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Characteristics of Commercial Urban Agriculture in Florida[1]

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Florida is rapidly urbanizing. In 2019, Florida was home to 21.5 million residents, up from 18.8 million residents a decade before, with an increasing proportion of the population living in urban areas. The USDA has classified 44 of 67 counties in Florida as urban counties, up from 38 counties in 2003 (USDA-ERS, 2021). Because agriculture is one of the top three industries in Florida, along with tourism and construction, this increase in urbanization has led to a corresponding increasing interest in and focus on developing commercial urban agriculture (CUA) as an important sector of agriculture in the state. CUA is the production, processing, distribution, and sale of food within urban, suburban, and peri-urban areas for bona fide commercial agricultural (for-profit) purposes. CUA farms can be new operations seeking to farm in urban areas (e.g., farms on vacant lots or residential parcels of land), or they can be long-standing farms that operate on land that is zoned for agricultural use but surrounded by land under development. The latter scenario puts the farm in a formerly rural area that is now an urban area. For general information about different types of urban agriculture (UA), including noncommercial activities, see the Ask IFAS publication, "What is urban agriculture?"

A deeper understanding of the CUA sector in Florida, as well as the key opportunities and barriers to urban agriculture development and expansion, can help foster the growth and viability of the industry in Florida. This Ask IFAS publication provides an overview of the size, production methods, and market channels used by urban farms in Florida. It discusses urban farmers' perceptions of barriers, opportunities, and needs for their operations. The document concludes by discussing the informational resource and training needs and preferences of CUA farmers. This publication is for Extension agents, people working in local government, such as elected officials and planners, regional planning councils, or other entities who are interested in both the status of UA and ways to support its development in Florida.

In 2020 and 2021, UF/IFAS researchers conducted interviews and distributed a survey to learn about Florida CUA farmers' barriers to urban farming, their needs to support business viability and profitability, and their perceptions of future business opportunities as well as the usefulness of training topics and formats. (For more details about the study methodology, see Campbell et al., 2022, and Campbell et al., 2023). Interviewees (n=29) and survey respondents (n=53) were from all major metropolitan areas in Florida.

The study collected basic demographic information about CUA farmers and characteristics of their operations, including farm size, production systems utilized, crops sold, and market channels used. Survey respondents were asked to select only their top three barriers and opportunities so survey responses would reflect the most important barriers and opportunities of CUA operations. The interviews

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collected in-depth information from the farmers on their barriers and opportunities to business profitability and expansion, as well as the kinds of information and resources that would be helpful for both business startup and business operations.

Urban Farmer Demographics and Farm Characteristics

As shown in Table 1, 20% of survey respondents were under 40 years old, which the USDA classifies as young farmers. Nearly half (45%) of respondents were women farmers. Survey respondents were mostly white, which is reflective of statewide rural farmer demographics. Roughly 10% of CUA farmers reported being Hispanic or Latino. Over half (53%) of survey respondents had 10 years of experience or fewer, which the USDA classifies as new and beginning farmers. There was close to an even split between farms that had been in operation for under 5 years (45%) versus 5 years or more (55%). CUA farms responding to our survey had very small amounts of land in production, with 40% producing on 1 acre or less. By comparison, the average size for a Florida farm is 246 acres (USDA-NASS, 2020).

People often associate CUA with indoor or hydroponic production, but our survey found that the most common production methods and systems on CUA farms were in-ground, followed by raised beds or containers and high tunnels. Farmers selected all production methods they employ. Note that the answer choices are not mutually exclusive (see Table 2.) The most common revenue sources for CUA farmers in Florida were vegetables, herbs and spices, and fruit, but CUA operations receive revenue from a variety of products and services. See Table 3 for all sources of revenue. Survey respondents provided their top three market outlets by value of sales. The top outlets were farmers markets, on-farm sales, wholesale or food hubs, and online sales. For all outlets, see Table 4.

Top Barriers

Farmers were asked to identify the barriers that their farms faced. The top barriers for most survey respondents were labor, access to capital, and profitability, but CUA operations face several additional barriers related to their urban locations, as well as barriers and challenges that are common to small farms. For all barriers, see Table 5.

Barriers related to access to labor and capital were also discussed in the interviews. One farmer indicated the difficulty of finding labor had to do with the variety of duties of small-farm employees and the competition from other industries. He said, "It's a multifaceted individual that we need to ... use a tractor and also sell stuff at the market…. For 20 bucks an hour, they're getting much better jobs now." CUA farmers also expressed that they had a hard time accessing startup capital. One farmer said, "As a small-scale farmer, even with a [good] credit score... I was not able to get any type of financial loans for my farm.... To get this farm up and running, we had to exhaust every bit of our savings."

Table 1. CUA farmer demographics and farm characteristics.

Farmer Demographics and Farm Characteristics	%
Beginning farmer (10 years of experience or fewer)	
Yes	52.8
No	47.2
Age range (years)	
20–39	20.7
40–49	26.4
50–59	20.8
60–69	24.5
Over 70	5.7
Gender	
Female	45.3
Male	52.8
Race	
White	81.1
American Indian or Alaska Native	7.5
Asian	7.5
Black or African American	3.8
Hispanic or Latino	
Yes	9.4
No	88.7
Time in operation (years)	
Fewer than 5	45.3
5 or more	54.7
Land in production	
Less than 1,000 square feet	15.1
1,000 square feet to 1 acre	24.5
More than 1 acre to 10 acres	39.6
More than 10 acres	17.0

Table 2. Production methods used by CUA farms.

Production Method	%
Growing in-ground in beds, rows, or fields	77.4
Raised beds or containers	49.0
High tunnel/hoop house (removable flexible plastic walls)	30.2
Greenhouse or indoors	18.9
Hydroponic or aquaponic	15.1

Table 3. Sources of revenue for CUA farms.

Source of Revenue	Percentage of Respondents Receiving Revenue from Product or Service
Vegetables	64.2
Herbs and spices	43.4
Fruits	41.5
Cut flowers, ornamentals, and other nonedible plants	32.1
Animal products (such as eggs or dairy)	24.5
Value-added products (jams, preserves, soaps, etc.)	24.5
Educational services	18.9
Agritourism services (farm tours and events)	17.0
Animals	9.4
Mushrooms	3.8

Table 4. Market outlets where CUA farms sell their products.

Market Outlets	Percentage of Respondents Using Market Outlet
Farmers markets	43.4
On-farm sales (U-pick, store, or farm stand)	35.8
Wholesale or food hubs	24.5
Online sales	22.6
Restaurants or institutions	22.6
Community supported agriculture (CSA)	20.8
Grocery or other retail stores (direct sales, not wholesale)	17.0
Cooperatives	7.5

Barriers related to laws, land-use regulations, zoning, and access to land were also common for CUA farms in Florida in both the survey and the interviews. The issues of land-use regulations and access to land were discussed in depth in the interviews as a primary barrier to CUA business profitability and expansion. One CUA farmer said, "How do I get around this... governmental red tape constantly? That whole system evolves to support more in the way of development versus agriculture... it feels like a constant uphill battle." Another farmer who also discussed land development as an issue said, "It's taken accessibility away from farmers to buy it, you know it's agricultural land—it's been agricultural forever and now it's zoned residential. Shifting land use makes it inaccessible for farmers."

Table 5. Barriers or challenges to farm operations and business expansion.

Barriers or Challenges	Percentage of Respondents Experiencing Barrier
Labor	39.6
Access to capital	34.0
Profitability	28.3
Laws/regulations	28.3
Pest management	26.4
Sales/marketing	24.5
Business management	15.1
Crop management	13.2
Access to land	13.2
Conflicts or lack of support from surrounding community	11.3
Lack of organization among/support from other urban farmers	7.5
Food safety	3.8

Top Opportunities

On the survey, farmers were asked to identify the top opportunities to increase revenue or expand their operations in the next three years (Table 6). Agritourism and value-added products were the top two responses, followed by new fruit crops, online sales, and new vegetable crops. New animal products and expanding products were the least important for survey respondents.

Table 6. Key opportunities for increasing revenue or business expansion in the next three years.

Opportunities for Increasing Revenue or Business Expansion	Percentage of Respondents Identifying Opportunity to Increase Revenue
Agritourism or educational workshops	41.5
Value-added products	35.8
New fruit crops	28.3
Online sales	28.3
New vegetable crops	24.5
Sales to restaurants or institutions	22.6
Home delivery	17.0
New animal products	5.7
None (we do not want to expand)	5.7

CUA farmers also discussed these opportunities in the interviews. Regarding value-added products, one interviewee said, "Value added just makes a ton of sense because I'm a super small farm, so any way that I can multiply my

profits on the crops... in the very limited space that I have seems to make the most sense for growing the business or multiplying revenue." Agritourism was identified as a key opportunity for the future, in part because it can provide additional income without the upfront cost involved with adopting new or additional crops. One farmer said, "Agritourism is an amazing opportunity to have additional income without very much effort from us. You know, it just requires one hour of our time to get to give a tour, or if it's an event in the farm, then it's a lot of income. Like for instance, we could potentially make in one weekend, what we would have to make in like three months."

In the interviews, farmers discussed that their interest in online sales was motivated by customer preference for convenience and the increase in popularity of home food delivery in response to COVID-19. One farmer explained his conception of the opportunity as follows: "Getting more techie... doorstep delivery type things, I think that's the way people are going to go in the future... they're going to want Instacart for farms and if they can order stuff online at night, while they're just on the couch or something like that, and you could bring it to them the next day… that's, honestly, the new value added."

Regarding new crops, one farmer indicated he was looking for "…new income streams from new crops or same crops with new varieties." Farmers mentioned that they saw an advantage to growing new varieties that tap into local community preferences, such as unique varieties (e.g., purple carrots), or ethnic vegetables to serve a local community who would normally have to import produce.

Training and Informational Needs

CUA farmers would benefit from informational resources and training. On the survey, we asked CUA farmers to rate the usefulness of training topics and training formats. All topics on the survey were considered very useful (Table 7). With mean scores of four or above (1=not at all useful; 5=extremely useful), the most useful topics for CUA farmers were new crops and products, new technology and production methods, and marketing and sales. Using the same scale, respondents rated the usefulness of sources of information. All sources of information and training formats were considered moderately or very useful (Table 8). The sources of information considered most useful were fellow growers, Extension agents, and field days. Training and educational materials for CUA producers should focus on various aspects of financial sustainability because farms indicated they had several financial barriers, including access to capital, profitability, sales and marketing, and business management.

Table 7. Perceived usefulness of training topics.

Training Topic	Percentage of Respondents Rating Topic Useful or Very Useful
Farm finances	77.4
New crops and products	69.8
New technology and production methods	69.8
Marketing and sales	69.2
Supporting sustainability and environmental goals	67.9
Fostering societal and health benefits	67.9
Crop production	61.6
Pest management	63.5
Urban soil management	52.9
Food safety certification	47.2
Note: Responses collected using a 5-point scale (1=not at all useful; 5=extremely useful).	

Table 8. Perceived usefulness of sources of information.

Source of Information	Percentage of Respondents Rating Topic Useful or Very Useful
Fellow growers	86.8
Extension agents	75.5
Field days, farm tours, and field demos	69.8
Workshops/conferences	69.8
Downloadable electronic resources	67.9
Online videos	66.0
Websites	66.0
Printed bulletins/fact sheets	58.5
Social media	52.8
Consultant/salesperson	39.7
Note: Responses collected using a 5-point scale (1=not at all useful; 5=extremely useful)	

Conclusion

CUA is a growing agricultural sector in Florida. CUA farms have both unique barriers and opportunities due to their location. Extension agents, local governments, food policy councils, and community members can all play a part in supporting the success and expansion of this agricultural sector in Florida.

Extension agents have an important role to play in supporting the development of CUA by offering educational programs for farmers, regional planning councils, food policy councils, local government stakeholders, such as elected

officials and planners, and Florida residents. Programs for farmers can focus on the topics that were identified as being most useful in Table 7. Extension agents can provide education or technical support to help CUA farmers pursue the opportunities to increase revenue or expand their UA operations listed in Table 6. Both Extension agents and food policy councils can support the development of CUA by providing information to regional planning councils and local government stakeholders to address CUA farms' needs, including amending zoning and land-use regulations to allow CUA activities, supporting land access for new CUA operations, and retaining land for agricultural production in future development plans. Finally, community members can support CUA by increasing public awareness of the importance of CUA, voicing support for CUA in public forums, and purchasing products from CUA farms.

References

Campbell, C. G., DeLong, A. N., & Diaz, J. M. (2023). Commercial Urban Agriculture in Florida: A Qualitative Needs Assessment. *Renewable Agriculture and Food Systems*, *38*, e4. https://doi.org/10.1017/S1742170522000370

Campbell, C. G., Ruiz-Menjivar, J., & DeLong, A. (2022). Commercial Urban Agriculture in Florida: Needs, Opportunities, and Barriers. *HortTechnology*, *32*(4), 331–341. https://doi.org/10.21273/HORTTECH05038-22

USDA-ERS. 2021. Rural Atlas Data. Economic Research Service. Accessed November 5, 2021. https://www.ers.usda.gov/data-products/atlas-of-rural-and-small-town-america/download-the-data/

USDA-NASS. 2020. Farms and Land in Farms 2019 Summary. National Agricultural Statistics Service. 1–17. Accessed December 7, 2021. https://www.nass.usda.gov/Publications/Todays_Reports/reports/fnlo0220.pdf