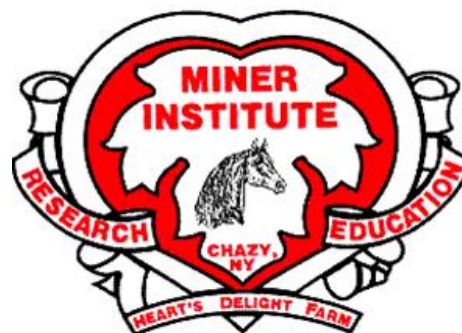


William H. Miner Agricultural Research Institute

Strategic Plan

2011-2016



Approved May, 2011

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EXECUTIVE SUMMARY

Fulfilling Miner's Vision

A century after William Miner built Heart's Delight Farm, Miner Institute embodies his vision of agriculture and how application of science and technology can enhance agricultural productivity, particularly in his beloved Champlain Valley. He envisioned in 1923 that his model farm would evolve into an educational and research institution with

“instruction to be given in such subjects as dairying, animal husbandry, plant pathology, soils, and agricultural chemistry (and that) opportunities be given for experimental and research work in order that the school may serve to advance the science of agriculture.”

Miner Institute has developed a regional and national reputation for education, research, and demonstration programs in dairy, crop, equine, and agri-environmental management. All three components of our mission – education, research, and demonstration – are interconnected by design and have equal importance to us.

Critical Elements of the 2011-2016 Strategic Plan

Previous strategic plans have strengthened our focus on the crop-animal-environment interface as the “hedgehog concept (Collins, 2002)” that unifies all of our major programs. Going forward, we intend to sharpen this focus and become the pre-eminent source for information and leadership on issues relating to agriculture in New York's North Country.

- Our research will evaluate advanced forage genetics and management strategies that optimize cow response and agronomic systems that enhance environmental stewardship.
- Our education programs will showcase this cutting-edge knowledge and emphasize the importance of agri-environmental issues to society.
- Our farming operations will demonstrate best management practices for crop, animal, and nutrient management.

No other university or private research organization will be able to actualize the crop-animal-environment system to the extent that Miner Institute will. It will remain our unique ability as well as our passion.

This 2011-2016 Strategic Plan charts our course as we lead regional education and research efforts in dairy, equine, crop, and nutrient management. Our primary clientele will continue to be farmers and allied industry, but we also will engage community partners, policy makers, and enhance our visibility as regional leaders in agricultural policy.

Previous strategic plans have been primarily *inward-focused*, but our 2011-2016 Strategic Plan incorporates *outward focus*. This Strategic Plan will enable the Institute to complete the circle of our crop-animal-environment focus by adding the critical element of engaging the public and influencing policy on agricultural issues.

2011-2016 STRATEGIC PLANNING PROCESS

Working groups comprised of Miner Institute staff, Trustees, and other stakeholders as appropriate were formed to identify strengths and weaknesses, challenges and opportunities, and propose goals and action plans in these areas:

- 1) educational programs
- 2) outreach programs
- 3) research programs
- 4) demonstration and farm programs
- 5) financial planning to ensure continued financial strength and stability providing the funding support necessary to achieve our strategic goals.

The Management Team discussed and worked these ideas into a coherent overall vision and set of strategic goals for the Institute that comprise this 2011-2016 Strategic Plan.

Simultaneously, an on-line survey was conducted of the *The Farm Report* readership to assess their priority programming needs and preferred educational methods in the next decade. We also reviewed survey and focus group results conducted by regional Cornell Cooperative Extension over the past five years. Several all-staff meetings were held during which Institute staff had the opportunity to hear about, and provide feedback on, key components of the strategic plan and to brainstorm how to most effectively communicate and work as a team while implementing the Strategic Plan over the next five years.

In addition to this programmatic Strategic Plan, complementary plans have been developed for:

- Effective Communication, with goals and objectives for improving communication 1) within departments, 2) among departments, 3) between staff and Management Team and during staff meetings, and 5) with the community. This plan will detail our marketing and public relations goals for the community and partner organizations.
- Comprehensive Farm Plan, including a Land Acquisition Plan, that will provide our strategic plan for buildings, herd size, feed storage, manure and nutrient management, and land base.
- Capital Improvement Plan, providing a timeline and estimated cost of major expenses that will be incurred during the next five years as we implement this Strategic Plan. The major elements of this plan include: 1) Farm Plan (heifer barn renovation, old barn demolition, feed storage, purchase of land), 2) infrastructure costs that recur annually (roads, energy, vehicles, buildings, grounds, technology), 3) equine facility improvements, and 4) major farm or laboratory equipment purchases. We will ensure that our planned spending meets the financial targets set forth in the Financial Strategic Plan (page 16). This plan identifies the funding source as: Foundation funding, tuition, research grants/contracts, or redirection of existing resources.

PREVIOUS ACCOMPLISHMENTS, CHALLENGES, OPPORTUNITIES, AND GOALS

This section summarizes the major accomplishments of our previous strategic plan, what we view as the greatest challenges to our continued success, where we perceive that the greatest opportunities lie, and the overall strategic goals for the Institute in education, research, and demonstration.

Education Program Accomplishments

A major component of our previous strategic plan was development of the Agriculture and Environment course (ENV 440) in 2004 that is taught by Institute staff and integrated our crop-animal-environment hedgehog concept into the long-standing Applied Environmental Science Program (AESP) with SUNY-Plattsburgh. Through this course, we have much greater ownership in the AESP which has long been a cornerstone of undergraduate programs at Miner Institute. Since its inception in 2000, Advanced Dairy Management (ADM) taught during spring semester has been consistently ranked by students as the best component of the entire 2+2 program between Vermont Technical College (VTC) and University of Vermont (UVM). The Summer Experience Programs in Farm and Equine Management have been broadened by creation of an Agricultural Research Experience in 2006, and this summer program has become increasingly competitive as applications continue to increase.

Education Program Opportunities and Goals

Strengthening our undergraduate education programs in agri-environmental science and dairy management over the next five years will be the top academic priority in our 2011-2016 Strategic Plan. We intend to have highly sought-after, fully enrolled courses in Agriculture and the Environment, Dairy Management, and Summer Experience internships built on our fundamental strength in crop-animal-environment management.

The Institute will aggressively market the program at SUNY-Plattsburgh (as well as our other educational programs) by developing marketing materials including brochures, an enhanced web site with videos, on-campus presentations, and activities at Miner Institute that particularly stress the importance of agriculture as a critical element in protecting the environment. We will enhance the attractiveness of the program to undergraduates by offering competitive scholarships to residential students that also enroll in Agriculture and the Environment. *Our goal will be to turn residency at the Institute into an attraction rather than a requirement and make it an important part of the learning process.*

The Advanced Dairy Management semester is the second cornerstone of our undergraduate programs. Our faculty will continue to work with VTC and UVM to strengthen enrollment in the 2+2 program, and seek to position the ADM semester at Miner Institute as indispensable to both colleges. Additionally, we will increase enrollment from other New England Land Grant universities and SUNY agriculture colleges. To that end, we are developing an agreement with Morrisville State College to have selected Bachelor of Technology in Dairy Science undergraduates participate in the ADM semester beginning in 2012.

In addition to these primary courses as well as our Summer Experience program, we intend to develop and offer a one-week short course in Equine Reproduction and Management to students attending regional colleges. If successful, this short course(s) would be opened to community members as well.

Research Program Accomplishments

The previous strategic plan envisioned increasing research activity at the Institute as measured by publications, presentations, and most importantly sponsored research to more effectively leverage Foundation funding. Considerable progress has been made with grant writing activity and income is up over 45% during the past five years. Construction of the new dairy facility during the past seven years plus strategic enhancements of laboratory and field equipment have resulted in arguably the best applied dairy research facilities in the northeast. With the hiring of an agronomist with specific expertise in the environmental impacts of farming, we are poised to expand our research efforts into the agriculture-environment arena, thereby completing the crop-animal-environment focus in research as well as education.

Research Program Opportunities and Goals

The next five years will see us stand out uniquely, both regionally and nationally, as being willing and able to conduct high quality and integrated research spanning the crop-animal-environment interface that will have immediate application to the industry. Environmental stewardship and animal welfare concerns, high-priced grains, and renewed interest in forages justify our research focus.

We have a complete and interactive team of nutritionists and an agronomist so that we are uniquely positioned to conduct research that spans forage production, cattle responses, and nutrient excretion with subsequent environmental impacts. We have built an array of cattle research facilities that are among the best in the region, our forage lab is recognized as a leader in development of analytical methods by the feed industry, and we have a distinct plan to upgrade our agronomy lab and field research capabilities for measuring nutrient run-off. With strategic collaborations to complement our strengths, we expect to be the pre-eminent site for integrated and applied crop-dairy-environment research in the northeastern US. *Dairy farmer and allied industry surveys confirm that this research will remain fundamentally important to the future success of the dairy industry and we intend to augment our efforts in the future even as many universities scale back their applied research programs.*

A significant challenge will remain successful grant writing and efficient leveraging of Foundation funding to achieve our research goals. In the 2011-2016 Strategic Plan we have set aggressive expectations for grant writing, and we must be successful not only in animal nutrition (our traditional strength), but also animal behavior and welfare, agronomy, nutrient management and environmental science. We will continue to seek funding from industry sources, but to be successful we will also need granting success at the state and federal level. To aid in this challenge, we will create a Long-Term Program Enhancement Fund that will provide seed money annually, on a competitive basis, for high risk or preliminary research necessary to develop grants for submission to government agencies.

Within the next five years, our goal will be to obtain one million dollars annually in grant funding with minimal increases in the reliance on Foundation funding. We can accomplish this goal by expanding our sources of grant income beyond dairy nutrition and management to include dairy well-being, youngstock research, agronomic, and environmental research.

Demonstration and Outreach Program Accomplishments

Over the past seven years, our farm facilities for equine have been upgraded and the dairy complex is state-of-the-art. By any measure of performance, the dairy herd is in the top-10% of dairies in the US. A unique strength of the Institute is its fully functional farm capable of demonstrating best management practices in cropping, animal management, and environmental stewardship. *The Stable Sheet* was developed in 2006 as a service for the equine industry and complements the award winning *Farm Report* which focuses on dairy and crops. Both are highly ranked with a large readership. There is no Cooperative Extension equine expertise in northern New York and Institute programs such as Equi-Day (Youth and Adult) serve this growing segment of horse owners in the North Country community. Miner Institute has strengthened collaborations with Cooperative Extension and other organizations in northern New York to deliver dairy and agronomy programs, and has helped to provide leadership for the Northern New York Dairy Institute. Overall attendance at Institute programs (outreach and Heritage Exhibit) has averaged from 3,500 to 4,500⁺ people annually - a large impact for a small staff.

Demonstration and Outreach Opportunities and Goals

In the next five years, we will deploy cutting-edge technology to expand the farmer and allied industry audience impacted by our demonstration and outreach programs. Industry feedback confirms that our program topics (crop-animal-environment) are high priority, but we must become more flexible in our delivery approaches, both regionally and nationally. Further, we will proactively engage the farm and non-farm community on issues that cross-cut agriculture and society.

We see dwindling attendance at our largest events (Corn Congress, Dairy Day) by regional farmers. At the same time, we are conducting more meetings with allied industry who look to us to provide cutting-edge, research-based information that they can incorporate into their own on-farm programs. In essence, we have tilted toward a “train-the-trainer” model. Demographics have driven much of this change since there are fewer, but larger farms in the region as well as fewer and larger agribusinesses. We conducted a survey of *Farm Report* readership in 2010 that identified programming in nutrition and forage production as the highest dairy industry priority, which confirmed our long-standing research and education focus on the crop-animal interface. The next priority topic was cattle welfare, followed by nutrient management and reproduction. Overall, the priority topics over the next five years identified by our readership matches our focus areas well.

A major demonstration/outreach goal of our 2011-2016 Strategic Plan will be to adopt new technologies that allow us to expand our outreach footprint beyond northern New York and surrounding regions. The survey showed a definite preference for webinars, in addition to

traditional face-to-face meetings, and in the future it will take multiple delivery methods to fully satisfy the different preferences for timing of educational programs for farmers and agribusiness. Video conferencing will remain a secondary priority pending improvements in technology.

Over the next five years, the Institute will engage the agricultural community and the general public alike on policy issues while not diluting our traditional efforts in disseminating technical knowledge to students, farmers, and allied industry.

STATEMENTS OF VISION, MISSION, VALUES, AND UNIQUENESS

VISION

We envision a vital agricultural community in northern New York and surrounding regions built on effective use of forage crops and management technologies that optimize animal production and well-being while sustaining the natural environment, particularly in the fragile Champlain Basin.

MISSION

Miner Institute conducts integrated, cutting-edge education, research, and demonstration programs that optimize the biological and economic relationships among forage-crop production, dairy and equine management, and environmental stewardship.

VALUES

We highly value the Miner tradition of high quality agricultural programs serving northern New York needs, conducted by a talented and diverse staff in a beautiful historical setting. We especially value applying the latest technological innovations to improve agricultural profitability in the tradition of William Miner.

UNIQUENESS

Unlike other agricultural educational institutions, Miner Institute uses its farm, facilities, and staff to conduct fully integrated education, research, and demonstration programs rather than treating them as separate and unequal functions.

STRATEGIC GOALS AND ACTION PLANS 2011-2016

EDUCATION PROGRAM

Strategic Goals

We intend to strengthen our undergraduate enrollment in AESP (specifically Agriculture and Environment) and Advanced Dairy Management, boost residential student population, and enhance the size and quality of our applicant pool with an aggressive marketing program. Our educational programs will be regionally and nationally recognized for being hands-on, research-based, and preparing students to assume leadership roles in agriculture and environmental management.

Action Plans and Expected Outcomes:

- Action Plan 1: Brochures, web site videos, and power point presentations will be developed to aid in marketing AESP, Agriculture and Environment course, and in-residence students with a target of 15 students enrolled each fall semester in the Agriculture and Environment course with 10 to 15 students in residence. In addition, a scholarship program, discounted room rates based on occupancy and aggressive marketing will be implemented.

Expected Outcome: Greater student enrollment in AESP, specifically Agriculture and Environment course, with more students in residence to improve the residential living and learning experience that complements the academic programs.

- Action Plan 2: Strong relationships will be maintained with both UVM and VTC to minimize risk to Institute undergraduate population if 2+2 program ends. Additionally, the ADM program will be marketed to other New England Animal Science Departments and SUNY agricultural colleges to ensure that 8 to 10 highly qualified students enroll in the ADM program each spring semester.

Expected Outcome: Larger, high quality student applicant pool for ADM program.

- Action Plan 3: A one-week short course(s) in Equine Reproduction (4 cr. hr.) and other management topics will be developed and offered during spring break with potential to expand to other time periods; target of ~20 students. A marketing campaign will target regional universities as well as members of the community.

- Expected Outcome: Equine Management Short Course(s) that attracts Animal Science majors from regional universities, and later, participants from the regional community.

- Action Plan 4: Pursue aggressive marketing of Summer Experience Program with brochures and web-based information. Approximately 12-13 students selected from a highly competitive pool of applicants will enroll annually in the Summer Experience programs.

Expected Outcome: Maintain nationally competitive Summer Experience Programs in dairy, equine, and agricultural research.

- Action Plan 5: Initiate a formal process to select Dairy, Equine, and Research Interns so that each internship remains on a 12-month cycle and that highly qualified candidates are identified.

Expected Outcome: Twelve-month internships will be conducted in dairy management, equine management, and agricultural research with interns finding employment or pursuing advanced training upon completion.

If all action plans are successful, undergraduate enrollment in Institute educational programs should be approximately 70 to 80 students annually.

Time Line of Key Events:

1. Marketing program for fall semester AESP begins in spring, 2011; fall, 2011 for ADM and Summer Experience Programs.
2. Establishment of linkages with New England schools and SUNY agricultural colleges for ADM program will begin in spring, 2011 and continue through 2012.
3. Initial offering of Equine Reproduction short course will occur during 2012.

Assessment of Impact:

1. Number of students who complete courses at the Institute each semester; number of in-residence students each semester.
2. Analysis of student survey results from each semester that focus on quality of both the residential experience and course work offered.
3. Job placement of students who graduate from UVM after completing ADM program, from SUNY-Plattsburgh after completing AESP and(or) Agriculture and Environment course, and students completing internships (students employed in environmental management positions, farming, or closely allied industries).

Resources Committed, Redirected, or Needed:

1. Cost of courses will continue to be partially offset by tuition and other fees. New agreements will be developed with SUNY colleges and New England Land Grant universities as needed.
2. Increased enrollment and in-residence students are expected to boost educational program income which will offset increased cost of marketing efforts and scholarships.

3. Increased FTE required to teach Equine Reproduction will come from redirected time of Equine Director, Equine Intern, and Research Director as well as use of Summer Experience students.

RESEARCH PROGRAM

Strategic Goals

We will be recognized regionally and nationally as having a pre-eminent applied research program focusing on the forage crop-animal-environment interface. We will provide cutting-edge information and leadership for dairy nutrition and management, equine management, animal welfare, agronomic practices, and environmental implications of dairy farming in Northern New York, Vermont, and surrounding regions.

Action Plans and Expected Outcomes:

- Action Plan 1: Conduct research that 1) optimizes forage-crop use and nutritional management of dairy cattle with a focus on productive, behavioral, metabolic, immune, and economic responses, 2) defines optimal social and physical environments for dairy cattle based on behavioral, productive, and health responses, 3) evaluates the effect on soil and water quality of surface and sub-surface drainage, soil type, manure application, and cropping systems, and 4) optimizes carbohydrate nutrition of Morgan horses and improves equine fertility through enhanced viability of stored stallion semen and understanding of ovarian function in mares.

Expected Outcome: Miner Institute will be considered a premier source for technical information on agriculture and environmental issues by farmers, agribusiness, community leaders, and policy makers.

- Action Plan 2: Construct and maintain state-of-the-art animal research facilities, laboratories, agronomic resources, and equipment:
 - 1) feed mixing facility at the dairy complex will be expanded to accommodate more cows on-experiment and improve labor efficiency,
 - 2) tie-stall facility will be expanded from 16 to 32 cows and(or) Calan Broadbent system capacity will be increased from 48 to 80 doors/feed boxes,
 - 3) existing heifer barn will be remodeled to allow applied management research,
 - 4) agronomy plots will be developed as a major site for corn-silage hybrid testing in the northeastern US, and
 - 5) soil and plant processing laboratory will be built to consolidate, streamline, and expand sample drying, grinding, storage, and initial processing capacity.

Expected Outcome: Miner Institute will be *indispensible to funding sources* such as agricultural companies and governmental agencies. We will augment our existing strength in dairy cattle nutrition and management research while becoming a leading site for new forage hybrid evaluation and applied agronomic research.

- Action Plan 3: Create an internally competitive pool of funding that will be used each year to fund high-risk, innovative, or preliminary research that will serve as the basis of subsequent research proposals (see Financial Goals section for more detail).

Expected Outcome: Greater competitiveness for governmental funding opportunities and providing financial support to staff to develop novel research ideas that allow our research program to remain cutting edge.

- Action Plan 4: During the next five years, consistently reach a target of \$500,000 in grant income and reach for annual grant and contract income of \$1 million dollars with minimal increase in the reliance on Foundation funding. We will accomplish this goal by expanding grant income to include animal well-being, agronomic, and environmental research in addition to our traditional strength in dairy cattle nutrition.

Expected Outcome: Provide financial support to retain quality, award winning research staff, both professional and technical. Additional grant support provides educational opportunities for undergraduates, graduate students, and interns to participate and be mentored in agricultural research. We intend to have a balance of advanced graduate students (primarily Ph.D) and postdoctoral fellows. Overall, we will maintain a vibrant research program funded with a sustainable balance of Foundation support and grant income.

Assessment of Impact:

1. Percentage of Institute research that is communicated to industry through our outreach publications and meetings.
2. Annual comparison of number of abstracts and peer reviewed articles published from Miner Institute compared with similar dairy management research groups at regional Land Grant Universities.
3. Conduct focal group meetings with key industry partners annually to gather feedback on how our research results are used and implemented in their on-farm programs.

Timeline of Key Events:

1. Expansion of tie-stall and feed mixing facility began in 2010 and will continue through 2014, dependent on budget and research need.
2. Construction of soil and plant processing laboratory planned for 2011.
3. Calan Broadbent doors will be purchased incrementally between 2011 and 2015 dependent on budget and research need.

4. Agronomy plots used in collaboration with Cornell plant science faculty will be developed for use by Miner Institute beginning in 2011; key planting and harvesting equipment for plot research will be purchased in 2011 and 2012.

5. Aggressive marketing of Institute research resources and capabilities (facilities, land, equipment, and staff) will begin in 2011-2012 with added focus on newly developed agronomic research capabilities.

Resources Committed, Redirected, or Needed:

1. Initial financial investment in equipment for planting and harvesting small-scale agronomy plots.
2. Earmark sufficient funding annually to continually upgrade soil and plant processing, nutrition/forage, and environmental science labs and field equipment.
3. Funding for additional Calan Broadbent doors and tie stalls distributed over approximately 5 years.

DEMONSTRATION AND OUTREACH PROGRAM

Strategic Goals

We will demonstrate best management practices in dairy and forage-crop production, nutrient management and environmental stewardship, equine management, educate the community-at-large on agricultural issues and societal impacts, and lead the shaping of public attitudes and agricultural policy. We will use appropriate technology to deliver cutting-edge, research-based information to regional, national, and international audiences. We will be viewed by farmers, agribusiness, and policy makers as a primary source of this information in Northern New York and especially the Champlain Valley region.

Action Plans and Expected Outcomes:

- Action Plan 1: Manage the dairy herd to achieve the top 10-percent for DHI performance measures, consistently harvest high quality forages, and optimize nutrient cycling on the farm. Herd size will be approximately 300-350 lactating cows with at least 800 acres of crop land. We will continue to collect data on dairy herd cost of production per cwt and efficiency to compare with industry benchmarks. An equine herd of approximately 20 Morgan horses will be maintained to offer educational programs to regional horse owners.

Expected Outcome: Demonstrate best management practices for dairy cattle production, cropping, equine management, and environmental stewardship within the context of a working farm to regional farmers, allied industry, and community members. A high-performance farm will lend credibility to our education and research programs.

Benchmarking will allow us to optimize dairy herd management and identify areas where our research and education herd differs from commercial dairy farms.

- Action Plan 2: Deliver cutting-edge, research-based knowledge to farmers and allied industry through: 1) marquis events such as Crop Congress, Dairy Day, and Equi-Day, 2) develop similar annual event in nutrient management, 3) workshops and short courses offered alone or in collaboration with Cornell University, Cooperative Extension, and other organizations, 4) publication of *The Farm Report* and *The Stable Sheet* newsletters, 5) updating the Institute web site, and 6) equipping classrooms and auditorium with technology that allows webinars and video conferencing and provides flexibility to adapt to A-V technology innovations.

Expected Outcome: Miner Institute will be viewed as a pre-eminent source for technical information on dairy, crop, and equine management. We will strengthen our impact on regional farmers and allied industry despite demographics of fewer, but larger farms and companies. We will build on our reputation as a premier site for industry continuing education programs. Our outreach footprint will expand beyond the region to become national and international with advanced A-V technology. We will provide greater flexibility in how/when outreach programs are offered to meet variable needs of modern dairy and equine industries.

- Action Plan 3: Educate young people who are not currently participating in, or exposed to, agriculturally-related programs and support the education of youth directly involved in dairy and equine agriculture. Major programs will include: Farm Days for 5th Graders, Youth Equi-day, Ag Career Day, CV-TEC, FFA, and 4-H youth events, and High School Chemistry Program.

Expected Outcome: Agricultural education programs will be provided for youth that promote careers in agriculture, provide education for the proper care of dairy and equine animals through education programs targeted for youth. We will offer science-based presentations that promote the societal importance of modern agricultural practices and encourage interest in agriculture and environmental management.

- Action Plan 4: Create a Community Outreach Committee that reports to Management Team and Board of Trustees and develops short- and long-range plans for engaging especially the non-agricultural community (details provided in Communication Strategic Plan). We will educate the regional community on issues that affect agriculture and society through use of the historical heritage of Heart's Delight Farm and the contemporary farm facilities, education, demonstration, and research programs of Miner Institute. We will lead regional agricultural policy discussions by developing a Miner Institute Agriculture Policy Series, writing editorials and position papers for popular press, and using web-based approaches to amplify our message.

Expected Outcome: The visibility of, and appreciation for, Miner Institute programs will be increased in the region, particularly among the non-agricultural population. Miner Institute will become the leader in shaping policy and public attitudes about agriculture within the region.

We expect to reach at least 4,000 people annually with on-site outreach programs (dairy and equine industries, Heart's Delight Farm Heritage Exhibit visitors and events, community outreach events) and access a nationwide audience through our collaborative outreach and educational efforts.

Assessment of Impact:

1. Monitor performance of dairy herd, crop yields per acre, and CAFO best management practices.
2. Conduct surveys of meeting attendees to assess adoption of new technologies as a result of our programs.
3. Monitor attendance, both on- and off-site, for workshops, seminars, and other meetings.
4. Conduct biannual surveys of readership of *Farm Report* and *Stable Sheet*.
5. Evaluate web site use by access count, type of information accessed, and user profiles.
6. Monitor number and estimated readership of editorials, publications, and press releases in mass media (newspapers, magazine, radio, television, and internet).

Timeline of Key Events:

1. Purchase of new technology for classrooms and auditorium will begin in 2011 and continue annually through 2015.
2. New conference on nutrient management issues will be developed in 2012.
3. Updated web site will be unveiled in 2012.
4. Inaugural Miner Agricultural Policy Series presentation will occur in 2012.

Resources Committed, Redirected, or Needed:

1. Appropriate funds will be expended each year to upgrade our technology in the classrooms and auditorium.
2. User and facility fees will be assessed to offset cost of conducting industry training programs.
3. A small fraction of time for the Public Relations Coordinator, Librarian, and Outreach Coordinator (Community Outreach Committee), the President, as well as other staff as needed will be redirected toward youth and community engagement activities.

FINANCIAL PLAN

Strategic Goals

We will maintain a strong financial position capable of providing sufficient support to meet our long-term education, research, and demonstration goals. We will also provide adequate funding to maintain and operate the Institute's facilities and infrastructure, a key component to the success of our programs. Finally, we will establish a financial position that ensures the ability to provide this funding support through difficult and changing economic times.

Action Plans and Expected Outcomes:

- Action Plan 1: Achieve a Working Capital balance that represents at least 40% of an annual operating budget with sufficient liquidity to meet the funding requirements of our daily operations.

Expected Outcome: Provide short-term support to our programs, while ensuring the long-term financial stability of the Institute and its programs.

- Action Plan 2: Allocate approximately \$600,000 into the Capital Reserves Fund annually to provide for current capital expenditures or establish funding for significant future capital expenditures, while building a base level of \$700,000.

Expected Outcome: Capital investment into existing facilities, infrastructure, technology and equipment will enhance our programs and assist in attracting students, research funding, collaborators, and future staff.

- Action Plan 3: Establish a Long-Term Program Enhancement Fund, initially \$2.4 million, which will provide annual competitive grants of approximately 4% of the fund balance to support innovative ideas in the areas of research, education, demonstration and outreach. A committee comprised of Board Members and Institute staff will evaluate proposals annually.

- Expected Outcome: Starting in 2012 and continuing for the duration of this Strategic Plan, by providing internal, competitive support for innovative ideas we will nurture development of new programs and enhancement of existing programs in education and demonstration. We will fund high-risk, innovative, or preliminary research that will serve as the basis of subsequent research proposals and for ensuring that our research program remains cutting edge. This Fund will ensure that Miner Institute programs in research, education, and demonstration remain relevant in the future.

MONITORING PROGRESS TOWARD PERFORMANCE GOALS

An Annual Progress Report will be sent to the Board of Trustees and used by the Management Team to assess progress toward goals for each program. The following table summarizes easily measured dashboard indicators that we will use to assess if progress toward our strategic goals is on-target:

Program/Department	Indicator	Target	Comments
Research Programs	Grant income	\$500,000/yr	To be achieved annually with target of \$1 million by 2016
	Peer-reviewed papers	5/year	Should be distributed among animal, agronomic, and environmental journals
	Abstracts	10/year	Will sustain MS output
Student Educational Programs	<u>No. of students:</u> -ADM program -Ag-Env course -Summer Exp.	10 students/yr 15 students/yr 13 students/yr	Capped at 10/yr No more than 20 students/yr Capped at 13/yr
	Appropriate student placement	75+% entry into industry	Track placement data at graduation.
	Student satisfaction	3.5 or greater (1 to 5 scale)	Conduct yearly survey for all courses
Industry Outreach Programs	No. of meeting attendees	2500 attendees	Monitor attendance for each meeting
	No. reached via distance learning	1,000 attendees	Adjust target with experience
	Popular press publications	10/yr	Expands readership beyond <i>Farm Report</i> and <i>Stable Sheet</i>
Community Engagement and Leadership	Editorials, press releases	24/yr	Try to use broad spectrum of media (TV, newspaper, internet, magazines)
	Miner Institute Ag Policy Series	2/yr	Variable number/yr

SUMMARY AND PERSPECTIVES

This 2011-2016 Strategic Plan will strengthen the Institute's focus on crop, animal, and environmental management while it adds to our mission the critical element of engaging the public and influencing policy on agricultural issues.

Strengthening our undergraduate education programs in agri-environmental science and dairy management over the next five years will be our top academic priority. Our educational programs will be regionally and nationally recognized for being hands-on and research-based, with a residential living and learning experience that complements the academic programs and prepares students to assume leadership roles in agriculture and environmental management. If all action plans are successful, undergraduate enrollment in Institute educational programs should be approximately 70 to 80 students annually.

The next five years will see us stand out uniquely, both regionally and nationally, as being willing and able to conduct high quality and integrated research spanning the forage crop-animal-environment interface that will have immediate application to the industry. Dairy farmer and allied industry surveys confirm that this research will remain fundamentally important to the future success of the dairy industry and we intend to augment our efforts in the future even as many universities scale back their applied research programs. During the next five years, our goal will be to consistently achieve \$500,000 in grant income annually and reach one million dollars. This level of funding, balanced with our Foundation funding, will ensure retention of high quality, award winning research staff, and maintenance of our outstanding research facilities.

Miner Institute will be considered a premier source for technical information on agriculture and environmental issues by farmers, agribusiness, community leaders, and policy makers. In the next five years, we will deploy cutting-edge technology to expand the farmer and allied industry audience impacted by our demonstration and outreach programs. Industry feedback confirms that our program topics (crop-animal-environment) are high priority, but we must become more flexible in our delivery approaches, both regionally and nationally. In addition, we will actively engage the farm and non-farm communities on the critical issues that cross-cut agriculture and society such as food safety, environment, and animal welfare.

We expect to reach at least 4,000 people annually with on-site outreach programs (dairy and equine industries, Heart's Delight Farm Heritage Exhibit visitors and events, community outreach events) and access a nationwide audience through our collaborative outreach and educational efforts.

We will maintain a strong financial position capable of providing sufficient support to meet our long-term education, research, and demonstration goals. We will establish a Long-Term Program Enhancement Fund which will provide annual competitive grants of approximately 4% of the fund balance to support innovative ideas in our core mission areas of research, education, demonstration and outreach. We expect this approach to result in the development of new programs and enhancement of existing programs in education, research, and demonstration to ensure the continued relevancy and quality of Miner Institute programs.