

Wisconsin Homegrown Lunch II: Maximizing School Food Service

Final Report for LNC04-247

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Project Coordinator:

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Project Information

Summary:

Final report on Wisconsin Homegrown Lunch

The last decade has seen rapid growth in the number of farm-to-school initiatives in the United States. Despite the proliferation of farm-to-school programs and the significant energy and resources that have gone into their implementation, there have been few systematic assessments of these initiatives.

We use the experience of the Wisconsin Homegrown Lunch Project, a farm-to-school project in Madison, Wisconsin, as a lens through which to identify structural challenges faced by all farm-to-school initiatives and examine a variety of key tactical issues that are likely to be confronted during their implementation. We confirm that these initiatives can facilitate the acceptance and consumption of fresh vegetables by elementary school children. However, we find that the possibilities for connecting the land and the lunchroom are seriously constrained by the structure of most existing school lunch programs. These constraints include the overarching food culture, the quasi-privatized character of most school food services, the degree of industrialization of many school food services, issues of price, procurement and supply, and the need for processing facilities.

Through the Wisconsin Homegrown Lunch project, we learned that enthusiastic leadership from the food service director is critical to the success of a farm-to-school project. A cooperative approach with food service staff needs to be complemented by judicious application of external pressures. There are promising opportunities for students to consume fresh foods in places other than the cafeteria. Finally, an educational component is as important a part of a farm-to-school program as the connections between farmers and the food service.

We hope that this report will initiate a wider discussion of how farm-to-school programs are performing and what contributions they are making to the development of a sustainable food system.

Introduction:

In the first two years of our project, Wisconsin Homegrown Lunch (WHL) identified key structural challenges that posed barriers to integrating local foods into the Madison Metropolitan School District's (MMSD) meal program. These key challenges included: a) a need for menu items incorporating more fresh produce and a wider variety of items, b) ability to process local produce into 'ready-to-serve' forms, and c) a better organized supply of foods from local farmers. In this second phase of WHL we attempted to overcome these challenges while expanding our successful educational programming in the Madison schools.

Project Objectives:

Education Objective: Elementary school students know the sources, characteristics, and taste of diverse varieties of locally grown, fresh produce and are receptive to new school lunch menu items consisting of or incorporating locally grown, fresh produce.

Menu Development Objective: School food service staff recognize opportunities and means of incorporating locally grown, fresh produce into school lunch menus and begin to incorporate new and local items into their school lunch menus.

Processing Objective: Willy St. Co-op staff identify the legal, regulatory, and technical requirements for use of the Co-op's equipment by third parties (i.e., farmers) and develop administrative and technical protocols allowing such use.

Recruitment and Organizing Supply Objective: Local, sustainable fruit and vegetable farmers learn about the opportunities to produce for the Madison school food service market and begin to organize themselves in order to provide for this market and eventually additional institutional markets in the area.

Outreach Objective: Farmers and school food service staff in the Upper Midwest learn of the opportunities and challenges encountered by the Wisconsin Homegrown Lunch project and use this knowledge and resources provided by WHL to initiate farm-to-school projects in their own communities.

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Research

Materials and methods:

SARE funds supported a Wisconsin Homegrown Lunch (WHL) Coordinator as a full time staff position. The project's principal investigator, a UW faculty member and REAP board member, continued to allocate about 15% of his time to WHL. Collaboration with a local urban agriculture project (Friends of Troy Gardens), the UW Extension Nutrition Education Program, and the Madison CSA Coalition allowed Research, Education, Action and Policy on Food Group (REAP) to secure additional funds from local foundations for a 75% time Education Coordinator. In addition, REAP's Executive Director devoted 15% of her time to WHL with funding from local foundations.

Farm-to-school projects are exceedingly complex socially, as they involve not only the target populations of school children, farmers, and school food service staff, but also a variety of people and administrative bodies who have an interest in or might be affected by project activities. These include school board members, parent-teacher organizations, parents, teachers, principals, and school kitchen and custodial staff. The issue of food and children in public schools has the potential to be divisive along a range of fault lines.

In order to help the WHL staff make the best decisions possible in this complicated environment, the WHL team continued to meet with an Advisory Committee on a bi-annual basis. This committee included a dozen individuals representing the farm, food system advocacy, and education communities. Throughout the project, WHL staff pursued a non-confrontational, cooperative, highly consultative approach and tried to proceed at a pace no faster than any party was willing or able to move.

The WHL project team included the WHL Coordinator, the WHL Education Coordinator, REAP's Executive Director, and the project's principal investigator. This team met weekly for the duration of the project to guide, evaluate, and adjust project activities.

WHL continued to partner with the three pilot elementary schools that were identified in years one and two. These schools served as the site for trial lunch menus and a host of food education activities. Each of the pilot schools continued their relationships with a local farmer, identified through the Madison CSA Coalition

and the Dane County Farmers' Market. These 'farmer-educators' gave classroom presentations and hosted the schools at their farms for field trips. Additional classroom and lunchroom 'food tastings' were facilitated by the WHL Coordinator, parents, and REAP volunteers. These activities were designed to be useful in and of themselves as palate enriching exercises and creating a connection between the students food and local farms, but they also served the purpose of familiarizing students with foods they would see on the trial lunch menus.

WHL partnered closely with a UW Dietetics faculty member who has years of food service experience and was able to create farm-to-school internships for a number of her students to assist with WHL. These students proved very valuable in working with both the Madison Metropolitan School District (MMSD) Food Service staff developing menu ideas and recipes and the Willy St. Co-op's kitchen to evaluate the efficacy of processing various produce items.

WHL's partnership with the Willy St. Co-op's kitchen facility provided an opportunity to process some local produce items into 'food service ready' form for the MMSD food service to utilize in recipes and eventually to distribute to schools participating in WHL's Classroom Snack Program. Willy St. Co-op already purchases produce from a wide variety of local farmers which facilitated WHL's work toward a more organized supply of local product.

In the fall of 2005 Wisconsin was awarded \$1 million as an expansion state for the USDA Fresh Fruit and Vegetable Program (FFVP). WHL took advantage of this opportunity to strengthen the partnership with the WI Department of Public Instruction (DPI), who oversees school meal programs statewide, and the WI Department of Health and Family Services (DHFS). WHL participated with DPI and DHFS in the planning of a robust evaluation of the 25 participating schools to determine what effect free, fresh fruits and vegetables had on student consumption patterns. One Madison middle school was the recipient of FFVP funds and WHL worked closely with that school to facilitate the purchase of local snacks and to provide food educational opportunities.

Research results and discussion:

Below find an accounting of how WHL addressed the objectives stated in our proposal as well as a larger discussion of the successes and challenges encountered that may inform other farm-to-school projects. These activities cover the time period from October 2004 through March 2007.

Education Objective: Elementary school students know the sources, characteristics, and taste of diverse varieties of locally grown, fresh produce and are receptive to new school lunch menu items consisting of or incorporating locally grown, fresh produce.

WHL successfully sponsored a wide range of educational activities in the three pilot elementary schools. WHL offered a stipend to a teacher at each pilot school to serve as the 'farm-to-school' coordinator at that school. Their job was to help organize educational activities at each school and to create a farm-to-school committee that could continue beyond the pilot period (and WHL's grant). Having coordinators based at each school helped a great deal to facilitate educational activities but WHL staff was reminded repeatedly of the challenges of organizing within a school setting that is often pressed for time and money. Teachers and school administrators happily welcomed WHL's educational activities and field trips when it was organized for them, but when the pilot period ended and WHL began to ask more of the schools in terms of running their own tasting lessons or raising their own money for field trips, it became clear that educational programming would only

continue at some schools with assistance from WHL. Below is an accounting of the educational activities WHL facilitated:

- 730 students from three pilot elementary schools and one middle school participated in field trips to local farms where they learned about food production, planted seeds, and harvested and ate vegetables.
- Local 'farmer-educators' visited 93 classrooms in three pilot elementary schools and led food and farm educational activities for 1,760 students.
- 1,440 students in three pilot elementary schools participated in classroom 'vegetable tastings' of a wide variety of local tomatoes and apples.
- 2,040 students in three pilot elementary schools and one middle school participated in lunchroom tastings.
- 2,580 students in three pilot elementary schools participated in a tomato seedling activity where they transplanted tomatoes into pots they took home to grow over the summer.
- All three pilot elementary schools organized 'Harvest Celebrations' for their students (1,380 total) which celebrated Wisconsin agriculture and promoted the 'WI Homegrown Lunch' that was served in each school.
- All three pilot elementary schools incorporated local salad greens and rhubarb (for muffins) into their spring school picnics for their 1,380 students.
- Successfully piloted (in '05) and implemented (for '05-'06 school year) the 'WHL Classroom Snack Program' in three elementary schools and one middle school. A fresh fruit or vegetable snack (locally procured when possible) reached a total of 1,600 students each week. Educational resources related to the fruit/vegetable (apples, carrots, sweet potatoes, cherry tomatoes, kohlrabi), and the farm it was purchased from were provided to classroom teachers for snack time lessons. \$7,400 worth of local produce purchased and served for classroom snacks.
- 'Chef in the Classroom' program piloted with six classes at one middle school in the spring of '06 and then launched fall of '06 in all eight 7th grade classrooms (180 students). Once a month during the school year each 7th grade class participated in a cooking lesson led by a local chef with expertise in purchasing and utilizing local produce (Chef Tory Miller of L'Etoile Restaurant).
- Collaborated with Friends of Troy Gardens (a local urban agriculture program) and the UW Extension Nutrition Education Program to plan and execute a 5-week food and nutrition curriculum to 2nd/3rd grade classrooms (120 students) at Mendota Elementary school.

Menu Development Objective: School food service staff recognizes opportunities and means of incorporating locally grown, fresh produce into school lunch menus and begin to incorporate new and local items into their school lunch menus.

Given the industrial sized and oriented meal program in the MMSD (15,000 pre-packed meals per day from one kitchen facility), there exist limited opportunities to incorporate locally grown, fresh produce into their school lunch program. Despite this, WHL worked with the MMSD to develop a handful of menu items that were successfully trialled with students. These included vegetarian chili, baked potato soup, rhubarb muffins, and carrot-sweet potato muffins. In addition, we worked with the Willy St. Co-op's kitchen to process the necessary produce items into a form that were 'ready-to-use' for the MMSD Food Service. The nature of the menu items (which utilize small amounts of produce per serving) kept the price per serving within range for the food service.

With these limited number of menu items, we can say we have achieved our

objective of the school food service staff recognizing opportunities to incorporate locally grown produce into their menus. And yet, we found there remained unwillingness on the part of the MMSD Food Service to take the next step and incorporate these few items into their menus. Aside from 225 lbs of sweet potatoes (for holiday 'harvest muffins') and 140 lbs of potatoes (for one day of potato soup), 2006 saw MMSD purchasing very little local produce.

The district-wide meal in November of 2004 was the most significant trial of a 'WI Homegrown Lunch' the MMSD Food Service took on. 7,200 meals were served in all 30 MMSD elementary schools. \$2,000 in produce was purchased from local farms. The menu consisted of chicken-fajita tortilla wraps with vegetables (shredded turnip, carrot and cabbage and chopped spinach), local apples, and sweet potato muffins. This meal represents a successful model of how local produce can be integrated into a school lunch. The local items (vegetables, apples) were cost-effective because of the relatively small amounts used per lunch and the protein was supplied by chicken purchased through MMSD's normal channels. The meal was well enough received by students to warrant future servings, but the food service staff was unwilling to do the necessary vegetable preparation to serve it in the future. Willy St. Co-op's ability to provide some of the produce items prepped for future meals wasn't enough to allow it back on the menu.

Another menu trialled at the three pilot schools consisted of a baked potato (local), vegetarian chili (with local onions and peppers), sweet potato muffin (local sweet potato), and a local apple. This menu went over even better with students than the chicken-fajita wrap meal, but was nixed from future trials because the potatoes needed to be baked onsite at the schools and there wasn't enough time during the lunch periods to allow the potatoes to fully bake. Exploration of pre-baking or partial-baking the potatoes was not undertaken.

Assured that Willy St. Co-op could provide shredded carrots and mashed sweet potatoes, WHL embarked on developing a muffin recipe that would work for the food service bakery, and be eaten by students. A UW Dietetics student worked with the MMSD food service staff over a four month period of time testing a number of recipes and ended up with a satisfactory Carrot/Sweet Potato muffin recipe. Three lunchroom tastings confirmed that a good number of students enjoyed the muffin. For reasons not understood by WHL staff, MMSD food service decided to offer the muffin on the breakfast menu rather than the lunch menu. This would have been satisfactory except for the fact that far fewer students eat breakfast and given the choice between a muffin a little darker than they were used to and sweetened cold cereal many students chose the sweetened cereal option. MMSD food service staff took these students' choices to mean they didn't like the carrot/sweet potato muffin and discontinued offering it after a few weeks. This was particularly frustrating for WHL staff since this item could easily have been offered on the lunch menu where it would likely have been much more successful. At this point it became clear that there were forces within the MMSD food service working against WHL's goals above and beyond the already formidable structural and institutional challenges.

Given these (and other) challenges with the MMSD food service, WHL turned its attention to the creation of a classroom snack program that would provide another route for fresh, local produce to get to MMSD students. After a successful trial in the spring of 2005 serving carrot coins, daikon radish discs, and celery sticks in four elementary schools, WHL facilitated snack being served in four schools for most of the of the 2005-2006 school year. This seemingly simple endeavor involves the Willy St. Co-op kitchen ordering produce from a local farm, preparing it into snack form, bagging it into classroom sized resealable bags (1.75 lbs each), and delivering them to the MMSD central kitchen assembled on the same wire racks that are used for the

lunches. MMSD then delivers the snacks to the appropriate schools via the breakfast trucks. Schools pay for the snacks themselves through PTO monies, requests for parent donations, and corporate sponsors.

Processing Objective: Willy St. Co-op staff identifies the legal, regulatory, and technical requirements for use of the Co-op's equipment by third parties (i.e., farmers) and develop administrative and technical protocols allowing such use.

Even though use of the Co-op's kitchen by third parties was originally considered when the kitchen was built, pursuit of these plans are currently on hold. The main reason for this is the Co-op's own need for use of the kitchen is greater than originally anticipated. They currently supply their retail store's deli, a number of accounts with other food establishments, and they are opening a second retail store in early 2008 which will require increased production.

The primary purpose of allowing third parties (farmers) to process their own foods in this kitchen facility was to have locally sourced 'food-service ready' foods available for the school food service to utilize. The Co-op itself is currently able to serve this function as they purchase direct from a range of local producers and can create 'food-service ready' product on request (for certain items).

WHL has been successful at facilitating the processing of local produce into 'food service ready' forms that have been used by the MMSD food service as well as by WHL's classroom snack program. As of the spring of 2007, MMSD has purchased 390 lbs of mashed sweet potatoes (for muffins), 320 lbs of shredded carrots (muffins), 10 lbs each of diced peppers and onions (for chili meal), 210 lbs of diced potatoes (for potato soup), 210 lbs of diced rhubarb (muffins), and 160 lbs of salad mix (for pilot school picnics). The majority of this produce was purchased for pilot school trial meals. The four participating snack program schools have purchased the following: cherry tomatoes, sweet pepper strips, kohlrabi slices, sweet potato slices, carrot coins, and daikon radish discs (note: See 'Economic Analysis' section for specific dollar amounts).

With assistance from our UW Dietetics faculty advisor, a UW Dietetics student intern conducted research at the Willy St. Co-op's kitchen to determine yield and labor costs associated with processing various local vegetables. Most of the above mentioned produce items were assessed. The findings helped to inform the Willy St. Co-op kitchen which vegetables they were willing to prepare for the snack program. These include kohlrabi, sweet potatoes and carrots because each are able to be prepared to be put through their slicing machine which cuts down on labor time considerably. Other vegetables were deemed unworkable for the snack program by the kitchen for various reasons. Some items took too much kitchen staff time because of the prep involved, sweet peppers fell into this category.

Recruitment and Organizing Supply Objective: Local, sustainable fruit and vegetable farmers learn about the opportunities to produce for the Madison school food service market and begin to organize themselves in order to provide for this market and eventually additional institutional markets in the area.

WHL has remained engaged with two grower cooperatives in the area, a produce auction, and a local business that is now distributing dairy products in the area. While the Madison Schools present little opportunity at this time for fresh produce, other schools who are more capable of utilizing whole produce are expressing interest. As these opportunities become clear they are being communicated to growers participating in these cooperatives and in this way we continue to lay the groundwork for moving whole produce into area schools.

In order to grow this opportunity to sell produce into schools or other institutions, we still need to find a way to process this produce into 'food-service ready' forms. The

Willy St. Co-op's kitchen has been able to provide vegetable snacks to four Madison schools, but is unable to expand much beyond that given their other responsibilities. Another entity needs to take on this processing work. Before these pieces of the puzzle are in place, it's challenging to inspire local producers to organize themselves to produce for a market that isn't quite there.

Producers haven't needed to organize themselves for the Madison school food service market because the Willy St. Co-op is serving as 'intermediary' and is able to take care of the needs expressed by MMSD. In response to demand for whole produce by other area institutions, such as a local convention center and the county facility providing meals to the county senior centers and jail, a nearby produce auction has begun to organize themselves to provide a delivery service to the Madison area. They are also in the process of setting up 'pre-season contracts' with institutional buyers that will allow their farmers to plan their planting schedules for the coming season. A small-mid scale processing facility would open up even more opportunities as these institutions utilize quite a bit more processed product than whole.

Outreach Objective: Farmers and school food service staff in the Upper Midwest learn of the opportunities and challenges encountered by the Wisconsin Homegrown Lunch project and use this knowledge and resources provided by WHL to initiate farm-to-school projects in their own communities.

A strong working relationship with the WI Department of Public Instruction has been developed which has facilitated outreach to food service directors across the state via articles in their quarterly newsletter. The Madison Metropolitan School District's Media Services helped to create a 5 minute DVD about the WHL program which has been shared with school districts around the state. WHL has also presented at numerous meetings and conferences to share what we have learned to date and to inspire others to take on the challenges and reap the rewards of starting farm to school projects in their communities. Presentations have been made to:

- Presented a Farm to School Workshop to 60 people at Upper Midwest Organic Farming Conference in La Crosse, WI February 2005.
- Presented to 30 Food Service directors, nutritionists, and others promoting nutrition in schools at the Action for Healthy Kids Summit in Middleton, WI Nov, 2005.
- Invited by Wisconsin Department of Public Instruction to present the farm to school model to 25 food service directors participating in the USDA funded Fresh Fruit and Vegetable Program.
- 25 Wisconsin schools participating in the USDA Fresh Fruit and Vegetable Program as part of a Wisline conference with the Department of Public Instruction in January and again in September of 2006. WHL provided Food Service Directors in these schools information about WHL and how to locate farms in their area to purchase from.
- 40 educators from a variety of Wisconsin school districts at the Wisconsin Association for Environmental Education Annual Conference, Stevens Point, WI, January 28, 2006.
- Presented a Farm to School workshop at the annual Iowa Network for Community Agriculture conference in Des Moines, IA on February 4, 2006.
- 250 WI fruit and vegetable producers re the USDA Fresh Fruit and Vegetable Program at the WI Fresh Fruit and Vegetable Producer conference in Oconomowoc, WI Feb 8&9, 2006.
- 30 Food Service Directors from around the state at the Wisconsin School Nutrition

Association Conference in Green Bay, August 2, 2006.

- 40 Food Service staff from eight school districts in Western Wisconsin at the WI School Nutrition Association's Chapter 11 annual meeting, September 21, 2006.

- 70 Food Service Directors, educators, and nutrition advocates at the WI Action for Healthy Kids Summit in the WI Dells, November 30, 2006.

Additional discussion: WHL has effectively linked the land with the classroom, but it has been far less successful at fulfilling its own slogan of "linking the land and the lunchroom." As WHL staff implemented sourcing of local, fresh vegetables for school lunches, they were soon confronted by some serious difficulties.

First, and most importantly, the technical scale at which the MMSD food service operates is profoundly constraining. Producing meals for 45 schools at a single, central facility results in a rigid system that is difficult to alter.

Second, almost no cooking is actually done by the MMSD food service. With the exceptions of some baking and soup preparation, meals are largely compiled from ready to eat, pre-packaged components at the central kitchen facility. The task of food service labor is to compile efficiently, rather than cook.

Third, only three types of fresh vegetables are served in MMSD elementary schools: broccoli florets, baby carrots, and shredded lettuce. This narrow range of fresh produce is used in limited quantities and the food service typically spends little more than \$1.25 per year per student—a total of \$28,000 annually—on fresh vegetables.

Fourth, we discovered that the food service will only allocate minimal labor time to shredding, slicing, dicing, and peeling fresh produce. Labor is the single largest expense for the food service, and even minimal preparation of fresh vegetables by hand is regarded as prohibitively costly. The food service firmly requires that fresh vegetables come in a ready-to-use form.

Fifth, a combination of state curricular mandates and teachers' union work rules have resulted in a school lunch period that is technically twenty-five minutes long, and often less than that. The brevity of the lunch period precludes a salad and soup bar approach to serving local produce. It reduces the amount of time that can be used to educate children about food and forces children to eat quickly, particularly when recess follows lunch, reinforcing fast food attitudes and behaviors.

Having expected that pricing, brokering, and seasonality would be the principal barriers to local food sourcing, WHL staff found instead that the MMSD food service operates in a technical and culinary environment where the rich diversity of locally available fresh produce is almost entirely alien. WHL staff faced the task of developing recipes and procedures for an expanded range of menu items with which the food service had no experience, and to which its infrastructure was poorly matched. Working with the food service personnel, WHL staff members developed a variety of locally sourced menu items including rhubarb muffins, sweet potato muffins, salad mix, yogurt/cream cheese/dill sauce, vegetarian chili, a vegetarian tortilla wrap, cranberry cookies, squash bisque, and baked potatoes. For our pilot schools, the food service agreed to try some special menu items and serve several "Homegrown" meals. Because the food service found it was more difficult to innovate on a limited scale, a tortilla wrap meal was tried district-wide.

We found that almost every mode of incorporating locally sourced food into school meals required some, and often a substantial amount, of deviation from the food service's established parameters, practices, labor allocations, routines, and equipment usage. Rhubarb might be abundant, but there was no recipe for using it. Potatoes were available locally, but the district lacked the time and facilities for on-

site preparation. Kids might like raw sweet potato sticks after tasting them in the classroom, but no labor was available to prepare them. Although we were able to more than double the value of fresh produce going into the meals of our pilot schools, spending amounted to only a little more than \$2,500 per year, primarily due to the low levels of initial usage. WHL was frustrated with the structural realities, and what they perceived as inadequate efforts, of the school food service. For their part, food service staff found that the changes in practices and patterns they were being asked to make were, in aggregate, more onerous than was acceptable and they became increasingly frustrated with WHL.

Mutual courtesy, and joint satisfaction with the success of our educational programming, deterred us from engaging these frustrations directly. However, the Child Nutrition and WIC Reauthorization Act of 2004 required that all school districts receiving USDA support for school lunches formulate a wellness policy by the beginning of the 2006-07 school year. The MMSD created a committee to develop a comprehensive food policy as part of the larger wellness policy. WHL staff was invited to offer input through their focus group sessions and we also provided the committee with extensive resources on how such policies were being created nationally, as well as our own thoughts on what the policy should contain. When the draft food policy was released, we found that it usefully treated a range of school food issues such as the availability of candy and “junk food” snacks in classrooms and access to vending machines. Its reference to the school lunch itself, however, was limited to the minimal commitment that “the meals that are served by MMSD Food Services must comply with or exceed all USDA standards.” The food service had countenanced no change at all in its own existing practices regarding school meals.

During the course of the project, we grew to understand that the structural constraints circumscribing WHL—and probably other farm-to-school programs—require policy solutions if they are to be overcome. We had regarded the development of a comprehensive food and wellness policy as a critical opportunity to make lasting, significant changes in the regulatory and administrative framework of the MMSD food service. WHL staff therefore made a strategic decision to pursue passage of a policy that covered school meals regardless of the effect on our relationship with the MMSD food service. We publicized our point of view widely, organized citizens for public comment, and promoted our positions to the school board, which was the body charged with finalizing the policy. Though we subsequently agreed to disagree, cooperation between WHL and the MMSD food service staff has since been severely curtailed and is currently limited to the food service receiving fresh vegetables, prepped off-site and delivered to four Madison schools for WHL’s snack program.

Over the course of the project, WHL has considered several different approaches to incorporating local, fresh foods into MMSD lunches. A salad and soup bar was precluded by the short amount of time allocated to the elementary school lunch period. Initial efforts to develop “homegrown” lunches completely prepared from locally available, fresh produce foundered on problems of supply and the operational limitations of the MMSD food service. A substitution approach based on replacement of specific ingredients and menu items has shown promise, but is constrained by the narrow range of fresh fruits and vegetables now used in MMSD menus.

Recently, we have implemented a fourth strategy that sidesteps the school lunch to focus on the provision of fresh fruit and vegetable snacks during the school day. WHL has successfully piloted a snack program in several elementary schools and one middle school. This “beyond lunch” emphasis on snacks has a variety of

advantages. First, kids are often hungry at times other than the lunch period, and that hunger provides a powerful incentive to try new or unaccustomed vegetables such as daikon radishes, kohlrabi, and sweet potato sticks. Second, a snack program can provide the regular, extended exposure that behavioral research has shown is critical for children to develop a liking for a new food. Third, the relatively small quantities of food required for a snack program are easier to source, process, and deliver than the food required for a full-scale lunch program. The snack program provides an opportunity to implement a farm-to-school program at a less risky scale. Fourth, the simplicity of a snack program avoids many of the technical obstacles associated with industrialized food services. Fifth, funding a snack program is much easier for a school district or a parent-teacher organization than restructuring the financing of an entire meal program. Sixth, a wide variety of raw fruits and vegetables can be served in a snack program and are available across the seasons. Prospective farm-to-school programs should consider beginning their initiatives with a snack program. To the extent that a snack program is successful, it prepares children, farmers, and food service personnel for scaling up to a full-blown lunch program.

In addition WHL decided to address the issue of ongoing funding of farm-to-school programming at schools by creating an alternative school fundraiser based on locally grown/produced items that could be purchased for home use or for gifts. The 'Wisconsin Homegrown Holiday Fundraiser' is now in its third year. Successfully piloted at one school in the fall of 2005, WHL in 2007 facilitated this fundraiser in 12 Madison schools raising a total of over \$14,500. Products from 14 area vendors ranged from winter vegetables to honey to dried cherries to soaps to apples. It has proven to be a successful strategy to introduce schools to farm-to-school through this fundraiser and encourage them to set aside a portion of the profits for farm-to-school programming.

Research conclusions:

Impact of Results/Outcomes

The WHL educational component has been unmistakably successful. We have learned that a farm-to-school program can facilitate the acceptance and consumption of fresh vegetables by elementary school children. We have shown teachers and parents, as well as the students themselves that children can learn to enjoy daikon radishes, Swiss chard, raw sweet potato sticks, and striped tomatoes in addition to the ubiquitous carrot. Teachers and principals have welcomed our curricular programming. Wisconsin's Department of Public Instruction is planning to distribute WHL educational modules statewide. The project has established classroom practices and school activities that will continue in the pilot schools when direct WHL support has ceased. Over a dozen additional MMSD elementary and middle schools wish to participate in WHL programming. For specific numbers of students impacted by WHL's educational programming see the 'Results/Discussion' section above.

Even though the MMSD Food Service is currently ordering very minimally from the co-op's kitchen, they have had and continue to have a purchasing relationship with the co-op and are aware of this option should they choose to utilize it in the future.

The lack of progress with the MMSD school meal program encouraged WHL to move toward a classroom snack program which has been very popular at participating schools. Plans for the fall of 2007 have the Willy St. Co-op kitchen processing 200lbs of vegetables into a snack form once a week. These include sweet potatoes, carrots, and kohlrabi and will provide a snack to 1,600 students in four schools. With funding coming from local corporate sponsorship and funds from parents and PTO

fundraisers, it looks as though schools will be able to continue funding this program. Additional schools want to participate but we have reached capacity to produce snacks at the Co-op's kitchen. The model is effective but now another or a larger processing kitchen is needed to expand to additional schools. \$7,500 worth of local produce (sweet potatoes, carrots, kohlrabi, and apples) was purchased to supply one school with snacks for the 2005-06 school year and four schools for the 2006-2007 school year. Local sweet potatoes and kohlrabi have lasted through December/January and local carrots and apples have lasted through March. After March, snacks have either taken a break or carrots and sweet potatoes are purchased through the co-op's regular organic distributor.

Willy St. Co-op's kitchen has identified which vegetables they can economically process for the school district and for WHL's classroom snack program. The relationship between WHL and the co-op remains strong and it is anticipated that the classroom snack program will continue in these four schools on an ongoing basis. Expansion will be limited however, so additional processing capability will need to be identified.

The positive press generated by WHL activities along with continual exposure to school food services across the state via conference workshops, presentations, and WI Department of Public Instruction (DPI) newsletter articles has created interest among school districts outside of Madison. WHL has begun to engage with the meal programs of these relatively smaller school districts to assess their farm-to-school potential. Based on work already begun in a few of these districts it's clear that simply getting away from a pre-pack system in a central kitchen and more toward on-site preparation provides more opportunity to integrate fresh and local foods into a school meal program. Phase III of WHL will be focused on piloting farm-to-school programs in some of these smaller districts that express a strong interest to determine what opportunities exist there that do not exist in Madison.

The alternative school fundraiser begun by WHL is poised for continued growth in future years which bodes well for schools trying to come up with funds for various needs including farm-to-school programming. The fundraiser is moving toward sustaining itself since a portion of the sales go to REAP to support running the fundraiser and tools are in place to allow an intern to take on most of the coordinating.

Additional discussion of outcomes from the WHL project:

Structural barriers. The three central barriers to success for farm-to-school projects that are consistently pointed out include cost (local and especially organic produce is sometime most costly than through a distributor), procurement (institutions appreciate the efficiency of ordering from a small number of vendors), and supply (farmers need to provide sufficient volumes of product consistently and often in a ready-to-use form).

While WHL certainly encountered these issues, we also confronted a variety of obstacles that have not so far been raised in the farm-to-school literature. We found that some of these obstacles were structural; that is, they were broader social issues beyond the control of a particular school, food service, or farm. The constraints on WHL imposed by such structural issues must be addressed through changes in the overarching frameworks of policy or governance. Other obstacles had more immediate solutions, and could be dealt with by WHL staff through tactical choices. While the lessons we have learned are to some degree site-specific to Madison, both the structural and tactical obstacles faced by WHL have been and will be encountered by farm-to-school projects across the country.

Overarching food culture. Farm-to-school programs are embedded in an overarching

fast food culture that actively opposes their purposes. The average American is overweight and nearly 20 percent of all energy intake in the U.S. diet is derived from soft drinks, burgers, pizza, chips and pastries.¹ The food industry spends some \$30 billion per year advertising its products and promoting the development of what has been called a “toxic food environment.”² Such statistics indicate wide-ranging preferences, practices and attitudes that thwart the prospects for WHL, and other farm-to-school programs, achieving their goals.

We have often heard MMSD food service, administrative staff, and teachers say that “kids just won’t eat vegetables.” We disagree with this. It’s not that kids won’t eat vegetables, it’s that they don’t eat vegetables because adults don’t generally model their consumption, they haven’t been exposed to them, and school meals don’t include them. WHL educational programming and in-class tastings demonstrated that children in our pilot schools can learn to enjoy a wide variety of fresh vegetables when they are not competing with French Toast Stix in the cafeteria or candy in the classroom.

However, without significant changes in American food culture generally and school food policies particularly, farm-to-school initiatives such as WHL may do little more than alter the preferences of a few students in a few schools. The attention given to the film “Supersize Me,” the popularity of such books as *Fast Food Nation*, *Food Politics*, and *The Omnivore’s Dilemma*, and the growth of the market for organics are encouraging evidence that societal attitudes toward food are shifting. The challenge is to ensure that changing attitudes are translated into concrete public policies. Proponents of farm-to-school programs should be as attentive to public policy as they are to their schools’ lunch menus. Enhanced regulation of food industry lobbying, labeling, and marketing practices— especially regarding marketing to children—could do much to facilitate the emergence of a more healthful food culture in this country.^{6,7}

At the local level, school districts can develop policies that eliminate junk food vending, limit the availability of empty-calorie food and beverages that compete with school breakfast and lunch programs, discourage the use of sweets as incentives for classroom performance, encourage the provision of nutrient-dense foods in school meals, and use the cafeteria to vigorously promote healthy eating habits. The federal requirement for the development of school wellness policies provides a framework for accomplishing this. Although disappointed by the damaging effect of our unabashed advocacy on our relationship with the MMSD food service, we regard our influence on the overall character of the MMSD Wellness Policy as one of the signal achievements of WHL.

Across the United States, the great majority of public school food services are stand-alone financial units that are partially uncoupled from the revenue-based allocation of public funds for education. Except for staff salaries, which are underwritten by the city, the MMSD food service must recover all of its operating costs. This income comes from meal sales and reimbursements received from the USDA in return for maintaining specific nutritional standards and providing reduced-price meals to students from low income families. Since both revenues and USDA subsidies are a function of the number of meals sold, the food service treats students as customers and has a powerful incentive to serve what they will buy. According to the MMSD food service director, “The single biggest challenge in school food service is to serve a nutritious lunch that students will actually eat.” School food services are simultaneously expected to meet the nutrition standards of the USDA, provide affordable meals to low income students, and also compete with children’s tastes and preferences shaped by the fast-food culture. These conditions produce a race to the bottom in which food quality degenerates as food services, in an effort to retain

student customers, mimic commercial fast-food competitors. Making matters worse, they cut costs by using USDA commodity foods and pre-packaged meal items that are assembled rather than cooked.

As long as this quasi-privatized structure persists, it is hard to see how the MMSD food service, or similar public school food services, can successfully implement a farm-to-school program. Piecemeal introduction of healthy menu options, especially without a robust educational support program and restrictions on the availability of competing foods, risks erosion of sales and fiscal crisis for the food service. The answer to this conundrum again lies in public policy change, requiring school districts to treat food as an integral part of education and consider assumption of full financial responsibility for the provision of quality meals.

Scale/industrialization. In the 2005-06 school year, an elementary school hot lunch in the MMSD cost \$1.90, with the food ingredients accounting for \$.68 of that total. These low cost and price levels are possible because of the large scale, mechanization and routinization that characterize the MMSD food service operation. Like many medium-sized and large school districts across the nation, the MMSD utilizes a single centralized production and distribution facility from which approximately 15,000 meals a day (3.2 million per year) are distributed by truck to the 45 schools in the district.

The absence of in-school kitchen facilities and the journey by truck requires meals to be pre-packed in disposable aluminum or plastic containers, usually one hot pack and one cold pack per meal. These packages are compiled and sealed on an assembly line each morning, trucked to schools, reheated as needed, and handed out for students to unwrap, eat, and dispose of during their twenty-five minute lunch period. All menu items must conform to a reheating system, and all transportation and service infrastructure such as carts, truck interiors, trays, refrigerators, and reheating ovens must comply with a strict set of physical parameters. Coupled with the financial restrictions within which it must operate, the scale and technical organization of the MMSD food service make even small changes disproportionately difficult.

A lesson from WHL is that it may be advantageous to initiate farm-to-school programs in small rather than large school districts, or in districts where production facilities and protocols are not so rigid. In Wisconsin, only two other school districts—Milwaukee and Green Bay—operate at Madison's scale, and both share its centralized style of food service. Many smaller school districts in our region have retained in-school kitchens, continue to work with significant quantities of whole vegetables, and have relatively more flexibility in terms of labor, food preparation, and presentation. While most farm-to-school projects are located in urban centers, rural school districts may have an interest in purchasing from farmers who are part of the community. A systematic review of the effects of scale and technical characteristics on their progress would bring some valuable perspective to the question of what kinds of school districts have the most success with farm-to-school projects.

Price, procurement, supply. The three barriers to project success most commonly cited in the farm-to-school literature are price, procurement, and supply. Of these, procurement proved least problematic to WHL. Like many school districts, the MMSD food service is required by contract to purchase approximately 80% of their food products through a national food distributor. However, the additional 20% can be purchased locally, and it was not administratively difficult to add a local farmer cooperative as a vendor. As long as small numbers of individual farmers become vendors, or farmers organize cooperatives or other collective arrangements, transaction costs should present no serious barrier to local purchasing. Pricing was

more problematic and required creative solutions. Our partner cooperative grows and sells high quality, organic produce for high-end restaurants, and the farmers receive premium prices. Furthermore, this cooperative offers a wider variety of produce than the food service is accustomed to working with. The fresh vegetables purchased by the MMSD— baby carrots, chopped lettuce, and broccoli florets—are so ubiquitous in institutional food services that they are essentially commodities. We found, as others have,⁴¹ that the prices charged by the national distributor for other produce items varied widely and that local produce, even organic, could be competitively priced. The spinach, cabbage and carrots used for a WHL district-wide event were affordable, but the labor required to prepare them was not. Shredded carrots, diced potatoes, and mashed sweet potatoes were affordably integrated into recipes for muffins and soup. Food services using a variety of fresh fruits and vegetables can likely purchase local produce at acceptable prices. For WHL, supply was a deeper problem than either pricing or procurement arrangements. Through initiatives with the University of Wisconsin and local hospitals we learned that, while it is possible to generate institutional demand for significant quantities of fresh, local produce, it is difficult to identify commensurate sources of supply. South central Wisconsin has a wealth of vegetable growers using sustainable agricultural practices. But they specialize in capturing organic, niche, and direct markets. Critically, they are almost always geographically dispersed with limited production capacities. They are rarely collectively organized and often reluctant to expand their operations.

Ironically, Wisconsin is a leading producer of processing vegetables on a small number of large, conventional farms. In a classic conundrum of the “disappearing middle,” the small growers are reluctant to get bigger by expanding production and the large growers are reluctant to plant small amounts of fresh market varieties. The small growers are often disinclined to embrace the capital outlays, increased labor demands, and lower prices associated with expansion. The large growers tend to regard planting a few acres of an unfamiliar variety as a trivial addition to their operations. A further constraint is the “chicken-egg” problem: farmers want a market before they augment production, while food services want to know there is an adequate supply before they commit to buy. Given the tight profit margins both businesses operate under, it’s no surprise that no one wants to go first. With the exception of California, we suspect that farm-to-school programs in most regions of the country face these circumstances.

Processing. One feature of the MMSD food service that struck us forcefully was the degree to which it no longer cooks meals, but instead assembles pre-packed components. As a cost reduction measure, the food service has reduced labor wherever it can, and in the MMSD’s centralized kitchen there is little latitude for hand preparation of fresh, raw fruits and vegetables. This is true for many institutional food services that receive the vast majority of their fresh produce already washed, chopped, sliced, diced, and bagged. In most school districts across the country, locally purchased produce must arrive ready-to-use. Most farm-to-school programs will need to overcome this barrier. A local grocery cooperative which has a commercial kitchen is supplying WHL with some prepared vegetables. We explored the possibility of contracting with one of the few fresh processors left in Wisconsin, but this relatively small facility was too large to prepare small amounts of local produce at a price that farmers and the food service found acceptable. The cost of setting up a small, efficient processing plant in our region would be on the order of \$1.5 million.⁸ This would be a substantial but not inconceivable undertaking for a group of farmers. Simple, stand-alone processing equipment is available for far less, but there is very little information available on how, or even if, it is being used for farm-to-school projects. There is a need to determine technical, labor, and cost

benchmarks that illuminate the prospects for a small-scale processing enterprise. It is our experience that few farmers are interested in processing. If processing facilities are to be constructed to serve farm-to-school programs, public or private support is needed to underwrite their creation.

Tactical choices. While structural features such as the overarching food culture, highly industrial school food service, price, procurement, supply, and processing exerted an immediate and powerful influence over WHL, there was little that could be done to significantly alter their effects in the short term. On the other hand, project personnel were faced with a wide range of matters that they could influence and which meaningfully shaped the project. Below, we report our experience with some key tactical choices that other farm-to-school projects are likely to face.

Leadership. Farm-to-school initiatives involve a complex array of people. Projects must recognize the different interests of students, farmers, food service staff, parents, teachers, and custodial staff, and coordinate their participation. Leadership is welcome from all participants. However, it is our experience that effective guidance from principals and food service directors is critical. Schools and food services are hierarchical institutions, and principals and food service directors are both gatekeepers and decision makers who can facilitate or impede a farm-to-school project. It is difficult for enthusiastic teachers or food service staff to overcome resistance on the part of their leadership. Conversely, principals and food service directors who are active supporters of an initiative can create a climate in which participation in the project is encouraged and rewarded. Food service directors are especially pivotal. If the food service director does not want the project, it will fail. If he or she is indifferent to the project, it will most likely fail. If the food service director is enthusiastic about the project, there is a chance of progress. However, a food service director can also easily become disenchanted with a farm-to-school project as the difficulties imposed by the structural barriers discussed above are manifested. As WHL plans its expansion to new schools, we seek to work exclusively with districts in which the food service director understands the motivation of farm-to-school advocates and actively seeks to make serious changes in lunchroom operations.

Creating change. Like most of its counterparts, the MMSD food service had previous experience with a variety of external initiatives intended to alter the way Madison's school children are fed. These initiatives did not take into account the conditions facing the school system, had little follow up, and were perceived as disruptive rather than constructive. A key strategy for WHL was to foster the emergence of professional, congenial, trusting, and responsive relationships with food service staff and proceed slowly, transparently, and inclusively. We consciously avoided encouraging parental and popular criticism of the existing lunch program in favor of an approach that emphasized constructive innovation. WHL staff worked successfully to generate positive media coverage of the program and took care to publicly acknowledge the difficulties faced by the food service as it implemented project activities.

As a result of this approach, the MMSD was tolerant of, though not enthusiastic about, working with us. However, our tactic of avoiding aggressive advocacy may well have contributed to a climate in which the food service felt little pressure to alter its performance. In retrospect, it would have been useful to have had parents, parent-teacher organizations, and school board members advocating for a set of goals and expectations complementary to those of WHL. Such reinforcement might have induced the food service to pursue proposed changes more vigorously. In their work with food services, farm-to-school programs need to carefully consider how to maintain an effective balance between cooperation and advocacy, provide

incentives, and apply pressure.

Lunchroom or classroom? Although many farm-to-school programs incorporate a classroom component, they have emerged from the alternative agriculture movement as a strategy for developing new markets for local, sustainably grown food rather than as a mechanism for educational reform. WHL began with the sort of “farm-centric” orientation common to farm-to-school programs, it quickly became apparent that the educational component of this project was not merely a supplemental activity, but a fundamental necessity. Indeed, we now believe that successfully linking the land and the classroom is, in many cases, a prerequisite for successfully linking the land and the lunchroom.

While the health benefits of eating fruit and vegetables are widely documented, only 20 percent of children and adolescents eat the recommended five servings of those foods each day.⁹ Many children are unfamiliar with and think they will not like the fresh fruit and vegetables that farm-to-school programs offer. Happily, eating preferences and behaviors are modifiable, and this is particularly true of children. However, acceptance of a new food item is an adaptive process that is greatly facilitated by multiple exposures (10 or more are often necessary) that include tasting and presentation in a positive and engaging context.¹⁰ School food services will not be willing to serve fresh, local vegetables if students will not eat them. School food services may be willing serve fresh, local vegetables if students will eat them. Engaging students with educational activities such as tasting sessions, farmers and chefs in the classroom, and field trips will increase their desire to consume diverse fresh fruits and vegetables in the cafeteria.

Our experience with curricular development in WHL has been overwhelmingly positive. Students enjoy the hands-on, experiential activities. Teachers appreciate the assistance and material support. A strong educational component is extremely useful as an outreach tool for communicating with the wider community and involving parents. Development and dissemination of educational modules and materials will be the cornerstone of WHL’s programmatic emphasis in the future. Increasingly, farm-to-school programs and proponents are coming to understand that “school” includes both lunchroom and classroom. ¹¹ This is a trend that should be embraced and reinforced.

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Economic Analysis

A total of \$11,600 worth of local produce was purchased as part of the WHL program activities between October 2004 and April 2007. This number is broken down in more detail below.

Local food purchases by the MMSD Food Service totaled \$4,650. This is mostly for trial meals at the pilot schools but also includes \$700 worth of produce purchased for muffins and potato soup that could potentially become ongoing purchases. These are very minimal purchases. MMSD spent \$2,000 on local produce for the chicken-vegetable fajita meal that was served in all 30 elementary schools. If this one meal was served once in every three-week cycle during the 42 week school year that would translate into \$28,000 in fresh produce sales. MMSD spent \$300 on local produce for the baked potato/chili meal at the three pilot schools. If this meal were served in all 30 elementary schools once every three-week cycle, that would translate into \$42,000 in fresh produce sales. Even if just the shredded carrots and mashed sweet potatoes were purchased to serve muffins once every three weeks, at \$420 each time that translates into \$5,880 in sales. Those items can currently be provided by the co-op's kitchen and have the added benefit of being able to be frozen which would allow the local crop to be purchased in season and frozen for the remainder of the school year.

A total of \$7,600 in local food purchases were made for the classroom snack program.

\$6,440 of this was just during the 2006-07 school year where four classrooms participated in the snack program for most of the year. If the co-op's kitchen could double its output, or if another kitchen facility could prepare additional snacks, this dollar amount could increase accordingly. This appears to be the easiest way to increase fresh produce sales into the Madison Metropolitan School District for the near future.

The total value of local produce the Willy St. Co-op kitchen prepared for either MMSD or the WHL snack program is \$5,360. Again, the majority of this, \$4,430, was for the 2006-07 WHL snack program. Willy St. Co-op does add a mark-up to the price of the snacks, but not enough to fully cover their labor costs associated with prepping the snacks. They are likely covering their raw product and delivery costs, but not their labor costs. They are choosing this arrangement as a community service in order to keep the snacks more affordable for the schools. This may also hinder future potential for expansion if the snack program is seen as a break-even venture rather than a money-making one. Other businesses that may choose to take on this processing role will likely not be in a position to gift their labor and then the snack costs would need to be evaluated as to whether schools would raise enough funds to cover these real costs.

Separate from food purchases for the meal, snack, or educational programs, WHL's Wisconsin Homegrown Holiday Fundraiser (three years worth) generated a total of \$30,630 in sales to local businesses and farmers and a total of \$24,890 for participating schools. Profit on the fundraiser averages out to be 45%. This fundraiser is poised to continue to grow each year and could potentially grow

beyond the Madison school district to nearby districts. This year's fundraiser brought created \$18,500 worth of business for local vendors. \$11,000 of this went direct to farm businesses (vegetables, apples, cheese, sausage, honey, soap, etc..). A reasonable estimate would be to triple this figure in two years time, which could mean \$33,000 going direct to farms and another \$22,500 going to other local businesses (dried cherries, chocolate covered cherries).

Farmer Adoption

Through the classroom snack program WHL has been able to establish solid purchasing relationships with a handful of apple producers, one main carrot producer, one main kohlrabi producer, and a couple sweet potato producers in the area. These growers are happy to be selling to schools and are charging their regular retail store rate. The variety of additional producers that WHL has facilitated purchases from with the pilot meals and other special events would like to sell more but understand the constraints the schools are under. Farmers approach the school market in different ways, with some treating it like just another wholesale account and some have charged less in order to better meet the school's budget because they believe in getting the wheels in motion and because they see a promotional value and take that into account with the sale.

WHL continues to communicate with two organized farmer cooperatives in the area who are currently supplying the restaurant market but could grow into institutional sales as the structural obstacles we have encountered are overcome. A relatively new initiative organized at the county level is facilitating purchases between county and other institutions in the area and a produce auction on hour north of Madison. This produce auction draws in a variety of growers, including some who are willing to increase their production on certain crops as the market presents itself. This past season the auction successfully sold and delivered produce to four local institutions and is currently in conversation with the Universities in the area for planning for next season.

Participation Summary

Educational & Outreach Activities

PARTICIPATION SUMMARY:

Education/outreach description:

Kloppenburg, Jack, Doug Wubben, and Miriam Grunes, 2007. If You Serve it, Will They Come? Farm-to-school lessons from the Wisconsin Homegrown Lunch Project. Posted on WHL website. Out for review by Journal of Hunger and Environmental Nutrition, April.

Media. Wisconsin Homegrown Lunch has been featured in a number of local, statewide, and national publications and media outlets including newspaper articles, interviews on Public Radio, and national publications. Some examples:

- "Farm Fresh but at school: Kids get a taste of locally grown produce," by Karen Herzog, Milwaukee Journal Sentinel, October 5, 2007

- "A new taste adventure: Students learn nutritious can mean delicious," by Susan Troller, The Capital Times, Tuesday, Dec 4, 2006.

- "Readin', writin', fricasseein' – Top Madison chefs teach the children well," by Erika Janik, Isthmus, October 12, 2006.
 - 'WI Homegrown Lunch,' Rethinking Schools, Summer, 2006.
 - "Homegrown Lunch: Farm Food Fuels Snacks, Fundraisers, Learning," by Eve Pranis, kidsgardening.org, April 2006.
 - Nick Jr. Family Magazine, February/March 2005. Shorewood Elementary (one of the WHL Pilot schools) is named one of the top 10 cafeterias in the country.
- Presentations. WHL staff have also presented at numerous meetings and conferences to share what has been learned to date and to inspire others to pursue farm-to-school programs in their communities. Presentations have been made to:
- Farm to School Workshop to 60 people at Upper Midwest Organic Farming Conference in La Crosse, WI February 2005.
 - 30 Food Service directors, nutritionists, and others promoting nutrition in schools at the Action for Healthy Kids Summit in Middleton, WI Nov, 2005.
 - 25 Wisconsin schools participating in the USDA Fresh Fruit and Vegetable Program as part of a Wisline conference with the Department of Public Instruction in January and again in September of 2006. Provided Food Service Directors in these schools information about WHL and how to locate farms in their area to purchase from.
 - 40 educators from a variety of Wisconsin school districts at the Wisconsin Association for Environmental Education Annual Conference, Stevens Point, WI, January 28, 2006.
 - Farm to School workshop at the annual Iowa Network for Community Agriculture conference in Des Moines, IA on February 4, 2006.
 - 250 WI fruit and vegetable producers re the USDA Fresh Fruit and Vegetable Program at the WI Fresh Fruit and Vegetable Producer conference in Oconomowoc, WI Feb 8&9, 2006.
 - 30 Food Service Directors from around the state at the Wisconsin School Nutrition Association Conference in Green Bay, August 2, 2006.
 - 40 Food Service staff from eight school districts in Western Wisconsin at the WI School Nutrition Association's Chapter 11 annual meeting, September 21, 2006.
 - 70 Food Service Directors, educators, and nutrition advocates at the WI Action for Healthy Kids Summit in the WI Dells, November 30, 2006.
- Other publications and outreach:
- WHL website: www.reapfoodgroup.org/farmentoschool
 - WHL newsletters – available on the website.
 - WI DPI: Quarterly article in newsletter to School Nutrition Directors statewide and listed as a resource on the DPI website under Fresh Fruit and Vegetable Program: <http://dpi.state.wi.us/fns/index.html>
 - "Farm to School Program Provides Learning Experience," UW Madison Center for Integrated Agricultural Systems Research Brief #74, February 2007.
 - 'Wisconsin Homegrown Lunch: Linking the Land with the Lunchroom,' 5 minute DVD produced by the MMSD Media Center.

Project Outcomes

Recommendations:

Areas needing additional study

Phase three of WHL will continue to facilitate the classroom snack program, run the annual school fundraiser, and coordinate food education programming in schools in the Madison Metropolitan School District.

WHL III will also engage a number of the school districts surrounding Madison that have expressed interest, assess their capacity to institute local purchasing, and pilot farm-to-school projects in those districts most ready. We have learned that districts that continue to retain from-scratch cooking or at least have the capacity to prep fresh produce will have the easiest time moving into local purchasing. In these smaller districts it remains to be seen whether they actually are move flexible in their meal offerings and whether they will be willing to move beyond serving the local apple and into creating menu items that incorporate local, seasonal foods.

In anticipation of an institutional market that will continue to grow as obstacles of processing and distribution are overcome, inventorying farmers in our region that either have the capacity to supply what's needed or the desire to scale up will need to continue.

In the processing realm there needs to be continued research into the feasibility of having fresh vegetable preparation as part of a business and what kind of business mix a small-medium sized kitchen facility would need to have to be financially viable. WHL along with the Willy St. Co-op kitchen has acquired some good information as to what produce items may work best for processing but more research needs to be done here as well.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or SARE.



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