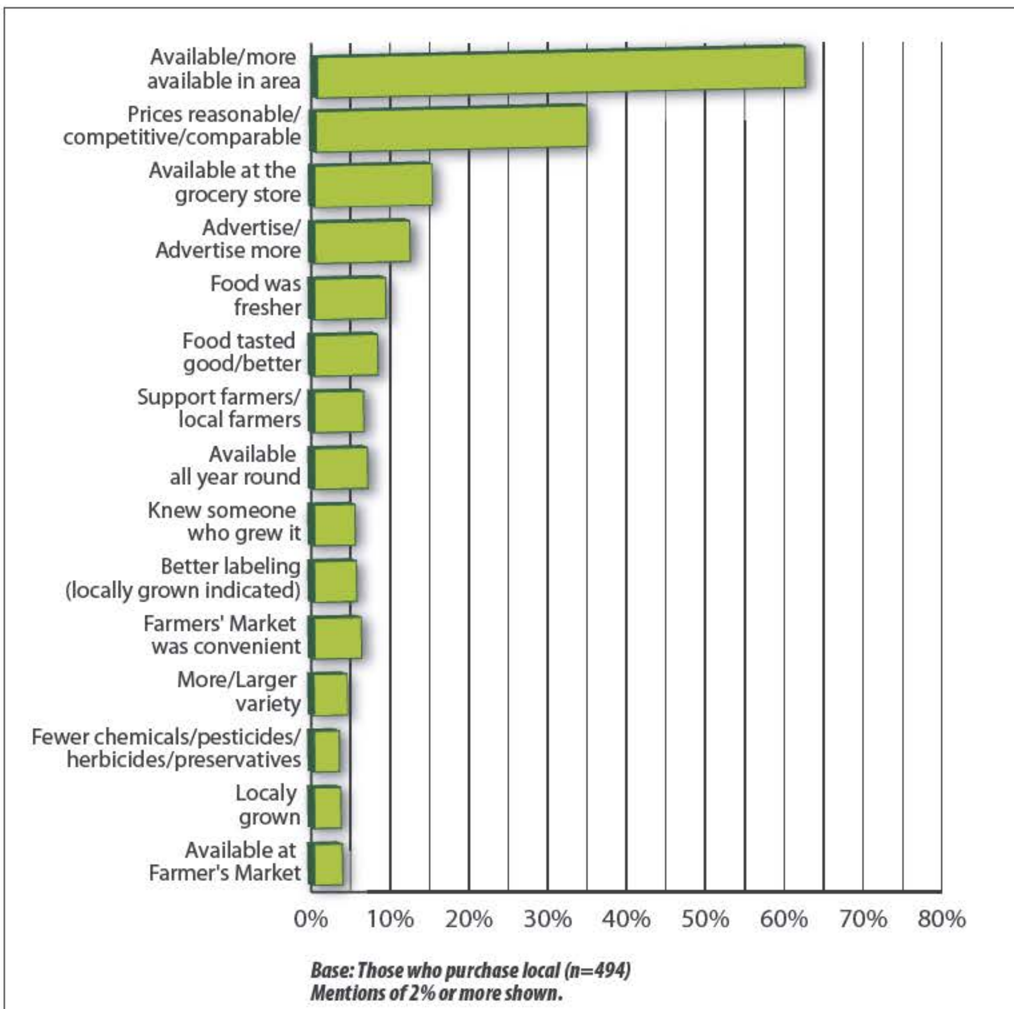

Figure 8. *Answers to the question: "What would influence you to buy more locally grown or produced food?" Source Allen et al. 2006.*[35]

Table 13. How consumers feel price is a driver of purchasing local products, broken down by level of household income.

Price	Total	<25K	25-50K	50-75K	75-100K	>100K
Extremely Important	45	47	53	43	41	24
Very Important	37	35	37	40	37	40
Somewhat Important	16	15	11	17	17	31
Not Important	2	4	0	0	4	4

Source: University of Nebraska, 2001

Regarding price, the Nebraska study showed that lower income households and households in rural areas were more apt to be concerned about price than those with incomes greater than $100,000 (See Table 13 and 14). In the Oregon study, "blue collar" communities typically were price sensitive while more affluent were willing to pay up to 20% more for a local product. When particular products were evaluated, price always played a role in the decision making.

Opportunities for Farmers: ***Farmers must be willing and able to price products competitively with grocery stores. Farmers may be able to garner prices up to 20% more than local grocery store competition. However, awareness of what type of consumer frequents the farm market is an important consideration to pricing.***

Table 14. The Importance of price in influencing purchase of locally grown food

	% Responding Extremely Important . . . . .Not Important										Mean Score
TYPE OF AREA	10	9	8	7	6	5	4	3	2	1	
Urban and Suburban Areas	29.7	9.1	21.1	13.1	9.7	14.3	0.6	1.1	0.0	1,1	7.77
Small Town and Rural Areas	38.1	11.2	18.6	8.3	5.4	14.4	1.3	0.3	0.6	1.6	8.03
Entire Sample	**35.2**	**10.3**	**19.5**	**10.1**	**7.0**	**14.1**	**1.4**	**0.6**	**0.4**	**1.4**	**7.93**

Source: University of Nebraska, 2001

CSA and Buying Clubs Gaining In Popularity

Subscription based farming was not mentioned in these studies, but Community Supported Agriculture (CSA) is growing in popularity, similar to roadside stand and pick your own channels. In 2007 about 4000 customers frequented local CSA's.[51] MOFGA has begun a major effort to encourage farmers to move to the CSA marketing channel. The advantages of CSA's are the ability to locate distribution where it is convenient for the customer. For those farmers who have farm pick-ups, CSA become a destination for experiencing the connection with the farmer.

Buying clubs have also started to increase in interest. Consumers are looking for better quality and freshness at affordable prices. More middle income consumers and young mothers with children are looking for more healthful foods at prices lower than in health food stores. Those who want organic foods at better pricing are also starting to directly source foods through buying clubs, cooperatives or alternative storefronts.[52]

Opportunities for Farmers: ***Farmers who want to have more direct relations with groups of consumers may want to investigate CSA and Buying Club models. These outlets require much more development of word of mouth promotional methods and more interaction of the farmer directly with the consumer.***

Specialty Food Products

Maine farmers are engaged in development of specialty food products. Consumers and visitors have an interest in these products. A market study in Connecticut[53] gave the following results of consumer needs and expectations:

- Consumers are willing to pay a premium if they perceived a better value, but specialty products must be competitive pricing if farmers want to expand and go after mainstream markets.
- Good packaging that tells the local farmer or food processor story is critical to success.
- Samplings are mandatory for acceptance.
- Low preparation methods need to be built into the product.
- Attractive packaging is critical to capture the consumer eye.
- Most specialty products are purchased for special occasions, or on vacations.

Opportunities for Farmers: ***Direct market farmers or specialty food producers will have to spend time understanding how their products are perceived in the market, and how best to promote them, heavily utilizing in-store sampling and promotions.***

Eating Out - Restaurants

The restaurant trade is another source of income for direct farm markets as well as competitors to Farm Restaurants. Maine's restaurant industry sector represents over $1.3 billion in income. Farm restaurants are a small part of that total (See Table 15).

Table 15. Food service sales in Maine, by outlet compared with farm restaurant outlets

Type of Food Service[1]	Number	Gross Income ($1,000)
Full-service restaurants	1305	$ 722,486
Limited-service eating places	1109	$ 538,046
Limited-service restaurants	852	$ 449,148
Snack and nonalcoholic beverage bars	247	$ 82,805
Special food services	143	$ 52,806
Drinking places (alcoholic beverages)	148	$ 42,613
Food service contractors	83	$ 38,032
Caterers	43	$ 12,091
Cafeterias, buffets, and grill buffets	10	$ 6,093
Mobile food services	17	$ 2,683
Total All Food services and drinking places	**2705**	**$ 1,355,951**
Farm Restaurants[2, 3]	**13**	**$424**

Sources: 1. U.S. Economic Census 2002, and 2. UM Economic Contributions of Agri-Tourism in Maine, 2005.[3] Farm Restaurant figures are conservative, as they are based on incomplete statewide data.

Maine consumers are expected to increase food expenditures away from home by 25% in the next few years[54] with full service breakfast and dinners leading the change. Maine Tourists, as mentioned earlier, expect to find unique, local food experiences when they come to Maine. 34% of overnight marketable trips included eating unique local foods and 14% for eating at elegant restaurants.

Opportunities for Farmers: ***Maine's restaurant trade is dependent on major food distributors for the bulk of their products but local restaurants are creating great demand for Maine fisherman and farmers for lobster, seafood, specialty meats, and vegetables.***

Farmers will need to meet restaurant produce buyers demand for high quality, consistent supply, and good business relationships. Unique, local foods, with a story behind them are valued.

With the expected increase in Maine consumer spending on away-from-home food, farmers will need to make sure their restaurants have a unique appeal to consumers.

Schools and Other Institutions (Correctional, Mental Health and Veterans Facilities)

Maine schools and other institutional purchasers have traditionally been serviced by USDA program food supplies and major distributors who source from reliable, consistent producers. The trend will not appear to change in the short run. Based on recent studies,[55] food service providers need the following in order to purchase more local products:

- Food safety assurances
- Quality
- Availability
- Service of supplier to meet needs of food service
- Reputation of supplier

Barriers to Maine producers to access this market include:

- Difficulty of food service buyers to coordinate many small suppliers
- Year-round availability
- Consistency in availability
- Adequate volume available
- Lack of convenience for sourcing
- Price

School food service directors have limited budgets for food, and therefore price becomes more of an issue. Most, but not all, schools and institutions have adequate preparation facilities, but labor availability and cost drive them to purchase product that has minimal preparation time.

Amy Winston, coordinator of the Farm-To-School program for Coastal Enterprises, Inc, had additional views on barriers to farmers accessing food school service:

- Lack of local lists of available foods and farmers willing to grow/provide those foods
- Lack of year-round cold and freezer storage on farm
- Lack of nutrition education curriculum linking food service, classroom and farmer so that students and community pull demand.
- Awareness of school administration (Superintendent, Business Director, Food Service Director) about community interest in, or availability of, local foods.
- Kitchen Team Leader ability to empower kitchen staff to enjoy working in food service in the school.

In her words, "If meal participation increases with fresh, higher quality foods, food service revenues improve, schools will increase food service personnel wages and benefits, and this will result in the potential to increase more local purchases. A paradigm shift will occur, improving student school performance, creating more entrepreneurial students, reducing health care costs, and reducing the tax burden on Maine people."

Opportunities for Farmers: *Wholesaling to schools will depend on multiple factors, as noted above. This market opportunity will take concerted, long-term efforts at community and consumer education on the value of fresh foods and nutrition, federal policy changes, and increased funding for school lunch programs.*

Farmers need to build local coalitions of parent champions, farmers, food service directors, school committee, superintendents, business managers and distributors to create a program to increase healthy eating habits, increased use of local foods, and better connections with local farmers.

Farmers need a comprehensive K-12 curriculum that builds in nutrition and health education, food preparation and farming/gardening activities that must utilize the school grounds and local farm contacts, as well as the food service facilities.

Schools need to increase food storage capacity, increase labor pay and benefits for food service personnel, based on performance, and find increased subsidies for the cost of sourcing and preparing more nutritious local foods.

Farmers will want to work with the congressional delegation to change Federal USDA laws and rules on procurement of locally produced foods.

A Word about Organic and Natural Foods

The organic trend has caught on, and while organic products show up mostly in wholesale markets, they make up a niche in the creative agricultural sector. The organic food sector has been growing rapidly, in Maine and across the nation. The Organic Trade Association estimates growth at over 10% per year over the past five years and into the future. Maine's organic farmers have been extremely active in sales at farmers' markets and in the development of CSA's over the past 15 years. As larger farms (dairies, orchards, and vegetables) have transitioned to organic in recent years, they have supplied further up the wholesale channel to processors and supermarkets

The term "organic" is now a trademark which stands for the USDA certified standards. Organic milk products make up most of the growth in the market and organic produce is gaining mainstream acceptance with the development of large commercial farms in California and other large wholesale companies who can provide the volume or source organic ingredients required for the market. In Maine, from 1987 to 2007, the number of certified organic farms and processors in Maine increased from 21 to 348. Close to 30,000 acres of land in Maine are now farmed organically. The major growth has been in dairy, vegetables, maple syrup production.

Organic food is increasingly accessible to consumers, largely through wider availability at supermarkets. As a result Maine farmers emphasize their local and community connections in their marketing strategies. Store marketing personnel see organic and natural foods gaining more popularity, with about 7-12% of the consumers purchasing organic products at a 20% growth rate, with most of that growth in milk products. They cite the Organic Trade Association as predicting that organic meat, dairy products, and stage of life foods (those foods consumed during pregnancy, nursing, infancy, puberty, and senior years will be most popular.[56]

Grocery stores also acknowledge the coming health trend. Some grocery stores already acknowledge and are working toward meeting this need for improved selection of nutritious foods. Hannaford "Guiding Stars" initiative has increased consumer awareness of, and direct purchases towards, healthier food alternatives.[57]

A recent short course on organic sales by the United Fresh Produce Association[58] showed that 3% of produce sales are organic produce, with a high percentage being fresh-cut salad mixes and baby carrots, apples and bananas. Tomatoes and grapes are coming on strong. Consumers are purchasing more, and focus first on produce. As with the Nebraska study, the key selling points are convenient to find, quality and appearance, not brand. Health drives decision making to turn to organic. New users are apt to be price conscious, and do not care about the lifestyle story as much. The consumer demographic most likely to purchase was a college graduate, older, small household, with over $100,000 in annual income.

Some consumers are still confused about organic.[59] The more educated consumers understand that organic is suppose to stand for fewer pesticides. However, mixed research studies either purporting for or against better taste and nutrition of organic products is setting up the confusion. In addition, the Maine consumer focus group, when asked about purchasing organic products, were confused about whether certified organic farms are truly following certification requirements and they wanted more assurances.

The Nebraska market research study supported the notion that many individuals do not care or make choices based on pricing, and would purchase organic if the prices were comparable to conventionally produced products (Figure 9). A limited amount of consumers are willing to pay up to 10% more for organic produce. The study at the United Fresh Conference showed some consumers would pay up to 20% more than conventional.

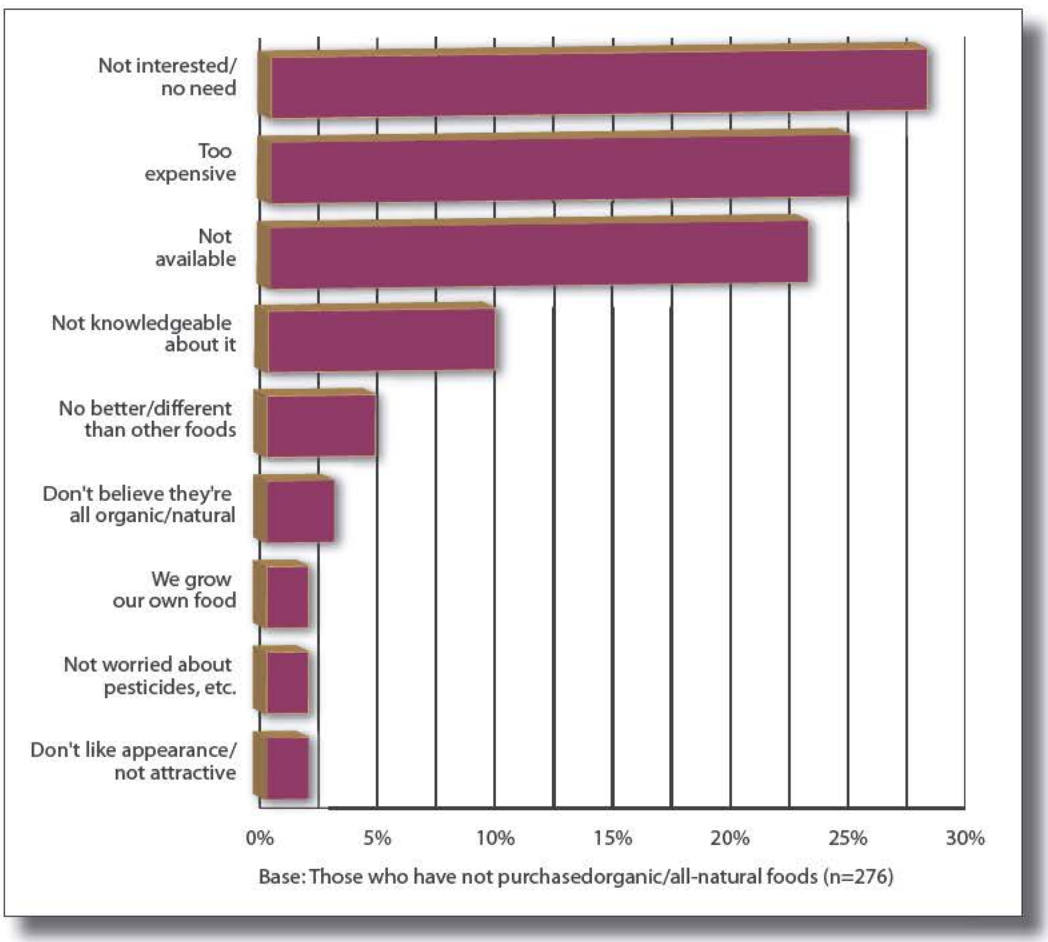

Figure 9. *Answers to the question: "Why haven't you purchased organic and/or all-natural foods?" Source: University of Nebraska, 2001*

More and more different types of labels are coming into the market that is leading to the confusion of consumers. Ecolabels, as they are called, lack backup education and/or government sanction that scientifically supports nutrition, freshness or health claims.

Opportunities for Farmers: ***These studies highlight the fact that direct market farmers of organic produce have growth opportunities and must focus on advertising and educating consumers on convenience, price to value, quality and assuring food safety. Farmers who are not organic but have local farm stores, roadside stands or restaurants can also be a part of the organic and health trend by growing and stocking organic produce as well as conventional produce.***

MAINE'S AGRICULTURAL AND FOOD PROCESSING CREATIVE ECONOMY PRODUCTION BARRIERS, AND OPPORTUNITIES TO RESOLVE THE BARRIERS

Maine direct market farmers have a number of barriers related to producing products for market. Most of the following needs identified come from previous surveys, forums and studies from the past which outlined specific recommendations for policy and programs for Northeast agriculture,[60] more specific objectives for State Action to support local and commodity agriculture.[61, 62, 63, 64] A number of commodity specific studies have been conducted as well[65] that has led to targeted state programs to help those sectors.

Maine's food processing sector also has a number of barriers for starting and expanding food processing enterprises in order to get products into the local market. One major study of smaller food processors[66] a major forum last year[67] and selected individual interviews, resulted in the following findings of needs for this sector. In many cases, the needs of farmers and food processors are the same, especially in regard to access to labor and capital, education and training, and research.

Access to Resources

Capital

In economic theory, a business that does not return a profit cannot contribute to the family, community or state and becomes a drain on the community. Bankers are not likely to loan to businesses that do not have business plans that show profitability and the ability to repay the loan.

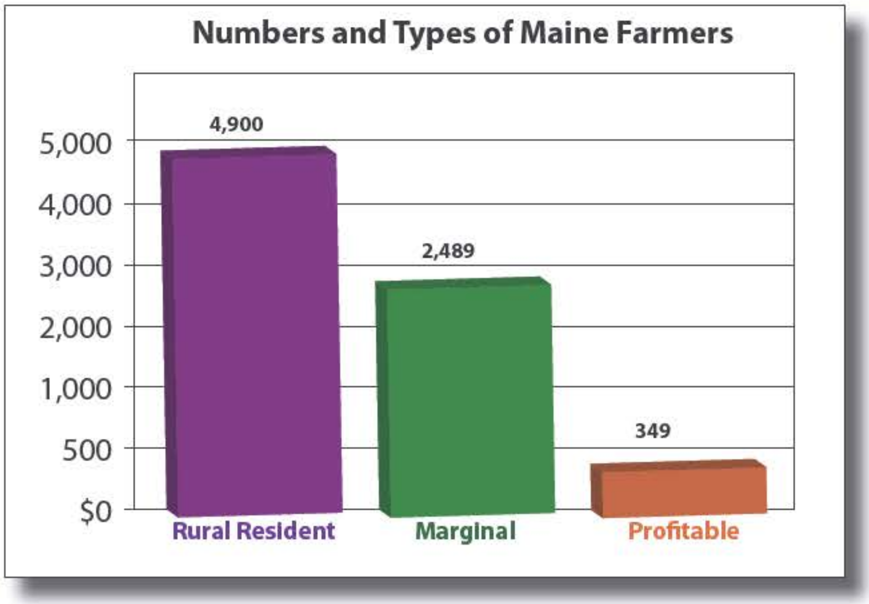

Figure 10. *Rural residents make up most of the Maine farmers.*
Source: Census of Agriculture, 2002.

According to the Census of Agriculture, 7,100 farms exist in Maine. 4,900 farmers, called *Rural Resident Farmers*, gross under $10,000. A lot of the rural resident farmers are direct market farmers. About 1,489 farmers, called *Marginally Profitable Farms*, gross between $10,000 and $250,000 (Figure 10)[68] On average, rural resident farms did not make a profit (Figure 11).

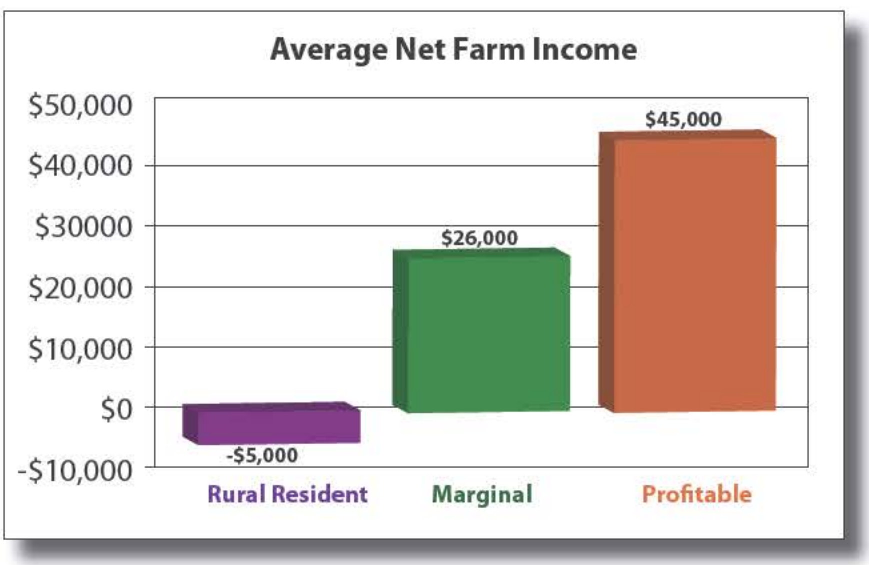

Figure 11. *Average Net Farm Income.*
Source: Census of Agriculture, 2002.

The major reasons for lack of profitability of smaller farms are the high cost of capital (interest), and the high cost of labor. The University of Maine Agri-tourism study69 showed that, of the 454 farmers responding to the survey, 60% of the direct market farms grossed under $25,000, a quarter grossed up to $100,000 and a small percentage (17%) grossed over $100,000. A number of the farms in the University study stated that the direct marketing enterprises increased gross sales and profitability of the farm. However, detailed information on profitability was not shared, and most farms had outside sources of income supporting the family (See Table 16 and 17).

Table 16. Gross Revenue of Agri-Tourism Farms

Overall Gross Revenue	Number of Farms	Percent of all Agri-Tourism Farms
<$2,499	65	15%
$2,500 - $9,999	113	27%
$10,000 - $24,999	76	18%
$25,000 - $99,999	98	23%
$100,000 - $249,999	40	9%
>$250,000	36	8%
Total	**428**	**100%**

Source: Allen et al. 2006.[35]

Table 17. Percent of Income from Off-Farm Sources

Percent of Income	Number of Farms	Percent of all Agri-Tourism Farms
0.0	86	19%
1% to 39%	96	22%
40% to 69%	73	17%
70% to 100%	185	42%
Total	**440**	**100%**

Source: Allen et al. 2006.[35]

A University of Wisconsin study[70] of farmers who sell vegetables direct to the consumer, or conduct CSA (Community Supported Agriculture) farms who do subscription based farming, found that production on small acreage did not return a reasonable wage to the producer. The larger the farm became, the more gross returns occurred, and a better wage was returned to the farmer. However, both systems of direct marketing did not yield sufficient net profit to cover all costs. One of the key components impacting profitability was labor costs.

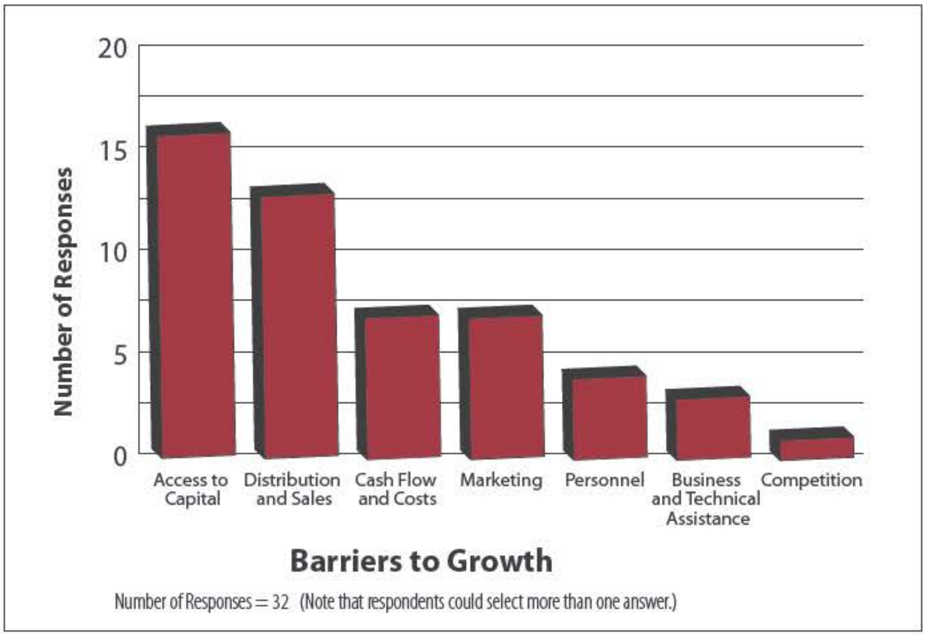

Figure 12. *Barriers to Growth. Source: Food For Thought Forum, 2006.7*

All these examples show that smaller operations with poor profitability get financed through other sources of family income or credit sources other than banks. Some of that is changing, as Farm Credit of Maine has recently started targeting part-time farmers for credit. The bank looks for farmers who have adequate collateral for the loan and good cash flow capacity. They are less apt to loan to new and beginning farmers.

Startup and expanding food processors are having the same issue. At the *Food For Thought Forum* last year, most participants mentioned access to capital as a major obstacle to growth (Figure 12).

In individual interviews, many food processors expressed the concern that the Maine Technology Institute seed and development grant program requirements are an impediment. MTI has been a source of funds to help a number of startup value-added farm businesses. Farmers and food processors suggested making changes in the MTI program to eliminate the new technology requirement, reduce match requirement, and reduce rates of return on investments for development awards.

Implications for Farmers and Food Processors:

- ***Farmers and food processors need sources of patient risk capital, patient capital and flexible operating lines of credit. Small, direct market, farmers have very high interest payments, especially as they use credit cards or high interest commercial loans. Food processors need patient capital for start-ups and for making the jump from pilot to full scale production of successful new products. Many smaller companies cannot afford the cost of larger processing equipment.***
- ***Farmers need help working with commercial lenders to offset some of the higher interest rates and risky deals with matched funds or loan insurance tools.***
- ***Many smaller and newer companies must use working capital for the business and could use scholarships/grant resources to attend workshops to receive training.***

Labor

Farmers at the Blaine House Conference on Natural Resources Industries, held in 2003, stated that accessing trained or trainable labor was a major problem for them. In individual interviews with food processors and farmers, this is a key problem area. Along with that, the inability to access, adapt or purchase appropriate scale equipment to reduce labor costs is a problem as well.

Getting help to do seasonal jobs is the larger problem for most direct to market farmers. In the recent Maine Agri-tourism study, direct market farmers listed finding qualified workers as a very major obstacle (See Table 18). The Wisconsin study for CSA farms found that, for the small farmer and for the larger farmer, it was the high cost of labor for harvest that hindered profitability. The larger the farm, the worse the problem. The Maine Department of Labor has seen an increase in the use of the H2-A program to access temporary workers, and the Department has also seen an increase in the use of migrant workers. Currently, 30 employers hire 580 workers under the H2-A program.[71]

Table 18. Top 10 major obstacles to the start-up or expansion of agri-tourism activities

Major Obstacles	Does Not Apply	No Difficulty	Challenging	Major Obstacle
Finding Time	7	26	18	49
Insurance availability	12	38	21	29
Finding qualified workers	37	22	14	27
Taxes	12	48	18	22
Creating relationships with tourism businesses	50	21	13	16
Finding customers	4	55	25	16
Obtaining financing	47	29	9	15
Licenses and permitting	20	51	15	14
Promotion and advertising	9	50	24	11
Understanding liability issues	12	58	19	11

Source: Allen et al. 2006.[35]

Sourcing and training management labor is also a problem for farmers. MOFGA representatives have noted that additional issues have arisen in trying to find managers to start or take over farms. MOFGA's journeyperson and apprenticeship program, The University of Maine sustainable agriculture program, College of the Atlantic, Unity College and the horticulture programs at Southern Maine Community College, are the only programs in Maine for helping young farmers get the skills they need to start up farms. Many other students go out of state to agricultural colleges. Many farmers work through word of mouth to find help. Many farmers do not know about the Department of Labor apprenticeship program which can help employers offset costs associated with training.[72]

Infrequently, farmers will move to Maine from other states and start up farm operations. This method of getting more direct market farmers has been successful, with the most notable example being Backyard Farms of Madison, Maine, a large tomato operation. In the 1970's and early 80's apple farmers relocated from Massachusetts to Maine, in the 1990's cranberry growers did so as well. Currently, we are also seeing an in-migration to Maine of individuals who wish to start farming and have purchased farms or farmland, but lack the knowledge and resources to get started.

Food processors are also having trouble sourcing labor. Fifty three percent (53%) of Food Forum food processors attendees stated they had difficulty finding and affording the necessary employees to run the business. At a Maine Food Fare event in Camden in 2007, a panel of food processors stated that two of the major constraints are finding experience personnel and providing competitive wages and benefits, such as health insurance.

Employee benefits are a major way to keep good labor, and those benefits can be costly. Many farmers need access to affordable worker's compensation, group health, dental and long-term care insurance options, both for themselves and their workers. Maine Farm Bureau has a good health insurance program for full time farmers, but part-time farms find it hard to get affordable health care if outside income jobs do not provide coverage. As stated above, food processors also have a hard time finding affordable health insurance for their employees

Implications for Farmers and Food Processors:

- ***The state needs new farmers and value-added food processors who have the knowledge, capital assets, and market savvy to meet the market demands for increased local production.***
- ***Farmers need better access to seasonal workers, and more skilled full time workers. The $8 to $10 per hour wage rates are not a livable wage for Maine people, therefore it is imperative that outside, migrant or alien labor is found.***
- ***Farmers still are interested in the development of a seamless agricultural education and skill development program that ensures basic business skill and entrepreneurial development, apprenticeship and mentoring programs.***
- ***Farmers want a way to better find migrant workers, and to apply for, and work through the Maine labor service centers for accessing farm labor from other states. Farmers need a clearing house, be it a private or public concern, for information on what types of labor services are available to them, and processes for acquiring H2-A, migrant, and foreign student labor.***

Land

All types of Mainers want LAND for all kinds of purposes. The homesteader wants "off-the-grid" independence; the farm family wants proximity to faithful customers, agricultural services and leased land; the investor wants property to return a profit as commercial/residential development; the urban dweller wants to move to "Green Acres" for privacy and lower property taxes; and the telecommuting professional, or the baby boomer retiree, wants a vacation home and place to play. These different uses are all subject to variable and often invisible market forces. In the last 10years, 160,000acres of Maine's farmland (mostly hay, pasture and cropland) was converted to non-agricultural use. Most of this loss occurred in Southern, Mid-Coast and Central Maine within 35 miles of the I-95 corridor.

Farmland is a limited and finite natural resource. In 1945, Maine had 4.2 million acres of active farmland. Today, Maine has only 1.2 million acres of working farmland, approximately half of which is cropland (the remainder is forested).

Currently, as much as 40% of the active cropland is leased - and not owned - by the farmers who sustain it. Much of this is hay or pasture land on the fringes of urban or suburban communities. This land is often run-down and returning a low per-acre profit and thus it is highly vulnerable to residential development.

Previously farmed land, which was once abandoned and has been sitting idle, is now primarily owned by *Rural Resident Farmers* (as defined by the USDA Agricultural Census) who annually gross under $10,000 from farming (Table 19).

In Aroostook and Washington counties both the idle land and the currently productive row crop or blueberry land is being bought by a mix of consumers—out-of-state investors, second home buyers, new US Immigration employees and homesteaders—resulting in a fragmentation of the working landscape that threatens the ability of some currently large-scale commercial operations to sustain production levels.

Table 19. Who Owns Maine's Idle Cropland?

Type . . . Annual Gross Income	Total Idle Cropland (Acres)	Percent of Total
Rural Resident Farmer . . . under $10,000	38,582	44%
Marginal Farmer. . . . $10,000–$250,000	20,014	23%
Profitable Farmer . . . . over $250,000	28,182	32%

Source: Census of Agriculture, 2002

Most established Maine farmers are land rich and cash poor. Some have the ability to sell some of their land for house lots and then plow the profits back into the farming operation or set a bit aside for retirement. However, most farm families rely on one or more family members earning an income off the farm to pay for health insurance and help the farm cash-flow. Nearly all of these farms need access to additional land that they can lease at an affordable rate.

Maine's farmers' need for land is variable. Maine's new (relocating here) and beginning farmers want to farm smaller parcels of land (25-50 acres) intensively and sell directly to their customers. They also want to live relatively close to their markets. These new farmers are critical to sustainability of the Agricultural Creative Economy, and they are in need of capital to buy or rent land and start their businesses. Unfortunately, their preference for location and parcel size tends to put them in practically unaffordable real estate markets. Conversely, Maine's commodity-based farmers want to protect their ownership or access to large contiguous tracts (>150acres) of farmland to sustain large-scale farming (potatoes, dairy, wild blueberries). Across all farmland types and parcel sizes, the need for the land (and buildings) to be taxed at current-use, and not at highest and best use as residential development is universal. Across all farm types, there is a need to reduce regulatory burdens which add to production costs and reduce profit margins.

In 2002 the Maine Department of Agriculture and various collaborative partners developed strategies to address the land access needs of all Maine farmers from established to new and beginner.[73] Progress is steady and incremental and looks different in different parts of Maine, because agriculture looks different in different parts of Maine. With the help of Maine Farmland Trust, Maine FarmLink and many local land trusts and new like-minded citizen partners, Maine's communities are looking for innovative ways to help farmers stay on the land and help new farmers link with retiring farmers to keep the working lands, working. These engaged, activated and integrated farmer and consumer communities are the next wave of Maine's Agricultural Creative Economy.

Implications for Farmers:

- ***Farmers would like to see regional voluntary landowner programs (Agricultural Protection Districts) that operate akin to Pine Tree enterprise zones. Rather than being based upon job creation, the Agricultural Preservation Districts (APDs) would focus state investments (and potentially federal and private matching funds) to incorporate currently existing and new programs under one overarching "protection" umbrella. Landowners enrolling in the APD would:***
    - ***Receive capital loans and grants to secure existing production and processing infrastructure;***
    - ***Promote best management practices to protect water quality;***
    - ***Benefit from increased protection from nuisance complaints;***
    - ***Receive tax credits and tax assessments that reduce or offset production and marketing costs; and***

a. Become eligible to sell the land to a regional farm land bank; OR

b. Become eligible for the purchase or transfer of development rights in exchange for an agricultural conservation easement.

- ***Farmers with all levels of expertise need additional education and technical assistance with estate planning, farm transfer planning and conservation planning***
- ***New and beginning farmers need "creative or venture capital" to help them gain access to (rent or buy) affordable land, and they need "patient capital" while they start-up and growth their agricultural operations.***

Education and Technical Assistance

A number of policy studies have highlighted the need for more educational and technical resources for farmers. AGCOM's strategic plan highlights many of those needs. The University of Maine's Agri-Tourism study highlights educational needs farmers themselves have listed, many of which are marketing and promotion oriented. Individuals interviewed for this report have identified areas as well. Some of the most important educational needs identified include the following:

- Business planning assistance
- How to establish an experiential tourism business
- How to price products and services
- Internet marketing
- Farm stand set-up
- Food processing regulations and how to set up a food processing facility
- Advertising and promotion
- Pest control practices for various crops
- Livestock and pasture management
- Soil management to improve productivity
- Labor management skills for hiring and keeping labor
- Farmers need technical services support that may not be available. These include:
- Veterinary services for large and small farm animals.
- Engineers who can assist farmers in finding and adapting farm machinery to met the needs of small scale farming operations.

Many small food processors have expressed the need for more training in a number of areas. A general listing includes the following:

- Good manufacturing practices (GMP training).
- Sanitation (For FDA personnel and Food Processors).
- HACCP (Seafood and Juice Processors – required by FDA, other requesting).
- A workshop on how to properly use food safety equipment (pH, water activity).
- Value-added food workshops: (maple producers, sheep/goat farmers, other agricultural groups).
- Assistance with grant writing.
- Education on how to do business on the internet.
- Need better training for meat cutters.
- "Better Process Control" school.
- Workshops on how to start a food business.
- Need a thermal food processing authority for low-acid canned food processors.

A number of agencies and industry organizations have very successful educational programs. Cooperative Extension's main function is education and they put on a variety of events for farmers throughout the year. The Washington-Hancock CAP agency has a very successful small business program, Incubator Without Walls which focuses on NxLevel business planning classes with networking and individual technical assistance. This program provides technical assistance grants for a variety of small business needs including marketing plans, process improvement and business planning. The Small Business Development Centers (SBDC), Women, Work and Community and other agencies hold many business workshops throughout the year. Many individual commodity groups hold their own educational sessions at many venues throughout the year.

Two very effective Department of Agriculture educational and technical assistance programs have been the NxLevel business planning program and the Farms For The Future Program. NxLevel is administered by the Heart of Maine RC&D and Farms For The Future is administered by Coastal Enterprises, Inc. The ability to learn new business planning skills, and have access to service providers for marketing and production issues, has been very effective in helping direct market farmers in evaluating opportunities and making well thought out capital investments in their businesses.

FarmNet, a New York based technical assistance program, provides up to forty (40) hours of one-on-one technical assistance to farm businesses, as needed, to solve particular issues specifically related to that farm. The Heart of Maine RC&D tested this concept out in 2002. With the help of a USDA grant, a team of advisors did an assessment of the farm's issues, and provided up to $5,000of further direct assistance. Northern Maine Development Corp secured a USDA RBOG and RBEG grant to start another similar pilot program, the Small Manufacturing Industry Effectiveness Program. This program also provides a grant to a farmer or food processor for technical assistance. The program uses a needs assessment process as well, but does not provide further grants for aiding the business implement the changes. All these programs have been well received.

Implications for Farmers and Value-added Food Processors:

- ***Farmers have many opportunities for educational and technical assistance programs. Farmers want programs tailored to their needs.***
- ***Food processors would like to have a program similar to the FFTF program.***
- ***FarmNet, a New York technical assistance program, may be a good model for those creative agriculture farmers and food processors who want targeted technical assistance and who do not have time for formal educational programs. One of the issues with FFTF is the eligibility requirements or those farmers who do not want to give up development rights on their property.***

Research and Development

Farmers. Research is perhaps the most needed, but lease thought about or supported, effort in Maine. Market farmers express the need for research into weed control and size appropriate equipment to reduce labor costs. Organic farmers need to find solutions to the high cost of organic feed, especially for smaller livestock farms who cannot afford large bulk shipments. Research into methods to improve soil health, reduce pesticide use, and find varieties better suited to Maine conditions are high on the small farmer list of research needs. The University of Maine has good programs for small fruit, vegetables, dairy, meat production, wild blueberries, cranberries and potatoes. It is lacking in farm engineering. Many individual organizations and farmers themselves are funding on-farm research to solve these production constraints.

Food Processors. The largest need for small food processors is proper space and test equipment for development of new products. The Maine Food Survey found that 46% of producers wanted to produce more products, but the two largest limits to increasing production were lack of capital and lack of access to the right equipment.

Food processors interviewed emphasized the need to continue support for the research and development functions at the University of Maine in Orono for new product development and testing services. This Department and Al Bushway's position in particular, helps acidified food processors (salsas, pickles) file scheduled processes to FDA. His position also receives approximately 400 food samples annually for food safety and quality testing. In addition, current Extension staff working in this Department have a waiting list of companies wanting to conduct product development research.

Food processors were also interested in accessing equipment through development of shared-use test kitchens around the state. Five community groups are interested in starting shared-use kitchens and a shared use kitchen coalition has formed in the state.[74] These kitchens are looking at various ways to meet the needs of small producers. These needs include increased cold storage and freezer capacity in order to act as local distribution points for direct market farmers and food processors.

Implications for Farmers and Value-added Food Processors:

- ***The University and individual commodity groups need to survey farmers to better understand the research needs on an ongoing basis.***
- ***The University of Maine Food Science and Nutrition Education program is a high priority need for funding. The University Food Science and Nutrition Education Department needs an additional Food Scientist (with 80% applied research with a M.S. degree and 20% Extension) in conducting research for food companies to help meet their needs for applied research (including assisting companies with MTI grant research needs) and to help organize and conduct trainings/workshops. Also needed is an additional culinary research chef at the University to assist with food product and recipe development. The University also needs resources to replace Al Bushway's position when he retires.***
- ***Farmers can access grants and solicit technical assistance from many sources to conduct on-farm research to find ways to reduce labor inputs and manage pests. USDA- SARE and the Maine Technology Institute are becoming more active in this area.***

Government Regulations and Taxation

Federal, State and Local government regulation of creative agricultural farmers and value-added food processors is a well known fact. AGCOM, Farm Bureau, MOFGA and a number of other groups have concerns about the negative business impact of various regulatory programs and taxes. A number of those concerns are listed here:

- Farmers want the elimination of the personal property tax on machinery, equipment and buildings used for agricultural and horticultural purposes. They would like the reduction or elimination of the sales tax where not applicable today.
- Farmers want a constitutional amendment to allow for current use taxation for farmland, or to strengthen the Farm and Open Space Tax Law.
- Farmers want a review of all environmental laws for their negative impact on farming businesses and a plan for ways to streamline those regulations under state control, especially as it pertains to access water resources, maintain generally accepted agricultural practices, and minimize permitting requirements for a number of environmental concerns.
- Organic farmers feel there is a policy bias against diversified farms in proposed food safety regulations such as GAP.

- Need legislation and rulemaking to sell poultry at farmer's markets and rules on technical standards and checklists for how to handle poultry at farmer's markets.[75]
- Farmers want changes in the sign laws to put up more and better signs identifying local products for sale, and get better support from the Department of Transportation for erecting and maintaining those signs.
- Composters would like to make sure they are regulated as a food waste operation and not a solid waste operation.
- Farmers would like the Federal "Death tax" eliminated.
- Value-added food processors also want changes in laws to better fit pro business needs.[76]

High priority examples include:

- Keep Food Code regulations flexible to allow for creative agricultural products to be sold in niche markets, such as raw milk, specialty cheeses.
- Keep the Home Food License program and regulatory tolerance for the casual market.
- Clarify definitions and regulations on labeling. Create a clearer document on how to understand the food regulations.[77]

Implications for Farmers:

- ***The many facets of this barrier to growth of direct to market farmers are beyond the ability of this report to assess. A more complete look at all regulations may be in order in a separate study.***

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