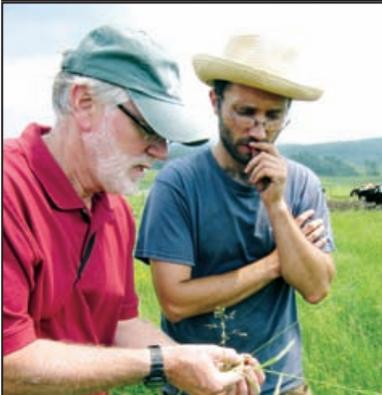


100 Years of UVM Extension 1913–2013



100 Years of UVM Extension, 1913-2013

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Cover photos: Tony Vongsy, food service director at Brattleboro Union High/Middle School and Hans Estrin, UVM Extension local food network coordinator; 4-H girls making apple pies; Jenn Colby, outreach coordinator for the Vermont Pasture Network; campers at 4-H Camp Downer, Sharon, Vermont; Sid Bosworth, UVM Extension agronomy specialist, and Mark Krawczyk, owner of Keyline Vermont.

UVM Extension helps individuals and communities put research-based knowledge to work—100 years and counting. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.



100 Years of UVM Extension

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Foreword

The Greek philosopher Heraclitus wrote “Nothing endures but change.” Nowhere is this more true than in UVM Extension. In the early days, much of our work was helping farmers increase crop yields and productivity through the use of fertilizers and machinery. Today, Extension is teaching low-income families how to prepare nutritious meals on a limited budget, promoting life skills through the 4-H youth development program, providing marketing and business planning services to farmers, and working with producers, distributors and retailers to advance a healthy local food system.

The ways in which we deliver education have also changed. In the beginning, Extension agents would travel by train or horse-drawn carriage to conduct demonstrations at train stations or Grange halls. Today, you are just as likely to find an Extension specialist delivering education through an on-line seminar as you are to find them in the field.

Even our name has changed to keep up with the times. In 1913, we were known as the Vermont Agricultural Extension Service. Later, the term “agricultural” was dropped and “service” was replaced with “system.” As a 1991 Extension report noted “... ‘service’ implies doing something *for* or *to* someone, ‘system’ seems a better word to indicate our interactive nature of doing *with* others.” Today, we use the name UVM Extension to acknowledge our connection to the University of Vermont and State Agricultural College, as well as our connection to the other land-grant universities in the country which exist to provide research-based education to individuals, families, and communities.

In spite of all this change, the principles that have guided our work remain constant. In the twenty-fifth report on Extension,

Dean Joseph Carrigan wrote: “Throughout the years, the Vermont Agricultural Extension Service has kept closely within the field of education. It has constantly tried to keep its program adjusted to the local needs. It has enlisted the assistance of local people in deciding upon the work to be done and in leading the work ... The part that the Extension Service is playing in the lives of Vermont rural people appears to be of even greater importance at the present time than at any time in the past.”

These words are just as true today as they were in 1939. We face a number of pressing challenges in the decades to come. Our climate is changing, and in Vermont we are already seeing the effects of that change in the maple industry. The sugaring season now starts a week earlier than it did forty years ago, and ends ten days earlier. This loss of three days in the season does not seem like much unless you consider that the entire sugaring season lasts only thirty days on average.

There are other challenges too. The dependence of modern agriculture on fossil fuels, the demand for water to grow current crops and varieties, and the depletion of soils are making it ever more difficult to feed a growing population. In addition, record oil prices and declining petroleum reserves are forcing everyone, farmers and consumers alike, to find new ways to live, farm, and get to work.

With these challenges come opportunities—opportunities for innovation, growth and discovery. During the past 100 years we have faced a number of challenges, including the Great Depression, two world wars and two major recessions. Extension played an important role then and will continue to play an important role in the years to come. Change may be constant, but as long as Extension is around you can count on us.

Douglas O. Lantagne, Dean and Director
January 2012

Introduction

The history of the first one hundred years of University of Vermont Extension starts with a fledgling organization that began in 1913 to serve people outside the University community. It provided those Vermonters with education in agriculture and homemaking through one-on-one visits, group meetings, and mass media channels.

The education and programs which University of Vermont (UVM) Extension provides has, of course, changed over these one hundred years, as has the structure of the organization, the way it delivers information, and the demographics of its clientele, the people of Vermont. UVM Extension has had the flexibility and the foresight to change with the times to meet the needs of the population. Yet its mission has not changed, nor has its philosophy of achieving its goals. The 1976 annual report put it very well:

“The Extension method is simplicity itself...Live close to the people to learn what they need. If you don’t know the answer, get it by phone, letter, study, or research. Make the answer as understandable as humanly possible. Then present it as simply as you possibly can. If the public can’t or won’t come for the answer, deliver it. Then don’t hang around taking bows.”

This history is an update of *Highlights of the Vermont Extension Service: From the Beginning*, prepared by Robert Davison, UVM Extension director, written and edited by Lisa Halvorsen, and published in 1982. I built upon that document, adding to it, and drawing extensively from it to incorporate the full one-hundred-year history of what is now UVM Extension.

My thanks to everyone who has helped me in this endeavor, especially the UVM Extension staff, current and former, who talked with me, dug up facts and information and provided photographs. Kurt Reichelt, Annual Fund officer, Cathy Yandow, communications support specialist, and Doug Lantagne, Extension director, in particular, provided direction, advice, and copy editing. Kurt’s audio interviews with retired Extension agents were enlightening and invaluable, and made fascinating listening. Thanks, Kurt, for helping to preserve another important part of Vermont’s history.

My thanks also go to UVM’s Special Collections staff, who brought out to me boxes of photographs and materials, along with the pencils and white gloves.

Thanks to everyone else whom I emailed or called for information, and to former Vermont Agriculture Commissioner Roger Allbee’s interesting blog, *What Ceres Might Say*, which has provided helpful background.

Susan Harlow
Westminster, Vermont
January 2012

The Roots of UVM Extension

An organization, as any individual or family, has roots from which it starts and grows. The beginnings are slow, often unsure, but transpire because a group of people has an interest, a place, or a feeling in common that needs to be shared.

University of Vermont (UVM) Extension actually got its start in the mid-nineteenth century, with the organization of farmers clubs in villages and towns scattered throughout the state. Meeting weekly during the winter months, they provided social and educational opportunities for farm families. Toward the end of the century, these clubs were incorporated in counties, forming a foundation for UVM Extension in later years.

So the first organized efforts to educate Vermont farm families about new developments in agriculture and homemaking began before the establishment of the federal Cooperative Extension Service. Many of the early programs were geared towards the farmer and his questions on crop and livestock production, although experimental groups were also springing up in response to the needs of rural homemakers and youth.

During this period, the Vermont Dairymen's Association actively promoted county educational societies, working with Dean Joseph Hills of the UVM College of Agriculture to ask for state legislation for a formal Extension.

Concerned homemakers were starting groups in their homes to share information on better household management and food preparation. 4-H clubs in Vermont were also getting going. A University of Vermont professor, Floyd B. Jenks, was appointed part-time state agent in charge of 4-H club work in anticipation of the passage of the Smith-Lever Act.

In 1913, the Vermont Legislature made its first appropriation

for UVM Extension, for county agricultural agent work. This legislation, known as Act 83, was enacted on February 15, 1913. It appropriated \$8,000 annually for two years for “. . . work in agricultural extension, including the establishing of extension schools, correspondence courses, lectures, leaflets, and bulletins dealing with the Office of Farm Management, the U.S. Department of Agriculture, and kindred enterprises bearing direct relationships to agricultural advancement to the state.”

A second piece of legislation enacted in 1913, Act 84, was “An Act to Provide for an Appropriation for Agricultural Extension Service at the University of Vermont and State Agricultural College, Conditioned on Federal Legislation.”

During the first year, educational exhibits were displayed at the state fair and eight county fairs, fifteen Extension schools were started, and many farm visits were made by the seven county agents on the staff at that time. Great emphasis was placed on educational butter scoring, a program designed to evaluate butter produced by Vermont dairymen and local creameries.

With Congressional passage of the Smith-Lever Act on May 8, 1914, Extension began receiving federal funds, as well as appropriations from state and county sources, through State Act 83 and Act 121 of the Vermont Legislature of 1912.

Since then, UVM Extension has been paid for through a combination of federal—U.S. Department of Agriculture (USDA)—and state funding through UVM. Grants and contracts have taken on much more importance as a funding source.

By the time the Smith-Lever Act was passed, the 4-H program had earned recognition as a viable part of UVM Extension. The first full-time state leader, Elwin L. Ingalls, worked for thirty years developing regional and national 4-H club programs. The first local Vermont 4-H club was a girls' group in White River Junction known as the Ellen H. Richards Home Economics Club. Within a year of its formation, eighty other clubs were started in thirty-five different towns.

By 1915, training classes were held in several communities for the teachers serving as volunteer 4-H club leaders. A committee on agriculture was appointed by the Vermont Bankers Association to work with the state club leader; together they started a pig club program that attracted one hundred members.

Farmer organizations, which became known as Farm Bureaus, had been started in the nine counties with Extension agents. Families paid one dollar a year to join. The officers hired the county agricultural agent and helped him develop programs on farm planning, silo construction, seed testing, record keeping, and other Extension activities. Numerous organizations evolved as a result of the farmers' demands—the New England Milk Producers Association, National Farm Loan Association, cooperative creameries, cow testing associations, the Washington County Farmers Exchange, and others.

The agricultural industries UVM Extension serves, such as dairy, fruits and vegetables, and maple, undergo constant change and Extension adjusts to accommodate that. Demographics and technology have also had a huge impact on how Extension does its work.

The role of UVM Extension from the start was to provide practical, up-to-date education to the people of the state, pulled from the University campus where research was done. Originally, it was farm families in the rural parts of Vermont who were to benefit from that education. Gradually over the years, the mandate expanded to include all Vermont residents and many topic areas beyond agriculture that early Extension could not have imagined.

Getting out the message

The way that UVM Extension staff delivers its message has also changed dramatically in the last one hundred years, and that story involves technology and the structure of Extension itself.

Extension started out with a director, seven county agents, and

In the early part of the twentieth century, when travel by passenger train was a principal mode of travel and six passenger trains each way would stop at Putney station, about once a year a special car would be set off on the sidetrack and remain there all day. It showed new varieties of fruits and vegetables, grains and many other agricultural products. It also showed the local farmers the best methods of pest control and forest management as well as other farming skills.

George Aiken, governor (1937-1941)
and senator (1941-1975).

five part-timers. After World War I, the infusion of federal money allowed six home demonstration agents and five 4-H agents to be hired. By the end of the next decade, there was a 4-H agent in eleven counties, an agricultural agent in all but Essex County, and a home demonstration agent in all but two.

The agent—agricultural, home demonstration or 4-H—was the backbone of UVM Extension's early outreach. The rural character of the state and communication technology at the time made the home and farm visit essential to getting information to farmers. The UVM Extension agent was a neighbor, sometimes almost a family member.

Later, almost every county had an office with a full complement of the three kinds of agents. This structure—county-based, lots of staff—was maintained well into the 1980s.

The first UVM Extension agents held local meetings. In addition, Extension schools were conducted in the counties by the agricultural agents in the winter months, from late November to mid-March. Instruction was almost entirely through demonstration, with abundant use of local sites and materials whenever possible.

For a community to qualify for a school, it had to submit a petition to UVM Extension, with fifty bonafide signers who agreed to attend the school regularly and transport Extension school

equipment to and from the nearest railroad station. During the first year, twenty-five schools were held with an average registration of sixty people.

The early years of UVM Extension were a time of much experimentation and learning, as agents developed new projects and methods of bringing farm and home information to rural families. Statewide conferences for agents and specialists were held to keep them abreast of developments in their fields although, as one former county agent pointed out, these meetings were not always scheduled at the most appropriate times.

When the Extension Service was first organized, there were plenty of 'reports' of various nature, but not much active supervision as to 'projects.' County individualism grew at a rapid rate. Conferences among the county agents had not been a serious matter. These conferences started, as I remember, in 1918 and did not always jibe with plans of the individuals concerned. I can remember an exchange of letters with a certain county agent about a hunting trip. The letter which I received started out something like this:

'Our plans to go hunting have gone on the rocks
Sir Thomas Bradlee [UVM Extension director] thinks only of work
and the clocks.
His annual conference, the villain doth seek,
To flaunt in our faces on deer hunting week.'

—Author unknown

After World War I, some staff members were let go when monies dried up. Yet in that era, UVM Extension established a more concrete foundation for its educational programs and operating procedures, and further attempts were made to unify the three program areas of agriculture, homemaking, and 4-H.

Up until this time the focus had been on wartime support activities and emergency programs designed to keep people on the home front clothed and fed. Now it was evident that new

programs had to be developed to meet the changing needs of the entire community.

To bring programs to the people, UVM Extension put the railroad to use, which may have been an easier way to get to some areas of the state than the roads in those days.

The home demonstration program had started in 1917, with schools, exhibits at fairs or single demonstrations of cooking or canning, or perhaps a lecture at a Grange or a women's club. Mother's meetings were held. The first home demonstration agent, Emma Fuller, drove around Addison County in a Model T. From the start, home demonstration meant more than teaching women basic sewing and cooking.

The ladies of Addison County benefited from Emma Fuller's ingenuity and interest in millinery and learned how to use hat frames, feed sacks, and odds and ends from their sewing boxes to fashion chapeaux that rivaled the best the local shops could offer. A letter of appreciation by a Whiting woman declared that:

When they are asking \$8.50 for a plain sailor hat in the shops, we find we have quite a load on our heads when paid for with potatoes at 25 cents a bushel! But time and Miss Fuller have changed the entire hat outlook and some of us will have more than one hat this season. We surely feel that our home demonstration work is where we get full value for the money invested.

The women were also taught how to make their own dress forms by winding paper tape around their bodies over a knit shirt which was later cut off and shellacked. At a meeting of a ladies' group in Bridport these dress forms were a source of merriment one day. As the story goes:

The finished dress forms were lined up on the front porch to dry, and when the husbands arrived late that afternoon to get their wives, they were asked to pick out the proper form from those on display...There were many mistakes, great hilarity, and late chores and meals that night...to say nothing of some hapless husbands who may have received no supper at all for choosing a form of the wrong size and shape!

One Vermont homemaker who relied on the home demonstration agents for advice and instruction recalls that:

These women possessed courage and stamina, for I remember very well many bitter, cold, stormy days in winter, many rainy days in spring with mud and slush making traveling difficult, when these ladies came to us by train to the nearest station, then by team to the home which was to serve as a demonstration center, where we expected her to greet us with a smile and an interesting talk or discussion. If she had to return the same day, there would be a grand rush to get her back to the train; or, if she could stay over, we entertained her for the night, oft times with great trepidation, in fear that we could not offer adequate accommodations for her comfort.

She adds that:

These days were called the days of wheat-less, meat-less, sugar-less meals, often referred to as stepmother meals, so called because while regarded with gratitude for what they did for people ... they were still substitutes.

In order to dispel the idea that home economics work means 'just cooking,' and to provide something for the various interest of the community, it seems best to include several branches of instruction, rather than to specialize on one... The interest of the women has not centered in the newness of the recipes, as some feared might be the case, but has been keen in regard to such subjects as food combinations and values, diet in disease and child feeding. This is believed to be a healthy indication and promises much for the presentation of future work of a more scientific nature.

Thomas Bradlee (UVM Extension director, 1914-1931).

The home demonstration agents arranged demonstrations for rural housewives through community organizations like the Farm Bureaus. Their initial efforts focused on food preservation such as canning meats, vegetables, and fruits. They began giving talks on good household management and sanitation practices, clothing construction, and repair. They taught homemakers how to build their own fireless cookers from an insulated box, a soapstone and

a couple of cooking pans, as well as other labor-saving devices. They conducted special campaigns on food substitutes such as use of potatoes instead of wheat.

After World War I, the home economics "survival skills" programs popular in the early part of the century were no longer in demand. After a long period of austerity and having to make do with what they had, homemakers now wanted to learn more about fashion, interior decorating, and ways to enrich their personal lives.

The county agents offered classes on a wide variety of practical subjects, as well as "interest catchers" such as hatmaking, dress forms, clothing remodeling, furniture restoration, and chair caning. They instructed homemakers on the most efficient ways to manage their work schedules and personal time.

Extension was generating plenty of printed material, from early brieflets to newsletters, bulletins, circulars, and brochures. Newspaper columns were, and still are, a useful way to get the word out and give UVM Extension visibility.

The University Radio Club began in 1919, broadcasting weather and market reports through an amateur station, IARY, using wireless telegraphy and a transmitter provided by UVM Extension. In 1922, WCAX (standing for Cooperative Agricultural Extension, it was said) got its federal license as a radio station and was operated by the College of Agriculture until 1931, when the station was bought by a newspaper owner for commercial development. Regular programming had begun in June 1924.

It was part of almost every agent's job to be the voice of UVM Extension on the radio. Morning, when a farmer often listened to his radio during milking, was prime time for farm radio programs.

Production agriculture

Through its earliest decades, UVM Extension's focus on production agriculture was mostly on dairy (along with some poultry

and pigs), maple, and apples, the main engines of Vermont agriculture through the first half of the twentieth century. Some things came and went. Production of sugar beets, birdsfoot trefoil, and beans, once the focus of Extension programs, disappeared from view, done in by disease or competition. But maple, apples, and especially dairy continued to be bulwarks of the industry.

UVM Extension was involved with maple early on, working on education with the Vermont Maple Sugarmakers Association from its beginning. During the 1920s, more farmers turned to maple sugaring as a second source of income. Since many of them had never attempted sugaring commercially before, they depended on the county agents for advice.

The Vermont Sugarmakers Association established a special committee, consisting largely of local Extension leaders, to investigate marketing conditions and improve the price structure. At the time maple syrup cost \$1.52 per gallon in bulk; bulk maple sugar ran 19 cents per pound.

A cooperative marketing association, the Vermont Maple Producers Exchange Inc., was created. A UVM Extension maple specialist was appointed to help farmers produce high-quality maple products and increase operation efficiency. He worked with producers and state maple organizations to establish standard syrup grades.

Maple sugaring soon became a family operation, with many youngsters taking over the bookkeeping through their work with 4-H Maple Account Clubs. To encourage them to keep good farm accounts, parents often paid their children from \$8 to \$12 per ledger, depending on the accuracy and legibility of the record book.

Dairy: Vermont's largest ag industry

For most of the century after UVM Extension's launch, dairy was the backbone of the agricultural industry in Vermont.

The dairy industry had been growing since the number of

sheep in Vermont began to fall off drastically in the mid-1800s. The earliest efforts of agricultural agents went to dairy producers, and the Vermont Dairymen's Association—the first such organization in the country, started in 1872—pushed for creation of Extension.

Even now, one hundred years later, dairy is still what most people are thinking of when they say “Vermont farm,” although agriculture and the dairy industry in Vermont, like UVM Extension, have undergone many, many changes over those years, the result of technology, shifts in farming practices and markets, and government policies.

Early UVM Extension work in dairy

In the first decades of the century, the state's dairy industry was in the midst of a shift from the manufacture of butter and cheese as the most important dairy products, to fluid milk.

During World War I, the dairy industry saw many changes, including the establishment of creameries in Richmond, Newport, and East Berkshire. Campaigns for better utilization of dairy products and byproducts focused on increasing the manufacturing and consumption of cottage cheese. County home demonstration agents stressed its high food value and demonstrated ways to prepare and serve it.

Meanwhile, part of the agricultural agent's job was to train the Dairy Herd Improvement Association (DHIA) testers.

One of the first major thrusts of the agricultural branch of UVM Extension during the 1920s was soil improvement. A campaign emphasized the value of using commercial fertilizer, testing soil for acidity, and home mixing fertilizer chemicals.

As liming became accepted as a good method for fertilizing cropland, farmers and county agents began searching for adequate sources of lime. Several agencies were developed to put a low-priced product on the market but none was very successful.

The county agents had much better luck at locating steady

We were able to develop an unusual program in Addison County with respect to lime. In East Middlebury, the Vermont Marble Company had a quarry from which marble had been shipped for years. An enormous pile of what was called 'marble dust' had accumulated. This material was analyzed at UVM and found to be high grade limestone.

The Addison County Farm Bureau contracted with the Vermont Marble Company to pay \$200 a year for five years for unlimited quantities of marble dust. The availability and quality of the material was publicized. Any farmer could take whatever quantity he wanted. We arranged with a trucker to deliver the limestone at a reasonable rate anywhere in the county. No records were kept of the quantity used, but it was certainly hundreds of tons.

Richard Aplin, Addison County agricultural agent
(1929-1932)

supplies of lime that were close by and at low cost to farmers. Richard Aplin, Addison County agricultural agent (1929-1932), and Thomas Cook, Rutland County agent (1925-1933), were both able to make deals with local quarries and factories.

Pasture improvement went hand-in-hand with liming programs. Until the mid-1920's few farmers had ever thought about fertilizing their cattle grazing lands. Most felt that pastures were merely fenced-in areas to put livestock to prevent them from eating the hay or field crop corn.

Dr. Ernest VanAlstine, UVM Extension agronomist (1921-1931), was one of the first to conduct research on pastureland in Vermont. He set up numerous test plots and spread varying amounts of phosphate, phosphorus, or potash on each. The UVM Experiment Station analyzed samples from each plot and shared the findings with the farmers.

The UVM College of Agriculture, in cooperation with the Agricultural Adjustment Administration, set up a central soil testing laboratory in 1937. Tests for lime, nitrogen, phosphorus, potash, calcium, and magnesium were provided free to farmers, who

could contact their county agents for mailing containers and instructions for taking samples properly. A total of 7,750 samples from 4,189 farms were tested that first year. Today, as the Agricultural and Environmental Testing Lab, it provides soil and manure testing to Vermont residents.

There when needed

From the start, UVM Extension could be found on the front line when disaster struck the state's residents. It made sense, because Extension had staff out in the community who knew the local people and a structure in place to get information and help out quickly and efficiently. Its programs dealt with the basics of every day life—food, water, shelter, work.

For example, with the onset of World War I, the three separate units of UVM Extension—agriculture, home demonstration, and 4-H—unified to help rural families adapt to conditions created by the war. The federal government had appropriated emergency funds for food supplies to help forestall a possible shortage of commodities, and it was up to the agents to teach families how to economize by using available goods wisely. More agents and assistants were hired on an emergency basis to work with families and schools in the "Win the War" program.

Agricultural preparedness rallies were held throughout the state to emphasize the importance of food production in Vermont and the need for more efficient agricultural methods and higher yields. Three community canning kitchens were established. ■

In The Great Depression Years

It was much the same during the Great Depression. The 1930s were a period of severe economic instability for most Vermont families. The Crash of 1929 had left many of them in financial difficulty, often in danger of losing their farms and homes. Once again, families were forced to economize.

As the Depression worsened, cuts in federal cooperative demonstration and local county funds reduced the UVM Extension operating budget by fifteen percent. Salaries, travel, and other expenditures for all personnel were cut.

The decrease in funding came at a time when demands for Extension's help were greater, more varied, and more unusual than ever. Staff members were asked to assume additional duties with no increase in pay and more often at reduced wages, since no money was available to hire extra workers. They were also trained to conduct federal emergency programs under the Civil Works Administration, Agricultural Adjustment Administration, and the Emergency Federal Relief Administration. By using UVM Extension personnel rather than training new workers, these programs got underway with relatively little confusion.

County agricultural policy committees studied the farming situation in Vermont and made recommendations to make it more profitable. Each year they focused on a different concern, using data from the annual county economic handbooks. The first year they studied available and potential crop acreage. The following year they investigated land-use trends and the effect of abandoned farmland on agriculture. In 1938 they concentrated on causes of low farm incomes.

The main focus of home demonstration work in the 1930s was on assisting families to make the most of available resources.

Home demonstration agents were busy helping Vermonters be self-sufficient. They focused on good nutrition and how to achieve it more cheaply. One project, for instance, Making the Farm Feed the Family, emphasized the use of home-grown vegetables in menu planning. Another project dealt with ways to expand the family's meat supply. Market prices for beef, poultry, and pork were low, so home demonstration agents urged farmers to eat their livestock or can it for future use instead of trying to sell it.

Food preservation, canning meats, and putting in gardens and canning the produce were all part of emergency relief efforts by home demonstration and other Extension agents, sometimes with federal aid, such as the Works Progress Administration (WPA), and state help through the Vermont Emergency Relief Administration.

Emphasis shifted from teaching specific skills to giving women general knowledge of fundamental problems affecting rural life. Special efforts were made to develop greater local leadership and community consciousness. There was more emphasis on wellness, and on child development and training parents. Child health and dental clinics were organized in the 1930s, including a project called Grow Right.

By 1939 more than 8,500 women were enrolled in 308 community home demonstration groups. An additional 2,000 women were reached indirectly through UVM Extension-sponsored WPA homemaking projects.

A partner for the small community

Assisting and strengthening Vermont's small towns and communities became an important part of UVM Extension's mission. The economies of some small towns often weakened as mills and

factories and numerous farms closed down or moved away, so some of Extension's efforts went to business development.

UVM Extension also worked to promote towns' "democratic functioning," beginning with an interest in local civics in the 1930s. Agents worked with the Vermont Chamber of Commerce and town officials to develop a model town report and encourage selectmen to prepare more comprehensive annual reports. They set up statewide conferences to discuss problems connected with civic affairs.

The UVM Extension Service, state Department of Education, and Vermont Chamber of Commerce prepared a series of questions and answers on local government for use in the schools. After studying this information, participants in civics classes held mock town meetings to vote on proposals and budget necessary funds, using the town financial report.

Vermont's strong town government requires volunteer civic leaders willing to give up time to serve on local boards. So it's no surprise that about one-third of 10,000 town officials are new to their jobs each year. Training the new officials—the selectboard, the town treasurers, the listers—is a task UVM Extension took on in 1938. It was suspended through World War II but has been held annually since 1946.

Land-use planning began in Vermont in 1938 to encourage farmers to use information available from the USDA to develop their own comprehensive programs for rural development. County agricultural land use committees and advisory councils were set up in each of the fourteen counties. A state agricultural land use advisory committee was formed that year with representatives from state and federal land use agencies and the county committees.

In Chittenden County a unified county program approach was inaugurated as part of this project. Special land use planning committees were established in several towns with the aid of the newly hired assistant agricultural agent.

4-H: Important from the outset

Youth outreach through 4-H has been one of UVM Extension's most important responsibilities from the beginning. The first State 4-H Week was held in 1924 at UVM, with instruction in farming and homemaking skills and recreation activities. The Boys and Girls Congress had been started a few years earlier, and 4-H programs in forestry and poultry, in addition to dairy, were underway.

In the pilot year of the 4-H poultry project, banks, service clubs, and other community organizations lent a hand by helping the youngsters purchase chicks. Notes were taken from those needing financial assistance, to be paid back when the cockerels were sold or when the flocks were culled in the fall. Over 12,000 chicks were distributed during the year.

Camping was so important that only one club member per club could attend (unless a club had at least twenty members with record books up to date, then two representatives could be sent.) The University loaned us the tents and cots, enough for fifty campers. Each year my job was to locate a camp site (and hire a cook, nurse, and swimming instructor. All of the rest of the staff—junior leaders, local leaders, teachers, specialists—gave their time in crafts, recreation, forestry, nutrition, first aid, etc. All staff members met with me before camp opened, and we planned our program.

To me, it was a chance to strengthen the county 4-H program by teaching each delegate material he was to share with his fellow club members during the year. Each day there was the regular camp program of fun, frolic, and good food but always there were educational features—a model business meeting to be scored by other campers, demonstrations and illustrated talks on nutrition, first aid, and forestry, and classes in song leadership, game leadership, and nature crafts. It was meaningful, it was educational, it promoted strength, and loyalty to the 4-H'ers' Head, Heart, Health, and Hands.

Margaret MacDonough, Chittenden County 4-H agent
(1933-1937)

Xenophon Wheeler of West Bolton recalled that, “I went West in June 1925 and when I returned in August of 1927 my brother John had built a 15-foot-by-30-foot hen-house with a 4-H emblem on the door. His 4-H project was our start in the poultry business, which lasted until 1968.”

By the end of the 1930s, the 4-H program had agents in eleven counties and an agent-at-large. Camps, a valuable part of the 4-H experience for many decades, began to be organized. By 1929, there were county 4-H camps in nine counties.

One of the first county camps for youngsters was the Coutts 4-H Camp. It was established on Lake Salem in Orleans County in 1931 when Mrs. Mary Ainsboro of Derby convinced the town fathers to permanently lease one hundred feet of shore property for a camp. A building fund was started with \$25 pledges from four Derby residents.

Permanent sites were acquired for two other camps in the early 1930s. Camp Waubanong moved to Townshend after being held several years in Saxtons River. Camp Ondawa was established in Sunderland in 1923 and held at various locations until the purchase of a permanent site in southwestern Vermont.

In the 1930s, property was acquired in northwestern Vermont for a regional 4-H camp that served Chittenden, Franklin, Grand Isle, and Lamoille Counties. Camp Downer in Sharon was also expanding to keep pace with the demand for outdoor camping and recreational experiences.

It wasn't just young people who got to go camping. In the 1930s, homemaker vacation camps were held on Miles Pond. Many women paid their camp fees in sacks of potatoes or fresh produce. The facilities were located on an island, which meant that both campers and supplies had to be transported to camp by rowboat. Other camps later opened at Lake Bomoseen and Owl's Head Harbor on Lake Champlain. Women could get away from their homes and families for several days of relaxation each year.

An annual 4-H forestry camp was initiated in 1946 to provide

Harriet Wheatley Riggs of Richmond also has fond memories of 4-H camp in the 1930s. She recalls that she attended county camp when it was held in a big house, Dunrovin' Manor, in Sharon. Campers used to sing at tables during meals:

“The boys' 4-H song, 'Plowing,' and the girls' 'Dreaming,' plus fun songs like 'Frog Went A Courting,' 'It Isn't Any Trouble Just to S-M-I-L-E,' and 'You're Always Behind—Just Like the Old Cow's Tail.' That latter song was always sung to late arrivals. We brushed our teeth in the river across the road. We had setting up exercises on the big lawn.”

forestry project members with special instruction in conservation and forest management.

Junior leadership was officially introduced to 4-H in 1937. The purposes of the new 4-H project were: (1) to develop leadership among older club members, (2) to present a challenge in line with their abilities, and (3) to provide assistance for adult leaders. Leadership training for adults and older club members led to the development of additional 4-H projects and increased productivity in existing programs.

By the end of the decade, a special Senior Homemaking program had been set up in three counties for older club members. The girls enrolled in the program were either juniors or seniors in high school or young working women. They met regularly to study first aid, grooming, clothing design and construction, and vocational interests.

Enrollment in 4-H dairy clubs was also on the upswing, with more than 600 youngsters participating in dairying by the late 1930s. The emphasis shifted from competition to the proper care and handling of the animal. The Young Herdsman Award, one of the highest honors a youngster could achieve in this project, was introduced in place of the National Dairy Exposition trip of past years in an effort to de-emphasize the importance of competitive events in the 4-H program.

Helping out

After the Depression and the passage of national laws such as the Agricultural Marketing Agreement Act, which established federal milk marketing orders, and the Agricultural Adjustment Act, UVM Extension agents began to take on more educational work about milk marketing. Meanwhile, the idea of organizing a large central cooperative was promoted and led to the formation of Milk Inc.

Extension helped out during the natural disasters of the flood of 1927 and the hurricane of 1938. That hurricane damaged more than 10,000 acres of silage corn, flooded potato fields, and destroyed several farm buildings. The greatest damage, however, was to maple and apple orchards and woodlots in eastern Vermont.

More than one million tappable maple trees were destroyed, bringing the total amount of timber blown down in the storm to slightly over 300 million board feet. The extensive damage prompted UVM Extension and the newly organized Northeastern Timber Salvage Administration to develop a program for buying, selling, and storing logs.

The county agents helped arrange for sawmill sites, wet and dry storage of logs, and the manufacture of pulpwood. Although the cost of marketing timber in hurricane-damaged stands ran about one-third higher than normal, about seventy-five percent of the salvageable timber was saved by the end of the year.

But there were much greater catastrophes to come. ■

War Years: World War II

After the United States declared war in 1941, the lives of many Vermonters were tremendously affected and, again, UVM Extension was called upon to do its share. Vermont needed more food production for use both at home and overseas, continued labor on the farm, and a better understanding of the country's involvement in a world war.

UVM Extension created a system of local leaders for rural war work, known as Neighborhood Victory Committeemen, of more than 3,000 Vermonters. The network was a subsystem of a nationwide association, Rural Neighborhood Leaders. U.S. Secretary of Agriculture Claude Wickard said: "I am depending upon Extension to train a much larger number of local volunteer leaders to help in carrying forward all phases of agriculture's wartime program."

The committeemen enrolled rural people in the 1942 Victory Guard program, encouraged the collection of scrap materials, and distributed information on President Roosevelt's Seven-Point Program to control the cost of living, the farm labor situation, and provisions for the deferment of essential farm labor.

The Victory Garden Program was a major focus of UVM Extension during the war years. The horticulturists and nutritionists prepared information packets and conducted training schools for UVM Extension workers to promote the program. They also wrote newspaper columns under the headings of "Green Mountain Gardener" and "Your Food and You."

As an incentive to grow a victory garden, the governor's office awarded certificates to families producing and preserving at least two-thirds of the fruits and vegetables they would need until the following growing season. Approximately 18,000 to 20,000 families enrolled in the program before the war was over.

The slogan of the home economics program became "Vermont Demonstration Clubs Take Their Place in the National War Effort." Programs on conservation of food, clothing, and household equipment were started to help keep bills down and spirits up. Many war brides were taught the same home-making survival skills and methods that had carried housewives through previous crises.

Topics chosen for club projects and discussions reflected the themes of thriftiness and self-reliance: Soap Making at Home, Wartime Fabrics, Care and Repair of Clothing, Growing a Victory Garden, and What Shall We Use in Place of Meat?

"As home dem agent, I put on various programs, like using milkweed pods in a pillow, to help with rationing things during the war," said Betty Carr, Washington County home demonstration agent (1942-1950).

Another home demonstration agent remembered: "Our programs during those years were centered around subjects that might be of help to the homemaker. Some items were rationed, namely sugar, meat, gasoline, and shoes, and I'm sure there were others. Tires were very difficult to purchase in our county."

With many men away on the front lines of the war, special efforts were made to further educate women and promote their development in areas outside the home, including citizenship. They were encouraged to play a more active part in community affairs such as town meetings and land use planning sessions as well as learn more about the National Defense Program and the international situation.

In the early 1940s the National Defense Advisory Council and the National Resource Planning Board asked UVM Extension to make a comprehensive survey of the national defense require-

ments of the Winooski Valley. This study took a look at the area's resources, including electric power, fuel, surface water, housing, and medical facilities as well as agricultural production and industrial development. It also explored existing or potential sources of transportation, communication, aviation facilities, natural resources, manufacturing space, and skilled labor.

On the national level, new programs that affected rural areas were developed, including the Agricultural Conservation Program, the Soil Conservation Service, and the Rural Electrification Administration (REA). Up until then, UVM Extension had prepared and implemented its own programs; now many programs were handed down from Washington.

Extension staff members became involved in the Rural Electrification Project and worked with the REA to make electricity available to additional farms and families. Many miles of lines were built in Caledonia, Franklin, Orange, and Orleans counties.

As the war intensified, national defense became the watchword. The largest defense job for UVM Extension was the Vermont phase of the National Food for Freedom Program and the National Food for Defense programs in 1941.

Easing labor shortages

World War II left Vermont farms short-handed. Workers left to get jobs in industry or joined the armed forces to do their part in the war effort. The severe shortage of farm labor prompted UVM Extension to ask outside agencies for help, including the state agricultural planning committees, the Selective Service Administration, the Works Progress Administration, and the State Employment Service. Meanwhile, Extension agents passed along information on farm placement activities and labor-saving devices to farm people.

As the war continued, the shortage of regular farm labor, as well as seasonal workers, became extremely critical. To assist farmers in finding help, Extension worked with a newly formed

governor's farm labor committee. Selective service boards at both the state and county levels cooperated with the county Extension agents to defer necessary agricultural workers and to refer men with agricultural experience for placement on farms where needed.

The state Employment Service worked out an agreement in which any farmhand being employed in industry through their efforts would not be given such employment but would be referred instead to a farm job. The organization also worked with the county agents in finding seasonal labor. In 1942, about 5,000 Vermont school youth were recruited to assist in sugaring, haying, and the apple harvest.

That same year, the Vermont Land Corps, a private organization in New York City, worked with the UVM Extension Service to bring Eastern city youth to work on Vermont farms. About 600 came to the state the first year; higher numbers participated in succeeding years. A similar statewide effort, the Victory Farm Volunteer Program, enlisted teenage volunteers for work on Vermont farms.

In 1942, the Vermont Legislature appropriated \$25,000 for UVM Extension to carry out a farm labor recruitment and placement program. A farm labor office was set up in each of the county offices and full-time Extension farm labor supervisors were hired at the state level. Emergency farm labor assistants were employed to help the county agents with the recruitment of farm workers through schools, service clubs, draft boards, and the U.S. Employment Service.

A one-shot recruitment of year-round workers was carried out in Newfoundland by the Army Engineers. These were recruited from the unemployed in the fishing villages. Their quality as farm help proved to be all the way from very bad to good, with the average below mid-scale. They did have one weak point in common—bad teeth. About forty percent of the 'Newfies,' as they were called, had to have dental work done or full dentures made

Charles Doane, one of the farm labor supervisors (1945-1948), had this to say about his program: "Dairy farm workers for the summer harvest season were recruited in Quebec pulp country at Three Rivers and Shawinigan Falls. Pulp-cutting operations ceased during the summer months, so cutters were glad to have a chance to continue to earn wages."

at the expense of the program. The Newfies called it 'having his teeth hauled.'

Recruitment of apple pickers was done locally in the area of the orchards. Also, pickers were brought in from sources outside Vermont such as the Indian reservation on the Ontario border and the Red Hook section on the Hudson River as the orchardists there finished harvesting their crop.

The end of World War II helped alleviate the farm labor shortage but didn't solve it. Farm labor continued to be scarce, although efforts were redoubled to bring in workers from the Midwest and Canada.

Post-war 4-H

The 4-H Green Mountain Victory Guard operated during the war years from 1942 through 1944. Nearly 10,000 youth, including those who were not in 4-H, and seven hundred leaders were involved in the Victory Guard.

Regular 4-H club projects in agriculture and homemaking were broken down into a number of smaller projects for wartime conditions. For example, a 4-H clothing club would raise a Victory Garden and can the produce. When pork supplies ran short, the Victory Guard encouraged 4-Hers to raise pigs.

After the war, efforts were made to develop a better 4-H dairy program. Dairy breeders associations and feed dealers worked together to provide qualified club members with purebred dairy heifer calves. Committees representing each of the breed associa-

tions were organized in eleven counties to help with this project.

A new judging system was developed in 1948 for 4-H dairy projects at field days that placed less emphasis on the conformation or pedigree of the animal. Instead, the focus was on the individual 4-H member, including calf care and project records.

At the insistence of the purebred dealers, the program was discontinued a few years later. They felt it was not an acceptable alternative to judging solely on conformation. A new 4-H dairy record book was developed to expand the project.

Other phases of the 4-H program were also undergoing major changes. UVM Extension adopted a long-range program to involve more volunteers. Local citizens took on more responsibility, forming committees to recruit volunteer leaders and develop better programs.

Russell Smith, Orange County youth agent (1951-1955), had this to say: "As additional youth became involved in 4-H in the 1950s and the range of projects was expanded, it became unrealistic to expect one or two adult volunteers to have either the expertise or time to meet all expectations. Therefore more adults with abilities and skills in specific subjects were recruited as project leaders to work with individuals or small groups on topics of common interest. Vermont was one of the pioneer states in promoting and adopting this concept."

Great emphasis was also placed on selecting, training, and recognizing junior leaders, later known as teen leaders. Each year the Junior Leaders Conference was held at the University of Vermont to introduce the delegates to the University, provide career information, and help them develop both as individuals and as leaders.

Another major step forward at the state level was the development of teen boards to help plan and administer statewide programs. These included the 4-H State Day Teen Board, the Teen Leader Committee, the 4-H Dairy Teen Board, and the 4-H Horse Teen Board.

In 1949 Vermont participated for the first time in the International Farm Youth Exchange program, sponsored by the National 4-H Club Foundation. It was a cross-cultural living experience, primarily with families, that was designed to develop better international understanding and friendship.

The first State 4-H Club Day was held that same year at the State School of Agriculture in Randolph Center. 4-Hers from across the state demonstrated crafts and skills and exhibited items they had made in their projects. Within two years, more than 400 boys and girls were participating in 4-H State Day activities including demonstrations, action exhibits, Dress Revue, and judging contests.

Feed and forage

During World War II, protein concentrates had run short. The Vermont Feed Dealers Association was organized and kept the industry informed of the rapidly changing feed situation. The state USDA War Board and feed dealers publicized the situation and developed a new feeding program for dairy herds. John Newlander of the UVM Experiment Station, a specialist in cattle feeding and nutrition, developed what later became known as the “Newlander ration,” a formula by which farmers could mix their own feeds at a cost below that of commercial feeds.

Alfalfa had sometimes been promoted as a good crop for Vermont, but there wasn’t enough really known about how to grow it. “Alfalfa was a source of much discussion and, lacking reliable information about it, we had an alfalfa project, which, except for a lot of work and the opportunity to get acquainted, did not amount to much except to earn me the nickname in select quarters of ‘Alfalfa Abbott,’” wrote Washington County agent F.H. Abbott (1916-1919). “There was no one in those days to tell us it might not flourish like the buckwheat in Calais and Warren, as well as in the Champlain Valley.”

Attempts to get farmers to grow soybeans had been equally unsuccessful. Test plots were started in various areas of the state with seeds supplied by USDA. Good yields came from parts of Chittenden and Grand Isle counties, although crops grown in other sections of Vermont did not fare as well.

Abbott, speaking of this project, noted that:

“Soybeans were a hot topic. We were then learning they were a good source of protein when grown with silage corn. Some of the good Farm Bureau members were mean enough to say that the most good they got out of the county agent was the physical effort required to cut and test the demonstration plots. Like alfalfa, these projects proved more educational than profitable.”

But better varieties and agronomic knowledge eventually helped increase the acreage of legumes like trefoil and alfalfa, which doubled between 1950 and 1960. Nitrogen fertilizer and lime applications grew. The Green Revolution, that explosion of technology in post-war years that dramatically increased agricultural production around the globe, was also sweeping through Vermont agriculture. ■

After The War

After World War II, interest shifted from worldwide problems to those of the community and state. The Vermont Home Demonstration Council, uniting more than 300 home demonstration clubs around Vermont, was formed. It dealt with such issues as more school hot lunch programs and better library and recreation facilities. Especially dear to the hearts of Vermont women were the state and county choruses and the Book Wagon Project, which lasted for several years.

Vermont was served by five bookwagons, and according to a national survey had the best type of service in the country. We are quite proud that the fifth bookwagon was purchased by contributions of ten cents per member per year from our 8,000 home demonstration women. We have been able to purchase a new truck every three years, with surplus money being used to buy more books for each of the regional libraries.

Through the bookwagon service a survey was made to determine the need for dictionaries, reference books, and other necessary items for our rural schools. We purchased five record albums consisting of the songs of seventy-two of our wild birds, with colored pictures of these birds. The sets were loaned in the same manner as books from the bookwagon.

I think the Bookwagon Project will always be my idea of what Vermont women have accomplished, and I still feel it was of great benefit to rural communities. Its death was a sad event.

Mrs. Muriel Link, Vermont's first official delegate to the National Home Demonstration Council.

The home demonstration program underwent a period of change as more women got jobs outside the home. Working wives and mothers were interested in shortcuts to reduce time spent on housekeeping chores and meal preparation. A higher standard of living and demand by these women for more information on finances led to the development of programs and materials on budgeting and money management, estate planning, and legal rights.

In the 1950s, with a growing awareness that its focus should broaden to include family relationships, UVM Extension added a human relations specialist to the staff.

Post-war production agriculture

The booming post-war years brought UVM Extension its first full-time horticulturist, C. Lyman Calahan (1947-1980), who concentrated on apples. Within ten years, Vermont was producing more than 1.1 million bushels of apples. The majority of them were McIntosh, a variety first grown in the 1820s in the state.

In 1946, the Proctor Maple Research Center was founded by UVM botanists James Marvin and Fred Taylor, when Governor Mortimer Proctor donated a farm in Underhill Center to UVM. The first year's research was conducted in a small shed. Later a sugarhouse and then a state-of-the-art laboratory were built.

There, research has been undertaken on such production practices on how to get more tap yield, off-flavors in syrup, and the effect of air injectors on syrup flavor. Forest management practices are studied, too, such as controlling insect pests and the effects of fertilizing maple stands.

Mastitis has long been a primary focus of researchers at UVM and educational efforts in the field. A statewide mastitis control program was organized in 1943, with education through meetings and demonstration farms and a milk sample testing service. Yet “few opponents have been as determined and persistent as mastitis,” said the 1961 annual report. Half of the herds in Vermont had cows with udder damage from mastitis.

An all-out campaign was launched that included surveys, testing of milking equipment, and education. These continual efforts to curb mastitis by educational workshops and meetings have been underpinned by award-winning research into mastitis and mammary growth on the UVM campus.

Another feared cattle disease, brucellosis, or “Bangs Disease” as it was called by farmers, threatened dairy herds throughout the state. Eradication campaigns had started early on in the 1920s, with barn meetings held to educate farmers. Lamoille County Extension agent Frank Jones (1918-1952) was particularly successful—sixty percent of the county’s cattle were brought under an accredited herd plan in 1924. The Vermont Legislature established a statewide brucellosis control program in 1939 and provided for the appointment of an Extension animal pathologist to develop an educational program for control of brucellosis and other animal pests and diseases.

Farm field days began in the 1940s to show farmers the latest in agricultural practices and equipment. Some of these remain, like Addison County Field Days, and are more like rural fairs today, where you’re as likely to find a midway as a horsepull.

To lower production costs for farmers, agricultural agents were emphasizing home-grown feeds and lower production costs. With the UVM Extension agronomy specialist, they recommended planting acid-tolerant legumes such as red, white, or alsike clover; soybean; and vetch on meadow and pasture areas to increase protein content. Alfalfa was suggested only for soil that was naturally sweet or could be limed at low cost.

Who has the greenest pastures?

In 1948, a friendly wager between the governors of Vermont and New Hampshire became the start of the New England Green Pastures Program. It was as much an educational program to improve pastureland as it was a competition. Run by state Extension offices and still going strong today (run in individual states as the Dairy Farm of the Year program), Green Pastures helped shift the emphasis from summer forage to winter feed in the mid-1950s, as more producers confined their herds year-round.

UVM Extension agents held workshops and visited farms, emphasizing feeding programs and winter herd and cropland management. They offered information on hay drying, field conditioning, and crop storage as well as the selection and balancing of feed for dairy cows.

Technology transforms dairy

In the decades of rapid technological, economic, and social changes after World War II, the amount of milk made by U.S. farmers rose like a flood tide, sometimes swamping the market.

The Green Pastures program was where the governor of New Hampshire bet the governors of other states that they couldn’t produce pastures as green as he could in New Hampshire. It took him thirteen years to prove his point because everyone else won before he did.

But it was a great program for farmers. The biggest thing was, in order to be a farmer and enter the program, you had to have judges to judge them, and we couldn’t hire that many or find them in Extension so we had to use farmers themselves for judges. And if you’re going to have judges you have to have a judging school. Now, there’s a chance for education. And once you got the judges educated, they had to go around and educate themselves by visiting all these farms to see which one they thought was a winner.

Win Way, Extension agronomist (1954-1985)

Father had one of the first corn choppers. Well, that system worked fairly well for small farms, then small farms disappeared so that system became obsolete.

We went from horses ... to using tractors, the old steel-wheeled tractors, then rubber tires; tractors got bigger; equipment got bigger. The old cross cut saw we used for cutting up wood was replaced by power saws. Eventually we got bulk tanks so instead of picking up cans of milk at the farm, trucks came and picked it up at the farm, which meant you had to operate in large scale operations. It just became an industrialized operation.

Fred Webster, agricultural economist (1956-1988)

The cost of producing that milk climbed steeply, especially in New England, where costs are traditionally higher than in many other parts of the United States.

Technology improved individual farm output, not just in Vermont but nationally, and as policies changed, milk prices became much more volatile and margins tighter. It was harder for a small dairy farm to cover the cost of producing milk and make a living for its owner, and often it could no longer generate the profit it needed to stay in business.

Bulk tanks alter dairy

The story of the bulk tank was a microcosm of what was happening in the dairy industry. The expense of buying and installing a bulk tank to cool and store daily milk production often could not be covered by the meager profits of a small dairy farm, and many of those farms went out of the milk business.

When I came in the late 1950s, they were going from milk cans to bulk tanks. That was a tremendous change, because farmers with just milk cans...there were 85 pounds of milk in a can and there were some farmers had as little as a couple cans of milk a day, you know.

Well, you can't very efficiently operate a system where trucks go out to the individual farm and pick up milk from farmers like that ... and so it put a tremendous pressure on the very small farms. They were being forced out anyway, but that was an extra-big pressure on them to have to invest in a bulk tank. It was an efficient way to handle milk, but it hurt the small farmers. And it was one of the things that we had to advise the farmers on how to cope with it.

Fred Webster, UVM Extension economist (1956-1988).

According to the 1957 town listers' report, nearly forty percent of all Vermont farms shipping milk had fewer than twenty cows. These producers needed information on viable alternatives to dairy farming that would generate enough extra income to allow them to keep their farms. UVM Extension began addressing the plight of the small dairy producer whose business was failing. It carried out educational programs on side-line businesses that a farmer could go into, including maple sugaring, sheep raising, wood and pulp production, egg marketing, and commercial gardening.

By 1960, the trend toward bulk tanks was in full swing, and dairy producers needed information on not only bulk tanks but

That was a tremendous change for dairymen, bulk tanks. They were shipping their milk in these little, milk cans we called them. And then when they got the word that some of the companies that were handling the milk were going to bulk tanks...it was a big, big change. Number one, to buy the equipment. Number two, the milkhouses they had before, with water and maybe ice-cooled tanks for their cans of milk, some were not large enough to put in the bulk tank. So it didn't mean just buying the big bulk tank, it meant, have you got a place to put it? And also have a place where the milk haulers can get there with their trucks back up to the milkhouse and get the milk out.

Lucien Paquette, UVM Extension agent (1940-1982)

milkhouses and other facilities. UVM Extension agricultural engineers spent more time with farmers on things like structures, ventilation, and wiring farms for electricity. “With the change in management practices in dairying, it will be more necessary than ever for the farmer to devote time to planning for the efficient use of buildings and equipment,” according to the 1956 UVM Extension report *Your Extension Service—The College Comes to the People*.

“Time was when a barn was a roof, four sides and whatever space resulted,” according to UVM Extension’s 1961 annual report. “Today farm structure planning starts with the economist as he calculates profitable herd sizes. Milking and animal nutrition specialists take it from there. By the time the engineer gets it, he has to build in efficiency for many needs.”

The prize and price of technology

UVM Extension agents provided the latest information on other new technologies, too. The story of the bulk tank could have been the same for any new agricultural technology—the tractor, artificial insemination, bovine somatotropin, or sexed semen—that increased production but also increased the cost of production and made economy of scale more critical to profitability.

Artificial insemination (AI), for example, which made better breeding stock available to producers, has done as much as anything to increase milk production. UVM Extension agents had early on stressed improvement of breeding stock by using sires of merit. In 1919, a little more than five percent of dairy cows in the state were registered. In 1935, UVM Extension helped set up a cooperative AI association in Windsor County and southern New Hampshire counties. By 1960 more than forty percent of Vermont cows were bred AI, rather than with bulls.

On-campus research into bovine somatotropin, or rBST, which can increase milk production by as much as ten percent, became a lightning rod for anti-biotechnology protests in the 1980s. UVM Extension held meetings on rBST around the state to explain the

Former Chittenden County agent Robert Carlson (1946-1975) described one farmer’s experience with the purchasing of new seeding equipment:

A farmer in South Burlington asked me to come to his farm one spring morning at 10 a.m. as he had a major decision to make. As I drove into the yard I saw the farmer near the big barn door with two local machinery salesmen visiting with him. He turned to me and said, “You know all the answers. What kind of a seeder should I buy for my farm?”

The farmer and both salesmen, whom I knew very well, glued their eyes on me. Obviously, each salesman had given him a sales pitch for their make of machine. I said, “Wow, you ask hard questions. Have you seen either of these seeders work?” The farmer said, “No.” I then said to the salesmen, “Would you show this man how your machinery works, and give him the good points?” They both said, “Glad to.” We talked about the weather, the farmer’s family and so forth.

Two weeks later I saw the farmer again at a feed store. I asked, “Did you buy a seeder?” He answered, “No. I had each salesman put on a demonstration on my farm and got my seeding all done for this year.” I said, “You sure are sharp.”

new technology in a clear and objective way. In 1990, a three-year study at UVM ended, which found no adverse effects of rBST on milking Jerseys.

Marketing had become increasingly important over the decades to help farmers deal with the growing milk surplus and consolidation by their customers, milk handlers and retailers.

UVM Extension began a program to develop a better-flavored milk that would increase sales in cities and towns. That initial endeavor set the stage for a continuing program involving milk flavors, dairy barn ventilation, proper milking techniques, and use of equipment with brass or copper surfaces.

Two years of severe drought in 1962 and 1963 brought many farms, especially in Addison County, to their knees. UVM Extension stepped in, along with the Agricultural Stabilization and Conservation Service, governor’s office, state Department of Ag-

Lucien Paquette, the Addison County agent, called me on Saturday night. In fact I was visiting with the neighbor and he got through and said 'we're in trouble down here, we're out of water and if we don't do something, they're going to lose their farms.'

Monday morning, I went down to the main office and we started getting people together. National Guard and prison inmates worked on it, too.

Shoreham, Bridport, and Addison were hit the hardest. We pumped water out of the Lemon Fair into tanker trucks brought in from outside the state. Everyone contributed and it saved the farms. They have great farms down there, and if we hadn't done what we did, there would have been a lot of cows sold off.

The cattle did not have to be sold, the farms and economic well-being of the area had been saved, only because of the overall effort. Probably never has such a block of excellent farms, at least in Vermont, been as close to economic disaster as were these in the fall of 1963.

Noah Thompson, Chittenden County agent and specialist in civil defense (1963-1984)

riculture, and National Guard, to deliver water to dry farms.

Soon after this, Vermont's Senator George Aiken introduced the Rural Water Act to the U.S. Senate. It was passed and signed into law by President Lyndon Johnson and helped provide water from Lake Champlain for the Addison, Bridport, and Shoreham farm areas several months later.

In 1935, UVM Extension had started a comprehensive, state-wide manure conservation program to teach farmers how to make the most of their manure. Later, another program advocated the use of superphosphate to reinforce and preserve farm manure. Farmers could get federal funds to spread phosphate in their gutters so it went out to fields in the manure.

At the time, fields in Vermont were very low in phosphorus. The federal Agricultural Conservation Program would pay farmers to apply phosphate, but at first farmers would have none of it. They didn't want to take money from the government, said Win Way, UVM agronomist (1954-1985).

"Then UVM Extension wrote a publication to convince farmers it was OK to take government help if it's being done for a good cause, because that's going to help the general good, and phosphorus is one of those things," Way said. "We convinced farmers that putting superphosphate—two pounds a day in your gutter—was a common good. We became the state with the highest participation in the program—I think we had ninety percent participation. And it was that publication that was the turning point."

UVM Extension had always been concerned with natural resources and their protection. Soil conservation districts got their start in the 1930s, a result of the 1927 flood and new knowledge about soil erosion learned in the Dust Bowl years. The Winooski Valley Soil Conservation project, a five-year project started in 1936, set the stage for soil conservation districts across the state. Farm field days usually featured soil conservation education.

Also, forestry is an important sector of the economy in heavily forested Vermont, and UVM Extension has a long-standing and renowned initiative to educate loggers and foresters in how to harvest this resource responsibly.

But it wasn't until the 1960s that protecting water, air, and land became a field in itself. In 1964, UVM Extension hired five area resource specialists. Their role was to help local people and organizations discover what natural resources were available in their communities and how they could best preserve them for the future. They placed special emphasis on land and water use, and on complementing agricultural production with recreation and industry.

By the mid-1960s, any youth who wanted to go to camp, not just 4-Hers, was invited to come to 4-H camp. The first fine arts special interest camp was held at Camp Downer in 1967. The session included instruction in ballet, theatre arts, music, sketching, and painting and concluded with a public performance on the final night of camp.

"Camp Ondawa [in Bennington County] was a big thing at the

time,” said 4-H youth leader and area administrator James Edgerton, who retired in 1986 after thirty-one years with UVM Extension. “My first eight years of marriage I was never home on our anniversary because I was always at camp. You don’t work by the clock—that was the nature of Extension.

“I was always proud of 4-H camp program because you had 14- and 15-year-olds taught real, on-the-ground leadership experience, strengthening young teen leadership.”

But over time, most 4-H camps consolidated or closed down. In 1973, Camp Ondawa celebrated its fiftieth anniversary; it’s no longer in operation. Today, most of UVM Extension camps are special-interest camps. For example, school-vacation camp weeks are one offering, as are military camps hosted with other organizations.

Lloyd Williams, former television editor and program host, had this to say about the widespread popularity of *Across the Fence*:

We conducted a survey of the Extension staff to see how many people were listening. I don’t recall the exact number of Vermonters, but it was a big amount. I was quite proud of the number of people that were listening to the show.

I was driving two friends of mine up to Montreal, which I guess is 100 miles out of Burlington. These two girls were kidding the life out of me about being such a popular TV idol and all the people that would listen to my show. We stopped at the tollgate crossing into Montreal; the toll collector stopped me and asked, “Where have I seen you before?”

Now, I did not dare say anything. I could be wrong, but then he came through beautifully. “Ah, I know. *Across the Fence*. I watch it every day.”

Well, those two companions were pretty quiet for the rest of the trip. The show was carried all the way, the 100 miles or so, up to Montreal.

When TV came in, public meetings took one heck of a whack. Extension used to be a social thing, like the Grange; it was a great deal for twenty farmers to go out after milking and have a smoke together and talk about milk production ... Like women going to a social or going to a knitting roundup ... a part of it gets to be a social thing, and same with farmers. They liked to get together and they liked to compare notes on how their cows were doing and how far along they were in haying, and it gave them a chance to talk to each other. And they probably learned as much from talking to each other as they did from listening to me Then, when television came along, that eliminated that feature.
Win Way, UVM Extension agronomist (1954-1985)

Extension over the airwaves

UVM Extension had learned to put different kinds of media to good use. In 1960, 2,100 radio spots were broadcast over the airwaves. Probably many fans still remember Bennington County agent John Page’s radio spot that ran Mondays and Tuesdays for thirty-two years. He talked about agriculture and country life, always ending with “Don’t forget to drink your milk today.”

As UVM Extension looked for new delivery methods to keep up with changing technology and demographics, it didn’t have to look far. After World War II, television reception flooded the countryside and by the late 1960s, even the most remote farm likely had a TV set.

In some ways, television did not serve UVM Extension—indeed, any organization that relied on face-to-face meetings—well. Farmers who once found a social outlet at a UVM Extension meeting, the Grange, church, or the community hall, had something else to do in the evenings. They watched TV.

But UVM Extension also used television, like radio, to become a strong and familiar presence in Vermont communities. WCAX, by then a television station, aired the first *Across the Fence*, a UVM Extension show, in 1956. Within five years, it was showing in 20,000 homes during the noon hour when farmers came

in for dinner.

From the beginning, WCAX's owners, the Martin family, allowed UVM Extension to have the air time free, which is unique and a great boon for Extension. For WCAX, it was a good way to get local programming on the air at little cost. ■

The 1960's: A Changing World

The Great Society programs of the 1960s, with their goals of lifting Americans out of poverty and oppressive social circumstances, affected UVM Extension a great deal. The federal government made much more funding and support available for programs to help the poor and underserved.

The Expanded Food and Nutrition Education Program (EFNEP), started in 1969 with a federal grant, is one of UVM Extension's longest-running and most successful programs. EFNEP's goal has been to improve the diets of low-income Vermonters by teaching them about nutrition. But early on, EFNEP staff knew that their work was about more than healthy food.

"You can't teach them to bake muffins if there are other problems in the way. No one is going to care about what she eats if she doesn't care enough about herself," said Sally Hill, an Orleans County UVM Extension nutrition aide in the 1980s, who tried to instill self-confidence in her clients. Hill once was poor herself and lived in a car for a week, facing many of the same problems as her clients.

The program had started as an intensive one-on-one program with forty nutrition aides in the field. But like other areas of Extension, EFNEP was affected by continuing cuts in federal grant

We often had to do cleanliness. Oh, I remember going to Rutland one time with an aide and I think she was going to make cookies. And this woman reached up into the top shelf in her cupboard and pulled down a plastic bowl, which to my horror was full of curlers, and oh, my heavens. Well, they rinsed out the dish and used it.

Alice Wright. Extension nutrition specialist (1969-1991).

money. After two decades, it had ten educators and had moved away from individual home visits to more group teaching and school presentations.

"It was my job to think of ways we could reach more people with the same or fewer nutrition aides," said Alice Wright, who had started with the program. "As the money grew less we started trying to work with groups. Aides were to come from the target audience; that was a good way to hire people who were smart, even though they may not have graduated from college."

The program also made use of television, starting with a program called Magic Hands, and worked with other organizations, such as Women, Infants and Children and the Vermont Campaign to End Childhood Hunger, to provide better outreach.

A different approach to the family

Much of UVM Extension work in the early part of the 1960s reflected the importance of the family unit and the role each member must play in the management of the home and farm. This philosophy is described, in part, in the UVM Extension director's report for 1960:

"The strength of American agriculture lies in the fact that it is predominantly a family farm-type operation, but to survive in today's agriculture the family-type farmer must be able to plan and manage his operations wisely. The entire family is called upon to make frequent decisions both from the point of view of agricultural operations and in management of the home."

UVM Extension developed programs that taught the family how to appraise its resources, identify problems, and analyze possible solutions. Information was made available on a wide array of

topics from credit and farm management to modern technology. Youth were encouraged to explore different career options and participate in leadership training opportunities.

By the mid-1980s, programs like Working Together, which taught communication skills to couples, and Active Parenting, a video-based program on better parenting, were more likely to be offered than cooking and sewing.

The client as consumer

Recognizing that the people they served were consumers as well as producers, UVM established a consumer information clearinghouse in 1963 to deal with consumer-oriented questions and concerns. UVM Extension family management specialist Faith Prior supervised the program. At the time, only twenty other states had any type of consumer agency similar to the clearinghouse.

According to the original proposal, the clearinghouse was to sponsor conferences for lay audiences, produce newsletters for professionals and the public, serve as an information center for consumers, and interpret the consumer's point of view to the legislature and producers. The agency was later linked with the state attorney general's Consumer Protection Division and helped draft legislation dealing with consumer problems, truth-in-lending, and unit pricing laws.

A monthly newsletter, *Dollars and Decisions*, was developed as part of the program, and provided information on consumer protection, legislation, and wise buying practices. Citizens were also encouraged to use the clearinghouse to register complaints about a particular business or product. The clearinghouse project was quite successful and, as the Consumer Assistance Program, is still in operation today. No longer an Extension program, it is part of UVM.

UVM Extension was among the earliest advocates of the metric system. A publication, *The Kilos Are Coming*, was written by the

family management specialist and widely distributed throughout the country.

Looking to the community

Community and rural development also became a focus of UVM Extension in the early 1960s, as communities banded together to study their resources and plan for future development.

UVM Extension helped organize natural resources technical teams to survey and plan for use of resources in several Vermont communities. In many instances, citizen advisory groups were formed to aid the resource teams with inventory and to develop alternative land use proposals advocating the best use of natural resources. Success stories included the South Burlington total town plan; the Upper Winooski Valley task force, which studied potential recreational sites along the Winooski River; and the Franklin County Development Association and its countywide resource survey.

Planning on a regional level, which began in the 1960s, was difficult for Vermont, which had weak or nonexistent county and municipal governments. Out in the field, UVM Extension staff

In 1962, rural area development became a major emphasis of mine. Rural area development was a new concept and approach to help rural people to help themselves.

The Lamoille County Development Committee was organized on October 11, 1962. One of the earliest projects that was undertaken was the Junk Car Clean-up Campaign, an effort to get rid of junk cars and trucks that were no longer used and had become an eyesore. We got a lot of old vehicles together, had them pressed, and then hauled off. Colise Brown did such a good job in Waterville and Belvidere that you could really notice the difference when driving through those towns.

Silas Jewett, Lamoille Country UVM Extension agent
(1952-1978)

were in a unique position to help educate people about the new regulations, planning, and zoning by working with state planners in Montpelier.

Americans were taking a greater interest in outdoor recreation, often coming to “the country”—places like Vermont—for vacations and weekend get-aways. UVM Extension made extensive use of the mass media to promote state recreational opportunities. The campaign included a series of thirteen television programs, numerous news features and radio shows, and three brochures: *Outdoor Recreation Development and Demand*, *Outdoor Recreation Development of Campgrounds*, and *The Opportunity for Camp Jobs in Vermont*.

UVM Extension undertook a pilot project dealing with income-producing recreation on private land. A full-time recreation development specialist was hired and a state advisory board appointed to work with him. Four outdoor recreation demonstration areas were established in Vermont. Each represented a private outdoor recreation development, including a boys’ wilderness camp, vacation home development, a family campground, and a ski lodge. Landowners took an active interest and supplied information on the economic relationships between their primary source of income and their recreation business.

State government was also recognizing the importance of resource development, and representatives of UVM Extension were asked to sit on the governor’s interagency committee on natural resource development.

This was also the era when the Cold War was at its height. The construction of the Berlin Wall and the Bay of Pigs crisis, among other political developments, caused great anxiety about the threat of nuclear war. In Vermont, Extension was given the job of educating people in rural civil defense so that they and their livestock could survive a nuclear attack and prepare for “postatomic farm production.” A fallout shelter was built at the Rutland Fairgrounds as a demonstration for the public.

Get big or get out

Dairy producers were increasingly having to milk more cows to maintain an economy of scale and be profitable. And it wasn’t just producers—other parts of the industry were forced to consolidate or grow larger.

In 1961, UVM Extension reported “New high-volume, low-price retailing techniques sharpened the competitive battle in the Boston retail market.” Only four handlers were buying the bulk of Vermont milk. With better transportation corridors and trucking, it was easier for those handlers to shift milk in and between regions and so put even more price pressure on farmers. In 1974, three large cooperatives merged to market milk.

Clearly, something had to change if Vermont’s dairy producers were going to survive. Vermont Governor Philip Hoff established the Vermont Agricultural Stabilization and Adjustment Committee in 1963, which included the director of UVM Extension.

The original basic premise of the project was that what was needed to solve the problems of the small low-income Vermont dairy farm family was: (1) If the family were to stay in farming, to find something besides milk for it to sell. (2) If it were not to stay in farming, to find something it could do with its farm besides farm or to train its members in work they could do nearby so they could stay on the farm.

However, what the project actually demonstrated was that though diversification and training can and do serve as not insubstantial solutions to the problems of the small, low-income family farm, the way the majority of the small farms can solve their problems is by improving their milk producing operations, that the best method to accomplish this improvement varies according to each farm family’s situation, and that counseling is an excellent method to use to help a family bring about such improvement.

Lester Ravlin, project coordinator and
Extension Specialist (1966-1983)

Eventually, this program evolved into a farmer training program called the Farm Family Project. Counselors would refer farmers to other agencies that could help. Then, in 1968, funding was shifted from the U.S. Department of Labor to the U.S. Agency of Human Services, and vocational rehabilitation counselors were added to the staff. It became the Rural and Farm Family Vocational Rehabilitation Program (RFFVRP)—today known as Rural and Agricultural Voc Rehab (RAVR)—and is a collaboration with VocRehab Vermont.

This long-running program has helped people, mostly rural, with disabilities get back to work. Its assistance runs the gamut from helping a family dealing with depression, to a farmer who has lost an arm in a mowing machine or even with bad teeth.

In 1971, one RFFVRP worker said, “It’s hard to believe, but a dentist kept one Vermont farmer in business. The farmer’s teeth were shot so he was picky about his food. That made him undernourished, his energy went down and his farm slipped. A partial plate turned him right around. He’s far from rich, but he’s hanging in there and a new man.”

By 1981, RFFVRP was serving 500 Vermont families and in the early 1990s, even as other programs were shrinking, this program was level-funded with grants expanding it. Rural and Agricultural Voc Rehab counselors and trainers, themselves often physically challenged, work one-on-one with disabled farmers and their families. The program also works with the Vermont AgrAbility Project, a partnership with UVM Extension, RAVER, and the Vermont Center for Independent Living.

4-H: not just on the farm

Over the years, 4-H broadened beyond traditional clubwork, reaching out to young people who might not have a formal connection to 4-H. Ad hoc programs on specific issues were offered, many of them in schools and with organizations such as the Boy Scouts. Just one example: A special safety series, 4-H TV Action

Programs on Emergency Preparedness, covering topics such as fire and flood, was brought into schools, where 4,400 students watched it.

In 1957, there were 450 4-H clubs with 6,100 members. Twenty-five years later, there were fewer local clubs (376) but 195 special-interest clubs. The first UVM Extension youth center was established in Burlington in 1966, with several hundred young people participating in a variety of programs for inner-city youngsters. Soon after, urban centers were started in Rutland and St. Johnsbury.

4-H became more involved in the community as well. Two youth community development specialists were hired in 1973 to stimulate involvement of young people in community programs. One specialist covered northeastern Vermont and worked through existing 4-H clubs to find volunteers. The project in the southeastern part of the state operated primarily within the schools. It identified student leaders and through them tried to interest non-4-H’ers as well as 4-H members in community-related programs.

The 4-H program also responded to environmental awareness and a greater concern for consumer rights, offering more projects in conservation, merchandising, and money management. County Conservation Days and special interest groups focused on such topics as water quality, air pollution, pesticides, fire control, and wildlife and soil conservation. Other programs dealt with sportsman-landowner relationships, problems of industry, and community, zoning, and population growth.

Special consumer education programs were established to give young people current information about credit, truth in advertising, and good money management practices. These programs were open to all 4-H members as well as other students and area school teachers. ■

A Changing State, Changing Extension

Over its one hundred years, UVM Extension's focus has often changed but no more dramatically than in the 1970s and 1980s.

Vermont's demographics were shifting, and UVM Extension's clientele reflected that. For instance, between 1955 and 1960, the number of farm families assisted by Extension dropped from 13,500 to 10,000. The number of rural nonfarm families rose from 8,300 to 14,000, while the number of urban families increased from 5,600 to 10,600.

There were other demographic changes, too. Beginning in the 1960s and through the next decade, newcomers streamed into Vermont looking for a rural way of life that to them was exemplified by subsistence or homestead farming.

UVM Extension adapted its programming. A major survey in 1986 of leaders, legislators, and citizens, asking what they needed from Extension, resulted in a move away from traditional subject areas such as home economics and a shift toward "issues-based" programs.

Environmental quality, farm profitability, consumer resources, improved nutrition, and health were some of the information the public was looking for. UVM Extension responded with specific goals: to explore alternative crops and livestock, and improve farm planning. It held conservation field days and worked for uniform septic ordinances to meet environmental necessities. And it was soon leading programs in farm safety, and in integrated crop management in collaboration with the Agricultural Soil Conservation Service.

In 1977, Extension founded the Vermont Small Fruit and Veg-

etable Growers Association and began experimental strawberry plots. Five years later, the annual report declared that one of its program goals was to help small fruit and vegetable growers in Vermont, who were outside the national mainstream, adopt new technologies such as precision seeding, season extension, raised beds, and better marketing techniques.

UVM Extension worked with New England Sheep Industry Development Project in the mid-1980s to find markets for Vermont-raised lamb and compete with Midwestern lamb.

To meet the needs of the "back-to-the-landers," many from cities and suburbs, UVM Extension held workshops on backyard farming, sugaring, beekeeping, poultry, goats, and hobby greenhouses. It started to help beef producers with programming.

The new Vermonters who stayed changed it forever. Some remained in farming. Their interests in smaller-scale farms and non-traditional kinds of agriculture—"nontraditional" in Vermont, that is—dictated much of the direction of UVM Extension and other agriculture agencies in the decades to come. In 1979, Extension formed a Small Farm Task Force, signaling its awareness of these changes.

A shifting consumer society was also making its influence felt on UVM Extension's future. More people were interested in protecting the environment and eating food grown with fewer chemical pesticides and fertilizer.

More farmers were interested in alternative farming methods, too. UVM Extension developed programming in low-input sustainable agriculture (LISA), integrated pest management (IPM), intensive management grazing, and organics. These were various

approaches to farming that relied less or not at all on traditional pesticides and management practices and more on biological pest controls and farming methods such as crop rotation, cover crops, and homeopathy. The new ways of farming required new research, new equipment, and new ways of thinking.

UVM Extension took on part of the job of educating producers. For example, its IPM program began as a pilot project focused on apples in the late 1970s. The project showed that IPM could save Vermont's apple growers \$20 an acre, plus contribute to a healthier environment, according to UVM research.

The Vermont Apple LISA program did a lot of work on behalf of the state's growers, even developing new varieties such as the disease-resistant Liberty apple. UVM Extension apple specialist Lorraine Berkett coordinated a five-state LISA program in apple production.

Today, the apple IPM program educates growers about low-impact apple production practices. With the turn of the century, the UVM Extension apple team also began to work with wine-grape growers. New cold-tolerant grape hybrids developed by the University of Minnesota and other Upper Midwest growers have made wine grapes a feasible crop in Vermont.

"Sustainable agriculture" eventually became a broad definition that included not only these agricultural innovations, but sectors that had heretofore been only a tiny part of the state's farm economy—vegetables, berries, goats, and farmstead cheese to name a few. Most would not remain tiny for long.

Feeding the cow

Cattle nutrition is the most critical component of milk production. In the early part of the twentieth century, farmers had depended on seasonal pasture and dry hay for most of their feed. Later, they increasingly fed concentrates, or grain, to supplement their rations. After World War II, more farmers began confining their herds year-round and feeding them harvested forage; pas-

turing dairy cattle was considered obsolete.

But in the 1970s, the concept of managed grazing, with livestock pastured on grasses and legumes in ways that improved the pasture, provided good nutrition for the cow, and saved the producer labor and money, began to gain ground, thanks to work by UVM Extension agronomists.

UVM Extension also worked at boosting the protein levels in grasses and legumes. At about this time, Extension began to grow trials of corn hybrids in several parts of the state and disseminate the results to farmers to help them choose what variety of corn to grow. It was already pushing producers to raise more corn silage, one of the most economical and profitable forages for their cows.

In 1979, with the concern about energy supply and cost, Extension started the Alfalfa Plus program to encourage more alfalfa production, because the legume needed less nitrogen fertilizer—a petroleum product.

As the size of Vermont dairies grew, UVM Extension placed more emphasis on managing manure to prevent runoff. Often it provided education, while state and federal governments gave funding and technical assistance in such areas as building manure storage facilities.

In 1979, for instance, Extension reported that the number of manure storage facilities in the state had doubled in the previous eighteen months. The next year, it joined efforts to eliminate winter spreading of manure and encourage good farming methods in flood plains. It promoted best management practices (BMPs) to reduce soil erosion caused by farms, logging operations, building construction, and homeowners.

UVM Extension has had a hand in educating Vermont producers in pesticide use, too. In 1977, two years before the federal government required applicators of certain pesticides to be regularly certified, Extension and the Vermont Department of Agriculture began sponsoring training sessions. Extension specialists

led sessions on such topics as nitrogen management, using pesticides on forages, and wearing protective clothing when applying pesticides.

Outreach evolution

By the 1970s, UVM Extension had moved away from one-on-one farm visits to more group meetings, such as workshops and seminars. But that was still an expensive way to function, especially as programs broadened, the population in general multiplied, and funding grew tighter. Meetings themselves became less frequent but with more attendees.

One example is the maple industry, in which UVM Extension has long been an important partner. Traditionally, each county had a maple association, with the exception of Grand Isle and Essex, and each held a maple meeting in January to learn about new technologies and practices. The UVM Extension maple specialist would provide the educational sessions, which lasted for a few hours and were followed by a meal and a great deal of socializing.

In 2004, UVM Extension, based on New York's model, replaced the individual county meetings with a few conferences around the state that had longer agendas and more education. By 2011, there were three conferences with a slate of concurrent sessions, attended by a total of more than 700 people.

Technology also changed how Extension delivered its message. Besides written material, agents used more visual aids to liven up their demonstrations. These could be "Suzy," the pressed-wood cow used by Caledonia County agriculture agent Warren "Dick" Dodge (1932-1937) to show how feed rations affected various parts of the animal, or the "feed-o-meter," a giant slide rule to demonstrate rations.

Staff began incorporating more photographs and slide shows, eventually adding video presentations and, with computers, PowerPoint presentations. Live television broadcasts, a precursor to

Vermont Interactive Television (VIT), could be watched at many sites around the state simultaneously through UVM's educational television network, Vermont Educational Television (ETV, now Vermont Public Television). That first broadcast, in 1968, was Winter Feeding of Dairy Cattle. It was watched by 360 farmers, who phoned the ETV studio in Colchester during the telecast with questions on dairy feeding.

From shoebox to computer: Record-keeping

From its inception, UVM Extension has encouraged farmers to keep good records, both financial and production, and to analyze them to make better decisions. In 1917, agents began summarizing individual farm records, then returning them to farmers before haying season. The records would show what progress an individual farm had made and how it stacked up against other farms in the area.

Also, over the years, UVM Extension has worked closely with DHIA in the state to educate farmers about the importance of keeping herd production records. And when farmers first began filing income taxes, UVM Extension agents would help them fill in the forms. "Some of them would come in with a shoebox with receipts and so on for the year," said Lucien Paquette, former Addison County agent. "Now, you can imagine working with that. We began encouraging them to keep records, then we got into ELFAC (an electronic farm accounting system)."

ELFAC grew out of a federally funded program for counseling farmers in business and management practices, and was developed by Extension personnel in several states. In Vermont, it was introduced as a pilot program in 1961, becoming a statewide service the next year. Until then, farm record clubs with mail-in records were used to summarize accounts, provide farm operators with comparative data, and obtain current management information.

Extension started an ELFAC program, whereby ... a farmer could buy into it for so many dollars per cow per year and Extension provided a workbook. [The] farmer provided receipts and expenses as they came to him. And at the end of the month, he would send pages of workbook that it took to record his receipts and expenses for the month ... into Extension. Verle Houghaboom was in charge of the program, and he would rearrange them in order to report them on Form F, the farmers' tax return report. So at end of the year, he would give him a yearly summary and when he did his tax return everything was right in the order they came on Form F.

Silas Jewett, Lamoille County agriculture agent
(1952-1978)

“Shoebox record keeping is over—or it should be,” according to UVM Extension’s 1971 annual report. By 1981, enrollment in ELFAC had grown twenty percent over the previous five years. But some farmers were still slow to see how records could help their productivity, and Extension set up a special sixteen-hour management course.

By the 1990s, Agrifax, a competing private sector business, had taken over ELFAC’s role, much as income tax help for farmers was now in the hands of private providers. UVM Extension sold ELFAC and moved on to holding training for tax practitioners, which it still does today in the annual UVM Income Tax School. ■

100 Years of UVM Extension in Pictures



PRACTICAL EDUCATION for farm families in rural parts of the state was Extension's original goal. Over the years, its mandate expanded to include all Vermonters.



FARMING has rarely been easy in Vermont, where thin, rocky soils and a cold, humid climate make most types of agriculture a tough go. Many of UVM Extension's early programs were geared towards the farmer and his need for information about crop and livestock production unique to the state. It's still so today.



THE 4-H PROGRAM, already active in Vermont by the time the Smith-Lever Act was passed in 1914, flourished over the next decades.

SPECIAL TRAINS or railcars dedicated to showing producers new varieties of agricultural products and up-to-date farming practices were sent around the state in the early twentieth century.

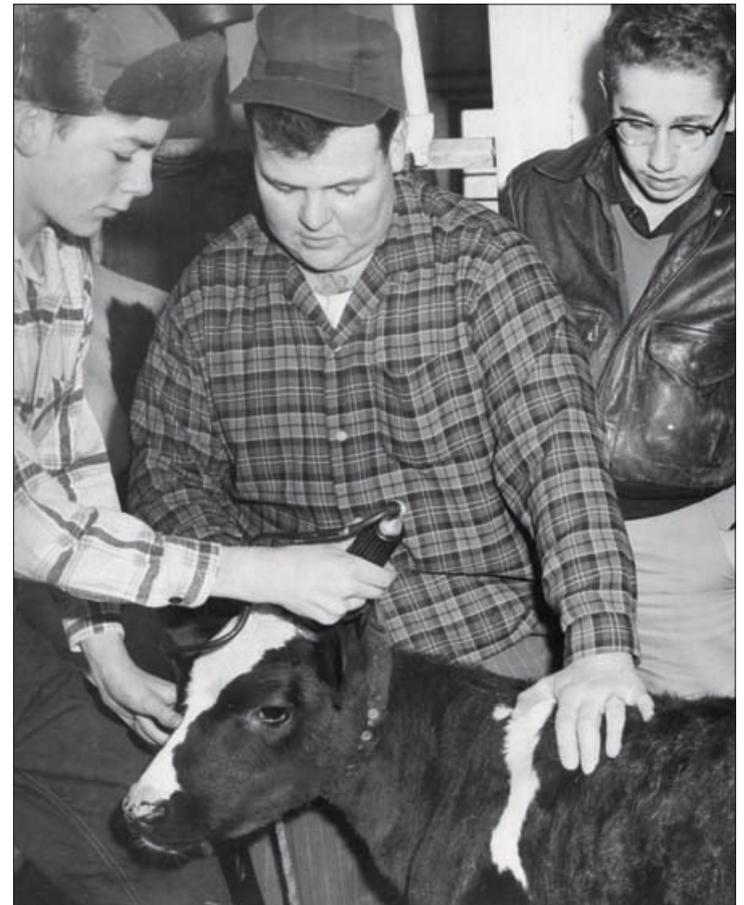




YOUTH OUTREACH through 4-H—perhaps its most important responsibility—has been part of UVM Extension’s mission from the beginning, especially education in practical skills for rural children. Sewing and cooking were main themes for girls’ clubs early on, left.

4-H GIRLS learn how to make an apple pie in a 1925 photo, below left.

AFTER World War II, efforts were made to develop a better 4-H dairy program. Dairy breeders associations and feed dealers worked together to provide purebred dairy heifer calves to club members, below.





FIRST BEGUN in the 1920s, camps were an important part of the 4-H experience for many years. Above, boys and girls at this camp in Charlotte in 1925 are discovering that camp life includes a healthy dose of exercise.

CAMP DOWNER in Sharon, right, was one of the first of several 4-H camps located around the state. In 1967, it hosted the first special-interest camp, in fine arts, which included painting, ballet, theater and music. Children who were not in 4-H could attend, along with 4-H'ers.





4-H BROADENED its scope over the years from farm production and homemaking skills to current topics such as orienteering, conservation, and good consumer practices, above. The first urban 4-H centers were started in the 1960s in Burlington, Rutland, and St. Johnsbury.

IN A WAY, 4-H has come full circle. One of its emphases today is introducing agriculture to kids who may know little about where their food comes from. But the Youth Agriculture Project is more than just picking beans, right. Boys and girls in the program, which was started in 2001, learn job skills alongside the importance of agriculture and food security.





WORLD WAR II had a huge effect on rural Vermont. Extension began programs on food conservation, clothing, and household equipment; for example, home demonstration agents helped people gather milkweed to stuff pillows. Meanwhile, with so many men serving in the armed forces, farms faced a severe labor shortage, and Extension helped address that problem, too.



THE EXPANDED Food and Nutrition Education Program (EFNEP) improved the diets of low-income Vermonters by teaching nutrition.



THE FARMER'S wife as well as the farmer received practical, up-to-date education from UVM Extension. The home demonstration program started in 1917, with schools, exhibits or single demonstrations of cooking or canning, and sewing.



UVM EXTENSION put more emphasis on consumer education after World War II. Vermonters weren't just producing their own food and fiber anymore—they were more and more often purchasing them from others.



JUDGES inspect the Harold Shaw Farm for the Green Pastures contest in 1952, above left. The New England Green Pastures Program began in 1948 when the governor of New Hampshire bet the governors of other New England states that his state had the best pastures.

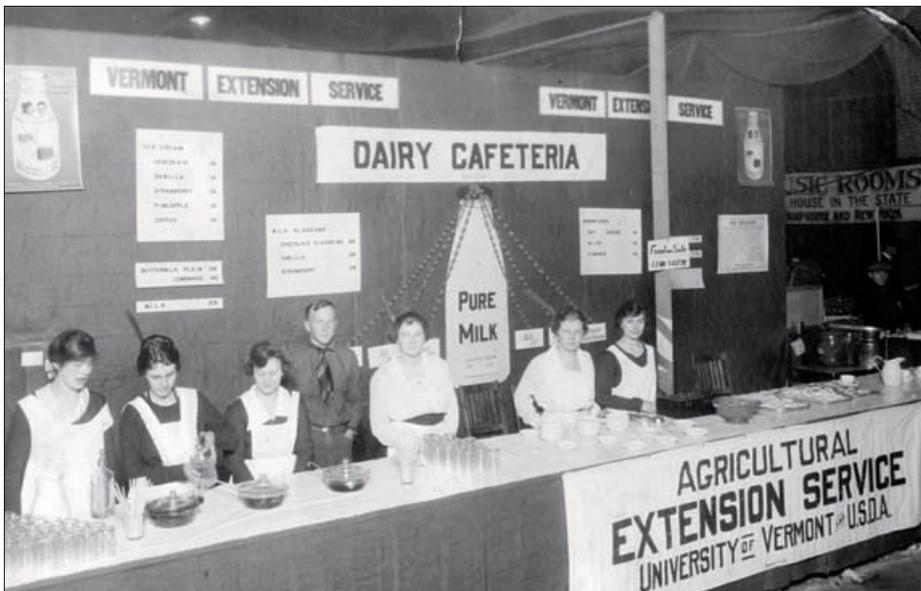
BETTER varieties and agronomic knowledge helped double the acreage of legumes like trefoil and alfalfa between 1950 and 1960. Extension helped educate farmers about forages, above right.



SHORT on large, level fields and with a cool, moist climate, Vermont's livestock industry relies on pasture and hayland to make up for what it can't grow in cereal grains. Today, Sid Bosworth, agronomy specialist, takes on pasture management as one of his areas of expertise. Bosworth, left, consults with Mark Krawczyk, owner of Keyline Vermont.



THE VERMONT AGENCY of Natural Resources, the Poultry-Mettowee Conservation District, and UVM Extension started the Agronomy and Conservation Assistance Program in 2010 to provide technical assistance to livestock operations in the Lake Champlain watershed and to promote practices that improve water quality. Above left, Rico Balzano, UVM agronomy outreach professional with ACAP, left, and Starksboro dairy farmer David Russell, confer.



JUDGING DAIRY cows has a fine tradition in Vermont, above right. K. Stewart “Stew” Gibson judged cattle throughout New England for decades and was an outstanding cattle judge, teacher and mentor for thousands of 4-H’ers. He was a Chittenden County agricultural agent from 1955 to 1960, a Washington County agricultural agent from 1964 to 1967, then an Extension dairy specialist from 1967 until his retirement in 1997.

LEFT, the UVM Extension dairy exhibit at the 1925 Champlain Valley Fair shows the premier role of dairy in Vermont’s farm economy. During Extension’s first year, educational exhibits like these were displayed at the state fair and eight county fairs.



“WHEN I CAME in the late 1950s, [dairy farmers] were going from milk cans to bulk tanks. That was a tremendous change, because ... there were 85 pounds of milk in a can and there were some farmers had as little as a couple cans of milk a day, you know.” Fred Webster, UVM Extension economist (1956-1988).

In the decades of rapid change after World War II, U.S. farmers could make more and more milk, while the cost of producing that milk climbed steeply, especially in New England, where costs are traditionally higher than in other parts of the United States.

One technological change was the shift to bulk tanks. It was an expensive change for Vermont dairy producers, and many small farms couldn’t afford to upgrade their barns. UVM Extension helped those farmers make informed financial decisions about whether to stay in dairying.



SHEEP PRODUCTION peaked in the early 1800s, then declined as dairy farming became the state's chief agricultural sector. But during the 1970s and 1980s, as more people farmed on a small scale, raising sheep was one of the skills UVM Extension taught. Chet Parsons, Extension livestock specialist from 1985 to 2011, teaches sheep shearing, above left.

SOME OF the earliest work on integrated pest management began with UVM Extension's apple program. Today it has expanded into working with cold-climate grapes for commercial wine production. Lorraine Berkett, above, right, headed the UVM apple program from 1983 to 2011.

THE CENTER for Sustainable Agriculture houses the Vermont Pasture Network, among other programs. The network is part of Extension's work in rotational grazing, which began in the 1980s. Jenn Colby, right, is the outreach coordinator for the program today.





WATER QUALITY, good agronomic practices and education about manure storage have been UVM Extension initiatives. In 1935, a statewide manure conservation program taught farmers how to make the most of their manure. As the size of Vermont dairies grew, Extension emphasized managing manure to prevent runoff. Often it provided education while state and federal governments gave funding and technical assistance.

WHEN FARMERS first began filing income taxes, UVM Extension agents would help them fill in the forms. Later, Extension started the electronic farm accounting system (ELFAC) in the 1960s. Verle Houghaboom, center in the bottom left photo, was in charge of the program. He talks taxes with Essex Junction farmer Edward Whitcomb, left, and William Luck of the Internal Revenue Service.

THE UVM Extension Farm Viability Program has a team of advisors who work with individual farmers to improve their economic profitability. The program has grown in the 2000s, as UVM Extension puts more emphasis on farm business planning. (Photo by Ken Leach.)





THE ORGANIZATION of farmers' clubs in villages and towns in the mid 1800's was actually how UVM Extension got its start. Later, meetings like this one, above, led by Phil Grime, Caledonia County agricultural agent from 1951 to 1983, were also a great way for farmers to socialize.

ACROSS THE FENCE, which began in 1956, is the longest-running daily farm-and-home television program in the country. Alice Wright, an Extension nutrition specialist from 1969 to 1991, who helped start the EFNEP program, stars in this show, right.





FARM VISITS, above, like this one by John Page, a Bennington County agricultural agent from 1952 to 1986, right, were essential to UVM Extension's outreach into rural Vermont for many decades.

THE COMMUNICATIONS staff, above right, worked on the UVM campus, publishing pamphlets, brochures, and newsletters and all the other media that supported Extension in the field.

RADIO has been an important medium for UVM Extension to bring its message into all corners of Vermont. Farmers doing their morning milking often tuned in to the Extension radio spots, like this one by Judy Branch, an Extension specialist from 1977 to 2009, right.





SINCE 1968, Extension's Rural and Agricultural VocRehab (RAVR) Program has provided employment services for people with disabilities who live in rural Vermont or work in some form of agriculture. Deborah Finnegan-Ling, above, a Greensboro dairy farmer, was one of those whom RAVR benefited.

IN THE MID-1980'S, Extension began to put more emphasis on water quality and water use. Extension faculty like Margaret Andrews, above right, a regional specialist in home horticulture from 1981 to 2002, taught workshops on water conservation, effective septic systems, changes in wastewater regulations, and water pollution.

WORKSHOPS and field days are still an important strategy in fulfilling UVM's educational mission. The workshop on field soil aggregates, right, is led by Heather Darby, UVM Extension agronomist.





AT UVM'S Entomology Research Laboratory, entomologists like Margaret Skinner, above, are renowned for developing fungal pathogens to use in integrated pest management, a sustainable approach to managing such pests.

AS IN OTHER fields of education, the computer revolutionized how Extension specialists like Louellen Wasson, above right, a home economist with UVM Extension in Lamoille and Chittenden counties, from 1966 to 1992, and others did their work.

THE VERMONT Dairy Farm Energy Project in 1989 was one of many UVM Extension programs that have improved energy efficiency. Stan Scribner, a Middlesex dairy farmer, right, installed an in-line plate cooler in his dairy through the program.

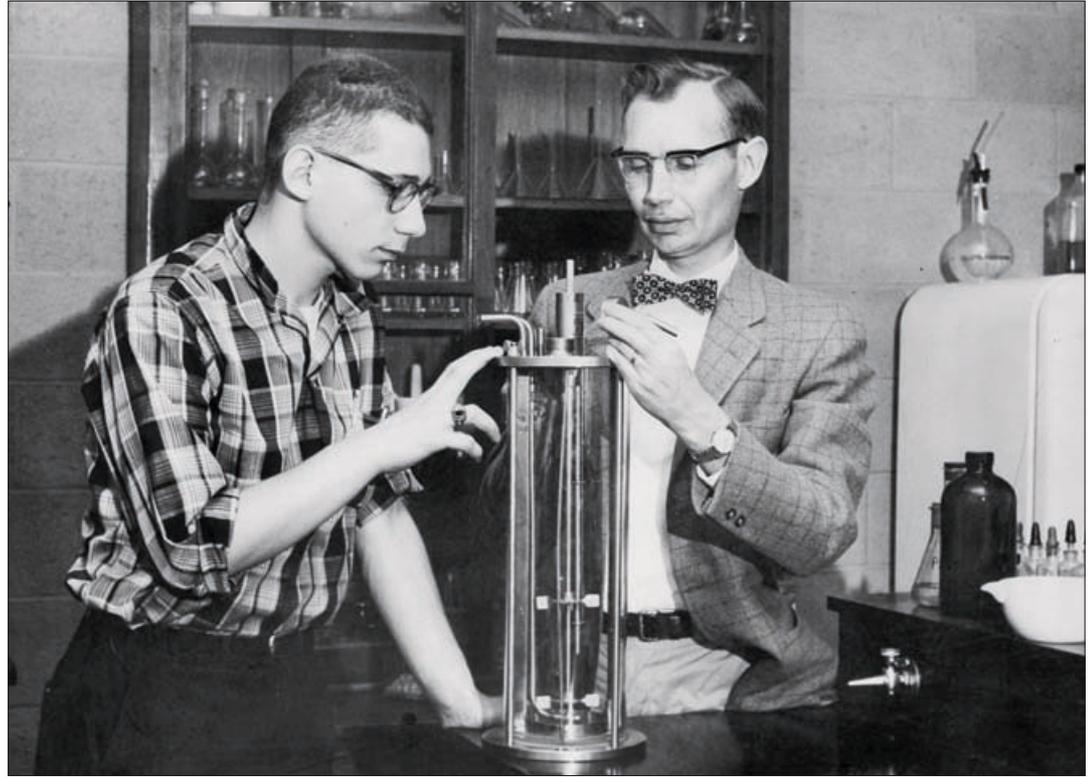




AN IMPORTANT focus of the Local Food Program, begun in 2009 by the Center for Sustainable Agriculture, is connecting schools with farms. Above, Tony Vongsy, left, food service director at Brattleboro Union High/Middle School, and Hans Estrin, local food network coordinator at UVM Extension, are part of that program.

SCIENTISTS at UVM and the Agricultural Experiment Station have contributed research that faculty in the field can draw on. These biochemistry researchers, above right, were just two of the many UVM scientists, past and present.

UVM MAPLE specialist Tim Wilmot, right, works with commercial sugarmakers and does research at UVM Extension's Proctor Maple Research Center. (Photo by Catherine Stevens.)



ON-FARM BIOFUEL production is one of Extension's most important initiatives, as it looks forward to its next one hundred years. Right, John Williamson, owner of State Line Farm in Shaftsbury; Vern Grubinger, UVM Extension vegetable and berry specialist; and Andrew Knafel, owner of Clear Brook Farm in Shaftsbury, confer at a workshop. Expertise from Grubinger and other Extension faculty helped Williamson build a biofuels facility, part of a long-term project to strengthen Vermont's energy security. Knafel, an early partner in the project, grows oil seed crops and processes them at Williamson's facility.



VERMONT'S agricultural future lies in the hands of our children. Today's UVM Extension is shifting its 4-H focus back to the club model, where 4-H'ers learn critical life skills, and it's those 4-H'ers we'll see learning from and working with Extension over the next one hundred years.

THESE GIRLS, below right, representing the UVM 4-H Horse Project, take a break from chores at the Eastern States Exposition in Springfield, Massachusetts.



The 1980s—Hard Times For Dairies

An individual dairy farm could make a lot of milk by the time the 1980s rolled around. But what was profitable for the individual dairy—increasing milk production—was often disastrous for the industry as a whole as it depressed prices. Low milk prices led to a sharp reduction in milk supply. That led to higher milk prices so farmers made more milk, which led to a decline in the milk price—a cycle that has played itself out over and over in the last thirty years. Price supports and federal milk marketing orders no longer sufficed to keep supply in balance with demand, especially as government began deregulating dairy pricing.

“In the late seventies, you couldn’t lose money,” said Glenn Rogers, UVM Extension agent from 1975 to 2009. “Milk was tied to parity. Those guys who came back from the war in 1945, their kids started to take over in 1975, and they couldn’t go wrong. Then when [President Ronald] Reagan came in, there was over-supply and they cut the milk price.”

UVM Extension’s major production aims for dairy in the 1980s were to reduce calving intervals, improve forage protein, cut somatic cell counts, and encourage more use of ELFAC.

But the big economic picture was grim. By the start of the decade, dairy producers were being buffeted by the most rapid change in cost-price relationship in thirty years. UVM Extension held meetings about managing the milk supply, inviting Canadian farmers to come down and talk about their quota system. It noted even more emphasis on economics and policy as the milk price cycle grew more volatile and dairy income less stable. By 1985, net farm income in Vermont (which by and large meant dairy) had dropped precipitously, to below \$7,000 from a high in 1981

of about \$8,000.

The Vermont Farm Management Project was started by UVM Extension in 1986. It sent outreach assistants into the field and set up ad hoc advisory teams to help farmers with financial, production, and marketing help, as well as to counsel their families. It was funded in Vermont, along with eight other states, by a federal grant.

The federal government acted to curb the national milk supply, in 1985 and 1986, with the Dairy Herd Termination program, or whole herd buyout, that paid farmers to slaughter their herds and go out of business. Dairy producers had barely a month to decide whether to bid to participate in the program.

UVM Extension agents worked long and late, up and down the state, holding thirty meetings with 1,800 people and counseling 213 farmers on whether the buyout would work for them. They also trained all the New England Extension agents involved. “The Extension agent went from farm to farm and ran the numbers—we were bushed,” Glenn Rogers said.

Some farmers, like Bob and Bette Crawford of Whiting, decided, with help from UVM Extension, not to sell out. “We spent a lot of sleepless nights ... but these cows are like our children ... it seemed like a poor business to let it all go, the barn, the breeding. It’s like life, farming. John [MacKillop, Extension agricultural agent] was so kind.” They hired an employee instead. But Warren and Ann Davis did sell their herd, and afterward, MacKillop stopped by often. “John wanted to help,” Warren Davis said, in Extension’s 1986 annual report. “We always felt that John was working for the farmer.”

The whole herd buyout removed ten percent of the cows and 12 billion pounds of milk from the U.S. supply. But it did not restrain milk production for long. With strong growth in the number of replacement heifers and the U.S. farmer's continuing knack for increasing milk output through technology and management, supply was soon out of whack with demand again. Deregulation of pricing on the federal level and the gradual shift of the dairy industry westward also put pressure on dairies.

In 1988, the Governor's Farm Assistance Steering Committee, with UVM Extension dairy specialist Kenneth "Stew" Gibson as chair, tried to tackle the crisis, as did other farm agencies and organizations and the state legislature with various initiatives.

The Vermont Dairy Farm Energy Program was funded for one year, in 1989, by Vermont utilities and an oil overcharge grant. Four UVM Extension energy agents taught farmers to install and use energy-saving equipment such as in-line coolers. They were farmers like Stan Scribner of Middlesex, who put in an in-line plate cooler, paying just \$330 of the \$3,000 cost and saving \$800 a year in electricity.

Vermont farmers were also having a hard time finding workers. Economic opportunities in the state had opened up, and fewer local people wanted to work on farms as hired help. The Vermont Farm Youth Corps was created to help ease the dire shortage. The corps eventually metamorphosed into a summer employment program to help disadvantaged youths. Federal funding cuts in 2003 ended the program, but not before more than 500 youths learned agricultural and other skills. Later, there was an initiative to start a Vermont Farm Labor Service to give farmers a pool of temporary employees.

Still, the number of dairy farms in the state continued to fall off, even as those farmers sold their land and cows to producers who stayed in the business. Farms grew in size but the number of owners dwindled.

Money matters

While changes in technology, demographics, and industry have influenced how UVM Extension does its work, money has been a factor that's just as important.

UVM Extension had been built around the model of campus research delivered to county centers. The towns had paid a tax to help support their county offices. In 1960, Extension established county advisory boards to help guide its programming.

But the 1980s brought shrinking federal budgets. Rumors of cuts in state and federal funding sifted through Extension. Elimination of the town tax, which yielded \$335,000 in 1985, was underway, and UVM was asking the state legislature to replace it with state monies.

UVM Extension Director William Shimel, in 1981, called for a new approach for the coming decade, providing education in new disciplines and to a more sophisticated clientele, and changing finances. Advisory boards lobbied their representatives for funding.

In 1987, USDA proposed not funding Extension at all, sparking an outcry. "Extension may have to take some cuts like other federal agencies, but if they try to end the federal funding for Extension, it will be over my dead body," said U.S. Senator James Jeffords, R- and I-Vt (1988-2006).

Sen. Jeffords was allowed to live—federal funding ended up as about thirty percent of UVM Extension's budget that fiscal year. The state paid in about fifty-seven percent, while grants and contracts contributed eleven percent.

But the crisis only deepened. By fiscal year 1990, Extension was forced to make deep cuts in its budget, eliminating some positions and freezing others; it was also seeking more grants and establishing priorities. In the middle of unsettling change, there were anxiety and rumors, and pressure from the people UVM Extension had always served, to whom change came hard and who did not want to let "their" county agent go.

“Some agents...have experienced negative feedback from advisory boards when compromise is necessary for the total functioning of the organization,” wrote Lavon Bartel, UVM Extension’s associate director. “One view that continues to result in stress is ‘ownership of a field agent.’ ... In the Extension Service of the future, adaptability is likely to be nonnegotiable.”

But that was difficult. Many rural people did feel that their county agent belonged to them. Their Extension was manifested in the agent they saw almost daily in their local community.

Roger Whitcomb was one of the large group of Extension agents hired right after coming home from World War II and going through college on the GI Bill. They all retired about the same time, including Roger ... who retired in 1974. When I was hired by Extension in 1987, people would ask me ‘Are you Roger’s replacement?’ And he had already been gone for fourteen years. As far as they were concerned, Roger was UVM Extension; he was the face of Extension.

Louise Calderwood, Orleans County agriculture agent (1987-1988), dairy herd management specialist (1988-2001)

And said Glenn Rogers: “When I went into Extension, it wasn’t a job; it was a life. It was ingrained in your soul. Everywhere you went it was part of you. Thirty-five years, I’ve never looked at a clock...Now it’s more of a job.”

But that UVM Extension had gradually become obsolete. Helping a farmer or housewife one-on-one was inefficient, as were strictly county offices. Restructuring was underway, with UVM Extension reorganizing into five regions with one regional center and an office within each county. The traditional personnel designations such as home economist and 4-H/youth development were gone, along with much of the personal approach.

4-H changed as well

By the end of the 1970s, nearly one-fourth of all Vermont 4-H’ers came from cities or towns with populations over 10,000. Enrollment in short-term special interest programs was on the rise, although most of these youngsters also joined organized club activities. 4-H, like the home economics and agriculture units of the UVM Extension Service, continued to adapt its educational program to the changing needs and interests of society, the community, and the home. 4-H/youth agents trained teachers in embryology curriculum using chickens and eggs. They taught courses in baby-sitting safety.

Dairy clubs were still a major part of the 4-H experience. In 1981, every county had a 4-H dairy club involved in showing, judging, and the Dairy Challenge Bowl. But more and more often, a 4-H’er wanted to join in horse activities, and that program grew. By 1981, more than 4,000 children were involved in horse clubs.

As in dairy, a club member didn’t have to own his or her own horse, which could be expensive. The emphasis was not on winning ribbons, but on animal care, public speaking, and leadership. “There were many benefits to being from a small state—kids didn’t get lost,” said Mary Carlson, 4-H state leader (1968-2002). “It didn’t matter if you had the super-duper animal that could win all the ribbons. I always said, we promote kids with animals rather than animals with kids.”

Enter the computer, and other technology

UVM Extension was one of first organizations to use satellite broadcasts, in 1992, for training Boards of Civil Authority, sending the programs from Vermont Technical College in Randolph to links at VIT teleconference sites. VIT technology was used for workshops and seminars, for example, a sheep nutrition course and pesticide applicator trainings.

I took advantage of the phone technology right away. A few years before I retired—now it sounds so archaic—but you could change your voice mail message every day and, at the end of whatever hour you designated, press a button and switch back to whatever your normal generic message was, and that was so helpful. It meant so much to laypeople out in the field.

Mary Carlson, 4-H Extension specialist (1968-2002)

In 1993, UVM and the University of New Hampshire produced a national interactive video conference on nutrition and teenage pregnancy. With satellite technology, it reached 250 downlink sites in forty-four states where attendees could hear and see educators, students, and staff.

Technology changed office work, too. In 1920, UVM Extension noted that the state office had acquired its first dictaphone equipment and a letter folding machine, letter sealer, and letter opener. The telephone, of course, was always an important tool.

“When I was an agent in Bennington County, I had a mimeograph and a lot of stencils and a lot of carbon paper. Then in the mid-1970s, copiers came in, and they brought in computers in 1980. We came a long way in a few years,” said James Edgerton, 4-H agent and regional specialist (1955-1986). “The computer just changed everything. We used to buy paper by the tons.”

Computerization changed how farmers and other rural Vermonters did their work, and it changed UVM Extension’s function as well.

The possibilities and drawbacks of the computer were being contemplated by Extension early on. “Occasionally the combination of factors in our environment seems to indicate that change is about to occur,” wrote Director William Shimel in 1981. “Clearly we seem to be at the verge of significant change in the availability and use of computer technology in the field of education.” That year, a computer development committee was formed to look

at trade-offs. If UVM Extension were to buy computers, what would it have to give up?

By 1984 Shimel was writing: “Many end users of this information will access it directly. In that context, some people have wondered about the future role of UVM Extension Service But we shouldn’t mistake information for knowledge.” Paraphrasing the bestselling book *Megatrends*, he promised “human relationships will not be traded off for hardware.”

In the early 1980s, UVM Extension’s first computer filled an entire room. When electronic mail (email) first arrived, office secretaries would print out messages and deliver them in hard copy to staff members. “My first use of the Internet, I would download dairy records from North Carolina, and I would have to go down to the basement and switch telephone lines around,” said Louise Calderwood, Orleans County agricultural agent, “and farmers were just amazed that I could do that.”

Trees, water, wildlife

Responsible logging practices are essential on Vermont’s steep hillsides to prevent erosion and water pollution. The Vermont Forest Demonstration Project in 1980 and 1981, and the Coverts Project, funded by the Ruffed Grouse Society a few years later, educated woodland owners about good management practices, along with demonstration sites.

James Jeffords, then U.S. Representative, praised the Coverts program. “Vermont’s Extension Service foresters have always had good programs for the small, independent woodlot owner,” he said.

Logger Education to Advance Professionalism (LEAP) was an award-winning program begun in 1987; by 1993, more than half of Vermont’s loggers had been through the program. And USDA chose Silviculture Education for Loggers, focused on water quality and erosion control, as a national model in 1992.

But logging is just one potential source of nonpoint source

pollution (pollution originating from diffuse sources such as farm fields instead of a single point like a sewage pipe) of Vermont's waterways. UVM Extension has developed many initiatives to protect and improve water quality over the last half-century.

In the 1960s, when the U.S. Public Health Service laid down stringent requirements for farm water supplies, it called on Extension to educate the farm industry. In 1985, UVM Extension formed a water quality task force and hired a state water quality specialist. A few years later, in a severe drought, it designed a curriculum on water resources and conservation for 4-H camps and clubs. Staff taught workshops on water conservation, effective septic systems, changes in wastewater regulations, and water pollution.

While fifty years ago Extension was urging farmers to add phosphate to their soils, today the nutrient has become a major water pollutant. Routine manure applications year after year build up levels of phosphorus in the soil. So, as application rates rose with crop yields and cows produced more milk per head—and therefore more manure—many Vermont fields became overloaded with phosphorus.

One result has been algae blooms in places like Lake Champlain's Missisquoi Bay. Starting in the 1980s, UVM Extension joined a statewide effort to clean up pollution in the bay, a difficult task that continues today.

UVM Extension's Integrated Crop Management Program worked with farmers in the Lower Missisquoi Watershed to help reduce water pollution and do field trials for nutrient management. Other initiatives have included:

- developing a Phosphorus Index for Vermont that measures the runoff potential of agricultural fields
- helping farmers design nutrient management plans
- educating farmers to feed less phosphorus in livestock rations

- researching the use of iron slag in reducing phosphorus runoff, and
- testing alternative cropping systems.

Vermonters were learning to manage their farms as whole entities instead of just as producers of commodities such as milk, beef, or strawberries. The whole-farm approach recognizes the interconnection of all parts of a farm operation, including off-farm inputs and management practices. It has made nutrient management planning, best management practices, crops and forages, and husbandry all essential and interwoven parts of the operation.

Community help

Community resource development (CRD) agents educated town officials about Act 200, which was passed in 1988, one of the most important pieces of land use legislation since Act 250. It included changes to the Current Use Value program, set up in 1980, which affected rural landowners. UVM Extension projects in the CRD area also included helping Northeast Kingdom towns revitalize downtowns, promote businesses, and write grants to help fund those efforts.

Extension had had early experience in promoting tourism. The Vermont Tourist Association was established in 1933, with the assistance of Extension's home demonstration agents, as a way for Vermonters to supplement their income. Its main purpose was to teach women how to convert their large homes into paid vacation accommodations. Since most Vermont women had never traveled, they needed information and advice on how to successfully manage and operate a tourist home. The association held several statewide conferences every year.

Fifty years later, UVM Extension revived its interest in tourism. The Travel-Tourism-Recreation Clearinghouse aggregated information on the field. Meanwhile Malcolm Bevins, UVM Extension

sion economist, was doing national research on tourism. To bring that and other information to the attention of Vermont's tourism industry, CRD specialist Bob Townsend organized a conference at the Mount Snow ski resort in 1983. Two hundred people attended, kicking off a highly successful annual get-together that today is called the Vermont Travel Industry Conference. UVM Extension has also been part of efforts to promote agritourism, including the Vermont Farms Association. ■

1990s—Thin Years

In 1990, the county advisory boards had outlived their usefulness and were eliminated, as Extension moved on to more “issues-based responsibilities.” A statewide advisory board, regional boards, and ad hoc advisory boards took their place. UVM Extension agents were no longer generalists but specialized in topic areas, whether maple or water quality or dairy.

By fiscal year 1991, USDA’s portion of UVM Extension’s \$5.89 million budget shrank a little more. During the five previous years, Extension’s base budget had fallen behind inflation by twelve percent. Appropriated funds were cut back through recision, and Extension put all spending on equipment and publications on hold.

Extension had been able to cover shortfalls in the past with money from positions unfilled after retirements. But after employing that and other strategies, including cutting positions and the county and campus budgets by ten to twenty percent, Extension was still short. For first time in its history, it could not cover its shortfall, which in fiscal year 1991 was \$580,000.

In fiscal year 1992, facing a shortfall of \$1.09 million, UVM Extension cut eighteen of its seventy-seven professional positions and eighteen of its forty-seven clerical positions.

Still, Extension continued to refine and adjust its goals each time it developed a new five-year plan. For example, its Plan of Work for 1992 to 1995 focused on family health and well-being; farm, forest and food safety; surviving economic hardship; and youth at risk.

Programs for all Vermonters

Over the years, UVM Extension had broadened its purview well beyond the farmer and farm family to include nonfarm rural people and the communities themselves. Training community members to be leaders has a long tradition in UVM Extension, starting with 4-H leaders in the 1920s and including such programs as the New England Regional Leadership (NERL) Program in the 1980s.

In cooperation with other New England Extension offices and funded by the W.K. Kellogg Foundation, NERL was a two-year training program for state representatives, 4-H teen leaders, and others. A Kellogg grant also funded a Family Community Leadership (FCL) program in 1989, through the UVM Extension Homemakers Council, to train homemakers in leadership skills.

I was finding that because of my age and my past experiences that I would have something to offer the group, but I would never know how to organize it and to make it sound interesting enough or have any of my ideas taken seriously or brought to fruition and implemented ... I knew I was lacking in leadership skills; that’s why I was interested in FCL.

[FCL] is training people to go out into the community to learn how to work in groups, to organize community functions, to plan public policy, to become concerned about the issues and to come to solutions without the shouting and misbehavior, because that’s not constructive.

Pat Ullom, Orwell, Rutland Homemakers Club.

Town officer training also has been part of Extension's community outreach for a long time. The Town Officer Educational Conference, in partnership with the Vermont League of Cities and Towns, changes its format with the needs of town officials. In 1993, 1,000 town officials took part in the conference, while another 700 attended fall training sessions. UVM Extension also began training officials in Internet use.

Other programs have served their singular purposes and then ended.

In 1992, Extension ended its partnership with the State of Vermont in the Small Business Development Center (SBDC) because it could not maintain its funding contribution. But over the decade that Extension had been involved with the SBDC, its staff had written business plans and counseled many small businesses. One example: SBDC staff had helped Bruce Morse of Royalton and a group of other farmers reopen a closed local feed mill as Windsor County Feed and Supply Co. "We were looking to see what assistance was available," Morse said in an Extension annual report. "The SBDC was new to us, but as things turned out, it was exactly what we needed."

Still thriving is the Women's Agricultural Network (WAgN), a collaboration between UVM Extension and the USDA started in 1994. Its goal is to help people start or expand farms. Mary Peabody, Extension specialist in community and economic development, was its first director and still heads it.

WAgN's long-running course Growing Places has helped many new entrepreneurs start farms or agriculture-related businesses. WAgN administers the Vermont Farm Women's Fund and helps farmers network with each other through such activities as the Women in Sustainable Agriculture Conference and Farmer-2-Farmer.

Safe food

With a public more and more concerned about the food it eats, UVM Extension has taken on a larger role in promoting food safety, and in 2010, it hired a food safety specialist.

Food safety covers a lot of ground, from teaching cooks how to preserve food safely to helping fruit and vegetable growers with Good Agricultural Practices, to addressing lead in maple syrup. This was an issue of critical importance to the state's maple industry in the 1990s.

"The wake up call was the lead issue in equipment, beginning in 1994," said Tim Wilmot, Extension maple specialist. "We found out right away that we had a lot of sources of lead, although not a lot in syrup. So we gave talks and developed publications." These days UVM Extension helps sugarmakers with food safety through sugarhouse certification, requested by packers who say their customers want to know the origin of the product they buy.

UVM Extension had often helped sugarmakers market their product. For instance, work done in the 1960s encouraged producers to market their syrup in southern New England. Extension's maple specialists do less marketing these days—that's up to the producer organizations. Their task, instead, is education on new technologies, food safety, and production practices. Much of the new information they pass on is from research done at the Proctor Maple Research Center in Underhill Center. The annual maple conferences, run in conjunction with maple producer organizations, bring the latest of that information to sugarmakers.

Horticulture, which had meant mostly apples in Vermont, expanded to include nursery crops, flowers, and vegetables. In 1991, UVM Extension started training Master Gardeners, following a national model, with classes to train gardeners in return for their service as information providers to the public. By 1993, 180 people had become Master Gardeners. In 2003 alone, 220 were trained. ■

A New Century

Budgets for UVM Extension did not get any fatter with the turn of the century. Another round of personnel cuts was made to deal with a \$1 million deficit in the budget in 2003. Extension was making other changes to face the future, setting out to find even more external funds, or grants, to pay for programming.

Grant funding was nothing new—the Rural and Farm Family Vocational Rehabilitation Program (RFFVRP) and Expanded Food and Nutrition Education (EFNEP) programs had long been paid for mostly through grant money. By 1996, grants were eleven percent of the budget; by 2001, they were fourteen percent. Currently grants and contracts contribute nearly half of Extension’s budget.

“I think that, as resources diminished, folks started looking differently at how you would fund programs,” said Lois Frey, who was an Extension community development specialist from 1977 to 2002. “And so grants became very important, and one side of a grant is, it’s great to have those resources, but the other side is you need to be looking at what that funding organization wants to have done.”

Extension faculty have become very skilled at obtaining grants, said Douglas Lantagne, UVM Extension director since 2006. One result: Over the past decade, Extension has been growing again. New staff have been hired, and the agency has 180 employees, with eighteen faculty overall.

Many of the new staff are paid through grants, so-called “soft money,” and Lantagne doesn’t see that changing back. “Extension isn’t as much a full-time career option,” he said. “Given our society, we’re going to see more movement of individuals.”

Working together

From its earliest collaborations with Farm Bureaus and dairy organizations, Extension has always joined with other organizations to get its work done. Partnerships have only strengthened in the last decades as funding has become tighter and there’s a greater need to work more efficiently.

The story of Vermont’s plant industry is one example of how UVM Extension’s collaboration with other governmental agencies and with producer groups has grown more sophisticated, as well as how technology has added efficiency.

There were few flowers, trees, and shrubs produced commercially in Vermont before the 1970s. Then, with the state’s rapid population growth, the landscaping business took off and with it, horticultural production. Gradually, however, production consolidated into a few large regional growers and the number of ornamental producers shrank again, while the number of big-box retailers crowded out smaller retail establishments in the state and the region.

One bright spot has been ornamentals. Production escalated in the 1990s and the number of growers has increased, especially in specialty areas such as hostas and daylilies.

As producer numbers have declined in New England, Extension horticulture specialist Leonard Perry has found it efficient to share with other states the work on such projects as the seven-state Northeast Greenhouse Conference; Boston’s New England Grows, which attracts as many as 15,000 people and for which UVM Extension provides education; and an annual nursery conference for northern New England states.

Perry has always worked with the industry organization, once

called the Vermont Plantsmen, and now called Green Works—Vermont Nursery and Landscape Association, and he relies on it even more these days. “They have grown to be the utmost professional organization, with a website and a staff person to handle logistics I either handled, or helped them handle in early years, as did my predecessors in Extension and as many Extension still do for their organizations,” Perry said. “I now assist them with planning, providing education in various respects for their members, certification testings and more. This new model allows me to focus on the education and they can handle the logistics of meetings and such. It has enabled me to keep up with increased demands on my time from the Internet and technology, and to serve more faster through e-mails.”

UVM Extension has worked with federal agencies such as the Natural Resources Conservation Service (NRCS) on environmental issues. It has worked with state agencies, such as the Vermont Department of Employment and Training on the Farm Youth Corps. It has worked with other land-grant universities on projects such as the Northeast Center for Food Entrepreneurship, established in 2001 with Cornell University through a USDA grant. And it collaborates frequently with the Northeast Organic Farming Association to provide education to growers without overlapping efforts.

As it often does, UVM Extension recently teamed up with the Vermont Agency of Natural Resources, this time with the Poultney-Mettowee Conservation District on the Agronomy and Conservation Assistance Program (ACAP). Agronomists will provide direct technical assistance to livestock operations in the Lake Champlain watershed on farm practices to improve water quality in Lake Champlain.

Working more closely together has extended to UVM Extension’s own family. Extension has been a partner with UVM’s School of Natural Resources on Environmental Program in Communities, which taught leadership in the forestry industry.

Collaboration has been unofficial, too. Over the decades, Extension agents in Vermont and New Hampshire have crossed back and forth across the border, helping each other out, beyond the reach of bureaucratic niceties. “Charlestown, New Hampshire,” for instance, might end up as “East Springfield, Vermont,” in the official report of a UVM Extension agent lending a hand on the other side of the Connecticut River for a day.

Dairy dilemma

There have been difficult years for the dairy industry in the new century, as fluctuating milk price cycles continue until the present day. Volatility has meant some very profitable years for farmers, but some very thin years, as well.

The recent dairy crisis may even outshine that of the mid-1980s. The recession that began in 2008 slashed demand for our exported dairy products, yet U.S. farmers continued to pump out milk. Meanwhile the price of feed and other inputs is rising.

Recently, UVM Extension launched FARM FIRST, an assistance program offering counseling on a range of issues to dairy producers. Yet as the number of conventional dairy farms has diminished, falling below 1,000 in 2011, the number of organic dairies has grown, and today there are 203.

Energy, oilseeds, and outreach

The way that UVM Extension delivers its education and outreach to the public is constantly evolving. The oilseed/renewable energy project is an excellent example.

If you include efforts to bring electricity to rural Vermonters in the 1930s, when UVM Extension worked with the Rural Electrification Administration, you could say that energy has long been part of Extension’s outreach mission. Still, it wasn’t until 1973 that “energy” became a part of America’s daily consciousness, after the oil embargo by the Organization of the Petroleum

Exporting Countries (OPEC) quadrupled the price of oil. With that economic shock and subsequent inflation, energy, for perhaps the first time in our history, became an everyday topic of the public conversation.

UVM Extension went to work. It joined with other agencies to provide information on home energy conservation, including teaching kits on which clothing fibers keep us warm. Specialists put on workshops about choosing firewood and how to run a woodstove safely. A Home Energy Audit Team (HEAT) of Extension

The Vermont Agricultural Experiment Station was founded even earlier than the Extension Service, in 1886. Between it and on-campus research, faculty have provided leading-edge information for UVM Extension agents to bring to the public. Just a few examples of major research topics:

- Apple varieties, wine grape cultivars, and organic apple production
 - Water quality, including nonpoint source pollution.
 - Invasive plants
 - Weight control and obesity reduction
- Cheese—production of high-quality cheeses, food safety and how to help Vermont cheesemakers on all scales make cheese-making into a burgeoning part of the agricultural economy. The Vermont Institute for Artisan Cheese is the latest homeground for that research.
 - Food safety. Helping food producers and preparers develop Hazard Analysis and Critical Control Point (HACCP) programs, and assessing the risks of using raw milk in cheeses
 - Biotechnology and molecular genetics, such as how proteins affect plant development
 - Mammary development and mastitis prevention and cure
 - Insect and disease pests. From apple scab to the hemlock woolly adelgid, from the Asian longhorned beetle to the tarnished plant bug, Experiment Station research has helped control pests harmful to farmer, forester, and homeowner. In 1988, for example, when an infestation of pear thrips threatened to defoliate Vermont's famed maple stands, the Entomology Research Laboratory embarked on a project that identified a naturally occurring fungus to combat the thrips.
 - Forest health, including the effects of acid rain

advisors worked with homeowners, beginning in 1979, and within two years was exceeding its goal of 5,000 home energy audits a year and solar demonstration projects on several livestock farms.

In 1980, after an extensive survey of the public, Extension decided to pursue three major initiatives over the next three years in the area of energy:

1. Energy conservation, mostly through home energy audits.
2. Helping people adopt alternative energy sources, such as solar. The Solar Farm program that year had demonstrated how farms could use sun power for heating water and other electricity requirements.
3. A farm energy program, focused on energy audits to help cut energy consumption by at least five percent.

The price of oil and other energy sources rose and fell after the mid-1980s, following cycles of demand and supply. But several other factors began to emerge as critical to the energy debate: climate change and the concept of “peak oil,” that the Earth’s supply of petroleum is finite and the end of that supply is in sight.

“What’s different today is people see it isn’t come and go,” said Vern Grubinger, Extension vegetable and berry specialist, who was part of UVM Extension’s Climate Change Group. “They know prices will go up and some day they won’t come down. They understand the need to change our dependence on fossil fuel to grow food.”

The public, at least some of it, became more aware of the need to reduce its dependence on oil, often through development of alternative energy sources. But climate change wasn’t, and still isn’t, a certainty for everyone.

When I started with Extension as a County Agent, I was told during my orientation that Extension work was about being an agent of change. The reality, of course, is that Extension work is also about building trust and mutual respect with clients so they will

be receptive to the information you have to offer. That information, however useful or necessary, is not always what clients want to hear, or think they need. . . .

The scientific evidence leaves little room for doubt that our climate is changing, and that agriculture will be affected. The sooner Extension and other service providers become familiar with the issue and with the range of possible responses, the sooner we will be able to integrate climate change into our programming, as one of the many factors that farmers should consider when making management decisions.

Vern Grubinger, UVM Extension vegetable and berry specialist, Climate Change and Agriculture, 2005.

For agriculture, UVM Extension could see, renewable energy was a natural fit. Sources such as corn, biomass, livestock manure, and oilseeds could be an important part of the state's energy future.

UVM Extension staff began meeting with farmers about growing oilseeds like canola and sunflowers. But it was not the old model of an agent standing in front of a group of people, talking, Grubinger said. Instead, "Extension lubricated the speed of information acquisition."

He and others facilitated conversations and information exchange, and started networks of growers. They helped growers secure grants for equipment. UVM Extension agronomist Heather Darby began trials of oilseed crops across the state to find out which varieties could be successful. "Piece by piece, we figured it out, using the Internet to find information," Grubinger said.

In 2006, UVM Extension formally embarked on its oilseed/renewable energy project. "Our goal is to create a model that can be replicated by other farms across the Northeast, focusing on production of on-farm biodiesel for local farm use," according to the annual report.

One result was a 2007 report, Alternatives for On-Farm En-

ergy Enhancement in Vermont: Oilseeds for Feed and Fuel. It found that oilseed crops could be grown successfully in northern New England, through a collaborative effort that included public and private funding and organizations.

Extension helped host conferences, such as the annual Vermont Conference on Community Energy and Climate Change, and another on producing biodiesel from oilseeds. Producers were key speakers on agendas.

"The role of Extension is fostering the development of farmer-educators with funding and networking. We have created a whole community of renewable energy innovators," said Grubinger, a big proponent of encouraging early adopters of new technology and ideas and sending them out to spread the word.

Grants are a large part of the oilseed project, and an important role of UVM Extension has been helping farmers, who may not have the time and expertise to write a grant, secure money. In turn, producers pass on the information they acquire to other farmers.

The Vermont Sustainable Jobs Fund and other organizations have also stepped in to provide funding and logistics for such projects as a seed-cleaning facility for State Line Farm in Shaftsbury, Vermont.

Center for Sustainable Agriculture

The Climate Change and Agriculture and oilseed projects, along with other renewable energy and a wide array of other initiatives fell under the umbrella of UVM Extension's Center for Sustainable Agriculture.

Established in 1994, the center's purpose is to "cultivate understanding, innovative practices and policies to advance sustainable food and farming." More practically, it has been a place to gather together the wide range of programs that don't fit easily into traditional UVM Extension specialties.

The concept of the center was rooted in the 1960s and 1970's,

when agriculture was undergoing wrenching change and destined to become more diversified and less dairy-centric. In 1989, the Vermont Legislature mandated a Sustainable Agriculture Council, which included members from UVM Extension.

In the next decade, Extension created the Center for Sustainable Agriculture as an interdisciplinary way to address the long-term viability of Vermont agriculture. These have often been areas of emerging interest that required an administrative Extension home. The center has had other differences from the traditional Extension structure—it is overseen by a board of farmers, so its connection to the producer is very strong. Grubinger, one of the first directors of the center, said this about its start: “It was an exciting time to test the waters for what was fundable and innovative, and to build partnerships. We focused on things that were new and different.”

The center has had to be very entrepreneurial, relying for the most part on grants to move projects ahead. In 2009, nearly half of its funding came from external grants, with another forty percent from UVM and seven percent from gifts.

Over the years the Center for Sustainable Agriculture has housed such programs as:

- the Vermont Pasture Network, part of UVM Extension’s work on rotational grazing, which had begun in the 1980s with agronomist Bill Murphy. Vermont’s cool, humid climate is perfect for growing grass, and its hillsides, often growing over in brush with the demise of hill farms, could be ideal for pasturing livestock, proponents of rotational grazing believed. Research, workshops, conferences, publications, and discussion groups were devoted to this approach to managing land and raising livestock.

- Land Link Vermont, which connects people looking for land to farm with farmers who want to sell or go into a partnership. What would happen to Vermont farms as their aging owners retired? This was a critical issue for the viability of the state’s agriculture, given the high cost of land and few young people

with an interest in taking up farming. UVM Extension educates people about estate planning and farm transfers, and started a New Farmer Network as support for those just getting into agriculture.

- Small Ruminant Dairy project that offered education and support to a growing number of goat and dairy sheep farmers.

- Organic agriculture. By 2007, Vermont had 374 certified organic farmers and more farmers markets per capita than anywhere in the United States. The Northeast Organic Farming Association (NOFA) was one of the earliest organizations of organic producers in the country, and has worked closely with UVM Extension on education and programming over the last forty years.

- The UVM Extension Farm Viability Program, whose teams of advisors work with individual farms to improve their economic positions. This program has grown over the last decade, as Extension looked at where it should go in light of stresses in traditional dairy farming and began to put more emphasis on farm business planning. By 2010, Extension had a dozen specialists working on farm viability around the state.

- The Northeast Sustainable Agriculture Research and Education program, which offers grants to sustainable agriculture projects, has its headquarters at the University of Vermont and is coordinated by UVM Extension staff.

Local food movement

Today one of the Center for Sustainable Agriculture’s primary initiatives is food systems and local foods, an outgrowth of the consumer’s interest in buying food grown close to home, and in society’s growing interest in food security. Local food, according to this philosophy, has less impact on the environment than agricultural products imported from outside the region and strengthens farms and businesses in the community. Knowing the farmer who grows your food is a better guarantee of its safety.

The center’s Local Food Program began in 2009. According to

its annual report that year: “The localvore movement is spreading faster than seeds on a windy day; climate change is emerging as a force to be reckoned with; energy production is transforming our farm fields, and the term ‘sustainability’ surfaces around every bend. In light of these realities, we at the Center for Sustainable Agriculture are examining our role in the Vermont food system.”

Much of that new role is promoting access to local foods, such as its guide to local food producers, its Farm Enterprise program that assists with business planning, and its participation in the Vermont Fresh Network.

It’s also helping growers with innovations such as high tunnels and other season-extension technologies, and with adapting to food-safety regulations and guidelines such as Good Agricultural Practices increasingly required by grocery chains.

Satellites not seeds

From today’s Extension, a producer may learn more about new technology, like GPS- and satellite-enhanced field equipment, and less about the basics of production agriculture than in the past. Farmers have other ways of finding that information. Providing technical assistance is less important, because industry has taken over that job. Many of their personnel have learned much of what they know through Extension training.

“On the technical side the suppliers have stepped up to the plate,” said former Extension agent Louise Calderwood. “There was an explosion of knowledge from farm input providers—fertilizer and feed dealers and others became sophisticated in technical assistance; they became very highly trained and no longer just generalists. Vets were also developing their roles in production agriculture.”

Originally it was, ‘How do you grow crops?’ Now it’s ‘How do you save the environment? How do you interact with the community and the public?’

We don’t tell people what kind of corn to plant anymore. We used to come out and tell people how to do their taxes. We used to do your feed ration for you, figure your hay test. Now we don’t do that at all—the feed industry does it.

So Extension to me has always been an incubator. We help people to learn, but once they’ve learned, business takes over. We start things, then find a home for it.

Jeff Carter, UVM Extension agronomist

UVM Extension’s job is to stay on the leading edge of new research, technology, and practices. Today it puts much of its emphasis on business planning and management, not just in dairy but in other types of agricultural production, too.

Farmers are much more savvy about educating themselves, pointed out Vern Grubinger. “They’re their own information generators—the farmer can figure it out. There’s been a shift to more community learning. Meetings have more farmer panels, with farmers sharing their expertise and experience,” he said.

Discussion groups, first started during the early rotational grazing program, have spread through all areas of farming, from dairy to fruit and vegetable growers to beginning farmers. Farmers now get together regularly to talk about issues that concern them, host speakers, and tour each others’ farms.

“What’s also changed in the last twenty years is there are more women talking at meetings and more women farmers. It was all men when I started. Women didn’t speak,” Grubinger said.

Technology: Do more with less

These days, an Extension agent is more likely to put on a webinar about water quality than to hold a meeting at the Grange hall. Instead of driving twenty miles, a staff person will start an e-mail thread on a list-serve or with an individual farmer, or contact her through Facebook or Twitter.

How Extension has delivered education has always been cutting edge. Going out to farms was totally cutting edge when it started. Then there were programs and workshops in the community, then newsletters. Now it's websites and webinars and listserves.

That's a big role of Extension—connecting community in a bigger geographical area and global markets, with Facebook and other media. Extension has adapted to creating connections across bigger spaces. It's constantly changing, and you keep up. You look back and you're leaving your comfort zone behind. The mission is the same: to help people get good information.

Vern Grubinger, vegetable and berry specialist
(1985-present)

“Today, modern tools of the trade are being used to learn and share knowledge, as each generation did in previous years,” said Douglas Lantagne, director of UVM Extension. “New educational technologies have been used for generations in UVM Extension: mimeograph copies, carbon paper, copying machines, overhead projectors, and PowerPoint, not to mention radio communication, push-button office phones, rotary phones, and the telephone operator. Today that list has expanded to include e-mail, webinars, Twitter, Facebook, cellular phones, camera phones, telephone apps, and texting.”

More and more, information and its delivery are shifting to the Internet. For instance, WAgN teaches its Growing Places class online and presents a monthly webinar series on a variety of farming topics. Most recently, it offered a business planning class that connects class sites by the Internet so that speakers can join in from anywhere in the world, while participants can either come to the classroom or log in from home.

Extension horticulture specialist Leonard Perry said the Internet opened up new ways of communicating just as travel budgets started to shrink. “The Internet was beginning, so it provided an opportunity I took advantage of early on to continue outreach by a

different means, and to begin to build my extensive web pages.”

The virtual UVM Apple Orchard was an early use of posting information on a website for producers to access. The Internet is also used in public health efforts, easily bringing information on topics such as control of obesity into all parts of the state. Online classes and webinars are common.

UVM Extension is also deeply involved with eXtension, a coordinated effort based on the Internet, where faculty and Extension specialists from the land-grant universities exchange knowledge.

Yet some older technologies still work reliably. In 2002, the daily TV show *Across the Fence* was still being watched in just as many homes as ever, although viewers were more often retirees or stay-at-home caregivers. Today, it's the longest-running daily farm-and-home program in the country.

“Vermont was always envied for having a chance to do a daily show,” said Lynville Jarvis, who produced *Across the Fence* from the time he entered UVM Extension in 1975, and produced more than 6,000 shows before he retired in 2002.

The technology changed, from a live show—in which the top of a blender might fly off in the middle of a recipe demonstration—to taping on two-inch-wide tapes, to small video cassette tapes and most recently DVDs. But Jarvis, who continues to do a segment

Of course, I entered Essex Fair for over fifty-some years with everything from canned goods, food, art work, flower arrangements, and all kinds of garments, quilts, fancy work, et cetera ...

Then along came Lyn Jarvis with his “*Across the Fence*,” and you had me down ... Even my husband enjoys seeing the different recipes and, why, those days you are on, Lyn, I try to see we eat at 11:30 if not out in garden weeding; or have company, so I can WATCH!

Helen Davis, letter to Lynville Jarvis,
UVM Extension television producer

The content of [Across the Fence] has changed. When it began we had Extension experts who were able to relate to people about practical stuff, because they did many of the things that people at home could do. We had people like Ed Bouton, Ray Foulds, and Kate Strassberg who had regular slots. Tony Adams would make every show seem alive and interesting.

But as time went on, Extension was broader and more sophisticated. The home dem people are gone; it's more high concept. But that didn't hurt ratings—they're still strong.

Lyn Jarvis, Across the Fence producer (1975-2002)

called In the Kitchen with the show, still gets letters from viewers. “The personal contact—you can't beat that,” he said.

EFNEP, more necessary than ever, still takes care of its clientele. By 1981, it had served 4,000 families, between 300 and 400 every year. It has also offered targeted initiatives such as education about breast-feeding; Cooking for Life, a program that taught healthy food preparation; and many others.

Whatever the approach, EFNEP has been very successful in attaining its goal over the years. “What do the women get out of the [EFNEP] curriculum?” asked the 1986 annual report. “Before I met Sally [Hill], I was always giving my kids candy,” confided a member of one of Sally's groups. “Now I give them fruit—they love it—and carrots, that's a real treat for them. They'll eat three pounds of carrots at once if I don't stop them.”

EFNEP has the data to back up its influence. Early on, using national standards, it began measuring its clients' dietary needs, resource management, and food safety.

“We can say that with all those things we consistently see significant changes, regardless of whether it's one-to-one or group classes,” said Linda Berlin, coordinator of Vermont's EFNEP program (1992 to 1999). “We've filled a niche that no one else in Vermont was filling. We emphasize that when women, and it's mostly women, talk about the amazing things they do to get by,

it's mind-boggling, while the rest of us don't have to figure that out. We're giving tips to people who have to be resourceful.”

Its latest program, called Around the Table, is a series of classes teaching about local foods and how to make decisions about purchasing them and preparing them.

Will kids keep coming to 4-H?

Maintaining the interest of young people in 4-H has been difficult. There were, and are, so many choices of activities for children in today's society. By 1998, the number of 4-H clubs in the state had dwindled to 288.

When I retired [in 2002], it was becoming more challenging because there were more opportunities for them. They weren't into the real 'techie' stuff yet, they didn't have cellphones and texting, but they had more opportunities for after-school activities. It became more challenging to find ways to hook them and have them want to be participating in our leadership activities, which I'm absolutely convinced are so important.

One of my concerns is that there are so many opportunities for them to be not together in groups. They can be texting, talking on the phone, and not have to interface with people.

Mary Carlson, 4-H Extension specialist (1968-2002)

As the number of paid 4-H staff shrank and fewer adults could find the time to be volunteer leaders, it became harder to keep clubs going. UVM Extension lists 2,000 youth in 4-H clubs today.

Extension Director Doug Lantagne says UVM Extension is shifting its focus back to the 4-H club and refocusing on life skills for children, which can only be developed over longer blocks of time, through the club model. “Clubs are critically important; they have to remain a viable part of 4-H, because that's where critical life skills are taught—in six-hour blocks, not one-hour, one-shot

workshops,” Lantagne said. “4-H had become activity-based for years; those life skills became forgotten and 4-H became about ribbons and trophies. But there’s a national revival that it’s about life skills for kids. We’re building the teen arena, and bringing kids together in a positive arena with caring adults.”

To meet its challenges, the 4-H program continues to refine and change. Some examples: it offers Operation: Military Kids, engaging children of armed service members in special community-building activities; and science camps that cover a range of topics, from robotics to GPS and mapping, bird watching, and maple sugaring.

The goal of its Youth Agriculture Project is to provide job and life skills to young Vermonters. The program, begun in 2001, has trained more than 1,000 kids in farm practices while learning about food security. It has reached more than 4,600 young people through teacher and care-giver training in garden-based nutrition education, and has raised more than 33,000 pounds of food that go to schools and hunger relief programs.

It’s always the people

Right from the start, UVM Extension’s strength has been its people and the relationship its employees have with the people of Vermont.

One of the things they never seem to learn at the head office is you don’t get anywhere with a farm family or any family unless you know them and they know you. It’s very hard to know them without being out on the farm with them.

The old county agents like Si Jewett and Ray Pestle—Ray Pestle knew all those farmers, he knew their wives, he knew where their kitchens were, he knew how to get something out of the refrigerator. It’s a different world than you think of Extension being today.

John Page, Bennington County agricultural agent
(1952-1986)

It was the most enjoyable work you could ever find; you never do the same thing two days in a row; you never talk about the same subject; you always have a different audience; you never know what kind of trouble is going to crop up, whether it’s growing trefoil down in the Champlain Valley or growing potatoes up in the Northeast Kingdom or alfalfa in Grand Isle County.

Win Way, UVM Extension agronomist (1951-1984)

When he arrived as Extension director, Lantagne said, UVM Extension staff were still disquieted by the personnel cuts over the previous fifteen years and were concerned about the Extension budget. But that has changed.

Lantagne was the first Extension personnel hired in ten years. Then, over the last twelve years, Extension has hired five new faculty and is searching for a sixth. “It adds new blood and energy,” he said. “Now folks are looking forward.”

Lantagne notes three major changes in UVM Extension:

1. “There’s been a transformation of our faculty and staff becoming more entrepreneurial. We need to leverage state and federal dollars to have the greatest impact on our clients, and Extension employees’ entrepreneurial skills have brought in millions of dollars in grants and contracts.”

2. The Extension brand has been upgraded and strengthened. Through use of standard templates for presentations, workshops, and publications, Extension has greater recognition as an organization. “We make sure they see the UVM Extension brand.”

3. Operating expenses have been curtailed to meet increasing budget pressures. UVM Extension, Lantagne said, is on solid financial footing.

“A one-hundred-year walk helping tens of thousands of Vermont residents meet some of the challenges of their lives is not something every UVM Extension employee thought about when they were hired,” Lantagne said. “The job was to help through education. The job was to learn and show our neighbors, our com-

munity members, our families how to apply some new knowledge that would make some positive difference in the future.

“As we move into the next one hundred years I am certain that UVM Extension will work with our neighbors, communities, and families to address the new issues of the day in new ways, but with the same dedication and the same passion to serve as a learner and educator to help people create a new and better future.

“That is the history of our one hundred years and will continue to be the hallmark of a relevant, effective, and important organization in the life of Vermont.” ■

UVM Extension Personnel, 1913-2011

Director's Office		James Edgerton	1979 - 1986	Ruth Morse Harris	1960 - 1961
Director		Mary Carlson, Acting	1980	Mary Carlson	1968 - 2002
Thomas Bradlee	1914 - 1931	Advancement		James Edgerton	1974 - 1979
Joseph Carrigan	1931 - 1956	Kathleen Baldwin	1992 - 2008	Donald Whaples	1979 - 1990
Paul Miller, Acting	1956	Legislative Liaison		Agriculture	
Robert Davison	1956 - 1977	Richard LeVitre	2005 - 2009	Jay Coryell	1914 - 1917
Thomas Dowe, Acting	1978	Vermont Relations		Joseph Carrigan	1917 - 1931
William Shimel	1978 - 1985	Cheryl LeFebvre	1997 - 2004	Edmund Root	1930 - 1947
Robert Honnold, Interim	1985 - 1988	Assistant to the Director		Harris Soule	1931 - 1946
Donald McLean	1988 - 1993	Cecil Winslow	1921 - 1924	Robert Davison	1949 - 1960
Lawrence Forcier	1993 - 2003	Katharine Eckley Dopp	1924 - 1938	William Stone	1960 - 1979
Douglas Lantagne, Interim	2003 - 2006	Vernon Tuxbury	1969 - 1974	Donald McFeeters	1979 - 1996
Douglas Lantagne	2006 - Present	Rose Mary Foshag	1981 - 1992	Community Resource Development	
Associate Director		Dorothy Kirk	1994 - 1997	Malcolm Bevins	1977 - 1981
Robert Davison	1953 - 1956	State Leader		Alfred North	1996 - 1998
Robert Honnold	1974 - 1984	4-H Club Leader - 4-H/Youth		Home Economics	
Donald McFeeters, Acting	1988 - 1989	Floyd B. Jenks	1914	Charlotte Pierpont	1917 - 1921
Lavon Bartel	1989 - 1994	Elwin Ingalls	1914 - 1944	Lydia Potter	1922 - 1924
Barent Stryker, III, Interim	1994 - 1995	Charlotte Pierpont	1917	Marjorie Luce	1924 - 1959
Lavon Bartel	1995 - 1996	Cornilla White	- 1918	Lillian Anderson	1929 - 1936
Barent Stryker, III, Interim	1996 - 2000	John Whitter	1918 - 1919	Doris Steele	1966 - 1979
Douglas Lantagne	2000 - 2003	Marjorie Luce	1918 - 1924	Robert Jackson	1979 - 1988
Richard LeVitre	2006 - 2011	Alida Fairbanks	1926	Secretaries and Administrative Staff	
Gary Deziel	2006 - Present	Martha Leighton	1927 - 1939	Yvonne Gratton	1944 - 1994
Assistant Director		Frank Essick	1935 - 1943	Val Nagy	1950s
Harry Varney	1944 - 1946	Ruth White Townsend	1940 - 1944	Geraldine McVetty	1963 - 2001
Vernon Tuxbury	1974 - 1997	Robert Davison	1943 - 1949	Beatrice Samuelson	1964 - 1985
Karen Schneider, Interim	2003 - 2006	M. Pauline Rowe	1944 - 1973	Ardis Wilcox	1965 - 1993
Area Administrators		Charles Doane	1945 - 1948	Rachel Jarvis	1967 - 1988
Norris Elliott	1967 - 1992	John Merchant	1949 - 1973	Arlene Connor	1968 - 1980
Doris Steele	1979			Eileen Flynn	1968 - 1985
William Stone	1979				

John Rankin 1993 - 1999
 Sarah Kingsley-Richards 1999 - 2005
 Gwendolyn Neff

4-H/Youth Development

4-H Leadership/Camping

Monika Baege 1994 - 2005

Environmental Education

Susan Draves 1994 - 1997

Livestock Educator

Amiee Vieira 1999

Operation Military Kids

Deborah Alden 2009 - 2010

Program Assistant

Pam LaFerrier 1980s
 Wynn Metcalfe 1982 - 1985
 Carol White 1983 -
 Betty Landon 1985
 Barb Bahre 1986 -
 Linda Barnard 1986 -
 Robin Audet 1986 - 1987
 Rob Howe 1988 -
 Kelly Horr 1989 - 1990
 Pat Scheindel 1994 - 1996
 Margaret Atkinson 1995 - 1996
 Jane Sandberg 1995 - 1996
 Sandra White 1995 - 1998
 Lisa Haggett - 1997

Youth Agriculture Project

Michelle Monagas 2001 - 2004
 Sara Coblyn Porth 2001 - 2009
 Paul Matylas 2005 - 2006
 Jordan Carduner 2007 - 2008

AgrAbility

Ginny Lennon 1991 - 1994
 Daniele Simpson 2005 - 2006
 Douglas Field 2006 - 2007
 Alexandra Jump 2008 - 2011

Center for Sustainable Agriculture

Elizabeth Seyler 1993 - 2001
 Sarah Flack 1993 - 2002
 Kathleen A. Duesterberg 1994 - 2002
 Betty LaMothe 1999 - 2003
 Gwyneth Harris 2001 - 2005
 Allen Matthews 2002 - 2011
 Eva Wollenberg 2007 - 2010

Crops and Soils Education and Outreach

Karen Hills 2007 - 2009
 Amanda Gervais 2009 - 2010

Expanded Food and Nutrition Education Program (EFNEP)

Marie Bingham 1968 - 1990
 Carole Bapp 1970 - 2007
 A Leonie Lund 1970 - 1994
 Carlene Briggs 1970 - 2000
 Gloria Emery 1970 - 2003
 Doris Lyon 1973 - 2000
 Iris Blair 1979 - 1984
 Sandra Chipka - 1980
 Phyllis Lieberman - 1980
 Ellen Edwards 1980 - 1994
 Dale Ainsworth 1980s
 Dale Loomis 1980s
 Betty Ballentine - 1981
 Nancy Myers-Madurski - 1981
 Kathleen Robinson - 1981
 Helen Ball - 1984
 Julie Keeler - 1984

Peggy McAllister - 1984
 Sylvia Sprigg - 1984
 Doris Lafleur - 1985
 Betty Waters 1987 - 2005
 Mary McDermid 1988 - 1989
 Joyce Abbott Baraw 1988 - 1994
 Heidi Dufner 1989 - 1991
 Patricia Mosely 1990 -
 Tracy Richards 1993 - 1997
 Gail Bernard 1994 -
 Lynn Wetterhorn 1994 - 1995
 Valerie Thompson 1995 - 2002
 Anne Morvant 1995 - 1997
 Laurie Stearns 1997 - 2008
 Heather Danis 1998 - 2008
 Joanna Welland 1999
 Molly Stone 2006 - 2009
 Jennifer Chambers 2007 - 2011
 Stephanie Mattsen 2010 - 2011

Energy Outreach

Alan Senecal 1980 - 1981
 Natalie Kinsey-Warnock 1980s
 Carole Berger 1980s
 Debra Christiana 1980s
 David Disque 1980s
 John Fenner 1980s
 Chris Kjer 1980s
 Tim Maker 1980s
 Paul Peterson 1980s
 Cathy Reynolds 1980s
 Kathy Scott-Weaver 1980s
 Neal Smith 1980s
 Bill Christiansen 1980s - 1990
 Susan Brace 1981 -
 Dianne Daily 1981 -
 Michael Kennedy 1981 -
 Peter Tousley 1981 - 1983
 Debra Karvonen 1981 - 1984
 Jennifer Ohler 1981 - 2005

Ray Zirblis - 1984
 Ron Bathgate 1985 - 1990

Expanding Caring Communities Program

Neil Favreau 1996 - 1999
 Glenn Harter 1996 - 2000
 Carol Heikkila 1996 - 2000
 Sharon Alderman 1997 - 1998
 Raymond Beaver 1998 - 2000
 Louise Lampman-Larivee 1998 - 2000
 Robert Wuagneux 2003 - 2004
 Tammy Wilbur 2004

Farm Viability

Richard LeVitre 2003 - 2011
 Kenneth Leach 2004 - 2006
 Marcella Guillette 2005 - 2006

Horticulture

Dick Ahern 1979 - 1984

Land Link Vermont

Dexter Randall 2000 - 2006
 Herman Buzeman 2000 - 2008

Maple

Sumner Williams 1976 - 1999

Risk Management

Jericho Bicknell 2008

Rural and Agricultural VocRehab (RAVR)

Enoch Tomkins 1954 - 1976
 Lester Ravlin 1966 - 1983
 Marvin Winters 1969 - 1987
 Daryl Lowry 1969 - 1995

Laura Rotella 1970s
 Helen Pedersen 1972 - 1994
 Barbara Cutting 1973 - 1993
 Julie Roslund 1974 - 1982
 Lynne Swan 1979 - 1994
 Sharlene Fellows 1983 - 1985
 Brian Coombs - 1981
 Ray Haynes 1981 - 1989
 Cindy Eames 1981 - 1983
 Clara Gendron 1986 -
 Gayle Bryant 1988 - 2001
 Karen Wightman 1988 - 1999
 Roxanne Smith 1989 - 1994
 Eleanor L. Barton 1989 - 1996, 1999 - 2000
 Pamela Gaiotti 1994 - 1999
 Brett Chornyak 1996 - 2006
 Philip Wolf 2000 - 2008
 Patricia Allen 2001 - 2005
 Melissa Newland Conly 2008 - 2011

Lee Dawley
 Harold Woodbury
 Donald Douglas
 Charles Garrapy
 Tama Chung

The Watershed Alliance

Lori Cragin 2001 - 2003
 Caitrin Noel 2003 - 2007
 Emma-Lynn Melvin 2005 - 2010
 Bethany Hanna 2008 - 2010

Urban and Community Forestry

Cor Trowbridge 1994 - 1995
 Joan Weir 1995 - 1998
 Jill Mahon 1999 - 2002

Urban Centers

Burlington Family Center
 Winifred Langtry 1966 - 1970

Burlington Urban Youth Center

Betty Davis 1966 - 1970
 Gordon Bilyard, Acting 1970
 Roberta Williams 1970
 Patricia Flynn 1971 - 1972
 Ann Miser 1972 - 1974
 Judy Zappia 1974 - 1977
 Patricia Flynn 1969 - 1970

Rutland Urban Youth Center

Jane Mackechnie 1971 - 1972
 Peter Hart 1972
 Mark Battles 1972 - 1974
 Betty Durkin 1974 - 1977

Windsor Family Center

Monica Porter 1969 - 1976
 Fred Bottger 1975

Vermont F.A.R.M. Program

Alexandra Considine 1984 - 1988
 Joan Gibson 1984 - 1988
 Margaret Moreau 1984 - 1993
 Philip Winters 1984 - 1998
 Joan Donaldson 1988 -
 Francesca Beliveau 1988 - 1989
 Julee Flood 1988 - 1990
 Phil Winters 1988 - 1994
 Alison Valley 1988 - 1995
 Wilma Campbell 1989 - 1990
 Maurice Laframboise 1991 - 1994
 Debra Browning - 1993

Vermont Farm Youth Corps

Kim Zygadlo 1990 - 1995
 Helmut Notterman 1991 - 2003
 Jennifer Auletta 1994 - 1995
 Nancy Bruce 1995 - 1997
 Dana Hudson 2001 - 2003

Vermont Migrant Education Program		Charles Bigalow	1967 - 2001	Christine Negra	1994 - 1998
		Neil Pelsue	1976 - 2003	Willa Farrell	1997 -
Julia DeVries	2001 - 2003	Raymond Giroux	- 1982	David Duetl	1997 - 1998
Michelle Tarryk	2003 - 2005	Doug Flack	1982	Heidi Wightman Barker	1998 - 2001
		Glenn Rogers	1982 - 2010	David Chappelle	2007 - 2008
Women's Agricultural Network (WAgN)		Rick Wackernagel	1984 - 1999		
		Andy Condon	1985 - 1988		
		John Winder	2000 - 2002		
Deb Marckres	1992 - 2000			Dairy	1914 - 1915
Maria Erb	1993 - 2001			Charles Fryhofer	1914 - 1915
Ann Ogden Hausslein	1995 - 1997			Thomas Moran	1914 - 1917
Debra Browning	1990s	Agronomy		Harold Johnson	1914 - 1917
Beverly Bishop	1997 - 2002	Ernest VanAlstine	1921 - 1931	O. M. Camburn	1918 - 1920
Deb Pearson	1990s	Paul Miller	1931 - 1956	John Hitchcock	1920 - 1921
Ariel McCarthy	2000 - 2001	Lester Smith	1944 - 1954	Stanley Judd	1922 - 1925
		Winston Way	1951 - 1984	Edward Loveland	1926 - 1948
		Theodore Flanagan	1953 - 1982	Ernest Herreid	1936 - 1945
		William Jokela	1985 - 2005	James Frayer	1940 - 1952
Specialists				Ralph Evans	1941 - 1944
Agricultural Economics and Farm Management				Nathaniel Allen	1943 - 1946
Meredith Wilson	1914 - 1916	Animal Pathology		William Leamy	1944 - 1981
W. J. Tubbs	1916 - 1920	David Walker	1939 - 1943	Warren Dodge	1946 - 1968
A. C. Lewis	1917 - 1919	Ernest Waller	1945 - 1950	Henry Atherton	1953 - 1989
M. P. Rasmussen	1920 - 1921	John Gutteridge	1946 - 1947	Kenneth Gibson	1967 - 1997
Clarence Carlton	1920 - 1922	James Wadsworth	1951 - 1984	Chris Woelfel	1968 - 1978
Harry Young	1921 - 1922	Wesley Bolton	1974 - 1980	Edward Wildman	1978 - 1992
John Hitchcock	1922 - 1925	John Kunkel	1977 - 1992	Woody Pankey	1984 - 2000
Clifford Gilbert	1928 - 1933			Margaret Rupe	1986 - 1994
Harry Young	1930 - 1932	Cheese			
Richard Aplin	1932 - 1933	L. H. Burgwald	1917 - 1918		
H. C. Norcross	1933 - 1938			Dairy Herd Management	
A. A. Brown	1934 - 1935	Clothing		Louise Holt Calderwood	1988 - 2001
Harry Varney	1935 - 1937	Edna Sommerfeld	1936 - 1954	Colleen Leonard	1995 - 2009
T. M. Adams	1935 - 1961	June Williams	- 1950		
Robert Davison	1940 - 1943	Lois Alger Soule	1951 - 1964	Dairy Herd Management and Farm Labor Management	
Roy Beck	1941 - 1945	Kathleen Strassburg	1965 - 1982	Richard LeVitre	1996 - 2006
Verle Houghaboom	1947 - 1985				
Ray Tremblay	1947 - 1987	Community Development		Engineering	
George England	1951 - 1953	Everett Harris	1978 - 2000	H. N. Stapleton	1935 - 1937
Malcolm Bevins	1956 - 1977	Frederick Rice	1984 - 1986	Ralph Granger	1942 - 1943
Dwight Eddy	1956 - 1982	Ed Johnson	1985 -	Andrew Tessman	1943 - 1972
Fred Webster	1956 - 1988	Stephen Brown	1985 - 1989	Carl Parsons	1949 - 1954
Thomas Stanley	1958 - 1966	Linda Aines	1988 - 2002	Benjamin A. Jones, Jr.	1950 - 1952
		Deb Mason	1994 - 1997		

Ivan Bigalow	1951 - 1953		Home Economics		Land Use Planning
Earl Arnold	1953 - 1972	Bessie Thayer	1914 - 1917	Warren Dodge	1932 - 1941
George MacCollom	1954 - 1994	Annette Dimock	1914 - 1918	Herman Miller	1937 - 1940
Milo Moore	1969 - 1984	Bertha Holden	1917 - 1920	Roy Beck	1940 - 1941
Grant Wells	1974 - 1993	Lydia Potter	1920 - 1922	Fred Sargent	1962 - 1974
Thomas Patterson	1975 - 1991	Emma Fuller	1922 - 1930		
		Lillian Anderson Patch	1930 - 1935		Livestock
Entomology		Charlotte Brooks	1931 - 1944	Lee Cordner, Jr.	1979 - 1981
Gordon Nielsen	1949 - 1992	Rachel Anderson	1944 -	Paul Saenger	1982 - 1987
		Susan Larson	1944 - 1946	John MacKillop	1985 - 1994
Family and Youth Development		Charlotte Beatty Shepard	1946 - 1957	Chester Parsons	1985 - 2011
Judy Branch	1977 - 2009	Doris Steele	1958 - 1966	Glenn Brown	1987 - 1988
Pamela Ainsworth	1984 - 2006	Janet Vaughn	1959 - 1961	James Clark	1987 - 1989
		Faith Prior	1962 - 1976	Benton Glaze	1995 - 2000
Farm Labor		Virginia Jodoin	1972 - 1981	Carlton Comstock, Jr.	2001 - 2009
R. T. Burdick	1918 - 1919				
Martha Buttrick	1943 - 1946		Horticulture		Nutrition
Wendell Earle	1944 - 1946	Marshall Cummings	1930 - 1936	Lydia Tarrant	1935 - 1941
Charles Doane	1945 - 1946	Carl VanDeman	1936 - 1937	Louise Stollberg	1942 - 1946
		Charles Blasberg	1938 - 1943	Anna Wilson	1947 - 1968
Forage and Field Crops		Elwyn Meader	1945 - 1947	Aline Coffey	1960 - 1983
William Gibson	1988 - 2003	Malcolm Dana	1947 - 1948	Alice Wright	1969 - 1991
Craig Altemose	1989 - 2001	Lyman Calahan	1947 - 1980	Susan Soule	1970 - 1973
Richard LeVitre	1991 - 1996	Harrison Flint	1962 - 1966	Marty Burt	1973 - 1978
		Norman Pellett	1967 - 1979	Rosie Woo	1984 - 1986
Forestry		Edward Bouton	1967 - 1989	Dale Steen	1984 - 2009
Floyd Callward	1925 - 1929	Joseph Costante	1976 - 1996	Sue Gilbert	1986 - 1987
John Weir	1930 - 1934	Robert Desrosiers	1978 - 1982	Lavon Bartel	1987 - 1989
C. R. Lockard	1934 - 1935	Lorraine Berkett	1983 - 2011	Jean Harvey Berino	1991 - 1999
G. W. C. Turner	1935 - 1943	Maria Garcia	1997 - 2006	Dianne Lamb	1995 - 2011
Charlie Larson	1941 - 1947				
Raymond Foulds	1948 - 1979	Human Relations and Family Life		Pesticide Education	
Jack Lindsay	1964 - 1969	William Lampard	1956 - 1957	Richard LeVitre	1989 - 1995
Monte Harold	1970 - 1974	William Henry Dalton Vernon	1957 - 1960		
Daniel Bousquet	1975 - 2004	Jim Barbour	1974 - 1974	Pig Club Specialist VT and NH	
Thomas McEvoy	1981 - 2011	Eric Nichols	1977 - 1997	Stanley Panter	
		Lawrence Shelton	1980 - 2009		
Health		Lynn Wilson	1985 - 1995	Plant Pathology	
Jeannie Pillsbury	1967 - 1971	Elizabeth Scannell Trent	1985 - 2002	Archibald Lawrence	1914 -
Tina Valentinetti	1971 - 1975	Patricia Lynott	1990 - 1994	A. H. Gilbert	1917 - 1919
Lynn Anner-Bolieu	1994 - 1997	Michelle Krehbiel	2007 - 2009	A. L. Smith	1918 - 1919

William Snow	1969 - 2003	Pamela Ainsworth	1973 - 1975	Chittenden 4-H/Youth	
Betty Bolognani	1986 - 1992	Gail Calkins	1975 - 1977		
Melissa Bushey	1994 - 1998	Lydia Lacroix	1979 - 2004	Harley Leland	1921 - 1927
		Heidi Wightman Barker	1992 - 1995	Thomas Cook	1927 - 1928
		Camille Reno	1997 - 1998	Clara Salls Tandy, Acting	1928 - 1930
Agriculture		Melanie Mader	1998 - 1999	Florence Whitcomb Plumb	1930 - 1933
John Sherman	1914 - 1915	Kim Colangelo	1999 - 2009	Margaret Poole MacDonough	1933 - 1937
Clifford Shaw	1916 - 1920	Loretta Pitt	2001 - 2002	Ruth Jewett	1937 - 1940
William Teachout	1921 - 1925	Valerie Thompson	2002 - 2006	H. Gordon Page	1940 - 1942
James McKee	1926 - 1947	Kristie Briggs	2007 - 2008	Dorothy Plumb Bent	1942 - 1943
Harry Mitiguy	1947 - 1952	Shannon Rodgers	2009 - 2011	Helen Lawrence	1943 - 1946
John Page	1952 - 1986			Oscar Martin	1946 - 1949
James Clark	1987 - 1989			Mary Brougham	1949 - 1950
Richard Steckler	1990 - 1993			Edwin Bickford	1950
		Agriculture		Margaret Wentzel	1951 - 1957
		Silas Stimson	1914 - 1915	Frank Way	1957 - 1961
Home Economics		L. A. Wood	1915 - 1920	Margaret Poole MacDonough	1961 - 1970
Barbara Hurt	1918 - 1919	Merrick Barnes	1920 - 1928	Betty Andrews	1970 - 1973
Lorna White	1931 - 1933	Harry Varney	1928 - 1932	Eric Nichols	1973 - 1976
Marion Stone Harris	1935 - 1946	Warren Dodge	1932 - 1937	Hasse Halley	1977
Ruth Alice Jewett Lang	1948	Thomas Blow	1937 - 1948	Judy Brook	1977 - 2004
Ardis Close	1948 - 1950	Lester Smith	1940	Lee Cordner, Jr.	1978 - 1981
Anne Butterfield	1950 - 1951	William Corey	1949 - 1950	Dona Tyler	1981 - 1989
Ruth Alice Jewett Lang	1951 - 1953	Philip Grime	1951 - 1983	Pamela Gray	- 1982
Edythe Turner	1954			Sandra White	1998 - 2000
Marion Stone Harris	1954 - 1971	Agricultural Research Service		Michelle Mraz	2001 - 2002
Eileen Brogan	1971 - 1973	Norris Elliott	1967 - 1980		
Dianne Lamb	1973 - 1995	Ann B. Weaver Welch	1973 - 1979		
		Ernest Saunders	1980 - 1984		
				Agriculture	
Caledonia 4-H/Youth		Home Economics		J. W. Dana	1915 -
Gertrude Newton	- 1919	Mabel Kelly	1918 - 1920	F. R. Churchill	1916 - 1918
Marion Stone Harris	1928 - 1933	May Gilfillan	1920 - 1932	R. W. Peaslee	1918 -
Margaret Tower Beck	1933 - 1938	Lorna White	1933 - 1944	Edward Loveland	1921 - 1925
Ruth White Townsend	1938 - 1940	Elizabeth Hendrick	1944 - 1945	Harold Bolan	1926 - 1928
F. Isabel Selleck Rowe	1940 - 1942	Mary Danforth	1945 - 1948	George Ware	1929 - 1935
Frances Staples	1942 - 1944	Edna Kennelly	1948 - 1955	Robert Davison	1935 - 1940
Dorothy Peck	1944 - 1945	Alice Blair	1955 - 1979	Ellwyn Miller, Assistant	1939 - 1940
Ruth Simpson, Acting	1945 - 1947	Melody Morrison	1979 - 1985	Kenneth Boyden	1940 - 1946
Ronald Irons, Acting	1947 - 1948			Robert Carlson	1946 - 1975
Margaret Tower Beck	1948 - 1963			Kenneth Gibson	1955 - 1960
Lindsay Townsend	1964 - 1973			Bruce Craig	1960 - 1964

Charles Bigalow	1964 - 1965	Franklin County	Grand Isle County
Lawrence Myott	1975 - 2004	4-H/Youth	4-H/Youth
Agricultural Research Service		James Gallant, Jr.	Jessie N. Hazen
Bruce Craig	1965 - 1966	George Rand	1946 - 1950
Noah Thompson	1966	Donald Stiles	1951 - 1955
		Lillian Andrews McWilliams	1955 - 1957
		Ann Burroughs, Acting	1957 - 1958
Home Economics		Janet Carpenter	Mary Amanda Davison Parker
Lucille Harrison	1918 - 1919	Marjorie Porter Thomas	1959 - 1960
Caroline Meigs	1918 - 1919	Gail Walker Cook	
Hazel Cassidy Murray	1919 - 1920	Katherine Stahl	Agriculture
Elizabeth Whitehill	1921	Carol Fitzgerald	H. E. Bartram
Alice Clifford Keller	1921 - 1925	Susan McNall Stanley	1918 - 1919
Mary Pozzi Phillips	1925 - 1927		Stanley Painter
Florence Wright	1927 - 1941	Agriculture	- 1932
Salley Gibson Robie	1941 - 1942	Guy Tiffany	Harry Norcross
Harriet Wheatley Riggs	1943 - 1944	C. H. Elliott	1932 - 1933
Doris Steele	1944	H. B. Little	W. D. Gifford
Jennie Swett Smith	1944 - 1959	Ralph McWilliams	1933 - 1936
Aline Coffey	1960 - 1969	John Baxendale	K. E. Boyden
Louellen Wasson	1969 - 1992	Erdon Bailey	1936 - 1940
		Walter Rockwood	Lucien Paquette
		Donald McFeeters	1941 - 1946
Essex County		Barbara Young	William Stone
4-H/Youth		John Rice	1946 - 1947
Richard LeVitre	1980 - 1991	Peter Kaserou	Robert White
Valerie Thompson	2002 - 2006	Craig Altemose	1948 - 1981
			Linda Doton Stanley
Agriculture			1981 - 1985
E. E. Miller	1934 - 1937	Home Economics	Edward McGarry
Almon Heald	1937 - 1939	Dorothy Wemple	1985 - 1989
Earle Clark	1939 - 1975	Lorraine Hayward Davis	Diane Bothfeld
Tim White	1971 - 1977	Harriet Davis Rhodes	1990 - 1995
John MacKillop	1977 - 1980	Ruth Palmer	
Richard LeVitre	1980 - 1991	Helen Rose	Lamoille County
		Rhoda Hyde	4-H/Youth
		Marlene Thibault	Norma Hathorn Wakefield
Home Economics		Joy Lalikos	1935 - 1943
Helen Robinson	1935 - 1941	Charlotte Cornelius	Louise Hartley
Florence Currier	1944 - 1955	Marilyn Wade Britt	1943 - 1944
Kathleen E. Jones	1956	Marlene Thibault	Lucy Bagley
Edna Senacal	1957 - 1959	Mary Jo Oswald	1944 - 1949
Elsie Dorr	1959 - 1970		True Tower
			1949 - 1952
			Roger Dunton
			1952
			Gladys Kimball
			1952 - 1954
			John Adams
			1954 - 1956
			H. Alfred Dorain, Jr.
			1956 - 1961
			Mary Sandin
			1961 - 1962
			Lucy Bagley Tinker, Acting
			1963
			Barbara Williams
			1963 - 1965
			Geraldine Phillips Rock
			1965 - 1967
			Thelma Belair
			1967 - 1971
			Elizabeth Somers
			1971 - 1973
			Nancy Long
			1973 - 1976
			Lydia Lacroix
			1976 - 1979
			Deborah Wood Lajoie
			1980 - 1984

Rutland County		Washington County		James Edgerton	1955 - 1956
4-H/Youth		4-H/Youth		Erdon Bailey	1958 - 1959
Miriam McKenzie	1919 - 1920	Kenneth Kirk	1921	Kenneth Gibson	1964 - 1967
E. E. Bergstrom	1921 - 1956	Ruth Johnson	1921 - 1923	Edward Bouton	1967 - 1984
Chesley P. Horton	1956 - 1981	C. W. Fitch	1923 - 1925	Agricultural Research Service	
Donald Wickman	1981 - 1985	Helen Burdick	1925 - 1926	Warner Shedd	1966 - 1969
Betty Durkin	1985 - 1986	Mable Huntsman	1926 - 1927	Barent Stryker, III	1969 - 1994
Ardith Fenton	1987 - 1997	Iola Bagley Anderson	1927 - 1929	R. Bouffard	1972 - 1976
Melissa Bushey	1994 - 1998	Neva Amadon Welch	1929 - 1931	Gardening	
Agriculture		Gertrude Bingham Stranahan	1931 - 1936	L. H. Facer	1918 -
Henry Jennings	1914	Winifred Perry Anderson	1936 - 1939	Home Economics	
Morton Downing	1914 - 1923	Iola Bagley Anderson, Acting	1937 - 1938	Mildred Boice	1920 - 1922
E. N. Blondin	1924 -	M. Pauline Rowe	1939 - 1944	Margaret Pennell Carlton	1922 - 1923
Thomas Cook	1928 - 1933	Evelyn Young	1944 - 1945	Hazel Pawlowski	1923 - 1924
Roy A. Burroughs	1933 - 1952	Wilhelmina Schaefer, Acting	1945 - 1946	Priscilla Davison	1926 - 1927
William Corey	1952 - 1983	Helen Bjorklund	1946 - 1949	Dorothy Tillapaugh Headley	1926 - 1931
David Newton	1954 - 1985	Ruth Haines Towne	1949 - 1952	Virginia May	1931 - 1933
Bridget Bowen	1984 - 1986	Gordon Butler	1952 - 1953	Frances Metcalf Burley	1933 - 1941
Agricultural Research Service		Erma Hard	1953 - 1959	Harriet Wheatley Riggs	1941 - 1943
William Bingham	1966 - 1983	Barbara Graff	1959	Elizabeth Perley Carr	1943 - 1950
Gardening		Richard Stone	1959 - 1962	Jean Mahaney Shotwill	1950 - 1952
L. W. Bump	1918	Judith Pillsbury Siccama	1962 - 1967	Hazel Brown	1952 - 1973
Home Economics		Donald Whaples	1967 - 1979	Lynn Dickey	1973 - 1977
Maude Weatherbee Wakefield	1918 - 1919	Lydia Lacroix	1979 - 2004	Sara Ann Burczy	1977 - 2005
Harriet Ackerly	1920 - 1923	Michael Martin	1989 - 1993	Windham County	
Valarie LaMountain Kingsley	1928 - 1934	Agriculture		4-H/Youth	
Eleanor Winters Sargent	1934 - 1938	F. H. Abbott	1916 - 1919	Viola M. Cameron	1921 - 1923
Frances C. Callahan	1938 - 1943	R. A. Briggs	1919 - 1922	M. Pearl Berry	1923 - 1925
Bertha Lee	1943 - 1947	Cecil Winslow	1922	Nellie E. Colgston	1925 - 1926
Alice Pratt	1947 - 1952	Clarence Carlton	1922 - 1923	Bruce Buchanan	1927 - 1953
Bethia Munger	1952 - 1957	C. W. Fitch	1923 - 1924	George Broadwell	1954 - 1958
Anne Burroughs	1957 - 1960	E. H. Kelley	1924 - 1925	Chadwick Arms, Acting	1955 - 1956
Bethia Munger	1960 - 1978	Thomas Blow	1925 - 1929	Charles Gulick, III	1958 - 1960
Bridget Howrigan	1977 - 1981	Hjalmar Aronson	1929 - 1933	Elna Senecal Butterfield, Acting	1960 - 1961
Margaret Andrews	1981 - 1998	W. G. Loveless	1933 - 1944	Howard Smith	1961 - 1982
		Robert Sinclair	1944	Charles Wissenbach	1983 -
		Carrol Strong	1944 - 1946		
		Robert Sinclair	1946 - 1953		
		Gordon Butler	1953 - 1964		

Rebecca Ainsworth	1983 - 1988	Rosetta Pyle	1955 - 1956	S. W. Colby	1934 - 1940
Sally Holden	1985 - 1987	Ruth Hertzberg	1956 - 1971	Edward Cook	1941 - 1942
Brian Vogt	1988 - 1991	Nancy Lanoue	1971 - 1981	G. Miles Nelson	1942 - 1947
Megan Tift	1998 - 2001	Nancy Solomon	1981 - 1986	William Stone	1947 - 1960
		Marilyn Buhlmann	1987 - 1989	William Sumner	1954 - 1980
		Donna Lewis	1990 - 1991	Chadwick Arms	1955 - 1963
				William Kruesi	1980 - 1984
Agriculture				Rob Hedberg	1984 - 1988
Arthur Sweeton	1914 - 1919			Lowell Kautz	1989 - 1990
W. P. Frost	1919 - 1921	Windsor County			
Russell Harvey	1921 - 1923	4-H/Youth			
John Helyar	1923 - 1925	K. T. Allen	1918 - 1919		
Raymond Atherton	1926 - 1929	Russell Gray	1928 - 1930	Agricultural Research Service	
Earle Douglass	1930	Helen Barnaby Lawrence	1930 - 1935	Keith Bradley	1964 - 1966
Edmund Root	1930 - 1947	Albert George Allen	1935 - 1942	James Edgerton	1966 - 1973
Raymond Pestle	1945 - 1976	Lucille Clark	1942 - 1944	Paul Wildasin	1968 - 1971
David McKendree Key	1976 - 1981	Isabelle Barden	1944 - 1956	Wayne Crosier	1973 - 1976
April LeClair	1981 - 1987	Charles Gulick, III	1956	Robert Townsend	1974 - 2000
		Ruth Morse Harris	1957 - 1959		
		Edward Goodhouse	1959 - 1984	Home Economics	
Home Economics		Karen Burnett-Kurie	1984 - 1992	Martha Tilden	1920 - 1923
Lucy Swift Hoff	1918 - 1919	Megan Tift	1998 - 2001	Lois Alger Soule	1924 - 1925
Ruth Gurney Atherton	1928 - 1930			Helen Findlen McKenna	1925 - 1930
Elizabeth Ricker Donnellan	1931 - 1937	Agriculture		Katherine O'Brien	1930 - 1935
Helen Buttrick Whitney	1937 - 1940	Jay Coryell	1914	Jennie Hall	1935 - 1963
Harriet Anderson	1940	J. C. Otis	1914 - 1919	Jane Lidden Perkins	1963 - 1964
Virginia Roy	1940 - 1942	V. A. Fogg	1919 - 1921	Janice Jackson	1964 - 1967
Frances Clark Putnam	1942 - 1945	Clarence Frink	1921 - 1923	Dorothy Bent	1967 - 1972
Charlotte Beatty Shepard	1945 - 1946	Harris Soule	1923 - 1931	Nancy Parr	1972 - 1975
Muriel McKee Davis	1948 - 1950	Clarence Carlton	1931 - 1934	Monica Porter	1976 - 2000
Ethel May	1950 - 1955				

Every attempt has been made to ensure the accuracy and completeness of the personnel listings. Because of the large number of names and dates that went into compiling the lists, and because of our reliance on old records for many of them, we may have made some mistakes. We apologize in advance for any errors or omissions, and ask that you call our attention to them. Please contact Kurt Reichelt at kurt.reichelt@uvm.edu or 802-656-1396 to update a listing. Thank you.

Current Extension Offices and Departments

UVM Extension State Office

Suite 305, 19 Roosevelt Highway

Colchester, VT 05446

Phone: 802-656-2990

Toll-free: 866-622-2990

Fax: 802-656-8642

Hours of Operation: 8:00 am - 4:30 pm

State Office staff:

- Sheri Bissonnette, Business Support Generalist, 802-656-0298, sheri.bissonnette@uvm.edu
- Louise Brunelle, EFNEP (Expanded Food and Nutrition Education Program) Educator, 802-656-9465, louise.brunelle@uvm.edu
- Ron Chapman, Financial Operations Manager, 802-656-0304, ronald.chapman@uvm.edu
- John Cooley, IT Professional, 802-299-2420, john.cooley@uvm.edu
- Cindy Corkins, Assistant to the Dean and Director, 802-656-0874, cynthia.corkins@uvm.edu
- Gary Deziel, Associate Dean for Staff Support and Operations, 802-656-5426, gary.deziel@uvm.edu
- Jeanne Keefe, Administrative Assistant, 802-656-5419, jeanne.keefe@uvm.edu
- David Kestenbaum, Outreach Professional, 802-656-9141, david.kestbaum@uvm.edu
- Doug Lantagne, Dean and Director, 802-656-2990, doug.lantagne@uvm.edu
- Susan LeVitre, Assistant to the Associate Director for Staff Support and Operations, 802-656-0733, susan.levitre@uvm.edu
- Robin Lockerby, Planning and Reporting Support, 802-656-0873, robin.lockerby@uvm.edu
- Celia Rainville, Human Resource Specialist, 802-656-4003, celia.rainville@uvm.edu

- Kurt Reichelt, Annual Fund Officer, 802-656-1396, kurt.reichelt@uvm.edu
- Liisa Reimann, Assistant Webmaster, 802-656-3698, liisa.reimann@uvm.edu
- Todd Stewart, Assistant to the Associate Director for Faculty Support and Evaluation, 802-656-8181, todd.stewart@uvm.edu
- Marcus Tracy, Assistant Webmaster, 802-656-0745, marcus.tracy@uvm.edu
- Cathy Yandow, Webmaster and Communications Support Specialist, 802-656-0319, cathy.yandow@uvm.edu

Bennington Office

P.O. Box 559

Bennington, Vermont 05201-0559

(Office location: 310 Main Street)

Phone: 802-447-7582 or 1-800-287-1552 (toll-free in Vt.)

Fax: 802-447-8076

Hours of Operation: 8:00 am - 4:30 pm

Bennington Office staff:

- Rita Charlton, 4-H Educator, ext. 254, rita.charlton@uvm.edu
- Jennifer Letourneau, 4-H Program Assistant, ext. 254, jennifer.l.letourneau@uvm.edu
- Betsy Miller, Farm Management Educator, ext. 252, betsy.miller@uvm.edu
- Stacie Staab, EFNEP Educational Specialist, ext. 253, stacie.staab@uvm.edu

Berlin Office

617 Comstock Road, Suite 5

Berlin, Vermont 05602-9194

Phone: 802-223-2389 or 1-866-860-1382 (toll-free in Vt.)

Fax: 802-223-6500

Hours of Operation: 8:00 am - 4:30 pm

Berlin Office staff:

- Lucy Burch, Southwest Migrant Education Recruitment Specialist, ext. 227, lucy.burch@uvm.edu
- Mark Cannella, Agricultural Financial Management Specialist, ext. 207, mark.cannella@uvm.edu
- Rose Crossley, Administrative Assistant, ext. 201, rose.crossley@uvm.edu
- Caitlin Cusack, Community Forestry Educator, ext. 222, caitlin.cusack@uvm.edu
- Frances Fleming, EFNEP (Expanded Food and Nutrition Education Program) Educator, ext. 206, frances.fleming@uvm.edu
- Kate Forrer, Community Involvement Coordinator, ext. 210, katherine.forrer@uvm.edu
- Ariana Giusti, Addison County Migrant Education Recruitment Specialist, ext. 224, ariana.giusti@uvm.edu
- Josey Hastings, Southeast Migrant Education Recruitment Specialist, ext. 226, josey.hastings@uvm.edu
- Beth Holtzman, Coordinator - Women's Agricultural Network, ext. 204, beth.holtzman@uvm.edu
- Diane Montague, Northeast Kingdom Migrant Education Recruitment Specialist, ext. 223, diane.montague@uvm.edu
- Londa Nwadike, Food Safety Specialist, ext. 216, londa.nwadike@uvm.edu

- Amanda Park, Central VT Migrant Education Recruitment Specialist and Recruitment Volunteer Coordinator, ext. 225, amanda.park@uvm.edu
- Mary Peabody, Community Resources and Economic Development Specialist / Director - Women's Agricultural Network, ext. 202, mary.peabody@uvm.edu
- Jessica Schmidt, Agriculture and Community Development Program Coordinator, ext. 203, jessica.a.schmidt@uvm.edu
- Erin Shea, State Migrant Education Program Coordinator, Farming Across Cultures Communication Project, ext. 208, erin.shea@uvm.edu
- Christi Sherlock, Administrative Assistant, ext. 200, christi.sherlock@uvm.edu
- Bill Snow, AgrAbility, william.snow@uvm.edu
- Molly Stone, 4-H Operation: Military Kids, ext. 209, molly.stone@uvm.edu
- Kristin Van Fossen, Northwest Migrant Education Recruitment Specialist, ext. 228, kristin.vanfossen@uvm.edu
- Lynn Wild, EFNEP Program Specialist, ext. 211, shirley.wild@uvm.edu
- Michael Wilson, 4-H Educator, ext. 205, m.wilson@uvm.edu

Brattleboro Office

11 University Way, Suite 4

Brattleboro, Vermont 05301-4423

Phone: 802-257-7967 or 1-800-278-5480 (toll-free in Vt.)

Fax: 802-257-0112

Hours of Operation: 8:00 am - 4:30 pm

Brattleboro Office staff:

- Lisa Chase, Natural Resources Specialist, ext. 311, lisa.chase@uvm.edu
- Matt Crowley, Youth Agriculture Project Farm Manager, ext. 314, matthew.crowley@uvm.edu
- Vicky Dibe, Youth Agriculture Project Farm Educator, ext. 314
- Hans Estrin, Local Food Network Coordinator,

ext. 312, hans.estrin@uvm.edu

- Debbie Fajans, 4-H Educator, ext. 306, debbie.fajans@uvm.edu
- Vern Grubinger, Vegetable and Berry Specialist / NE SARE Coordinator, ext. 303, vernon.grubinger@uvm.edu
- Sue Hawkins, Outreach Professional - Sustainable Agriculture and Energy Coordinator, ext. 313, susan.hawkins@uvm.edu
- Liz Kenton, Youth Agriculture Coordinator, ext. 308, liz.kenton@uvm.edu
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From the First Annual Report of Cooperative Extension Work in Agriculture and Home Economics, 1914-1915

- A. No. 83 of the (Vermont) Acts of 1912, Section 3.**
Temporary State appropriations for extension work in agriculture.
- B. No. 95 of the 63rd Congress (Smith-Lever Act).**
Federal Act providing for cooperative extension work in agriculture and home economics.
- C. Gubernatorial acceptance of terms of Smith-Lever Act.**
- D. Joint Resolution (Vermont) 351 (1915).**
Legislative acceptance of terms of Smith-Lever Act.
- E. No. 23 of the (Vermont) Acts of 1915.**
State appropriation for extension work in agriculture and home economics.
- F. No. 121 of the (Vermont) Acts of 1912.**
To enable towns to appropriate money for county agricultural extension work.
- G. No. 120 of the (Vermont) Acts of 1915.**
To amend No. 121 of the Acts of 1912, enabling towns to appropriate money for county agricultural extension work.

APPENDIX A

No. 83 of the (Vermont) Acts of 1912, Section 3. Temporary State appropriations for extension work in agriculture.

The auditor of accounts shall draw his order in favor of the treasurer of the University of Vermont and State Agricultural College for eight thousand dollars, annually for the fiscal years ending June 30, 1914 and 1915, respectively, for the exclusive use of the College of Agriculture connected with such institution, which shall be expended solely for work in agricultural extension, including the establishing of extension schools, correspondence courses, lecture and reading courses, of demonstration plots, the issuance of educational leaflets and bulletins dealing with agriculture, the support of district field agents in cooperation with the office of farm management of the United States Department of Agriculture, and kindred enterprises bearing direct relationship to the agricultural advancement of the State; and such work shall be done, whenever practicable, in cooperation with the Commissioner of Agriculture of this State.

APPENDIX B

No. 95 of the 63rd Congress (Smith-Lever Act). Federal Act providing for cooperative extension work in agriculture and home economics. (H. R. 7951)

An Act to provide for cooperative agricultural extension work between the Agricultural colleges in the several States receiving the benefits of an Act of Congress approved July second, eighteen hundred and sixty-two, and of Acts supplementary thereto, and the United States Department of Agriculture.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State now receiving or which may hereafter receive, the benefits of the Act of Congress approved July second, eighteen hundred and sixty-two, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts." (Twelfth Statutes at Large, page five hundred and three), and of the Act of Congress approved August thirtieth, eighteen hundred and ninety (Twenty-sixth Statutes at Large, page four hundred and seventeen and chapter eight hundred and forty-one), agricultural extension work shall be carried on in cooperation with the United States Department of Agriculture: PROVIDED, That in any State in which two or more such colleges have been or hereafter may be established the appropriations hereinafter made to such State shall be administered by such college or colleges as the legislature of such State may direct: PROVIDED FURTHER, That, pending the inauguration and de-

velopment of the cooperative extension work herein authorized, nothing in this Act shall be construed to discontinue either the farm management work or the farmers' cooperative demonstration work as now conducted by the Bureau of Plant Industry of the Department of Agriculture.

SEC. 2. That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and State agricultural college or colleges receiving the benefits of this act.

SEC. 3. That for the purpose of paying the expenses of said cooperative agricultural extension work and the necessary printing and distributing of information in connection with the same, there is permanently appropriated, out of any money in the treasury not otherwise appropriated, the sum of \$480,000 for each year, \$10,000 of which shall be paid annually, in the manner hereinafter provided, to each State which shall by action of its legislature assent to the provisions of this Act: PROVIDED, That payment of such installments of the appropriation hereinbefore made as shall become due to any State before the adjournment of the regular session of the legislature meeting next after the passage of this Act may, in the absence of prior legislative assent, be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury: PROVIDED FURTHER, That there is also appropriated an additional sum of \$600,000 for the fiscal year following that in which the foregoing appropriation first becomes available, and for each year thereafter for seven years a sum exceeding by \$500,000 the sum appropriated for each preceding year, and for

each year thereafter there is permanently appropriated for each year the sum of \$4,100,000 in addition to the sum of \$480,000 hereinbefore provided: PROVIDED FURTHER, That before the funds herein appropriated shall become available to any college for any fiscal year plans for the work to be carried on under this Act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. Such additional sums shall be used only for the purposes hereinbefore stated, and shall be allotted annually to each State by the Secretary of Agriculture and paid in the manner hereinbefore provided, in the proportion which the rural population of each State bears to the total rural population of all the States as determined by the next preceding Federal census: PROVIDED FURTHER, That no payment out of the additional appropriations herein provided shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State, or provided by State, county, college, local authority, or individual contributions from within the State, for the maintenance of the cooperative agricultural extension work provided for in this Act.

SEC. 4. That the sums hereby appropriated for extension work shall be paid in equal semiannual payments on the first day of January and July of each year by the Secretary of the Treasury upon the warrant of the Secretary of Agriculture, out of the Treasury of the United States, to the treasurer or other officer of the State duly authorized by the laws of the State to receive the same; and such officer shall be required to report to the Secretary of Agriculture, on or before the first day of September of each year, a detailed statement of the amount so received during the previous fiscal year, and of its disbursement, on forms prescribed by the Secretary of Agriculture.

SEC. 5. That if any portion of the moneys received by the designated officer of any State for the support and maintenance of

cooperative agricultural extension work, as provided in this Act, shall by any action or contingency be diminished or lost, or be misapplied, it shall be replaced by said State to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to said State, and no portion of said moneys shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, or in college-course teaching, lectures in colleges, promoting agricultural trains, or any other purpose not specified in this Act, and not more than five per centum of each annual appropriation shall be applied to the printing and distribution of publications. It shall be the duty of each of said colleges annually, on or before the first day of January, to make to the governor of the State in which it is located a full and detailed report of its operations in the direction of extension work as defined in this Act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture and to the Secretary of the Treasury of the United States.

SEC. 6. That on or before the first day of July in each year after the passage of this Act the Secretary of Agriculture shall ascertain and certify to the Secretary of the Treasury as to each State whether it is entitled to receive its share of the annual appropriation for cooperative agricultural extension work under this Act, and the amount which it is entitled to receive. If the Secretary of Agriculture shall withhold a certificate from any State of its appropriation, the facts and reasons therefore shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of any State from which a certificate has been withheld, in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to

be paid, it shall be covered into the Treasury.

SEC. 7. That the Secretary of Agriculture shall make an annual report to Congress of the receipts, expenditures, and results of the cooperative agricultural extension work in all of the States receiving the benefits of this Act, and also whether the appropriation of any State has been withheld; and if so, the reasons therefore.

SEC. 8. That Congress may at any time alter, amend, or repeal any or all of the provisions of this Act.

Approved May 8, 1914.

APPENDIX C

Gubernatorial acceptance of terms of Smith-Lever Act.

ASSENT OF ALLEN M. FLETCHER, GOVERNOR OF THE STATE OF VERMONT, TO THE PROVISIONS AND REQUIREMENTS OF AN ACT OF CONGRESS APPROVED MAY 8, 1914, ENTITLED "AN ACT TO PROVIDE FOR COOPERATIVE AGRICULTURAL EXTENSION WORK BETWEEN THE AGRICULTURAL COLLEGES IN THE SEVERAL STATES RECEIVING THE BENEFITS OF THE ACT OF CONGRESS APPROVED JULY 2, 1862, AND OF ACTS SUPPLEMENTARY THERETO, AND THE UNITED STATES DEPARTMENT OF AGRICULTURE."

Whereas, the Congress of the United States has passed an Act approved by the President, May 8, 1914, entitled "An Act to Provide for Cooperative Agricultural Extension Work between the Agricultural Colleges in the several states receiving the benefits of the Act of Congress approved July 2, 1862, and of Acts supplementary thereto, and the United States Department of Agriculture," and,

Whereas, it is provided in Section 3 of the Act aforesaid, that the grants of money authorized by this Act shall be paid annually "to each State which shall by action of its legislature assent to the provisions of this act," provided "That payment of such installments of the appropriation hereinbefore made as shall become due to any State before the adjournment of the regular session of the legislature meeting next after the passage of this Act, may in the absence of prior legislative assent, be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury," and

Whereas the Legislature of the State of Vermont is not in session at this time; therefore,

I, Allen M. Fletcher, Governor of the State of Vermont, do hereby give the assent of the State of Vermont to the provisions and requirements of said Act, and authorize and empower the trustees of the University of Vermont and State Agricultural College to receive such installments of the appropriations made in said Act as shall become due to the State of Vermont before the adjournment of the next regular session of the Legislature, and to organize and conduct agricultural extension work which shall be carried on in connection with the College of Agriculture of said University in accordance with the terms and conditions expressed in the Act of Congress aforesaid.

In testimony whereof, I have hereunto subscribed my name and caused the seal of this State to be hereunto affixed.

[SEAL] Done in the Executive Chamber at Montpelier this 29th day of May in the year of our Lord one thousand nine hundred fourteen and of the Independence of the United States the one hundred thirty-eighth.

(Signed) ALLEN M. FLETCHER, Governor.

By the Governor:

WARNER A. GRAHAM, Secretary of Civil and Military Affairs.

APPENDIX D

Joint Resolution (Vermont) 351 (1915). Legislative acceptance of terms of Smith-Lever Act.

JOINT RESOLUTION TO ALLOW THE STATE OF VERMONT TO RECEIVE THE BENEFIT OF THE PROVISIONS OF AN ACT OF CONGRESS ENTITLED "AN ACT TO PROVIDE FOR COOPERATIVE AGRICULTURAL EXTENSION WORK BETWEEN THE AGRICULTURAL COLLEGES IN THE SEVERAL STATES RECEIVING THE BENEFITS OF THE ACT OF CONGRESS APPROVED JULY 2, 1862."

Whereas, the Congress of the United States has passed an act approved by the President, May 8, 1914, entitled "An Act to provide for cooperative agricultural extension work between the agricultural colleges in the several States receiving the benefits of the Act of Congress approved July 2, 1862, and of Acts supplementary thereto, and the United States Department of Agriculture," and

Whereas, it is provided in section 3 of the Act aforesaid that the grants of money authorized by this Act shall be paid annually "to each State which shall by action of its legislature assent to the provisions of this Act," therefore be it

RESOLVED BY THE SENATE AND HOUSE OF REPRESENTATIVES: That the assent of the Legislature of the State of Vermont be and is hereby given to the provisions and requirements of said act, and that the trustees of the University of Vermont and State Agricultural College be and they are hereby authorized and empowered to receive the grants of money, appropriated under said act, and to organize and conduct agricultural extension work which shall be carried on in connection with the University of

Vermont and State Agricultural College, in accordance with the terms and conditions expressed in the Act of Congress aforesaid.

MAX L. POWELL,

President pro tempore of the Senate.

JOHN E. WEEKS,

Speaker of the House of Representatives.

Approved March 11, 1915.

CHARLES W. GATES, Governor.

APPENDIX E
AN ACT CONTINUING AN APPROPRIATION
FOR EXTENSION SERVICE IN AGRICULTURE
AND HOME ECONOMICS IN RURAL COM-
MUNITIES IN COOPERATION WITH THE FED-
ERAL DEPARTMENT OF AGRICULTURE.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. The sum of eight thousand dollars is hereby annually appropriated for the use of the Vermont Agricultural Extension Service. This sum shall be expended solely for extension work in agriculture and home economics in cooperation with the States Relations Service of the Federal Department of Agriculture and in accordance with the provisions of the federal act providing for cooperative agricultural extension work, approved May 8, 1914. One-half of such appropriation shall be payable on the first day of July and the other half on the first day of January annually and the auditor of accounts is hereby authorized to draw his orders in payment thereof in favor of the treasurer of the Vermont Agricultural Extension Service.

SEC. 2. This act shall take effect July 1, 1915.
Approved March 31, 1915.

APPENDIX F

No. 121. AN ACT TO ENABLE TOWNS TO APPROPRIATE MONEY FOR COUNTY AGRICULTURAL WORK.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. Towns may, at any annual meeting or at a special meeting, legally warned for that purpose, appropriate a sum of money to pay its share of the expense incurred in the employment of a government county agricultural adviser; the sum appropriated by any town to be such proportional part of the sum of twelve hundred dollars as the grand list of said town bears to the total grand list of the county.

SEC. 2. If at any time the Federal Government shall demand a sum other than twelve hundred dollars from a county, the towns in such county may appropriate such sum subject to the conditions of the preceding section.

SEC. 3. This act shall take effect from its passage.
Approved February 7, 1913.

APPENDIX G

No. 120. AN ACT TO AMEND No. 121 OF THE ACTS OF 1912, ENABLING TOWNS TO APPROPRIATE MONEY FOR COUNTY AGRICULTURAL EXTENSION WORK.

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. Towns and cities in counties where county agricultural associations are formed consisting of at least two hundred members shall annually not later than September first pay their share of the expense incurred in the employment of a government county agricultural adviser; the sum paid by each town or city to be such proportional part of the sum of twelve hundred dollars as the grand list of said town or city bears to the total grand list of the county.

The selectmen of the several towns and the mayors of the several cities in the counties where such county agricultural associations have been formed shall draw their orders on the treasurers of their respective towns or cities for the proportional part of the sum of twelve hundred dollars due from their respective towns or cities, such orders being made payable to the treasurer of the county agricultural association of the county in which the several towns or cities are located. The treasurer of each association shall annually on or before August first file with the director of the Vermont Agricultural Extension Service a certified statement accurately setting forth all receipts and expenditures under the act, and said director is hereby authorized to audit the accounts of the treasurers of the several county agricultural associations and to publish condensed statements thereof in the biennial report of the trustees of the University of Vermont and State Agricultural College to the General Assembly.

The commissioner of taxes shall annually on the first day of July notify the chairman of the selectmen of each town and the mayor of each city in the counties where such county agricultural associations have been formed of the proportional part of the sum of twelve hundred dollars due from such town or city under the provisions of this act.

SEC. 2. If any town in a county in which no county agricultural adviser is employed, desires to benefit by the services of such an adviser located in an adjoining county, and such desire is expressed by a majority of the voters thereof in an annual meeting or a special meeting, legally warned for that purpose, the petition of such town shall be presented by the selectmen thereof to the executive committee of the county agricultural association it wishes to join at its next meeting, and the committee shall determine by vote whether or not and on what terms the petition of such town shall be granted; provided that in no case shall the payment required of such town be in excess of its proportional part of the sum of twelve hundred dollars that the grand list of such town bears to the total grand list of the county in which the same is located.

SEC. 3. This act shall take effect July 1, 1915.
Approved March 31, 1915.

**APPENDIX H
FROM THE FIFTH ANNUAL REPORT OF THE
COOPERATIVE EXTENSION SERVICE FISCAL
YEAR ENDING JUNE 30, 1919**

**Steps for Reorganizing the Farm Bureau in
Vermont**

Under the County Agent Project special emphasis has been laid on strengthening the organization of the County Farm Bureaus. The growth of Home Demonstration Work and Boys' and Girls' Club Work has necessitated enlarging the County Farm Bureau Associations to include the entire family, the object of which is the evolution of a program of work in agriculture and home economics for the farmer and his family in cooperation with the state and national agencies to develop a profitable farm business, and a wholesome, satisfactory home and community life for men, women and children. Membership in the Farm Bureau Association has gradually increased until under date of December 1, 1918, there were 6,030 in the 12 Farm Bureau Associations of Vermont.

The people who are to be benefitted by a program are encouraged to outline the program and to take the initiative in carrying it out. At meetings where plans are discussed, effort is made to have both men and women present, so that they may consider both the problems of the farm and of the home and may develop one program instead of two.

Chittenden and Orleans were the first counties to develop the work in the above manner. The method met with immediate success and at the Extension Conference recommendations were adopted to develop the farm bureaus on the family and community basis with the people outlining and developing the program.

The Conference recommendations were as follows:

1. That the county farm bureaus of Vermont be organized on the family and community basis.

2. That the membership of the farm bureaus be made up of men, women and standard club groups.

3. That all standard clubs be entitled to one full paid membership and delegate, the club to elect the president or other member as delegate.

4. That the county farm bureau officers, executive committee, and community committees be composed of people interested in the work for men, women and boys and girls.

5. That the permanent program of work of each county be so planned now that it will provide all around extension work with three full-time permanent leaders.

6. That the above recommendations be carried out:

(a) By developing community and county programs of work, as requested by the people and this program of work written up on a project form.

(b) By securing a membership comprising not less than twenty percent of the farmers and housewives and standard boys' and girls' clubs of the county.

(c) By organizing committees in every community, each committee member to have charge of some line of farm bureau activity in the community.

(d) By organizing an executive committee, each member of which is to be chosen to lead some county-wide farm bureau activity or project.

(e) By automatically organizing county project committees. Each county project committee will comprise all community committee members in charge of one common line of farm bureau activity or project.

(f) By federating the efforts of existing agricultural organizations and organizing new lines of effort.

(g) By publishing in each county a Farm Bureau News.

(h) By holding county-wide meetings and automobile tours in order to demonstrate more clearly to the members the work that is being done.

APPENDIX I

TWENTY-FIFTH ANNUAL REPORT OF COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, STATE OF VERMONT, FOR THE YEAR 1939

A Backward Glance

The year 1939 was an important one in the annals of extension work in Vermont, for July 1, 1939, marked the completion of exactly 25 years of cooperative extension work in the state, dating from July 1, 1914. Actually, the Vermont Agricultural Extension Service began its career on July 1, 1913, a full year before its close cooperation with the United States Department of Agriculture was instituted. The Extension Service was created by the College of Agriculture of the University of Vermont as a result of action taken by the General Assembly of the State of Vermont in 1912. The General Assembly appropriated \$8,000 annually for the fiscal years 1914 and 1915 for use by the College of Agriculture in carrying on extension work in the state.

On its first birthday, extension work in Vermont took a new lease on life; on that date began its long career as a cooperative enterprise of the College of Agriculture, University of Vermont, and the United States Department of Agriculture, in accordance with the Smith-Lever Act of Congress, approved May 8, 1914.

This act, which placed a firm foundation under extension work in the United States, provided for the conduct of extension work in the several states through the cooperation of land-grant colleges and the United States Department of Agriculture. It provided permanent annual federal appropriations for the support of extension work in states assenting to its provisions, and made payment to any individual state conditional upon acceptance of the provisions of the act by that state.

The provisions of the Smith-Lever Act were accepted for Ver-

mont by Governor Allen M. Fletcher on May 29, 1914. They were also accepted by the General Assembly of the state at its next session in a resolution approved March 11, 1915.

Although subsequent state and federal legislation has supplemented the Smith-Lever Act in determining the activities of extension work in Vermont, this act has been of profound importance not only in Vermont, but throughout the nation as well. It was destined to shape to a far-reaching extent, the nature and purposes of the work. In view of its importance, it seems worthwhile to quote the purpose of this legislation as expressed in the act itself: "to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same."

The nature of extension work was described in the act as follows: "cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges [land-grant colleges] in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the [United States] Secretary of Agriculture and state agricultural college or colleges receiving the benefits of this act."

From small beginnings in 1913, the services of the Extension Service to the people of Vermont, particularly the farm people, have steadily grown. The extension director, seven county extension agents, and five persons employed on a part-time basis constituted the staff in the year 1913-14. The expansion which has taken place in the services rendered to the people of the state is indicated by the fact that during the year covered by this report, the staff consisted of 39 county extension agents carrying on agricultural, home economics, and 4-H club work in all counties of the state, besides the extension director, five state leaders of the

three phases of the work, thirteen state specialists in the various fields of the work, and clerical workers.

The Extension Service has served in close cooperation with the rural people of the state through the vicissitudes of a short pre-World War period, the early years of the war, the years of United States participation in it, the economic reaction which followed close upon its heels, and the serious depression which began in 1929. During all of these periods, it has kept its programs closely attuned to the needs of the rural people of the state and the economic and social conditions facing them.

A significant change in the work took place with the development of the depression. Previously, the rural people were mainly interested in increasing agricultural production in response to an increasing demand and in finding ways and means of improving their living conditions. Extension work was directed toward helping them realize these interests. However, as the depression developed, it was accompanied by a growing need for retrenchment on the part of the rural people. They needed assistance in finding ways of obtaining sufficient income with which to meet their obligations, and ways of cutting down their living expenses. The Extension Service turned its programs toward helping them meet these needs. The deepening of the depression brought a large number of federal programs designed to help the farm people. This has meant new responsibilities for the Extension Service in informing the people about these programs and helping to adapt them to local needs.

Throughout the years, the Vermont Agricultural Extension Service has kept closely within the field of education. It has constantly tried to keep its program adjusted to local needs. It has enlisted the assistance of local people in deciding upon the work to be done and in leading the work. Proof that the work has been successful lies in the fact that its support, both financial and moral, has grown almost constantly from the beginning. The part that the Extension Service is playing in the lives of Vermont rural people

appears to be of even greater importance at the present time than at any time in the past.

