

Healthy Food, Healthy Lives: Challenges and Opportunities Wayne D. Purcell

How do university administrators get their dedicated, creative, highly motivated, and often over worked faculty involved in long term strategic planning, especially when it is across disciplines? University administrators all ask this question. Virginia Tech is attempting to resolve this sometimes intricate and always difficult problem. It is part of a much larger, more important question: Where should Virginia Tech be headed in the 21st Century to best serve the Commonwealth of Virginia and beyond?

In August 1997, Virginia Tech administration issued the Implementation Plan of the Update to the University Plan. This Academic Agenda, as it is called, was in response to the complex challenges that face Virginia Tech and all institutions of higher education. Staying in touch with the various clientele groups and publics served by the University is an ongoing task that takes time and energy. Even when communication is good, questions about program focus and correct emphases within and across research, education, and outreach are always present.

Virginia Tech is a top-50 research university, but its charge obviously extends beyond research. The on-campus undergraduate and graduate teaching functions and the outreach responsibilities that extend across the Commonwealth are important and complementary to the research programs. Trying to meet self-imposed high standards of excellence in all three areas challenges available resources and raises the need for careful, forward-looking planning. In response to the administration's request for long-term strategic planning to identify directions in which Virginia Tech should move in the new millennium, the

Provost's office identified and proposed seven cross-cutting, multidisciplinary planning initiatives. One of these initiatives was the Food, Nutrition, and Health Cross-Cutting Initiative.

The current emphasis of the Food, Nutrition, and Health Cross-Cutting Initiative is on the interaction among these areas, but that perspective did not emerge immediately. The 18-person Committee from across the University community initially discussed issues ranging from which area to focus on—food, nutrition, or health—to how to deliver quality programs in each or all three areas. Early on, this somewhat fragmented approach was not surprising. Virginia Tech has significant strengths and visibility in each of the three areas. The implicit question of how to combine the three areas and emphasize their interactions was still in its infancy when the committee divided into three subcommittees to complete a “gap analysis” that was to include a vision statement for each area. These vision statements were to provide the foundation upon which the subsequent work of the Committee was to grow and develop.

As the vision statements were examined and analyzed, the overlapping themes that span the three areas began to draw attention. The Committee's thinking started to broaden and change. Why not propose a program that would build on Virginia Tech's strengths in each of the three areas, that would improve Virginia Tech's ability to compete in each, and that would enter into new areas of multidisciplinary investigation and development? Could Virginia Tech stress,

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in research, education, and outreach, a synergistic program involving foodstuff development designed to improve nutrition and contribute to better health? Could Virginia Tech move into relatively unexplored territory where foodstuffs are developed and processed to provide a therapeutic component and to help prevent chronic diseases?

Vision statements:

Food: “To provide a safe, healthy, environmentally friendly and secure food supply at reasonable cost.”

Nutrition: “To provide a leadership role in helping to prevent heart disease, cancer, and stroke through research, teaching, and outreach efforts related to development of a healthy and nutritious food supply and through encouraging healthy food selection and healthy life-styles.

Health: “To provide programs and solutions to support healthier Virginia communities and citizens throughout their life span.

The idea of being involved in promoting health by helping to prevent chronic and debilitating diseases was exciting, and it was contagious. The somewhat new orientation started to spread through the committee. But would such a program focus work? What could food that is not only tasty but also enhanced to promote healthier people mean to an aging baby boomer population increasingly concerned with health, better nutrition, and quality of life? Some investigation provided quick and interesting insight. According to the increased budget requests for the National Institutes of Health (NIH), and the tendency for NIH to move more toward prevention in their policy positions, the answer appeared to be “Everything!” And upon reflection and discussion, the possibilities grew on the committee. Virginia Tech is uniquely positioned in the Commonwealth to take on research and educational programs that range from genetic selection in the production process, to better health through nutrition, to improved life-styles and eating behavior, to prevention of debilitating diseases. With the growing focus on disease prevention as a way to contribute to better health, the idea of a broad and multidisciplinary program gained momentum.

The excitement intensified as the Committee researched demographic trends and predicted a tidal wave of growth in demand for long-term health as the baby boomer generation moves toward retirement. This generation has money. This generation will want high-quality, healthy life-styles. With NIH showing clear signs of moving more toward a preventive mode in its thinking, the proverbial “idea whose time has come” started to take shape. Indeed, why not envision a Virginia Tech with multidisciplinary, high-tech research and educational programs that encompass biotechnology, foodstuff development, improvement of nutrition, and disease prevention? As the discussions

progressed, the collective energy of the Committee began to coalesce around programs that contribute to better health through the interactions of food, nutrition, and health.

As the Committee members realized that they were planning something that could be very important to Virginia Tech, they started to deal with some of the knotty issues that arose almost

immediately. In a time when all universities are depending more on private funding and endowments, the question raised was, “How do we fund such a project?” If this idea is so powerful, the members reasoned, it would finance itself. In the absence of available University funding to launch and support this and other initiatives that had been proposed, a model of employing an institution builder (soon to be called a “corporate fellow” in on-campus discussions) was generally seen as the right way to go. Hence, the committee decided to ask the University for support in the form of a person, an institution builder, for a short period to help forge the connections with the private sector, with federal and state health-related agencies, and with state leadership for any special state funded initiatives.

The committee’s report was submitted to the Provost prior to September 1, 1998. The committee made essentially one, broad recommendation, which can be paraphrased as

The University should employ an “institution builder” to create this presence on campus, facilitate the needed partnerships and alliances, and move the program to the point it will finance itself from private and/or public support.

The report, defining the integrated approach and requesting an institution builder, made the rounds of the University hierarchy. In June of 1999, the Committee received a positive reaction to the general idea and to the suggested procedure. The time had come for a transition from just planning into joint planning and implementation.

Through the summer and fall months of 1999 discussions continued. Names of possible corporate fellows were solicited from Committee members and their faculty colleagues. Potential graduate programs were discussed. Meetings with officials in University Development prompted preliminary discussions on how money might be raised. Early in 2000, a series of meetings with faculty to discuss the initiative in general, and new graduate programs in particular, were held. After the early, high visibility of the cross cutting initiative planning process, communication to the larger University community waned, and some faculty were not sure about the status of the initiative and how it might impact their college, their department, and their own research and educational programs. And as is the case in any University planning effort, the Committee needed to get the attention of an always busy faculty and give them a chance to provide input and to share their thinking with the Committee.

During 2000, developments on the University campus have changed the environment within which the Food, Nutrition, and Health initiative is being conceived and discussed. Building on long-standing strengths in information technology and rapidly growing strengths in biotechnology, the University has made a major commitment to excellence in combining the two into a program called Bioinformatics. One focus of the Bioinformatics program is expected to be in the area of modified foodstuffs with programs ranging from supercharging traditional plant and animal breeding and genetic development programs to the possibility of genetically modified organisms designed to contribute to nutrition and to prevent chronic diseases. The complementary relationships between two programs, one off and running in the form of Bioinformatics and one, the Food, Nutrition and Health initiative, still on the launching pad, started to be more widely recognized. This complementarity will help both programs and provide a synergistic boost as Virginia Tech makes a major move forward in the fast-paced world of information technology and biotechnology.

In March, the Virginia Tech administration allocated Dr. Tom Caruso to the Initiative. Dr. Caruso manages the Industry Program Development efforts on campus. The addition of his time, energy, leadership, and insight helped reenergize the Committee as they sought the necessary support from the faculty, the University administration, and

possible funding agencies. Meetings with small groups of faculty in the Colleges of Agriculture and Life Sciences, Human Resources and Education, Natural Resources, and the Virginia-Maryland Regional College of Veterinary Medicine were conducted to broaden exposure and encourage buy-in from the faculty. The meetings and discussions were extended to the Director of the new Bioinformatics program, the Deans in the four directly involved colleges, the Provost, other University administrators, and the new Director of University Development. As these meetings were being conducted, a plan was put together regarding possible financing for the Initiative.

Bioinformatics: A combination of biotechnology and information technology, dealing specifically with the application of computational and analytical methods to biological problems. Bioinformatics involves the search for and use of patterns and inherent structure in biological data such as genome sequences, and the development of new methods for database access and queries. (More details at <http://gibas.biotech.vt.edu/whatis.html>.)

In the early stages, the expectations are that initial funding will come from the private sector, from the state as a special initiative presented by the University, or a combination of the two. Longer term, public agencies like NIH and private firms in the health insurance and the health care areas will be interested as visibility and productivity are built.

Currently, private sector firms involved in biotechnology, seed development, genetics, food production and processing, and consumer-level foods all appear to be interested. With the very real possibility of private sector support developing, contacts with private firms have been established and cultivated during the late spring and summer months of 2000. A plan with two distinct but related phases is being developed with the ultimate objective of having a relatively small, private-sector Steering Committee visit campus on October 27. The intent of the October 27 meeting is to acquaint the representatives with Virginia Tech's strengths in the various areas on which the interactive, multidisciplinary program can be built and to seek the advice

of the private sector representatives in fashioning a program that would appeal to the business world. The firms being invited to participate in the new foodstuff development range from biotech firms with the capability to modify genetics to food companies interested in being able to offer foods and beverages with targeted and scientifically verified attributes necessary for improved nutrition and health.

In preparing for the session, a faculty database with qualifications, current research and educational programs, and extended research and educational interests is being compiled. Using this database, the Committee attracted over 50 members of the faculty from a wide range of colleges and departments to a planning meeting that Dr. Caruso facilitated on September 15. This meeting provided the Committee with input, perspective, and advice from a broad spectrum of faculty, many of whom were in the small group meetings in the spring and summer months. Awareness and interest was broad and extended well beyond the Committee members. The discussion at the meeting was active and extensive. Drawing on the discussions and faculty input, presentations for the private sector Steering Committee meeting set for October 27 are being developed.

Contacts have been established with individuals in a number of firms, and visits have been made to several firms. The attendance of the representatives signals a willingness to pursue partnerships, opportunities, and alliances with Virginia Tech. In addition, all Steering Committee members have indicated a willingness to facilitate later meetings with a much broader group of firms that the Steering Committee members themselves will help to identify. That broader list of firms is expected to form a future consortium with Virginia Tech and possibly other universities. When the University makes the expected commitment to this initiative by bringing in a corporate fellow to provide leadership to help build the alliances, form the partnerships, and establish the new presence on campus, both the informal and formal expressions of support from the private firms will be important.

In the fall of 2000, now that much of the preliminary work has been done, enthusiasm for the Food, Nutrition and Health Cross-Cutting Initiative is high. After more than three years of work by the Committee, the new, multidisciplinary, forward-looking presence that Committee members envisioned has a good chance of being realized on campus.

Many issues still need to be addressed, and many questions need to be answered. What will the new presence on campus look like? What will the new graduate programs now in the process of being drafted offer? How will they interface with existing programs? How will a new program impact existing colleges and departments? What form will the administrative structure take? The Committee, in their report, conceptualized a system that operated within the Council of Deans that heads the four colleges funded by the "229 Budget." The system envisioned would use the existing research and extension/outreach infrastructures in those four colleges: the Colleges of Agriculture and Life Sciences, Human Resources and Education, Natural Resources, and the Virginia-Maryland Regional College of Veterinary Medicine. But that structure is only a recommendation. As the new institution emerges, other organizational, administrative, and infrastructure issues will likely need to be addressed.

The Committee is more hopeful than ever that a new presence will be developed on the Virginia Tech campus—that this now long-running planning process will bear fruit. If it does, Virginia Tech can take a giant step forward. The University has the chance to be in the forefront of development in food production and processing; of advances in nutrition; of research, and education on changing life-styles and eating behavior; and of the development of designed and targeted plant and animal foodstuffs that provide superior nutrition and help prevent chronic and debilitating diseases. A need to deal with the many policy issues will surely arise. These issues are related to controlled foodstuff production where the control mechanism will eventually extend to the arena of genetically modified organisms. The new, extended programs of research and education could be important contributors to the University's publicly announced objective of moving to the top-30 major research universities.

The prospects are indeed exciting. The new multidisciplinary program has the potential to not only bring something new to the University, but it can also help Virginia Tech better meet the changing needs of some of the clientele groups and publics it has long served. In an era with very low commodity prices, rural communities and their farming contingents across the Commonwealth are struggling with issues of economic viability, quality of life, and overall well-being. This planned expansion of the scope of activity on the Virginia Tech campus into forward looking, technically

sophisticated programs has the chance to move Virginia into value-added foodstuff production and away from the globally competitive commodity business. This innovative program has implications, it would appear, to the farm community and to many nonfarm clientele groups that look to Virginia Tech for cutting edge research, education, and outreach.

Planning can be fun—when it opens such a wide array of possibilities—and when it works. Truly, many things a committee cannot do, but when a committee is motivated by a common goal and comes to a common focus, the committee structure with its multiple members can generate a great deal of energy. I hope this idea continues to grow, to become even more contagious on campus, and to demand support simply because I firmly believe it is the right thing to do at this point in time for this University and its faculty.

Notices

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****Area Meeting:** The Rural Virginia Prosperity Commission will hold its first area meeting in late October in the Staunton area. It will include Planning Districts 5, 6, and 7. The second area meeting will be held in November in the South Boston area and will include Planning Districts 11, 12, 13, and 14. Input from local citizens is welcomed and encouraged. Watch your local newspaper for details. Visit the Commission's website at <http://www.rvpc.vt.edu>.

****Visit** the website for all seven Cross-Cutting Initiatives: <http://www.unirel.vt.edu/ci>

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