# Vermont Environmental Report

PUBLISHED MONTHLY BY THE VERMONT NATURAL RESOURCES COUNCIL, A NON-PROFIT CITIZENS' CONSERVATION ORGANIZATION SUPPORTED BY MEMBERSHIP DUES AND CONTRIBUTIONS. VNRC, 26 STATE STREET, MONTPELIER, VERMONT, 05602; (802) 223-2328. CHAIRMAN: DAVID R. MARVIN; EXECUTIVE DIRECTOR: SEWARD WEBER; EDITOR: NATHANIEL FROTHINGHAM.

## Young Farmers Speak OUT!!

THE SERIES ON "FARMING & YOUTH" CONCLUDES WITH MORE INTERVIEWS AND TWO FINAL STATEMENTS FROM BENJAMIN HUFFMAN AND WIN WAY.

#### 4. Michael Angier

Mike Angier, 25, is making a break with tradition.

In the Champlain Valley, near Addison, Vermont, in the heart of the richest dairying country in the State, Mike Angier has established a successful pig farm operation. He began some time ago with 22 pigs and will "finish out" this year with 800 to 1000 hogs.

Angier tells how it all started.

"I was in high school. I was interested in farming. My father was raising corn for grain. I started raising pigs. That gave (my father) a market for grain. Now he wouldn't have any problem."

Angier is emphatic about his personal choice between pigs and cows. He prefers pigs although he admits that Vermont is suited to dairy farming. "I was not raised on a dairy farm," he relates. "I don't like the idea of being married to a dairy cow." Viewed in a larger perspective, Mike Angier thinks that agricultural diversity makes a lot of sense for Vermont or as he says, "It is not a good idea to put all our eggs in one basket."

Finding money to start a pig farm was not easy.

Angier had attended the University of Connecticut. He tells about sending off to Middle Western colleges for everything on pigs he could lay his hands on. As he explains it, the loan people at the Farmers Home Administration had a definite prejudice in favor of dairy farming. He doesn't entirely blame them. They had been 'burned' with some big losses on beef, particularly.

For Mike and his wife, Sally, finding the start-up money was a two-year trial of patience. "It was a matter of convincing the Farmers Home Administration people that we were serious," he says. Their first application was for beef cattle and hogs. There were other applications, with more or less land involved. Angier was fortunate enough to be able to purchase one of his father's farms, 150 acres, most of which he now leases out. "I was tempted to start a dairy operation," he confesses honestly. "It would have been a defeat."

"Finally," he says, "we got it for pigs!"

Of all the problems that Mike and Sally Angier have encountered nothing has been more difficult than the lack of operating capital. They

had planned things out in detail. Even so as Mike reports, "At times things have been pretty tight. You get behind with people." They simply have to wait to get paid.

Angier expresses his present confidence in the operation by the smile that accompanies this somewhat incongruous remark: "We have lost money every year we have been in business." Angier goes on to explain. What this means is that he has been plowing the profits right back into the pig farm. The profits are there; they are simply not showing up as profits. By increasing the assets of his business, Angier can borrow more money; in borrowing more money he can expand production.

Angier talks knowledgeably about the problems of young people breaking into farming. "If you are talking 'dairy farming' you are talking a tre-mendous investment." Pig farming, on the other hand, is something you can get into on a parttime basis. Angier finds no fault with young farmers in the way they run the mechanics of a dairy operation, milking the cows, operating the machinery. But business aptitude, business judgement, a grasp of management concepts, that is something else. He questions the judgement of the young farmer who goes out and buys a lot of automated equipment. This machinery is no bargain. These young farmers forget that the hired man this machinery replaces is now working at an assembly plant somewhere, putting this stuff together at \$6.00 an hour. "I see an awful lot of equipment that people do not need," says Angier finally.

Michael Angier is a man who can speak with some authority. He is organizing an enterprise to be known as the Vermont Packing Company.

He watched his pigs being shipped off to such places as Albany, New York and Bloomfield, Connecticut, to be butchered at union wages, only to see the finished product come right back up to Vermont at a sizeable increase in cost. His neighbor's beef was going to Lancaster, Pennsylvania, only to come right back to Vermont as packed beef.

At first, Angier had pretty much settled on a fairly modest meat-packing operation, at a capital cost of \$40,000 to \$70,000. But he got together with others who were talking about a packing operation. "Maybe we ought to look

into doing other stuff," they mused. So they commissioned a market study. They found out that other producers in the area were facing the same problems. There was a need for a packing plant for pork, beef, veal, and lamb, right here in Vermont.

The Vermont Packing Company will open in three months. It will cost \$350,000. Part of the money is from private investors. Some of it is from a 4% loan from the Vermont Industrial Development Authority (VIDA). Angier says: "We are going to employ ten people. I feel we can have a better quality product at the same price and maybe less. If we can keep a few farms in business then this will go a long way towards helping the State's economy"

#### 5. David Hawkins

David Hawkins, 31, can sing the praises of the independent, farming life, but he knows the burdens.

Hawkins started milking cows when he was nine years old.

He has been in partnership with his dad. Last September he took over what he affectionately call the 'home farm' in East Calais, 190 acres, 110 head of cattle, 70 milkers. "If I had not bought the place," he admits candidly, "I do not think someone would have been sucker enough to buy this again as a dairy farm."

First on Hawkins' list of frustrations is the Farmers Home Administration. He remembers that his father went to Senator Aiken who got the ball rolling for a loan. "We started two years ago." The problem with bureaucratic delays is that some people simply refuse to wait until a loan can be negotiated. They sell out from under you.

What the FHA people apparently don't realize is that all the time a loan is being negotiated the farmer is trying to run a going concern. Hawkins tells the story of a fertilizer delivery he was waiting for. It cost \$3000. The salesman balked at making the delivery. In this instance Hawkins turned to the salesman and said, "You go down and ask FHA."

"He got an answer," says Hawkins. (The fertilizer was delivered.) "But we couldn't."

One of the problems of carrying a debt load like the one Hawkins carries, \$160,000, is the pressure this puts on a farmer to expand the size of his herd to make the payments. "We would go to 40 cows tomorrow," declares Hawkins, "if we could pay the mortgage."

Hawkins thinks the first six years of ownership are the hardest. An older farmer tends to let his equipment wind down as he approaches retirement. Then along comes a younger man and there is equipment to renew.

The Town of Calais had a development scare when a Massachusetts development firm bought more than four hundred acres of land for some fifty houselots. This is an example of the kind of thing that got people in Calais to vote for an agricultural tax stabilization program. Hawkins thinks the program makes good sense. He says it was 'downcountry people' who led the move to tax stabilization. According to Hawkins, downcountry people were able to see the pressures on land coming. Country people tend to ignore the facts. Hawkins says that there are a lot of bitter people in Calais. "They are paying a dime on the tax rate. And I am saving it."

#### 6. Mike Liff

Mike Liff was born on a Vermont farm almost 24 years ago.

"I have not found anything else I have done that I cared for as much," says Liff. He now finds himself in the enviable position of both knowing clearly what he wants to do in life, and having that opportunity.

Since graduating from high school in 1970, Liff has worked at all sorts of things, but he has gravitated towards dairy farming. He has done the graveyard shift at a plastics factory, he has hustled cases of drink at the State Liquor Authority warehouse. And in the last few years, as he has drawn closer and closer to the farming enterprise, he has worked as a hired hand on a farm in Waitsfield, and as an artificial insemination technician for the past four years.

Over the past two years Mike Liff has worked on the farm of Bradford and Ruth Lane in East Montpelier. The Lanes have been farming for 38 years. Since April of this year, Liff has been working at the Lane Farm under what he describes as a "father-son arrangement."

The farm itself, the land and buildings, continues to belong to the Lanes at least for the present. Under the agreement, Mike runs the operation and gets the gross receipts. Against these receipts there is an assessment made for his purchase of stock and equipment. Over the next ten years or so Liff will be building up a little equity and compiling a record of successful farm management. This is how Liff explained the arrangement, "It is his place but it is my operation. We are living as one family."

Liff is aware of the merits of the agreement that he and the Lanes have worked out together. There is something in it for both parties. The Lanes want a fair return on the investment they have made down through the years. At the same time they want to be relieved of the responsibility of running the opration. Liff's needs are equally clear. He needs a chance to build up a little equity. He wants the management experience. If he runs into problems, Bradford and Ruth Lane are there to help out. At the end of ten years, or sooner, if Liff builds up sufficient equity, he will have the option of purchasing the whole operation. And by then he will be in a position to raise the necessary capital.

The young person who wants to enter farming today faces costs that can run as high as \$200,000 to \$250,000. Perhaps the agreement between Mike Liff and the Lanes is an answer. Mike Liff stresses that it is possible because of co-operation. In discussing the financial realities of acquiring a farming operation, Mike Liff says: "If you have a farm worth \$200,000, 75 percent of that qualifies for loans. You need \$50,000. Where is that going to come from?"

To close off its series on "Farming & Youth" the VER asked Benjamin Huffman and Winston Way to write concluding statements. Benjamin Huffman wrote the detailed study of agriculture in this State, entitled The Vermont Farm, and he recently advised the State of Massachusetts on its farm lands protection policy. Winston Way is an experienced agronomist with the UVM Extension Service in Burlington.

## Ben Huffman & Win Way

I am one of the growing number of city people, --referred to in the series on "Farming & Youth," --who ascribes an increasing importance to Vermont agriculture. Maintaining Vermont's agricultural production is central to the long-range stability of our overall state economy, and to helping to sustain Vermont's distinctive social and environmental character.

In the course of my studies of Vermont agriculture, I have also become one of those city people who increasingly respects the dedication of farmers themselves. I have talked at length with scores of individual farmers about their day-to-day economic circumstances. This experience has confirmed for me the picture depicted in the series on "Farming & Youth" in Vermont. Because of Vermont's spiraling land values over the last decade or so, it has become virtually impossible for a young, prospective farmer to buy into agriculture; yet equally important, current farmers close to retirement have virtually no choice but to sell at prices beyond what another farmer could pay out of a farm income.

This latter point, however, seems to have been missed in the debate among environmentalists since the late 1960's about conserving our land resources.

The important fact is that farmers have had to expand operations to try to make ends meet. If they have expanded, they have gone heavily into debt to do so. Of the total debt for all farm property in Vermont (machinery, land, buildings, etc.), about 60% is currently for farm real estate. Since 1970, the debt for real farm property has increased at a rate of 30 percent greater than the rate of increase in debt for non-real farm property. To repay the typical individual farm debts which these figures imply, will likely require the eventual sale of very many farms at higher than agricultural prices.

If, on the other hand, a farmer has not expanded his operation, he has lived on a substantially

lesser cash income as a result, and most likely looks to the time he can cash in the "gold bond" of his farm as a return on a life's investment of hard work.

Under these circumstances, the transfer of farm property from one farmer to another will continue to be an increasingly rare event.

If we want seriously to preserve Vermont's agricultural sector, we will need a commitment from all Vermonters to deal realistically with the economic situation of both present and prospective farmers. In my opinion, such a preservation effort will require a state-level, farm land development rights acquisition program. Through this approach, current farmers willing to give up the right to sell their property for a non-agricultural use would be compensated for their financial loss in doing so. The resulting market prices of these properties would be, in turn, prices other farmers could afford to pay out of an agricultural income from the property.

The cost of such a program might be on the order of about three-quarters of the State share of the cost of highway construction in Vermont over the past twenty years. The highway figure is some \$250 million. I mention the highway program deliberately, because it expresses the degree of Vermont's past commitment to encouraging economic activities often at odds with a continued agricultural use of our land.

Thus, to re-direct the real estate and development trends of the past couple of decades will require us to think in public investment terms similar to those that helped create the trends. As a start, we need to give up the rhetoric that has become common among Vermont's land use planning circle, which calls for farmers to carry the full burden of maintaining Vermont's farm lands in an agricultural use.

I hope the "Farming & Youth" series has contributed to an understanding of this subject.

#### & Win Way...

There are subtle but far-reaching changes taking place in Vermont agriculture as the recent series on "Farming & Youth" in this publication has discussed. The implication that government ought to do more to perpetuate agriculture is a matter of debate. I think our society has become agriculturally lazy. Vermont government can't create agriculture; it can only create a favorable climate in which agriculture can flourish.

In a free society, agriculture must have a profit if new entrants are to be attracted. But if the profit motive is the sole motive it is inevitable for farms to become fewer and larger as the trend has been.

Costs of food today do not include depletion of resources, deterioration of environment, social consequences or indirect costs to government. The true cost of food production is never shown. But as low a percentage of our income as we brag about is still too much for many of our citizens. They are looking for ways to lower food prices. Home and semi-commercial food production are the result.

I see a two-phase agriculture in the future.

Inmercial dairying? Yes, pretty much along lines the economists predict. Our large high-resource-demand dairy farms will continue to produce food until the resources like energy run out. They will have to be increasingly subsidized to continue. Purchase of development rights, tax concessions, fertilizer subsidies, price supports, low interest loans, educational programs, --all these will be needed to assure continuation. New entrants will be mostly the succeeding generations of present farmers and immigrants with experience.

Diversified farming and gardening are the areas that will receive the greatest attention in the years ahead. I am convinced that food prices will continue high enough to force people of all walks of life to produce their own food. And for those who can't, there will be an increasing number of small-scale farmers. Such enterprises as beef, sheep, hogs, goats, small grains, corn, vegetables, and forages require a re-learning of the things that grandfather knew well. More hand labor will be required. Produce will bypass the present marketing system and co-ops will become more numerous, both to market and to purchase.

Our present educational system is filled with would-be farmers but they are not really learning how to farm. Some of the real educational needs are presently being satisfied in short courses conducted by a variety of organizations.

I think the state should acquire four to six diversified farms, each equipped to teach 20 to 25 students. Both book learning and skills would be taught in a one-year or two-year program. Here newcomers to non-dairy agriculture would learn while developing a confidence so badly needed in making a successful farmer. This is how education, the first need, could be satisfied.

Then if society is really concerned about the preservation of farmland, the state will support existing land trusts or create new land trusts in areas selected for their appropriateness to crop production. Graduates from the educational farms need a stepping stone to their farming future. Small homestead farms could be nurtured under land trust guidance and free of governmental interference.

These new entrants into agriculture would use these farms to apply their knowledge with a one to three year period in which to make their venture work. Basic tools would be provided on a lease basis along with land and buildings.

The land trusts would mother these apprentice farmers by helping to co-operatively purchase input needs such as seeds and fertilizer. It would also help market the produce on a co-operative basis and provide such market preparation services as would be needed.

Farmers who failed their apprenticeship would leave. Those who succeeded would stay. Or they might wish to step out into a private situation of larger size.

In effect I see these land trusts as agricultural communities with produce, equipment, labor and social exchange. There are already signs of these ideas developing in a different way. They might be similar in some respects to the "Chinese Brigade," or to the "Finnish Co-operative" which once flourished in Massachusetts and Maine. We are beginning to see parts of such a "community lifestyle" but a completely-realized example would be a first for Vermont.

### Air Program Changes

Vermont's Air Pollution Control Program is changing. The emphasis today is not so much on curtailing individual polluters. Most of these have already been identified. Either they have been brought into compliance or they have been put on an abatement schedule.

Now the effort is taking a different form. Back in 1971 when the Vermont Program was just getting off the ground, the State was not required to monitor for carbon monoxide pollution. Vermont was seen as too small and too rural for such a problem to exist. Now the understanding of things has changed. Officials recognize the existence of localized carbon monoxide problems. According to Richard Valentenetti, Chief of the Air Quality Program, "There is greater emphasis today on the quality of the data, not just the quantity." And there is greater concern for pollution that is occuring from "complex sources."

This summer Air Quality personnel will be making a survey of every major intersection in the State. They will measure traffic, the size of streets, and the size and number of turning lanes. At the end of the summer they will go back to the heaviest intersections and do some sampling. Valentenetti describes a new interest that the Air Quality Program is taking in reviewing plans for major traffic modifications that will affect air quality standards in urban areas. Valentenetti's staff will be reviewing plans for such projects as the Pine Street Beltline that is planned for Burlington.

In cities like Boston where problems of smog and pollution are intense the Environmental Protection Agency (EPA) has already moved to implement stringent requirements for automobile inspection and maintenance. The EPA claims that the automobile causes 95% of the carbon monoxide and 45% of the hydrocarbons in Boston's air. The Boston "Transportation Control Plan" calls for state-sponsored incentives to encourage car pooling and requires traffic reduction in specific areas with particularly bad traffic congestion.

#### black BEAR!!

On Thursday evening, September 9th at 7.30 P.M. in the Pavilion Auditorium in Montpelier the Department of Fish & Game

and the VNRC will sponsor a SEMINAR ON THE BLACK BEAR. Speakers will discuss the future of this, the largest of game species in Vermont, including land use policies necessary to maintain a healthy bear population in the State.

#### SPILL: questions!

Comments by two State officials who are concerned with safety procedures at the Vermont Yankee nuclear power plant in Vernon describe the significance of the spill of approximately 83,000 gallons of radioactive water into the Connecticut River between July 18 and July 20.

The events surrounding the accidents were complicated, but the important point according to both experts is this. The operator of the control console at Vermont Yankee was alerted to the problem of a high water level in the plant's Condensate Storage Tank.

There are two high water warning devices that connect to the nuclear plant's central control console. One of these devices is a gauge; a second device is a high water level flotation indicator. The gauge is mechanically sophisticated and therefore prone to breakdown. The flotation indicator is relatively more simple mechanically and therefore more reliable.

In the case of the radioactive spill on July 18-20 an alarm did go off. But the operator of the console chose to believe the gauge (which was apparently broken) and ignore the alarm from the high-level flotation device.

Dr. Larry Miller, radiochemist at the State's Radiological Health Program in Barre, who toured Vermont Yankee after the spill, described the problem at the nuclear plant in these words: "There are too many false-positives." According to Dr. Miller, you get a positive alarm warning, but you imagine it is caused by something else, like rainwater, and you ignore it. The actual spill itself, the experts agree, was not dangerous. The moment the radioactive water hit the Connecticut River it was diluted. As Miller said, "The consequences of the release are small; but the implications are tremendous."

Miller was surprised at the response of the console operator. "I do not understand an operator believing a gauge as opposed to a high-level warning indicator." And Miller feels that the frightening thing is that you can write other scenarios closer to the core of the nuclear plant, that may have more serious consequences.

Phil Paul, a nuclear engineer attached to the Public Service Board in Montpelier, had a similar reaction to the spill. "There are some open

questions in my mind," and he asked, "Is this an indication of the general operation or a one-shot occurence?

### FOREST MANAGEMENT WORKSHOPS

#### first round

Over 120 persons attended five workshops on forest management during June and July at various locations throughout Vermont. These workshops were sponsored by the Vermont Tree Farm Committee and VNRC and were designed to meet the needs of the small woodlot owner. Participants learned how to evaluate a woodlot's potential and techniques of forest management. In most cases the sessions included an indoor presentation followed by a field trip. The subjects ranged from forest management of commercial timber and maple sugar production to wildlife habitat, recreation, aesthetics and firewood.

The Tree Farm Committee and the Council wish to express their thanks to Richard Brett, Bert Croft, Paul Harwood, Norman Hudson, David Marvin, Carl Newton, Charles Stewart, Allan Turner and James White, the foresters who ran the workshops. Special thanks go to Professor Max McCormack who developed the slides for the program.

#### second round

Because of the success of the "First Round" of forest management workshops, a "Second Round" is being planned for September and October. The **September** sessions are listed in the Registration Form provided below. The October sessions are still in the planning stage and will be announced in the September **VER**, in the press, and on the radio. Possible locations for the October workshops include: St. Johnsbury, Burlington, Groton, Woodstock, Manchester, and Brattleboro.

#### afterwards...

VNRC would like to encourage people to set up their own workshops by inviting 12-15 friends and neighbors together who are interested in forest management. Once a group has been gathered together the Council would be happy to assist by arranging to have a forester on hand with the program and materials. In this fashion, not only will the atmosphere be congenial and informal, but the program could reach people who may never have heard of the Council. In addition, the forester would be able to concentrate on subjects that are of particular interest to a specific group.

If you are interested in organizing such a session, please get in touch with the Council. VNRC would appreciate having at least one month's advance notice.

STREET	
NAME	TELEPHONE
Please vide d	e send your name and address and telephone number to VNRC. We, in turn, will pro- directions to the site of the Workshop and all other pertinent GENERAL INFORMATION
	Saturday, September 18: Montpelier. General Session on forest management. Taught by Allan Turner, County Forester for Washington County.
	Saturday, September 18: Johnson. Special emphasis on management for maple sugar production. David Marvin, VNRC Chairman, will lead the session.
<del></del> ;	Sunday, September 12: Groton State Forest. General session on forest management. Taught by Paul Cate and Gerry Spaulding.
	Saturday, September 11: St. Albans-Fairfax area. Co-sponsored with the Vermont Department of Forests and Parks and the University of Vermont Extension Service. Special emphasis on firewood production, but basics of forest management will also be taught. Foresters to include: Samuel Hudson, County Forester for Franklin-Grand Isle Counties.
(Check)	registration form

#### vnrc announcements...

#### Call Goes Out for "At-Large" Nominations

The Nominating Committee invites all VNRC members to submit suggestions for nominations for "at-large" members to the VNRC Board of Directors. At-large members of the VNRC Board will serve a term of three years beginning in January, 1977. The Nominating Committee will be placing six names in nomination at the VNRC Annual Meeting in October. A number of incumbent VNRC Board members will be eligible for re-election but the Nominating Committee is eager to have any and all suggestions from the membership.

Suggestions must be in the hands of the Nominating Committee before September 1, 1976 in order to be considered and in time to be listed in the next issue of the Vermont Environmental Report. The Nominating Committee asks that members who are suggesting nominations include accurate address and telephone information for each person whose name is put forward to the Committee. Please send your suggestions to: (Nominating Committee), VNRC, 26 State Street, Montpelier, VT., 05602.

#### VNRC 1976 ANNUAL MEETING SET FOR OCTOBER 9TH

#### VENUE TO BE ANNOUNCED LATER

VNRC members are urged to mark Saturday, October 9th, on their calendars as the date of the 1976 Annual Meeting of the Council.

The Annual Meeting will begin at 9 A.M. with a business session which will run until noon. The afternoon program will be a Candidates' Forum to which the candidates for Governor, U.S. Senator and U.S. Representative will be invited. These candidates will have an opportunity to present their positions on environmental issues and will then respond to questions from the VNRC membership.

This year's Meeting represents a return to a tradition of early fall meetings and it is hoped that better weather and fall foliage will encourage a greater attendance than in December.

Details about the Annual Meeting, including place, will be announced in the September issue of the Vermont Environmental Report.

# VNRC

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ADDRESS CORRECTION REQUESTED

VERMONT NATURAL RESOURCES COUNCIL, 26 STATE STREET, MONTPELIER, VERMONT.