

SPIN Farming: Improving revenues on sub-acre plots



SPINfarming

Backyard plots in Saskatoon, Saskatchewan



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Wally with a roto-tiller, the only mechanized equipment SPIN requires

Cities are impulsive, boisterous, spontaneous, and competitive, while agriculture is plodding, tranquil, deliberate and deferential. SPIN-Farming is helping to create a world where for one to be right, the other does not have to be wrong.

Re-engineering food production systems is central to addressing all of the modern world's major challenges – national security, finite resources, diet-related illnesses. At the same time, sustainability has gone beyond a buzz word and is now spurring specific plans for significant change in how cities function. Producing food for residents within city borders is a cornerstone of these plans. Some cities are considering or have actually implemented initiatives that require meeting a quota of their food needs through local food producers. This has very positive implications for urban agriculture. The emerging consensus on climate change is also providing impetus to rebuild local and regional farming systems and to support smaller, sustainable farms, which are less energy intensive. Urban agriculture is not a new concept, but cities are beginning to realise that to establish sustainable, secure and healthy food systems, they need to court professional farmers, either home-grown or from outside their borders, and accord them the respect and support the cities provide to other entrepreneurs.

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At the forefront of this new version of urban agriculture is SPIN-Farming. SPIN is two things. It is a mindset, enabling governments and NGOs to re-think who can farm and where they can farm. It is also a commercial farming system that is equipping a new generation of entrepreneurial farmers. SPIN stands for Small Plot INTensive. Much has been written about small-scale farming over the past 30 years; however, the term “small scale” is not definitive. It can mean anything from a couple of acres to a couple of hundred acres. SPIN is designed specifically for sub-acre parcels, i.e. less than an acre. What distinguishes SPIN from other farming methods is that it is non-technical and unencumbered by any specific ideology. It is a “franchise-ready system” that also accommodates creativity and the place-based nature of farming. Based on growing high-value, multiple crops intensely on sub-acre parcels, the organic-based SPIN system outlines how to produce USD 50,000+ in gross sales from a half-acre.

SPIN was developed over the last twelve years by Wally Satzewich in Saskatoon, Saskatchewan, Canada. Mr. Satzewich's farming career began traditionally. He and his wife Gail Vandersteen started farming

20 years ago on an acre-sized plot outside of Saskatoon. Thinking that expanding acreage was critical to their success, they bought some farmland adjacent to the South Saskatchewan River 40 miles north of Saskatoon, where they eventually grew vegetables on about 20 acres of irrigated land. After six years farming their rural site, the couple noticed that they were growing high-value crops, like spinach, salad mix, carrots and radishes, in their backyard plot in town, and they were growing low-value crops, like potatoes, peas and beans, at their acreage in the country. This led Satzewich to realise the advantages of sub-acre farming in town.

In town, his irrigation system was the water faucet – he did not have to rely on fluctuating river levels. The work crew for his sub-acre plots consisted of himself and his wife – he did not have to depend on outside labour. When he looked at the financial picture, it showed that although the overhead cost of a sub-acre operation is a fraction of that of a large-scale conventional farm, the bottom lines were similar. That is when he realised that a sub-acre farmer can earn significant income with a lot less stress and a lot less overhead and with much more certainty of success from year to year. So Satzewich sold his farm in the country and his experiment in sub-acre city-based farming became the basis for the SPIN-Farming system.

The most well-documented SPIN application is in Philadelphia, Pennsylvania, the

sixth largest city in the U.S. Five years ago a commercial urban farming project was undertaken by the Philadelphia Water Department in partnership with the Institute for Innovations in Local Farming. The Department was seeking ways to save on maintenance costs on its significant land holdings as well as to encourage new businesses that would contribute positively to the environment. Wally Satzewich served as the agricultural advisor to the project, and a half-acre demonstration farm called Somerton Tanks Farm was created on Department land following the SPIN-Farming system. In 2006, its fourth year in operation, the farm was operated by a husband and wife team and one part-time labourer and produced USD 68,000 in gross sales from a half-acre. A study of this urban farm pilot recently completed for the State of Pennsylvania projects that this sub-acre farming model can produce USD 120,000 annually, with operating expenses of USD 60,000, and net income to the farmer couple of USD 60,000, which is above the city's median household income. This study makes the case for developing a network of small farms based on the Somerton Tanks Farm model and outlines the major economic and fiscal benefits an agricultural industry will have for both the city and state. A regional planning organisation recently stated that "Farms in and around Philadelphia stand to become major forces in Philadelphia's economy and welfare."

Philadelphia is not alone in creating a city-based commercial farming industry. The Queen City Farm project in Buffalo, New York, is following Philadelphia's example by applying the SPIN-Farming model in a programme that integrates the community development aspects of urban agriculture with commercial production. And several pilot projects throughout Canada are using SPIN-Farming to foster entrepreneurial farming activity. An immigrant senior centre in Edmonton, Alberta, is using SPIN to create an urban farming training programme for immigrant seniors. An edible school grounds project in Vancouver is planning to implement SPIN-style high school gardens in response to a City Councilor's challenge to develop 2,010 new food producing gardens by 2010 as an Olympic Legacy. Different cities and towns have different priorities and resources on which to build their local farming industries, and SPIN-Farming is providing both a mindset

to envision what is possible as well as a system for implementation.

At its root, SPIN integrates agriculture into the built environment in an economically viable manner. SPIN Farm models can be incorporated into any existing neighbourhood, any new school, housing development, or shopping mall. The applications are far-reaching, and planners and developers are just beginning to understand how SPIN fits into the sustainable development tool kit. An architect is re-developing a mobile home trailer park in rural Napa County, California, and is incorporating SPIN-style farm plots into the individual residences. A woman is re-developing 8 acres in Milton, Florida, after extensive hurricane damage and is incorporating sub-acre SPIN-style farms as a way for residents to generate income to offset the cost of their homes.

At the same time that it is helping governments, developers and NGOs envision farming as an integral part of urban and periurban economies and communities, SPIN's non-technical, easy-to-learn, inexpensive-to-implement farming system is also enabling aspiring entrepreneurial farmers around the world. What these backyard and front lawn farmers are responding to is the availability of a farming method that removes the two big barriers to entry - land and startup capital. SPIN can be practiced on as little as 1,000 square feet, or it can be located on a half-acre of city-owned land, or it can be multi-sited on several residential backyards. It requires minimal infrastructure and is therefore low capital intensive. Irrigation relies on the local municipal water supply, and the only mechanised equipment is a rotor-tiller. Because of its sub-acre scale, labour requirements for a SPIN farm are minimal and can be readily obtained within the network of family, friends or the local community. By re-casting farming as a small business in a city or town, SPIN is making the farming profession accessible and relevant again to a new generation.

It is important to note that SPIN-Farming is not one size fits all. Some farmers are practicing it in their backyards in the city. Others are doing it in front lawns in the suburbs or as part of larger acreages in the country. Some are doing it part-time, others full-time. Some are young and just starting out, while others are older and on their third or fourth career. Some have

SPIN-Farming Key Concepts



- **Standard size bed** – one that measures 68 cm by 8.5 meters
- **High-value crop** – one that produces USD 100 per harvest per bed
- **Relay cropping** – the sequential growing of crops
- **Intensive relay cropping** – growing 3 high-value crops per bed per season
- **Bi-relay** – growing 2 lesser-value crops per bed per season
- **Single relay** – growing 1 low-value crop per bed per season
- **1-2-3 rule** – divides the farm into 3 different areas of crop intensity
- **Land allocation** – the smaller the farm, the more of its area needs to be devoted to intensive relay production
- **Revenue targeting formula** - 1 acre accommodates 400 standard size beds, including paths, walkways and infrastructure; if all are intensively relay cropped they will produce USD 300 per bed per season; 400 beds x USD 300 = USD 120,000 per acre per season

more money than they know what to do with, and others have less than they need. Some are convinced the world is doomed while others are trying to save it. For more information and examples, please visit www.spinfarming.com

SPIN is helping to move urban agriculture beyond the realm of environmentalists and social activists, and is demonstrating that it makes good business sense. It is undoing urban agriculture's image of a downwardly mobile profession of last resort. It is re-defining farming for the 21st century – sub-acre, low capital intensive, environment-friendly, close to markets, entrepreneurially driven. And it is helping to advance a farming revival that cuts across geography, generations, incomes and ideologies to provide common ground, quite literally, beneath everyone's feet.

Open house tour in 2004, showing the distance of the farm from neighbouring houses



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