Regional Centre of Expertise on Education for Sustainable Development - Greater Western Sydney.

**Hawkesbury Harvest Inc.**

Hawkesbury Harvest Inc. is a ‘grass roots’ community organisation formed in Sydney in the year 2000 when a group of concerned farmers, community health professionals, state and local government representatives from the Hawkesbury region met to tackle some problems with the local food system and farm viability in the region, and advocate for retaining food production in the Sydney basin. Graduates and staff from UWS were instrumental in its formation and have been active in UWS’s engagement with the Greater Western Sydney community through Harvest. Hawkesbury Harvest has influenced planning for agriculture in the Sydney basin and brought to the attention of policy-makers the importance of its multi-functional role, a fitting tribute to UWS Hawkesbury’s proud history in education for agriculture, sustainability, food and environmental health.

Hawkesbury Harvest is the subject a PhD study, of scientific papers and curriculum content in UWS’s business, tourism, social science, environment and agriculture units taught since 2001. It has hosted students in work experience, in unit assignment activity, final year projects for students in tourism, business, agriculture and marketing, and several Careers and Cooperative Education internships.

David Mason, the foundation chair of Hawkesbury Harvest and a UWS post-graduate, was awarded an inaugural *UWS Community Award* in 2012 and is an exemplar of how UWS’s applied pedagogies can be put to work on real community issues. Hawkesbury Harvest has established Farm Gate Trail tourism, farmers markets, a Slow Food convivium, Open Farm Days and Schools Harvest, a collaboration between Harvest, the School of Natural Sciences and the Hawkesbury Foundation engaging primary and secondary schools in paddock-to-plate learning. Hawkesbury Harvest was recognized with a *UWS Partnership Award* in 2006.

Hawkesbury Harvest Inc. directly supports the Slow Food® movement, Hawkesbury Environmental Network (HEN), Hawkesbury EarthCare Centre, and Hawkesbury Skills Secret Garden and Nursery.

**GWS – Fertile Ground for Community-based Action on Food System Sustainability**

In the 1980s and ‘90s small-holding farmers in the Hawkesbury region were facing financial pressures created by changes in the food system and dominance of it by the large retail chains. Farms were no longer viable in the face of global competition and the prices they could get at market. Suppliers of food were selling up their farms for residential development and younger generations were getting out of farming. At the other end of the food chain, consumers were suffering different effects because of the way the food system had changed. Easy access to fresh, affordable fruit and vegetables had been identified as a factor in an increase in diet-related diseases such as diabetes, cardiac disease and obesity. People thought that if they could create ways of providing direct access to the growers, people could more affordably source fresh food, and address the health issues.
Hawkesbury Harvest was formed during a meeting at a local farm initiated by UWS alumni, staff and a broad cross-section of food and farming constituencies. The organisation decided to create a Farm Gate Trail and Growers Directory as the first initiatives for opening up farms to direct sales of produce to consumers. Seven editions of the Farm Gate Trail map later and with the Growers Directory on the World Wide Web, Hawkesbury Harvest has expanded the activities it supports to include farmers markets, open farm days, special events and provedoring services and has extended its activities across the entire western rural crescent of the Sydney basin and the Greater Sydney region. These are small but important alternative marketing initiatives that complement the mainstream, central marketing system for food in Sydney.

These initiatives have been created to assist small-holding farmers in finding ways of marketing their produce direct to consumers and regaining farm viability. They create alternative market opportunities for consumers in sourcing their fresh food directly from growers. This direct connection with farmers encourages them to grow better tasting, higher-return varieties and to diversify their production base. Farmers adopt new technologies in micro-climate management of their farms and modify their farm practices to meet the needs of consumers for good, clean, fair food. In doing this they respond to the growing interest in re-gaining connections with our food supply, our farmers and the land that feeds us. These connections help build community pride, a strong sense of place and more
resilient economic systems around food and food culture. They address global scale problems at the local scale.

By 2010 the relevance and importance of the farming and food issues Harvest sought to address back in 2000 had become more urgent and strategic. The implications of climate change, global warming, and a burgeoning global food system have increased concerns about maintaining or re-building localised food systems that are capable of feeding large regional populations in urbanised environments. Sydney is Australia’s largest city, the rich alluvial soils of the Hawkesbury Nepean River system have been feeding the city for two centuries, but a relentless wave of urbanisation threatens to wipe out any role for agriculture in the City. What started out as something a few farmers and community health people were worried about in the Hawkesbury is now a top agenda item in planning forums for the City, and across the world.

All of Hawkesbury Harvest’s initiatives are ‘slow food’ in their philosophy and function. The Farm Gate Trail (FGT) provides a permanent food trail experience that people can explore all year round, either self-guided or through organized tours. The Farmers and Fine Food Markets provide weekly opportunities for growers and eaters to engage in Good, Clean and Fair exchange, and Hawkesbury Harvest’s other events provide many opportunities during the year for people to participate in seasonally appropriate food and farming experiences.

Hawkesbury Harvest also promotes Slow Food and the other NSW Convivia in the Farm Gate Trail map, on the Hawkesbury Harvest web site and at events and forums where Hawkesbury Harvest presents on food, farming, health and community development issues. We have directly assisted Slow Food Blue Mountains and the Citislow in promotion and engagement with the wider Sydney community.
encourage our youth to learn about agriculture, and to provide ways of delivering taste education. We are working on future consumers/eaters¹.

We have, in partnership with the University of Western Sydney, established Schools Harvest, a paddock-to-plate program involving high school students who plan, grow, prepare and serve a fine dining food experience in partnership with Crowne Plaza Norwest, their kitchen brigade and hospitality staff. This program focuses on food production, sustainable food systems and careers in agriculture, food processing, hospitality and the restaurant trade.

We have assisted our first primary school in establishing an edible schoolyard garden which has been built and in connecting the school with local farmers. Our own Chairman has helped establish a mini-orchard as part of this garden and will continue to work with the school to tend and harvest from this garden. This program focuses on introducing children to gardening, to fresh fruits and vegetables, to important health and nutrition messages, to taste education, and to the sciences of food production.

¹ Not to be confused with Dr Tim Flannery’s Future Eaters (1994).
being actioned in the Sydney basin. This is driven by a particular vision of the future for food culture in Sydney, the vibrancy and resilience of the systems that create and support that potential, and the extent to which this honours a proud agricultural history in the Sydney Basin.

At the end of 2010 the University of Western Sydney, through the Office of Community Engagement, funded two Careers and Cooperative Education Interns, final year Bachelor of Science students who commenced a scoping and feasibility study on Schools Harvest. The study sought to document the existing experience of Schools Harvest from all stakeholder perspectives and to identify stakeholder needs in relation to Schools Harvest-like programs. Far from intended as a comprehensive exercise, it simply sought to gain a sound understanding of the existing terrain for school garden models and the extent of their use in addressing issues of health, food systems, and sustainability. The following material comes from this study and was presented at the 2nd ILSI – CHIP Symposium in December 2011, The University of Western Sydney Clinical School, Blacktown Hospital.

Health, Education, Sustainability and Community: School Garden Models as Engagement Vehicles

This paper explores what Hawkesbury Harvest and the Schools Harvest initiative have found about school garden models in general, and particularly those attempting an integrated and whole-of-system approach to using schools gardens as a vehicle to address health, food, farming and sustainability agendas.

This is a photo of children from Richmond North Public School tending their Edible Schoolyard Garden. Reflecting on it we can start to see what this picture means for sustainability and our food futures. It poses two questions.

Why would a Western Sydney farming advocacy not-for-profit be interested in this picture,
and How do school garden initiatives contribute to peri-urban and rural community health and wellbeing?

From Harvest’s perspective we’re looking at a desired future, one that encapsulates a fundamental reconnection with our food systems, what they deliver, and what they mean.

In order to explain this we need to explore what we mean by Paddock-to-Plate Partnering, and again the photos (below) tell the story better than any other way. It’s about activating the links with our food system and food chain, in schools, with education, health, food system, farming and heritage, consumer and career relevant curriculum and activities. It’s about planning, planting, growing, harvesting, preparing and presenting food, and in the process, activating curriculum that has a practical vehicle through which students engage, in ways that are applied and living. It involves not just teachers and students, but industry and public sector professionals, university and TAFE teachers, researchers, volunteers, and parents.
Schools Harvest is the result of collaboration between Hawkesbury Harvest, the University of Western Sydney (UWS) Hawkesbury Foundation, and the UWS School of Natural Sciences. Schools Harvest is designed to raise awareness and interest in food and farming, in agriculture as an industry, and in careers and education in agriculture and its associated fields. Ultimately it aims to foster the development of a healthier public who understand their role in our food system and appreciate the asset and opportunities that this system provides for Australia.

Schools Harvest evolved from a program called the UWS UniSteers Schools Challenge which has its origins in the mid 1990s. UniSteers involved agricultural high schools in the Western Sydney region, with significant commitment from high school agriculture teachers, taking a calf provided by UWS, rearing it for 100 days, showing the beast at the Royal Agricultural Show in Sydney (The Royal Easter Show), and then selling the animals back into the meat market. UniSteers focuses on production systems, stewardship and husbandry of the animals, careers and education in agriculture. UniSteers is coordinated by adjunct UWS staff from the agriculture program in close liaison with high school ‘ag’ teachers, both of whom volunteer their time and effort.

In 2008 UniSteers was extended into a paddock-to-plate program encompassing meat and vegetable production, the partnering with a commercial hospitality provider, in this case, Crowne Plaza Norwest, and Hawkesbury Harvest. Schools Harvest involves agriculture, food technology, hospitality and other students. It also engages other teaching staff from food technology, the sciences and the arts.

In 2010 an opportunity arose when Richmond North Public School (Primary) approached Hawkesbury Harvest to assist with the establishment of a school garden. Hawkesbury Harvest was able to secure a community grant from Bendigo Bank which, along with other funds the school had been given, enabled a three bed garden plot to be established within the school grounds.

The primary school SH Edible Schoolyard concentrates on food, healthy eating, agri-culture (both the industry of food production and the localised culture of farming), and sustainability, especially environmental sustainability. The high school SH Paddock-to-Plate focuses on food production, the food system, careers and post-school training, and sustainability, economic, social and environmental.

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2 UWSHF is a philanthropic charitable foundation formed to support and foster academic and research programs on the Hawkesbury Campus of UWS. The Foundation also provides links and support from UWS Hawkesbury’s alumni in its earlier incarnation as Hawkesbury Agricultural College (1891-1989).
The Schools Harvest model makes it possible to locally contextualize curriculum content. The potentials to go beyond the obvious curricula in maths, the sciences and personal development to develop content for English, the arts and other study areas are great. An existing model with which Harvest is already working is the Archibull Prize and Picasso Cows initiative currently being run as a Art 4 Agriculture initiative. Similarly, potential exists to develop a schools district exhibit activity for inclusion in the Royal Easter Show and other regional agricultural shows. Schools Harvest makes education about and intervention in looming problems of obesity, unhealthy eating, physical inactivity a practical and hands on option for schools. Food production and consumption become an experiential vehicle.

Schools Harvest has a broader potential than other programs because of its association with Hawkesbury Harvest and the burgeoning alternative food channel sector of our economy. Access to farms, farmers markets, and Slow Food events are some examples. Many of these can be income-producing for schools and the profits from the existing Schools Harvest activity are returned to the participating schools to help fund further rounds of their involvement. In addition, there are a range of research agendas around the psycho-social determinants of healthy eating, health and nutrition generally, and the effectiveness of interventions in producing long-term behaviour change that are created by implementing a
Schools Harvest or similar integrated program. The external or third party linkages create opportunities for corporate and community engagement through corporate social responsibility, philanthropy, social enterprise and student service learning.

A full suite of potentialities and linkages has yet to be fully explored. For instance, it is possible that Schools Harvest might incorporate competitive elements and celebrity chefs at some time in the future – a future Schools Harvest Exhibit at the Royal Easter Show or Schools Harvest Masterchef?

Whatever the potentialities, Schools Harvest will be a powerful vehicle through which to engage future consumers, future students, future employees, and future entrepreneurs. It creates an active experiential learning program through which food production, consumption and health issues can be addressed.

The current Schools Harvest model is highly dependent on teaching staff who ‘activate’ aspects of it which they can manage and/or for which they have the interest in or passion about. Harvest’s experience is that there is a great deal of interest and passion for it and its potential contribution to a wide range of issues not just for teachers and schools, but for external partners in health, industry and community as well, however, this is not matched by a system which resources programs like Schools Harvest despite there being strong empirical evidence that they enhance educational, health, and social outcomes for students and staff of schools. It was this aspect of what appears to be a good model for school garden programs that inspired a desire to look more closely at school garden models in order to better understand what it would take to establish a Schools Harvest program across the entire school system, and identify the key challenges for designing and implementing such an integrated, whole-of-system program. This is where UWS’ Community Engagement and its Careers and Cooperative Education Internships played an important role.

At the end of 2010 the University of Western Sydney, through the Office of Community Engagement, funded two Careers and Cooperative Education Interns who commenced a scoping and feasibility study on Schools Harvest. The study sought to document the existing experience of Schools Harvest from all stakeholder perspectives and to identify stakeholder

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3 Student service learning is a concept that describes university or TAFE student ‘projects’ where students work directly with the Schools Harvest program to conduct research, develop education materials and interventions, conduct action research and situation improvement participative projects with students and schools staff, or simply participate in the delivery of activities and curriculum content for industrial experience purposes.

4 Careers and Cooperative Education Interns are final year students studying any degree who apply for a research assistant or other role in community-based or industry-commissioned projects. In the Schools Harvest case the interns were studying B. Science degrees specializing in health and nutrition and they had personal interest in health promotion and interventions. The students worked on the project in a part-time capacity for about 10 weeks.

5 Stakeholders included Hawkesbury Harvest, UWS School and adjunct staff, agriculture and food technology high school teachers, primary school teachers, farmers who had been involved in Schools Harvest, independent education consultants,
needs in relation to Schools Harvest-like programs. Far from intended as a comprehensive exercise, it simply sought to gain a sound understanding of the existing terrain for school garden models and the extent of their use in addressing issues of health, food systems, and sustainability. The following material comes from this study and its implications.

A basic literature review revealed what is shown at right by looking at a range of international, national and state sponsored programs from around the world. The focus was on interventions within schools rather than education philosophies that embed food gardens into curriculum content such as that to be found in Steiner education. It is worth noting that this deserves further research and, as with the interventions explored in the study, there is little evaluative and critical research to be found in the published literature.

The following shows a basic and selective ‘mapping’ of school garden-related initiatives on a spectrum from those with a narrow focus on the left, most often on obesity generally and targeting nutrition and physical exercise in particular, to those with broader objectives on the right that integrate, with or without a school garden, a range of themes in food, farming and sustainability. The positioning of the brands on the ‘map’ is not meant to be definitive, but intended to merely give a sense of the positioning in terms of focus and activity, and the basic typologies for school-based interventions addressing the themes of interest to Schools Harvest. The symbolism intended by the gradated transparency of the background photo is an increasing whole-ism in approach with programs at the right hand end of the spectrum revealing, especially if they explicitly include a school garden, a clearer vision of relationships between education, food, health, farming and sustainability.

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staffs from NSW Health, Centre for Health Innovation and Partnerships, Schools Industry Partnership, Dept. of Education and Training. Participation in stakeholder meetings also took place.
At the more-focussed end of the spectrum (left) we find public sector-driven programs that address specific policy objectives in health promotion and disease prevention. At the more integrated end of the spectrum we find programs that are public-private partnerships with broad agendas encompassing economic, social and environmental agendas, and of course we would expect to see this pattern of engagement through such programs because they are the kind of vehicle through which private commercial and NGO parties can be active. They often integrate aspects of consumer education and behaviour change as part of their goals.

As we move from left to right across the map we see an increasing level of complexity in program objectives and the demands for integration of curriculum content, and with this the need for dedicated coordination, in many cases separately funded.

Of greatest importance for this exploration are the findings regarding what feasibility of programs hinges upon. At the centre of the figure is what we have described as a Hierarchy of Critical Dependencies which includes at its top the role of teaching staff. Underpinning this is the extent to which school garden models activate curriculum content, either explicitly designed to relate to the garden, or implicitly relevant and given expression through the
under this are the industry sponsor and/or linkages which can be expressed through embedded curriculum or as adjunct content and resources. At the base of the hierarchy is community support which in some programs is expressed literally through government or NGO or individual citizen involvement, or implied in community sentiment about the issues that school garden programs seek to address. Of greatest significance is the fact that programs do exist and continue to contribute their benefits solely on the strength of teaching staff alone, with these examples being carried almost exclusively by passionate and dedicated staff who volunteer their time, energy and intellect to delivering ‘their’ school garden program. Examples of these are the many ad hoc and independently managed school garden plots that exist in our communities.

The question of sustainable school garden programs then arises – what does/will it take to establish a fully integrated, broad-spectrum, school garden-based program that addresses the big issues in health, food systems, agriculture and sustainability?

This question emanates from the hierarchy of critical dependencies and the structural relationships that this implies. As has already been noted, there are school garden programs that depend solely on the goodwill and passion of individual teachers, but this is far from an ideal state of affairs. The structural support implied in the hierarchy must be seen as the foundation of a sustainable and ongoing model that provides teachers with the theoretical, practical and financial support they need if we are to systemically tackle the big issues and their looming health and economic impacts. So the structural stuff, the trained and knowledgeable teachers, the embedded curriculum content, the industry sponsorship and linkages, and the broad-based community support can only be realised if we formalize the relationships between the people who can actually deliver the structural stuff. This then implies a trinity of relationships between schools and their staff, Industry and its staff, and community, all of whom have the same strategic purpose in mind and are committed to the goals of school garden programs within our schools system. For many respondents, there was a strong
sense that market forces, which they pointed to as contributing to the problem (whether it be in health, agriculture or education), are not delivering the essential elements needed to bind schools, industry and community together around a common set of goals. There was an equally strong sense that this bond was all about the people, the market players/actors, whose choices would create the required bond, and that the relationships would articulate the shared purpose and goals for school garden models. So Harvest’s perspective is that these relationships are pivotal, and our research with stakeholders in the Schools Harvest project highlights this as a strategic and functional priority for any school garden model design.

When we talked to stakeholders about what the relationship with others needed to deliver, what the stakeholders interest and obligation ought to be in the trinity of relations, they described a range of elements that could be categorized as barriers, advantages and key success factors. As shown in the Trinity of Critical Relationships at right, Coordination For Integration of stakeholder interests would deliver elements of the relationships between Schools and their Staff, industry and community. It’s unsurprising that the relationship between Schools and their Staff, and Industry and also Community should identify Funding, Expertise, Resources, Networking, Strategic Purpose and Social Enterprise as deliverables, even if these are interpreted slightly differently in each of the relationship contexts. Each of these could be a barrier to implementation, an advantage of involvement, and a key success factor depending on how it manifests in the relationship with Schools and their Staff.
In most cases the Schools & Staff ↔ Industry and Schools & Staff ↔ Community elements were the primary consideration, but strong opinion was also expressed about the backgrounded Industry ↔ Community relationship. It was here that stakeholders described the realizable elements as Philanthropy, Corporate Social Responsibility, Promotion, and Research Partnering, and again each of these could be a barrier to implementation, an advantage of involvement, and a key success factor depending on how it manifests in the relationship. The detailed expression of these deserves further exploration, but it was clear that stakeholders in a Schools Harvest type of program understood the role they needed to play in a sustainable school garden model.

This brings us back to the original questions posed. Why would a Western Sydney farming advocacy not-for-profit be interested in this picture, and How do school garden initiatives contribute to peri-urban and rural community health and wellbeing?

For Hawkesbury Harvest the answers lie in what this picture shows us about a desired future, one that encapsulates a fundamental reconnection with our food systems, what they deliver, and what they mean. The essence of this is a healthier public who understand their role in the food system and, invoking Wendell Berry, that if they eat, they are in agriculture. To achieve this they, the children tending this garden in the photo, need to value the asset that local food production is for economy, society and the environment, that this valuing of food is then expressed in their consumptive attitudes which demonstrate proactive choice for a healthier future for themselves and the rural communities who depend on their consumer behaviour. They will make a proactive choice to re-connect with our rural heritages and living food cultures, especially the local farming and indigenous heritages of food production. Some of them will become the well-informed, passionate and dedicated teachers whose jobs will simply and easily deliver embedded content in the curriculum about healthy eating, healthy community, and healthy industry. From Hawkesbury Harvest’s perspective, the
schools system is the only system with a capability to effect the scale and scope of change we need if we are to address health, food, farming and sustainability challenges. We think school garden models like Schools Harvest that activate local relationships between schools, industry and their host communities are the only mechanism that will deliver substantive change in our food system and its effects.

References

Berry, Wendell (1990). The pleasures of eating’ in What are people for?, North Point Press, San Francisco

Appleton, Amy, James, Annette and Knowd, Ian (2011) Schools Harvest Scoping and Design Study (Part of the Schools Harvest Project), University of Western Sydney, Richmond.

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