People and Nature: Our Future is in the Balance
National Wildlife Federation
11100 Wildlife Center Drive • Reston, VA 20190 • http://www.nwf.org/

Warren Wilson College
Asheville, North Carolina
Spring 2003, Dining Services

BACKGROUND

Campus Profile

The Mission of Warren Wilson College (WWC) is to provide an education combining liberal arts study, work and service with a strong commitment to environmental responsibility and experiential opportunities for international and cross-cultural understanding in a setting that promotes wisdom, spiritual growth, and contribution to the common good. WWC is a four-year private liberal arts college located on 1,100 acres of picturesque rivers, ridgelines, rolling forest and farmland in the heart of the Swannanoa Valley near Asheville, North Carolina. The college enrolls 800 students and offers Bachelor Degrees in 43 majors and concentrations, and 26 minors. In addition to academic requirements, students are required to perform 15 hours of work each week on one of the college's 111 different work crews and to complete 100 hours of community service prior to graduating. WWC's rich history of campus greening initiatives is compiled in *Greening WWC: A Celebration of the Past, An Agenda for the Future*, found at www.warren-wilson.edu/ecco

Contacts

Marc N. Williams
Student Trustee/Resident Director
Phone: 828-771-5643
E-mail: italmon@hotmail.com

Stan Cross
Environmental Education Coordinator
Phone: 828-771-3782
E-mail: scross@warren-wilson.edu

GOALS & ACCOMPLISHMENTS

The goal of this project is to procure as much organic produce as possible for the campus community. This is a project that rests on the shoulders of many other people's work. When I came to WWC in January 2002 our organic vegetarian Cowpie Café had been up and running for two years under the management of the college's food service provider, Sodexho. The WWC organic garden was shifting into a production mindset to supply the Cowpie Cafe with more produce. There were a number of issues that I identified which needed to be addressed to optimize this system.

1) How much produce does the Cowpie consume?
2) How much space does the garden have?
3) How much can each vegetable be expected to produce for a given amount of space?
4) What vegetables are most preferable to grow (desirability/storage/yield/ amount of space/ labor/seasonality)?

Student built Garden Cabin sits in the heart of WWC's organic garden, which is integral to the campus' dinning services

My goal after recognizing these issues was to address and research them. My first semester (January 2002) I itemized all the produce

invoices that the Cowpie had on file for purchases the preceding fall. The Cowpie gets produce from a local produce distributor named Mountain Foods and from the WWC Garden. I entered all the purchase information for the fall semester into a spreadsheet and totaled the amount needed for each individual vegetable. I then looked into ten different sources including the USDA and State Dept. of Agriculture for approximate yield of each vegetable. Next I measured the growing space that we had available in the garden. The next step was to use the yield and purchase data to calculate how much space we would need for each vegetable factoring in each vegetable's growing season. From there we designed a crop rotation that would optimize the amount of produce coming from the garden to the café. From all this work we were able to increase the level of produce that we provided to the Cowpie significantly for certain vegetables. Some of these include

Vegetable	Pounds sold to Cowpie 2002	Pounds sold to Cowpie, 2001
Winter Squash	932	211
Tomatoes	285.45	136.5
Pumpkins	781	0
Broccoli	149.9	22.75
Eggplant	53	0
Parsley	100 bunches	0
Hot Pepper	19	4.5
Radishes	10 bunches + 19#	0
Turnip	71	0
Wilting Greens	239	192

There were a few staple crops that we produced in large amounts both years but less in 2002 than 2001. These included:

Vegetable	Pounds sold to Cowpie 2002	Pounds sold to Cowpie, 2001
Potatoes	886	1200
Salad Mix	177	293
Head Lettuce	0	33 cases
Carrots	80	117

This year we hope to have marked increases in the levels of all these vegetables. We are also growing a few new staple crops including sweet potatoes and onions.

Accomplishments

In the spring of 2002 I designed a GIS map of our 275-acre farm showing what crops were growing where as well as soil test data and a host of other information. I also developed, in tandem with a group of four people, a proposal to rehabilitate our organic apple orchard. Since then I have also done a GIS map for our five-acre organic garden and one-acre apple orchard.

Students on the WWC Garden Crew research, cultivate, harvest and market a diverse variety of organic vegetables, roots and herbs

In the spring of 2003 we worked hard to rehabilitate the existing trees at the orchard site and remove the trees that were dead and dying. Subsequent to the tree removal we planted 50 new trees of eight different varieties, most of which are disease resistant.

Another project in the spring of 2002 was a forum called Field to Fork. Field to Fork is a joint collaboration between the head of the Cowpie Café, the head of the garden, a volunteer chef named Michael Gentry and myself. Field to Fork is set up as a lecture series where we ask faculty, staff and people from the outside community to come and talk about food issues. Some topics we have addressed include genetically modified organisms, organic versus conventional agriculture, the affects of coffee and sugar, macrobiotics, food additives and the history of the WWC food system. In the fall of 2002 and spring of 2003 I occasionally assisted Michael Gentry in a project called Sustainable In-Dorm Cuisine. Michael goes to a different dorm each week of the semester and shows students how to make healthy food in a dorm setting.

Challenges and Responses

There have been many challenges along the way due to the nature and complexity of the project. Data entry and information accumulation have been a big hurdle. Most of the work I have done has had some relationship to work and study but I have put in countless hour of my own "free" time as well to bring the project to fruition. We grow over sixty different types of vegetables in the garden. Each has its own season, spacing, seeding, transplanting, yield, weeding and harvesting regime. Another challenge is what to do in the winter once the garden shuts down. We are fortunate to normally have a relatively mild winter here in Swannanoa. We have over-wintered kale and turnips and rutabagas and we grow salad mix in our green house and hoop-house structures. I have tried to focus on techniques of food preservation including root cellaring, canning and freezing in order to extend the availability of garden produce. Another challenge is that beyond garden produce most of the other produce we get is from a small local distributor but totally conventional and often from very far away. We have a local cooperative of over 20 farmers that sells to this area but their produce is often cost prohibitive. Our food service provider is Sodexho and they are very cost conscious. Sodexho does all purchases for the Cowpie Café. A challenge with the orchard is that it is far away (about a mile off in the woods). The trees had been somewhat left to their own devices for a number of years and there is still much work to be done to conquer weed pressure, diseases and lack of time due to other responsibilities.

The greenhouses allow for extended crop seasons and cultivation of native wildflowers and grasses used for landscaping on campus and in the greater community

ENGAGEMENT & SUPPORT

This project has had much support from Craig Schulz (Café Manager), Donna Price (Garden Manager), Ian Robertson (Dean of Work), Rob Routhieaux (Chair of Business Department), Michael Gentry (volunteer chef and gardener), Laura Lengnick (Sustainable Agriculture Professor) and Todd Pierce (GIS Professor). Additional support came from the following classes:

Introduction to Geographical Information Systems (GIS), Principle and Practices of Farm Production, Independent Study *The Viability of Purchasing More Organic Produce for WWC*, Senior Sustainable Agriculture project *The Rehabilitation of The Warren Wilson Orchard.*

All funding for this project came from the WWC Garden budget or from other institutional sources including Landscaping, the Work Program Office, the Lyceum Committee and the Wellness Program.

National Wildlife Federation's Campus Ecology Program
Reading *Ecodemia* was inspiring and I occasionally refer to the Campus Ecology website to find out information about what's happening around the country.

CLOSING COMMENT

There are a few things, such as water and air, which are more important to the human experience than food. Food is, however, fundamental. I have dedicated my life to the pursuit of good food production, procurement and service. When working with an institution it is important to have broad-based support from students, faculty, staff and administration. It is important to consider economics as well as ideals. It is important to do thorough research and as much networking with other activists as possible. I feel very fortunate for the gifts we've been given here at WWC including 1,100 acres of beautiful land and an awesome mission of study, work and service.