Locally Consumed Food Products

Produced by:
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Food and Rural Resources
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Executive Summary

Consumers today are much more sophisticated in their preferences and food purchases. They have a vast amount of information presented to them about food and multiple outlets from which to get it. These outlets range from the local farm stand to the large superstores. Consumers also increasingly rely on restaurants and fast food outlets for meals as the amount of time to prepare meals at home diminishes. In the basic research completed for this report, it appears that ease of preparation and convenience are the driving factors behind this trend towards meals eaten away from home and prepared food purchased at the local supermarket. With the advent of the internet and the ability of mainstream media to almost instantaneously communicate information, consumers are well aware of the choices they have in the market place and how best to get the value-added products they want when they want them.

The Working Group on Agriculture Vitality oversees the implementation of LD 2532, An Act to Implement the Recommendations of the Agriculture Vitality Task Force. One of the main components of this Act was to assess local food consumption in Maine.

The *Locally Consumed Food Products Report* identifies per capita consumption as the most practical method to profile local food consumption in Maine. Basic figures are presented on what Maine farmers produce and what Maine residents consume. Aside from identifying per capita consumption as the method of measurement for food consumption, the study also develops a rationale for looking into other food consumption factors such as consumer tastes and preferences. This expanded understanding of the consumer market can then be translated into usable information by the agriculture sector to produce value- added products or shift production to other crops more valued by the consumer. Expanding the baseline data to include these other factors will better inform the agriculture sector of the trends and opportunities available to them for expanding farm gate receipts and net farm income.

Additional research should be done to track consumer spending habits, the affects of age on food consumption, and how both current and future economic conditions can be factored into the development of strategies for increasing the consumption of locally grown foods.

A survey of institutional buyers, including food service vendors and school food service directors is being conducted to gather important information about the specific needs of this potential market. Once we have a clear understanding of the buying habits of institutions, we can help farmers address their requirements.

The Agriculture Vitality Task Force also recommended that the Department of Agriculture work to expand the number of Farmers Markets in Maine. This has been done through a combination of technical assistance and small development grants to groups of farmers, along with direct marketing support through the new Get Real, Get Maine promotion. Since 1990, the number of farmers markets in Maine has increased from 26 to 50. Through surveys and forums for farmers, we have identified issues and opportunities that will guide further program activities.

A statewide educational campaign is underway to raise awareness about Maine agriculture among citizens and in our schools. Through the combined efforts of the University of Maine Cooperative Extension, the Maine Agriculture in the Classroom Program, the Agricultural Council of Maine, the USDA/NRCS, and the Maine Farm Bureau, we are working to improve the public's knowledge and appreciation for the important role agriculture plays in our lives. Although no funds have been identified for the purpose, it is clear that a public relations campaign is needed to bring this message to the people of Maine.

TABLE OF CONTENTS

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Maine Department of Agriculture
Locally Consumed Food Products
Baseline Study
July 7, 2001

Introduction

In the fall of 1999, the Maine Legislature approved the formation of a task force to examine the issue of agriculture vitality in Maine. The task force used public forums and personal interviews along with a variety of data collection techniques to compile information about the barriers and opportunities facing agriculture today. The task force concluded its work with a report to the Legislature that resulted in the passage of L.D. 2532, An Act to Implement the Recommendations of the Task Force to Study the Need for an Agricultural Vitality Zone Program. It called for specific actions from the Maine Department of Agriculture, Food and Rural Resources. The major components include:

1. Convene a working group to assess food consumption in Maine and ways to increase the sale of locally produced food.

2. Develop a plan to expand farmers markets in Maine.

3. Review and revise the statutory provisions regarding Agricultural awareness, Agricultural internship and training, and purchasing of food by state institutions.

Background

The working group began by examining different ways to generate realistic information about food consumption by Maine's citizens. There are a number of different methods that are employed by both public and private organizations. Food retailers and trade associations use scanner data and other proprietary information to develop profiles of the shopping public. This information is either not available generally or is available for a price. The public sector collects data on food consumption primarily through the US Department of Agriculture and its connections to university research programs. However, since it is based on publicly collected information, it may only be a snapshot of a particular segment of the food industry. Figure 1 shows the comparison between food consumed at home and food consumed away from home.2 while this may help us understand the general shopping patterns of consumers, it does not help determine how much of food grown in Maine reaches Maine consumers.

A macro approach to food consumption is used to measure the amount of food consumed in the US. Food supply and utilization data compiled and published annually by the US Department of Agriculture Economic Research Service measures the flow of raw and semi processed food commodities through the marketing system.

If the Maine Department of Agriculture were to model its baseline report on this process, it would measure the amount of food produced in Maine, then determine the amount of food imported and pro-rate any inventories. Then, it would subtract exports, industrial uses, seed and feed use, and year-end inventories. The remaining amount would be the amount of food consumed in Maine as determined by using a macro approach.

Figure 1 – Percent of Food Expenditure Home and Away

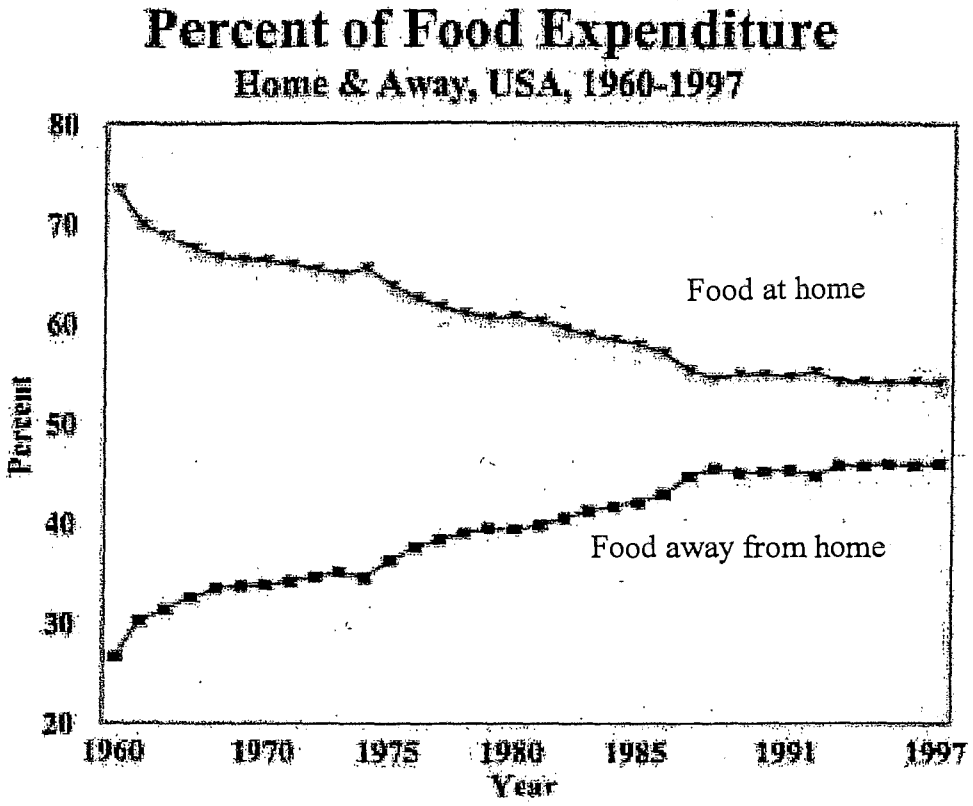

Figure 1: Americans spend noticeably less on food from stores (labeled food at home) now than they did in decades past. However, since 1990 the decrease in expenditures on food from stores has leveled off.

Based on the work of researchers at the University of Minnesota Retail Food Industry Center, the most reliable source of information on food consumption is the "Continuing Survey of Food Intake of Individuals" produced by the USDA. According to the researchers, the data is the only publicly available data that reveals the full range of foods individuals actually eat, when and where they eat it, and where they obtain it. Therefore, the data provided is a better picture of overall food consumption behavior than data collected at the market level where sales are the unit of measure. Table 1 contains the per capita consumption data for the major food commodities for the period 1997 to 1998. For the purposes of this report, all data presented is for the period 1997 - 1998. This table comes from the 1999 New England Agriculture Statistics produced by the New England Agriculture Statistics Service, USDA.

Farmers Market

The number of farmers' markets in Maine has increased dramatically in the past 10 years, from 26 in 1990 to over 50 today. This has been due to several factors. There has been an increased consumer interest in buying locally grown produce. The farmers have also become determined to find alternative profitable venues to market their farm products.

The Department of Agriculture conducted a survey of farmers and market managers in 2000. The findings were helpful in identifying the challenges to establishing successful farmers markets. The survey also helped the Department what key programs were needed to provide the support that was being called for.

Among the problems sited were finding good market locations, attracting enough farmers to sell, dealing with municipal officials, developing good signage and promotional materials, and having the organizational management skills to run the markets.

The Department has been able to offer direct marketing seminars for farmers so they can learn new ways to set up markets, increase community involvement, attract more vendors and manage their markets effectively. The Department's "buy local" campaign, or "get real, get maine!" which was launched in the summer of 2000, has also helped farmers with their advertising needs and has heightened consumer awareness of the abundance of locally grown food.

Chapter I

Understanding the consumer is key

Understanding how much of Maine's food production is actually consumed by Maine's population is not as easy as simply comparing farm level production of a commodity to how much of something we actually eat. There are many factors that affect what the consumer eats, when, where, and in what form it is eaten. In our effort to understand how much food grown in Maine is actually consumed in Maine, we had to look at many layers of data and conflicting information. It became apparent that consumption statistics could only be understood in the context of consumer habits and preferences. An analysis of demographics, consumer habits, retail marketing patterns, and the food marketing and distribution system will allow us to draw conclusions about the per capita food consumption in Maine.

Demographics

For the purposes of this report, a brief look at how population trends, income, and overall economic conditions impact food consumption will be provided. It is important to note, also, that other factors like culture and climate play a role in determining the food we eat.

Maine ranks 39th among all states in total population, which currently stands at approximately 1. 25 million. However, the state's population is not evenly distributed. Approximately 44 percent of the state population resides on 14 percent of the land base in southern Maine. There are three trends affecting Maine's population and its future both economically and socially. They are slow growth in population, a reduction in the number of young people, and the aging of the population. Buying habits and consumption patterns are affected by age, income, transportation and other socio-economic factors. Slow growth will impact food consumption directly by limiting the growth of direct sales in local markets. There are two basic ways to expand local sales directly to the consumer. The first is to expand the number of people buying local food currently. This is accomplished by educating them about their buying habits and in turn convincing them to change those habits to buy more local product. The second is to expand the pool of customers. In areas where there is positive growth in a community's population, the opportunity exists to generate additional sales as more people become aware of locally available products.

With projections that the state will experience slow growth, that potential pool of new customers will be small. On the other hand, the distribution of age within the population affects the diet and nutritional make up of the food basket being purchased, which in turn affects the type of food being purchased locally. Researchers have found that shopping patterns varied by age, income, and household composition. Teenagers and young adults tended to consume more food from sources other than stores, while older adults and households with children consumed more food from stores. Children and households with children were also more likely to consume three meals a day. Children and teenagers ate more snacks than older people, as did higher income people.

According to a report on food spending published by USDA, "studies have shown that as incomes increase, consumers increase their expenditures on more expensive fresh foods, more processed food, and more meals eaten out." It is important, therefore, to understand the economic conditions projected for the future in order to develop sound strategies for increasing the amount of local food consumed.

Food consumption is often a function of our life styles and habits. One indicator of how life style affects the foods we eat is the evolution of snack foods. The trends would indicate that snack foods will continue, and possibly increase, as a source of energy in the future. For farmers, this means that consumers will want to eat healthy foods but in a form that can be easily and quickly consumed at the

office, in the car, or just about anywhere we go. Another example of how mass marketing and life style affect the food industry is the packaging of milk. Single serving milk had a difficult time competing with its juice and soft drink rivals. Sales did not significantly increase until the serving container was changed from a square milk carton to a round plastic bottle. When people discovered that these new milk containers could fit into the cup holder in their car, single serving milk sales rose. Hand held foods are growing at about 19 percent per year and are now a $1.6 billion industry. There are many other examples of value added food products and packaging that are shaped by our lifestyles and habits. All of this contributes to the difficulty of marketing locally grown foods. Some consumers can be convinced to give up the convenience of these pre-packaged foods in favor of fresh locally grown products, while some farms can adapt their product to the food consumption trends driven by life style. In the end it will take finding a balance between value added processing that can meet the demands of consumers and a changing of consumer preferences and habits that will help increase the amount of local food consumed.

Table 1 – Per Capita Consumption of Major Food Commodities

Table 1

Per Capita Consumption of Major Food Commodities		
United States	Year	
Commodity	1997	1998
Red Meats	**111.0**	**115.6**
Beef	63.8	64.9
Veal	0.9	0.7
Lamb and Mutton	0.8	0.9
Pork	45.6	49.1
Poultry	**64.2**	**65.0**
Chicken	50.4	50.8
Turkey	13.9	14.2
Fish and Shellfish	**14.5**	**14.8**
Eggs	**30.7**	**31.4**
Dairy Products (milk equivalent, milkfat basis	**577.7**	**582.3**
Cheese (excluding cottage)	28.0	28.4
American	12.0	12.2
Italian	11.0	11.3
Other Cheese	5.1	4.8
Cottage Cheese	2.7	2.7
Beverage Milks	206.9	204.5
Fluid Whole Milk	72.7	71.6
Fluid Lower Fat Milk	99.8	98.5
Fluid Skim Milk	34.3	34.4
Fluid Cream Products	9.0	9.2
Yogurt (excluding frozen)	5.1	5.1
Ice Cream	16.4	16.6
Lowfat Ice Cream	7.9	8.3
Frozen Yogurt	2.1	1.9
Fats and Oils - Total Fat Content	**64.9**	**66.5**
Butter and Margarine (product weight)	12.8	12.5
Shortening	20.9	20.9
Lard and Edible Tallow (direct use)	3.1	5.2
Salad and Cooking Oils	28.6	27.9
Fruits and Vegetables	**710.8**	**448**
Fruit	**298.3**	**293.9**
Fresh Fruits	137.1	129.9
Canned Fruit	20.3	17.2
Dried Fruit	10.8	12.9
Frozen Fruit	4.2	5.0
Selected Fruit Juices	125.9	128.9
Vegetables	**416.0**	**418.4**
Fresh	190.4	186.5
Canning	107.8	108.0
Freezing	82.2	82.6
Dehydrated and Chips	32.7	32.9
Pulses	8.3	8.4
Peanuts (shelled)	**5.8**	**5.8**
Tree Nuts (shelled)	**2.1**	**2.2**
Flour and Cereal Products	**200.1**	**167.3**
Wheat Flour	149.5	147.8
Rice (milled basis)	19.5	19.5
Caloric Sweeteners	**154.1**	**154.1**
Coffee (green bean equivalent)	**9.3**	**9.3**
Cocoa (chocolate liquor equivalent)	**4.1**	**4.1**

Source: 1999 New England Agriculture Statistics, New England Agricu
Statistics Service.

Consumer Perspective

Maine agriculture is at a crossroads. The changing dynamics of a global economy, coupled with changes in consumer preferences and buying habits, demand that the agricultural industry in Maine makes major decisions about its future and focus. Food production will always be necessary to sustain a growing and healthy population. How Maine competes in the markets and what niches it can fill are issues that will determine long term success. Maine agriculture must produce what the consumer wants, at a profit, in order to survive. Today $2,618 is spent on food per person per year. What makes up the person's food basket is of critical importance to the farmer. A person's diet has changed significantly in the last 25 years shifting to 122 pounds more vegetables and fruit, 57 pounds more grain, 28 pounds more sugar, 16 pounds more cheese, and 74 fewer eggs. Farmers today need to become more sophisticated in their ability to understand the consumer market.

Food processing, distribution and consumption are changing. The amount of money spent eating out in restaurants grew between 1970 and 1999 by 827 percent, from $42.8 billion to $354 billion. Table 2 shows a break down of the industry. The restaurant share of the food dollar now stands at 47 percent. It is projected by the National Restaurant Association that sales will grow to $577 Billion and account for 53 percent of the food dollar. Maine currently has 2,788 establishments employing about 35,500 people. It is easy to see why reliance on producing a basic food product is no longer enough to make a profit. Farmers can sell directly to a restaurant or add value to your product, which will entice people to buy it. They can also market their product through one of many brokers or wholesalers who in turn sell to the superstores that now characterize the grocery store market.

A look at Maine's agricultural sector performance shows a contribution of $557.5 million to the state economy. Net farm income declined in that time period to 62.8 million dollars. Capital consumption also increased in that same period but only by about 5 percent. While there appears to be a dramatic difference between agriculture sector output and net farm income, the fact is agriculture generates a significant multiplier affect throughout the rest of the state economy. The farming community purchases extensive products and services from other Maine businesses, and this accounts for much of the gap between farm sector output and net farm income. As a rule of thumb, it is estimated that one-dollar spent by a farm will turn over three to five times in the community. For farms in Maine to remain profitable, emphasis must be placed upon increasing the net farm income received by farmers. The best way to accomplish this is to increase the total agricultural sector output, while stabilizing outlays. A positive increase in net farm income would also help attract new entrepreneurs to agriculture and help existing farms expand.

Per Capita Production

As discussed earlier in this report, the use of per capita consumption figures were the easiest to obtain and use to determine a baseline of food consumption at the local level. With this in mind, Table 3 presents a profile of foods that are currently produced in Maine expressed in pounds of production. Gaps in the information exist because a particular commodity is not produced in Maine or it is not reported at that level of detail for New England. Table 3 gives an indication as to the variety of products produced and the diversity of the farming community. Conversions to retail weights were made where applicable.

Baseline Methodology

Per Capita Consumption

To simply compare the amount of food grown in Maine, and how much of that is eaten locally, to the total food consumption in Maine does not account for the intricacies of the food marketing and distribution system. Nor does it portray an accurate picture of the consuming public and their tastes and preferences.

The proposed baseline methodology will focus on per capita consumption of food. This will then be compared to the amount of the food commodity produced in Maine. A comparison between the amount of a food commodity consumed on a yearly basis and the amount of food produced will be shown as a percentage of local food available for consumption. However, in order to develop a more accurate baseline over time, other factors will need to be taken into account. In Maine, as elsewhere, food consumption is determined by the complexity of the market place and the interaction between supply and demand. In the short run, supplies are based on what is produced at the farm level and are relatively fixed and inflexible. What is produced is consumed. In the case of the major commodities like potatoes or blueberries most of what is produced is exported. For example, as indicated in Table 4, we produce 2,678 percent more potatoes than we consume in Maine. When supplies go up, price goes down and consumers buy more.

Table 2

Food Away From Home
Sales at a Glance, 1988 to 1998
Food Marketing Magazine
Fast Food Sales Continue To Outpace Sales at Restaurants and Lunchrooms

	Million Dollars Sales			Percent Change
Industry segment	1988	1997	1998	1988-1998
Commercial foodservice	155,702	244,732	256,488	65%
Fast food outlets	65,749	100,851	102,387	56%
Restaurants and lunchrooms	61,888	94,332	100,792	63%
Cafeterias	3,473	3,619	3,771	9%
Caterers	1,214	1,480	1,975	63%
Lodging places	9,968	14,068	14,417	45%
Retail hosts	7,120	17,481	18,819	164%
Recreation and entertainment	4,754	11,190	12,455	162%
Separate drinking places	1,536	1,711	1,872	22%
Noncommercial foodservice	44,231	61,730	63,631	44%
Education	14,105	23,166	24,167	71%
Elementary and secondary schools	7,074	11,318	11,717	66%
Colleges and universities	7,061	11,848	12,450	76%
Military services	1,792	1,928	1,930	8%
Troop feeding	1,032	1,070	1,054	2%
Clubs and exchanges	760	858	876	15%
Plants and office buildings	4,670	6,991	7,335	57%
Hospitals	3,590	3,534	3,424	-5%
Extended care facilities	5,392	6,302	6,740	25%
Vending	5,471	5,436	5,000	-9%
Transportation	3,994	4,640	4,852	21%
Associations	1,030	1,758	1,905	85%
Correctional facilities	1,678	3,276	3,470	107%
Child daycare centers	807	1,937	2,076	157%
Elderly feeding programs	142	174	173	22%
Other noncommercial	1,560	2,588	2,559	64%
Total foodservice sales	**199,933**	**306,462**	**320,119**	**60%**

Note: Foodservice sales exclude sales taxes and tips.

1 Includes more categories in 1997-98 than in 1988.

Source: USDA's Economic Research Service. For more information, contact Charlene Price at (202) 694-5384 or ccprice@econ.ag.gov.

Table 3 – Major Commodity Production Figures for Maine 1997 and 1998

Table 3

Commodity	1997/1998 Ag Statistics Maine Production (Pounds)
Red Meats	**21,557,667**
Beef	18,968,145
Veal	-
Lamb and Mutton	281,160
Pork	2,308,362
Poultry	**9,636,860**
Chicken	9,459,475
Turkey	177,385
Fish and Shellfish	
Eggs	**179,634,167**
Dairy Products (milk equivalent, milkfat basis	**671,000,000**
Cheese (excluding cottage)	
American	
Italian	
Other Cheese	
Cottage Cheese	
Beverage Milks	
Fluid Whole Milk	
Fluid Lower Fat Milk	
Fluid Skim Milk	
Fluid Cream Products	
Yogurt (excluding frozen)	
Ice Cream	
Lowfat Ice Cream	
Frozen Yogurt	
Fats and Oils - Total Fat Content	
Butter and Margarine (product weight)	
Shortening	
Lard and Edible Tallow (direct use)	
Salad and Cooking Oils	
Fruits and Vegetables	
Fruit	**108,640,981**
Fresh Fruits	
Canned Fruit	
Dried Fruit	
Frozen Fruit	
Selected Fruit Juices	

table 3 continued

Commodity	1997/1998 Ag Statistics Maine Production (Pounds)
Apples	*43,000,000*
Cherries	*1,433*
Grapes	*1,235*
Peaches	*3,215*
Pears	*19,040*
Plums	*8,791*
Blackberries	*7,813*
Tame Blueberries	*605,675*
Wild Blueberries	*62,981,000*
Cranberries	*319,900*
Raspberries	*69,575*
Strawberries	*1,623,304*
Vegetables	
Fresh	
Canning	
Freezing	
Dehydrated and Chips	
Pulses	
Potatoes	*1,596,000,000*
Asparagus	*13,500*
Snap Beans	*337,900*
Beets	*280,000*
Broccoli	*22,750,000*
Brussels Sprouts	*16,000*
Chinese Cabbage	*91,000*
Head Cabbage	*702,000*
Cantaloups	*190,900*
Carrots	*480,000*
Cauliflower	*60,500*
Celery	*54,200*
Chinese Peas	*3,750*
Cucumbers and Pickles	*1,296,000*
Eggplant	*49,500*
Garlic	*136,000*
Herbs	*153,000*
Honeydew Melons	*8,300*
Kale	*64,000*

table 3 continued

Commodity	1997/1998 Ag Statistics Maine Production (Pounds)
Lettuce and Romaine	*496,000*
Mustard Greens	*15,000*
Dry Onions	*675,000*
Green Onions	*112,500*
Parsley	*17,000*
Green Peas	*7,713,750*
Hot Peppers	*33,600*
Sweet Peppers	*246,400*
Pumpkins	*5,555,000*
Radishes	*259,600*
Rhubarb	*28,000*
Spinach	*19,950*
Squash	*4,596,000*
Sweet Corn	*15,379,000*
Tomatoes	*11,516,200*
Turnip Greens	
Mixed Vegetables	*2,010,000*
Watermelons	*33,200*
Other Vegetables	*1,000,000*
Peanuts (shelled)	
Tree Nuts (shelled)	
Flour and Cereal Products	**68,016,188**
Wheat Flour	1,440,188
Rice (milled basis)	
Oats	*66,576,000*
Caloric Sweeteners	**2,227,166**
Coffee (green bean equivalent)	
Cocoa (chocolate liquor equivalent)	

Conversely, smaller supplies bring higher prices and smaller purchases. In the long run, farmers adjust production in response to market prices, producing more of higher priced goods and less of lower priced goods. Demand for food in the aggregate is not very responsive to price changes because there is little room for substitution between food and nonfood goods in the consumer's budget. However, demand for individual foods is more responsive to prices as consumers substitute among alternative food commodities. This entire process is facilitated by the wholesale and retail food industry.

Food manufacturers and distributors have made vigorous efforts to meet changing consumer wants and needs. These changes in the marketing of farm and food products also have a major impact of any baseline study conducted. A comparison was made between the amount of a food commodity consumed on a yearly per capita basis to the amount of that food commodity produced, converted to retail weight where applicable. Table 4 details that comparison. Table 4 includes the per person consumption data using data from 1997 and 1998. The population figure used to determine total consumption in pounds is from 1998 estimates. That information could also be displayed as per household. The state planning office has determined that there are 495,000 households in Maine. This would present the data in a different context but the final consumption figures would be the same. Per capita consumption includes all sources of food.

Red meat consumption in Maine currently stands at about 144 million pounds. When compared to the amount of red meat produced, we find that Maine farmers contribute about 15 percent of Maine's needs. However, it is impractical to determine how much of the 21.5 million pounds of Maine red meat actually makes it to the consumer. Since federally inspected slaughterhouses are few in Maine, much of the current supply is shipped out of Maine to other parts of the country. Poultry consumption is about 81 million pounds with Maine contributing about 12 percent of that through local production. Finally, eggs are a net gain for Maine since our production exceeds consumption by 460 percent, making Maine an exporter of eggs.

Dairy products are the next major category in Table 4. Unfortunately, the data collected at the state level represents the total amount of diary products as milk equivalent and milk fat basis. National figures are available for the specific dairy products contained in the table. Maine does very well at supplying its own dairy needs with approximately 93 percent of the amount consumed in Maine coming from Maine dairy farms. This is qualified by the fact that the major companies in the diary sector control the processing, distribution, and marketing of milk. For instance, very little of the cheese consumed in Maine is produced in Maine. It may be that milk shipped out of Maine to a cheese manufacturer arrives back in Maine at the grocery store but there is no way of knowing where the raw product actually came from.

Fruits and vegetables are the other major category where figures could be compared. Here we have a situation where the major commodities like wild blueberries and potatoes are produced in excess of what is consumed while all other fruits and vegetables represent a deficit. The notable exceptions would be commodities like apples, cranberries, broccoli, peas and sweet corn. Here we may find room for expanding the consumption of locally grown product since variations in the consumption of fruits and vegetables is a function of diet and consumer preferences.

The final categories where we have some impact on food consumption are grain products and caloric sweeteners. Oat production represents a surplus in the grain category. We produce approximately 823 percent more product than consumed. Caloric sweeteners such as maple syrup and honey however only account for 1.2 percent of our sweetener intake. As in the previous categories, consumer tastes and preferences often dictate the type of food commodity consumed and where it is purchased. In the case of the fats and oils, peanuts, tree nuts, coffee and coca categories, there either is no production in Maine or it is statistically low enough to not disclose.

The per capita consumption of food commodities is a reasonable and practical indicator for determining where Maine has growth potential in food production. The information is readily available from USDA National Agriculture Statistics Service and is easily compared to production figures for the same commodities. Per capita consumption should be viewed as a snap shot of the food consumed in Maine and can provide benchmarks for the areas of potential expansion in production of certain commodities. However, it does not take into account the buying habits and preferences of consumers which, as we have discovered in preparing this report, are the critical elements in successfully measuring consumption and devising strategies to expand local consumption.

Table 4 – Per Capita Consumption of Major Food Commodities Comparison 3

Per Capita Consumption Commodity	Consumption per Person[1] (Pounds)	Maine Population (Estimated)	Total Consumption (Pounds)	1997/1998 Ag Statistics Maine Production (Pounds)	Percent Available for Consumption
Red Meats	**115.6**	**1,244,250**	**143,835,300**	**21,557,667**	**15.0%**
Beef	64.9	1,244,250	80,751,825	18,968,145	23.5%
Veal	0.7	1,244,250	870,975	-	0.0%
Lamb and Mutton	0.9	1,244,250	1,119,825	281,160	25.1%
Pork	49.1	1,244,250	61,092,675	2,308,362	3.8%
Poultry	**65.0**	**1,244,250**	**80,876,250**	**9,636,860**	**11.9%**
Chicken	50.8	1,244,250	63,207,900	9,459,475	15.0%
Turkey	14.2	1,244,250	17,668,350	177,385	1.0%
Fish and Shellfish	**14.8**	**1,244,250**	**18,414,900**		**0.0%**
Eggs	**31.4**	**1,244,250**	**39,069,450**	**179,634,167**	**459.8%**
Dairy Products (milk equivalent, milkfat basis)	**582.3**	**1,244,250**	**724,526,775**	**671,000,000**	**92.6%**
Cheese (excluding cottage)	28.4	1,244,250	35,311,815		0.0%
American	12.2	1,244,250	15,229,620		0.0%
Italian	11.3	1,244,250	14,109,795		0.0%
Other Cheese	4.8	1,244,250	5,972,400		0.0%
Cottage Cheese	2.7	1,244,250	3,359,475		0.0%
Beverage Milks	204.5	1,244,250	254,449,125		0.0%
Fluid Whole Milk	71.6	1,244,250	89,088,300		0.0%
Fluid Lower Fat Milk	98.5	1,244,250	122,558,625		0.0%
Fluid Skim Milk	34.4	1,244,250	42,802,200		0.0%
Fluid Cream Products	9.2	1,244,250	11,447,100		0.0%
Yogurt (excluding frozen)	5.1	1,244,250	6,345,675		0.0%
Ice Cream	16.6	1,244,250	20,654,550		0.0%
Lowfat Ice Cream	8.3	1,244,250	10,327,275		0.0%
Frozen Yogurt	1.9	1,244,250	2,364,075		0.0%

Table 4

table 4 continued

Per Capita Consumption Commodity	Consumption per Person[1] (Pounds)	Maine Population (Estimated)	Total Consumption (Pounds)	1997/1998 Ag Statistics Maine Production (Pounds)	Percent Available for Consumption
Fats and Oils - Total Fat Content	**66.5**	**1,244,250**	**82,742,625**		**0.0%**
Butter and Margarine (product weight)	12.5	1,244,250	15,553,125		0.0%
Shortening	20.9	1,244,250	26,004,825		0.0%
Lard and Edible Tallow (direct use)	5.2	1,244,250	6,470,100		0.0%
Salad and Cooking Oils	27.9	1,244,250	34,714,575		0.0%
Fruits and Vegetables	**712.3**	**1,244,250**	**886,279,275**		**0.0%**
Fruit	**293.9**	**1,244,250**	**365,685,075**	**108,640,981**	**29.7%**
Fresh Fruits	129.9	1,244,250	161,628,075		0.0%
Canned Fruit	17.2	1,244,250	21,401,100		0.0%
Dried Fruit	12.9	1,244,250	16,050,825		0.0%
Frozen Fruit	5.0	1,244,250	6,221,250		0.0%
Selected Fruit Juices	128.9	1,244,250	160,383,825		0.0%
Apples	*18.5*	*1,244,250*	*23,018,625*	*43,000,000*	*186.8%*
Cherries	*0.5*	*1,244,250*	*622,125*	*1,433*	*0.2%*
Grapes	*7.3*	*1,244,250*	*9,083,025*	*1,235*	*0.01%*
Peaches	*5.4*	*1,244,250*	*6,718,950*	*3,215*	*0.0%*
Pears	*3.3*	*1,244,250*	*4,106,025*	*19,040*	*0.5%*
Plums	*1.5*	*1,244,250*	*1,866,375*	*8,791*	*0.5%*
Blackberries	*0.1*	*1,244,250*	*124,425*	*7,813*	*6.3%*
Tame Blueberries	*0.33*	*1,244,250*	*410,603*	*605,675*	*147.5%*
Wild Blueberries	*0.5*	*1,244,250*	*622,125*	*62,981,000*	*10123.5%*
Cranberries	*0.1*	*1,244,250*	*124,425*	*319,900*	*257.1%*
Raspberries	*0.12*	*1,244,250*	*149,310*	*69,575*	*46.6%*
Strawberries	*4.2*	*1,244,250*	*5,225,850*	*1,623,304*	*31.1%*
Vegetables[2]	**418.4**	**1,244,250**	**520,594,200**	**76,392,750**	**14.7%**

table 4 continued

Per Capita Consumption Commodity	Consumption per Person[1] (Pounds)	Maine Population (Estimated)	Total Consumption (Pounds)	1997/1998 Ag Statistics Maine Production (Pounds)	Percent Available for Consumption
Fresh	186.5	1,244,250	232,052,625		0.0%
Canning	108.0	1,244,250	134,379,000		0.0%
Freezing	82.6	1,244,250	102,775,050		0.0%
Dehydrated and Chips	32.9	1,244,250	40,935,825		0.0%
Pulses	8.4	1,244,250	10,451,700		0.0%
Potatoes	*47.9*	*1,244,250*	*59,599,575*	*1,596,000,000*	*2677.9%*
Asparagus	*0.6*	*1,244,250*	*746,550*	*13,500*	*1.8%*
Snap Beans	*1.3*	*1,244,250*	*1,617,525*	*337,900*	*20.9%*
Beets	*0.1*	*1,244,250*	*124,425*	*280,000*	*225.0%*
Broccoli	*4.8*	*1,244,250*	*5,972,400*	*22,750,000*	*380.9%*
Brussels Sprouts	*0.3*	*1,244,250*	*373,275*	*16,000*	*4.3%*
Chinese Cabbage		*1,244,250*	-	*91,000*	
Head Cabbage	*9.5*	*1,244,250*	*11,820,375*	*702,000*	*5.9%*
Cantaloups	*10.8*	*1,244,250*	*13,437,900*	*190,900*	*1.4%*
Carrots	*12.1*	*1,244,250*	*15,055,425*	*480,000*	*3.2%*
Cauliflower	*1.5*	*1,244,250*	*1,866,375*	*60,500*	*3.2%*
Celery	*5.6*	*1,244,250*	*6,967,800*	*54,200*	*0.8%*
Chinese Peas		*1,244,250*	-	*3,750*	
Cucumbers and Pickles	*11.1*	*1,244,250*	*13,811,175*	*1,296,000*	*9.4%*
Eggplant	*0.4*	*1,244,250*	*497,700*	*49,500*	*9.9%*
Garlic	*1.7*	*1,244,250*	*2,115,225*	*136,000*	*6.4%*
Herbs		*1,244,250*	-	*153,000*	
Honeydew Melons	*2.4*	*1,244,250*	*2,986,200*	*8,300*	*0.3%*
Kale	*0.2*	*1,244,250*	*248,850*	*64,000*	*25.7%*
Lettuce and Romaine	*28.2*	*1,244,250*	*35,087,850*	*496,000*	*1.4%*

table 4 continued

Per Capita Consumption Commodity	Consumption per Person[1] (Pounds)	Maine Population (Estimated)	Total Consumption (Pounds)	1997/1998 Ag Statistics Maine Production (Pounds)	Percent Available for Consumption
Mustard Greens		*1,244,250*	-	*15,000*	
Dry Onions	*16.8*	*1,244,250*	*20,903,400*	*675,000*	*3.2%*
Green Onions		*1,244,250*	-	*112,500*	
Parsley		*1,244,250*	-	*17,000*	
Green Peas	*3.5*	*1,244,250*	*4,354,875*	*7,713,750*	*177.1%*
Hot Peppers	*5.2*	*1,244,250*	*6,470,100*	*33,600*	*0.5%*
Sweet Peppers	*6.7*	*1,244,250*	*8,336,475*	*246,400*	*3.0%*
Pumpkins	*5.2*	*1,244,250*	*6,470,100*	*5,555,000*	*85.9%*
Radishes	*0.4*	*1,244,250*	*497,700*	*259,600*	*52.2%*
Rhubarb		*1,244,250*	-	*28,000*	
Spinach	*0.5*	*1,244,250*	*622,125*	*19,950*	*3.2%*
Squash	*0.7*	*1,244,250*	*870,975*	*4,596,000*	*527.7%*
Sweet Corn	*7.4*	*1,244,250*	*9,207,450*	*15,379,000*	*167.0%*
Tomatoes	*16.1*	*1,244,250*	*20,032,425*	*11,516,200*	*57.5%*
Turnip Greens		*1,244,250*	-		
Mixed Vegetables		*1,244,250*	-	*2,010,000*	
Watermelons	*14.5*	*1,244,250*	*18,041,625*	*33,200*	*0.2%*
Other Vegetables		*1,244,250*	-	*1,000,000*	
Peanuts (shelled)	**5.8**	**1,244,250**	**7,216,650**		**0.0%**
Tree Nuts (shelled)	**2.2**	**1,244,250**	**2,737,350**		**0.0%**
Flour and Cereal Products	**167.3**	**1,244,250**	**208,163,025**	**68,016,188**	**32.7%**
Wheat Flour	147.8	1,244,250	183,900,150	1,440,188	0.8%
Rice (milled basis)	19.5	1,244,250	24,262,875		0.0%
Oats	*6.5*	*1,244,250*	*8,087,625*	*66,576,000*	*823.2%*
Caloric Sweeteners	**154.1**	**1,244,250**	**191,738,925**	**2,227,166**	**1.2%**

Per Capita Consumption Commodity	Consumption per Person[1] (Pounds)	Maine Population (Estimated)	Total Consumption (Pounds)	1997/1998 Ag Statistics Maine Production (Pounds)	Percent Available for Consumption
Coffee (green bean equivalent)	**9.3**	**1,244,250**	**11,571,525**		**0.0%**
Cocoa (chocolate liquor equivalent)	**4.1**	**1,244,250**	**5,101,425**		**0.0%**

Footnotes:

1 - Source: 1999 New England Agriculture Statistics, USDA National Agriculture Statistics Service

2 - Column 4 Vegetable Total Excludes Potatoes

Chapter II

Public Institutional Buying of Local Food Products

Consumption patterns are based on per person averages and can also be portrayed by household. While this gives us a general picture of the amount of local food being consumed currently, we can also use public institutions as a way to benchmark the amount of local food being purchased. Local public institutions offer a focused outlet for farm products that the general consumer market does not. Already established, public nutrition programs offer farmers a specific market segment for their farm products. Understanding the needs and opportunities for this market segment is important for progress to be made in getting public institutions to buy more local product.

In October 2000, public school resident enrollment was 212,957. During the same period there were 32,372 students enrolled in the University of Maine System. Technical college enrollment currently is about approximately 5,700 students. With just these three public institution markets there is the potential to serve 251,029 people with Maine grown food. It is also interesting to note that the 2000 – 2001 school year budget for nutrition was $6,810,015.86, a significant value. The recommendations that apply to these public institutions will also apply to the myriad of other institutions in Maine.

The baseline methodology selected for the public institution sector is based on a survey of food service directors and food service vendors as to their current use of Maine grown products. Recommendations will be developed from the data collected to help expand the amount of local food purchased by public institutions. The same survey instruments can be used in the future to evaluate the results. Figure 2 and Figure 3 are the survey instruments that will be used. Random surveys were recently completed with a small cross section of representatives from each public organization. A more detailed survey of all public institution and food service vendor outlets will be conducted in the fall.

Figure 2. Food Service Vendor - Maine Products Use Survey

This Survey is intended for Food Service Vendors to develop a baseline of local food purchased by Maine Institutions.

1. Do you currently purchase or distribute Maine Made Food Products? _____ Yes _____ No
   (Continue to appropriate section below)

If No:

2. Have you ever considered purchasing or distributing Maine food products? _____ Yes _____ No

3. What would help you make the decision to purchase more Maine food products?

   a. Increased or better availability of product _____Yes _____No

   b. Availability from current Food Service Vendor _____Yes _____No

   c. Direct Purchase from local Farms _____Yes _____No

      Do you know any local farms? _____Yes _____No

   d. More convenient purchase options _____Yes _____No

      Suggestions: _____

   e. Direct Delivery to Your Institution _____Yes _____No

      When? Day_____ Time_____ Other _____

   f. Other? (Please specify)_____

4. What is the current demand of local products with your customers? _____

_____

If Yes:

5. What is the percentage of local food purchased or distributed? _____

6. What Maine food products are you currently carrying? Fresh Vegetables, Fresh Fruit, Prepared foods, (Jams, Jellies, etc.) Honey, Meats, Grains Other(s)_____

7. What is your experience with local growers? _____

_____

Thank you for taking the time to answer these questions
Please return survey to: Threshold To Maine RC&D Area, 67 Shaker Road, Gray, ME 04039-9640

Figure 3.School Food Service Director Maine Products Use Survey

This Survey is intended for Food Service Directors to develop a baseline of local food purchased by Maine Institutions.

1. Do you currently purchase Maine Made Food Products? _____ Yes _____ No
(Continue to appropriate section below)

If No:

2. Have you ever considered purchasing Maine food products? _____ Yes _____ No

3. What would help you make the decision to purchase more Maine food products?

a. Increased or better availability of product _____Yes _____No

b. Availability from current Food Service Vendor _____Yes _____No

c. Direct Purchase from local Farms _____Yes _____No

Do you know any local farms? _____Yes _____No

d. More convenient purchase options _____Yes _____No

Suggestions:

_____

e. Direct Delivery to Your Institution _____Yes _____No

When? Day_____ Time_____ Other _____

f. Other? (Please specify)_____

4. Who is your current Food Service Vendor? _____

If Yes:

5. How important are the following to your decision to continue or expand your purchasing of Maine food products? Not at all Somewhat Very - Extremely

a. Products offered are high quality

b. There are a variety of products offered

c. Local products are convenient to get

d. Many farmers are represented as vendors

e. They are available from my main Food Service

f. The product can be secured when I need it

g. I can use the "Get Real, Get Maine" Brand

h. There is one source for Maine products

i. Other (Please specify)_____

6. What Maine food products would you most likely use? Fresh Vegetables, Juice, Prepared foods, (Jams, Jellies, etc.) Honey, Meats, Grains, Other(s)_____

School System Responding_____

Thank you for taking the time to answer these questions
Please return survey to: Threshold To Maine RC&D Area, 67 Shaker Road, Gray, ME 04039-9640

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Last saved by Department of Agriculture

Maine farm operators are eager to find other markets to offset the loss of traditional markets for their farm products. Farmers are receiving less and less of every consumer dollar spent on food. In 1980, the farmer received 37 cents of every consumer dollar spent on food, compared to 23 cents in 1998. Part of the reason for this decline is that consumers are increasingly using processed, ready-to-eat products and meals. This trend has resulted in a shift of income and opportunities from the farms to the companies that process, package, and market agricultural products. While farmer markets and roadside stands help with direct marketing in Maine, there is still a large consumer market that is difficult to penetrate. It is important to remember that for agriculture development to be successful the focus needs to be on understanding the consumer and public institution market and developing the local infrastructure capable of helping farmers and value added businesses to succeed in these markets.

Public institutions offer the same challenges as the general consumer market for marketing Maine grown products. Public institutions, like their consumer market counterpart, are increasingly using processed, ready to eat products that are convenient and easy. This is the major challenge for Maine farmers since the main suppliers of such products is, by default, wholesalers and large food service companies that can supply both the quantity and type of products desired. Based on an informal survey conducted by Walter Beesley of the Maine Department of Education, 73 percent of School Food Service Directors are aware that they can purchase local food products but only 50 percent of school systems currently make any kind of purchase. It is further understood that of the 50 percent of respondents that do purchase some kind of Maine product, most are buying apples. The Food Service Directors surveyed also raised concerns about sanitation, inconsistent delivery, quality, and lack of volume needed to meet needs. All of these concerns will need to be addressed if farmers are going to be successful marketing product to public schools. The other major challenge is seasonality. For public institutions the year typically runs from September to June. This does not correspond well with Maine's growing season. This would help explain the narrow band of products currently purchased by Maine's schools. One solution is to expand the ability of farmers to store and distribute their product during the school year. Apples best illustrate this. Maine apples are used extensively in Maine schools because their primary availability is during the school year.

One other solution to getting seasonal product used more by public institutions is through the Summer Food Service Program. This program is a federally funded program that is administered by the Maine Department of Education. According to program statistics, in the summer of 1999, 53 sponsors produced and distributed over 400,000 meals to Maine children. The types of sponsors include day camps, private nonprofits, residential camps and schools. Current figures show that approximately 6,703 children participate in the Maine Summer Food Service Program on a daily basis.

At a meeting of Summer Food Service Program Sponsors on May 23, 2001, a survey was conducted on current and potential use of Maine food products, see figure 8. There were 47 surveys completed and compiled. It is interesting to note that while 83 percent of respondents indicated that they currently use Maine products, see figure 9, most of that product is of the fresh variety and is characterized by things like fruit and milk. It can be inferred by the responses that only a small cross-section of Maine products makes it into these kinds of programs. There is still much room to grow if farmers hope to capture more of the public institution market. What is encouraging is the interest on the part of 89 percent of the respondents, see figure 10, to handle more locally grown or produced product. The issue here is whether or not it is readily available. More work will need to be done with these outlets and with farmers to ensure that the needs of institutions can be met. Finally, it must be noted that virtually all of the survey respondents currently use a major distributor like SYSCO or North Center Food Services. As with the public school systems, convenience and aggregation are the keys to overcoming the domination these vendors have in the institutional market.

Figure 4 - Summer Food Service Use of Maine Food and Farm Products Survey

1. Do you currently use any Maine products in your food program?

_____ YES (Please identify type:)

_____ Fresh produce

_____ Frozen produce

_____ Prepared foods (shelf stable)

_____ Other (describe:) _____ _____ _____

_____ NO

2. Is your kitchen set up to handle and prepare fresh produce?

_____ YES

_____ NO

3. Who are your primary wholesale food suppliers? (Please list)

_____

_____

4. Would you be interested in handling more locally grown or produced products if they were more readily available?

_____ YES (please list types of items:) _____ _____ _____ _____ _____

_____ NO

5. Comments: _____

Name: _____

Food Program: _____

Address: _____

Thank you for taking the time to fill out this questionnaire.
Please return survey to: Threshold To Maine RC&D Area, 67 Shaker Road, Gray, ME 04039-9640

Figure 5 – Current Use of Maine Products in Summer Food Service Program

Do You Currently use any Maine products in your food program?

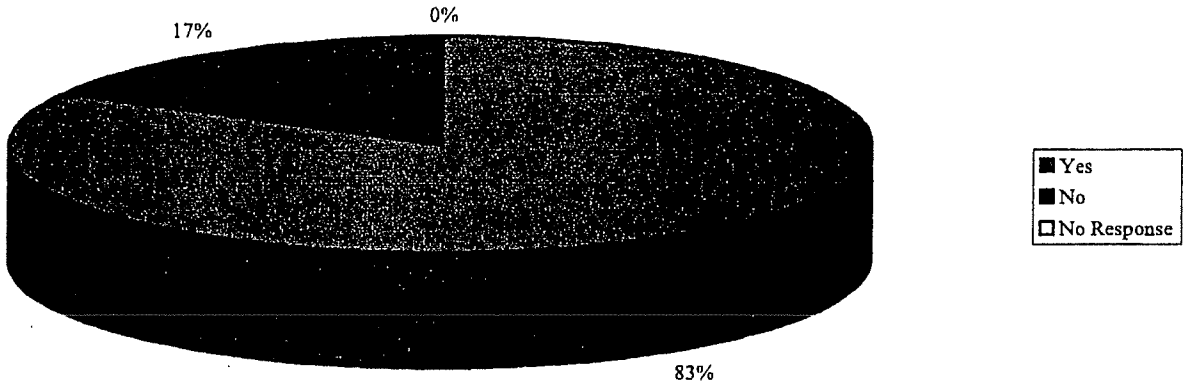
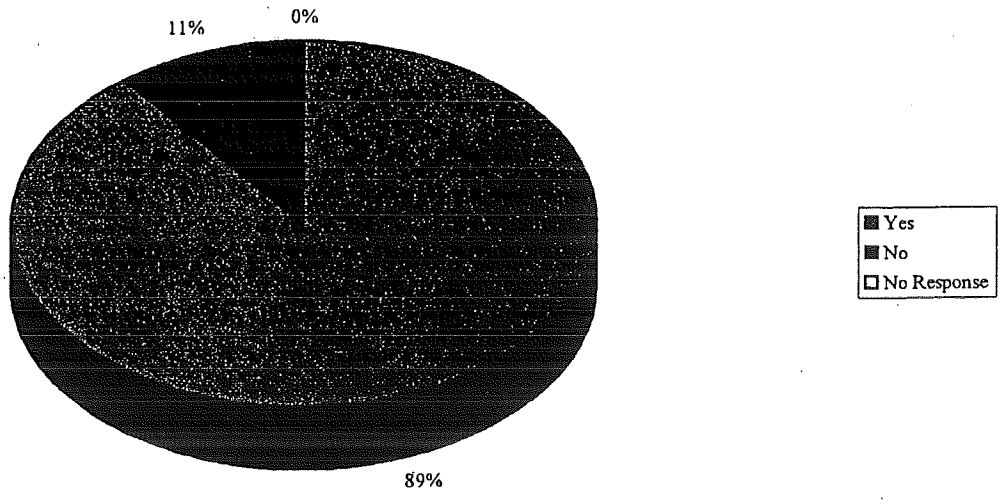


Figure 6 – Interest in Handling More Maine Products in Summer Program

Would you be interested in handling more locally grown or produced products if they were more readily available?



Working Group on Agriculture Vitality

As part of the response to the Agriculture Vitality report and recommendations by the Agriculture Committee of the Legislature, a working group was organized to help address the issue of institutional buying by public organizations. Based on preliminary research, the committee makes the following recommendations.

- Meet regularly with summer nutrition programs (done on May 23)
- Meet with school lunch programs (May 10)
- Meet with Maine School Food Service Association (at the October 13 conference and at the Agriculture Trade Show)
- Work with the major wholesale suppliers, SERCA (Carl Smith); Sysco; North Center.
- Help develop incentive programs to incorporate local product purchases, i.e. WIC or Farm Share.
- Encourage Culinary Arts programs to teach students to use Maine foods.
- Continue training farmers to work with institutions (what to grow, how to package it).
- Create display materials for cafeterias, etc.
- Complete survey of target groups like public institutions, school food services, farmers and vendors, refining survey tool as needed.

The following are the group's recommendations to the Maine Department of Agriculture for implementation.

1. The Maine Department of Agriculture should participate with the Summer Food Service Program in both training their sponsors about using local Maine food products and developing plans to help expand purchasing of Maine foods.

2. The Department should develop an accurate accounting of all public programs that bring Maine people in contact with food and nutrition programs. Then it should use the programs to help inform and educate the public about purchasing local Maine products.

3. The Department should provide institutional food service professionals with information about Maine products, suppliers, "Get Real Get Maine", etc. This information can then be displayed in cafeterias, banquet halls, etc.

4. The Department must improve its working relationship with School Food Service Directors and organizations to get more information out about local purchasing.

5. The Department should undertake a pilot program to link selected local school systems with farmers in order to determine the best options for both groups. The objective of the pilot program will be to encourage the expansion of local food purchases by:

a. Evaluating the opportunities for local farms to supply school system food services with agriculture products and developing a pilot business plan for implementation.
b. Implementing a partnership between selected farmers and school districts for actual purchases over a school year.
c. Establish a monitoring system for cost effectiveness.
d. Establish a monitoring system for food service director and student acceptance.
e. Establish a monitoring system for nutritional value.
f. Develop a template for additional modeling or full-scale implementation based on the findings of the monitoring and evaluation.

6. In order to expand institutional buying of Maine food products, the final recommendation is to develop a long-term strategy of conferences, workshops, and training to help both the farmer and the public institutions become ready, willing, and able to expand the use of local products in schools, universities, and state programs. This can be accomplished by developing and deploying an information and education campaign, working with service providers to better understand the location and availability of Maine food products, and to bring farmers, food service vendors, and public institution representatives together in multiple forums to discuss the issues.

Conclusions and Recommendations

Maine has a long history of producing quality commodities. We need to focus assistance on those farmers who wish to produce niche food products that the consumer market is demanding. Some farmers will benefit from shifting from mass production to more customization.

The data should help us better understand and respond to the consumer market in a way that is proactive rather than reactive. The success of agriculture in the future may be determined as much by engagement in effective marketing and product innovation than the ability to continue to improve yields to meet consumption. As an economic development tool, agriculture is one way to help make communities more successful, which in turn will help people (young people in particular) feel they can stay. The purpose of focusing on business development, rather than consumption of food commodities, is to become more visionary in the role of agriculture in future economic development. The interface between agriculture (which represents human capital applications in conjunction with environmental capital) and social capital (as defined by the community fabric of a region) is the critical element in the success of such a vision. The focus will be on working with people who want to expand business or create new businesses and help them think through their ideas.

Trends indicate that changes in consumer tastes and preferences, advances in communications and information technology, and new distribution models offer agriculture enterprises better opportunities than ever before to expand and prosper. There are also opportunities for new entrepreneurs to take a second look at agriculture. These advancing technologies along with higher expectations from consumers, tax payers, rural residents, and business owners are causing some farmers to shift from producing commodities to producing differentiated products for an ever changing marketplace. This means that agriculture not only needs to be efficient but also needs to monitor and respond to changes in consumer non-price preferences such as nutrition, safety and convenience.

The industrialization of the agriculture sector will continue as technology advances in production, communications, and transportation. Globalization will also have a profound impact on the pace and size of industrialization in the sector. An integrated production system will work best in areas of the country that serve the basic commodities. Maine agriculture may need to pursue a strategy of specializing and offering differentiated products directly to consumers or providing inputs into larger integrated production systems. The question then becomes "How can we use production,

communication, and transportation technologies coupled with an understanding of consumers to market differentiated products from our communities?"

Currently there are four opportunities for farmers.

1. Be a high volume, low cost producer of an undifferentiated commodity.

2. Identify specialty product markets that offer above average profits.

3. Network with other producers to create critical mass in production and marketing of products, commodities or specialty products.

4. Develop contractual arrangements with processors, represented by integrated systems.

A successful business and economic development strategy will see all four opportunities being used in a region. Agricultural businesses and communities cannot rely on just one or two of these opportunities.

To support these conclusions, and begin reshaping agriculture's future in Maine, the following recommendations are provided for consideration.

1. Additional research should be done in tracking and understanding the demographics of consumer habits and spending to get a more accurate picture of future consumption trends. Information should be collected on the affects of age and other demographic data on food consumption. This will help with the implementation of long term changes designed to help farmers improve production and increase profitability.

2. It is also important to understand the economic conditions projected for the future in order to develop sound strategies for improving the bottom line of agriculture in Maine.

3. Public education on nutrition, teaching children about agriculture and where our food comes from, and promoting the purchase of locally grown foods should be part of a public relations effort conducted state-wide with all the partners.

4. Invest more in marketing initiatives that will encourage people to buy locally grown products.

As outlined in this report, understanding consumer markets and how today's food marketing and distribution system responds to consumer demands is an important ingredient for success in Maine's agriculture community. With information on consumer's and marketing, farmers can more effectively capitalize on value added opportunities or shift their farm's focus to increase net farm income. It should be our ultimate goal to help facilitate the increase in farm gate receipts thus increasing net farm income. In order to accomplish this goal, it is the conclusion of this work that we build upon the baseline method of gauging how much Maine food is consumed locally, and extensively study the consumer market in Maine. The information on consumer markets and the food system in general can then be translated into information that the agriculture sector can use to succeed.

Appendices

Appendix 1

Small Farms/School Meals Initiative Town Hall Meetings, A Step-by Step Guide on How to Bring Small Farms and Local Schools Together

Appendix 2

How Local Farmers and School Food Service Buyers are Building Alliances

Appendix 3

Small Farmer Success Story: Marketing Fresh Produce to Local Schools: The North Florida Cooperative Experience

Appendix 4

Small Farmer Success Story: Cultivating Schools as Customers in a Local Market: The New North Florida Cooperative

Appendix 5

Small Farmer Success Story: Acquiring Capital and Establishing a Credit History: The North Florida Cooperative Experience

Appendix 6

Small Farmer Success Story: Success of the New North Florida Cooperative: A Progress Report on Producer Direct Sales to School Districts

Appendix 7

Buy American Declaration

Appendix 8

Working Group Member List

Sources:

1 "Maine Food for Thought", Report of the Task Force on Agriculture Vitality, January 2000, Maine Legislature Office of Policy and Legal Analysis.4

2 Source: "Who Eats What, When, And From Where?", Carlson, Andrea, Kinsey, Jean, and Carmel Nadav, The Retail Food Industry Center, University of Minnesota, 1998.

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