

Growing Vegetables in Vancouver: An Urban Farming Census '10-'11

a place of mind



FACULTY OF LAND AND FOOD SYSTEMS

Grounded in Science | Global in Scope

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Urban Food For Urban Folks

The increasing price of food, combined with high and increasing rates of obesity and food insecurity are prompting the growth of various forms of urban agriculture. Urban farmers, unlike other urban agricultural projects, grow and raise produce and ornamentals to sell in their community.

As we look to develop localized and sustainable food production systems, it is imperative to understand what, if any, models are economically, socially, and environmentally sustainable.

This study takes a first look at the business models and economics of Vancouver's urban farms through a newly developed tool, the 'Urban Farming Census'. This work, developed in partnership with farmers, reveals the revenues, costs, financing, and sales models of urban farmers as well as their community connections and benefits. The Urban Farming Census was applied during the 2010 and 2011 growing season capturing the first attempts by for profit, non-profit, farming organizations growing sustainable businesses.

This worksheet is a snapshot of eight urban farms during the 2010 season, and ten urban farms during the 2011 season. For more information or to learn more about urban farming, please email me at mhs12@interchange.ubc.ca.

In 2010, eight urban farms sold **\$128k** worth of produce on 2.31 acres, supporting **17 paid employees**.

In 2011, ten urban farms sold **\$170K** worth of produce on 4.19 acres, supporting **30 paid employees**.

Urban Farming is Growing

	Land Tenure	Zoning and Land Type	Land (sq ft)	Revenue Streams	Management, Staff, Volunteers	Weekly Hours	
						Employee / Owners	Volunteers
Farm 1 <i>Est. 2002</i>	Institutional Lease	RA	34138	Markets, Grants		125	60
Farm 2 <i>Est. 2011</i>	Residential	RS: Unused Lawn	33054	Markets		70	20
Farm 3 <i>Est. 2011</i>	Residential	RS: Unused Lawn; RA	23151	CSA, Markets		60	0
Farm 4 <i>Est. 2011</i>	Institutional Lease	P: Parkland	22140	Markets, Grants		40	30
Farm 5 <i>Est. 2009</i>	Institutional Lease	RT: Unused Lawn	21780	CSA		312	50
Farm 6 <i>Est. 2010</i>	Residential	RS: Unused Lawn	14520	CSA		160	0
Farm 7 <i>Est. 2010</i>	Privately Donated	M1: Parking Lot	14005	Markets, Restaurants,		142	0
Farm 8 <i>Est. 2006</i>	Residential, Rooftops	RS: Unused Lawn	9100	CSA, Markets, Construction		48	0
Farm 9 <i>Est. 2011</i>	Residential	RS: Unused Lawn	5470	CSA, Markets		160	6
Farm 10 <i>Est. 2009</i>	Residential	RS: Unused Lawn	3330	CSA, Markets		80	115
Farm 11 <i>Est. 2009</i>	Privately Donated	CD1: Unused Lawn	2151	Markets, Retail, Restaurants		100	0
Farm 12 <i>Est. 2010</i>	Owned	RA	1800	Camps, CSA, Markets		80	95
Total Farm Acres 2010: 2.39 Total Farm Acres 2011: 4.19		Average Farm Size	15386		2011 Total Urban Farmers: 22 Owner/Managers; 26 Farm Hand/Employees; 30 total paid staff	63 avg. weekly hrs.	376 weekly hrs.

RA: Agricultural; RT: Two Family Dwelling Districts; RS: One Family Dwelling District; M1: Industrial District; CD1: Comprehensive Development District

CSA: Community Sponsored/Shared Agriculture



= One Non-Profit Board



= One Owner/Manager



= One Farm Hand / Employee



= One Consistent Volunteer

• **Retail:** Produce sold to retail locations. • **Camps:** Farms host children's programming during the summer.

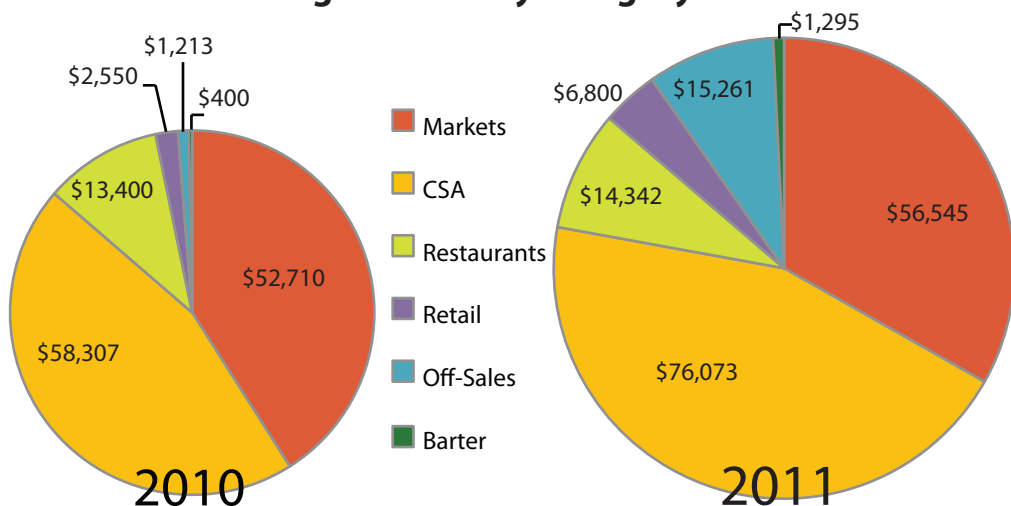
• **Restaurants:** Produce sold to local restaurants. • **Construction:** Gardens are built for clients.

• **Markets:** Produce sold at Farmers' or Pocket Markets. • **CSA:** Customers pay up front fee for weekly boxes of produce through the season.

Economic Viability of Vancouver's Urban Farms

Vancouver's urban farms are in the first five years of operation. Owners are beginning to understand their input costs, potential markets, and growth potential. Below are the data on Vancouver Urban Farm revenue and costs. "Takeaway" boxes point to specific data, highlighting practices and business operations.

Urban Farming Revenue by Category: 2010 & 2011



Revenue Takeaway

- Farmers markets offer higher prices and greater numbers of customers, but most farmers sell to CSAs as a stable source of income with minimal labour requirements.
- Grants, not pictured here, are a significant source of income for non-profit farms to pay for up-front capital costs and labour.
- A majority of food revenue is generated by non-profit urban farms (54%).
- Farm 7, generates 35% of all urban farm food revenue on a quarter acre of land.

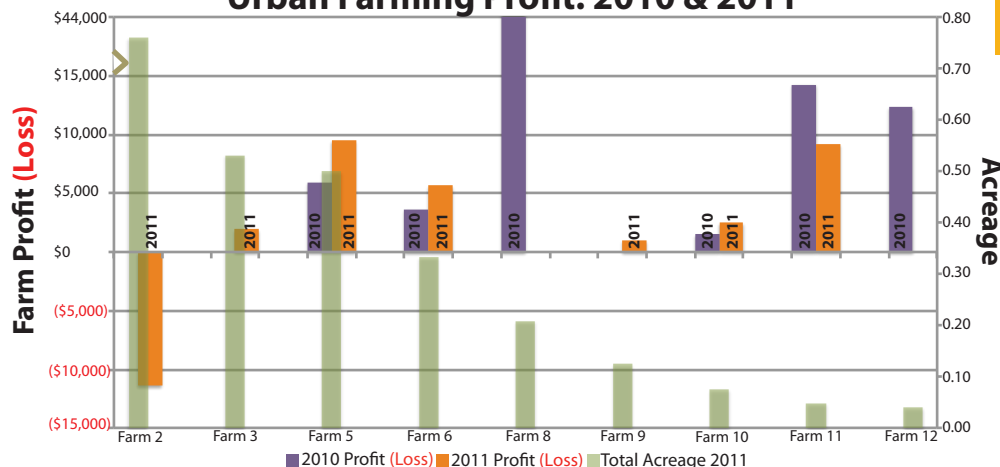
Costs Takeaway

- Owners of for-profit urban farms subsidize their businesses by donating their labour, the costs of transportation, and utilizing interns or other volunteers. This subsidy is critical for for-profit farms.
- Labour is the most significant cost. Urban farms employed 17 people in 2010, and 30 people in 2011.
- Average wage for hourly workers fluctuated between \$10 - \$20 an hour.
- Growing expenses are generally quite low, as many urban farms use scrounged materials, spending time instead of money to obtain growing materials.

Urban Farming Costs: 2011

	Growing Expenses	Labour	Sales & Admin	Total
Farm 1	\$ 2,600	\$ 62,514	\$ 19,823	\$ 84,937
Farm 2	\$ 18,790	\$ 2,000	\$ 7,300	\$ 28,090
Farm 3	\$ 2,292	\$ -	\$ 201	\$ 2,493
Farm 4	\$ 28,316	\$ 25,415	\$ 5,431	\$ 59,163
Farm 5	\$ 2,159	\$ -	\$ 28	\$ 2,187
Farm 6	\$ 4,947	\$ 11,325	\$ 1,685	\$ 17,957
Farm 7	\$ 5,700	\$ 171,053	\$ 3,500	\$ 180,253
Farm 9	\$ 6,858	\$ -	\$ 829	\$ 7,686
Farm 10	\$ 495	\$ 3,500	\$ 3,776	\$ 7,771
Farm 11	\$ 3,598	\$ 4,778	\$ 1,035	\$ 9,410

Urban Farming Profit: 2010 & 2011



Profit Takeaway

- Profits are largely dependent on in-kind donated labour by owners, interns, and volunteers.
- Non-profit urban farms have been successful in leveraging public support and financing to grow their organizations beyond small backyards.
- Many backyard farmers have second jobs, supporting themselves through a variety of different means.
- Concern as to the legality of urban farming often holds back investment into larger farms.

Conclusions

Since 2010, urban farming in Vancouver has grown tremendously. New farms, farmers, and sites have sprouted up across Vancouver and show two paths for urban farms. First is the non-profit approach. To date, non-profit urban farms are the largest sellers of urban produce. In 2012, over five acres have been brought into production by non-profit urban farms. The second approach is a for-profit structure, where small businesses farm in their communities for their communities. They often pay one or two employees to lead operations. Revenues and profits are modest and companies are often run as lifestyle businesses where friends and families are both customers and volunteers. These farms can be more successful financially. Urban farm owners who have developed clear systems, plans, and techniques for farming are more competitive, increasing their revenues and reducing their costs.

As the legal structure around urban farms change, larger, more technical farms will be developed in Vancouver: hydroponic or aquaponic rooftop ventures will grow significant amounts of produce and operate more like manufacturing organizations, growing food for sale in traditional markets.

The farms researched here are small and innovative, helping to build new ways for urban customers to receive fresh, local, organically grown produce. I look forward to working with them to see how they will grow.

Special thanks to Vancouver's urban farmers for both the community they build and the food they grow; to my advisors, Dr. Riseman, Prof. Roehr, and Dr. Mullinix for their guidance and support in developing and carrying out this work; to the Urban Farmer's Network for their role connecting, sharing, and discussing the future of urban farming.

Marc sits on the executive board of one of the urban farms and is a regular volunteer with two other organizations. This research was funded in part by the Foundation for International Exchange between Canada and the United States of America (Fulbright), Carrot Cache and the University of British Columbia.