



Making a Difference In Washington County

For over 100 years, University of Maine Cooperative Extension has worked with Maine volunteers to offer community-driven, research-based educational programs in every county.

Our annual report features highlights of recent accomplishments and the difference we make in the lives of Maine citizens and their communities.

extension.umaine.edu

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July 2015

University of Maine Cooperative Extension
Washington County

WASHINGTON COUNTY

Business & Community Development

Recipe to Market: Is it for Me?

Extension has received an increasing number of requests from people for information about starting a food business. This is being driven, in part, by Maine's local food movement, which has heightened public interest in purchasing specialty food products produced from locally grown crops. In addition, food entrepreneurship supports "buy local" initiatives, which are being promoted by community leaders as a way to spur local economies.

As a result, we have developed an introductory 1/2 day workshop for folks thinking about becoming food entrepreneurs called "Recipe to Market: Is it for Me? The program introduced participants to important personality traits that contribute to being a successful entrepreneur, key business tips for success, and a brief overview of regulations and food safety. In 2015 the program was piloted in Machias and three other locations around the state. Approximately 40 people participated. We have tentatively agreed to repeat the program in March 2016 as part of the Washington County Food Summit.

In addition, Extension's full six-week Recipe to Market program is being expanded. The updated program will feature detailed information on marketing options for food entrepreneurs, the latest food industry trends and pricing strategies. We hope to present this program in Washington County late next year.

Washington County Food Day

Extension joined other Washington County organizations to participate in Washington County Food Day, which was held at the State House in Augusta. The day was successful in highlighting the many programs that are actively promoting all aspects of the Washington County food system. In addition, we were able to talk with numerous legislators about food security in Washington County and how our programs are helping to make a difference.

Eastern Maine Development Corporation Champion Award

In 2015 Extension was awarded Eastern Maine Development's Corporation's (EMDC) Champion Award. The award was given in recognition of our contributions to business and economic development across the Eastern Maine Region. Contributions included serving on EMDC loan review board, which distributes millions of dollars in Small Business Administration backed loans each year that help regional businesses retain or create much needed jobs. In addition, we partnered with EMDC to offer a marketing workshop series and a program targeting displaced mill workers wanting to start a business. Finally, we serve as a key referral for food business clients.

Senior Companion Program

Twenty-one Senior Companions volunteered to help older adults maintain their independence through companionship, transportation, providing education and being a friendly visitor. Last year, Senior Companions spent 16,435 hours helping 95 clients. Senior Companions receive a small stipend if they are income eligible which helps supplement their income. The stipend brought nearly \$60,000 to the Washington County Senior Companions. Senior Companions also receive monthly training. Over the last year, they participated in training on assistive technology for seniors, heart health, nutritional health for older Americans, and getting fit for summer. They shared this information with their clients.



Senior Companion Volunteers

University of Maine Cooperative Extension's successful educational programs result from a federal, state and county government partnership. Since 1919, when the Maine Legislature passed the County Extension Act*, the University of Maine has been in all Maine communities with a county office whose operations are funded by county government. Our educational programs anticipate and respond to local and state needs and issues. We also communicate those issues and opportunities to UMaine faculty to influence their research and development plans.

A sampling of our educational program areas:

- 4-H
- Agriculture
- Business & Community
- Food & Health
- Gardening & Horticulture
- Home, Family & Youth
- Insect & Plant Disease Management
- Maine Food System
- Natural Resources
- Safety & Preparedness

Washington County Extension Homemakers Association

Extension Homemaker group members help to extend the resources of the University of Maine Cooperative Extension into their communities through educational opportunities and service projects. The 19 members of Washington County Extension Homemakers Association gathered seven times to learn about health, the Affordable Care Act, cooking, local history, food buying clubs, Maine, Finland and Pennsylvania.

Food Systems

Gardening Course for School Staff and Early Child Care Providers

Extension Educator Marjorie Peronto worked with Healthy Acadia to conduct a four-part **School Garden 101 Training** at Cherryfield Elementary School. Thirteen teachers and child care providers from five Washington County schools and daycares learned ways to engage youth in gardening and tie this education to the classroom and cafeteria.

Peronto also secured a large donation of vegetable seeds from Salsbury Organic Garden Center in Mount Desert, which were offered to food pantries and schools with gardens in Washington and Hancock Counties. Fourteen schools and food pantries benefited from this free seed distribution.

Master Gardener Volunteers Make a Difference in Washington County

In 2014, a total of nine Master Gardener Volunteers worked in Washington County to assist fellow community members through community projects, reaching 323 people. The projects included two gardens for emergency food relief (Machias, Cherryfield), three educational historic garden projects (Machias – Burnham Tavern, Machiasport – Gates House, Pembroke – Historical Society), and a garden hotline where volunteers assisted clients by researching and responding to their gardening questions at the Extension Office. Collectively, Washington County Master Gardener Volunteers contributed 337 hours of labor valued at \$6,774 in 2014.



Master Gardener Volunteers at the Maine Sea Coast Mission garden.

Washington County Master Gardener Volunteers Grow Vegetables for Emergency Food Relief

At the Maine Sea Coast Mission in Cherryfield and the UMaine Cooperative Extension Office in Machias, Master Gardener Volunteers (MGVs) grew over one ton of fresh produce for food pantries. Extension Educator Marjorie Peronto worked with MGVs to revamp a 2,400 square foot garden plot at Maine Sea Coast Mission, creating an extensive series of permanent raised beds, installing drip irrigation for efficient watering, growing cover crops, and using solar mulch, floating row covers and basket weave staking method to increase production. Funding for this garden makeover was provided by two grants, from the Maine Master Gardener Development Board and Healthy Acadia.

Dining with Diabetes Down East

Washington County has high rates of diabetes, diabetes-related hospitalizations, diabetes-related lower extremity amputations and diabetes-related deaths. Few Washington County residents participate in self-management education and support programs to develop the skills needed to care for themselves. Barriers to participation include cost, lack of insurance, complexity of education programs and the absence of formal diabetes education programs in the county.

Registered Dietitian Nutritionist Alan Majka presented the Dining with Diabetes Down East program to 63 participants in Calais, Machias, Eastport, Lubec, Indian Township and Cherryfield. The program consisted of 4 weekly 2-hour classes. Each session included a presentation, cooking demonstrations, sampling of dishes and facilitated discussion.

Six months after participating, 94% reported lowered weight, blood sugar, blood pressure or cholesterol. Participants expressed appreciation for making the program easily accessible and reported many positive changes to their diets. Moreover, all reported that as a result of program they positively influenced diets of spouses, children or grandchildren.

Based upon published research, the program will likely result in decreased disability, death and health care costs. As an example, for an individual on Medicare, approximately \$96,000 is saved in Medicare costs for each year hemodialysis is postponed due to improved diabetes control. Hannaford provided funding for food and supplies.

Nutrition for Older Americans

Nutrition Concerns for Older Americans was presented to 64 Washington County residents in five communities throughout the county. *The Heart Truth* was also presented to Senior Companions who provide support to homebound elderly. This presentation included an overview of heart disease, prevalence, how half of women are unaware of the risk, risk factors, how to reduce risk in self and clients, how to talk with health care providers and the differences in heart attack symptoms in men and women.

Nutrition for Early Childhood

Twelve day care providers in Calais and Machias received training on early childhood nutrition, planning nutritious breakfasts, physical activity and the adult-child feeding relationship, with emphasis on obesity and diabetes prevention. An overview of what UMaine Extension has to offer was presented to 21 child care providers at a Child and Family Opportunities meeting in Machias.

Food Security and Hunger

Food preservation training and technical assistance was provided to staff and public at Labor of Love Nutrition Center in Eastport. Over 25 phone and email consultations for food safety and preservation were given to Washington County residents.

Worksite Wellness

A program was presented to 31 staff members of Bar Harbor Bank and Trust. The program was recorded and made available to staff in all branch offices.

Cooperative Extension's new office in Eastport
Marine Extension Team member Chris Bartlett is very pleased to announce that he has a new office at the Eastport Port Authority building on the historic Eastport waterfront. The facility is also shared with the Eastport Area Chamber of Commerce Welcome Center. The facility provides a topnotch space for gatherings and includes public bathrooms.

The Marine Extension Team is a collaboration of the Maine Sea Grant College Program and University of Maine Cooperative Extension. Its members live and work along the coast, providing educational and applied research programs to Maine's citizens in the areas of coastal community development, ecosystem health, fisheries, aquaculture, and coastal tourism. Please stop by and see Chris if you're in Eastport.

Supporting Sustainable Community Fisheries Development

Chris Bartlett with the Marine Extension Team worked with the Town of Pembroke and Maine Department of Marine Resources to determine if alewives can be sustainably harvested from the Pennamaquan River. The team coordinated a comprehensive, two-year monitoring program and has sought funding for repairs to three deteriorating concrete fish ladders that were built in 1958. The studies found that there are sufficient numbers of alewives to consider reinstating a municipal harvest program, which is subsequent to approval by fisheries managers.



Volunteers help to monitor alewives in Pembroke.

Rockweed Working Group develops criteria for no-harvest areas

The Maine Department of Marine Resources (DMR) established the Rockweed Working Group to determine the impact of commercial rockweed harvest on sensitive wildlife and to recommend areas that are closed to commercial harvest based on their analysis. Chris Bartlett with the Marine Extension Team has been staffing this effort, which began in October 2014 and will conclude in August 2015. The group was created with the passage of LD 1830, An Act To Further the Implementation of the Rockweed Fishery Management Plan. The Rockweed Working Group will make recommendations for the closure of specific areas and will advise on a process for reviewing and amending no-harvest areas in the future. The DMR Commissioner will consider these recommendations when developing proposed regulations for no-harvest areas.

Integrated Crop Management Field Training Sessions for Blueberry Growers

Field training sessions were offered at three locations to demonstrate and discuss the *Integrated Crop Management* (ICM) field scouting techniques in Wild Blueberry Fact Sheet No. 204. The first and second sessions covered mummy berry blight identification and monitoring, insect sweeping and identification, and weed identification and management. The third session focused on blueberry maggot fly trapping, spotted wing drosophila ID and trapping, leaf and soil sampling, and weed identification and management.

The **Wild Blueberry Summer Field Day & Meeting** was held at the Blueberry Hill Farm in Jonesboro. UMaine Extension Blueberry Specialist David Yarborough organized this event. Topics discussed included control measures for blight, diseases, bee management and health and weed management.

Six Washington County cranberry growers representing nearly 50 acres (roughly one-quarter of Maine's total cranberry acreage) participated in a USDA Specialty Crop Block grant entitled "**Unlocking Higher Cranberry Yields with Boron: A Key Element in Fruit Set.**" The grant author and coordinator was our Extension Cranberry Specialist and it was administered through UMaine Extension and the Maine Dept. of Agriculture, Conservation and Forestry. From July to September, our cranberry specialist made a total of 20 visits to the farms in the project (four visits per grower), to carry out the on-farm research and collect the data. The farms were also monitored for pests during these visits. The grant was a success, and the results indicated that on average, using a foliar liquid application of boron during bloom, increased the fruit set in cranberries between 4 and 5%. Maine soils are notorious for being deficient in boron, which was a major reason this project was undertaken. It was also known that Massachusetts cranberry growers enjoy about a 5% increase in yield when a boron spray is used. Maine growers wanted to find out if that might be the case here as well, and were pleased to discover that the answer to that question appears to be "yes."

Results of the Maine 2014 Cranberry Boron Grant (boron levels during bloom)



Four beds (3 sites) that used one Cal-Bor® spray during bloom were compared against three beds (3 sites) that did *not* use it (and that had never used it in the past, either). Three measures were compared: **fruit set**, **berries per upright**, and **tissue boron levels**.

Results – On average, the Cal-Bor® beds had:

- **4.5% greater fruit set**
- **More berries per upright (1.5 versus 1.2)**
- **Higher level overall of tissue boron (average of 45.7 ppm versus 38.3 ppm)**

All 12 of Washington County's cranberry growers also received pest management assistance from our Extension Cranberry Specialist Charles Armstrong during the growing season, in many different ways consisting of farm visits, mailings, emails, and website pest reports/updates.

Introduction to Beekeeping was taught by volunteer Andrew Dewey, Master Beekeeper in Machias, with a satellite class in Calais. Participants who participated in the five-week course focused on beekeeping equipment, colony health, products of the hive, and identification and control of diseases, parasites and predators of honeybees. Participants were also invited to an open hive day where they looked inside a hive and saw the difference between workers and drones, and learned to recognize brood, pollen and honey.

Local Partnership

Our County Extension Association is the vital link between the county, our communities and UMaine. The Association's Executive Committee is comprised of local volunteers who represent community interests by advising UMaine Extension staff on educational programs, advocate for and secure funding from county government to support the county office, oversee the office budget and facilities, and guide UMaine Extension staff in identifying their programming goals.

Youth and Families

4-H Robotics Expo

86 youth between the ages of 9-13 participated in the 8th annual 4-H Robotics Expo. In partnership with the University of Maine at Machias, Axiom Technology and University of Maine, youth were offered a variety of STEM-related workshops, practiced public speaking skills and demonstrated their knowledge of robotics and programming. This was the first year that four high school students (who had participated in the event in prior years) helped to design and run the robotics challenge and participate as judges. 87% of the Expo participants indicated on the post evaluation they would like to learn more about science, 65% said they are considering a job related to science and 32% said the event caused them to think about attending UMM or another college or University to study a science-related area.



A team explains their robot design to a judge during the 2015 4-H Robotics Expo.

4-H Club program

From Cherryfield to Calais, and Perry to Columbia, the 4-H traditional clubs were very busy this year. The Dennys River Manure Movers utilized generous funding from the Harmon Foundation, along with immense community support, to take the club members and volunteers to the Equine Affaire in Massachusetts, a multi-day event. 4-H members also attended University events such as 4-H@UMaine: Connecting Kids to Campus, Girls Engineer Maine, and Maine 4-H Days.

4-H SPIN Clubs

SPIN (SPecial INterest) clubs are offering both youth and volunteers great short-term 4-H experiences. With web-based training and staff support, volunteers can offer a minimum of six sessions based on their interests and schedules. In the past year, 20 youth have participated in a variety of SPIN club offerings including Saturday Scientists, Crochet, Photography, Entomology, and Aviation, and Robotics.



4-H Photography SPIN Club

Public Speaking

One of the most valued life skills that youth gain in the 4-H program. We reached over 100 youth directly as well as teachers, volunteers, and parents with hands-on training to develop public speaking and communication skills. Our 4-H youth have the opportunity to participate in County and Regional Tournaments. Exciting new online training resources and videos are available at <http://umaine.edu/4h/youth/public-speaking/>



Washington County 4-H Public Speaking Tournament 2015

4-H Super Sitters

The 4-H Super Sitter program was offered in three communities this year: Harrington, Machias, and Pleasant Point. Participants learned about safety, child development, and babysitting protocol. They even made healthy, kid-pleasing snacks. Complete with basic first aid kits and a fun bag to carry all of their needs to their babysitting jobs, these 4-Hers had a great time learning how to care for the children in our communities.



Participants pose after completion of a 4-H Super Sitter Course.

4-H Schools

We are actively partnering with six Washington County 4-H Schools, delivering and supporting Food Systems, Public Speaking and STEM-focused programming in the classroom. With over 400 youth being group enrolled in 4-H through our schools, we work with teachers to increase their access to experiential learning opportunities and resources that support their curriculum.

National Youth Science Day

This premiere 4-H Science event brings together thousands of youth, volunteers and educators from around the country. This year's activity, Rockets to the Rescue, asked youth to explore aerospace engineering to solve real world challenges- such as food distribution in an emergency situation. Twenty-two teachers and volunteers were trained to deliver the activities to over 100 youth from six schools.

Community Collaborations and Partnerships

We continued our collaborations with Maine Ag in the Classroom, FoodCorps and Farm to School with our 4-H School Groups, providing hands-on education targeting food security and sustainable-living skills. We also actively partnered with the EdGE Center to offer hands-on "Train the Trainer" clinics on our 4-H Science kits, expanding the delivery potential of our STEM resources. Through these partnerships, we are creating synergy and increasing our capacity to reach youth in underserved communities and schools.

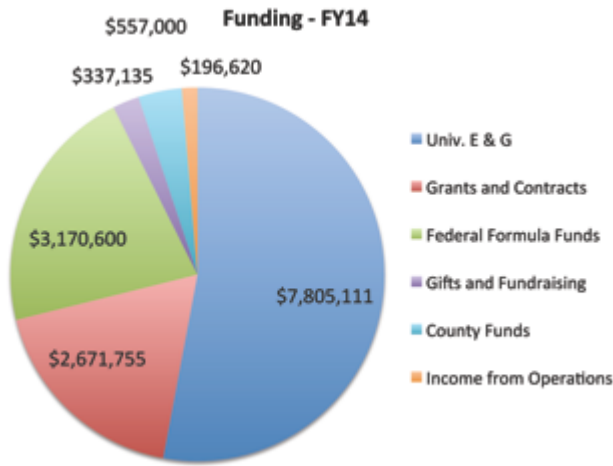
Our office responded to over a hundred client requests last year. Clients ask questions on gardening, nutrition, farming, blueberries, and food preservation. Our office also assists clients with soil testing, tick identification, pest identification and management, plant identification and diseases.

The County Extension Act

The County Extension Act explains the role of county government in funding local Extension offices:

Cooperative extension work shall consist of the giving of practical demonstrations in agriculture and natural resources, youth development, and home economics and community life and imparting information on those subjects through field demonstrations, publications and otherwise. For the purpose of carrying out this chapter, there may be created in each county or combination of two counties within the State an organization known as a "county extension association," and its services available to all residents of a county. The county extension is viewed as a unique and important educational program of county government. The executive committee of each county extension association shall prepare an annual budget as requested, showing in detail its estimate of the amount of money to be expended under this chapter within the county of counties for the fiscal year. The executive committee shall submit to the board of county commissioners on a date requested by the county commissioners, and the county commissioners may, if they deem it justifiable, adopt an appropriate budget for the county extension program and levy a tax therefore. The amount thus raised by direct taxation within any county or combination of counties for the purposes of this chapter shall be used for the salaries of clerks, provision of office space, supplies, equipment, postage, telephone, a contribution toward the salaries of county educators and such other expenses as necessary to maintain an effective county extension program.¹

Statewide Extension Funding



As a unique partnership among federal, state and county governments, UMaine Extension uses funding from Maine counties and the University to match and leverage support from the United States Department of Agriculture, other federal grantors, state agencies and private foundations. Each county UMaine Extension office is also part of a statewide organization and the national Extension system.

University of Maine Cooperative Extension Support for Washington County

2014	
Local Salaries and Benefits	\$345,246
Prorated Support from UMaine*	\$426,824
Computer Equipment & Networking	\$6,994
Statewide Animal Diagnostic Lab	\$2,346
Local Programming Supplies & Expenses	\$1,544
Publications	\$1,875
Postage	\$6,065
Telephone	\$1,514
Travel	\$6,511
Total	\$789,919

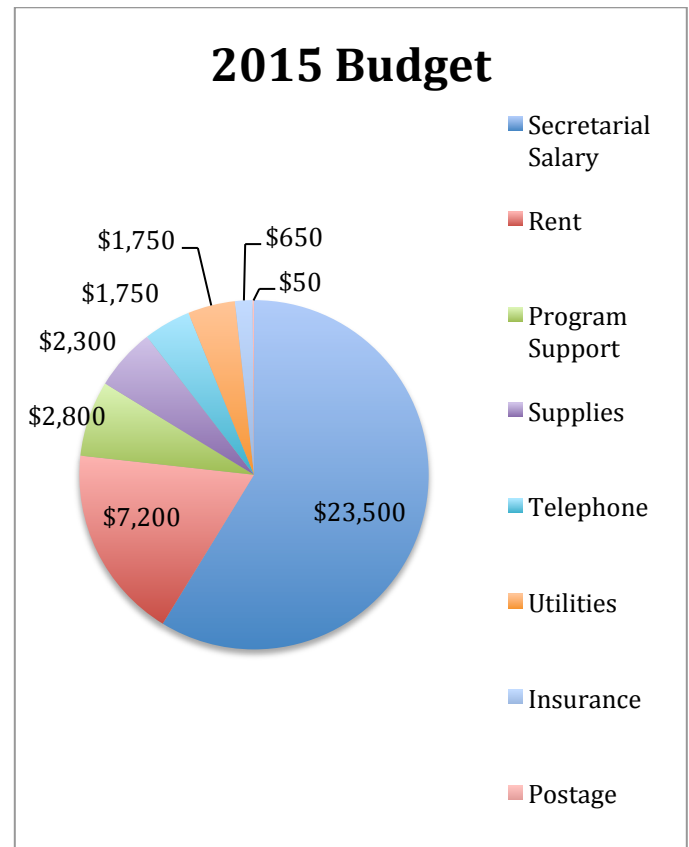
Prorated Support from UMaine* reflects salaries & benefits for administrative and statewide staff.

Without statewide support, UMaine Extension would not be present in this county. Funds for projects are provided through the University of Maine, Federal Formula Funds, grants, contracts, and fees. Dollars from other sources support salaries and benefits for Extension Specialists, County Educators, Extension administration, computer equipment and networking, publications, postage, telephone, and travel.

Washington County Budget

Insurance	\$650.00
Postage	50.00
Rent	7,200.00
Secretarial Salary	23,500.00
Supplies	2,300.00
Telephone	1,750.00
Utilities	1,750.00
Program Support	2,800.00
Total Request	\$40,000.00

Each year, Washington County tax dollars support the UMaine Extension with physical office space, support staff salaries, office supplies, equipment and some programming funds.



For every dollar that the county contributes, over \$19.75 in matching state and federal funds is received.

Statewide Highlights

STEM Ambassadors...Sparking Student Interest in STEM Careers

4-H can encourage youth to higher education and successful careers, especially in science, technology, engineering, and math (STEM). Of the 25,000 youth that Maine 4-H engages annually, 52% engage in a STEM program, 83% want to finish college, and 73% want science-related jobs. Nationally, girls involved in 4-H are twice as likely to pursue science careers. UMaine Extension trained college students to facilitate STEM activities across the state as STEM Ambassadors. The short-term pilot program increased student leaders' comfort level with and knowledge of STEM teaching. To increase the future STEM workforce in Maine, we are now developing a statewide network of STEM Ambassadors.

Wild Blueberries...Allowing Maine to Remain Competitive in the Global Market

About 100 million pounds of wild blueberries are produced in Maine, contributing over \$250 million to the state's economy. Because they must remain competitive as production increases worldwide, research-based field management and yield information from UMaine Extension helps current blueberry growers define the risk and returns on investment and assists new growers in understanding what is needed for optimal production. Growers who sample to determine pollinator density in their fields can decide if they should change their investment in rented honeybees or if they should enhance native bee populations by planting pollinator pastures. Total net pollination income is \$257/hectare for rented honeybees and \$171/hectare for native bees. Our decision-making tools help growers determine how much to rely on rented honeybees versus native bees.

Access to Capital

Entrepreneurs need capital if their businesses are to create jobs for Mainers. By partnering with a regional economic development agency that provides Small Business Administration loan guarantees, banks can lend to Maine businesses that otherwise would not be eligible for financing. UMaine Extension, as a member of the loan

review committee, helps to guide lending, review applications, and make loan decisions. In 2014, 42 loans totaling \$6.2 million were made. Together with the private funds leveraged for investment, total lending was \$18.2 million, 77% more than in 2013. One hundred forty-two jobs were created or retained, an increase of 95% over 2013.

Maine Compost School: An Economic Engine

Maine's compost industry has grown from three or four operations in the 1990s to over 50 commercial operations in 2015. The Maine Compost School, a partnership between UMaine Extension and state agencies, provides an opportunity for hands-on learning about commercial-scale composting technology and the business of composting. Since 1997 the school has served 700 participants from for-profit businesses and nonprofits in 42 states, 10 Canadian provinces, and 40 other countries. In 2014, a survey sent to all participants from 2009 to 2014 found that using knowledge gained at the school:

- 18% increased sales an average of \$8,500 per year
- 17% increased employment, hiring a total of 15 workers with a total estimated annual payroll of \$305,000
- 16% increased profitability.

The average value placed on attending the school was \$2,101. Business respondents (n=30) produced a total of 82,000 cubic yards of compost with an estimated retail value of \$2.5 million. The average business employed 23 full-time and 14 part-time workers with a total estimated annual payroll of \$796,500. The Maine Compost School has had a positive economic impact on participants, businesses, and communities in Maine and beyond.

AgrAbility...Supporting Farmers of All Abilities To Remain Active on the Farm

The average U.S. farmer is 57 years old, and farming is the seventh most dangerous job. The Maine AgrAbility Project provides no-cost aid to farmers and their families and workers facing physical or cognitive challenges. Since 2010, UMaine Extension and its partners have conducted more than 70 on-farm assessments to suggest ways that farmers with disabilities could keep working. More than half of participants surveyed reported some increase in



quality of life from their participation and remained productive in agriculture. The renewed grant allows Maine AgrAbility to work with forestry and fisheries workers, as well as farmers.

Barley Disease Control...Increasing Yields and Profits

Barley is grown on about 22,000 acres in Maine for livestock feed and malt production, and the acreage is increasing. Maine's 2013 barley crop was worth \$3.7 million, but fungal diseases can limit yield and malting quality. UMaine Extension ran trials aimed at improving grain yields and malting quality through disease control. Researchers sought to identify when and if fungicide was necessary. More than 75 growers deployed a disease control program on 16,000 acres of barley. They received over \$200,000 in increased revenue from greater yields and grain quality with the disease control program, which they plan to continue.

Helping Farmers Optimize Forage Production and Quality

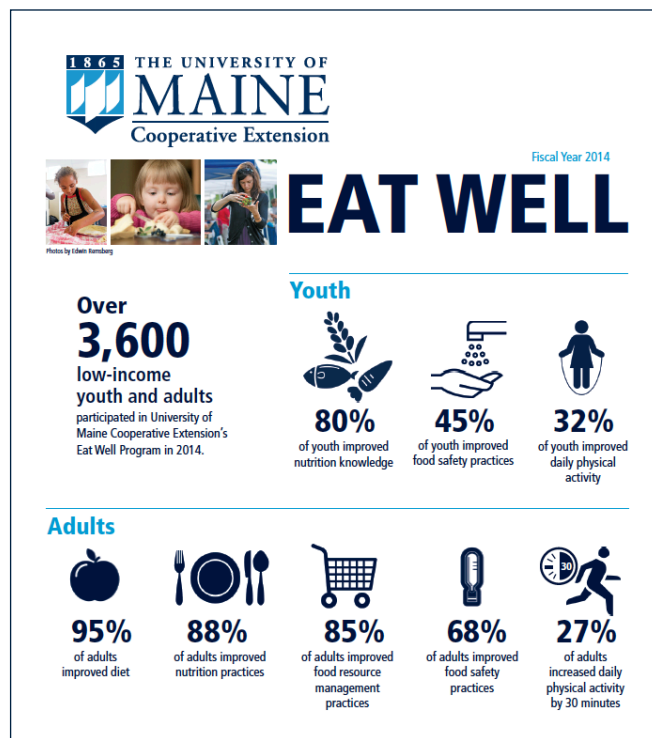
Recent USDA incentive programs encourage cover cropping after corn silage harvest. New England's short growing season and commonly used longer-season hybrids have hampered adoption of cover crops. UMaine researchers organized field trials to determine the benefits of cover crops, no-till, and shorter-season silage varieties. Farmers planting with no-till reduced fuel use by about 5.7 gal/ac and time in the field by 2.75 hr/ac, for total savings of about \$50/ac. At \$30/ac, the cost of planting cover crops effectively replaced nitrogen fertilizer. Shorter-season corn had similar yields but higher quality than longer-season varieties. On one ME farm, researchers estimated that switching from a 94-day to an 85-day variety would increase income by \$670/ac, because milk production/ac increased by 3,350 lbs.

EatWell ... Supporting the Health of Maine Citizens

In Maine, almost two-thirds of adults are overweight or obese, yet USDA estimates that 16% of Mainers don't have enough to eat. This contradiction demonstrates that poor food choice and lack of availability of nutrient-rich food significantly affect our population. UMaine Extension's Eat Well Program (funded by federal EFNEP dollars) provides limited-income families with free education on budget food shopping, healthy recipes, meal planning, and cooking. In 2013 program graduates spent an average of \$36 less per month per household on food, while improving food quality. The total annual food cost savings for all graduated households was \$59,520.

EatWell...Supporting Children's Learning and Health

In Maine, more than a quarter of school-aged youth are overweight or obese, and nearly a quarter of the state's children are food insecure. UMaine Extension's Eat Well



UMaine Extension's Eat Well Program brings nutrition education to limited-income families and youth in Maine.

Program (funded by federal EFNEP dollars) provides limited-income youth in grades K-12 free education on healthy habits. Eighty percent of participants improved their ability to choose foods according to USDA MyPlate recommendations; 45 percent used safe food handling practices more often; and 32 percent improved their physical activity. Developing a solid foundation of healthy habits in childhood will help improve the health of Maine's population long term.

Homemaker Program Supports Maine Communities

UMaine Extension Homemaker group members help to extend the resources of UMaine Extension into their communities through educational opportunities and service projects. Members gain leadership skills and help meet community needs, such as providing food, blankets, toys, and transportation to medical appointments for those in need. Groups raise money for causes through bake sales, raffles, and other events. The total estimated value of goods and volunteer services provided by the Homemakers was \$428,000.

Maine Colleges Addressing Food Insecurity

Nearly a quarter of Maine's school-age students are food insecure. But Maine's colleges had no organized effort among campuses to address hunger in their communities. UMaine Extension collaborated with partners to develop the first Maine Hunger Dialogue, at which nearly 100 students and faculty from 17 campuses generated action plans to end hunger in their region. Some of the projects

that have since been funded will raise funds for a food bank; sponsor a competition among high schools to donate the most food to local pantries; analyze the extent of hunger on a community college campus and the feasibility of hosting a food bank for students; and establish an “edible park” where the community grows food with and for those in need. The foundation is now in place for student action among Maine’s colleges to address hunger in more coordinated ways.

Maine Grass Farmers Network...Increasing Profitability of Dairy Farms

More than 274,000 acres of hay/pasture are grown in Maine, which can improve profitability for livestock operations. Organic dairy farmers must pasture their animals during grazing season. The demand for grass-fed livestock products is rising, but these operations need to improve profitability. The Maine Grass Farmers Network, with UMaine Extension, ran cultivar trials to evaluate grazing and harvest management response in perennial rye grass. As plants mature, digestibility and the concentration of crude protein (CP) decline. Improving forage and pasture management to ensure high CP and digestibility improves animal performance and farm profitability. For example, if organic protein is valued at \$1.10 per pound, an increase of 3% CP would yield about 60 additional pounds of protein per ton of feed. Assuming a yield of 4 tons per acre, that’s about \$240 in protein from forage per acre, or \$24,000 on a farm that harvests 100 acres of hay/pasture. Building efficiencies into grass-based feeding can greatly improve profitability and animal performance.

Preventing Greenhouse Pest Diseases

Many greenhouse managers want to use biological pest control, but hands-on experience is critical. UMaine Extension and partners offer a workshop featuring extensive hands-on activities related to greenhouse biocontrol systems. Of the 12 respondents to the post-workshop survey, all said they had instituted better pest monitoring and scouting methods; planted habitat to raise natural enemies of aphids; and cleaned their greenhouses better. Three-quarters of respondents also implemented better recordkeeping and planted habitat for other beneficial bugs. The total reported impact on the 11

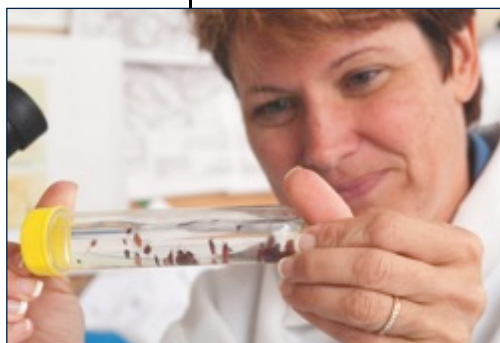
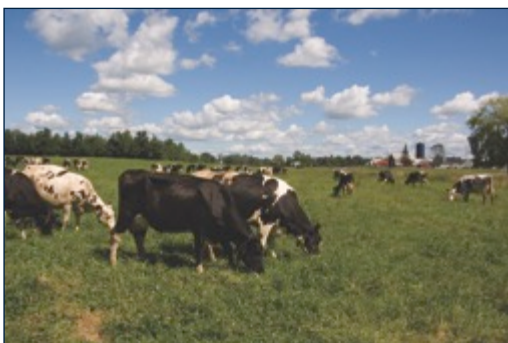
businesses responding was \$2,925. If just 10% of the approximately 550 commercial greenhouses in the state adopted these measures, it could save at least \$14,625.

Protecting Maine’s Coastal Tourism Industry and Beaches

Chronic bacterial pollution in Goosefare Brook, which empties near popular swimming beaches in Saco and Old Orchard Beach, threatens public health and the local tourism economy valued at over \$500 million. UMaine Extension brought together local, state, and federal partners to regularly monitor the brook. Pollution source tracking included optical brighteners, nutrients, pharmaceuticals, and personal care products, which may indicate human-sourced fecal contamination. The partners identified and removed malfunctioning septic systems and upgraded sewer and stormwater infrastructure. In 2014 the towns obtained grant funds for watershed management planning and public outreach. UMaine Extension personnel serve on the steering committee that will continue to address the health of Goosefare Brook.

Senior Companions...Supporting Maine’s Seniors and Saving over \$4 Million in Costs of Long-term Care

Maine is the oldest state in the nation, with about 16% of the population 65 or older. For 33 years, the Senior Companions program has provided a cost-effective way for Maine’s seniors to remain in their homes. “Senior Companion” volunteers aged 55+ with limited incomes provide companionship and nonmedical support to homebound and/or isolated older adults. Senior Companions attend monthly trainings and receive a stipend, insurance, and transportation reimbursement. In 2013-14, when 121 Senior Companions served 469 clients in 24,856 visits, the cost of the program was \$477,000. Of these clients, 43 would likely need to live in long-term care facilities if they did not have a Senior Companion. Nursing home care costs about \$98,550 per person per year in Maine, or \$4.2 million for the 43 clients. The Senior Companions program represents a substantial savings to Maine’s seniors, families, and the state.



Summer of Science: Sparking an Interest in Science, and Reducing Summer Learning Loss

Improving student proficiency in science, technology, engineering, and math (STEM) can improve job opportunities and encourage youth to higher education. In Maine, testing showed that more than 33% of 5th graders and 45% of 11th graders lacked proficiency in science. The achievement gap widens in summer for low-income students, who often lack out-of-school learning opportunities. UMaine Extension created and delivered 4-H Summer of Science curricula to underserved youth in grades 3–8. About a quarter of participants were minorities and more than half were girls. The experiments helped them return to school with reduced summer learning loss and increased interest in science.

UMaine Extension trained and supervised 18 teens to deliver the curriculum, fostering career development, leadership, and responsibility. A post-teaching survey found that:

- 100% are now more likely to volunteer in their community and feel that they can make a difference through community service.
- 92% would return to teach again.
- 62% were born in Africa or the Middle East.

Washington County Extension Association

President- Marianne Moore

Vice President- Wendy Harrington

Treasurer- Joan Miller

Secretary- Gretchen Cherry

Members- Lou Esposito, Laurie Hayward, Dana Mitchell, Lynn Mitchell, Bethany Woods

Using Social Media to Advance Sustainable Agriculture

More Americans, including farmers, are integrating online resources into their daily lives, so UMaine Extension must increase its use of social media tools to reach its audience. This project sought to provide agricultural educators the skills to effectively incorporate social media, including Facebook, Twitter, blogs, webinars, and YouTube, into their sustainable agriculture programming. Trainees increased their knowledge of social media tools, learned which tools are most effective for specific objectives, and implemented and evaluated at least one social media tool for their work. Because of the program, 30 of the 34 extension educators (88%) created and/or changed sustainable ag material for at least one social media tool, collectively reaching at least 228,790 farmers and others.

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