

Alfred State College Farm Task Force Findings and Recommendations

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Introduction

¹ See Appendix 1 for contact information and the names of Ex-Officio Members

Alfred State College senior administration convened a five-member external task force on May 27, 2005 to advise them on the future of the College Farm. The College Cabinet charged the Task Force with providing guidance on the following questions:²

1. The feasibility of investing in the college farm to return it to a level of functioning consistent with the College's mission and vision statement and the Intentional Learner Statement.
2. If investment is feasible, the proposed uses of the farm.
3. If investment is feasible, the stages and resources for farm renewal.
4. If investment is not feasible, the effect on current programs and alternate ways of providing the lab and instruction functions in all programs currently served by the farm.

Additional, more specific questions related to facilities, faculty, and the academic programs that they serve were embedded within the *External Task Force Report Form* (see Appendix 1).

The Task Force reviewed numerous documents provided by the ex-officio members, including the 2004 external review of the College's four agricultural academic programs, farm financial records, the departmental self study, departmental plan for improvements to the College Farm, farm soil maps and conservation plans, and student enrollment data. In addition, the work of the Task Force benefited much from the input of numerous other individuals, including private agricultural management consultants, building contractors, equipment dealers, various USDA agency personnel, Cornell Cooperative Extension dairy and farm management specialists, Alfred State College faculty, staff, administration, and alumni. The following opinions and recommendations are, however, presented as those of the External Task Force alone.

1. Farm Facilities

1.1 Current status of structures, mechanicals, and equipment

The Alfred State College Farm shows the signs of age and many years of under-investment in maintenance. The general appearance of the farm sends a strong message of neglect to visitors. From the potholes in the parking lot, damaged metal external wall panels in the dairy barn, exposed insulation, rusted doors, and badly broken concrete in the cow exercise lot, to the "well-worn" milking parlor and field machinery, the farm's appearance does not project a positive image for Alfred State College and its agricultural programs. The problems with the current facility, however, extend well beyond the obvious cosmetic shortcomings.

The College Farm reflects a different era both in terms of the nature of the dairy industry and the characteristics of the academic programs and students that use it as a learning laboratory. While it retains its utility for teaching principles of animal management (e.g. ruminant nutrition, genetic improvement, animal health management, etc.), fundamental facility design factors create costly labor inefficiencies in many areas, most notably in

² Memo to the Farm Task Force from Robert J. Albrecht, Interim Vice President for Academic Affairs, May 26, 2005.

milking and feed handling.³ Dairy industry benchmarks for labor efficiency have changed greatly since the College Farm facility was constructed. The proposed changes described later in this report can contribute to significant improvements in labor efficiency. Current costs for labor and bedding, both far in excess of industry benchmarks for a farm of this size, can be significantly reduced by major equipment and building design changes. Simple repair and restoration of the milking parlor and dairy barn will not accomplish this. In addition, contractor estimates place the cost of repair and restoration of the current tie stall barn at 70 – 80% of the cost of new construction for the same design. Therefore, the Task Force recommends against rehabilitating the existing facility, proposing instead that a new facility be constructed that reflects more contemporary management systems, yields increased labor efficiency, and enables modest expansion in cow numbers to gain economies of scale for both labor and capital. Estimates of initial construction cost are detailed in Table 3, Section 3.3.

Most farm machinery is old and nearing (and often beyond) its useful life. As a result machinery repair costs well exceed industry averages for similar sized farms. We do not, however, believe that it is in the College's best interest to make the major investment in replacing all aging tractors and field machinery. An alternative is discussed in Section 3.3.

1.2 Adequacy of physical resources and facilities (internal and external) for use as a learning laboratory

If the farm was in good condition and not facing the need for major repair and renovation costs, design and efficiency concerns may not be compelling enough to warrant a new facility. Indeed, the current tie stall and small, single sided parlor designs offer benefits for teaching. However, even if restored to new condition, the current facility is a very dated design, with all the attendant inefficiencies.

The Task Force considered a wide range of options, including eliminating the College Farm and seeking opportunities for student experiential learning on nearby farms as a substitute. While we encourage the development of more off-campus learning opportunities, including internships, there seems no good alternative to maintaining a fully functional college farm. The alternative, daily bus trips to private farms in the area, is in itself a costly proposition. In addition, few farmers can afford to have large numbers of students, most of them inexperienced, working with their cows day after day. Moreover, any post-secondary institution expecting to attract capable students into agricultural majors has little choice from a program marketing and recruitment point of view but to provide an attractive farm laboratory.

1.3 Observations on the focus and academic purpose of the College Farm

Although the Task Force members debated issues of facility design and herd size, there was strong agreement that the College Farm exists to facilitate and enrich learning, rather

³ The current small milking parlor was designed with student instruction rather than labor efficiency in mind. Feed storage and handling design, though contemporary when constructed, is obsolete by any current standard. Also, at the time of construction decades ago, students met a much higher percentage of the farm's labor requirement. Large enrollments and a higher percentage of students with a working farm background made this a viable option at the time.

than for commercial purposes. That said, dairy farming is a business, a capital and technology intensive business in a rapidly changing industry. A technology-oriented institution of higher education must provide students opportunities to engage with and more fully understand the changes – economic, social and cultural, as well as technological – that characterize their chosen field of study. Of course, there are limits to how closely an academic institution can model the “real world” work environment. Surely, building a thousand cow commercial dairy would compromise the academic purpose of the farm.

The farm is currently very well utilized. The farm enriches learning for over 200 agriculture and vet tech students. Student learning on the farm takes place every day throughout the academic year. It takes the form of experiential learning (the farm practice requirement) under the supervision of faculty and farm staff. In addition, lab sections for most agriculture (and many Vet Tech) courses meet at the farm. Alfred’s agriculture and vet tech faculty members are skilled and energetic teachers who use the farm most effectively. Agriculture students are by nature attracted to practical on-farm learning and give high marks to the faculty for organizing much of the learning around this important laboratory.

The current farm facility and management approach is fine for teaching basic principles and skills for both the agriculture and veterinary technology students. Facility obsolescence and the limited potential for profitability make it less suited for teaching the applied business and production management skills that future agricultural business managers and owner/operators must possess.

1.4 Review of plans and expectations for continuing development and self-assessment

The Task Force reviewed documents that describe the Alfred State College Agriculture Department’s own assessment of the farm situation, its vision for the farm’s continued instructional use, and their proposal for enhancing the farm’s utility and financial viability. We agree with many of the elements of the Department’s own assessment, but go further in our proposed management changes.

1.5 Potential for support from other program areas

Collaboration with Alfred’s continuing education and workforce training programs brings potential to generate grant resources for contract training (NYS Department of Labor, and/or the NYS Department of Agriculture and Markets agricultural workforce training initiatives are examples of initiatives relevant to departmental resources and capabilities). See <http://www.agmkt.state.ny.us/AP/AWCP.html> .

A few colleges and universities around the US have developed successful and innovative summer session “practicum” courses for students enrolled at other colleges and universities who seek a hands-on learning experience. These can be remunerative as program tuition for non-degree special courses need not be limited to the conventional SUNY rates. Revenue beyond that required for supplemental summer faculty compensation is then available for additional new program development. It should be noted, however, that many of the students who seek such opportunities are not looking for career-oriented instruction in technical agriculture. Rather, many are following a philosophical interest in “sustainable agriculture.” This growing student interest in

sustainable agriculture is reflected in the majority of *student-managed farms* on college and university campuses. The following website contains links to 61 student-run college farms in 28 states: <http://www.newfarm.org/features/0104/studentfarms/directory.shtml> . Many of these student-run farms are on small plots of land carved out of a larger research or teaching laboratory farm and made available to students, most of them non-agriculture students, for self-directed experiential learning, usually under the guidance of a faculty advisor.

Increasingly small part-time farms are being started by adults (of all ages) with little or no previous agricultural education or experience. Many actively seek to increase their knowledge through workshops, short courses, trade shows, extension programs and interaction with other farmers. Opportunities exist to serve this segment of the agricultural community, perhaps in partnership with area extension educators who understand, probably better than anyone else, this population's diverse interests and needs. Little remuneration should be expected from such programs, however. This should be viewed as a "break-even" community service opportunity that brings visibility to the College's agriculture programs.

Alfred's few faculty members, already fully engaged in teaching and student advising, realistically have limited time available during the regular academic semester for non-degree training or outreach programs. However, it may be possible to facilitate the offering of such programs by others at the College Farm. Aggressive partnership building with other institutions and with the agricultural industry could make many things possible, especially in innovative non-degree educational programs. The Wisconsin School for Beginning Dairy Farmers <http://www.cias.wisc.edu/dairysch.html> comes to mind as an example of an innovative program that is meeting a demand for non-degree training (in grass-based dairy farm management), has established a reputation for quality, and is attracting people from many states.

Faculty and staff have already initiated industry partnerships for applied research, product trials and demonstrations. A renewed commitment to the College's agriculture programs, including modernization of facilities, could increase private sector interest in such partnerships.

There is also good potential for procurement of government and foundation-sponsored contracts to provide non-degree short courses and training programs for international participants. These programs tend to combine both on-campus and off-campus learning opportunities, primarily for mid-career agricultural professionals seeking to learn more about US agriculture. Leads for this type of activity could be pursued through the SUNY Office of International Program and through the International Programs Office in Cornell's College of Agriculture and Life Sciences.

Though limited, there are potentially enriching opportunities for other Alfred academic programs to make some use of the farm facilities. Engineering Technology faculty and students can find examples of electronic and mechanical control systems, alternative energy, site design for environmental management, among many others. There are of course many opportunities for vocational students from the Wellsville campus to apply skills in the building, mechanical and electronics trades. We are not fully aware of the

status of environmental studies at Alfred, though we do know that a SUNY Environmental Studies and Forestry (ESF) transfer program exists. The College Farm's diverse landscape (farmland, pasture, forest, wetlands, etc.) provides a rich and conveniently located learning resource for studies in ecology and environmental science.⁴

1.6 Industry need and demand; Current and future demand for graduates

Agriculture is a leading industry in the 17 Western and Central New York and 3 Northern Pennsylvania counties from which most Alfred agriculture students come.⁵ Four of the top five counties in New York State in terms of revenue from farming operations are located in the Western half of the state. Farms in Wyoming (New York State's leading dairy county) and Genesee Counties alone generated over \$300 Million in farm revenue according to the most recent US Agricultural Census (2002). Six of the top 15 dairy producing counties in the state are in Western NY. The market value of agriculture production in the 17 county Western New York region alone was \$1.26 billion dollars, nearly 35% of the state's total. The region has 14,355 farms, 40% of New York's total, with 2.9 million acres of land in farms or 38% of New York's total farmland acreage. The 3 nearby Pennsylvania Counties, Potter, McKean and Tioga have 1,581 farms working 336,071 acres of farmland producing \$79.8 million worth of agricultural products.

(See Appendix 3 for statistics on the contribution of agriculture to the regional economy, by county).

Dairy Products are the number one agriculture product sold as measured by market value in 14 of the 17 counties making up the region. It was second in one and fourth in the other two counties meaning it is in the top five in all counties in the region. (See Appendix 4 for a county by county list of the 4 leading agricultural products based on farm revenue).

The century-long structural transformation of the industry continues the trend toward fewer, but larger farms producing a greater percentage of farm output and income. Some observers conclude that the decline in farm numbers suggests an industry in overall decline. In fact, agriculture is very much "alive and well" in the region, though undergoing rapid changes. Western New York is home to some of this country's (and the world's) most progressive and successful dairy farm businesses, propelling New York State to its position as the third largest milk producing state in the US.

⁴ We strongly encourage the College to work with a consulting forester to develop and implement a forest management plan for the woodlots on the College Farm. Woodlots are a potentially valuable resource on most farms in the New York's Southern Tier. When well managed they provide important environmental services and, over time, can generate significant timber sales revenue (this region is noted for high quality northern hardwood timber). An opportunity exists to provide students (agriculture as well as pre-ESF) first hand experience in best management practices for farm woodlots.

⁵ The primary region from which Alfred State College attracts agriculture students is assumed to include the 17 WNY counties, including Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Orleans, Schuyler, Seneca, Steuben, Wyoming, Yates, as well as the three nearby Northern Tier Pennsylvania counties of Potter, Tioga and McKean.

Agriculture jobs remain important in New York State’s rural economy. Table 1 shows the number of people employed in farming and closely related agricultural service, processing and marketing jobs in New York State at the time of the last agricultural census (2002). See appendix 5 for more detailed NYS agricultural employment statistics.

Table 1 – New York State Agricultural Employment, 2002

Farming:	
Farm production	59,514
....Farm proprietors	37,827
....Farm wage and salary workers	21,687
Closely related:	
Agricultural services	29,196
Agricultural input industries--	10,560
....Agricultural chemicals	388
....Farm machinery and equipment	441
....Farm supply & mach. wholesale trade	4,207
....Commodity contract brokers	5,524
Agricultural processing and marketing--	110,538

Source: USDA/ERS, 2002 data

Demand for Alfred agriculture graduates has long exceeded supply. Employment demand prospects remain bright. In an industry increasingly characterized by large, highly capitalized and business-oriented farms the most sought after graduates seeking on-farm employment will possess not only practical skills and farm experience, but the knowledge, attitudes and aptitude for mid-level management. The latter suggests that curricula devote more effort to knowledge and skill development in general business management (including the basics of accounting, business analysis and human resource supervision) and farm/agribusiness management. And, of course, agricultural graduates who seek employment in the agricultural services, processing and marketing sectors find better opportunities for advancement if they have taken some coursework in business management.

Alfred continues to enroll a number of students who intend to transfer to a baccalaureate degree program after completing an AAS or AS. Several recent Alfred graduates are currently pursuing Bachelor’s degrees in the College of Agriculture and Life Sciences at Cornell University, their transfer facilitated by a long-standing articulation agreement between Cornell and Alfred State College. Alfred agriculture graduates find opportunities for continuing their education at many other institutions as well, including Penn State, Purdue, and the University of Georgia. The development of new baccalaureate programs at Alfred in Technology Management and Business offer new opportunities to those completing AAS and AS degrees in an agricultural field to prepare for careers in management.

The Western New York Region has numerous agricultural businesses processing and supporting the agricultural industry. The Buffalo Niagara Enterprise, an 8 county regional marketing organization, has identified agricultural manufacturing as a target industry for recruitment, development and growth.

There remain, of course, opportunities for those graduates whose interests lie less in the area of farm or business management. Farm operators have long looked to Alfred for skilled herdsmen, and will continue to do so.

2. Faculty/Programs

2.1 Caliber of current faculty and staff

A small group of strong, well qualified faculty and staff is working hard to provide the quality academic experience which students expect and deserve. Faculty members possess a combination of subject matter knowledge, practical skills and experience and total commitment to student learning and success.

2.2 Faculty size and qualifications; future needs

The lack of faculty “critical mass” is the single greatest threat to the long term viability of the agriculture programs at Alfred State College. The Task Force believes that revitalization of the College Farm, though essential, is a second order priority compared to the need for additional faculty. The current situation is the result of many years of faculty downsizing brought about through a combination of retrenchment and not refilling positions vacated through resignation and retirement. The June 2005 retirement of long time professor John Bartell leaves only four full-time faculty members to perform the teaching, student advising and program management functions for all agriculture and veterinary technology programs (Dorothea Fitzsimmons for the agriculture programs, Mel Chambliss and Kathy Bliss for the vet tech program, and Victoria Bolton dividing time between Department Chair administrative duties and teaching courses to students in both agriculture and vet tech curricula). Approximately 200 students are currently enrolled in these programs (including Educational Opportunity Program students).

The Task Force is confident that this energetic core faculty, though precariously small, possesses the drive, creativity and entrepreneurial spirit to lead the necessary revitalization effort. Their accomplishments include the highly successful launch of the vet tech program, rewarding new partnerships with Cooperative Extension, State and Federal Agencies, and private industry, and enhancements to the student learning experience (including greater and more effective use of the college farm). They cannot do this work without help, however. Despite the zeal and proven capabilities of current faculty, there exist high priority areas of agricultural knowledge for which none of them have the background to teach. The Task Force strongly recommends the hiring of faculty in agricultural business management and crop/soil sciences (prioritized in that order). We propose that the College be creative in defining the role and qualifications of any new faculty hires. With such a small faculty, it is critical that any new additions bring not only the necessary academic skills and qualifications, but also the ability to develop and generate resources for new initiatives.

Brainstorming by Task Force members resulted in a long list of possible new initiatives that could help reposition Alfred for leadership among post-secondary agriculture programs and send a strong message to the industry that “things are happening.” Ideas included distance learning, modularized short courses, international exchanges and experiential learning opportunities, summer courses, and farm internships, just to name a few. But in each case members returned to the sobering question, “Who among this small current faculty has the time to develop the idea, write grant proposals to get the needed resources, and manage a new initiative?” Successful new initiatives take energy, imagination, and time. Consider defining jobs in ways that allow for this. One 12-month faculty position would open up many academic programming possibilities for both Alfred and non-Alfred students that more fully utilize the College Farm as a learning laboratory.

There are a number of grant programs that support academic program innovation. Some offer good enough prospects for success and such clear congruence with the core mission that an investment in time to develop proposals is surely warranted. The recently announced *Secondary and Two-Year Postsecondary Agricultural Education Challenge Grants Program* of the United States Department of Agriculture is one such example. The purpose of the program is “to promote and strengthen teaching programs in agri-science and agribusiness at secondary and 2-year postsecondary institutions, by enhancing curricula, increasing faculty teaching competencies, promoting higher education to prepare students for scientific and professional careers, incorporating agri-science or agribusiness subject matter into other instructional programs, facilitating joint initiatives among other educational institutions and to respond to identified State, regional, national or international educational needs.”⁶ The full request for proposals is available at http://www.csrees.usda.gov/funding/rfas/sec_challenge.html .

2.3 Adjunct and support faculty

Adjunct faculty are currently teaching several courses required in the agriculture curricula. The College is fortunate that an experienced retired Professor agreed at the very last minute to teach the *Soils* and *Forage and Field Crops* courses this semester. The use of part-time adjunct faculty is not, however, a solution to the faculty “critical mass” issue describe above. With few exceptions, qualified individuals recruited for adjunct positions decline due to the very limited compensation offered. We imagine that many might view it as a solicitation to volunteer services.

3. Findings

3.1 Evidence of intentional learning and potential for international initiatives

The best assurance that the Alfred State College Vision, Mission and Outcomes will continue to be manifest in its Agriculture and Veterinary Technology programs is to nurture the entrepreneurial spirit of its faculty and students. They want to be builders, to

⁶ Other grant programs for curricular enhancement worth exploring include: 1) the Association Liaison Office (ALO) *Higher Education Partnerships for Development* grant program . ALO awards several grants each year to support international partnerships, not only among research universities, but also for partnerships between US and overseas post-secondary institutions with strength in technical education, and 2) US Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) grants. Funding priorities change over time, but FIPSE remains a potential source of funding for innovative program development at institutions like Alfred.

take on the challenges of change. A College commitment to the sort of initiative proposed herein would empower learning and energize creativity in ways we cannot imagine.

The opportunities for developing empowered, informed and responsible learners are plentiful. That said, it is important that students reach outside of their core disciplinary and/or vocational areas of interest. Agricultural programs at Alfred should not be about narrow skill training. Rather, they can and must be a springboard for students to better understand where they as human beings, and as agriculturists, “fit” into the natural, social, cultural and technological world.

Every person on earth shares a connection to the increasingly global food system. Those who are actively engaged in the shaping and powering of that food system – as farmers, agriculture students, scientists, or contributors to the food “value chain” -- find their fortunes increasingly interconnected. Alfred agriculture graduates need competencies and experiences that prepare them for a global agricultural economy as well as for informed global citizenship. Many of our generation’s “burning issues”, both domestic and international, are related to agriculture. Today’s decisions and actions regarding poverty alleviation, hunger and food security, threats to agricultural productivity and ecological functionality, and technological innovations in the life sciences have enormous implications for every generation to follow. It is easy to “leave out” opportunities for students to intellectually engage these issues. Demands of preparing students for technical competency in two years are themselves daunting. We should, however, be seeking ways to “plant the seed of inquiry” – to foster informed and responsible learners through international learning experiences. Exchange programs, faculty-led short courses during January intersession or summer, and guest lecturer or speaker programs can be reasonably easy to initiate and fund. (The latter could draw upon the hundreds of talented foreign agriculturists doing graduate study at nearby Cornell or Penn State). Faculty time is a real barrier to such initiatives, though should not be insurmountable if overall student development is truly enriched.

3.2 Major strengths and weaknesses of the laboratory (with special attention to issues of ongoing feasibility and appropriateness for the degrees offered)

Major strengths of the College Farm laboratory include the following:

- Used regularly and effectively for instruction of approximately 200 students.
- High quality herd of dairy cows is in place.
- Conveniently located close to other campus academic facilities.

Major weaknesses include the following:

- Poor overall condition of buildings and equipment.
- Outdated design requires high labor input.
- A disproportionate emphasis on maximizing milk production and selecting/breeding/presentation for registry has led to insufficient attention to cost control.

3.3 Resources required to establish a model farm laboratory

Options include renovating the existing farm complex (estimated cost = 75 to 80% of new construction) or building a new, somewhat larger and more labor efficient complex.

Over the long term, the latter option, along with some major changes in management, can best support recovery of capital investment.

Design changes and modest herd expansion together are not sufficient to place the farm on a sustainable financial footing. Analysis of current farm records reveal major cost control issues that will require major changes in both general business practices and production management systems.

We do not believe that the farm can justify the labor and machinery capital and operating costs necessary to maintain a field cropping program. Forage quality is a perennial problem contributing to very high feed costs. We believe that cropping operations (corn silage, hay and haylage) should be discontinued, especially in light of the cost for replacing aging tractors and field equipment, and the limited potential for producing high quality legume haylage and corn silage consistently on this farm. Purchasing high quality forages and converting current crop land into rotational grazing paddocks (grazing supplemented by a total mixed ration) will result in significant production efficiency improvements. Though the herd average milk production will decline, this will be far more than compensated by lower costs for machinery maintenance and repairs, fuel, capital costs, labor, and crop inputs. The greatest savings, however, will come in feed costs, now far higher than industry benchmarks for similar high producing herds.⁷

A free stall design for milking cows as well as heifers and dry cows will also result in significant savings in the currently very high bedding expense. Table 2 compares the most recent year's production and financial performance (column 1) with what can be expected with better cost control and conversion to grazing and purchased forages, but with herd size remaining the same (column 2). Column 3 projects revenue and expenses resulting from these improvements, plus the first phase of herd expansion (to 125 cows). Although the projected positive net cash income is small, it represents a very significant improvement (approximately \$125,000 per year) over the most recent year's negative net cash income.⁸

⁷ Recent studies that analyze the financial performance of grazing dairy farms include: Conneman, et al, 2004. *Intensive Grazing Farms, New York*, Cornell University, and Kriegl, T., 2005. *Pastures of Plenty: financial performance of Wisconsin grazing dairy farms*, University of Wisconsin, Madison.

⁸ Table 2 estimates net cash income from operations. It does not include depreciation on buildings or equipment. Nor does it include internal "repayment" for initial investment in the form of the 9.5% administrative fee. It does, however, include all expenses that the College now covers for the farm – wages, fuel and utilities.

Table 2 – Projected change in financial performance with selected management improvements (without and with accompanying herd expansion)

	Last Year	Total After Mgt.Changes	After Mgt.Changes & Phase 2 Expansion	
RECEIPTS				
number of cows	65	65	125	
milk sold per cow	22462	20000	20000	
milk sales in pounds	1460030	1300000	2500000	
price received - \$/cwt	13.69	13.69	13.69	
milk sales - \$	199,932	177,970	342,250	
dairy cattle sales	9,392	11,115	15,100	
dairy calf sales	9,300	3,510	3,000	
other livestock sales	15,300			
crop sales				
government receipts				
other receipts	5,156	5,156		
rent	<u>1,050</u>			
Farm Operating Receipts	240,130	197,751	360,350	
EXPENSES				
hired labor	126,013	85,000	125,000	2 FTE + students and part time
Feed				(add 1 FTE for expansion)
dairy grain and concent.	90,223	48,052	92,408	27% of milk receipts
dairy roughage	17,978	26,000	50,000	estimated high (\$400/cow)
non-dairy feed				
Machinery				
machinery hire, rent,				
lease	0	4,420	3,000	harvest excess pasture
mach. Repairs/vehicle exp.	20,716	6,000	7,000	
fuel, oil and grease	7,325	3,500	4,200	
Livestock				
replacement livestock				
breeding fees	6,140	3,311	5,000	
vet and medicine	7,419	5,557	8,500	
milk marketing				
bedding	20,674	6,500	5,000	still above average cost
milking supplies	10,914	4,550	6,000	why so high?
cattle lease				
custom boarding				
bST expense	5,731	5,031	10,000	based on 180 days use
other livestock expens	6,298	3,250	6,000	
Crops				
fertilizer and lime	6,905	4,450	4,450	topdress pasture
seeds and plants	3,532	532	532	frost seed
spray and other crop exp.				
Real Estate				
land, building, fence				
repair	5,176	2,046	3,500	
taxes				

rent and lease				
Other cash expense				
insurance				
utilities (farm share)**	39,427	6,900	14,000	farm and 2 houses
interest paid				
miscellaneous	<u>2,757</u>	2,757	3,500	
Farm Operating Expenses	377,228	217,856	348,090	

	<u>Last Year</u>	<u>After mgt changes</u>	<u>After mgt changes and expansion</u>
Farm Receipts	240,130	197,751	360,350
Less Farm Expenses	377,228	217,856	348,090
Equals: Net Farm Income*	(137,098)	(20,105)	12,261

Notes:

* This is intended to show true revenue and expenses associated with farm operations. Therefore, salaries/wages, fuel and utilities **are included** as farm expenses, while the internal charges (6.5% of total revenue until 7/1/05, now 9.5%) for goods and services provided by the College **are not included** as expenses. Because of the College's "internal subsidy" to the farm (salaries, fuel and utilities) the IFR shows a net positive income from last year's operations.

** The reported utility cost (\$39,427) is far in excess of what might be expected for a farm of this size, even factoring in the two houses and classroom. It appears that utility charges are being misallocated to the farm. Even if this line includes the 6.5% overhead charge, the remaining amount is far more than expected utility useage.

Table 3 lays out two options for upgrading the College Farm. The first option is presented as a 5-year phased building program that would bring the farm up to current standards of technology and labor efficiency. The type of cattle housing, handling facilities and milking equipment is the same as what graduates would encounter on modern, commercial dairy farms. All major cost estimates are based upon actual quotes (themselves rough estimates) from farm building and equipment contractors and dealers in New York State and Pennsylvania. The cost estimates for site excavation and site preparation, as well as upgrading of fences, lanes, water systems (required for bunk storage of forages and rotational grazing, respectively) reflect net after anticipated grants.⁹ A second option, renovation of the existing facility, has been provided for the sake of comparison. While functional and retaining its merits for teaching the fundamentals, it represents "1960's style dairying." Dairy facilities and management systems have undergone many major changes since this facility was constructed. Even after a major renovation, it will remain old technology. We believe it to be a less desirable option.

⁹ Federal agency personnel made who made recent site visits to the farm have offered assistance in preparing the grant proposals.

Table 3
Capital Costs for College Farm Upgrade

Assumptions, coefficients and selected cost estimates

1. free stall dairy cow barn, new construction	\$ 1500 to \$1800 per stall
2. tie stall dairy cow barn, new construction	\$50 - \$56 per square foot
3. renovation cost for existing tie stall barn	70 - 80% of new construction
4. double six parlor; milking, cooling and herd mgt equip.	\$250,000 to \$300,000
5. building for parlor, cooler and related equipment	\$175,000
6. bunk silo; 40' x 100' + apron)	\$38,000
7. heifer and dry cow free stall with lockups	\$1,500 per stall 80% of cow numbers
8. stall numbers for heifer/dry cow barn	
10. fencing,gates, water systems, lane improvement for pastures	< \$3000 net cost after grants
11. site preparation and grading	< \$10,000 net cost after grants

OPTION 1 (RECOMMENDED) - phased expansion to 140 cows/ transition to free stall

PHASE 1 (2006)

Site improvements for rotational grazing	3,000
Construct dry cow and heifer barn (100 stalls)	150,000
Essential repairs to existing dairy barn (to be phased out of service by 2011)	10,000
Grading and site preparation	10,000
Construct bunk silo	38,000
Design and solicit bids for dairy barn and parlor	

TOTAL PHASE 1 COST 211,000

PHASE 2 (2007)

Construct section 1 of free stall dairy barn (60 stalls)	96,000
Construct new parlor, milking/cooling/herd mgt equip	290,000
Construct building for parlor, related equip & classroom	195,000

TOTAL PHASE 2 COST 581,000

* internal herd expansion to 125
* double 6 parlor

PHASE 3 (2010)

Construct section 2 of free stall dairy barn (80 stalls)** (or renovate/rebuild tie stall)	144,000
Remove existing dairy barn	20,000

TOTAL PHASE 3 COST 164,000

* internal herd expansion to 140

TOTAL PROJECT COST OVER 5 YEARS \$956,000

Expected improvements in cost control, combined with a 5-year phased plan for modest herd expansion around a new, labor efficient free stall facility, will improve the net cash income from last year's operating deficit of over \$137,000 to a modest net operating income. This difference, approximately \$150,000 per year, is our basis for proclaiming re-investment in the farm feasible.

It is, of course, easier for an external advisory body such as the Farm Task Force, to be bold in our recommendations than for the College Cabinet to do so. Our risk is limited, except for reputation with those who happen to have a long memory, should things not turn out as we predict. To be sure, agriculture is subject to the vagaries of market, weather and unanticipated pathogens. And we should expect some short-term "transition pains" given the nature and extent of the changes we propose. Production and financial uncertainty aside, we firmly believe that a strong post-secondary agriculture program meets a long-term need in Western New York. Prospective students will respond to the opportunity to study with good faculty in state of the art facilities.

Readers of this report may question our overwhelming emphasis on the dairy enterprise. Indeed student learning objectives for both the agricultural and veterinary technology programs would suggest some presence of other animal species on the farm – both ruminant and non-ruminant. Our focus on the financial viability of the dairy enterprise does not preclude a limited re-introduction of other species on the College Farm. Rather, our emphasis reflects 1) the dominant role that dairy plays in the state's agricultural economy, 2) the fact that the dairy enterprise represents by far the greatest existing financial investment on the College Farm (as well as the largest demand for new investment capital), and 3) the belief that only the dairy enterprise can generate revenue levels sufficient to cover the farm's substantial operating costs.

Is a self-supporting College Farm a fair and reasonable expectation? Some of Alfred's strongest supporters have questioned the expectation that the College Farm support itself, correctly noting that other technology-intensive academic programs at Alfred State College – some perhaps equally expensive – operate under no such expectation. The Task Force has not argued otherwise. We repeat our belief that objectives related to student learning should remain "front and center" in the decision making process concerning the College Farm's future. However, we simply believe that it is possible to greatly improve the financial performance of the college farm. Doing so conserves scarce College resources, enhances opportunities for learning about running a farm business, and in the process, improves dramatically the prospects that Alfred State College will continue to serve the human resource development needs of the region's most important industry.

Though our charge was to advise on the future of the farm, we cannot overlook the serious problem of too few faculty members. The current faculty lacks the size and disciplinary diversity needed to teach the integrated set of courses that students need and expect. Our position is that investing in the farm only makes sense if the College can commit at the same time to hiring faculty. We recommend hiring an agricultural business management professor to begin in the fall of 2006. Concurrently, or within one year, a professor of soil and crop sciences should be hired. Nothing is more important to the quality of the learning experience than the faculty.

Finally, we urge the College Cabinet to initiate a process to bring administration, faculty, and industry stakeholders (curriculum advisory committees, at a minimum) together to sharpen a vision, establish priorities and set important mileposts for a comprehensive rebuilding of agricultural education at Alfred State College over the next five years.

Appendix 1 – College Farm Task Force Membership

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**Appendix 2 – External Task Force Report Form, College Farm Laboratory
(Presented by the College Cabinet to the Task Force, May 27, 2005)**

I. Facilities

1. Assess the status of structures, mechanicals, and equipment relative to their purposes.
2. Discuss the adequacy of physical resources and facilities including use of resources outside the institution as a learning laboratory.
3. Comment on the special focus of this facility as it relates to the programs served.
4. Evaluate documented plans and expectations for continuing development and self-assessment?
5. Assess the potential for support from other program areas.
6. What evidence is there of need and demand for the facility locally, in the State, and in the field at large? What is the extent of occupational demand for graduates in fields related to those of students currently using the farm laboratory? What evidence is there that it will continue?

II. Faculty/Programs

1. Comment on the caliber of the faculty and support staff collectively, in regard to training, experience, research/publications, professional service, and recognition in the field.
2. Assess the faculty in terms of size and qualifications relative to the programs offered. What evidence exists for future staffing?
3. Discuss credentials and involvement of adjunct and support faculty.

III. Findings

1. Facilities and programs must foster the vision and mission of Alfred State College. What evidence of intentional learning and potential for international initiative exists?
2. Summarize the major strengths and weaknesses of the laboratory with particular attention to ongoing feasibility and appropriateness for the degrees offered.
3. What would be required commitment to the facilities as demonstrated by the operating budget in order to establish a model farm laboratory?

IV. Recommendations

1. Include any further observations important to the evaluation of the college farm and propose any recommendations for the future.
2. Recommendations should include necessary business plans. Business plans should project financial implications for rehabilitation of required facilities and indicate prospective revenue for reinvestment in the college farm laboratory.

Appendix 3 – Contribution of Agriculture to Regional Economy

NEW YORK COUNTY	Number Farms	Land in Farms	Percent of Total Acres	Market Value of Ag Production	Number of Milk Cows	County Population
Allegany	860	180,000	27%	45,600,000	11,500	49,927
Cattaraugus	1,150	201,600	24%	58,400,000	16,700	83,955
Chautauqua	1,725	255,600	38%	99,200,000	22,800	139,750
Chemung	425	69,100	26%	12,100,000	3,200	91,070
Erie	1,285	161,600	24%	92,400,000	15,600	950,265
Genesee	575	177,200	56%	124,900,000	22,800	60,370
Livingston	795	209,200	52%	84,100,000	18,400	64,328
Monroe	625	106,500	25%	53,900,000	3,200	735,343
Niagara	795	147,800	44%	59,900,000	8,000	219,846
Ontario	890	194,400	47%	87,100,000	15,500	100,224
Orleans	500	132,900	53%	68,900,000	3,000	44,171
Schuyler	400	73,800	35%	17,900,000	4,800	19,224
Seneca	465	127,000	61%	45,200,000	6,400	33,342
Steuben	1,490	372,800	42%	84,800,000	20,200	98,726
Wayne	900	165,000	43%	103,900,000	6,900	93,765
Wyoming	760	215,000	57%	178,000,000	49,500	43,424
Yates	715	114,900	53%	50,400,000	10,800	24,621
NY TOTAL	14,355	2,904,400		1,266,700,000	239,300	2,852,351
PENNSYLVANIA						
Potter	343	94,396		26,400,000		18,080
McKean	265	41,634		4,800,000		45,936
Tioga	973	200,041		48,600,000		41,373
PA TOTAL	1,581	336,071		79,800,000	0	105,389
REGION TOTALS	15,936	3,240,471		1,346,500,000	239,300	2,957,740

Appendix 4 – Leading Agricultural Products Sold by Market Value in 17 Western NY Counties

NEW YORK COUNTY	Leading Ag Products Sold by Market Value			
	First	Second	Third	Fourth
Allegany	Dairy Products	Cattle & Calves	Nursery & Greenhouse	Vegetables
Cattaraugus	Dairy Products	Nursery & Greenhouse	Cattle & Calves	Hay & Silage
Chautauqua	Dairy Products	Fruits & Nuts	Cattle & Calves	Vegetables
Chemung	Dairy Products	Nursery & Greenhouse	Cattle & Calves	Hay & Silage
Erie	Dairy Products	Nursery & Greenhouse	Vegetables	Fruits & Nuts
Genesee	Dairy Products	Vegetables	Cattle & Calves	Grains & Dry Beans
Livingston	Dairy Products	Grain & Dry Beans	Cattle & Calves	Vegetables
Monroe	Vegetables	Nursery & Greenhouse	Grains & Dry Beans	Dairy Products
Niagara	Dairy Products	Vegetables	Fruits & Nuts	Grains & Dry Beans
Ontario	Dairy Products	Vegetables	Grains & Dry Beans	Cattle & Calves
Orleans	Vegetables	Fruits & Nuts	Grains & Dry Beans	Dairy Products
Schuyler	Dairy Products	Fruits & Nuts	Cattle & Calves	Grains & Dry Beans
Seneca	Dairy Products	Grain & Dry Beans	Cattle & Calves	Fruits & Nuts
Steuben	Dairy Products	Vegetables	Cattle & Calves	Hay & Other Crops
Wayne	Fruits & Nuts	Dairy Products	Nursery & Greenhouse	Vegetables
Wyoming	Dairy Products	Vegetables	Cattle & Calves	Hay & Other Crops
Yates	Dairy Products	Fruits & Nuts	Vegetables	Cattle & Calves

Appendix 5
New York farm and farm-related employment, 2002

Farm industries [What is included?]	Total*		Metro		Nonmetro	
	Emp.	Pct. of total	Emp.	Pct. of total	Emp.	Pct. of total
Farming:						
Farm production	59,514	0.57	30,763	0.32	28,751	3.77
....Farm proprietors	37,827	0.36	17,699	0.18	20,128	2.64
....Farm wage and salary workers	21,687	0.21	13,064	0.13	8,623	1.13
Closely related:						
Agricultural services	29,196	0.28	25,741	0.27	3,455	0.45
Agricultural input industries--	10,560	0.10	8,274	0.09	2,286	0.30
....Agricultural chemicals	388	0.00	376	0.00	12	0.00
....Farm machinery and equipment	441	0.00	56	0.00	385	0.05
....Farm supply & mach. wholesale trade	4,207	0.04	2,368	0.02	1,839	0.24
....Commodity contract brokers	5,524	0.05	5,474	0.06	50	0.01
Agricultural processing and marketing--	110,538	1.06	97,455	1.00	13,083	1.72
....Meat products	3,393	0.03	2,946	0.03	447	0.06
....Dairy products	7,876	0.08	4,169	0.04	3,707	0.49
....Can., frozen, and pres. fruit and veg.	7,084	0.07	5,208	0.05	1,876	0.25
....Grain mill products	3,092	0.03	2,101	0.02	991	0.13
....Bakery products	13,469	0.13	12,695	0.13	774	0.10
....Sugar and confectionery products	3,801	0.04	3,496	0.04	305	0.04
....Fats and oils products	125	0.00	111	0.00	14	0.00
....Beverages	7,423	0.07	6,566	0.07	857	0.11
....Misc. food prep. & kindred products	5,500	0.05	5,087	0.05	413	0.05
....Tobacco products	72	0.00	72	0.00	0	0.00
....Apparel and textiles	49,465	0.47	47,795	0.49	1,670	0.22
....Leather products and footwear	2,896	0.03	1,941	0.02	955	0.13
....Packaging	3,504	0.03	2,668	0.03	836	0.11
....Farm-related raw mat. whlsle trade	1,437	0.01	1,205	0.01	232	0.03
....Warehousing	1,401	0.01	1,395	0.01	6	0.00
Peripherally related:						
Agricultural wholesale & retail trade	1,023,682	9.78	946,370	9.76	77,312	10.15
Indirect agribusiness	19,776	0.19	17,960	0.19	1,816	0.24
Total farm & farm-related	1,253,266	11.98	1,126,563	11.61	126,703	16.63

employment						
All other employment	9,209,959	88.02	8,574,791	88.39	635,168	83.37
Total employment	10,463,225	100.00	9,701,354	100.00	761,871	100.00

**Metro and nonmetro detail may not add to total because of some employment not classified by location. Metro and nonmetro estimates are based on the June 2003 metropolitan area definitions.*

Data are based on the 1997 North American Industry Classification System (NAICS).

Source: Most industry estimates were developed from an enhanced file of the [County Business Patterns](#), U.S. Bureau of the Census. Farm proprietors and farm wage and salary workers are from the [Bureau of Economic Analysis](#), U.S. Department of Commerce.