

WHAT OUR REGION GROWS

Preview

The Past, Present, and Future of Growing Food in and around Metropolitan Washington

September 2018



Metropolitan Washington
Council of Governments

PREVIEW

Metropolitan Washington is a diverse region of more than five million people and one of the nation's largest economies. More than a million new residents and jobs are forecast between now and 2045. New residents may be surprised to learn that the region also has a rich agricultural economy that provides products locally and beyond.

Agriculture is a significant economic sector. In 2012, it generated about \$760 million in crop and livestock sales in the **Washington Agricultural Region**.¹ As an industry, in 2015 it employed 65,000 Marylanders and 334,000 Virginians and generated statewide economic impacts of \$15.8 and \$70 billion dollars respectively.^{2,3}

Agriculture employed 65,000 Marylanders and 334,000 Virginians and generated statewide economic impacts of \$15.8 and \$70 billion dollars in 2015.

Preliminary data on the size of the District of Columbia's food economy put its value-added economic impact at \$5.5 billion, employing 82,000 workers (largely in restaurant and hospitality) and comprising 9.2% of the District's labor force.

Despite its contributions to jobs and economic growth, agriculture in this region faces challenges that discourage and threaten the future viability of certain sub-sectors, such as medium-scale fresh produce production and the dairy industry. The Metropolitan Washington Council of Governments' (COG) forthcoming full report *What Our Region Grows*—of which this is a preview—provides a more comprehensive look at agriculture in the region, and offers recommendations to preserve and strengthen it.

Through its Region Forward initiative, COG set a goal to maintain 497,500 acres of land in farms. As of 2012, the region had 502,557 acres of land in farms—just 5,000 acres above the goal. The region's progress against this goal will be reassessed with information from the 2017 Census of Agriculture which will be available in 2019. If past trends continue, however, the region is likely to drop below the goal.

Land in farms has been declining steadily since World War II. COG's Region Forward goal is to maintain 497,500 acres of land in farms. As of 2012, the COG region was just 5,000 acres above this goal. Urgent, informed action is critical to ensure the region's agricultural future.

As the region plans for new growth, addressing the needs of agriculture is critical to sustaining viable farm businesses, creating opportunities for new farmers, and reaping the benefits that the sector provides like jobs, local food, environmental services, open space, recreational opportunities, and more.

¹ The approximately 8,600 square mile area in and around the District of Columbia, comprised of the following counties and jurisdictions – **Maryland:** Anne Arundel, Calvert, Carroll, Charles, Frederick, Howard, Montgomery, Prince George's, St. Mary's, and Washington; **Virginia:** Arlington, Clarke, Culpeper, Fairfax, Fauquier, King George, Loudoun, Prince William, Rappahannock, and Stafford; **West Virginia:** Jefferson; **District of Columbia.**

² Maryland economic impact figure includes crop production, animal production and processing, commercial hunting and trapping, and other industries that rely on this sector for supply-chain inputs. Equine is also included. Seafood and aquaculture are reported separately in terms of economic contribution and jobs (3,341). Provided by Memo Diriker, Sarah Guy, and Dustin Chambers, "The Impact of Resource Based Industries on the Maryland Economy"

³ Diriker, Guy, and Chambers, "The Impact of Resource Based Industries on the Maryland Economy"; Rephann, "The Economic Impact of Virginia's Agriculture and Forest Industries."

The region's food system is local, regional, national and global. However, agricultural production in the region does not fulfill local food demand. The degree of the region's self-reliance on its own production to meet estimated consumption continues to decline due to increasing population and decreasing farm production. (Figure 1)

Figure 1. 2012 Food Production and Demand Comparison for the Washington Agricultural Region

Food Product	Production (acres or animals)	Demand (acres or animals)	Percent Demand Fulfilled	Surplus/Deficit (acres or animals)
Apples	1,778	18,655	10%	-16,877
Blueberries	56	3,101	2%	-3,045
Strawberries	34	12,896	0%	-12,862
Beans	2,323	11,365	20%	-9,042
Potatoes	181	28,533	1%	-28,352
Pumpkins	588	3,167	19%	-2,579
Squash	91	3,404	3%	-3,313
Sweet Corn	1,346	24,106	6%	-22,760
Tomatoes	444	35,615	1%	-35,171
Wheat	63,079	238,021	27%	-174,942
Corn ⁴	169,121	36,564	463%	132,557
Beef	119,166	722,321	16%	-603,155
Chicken	65,357	74,169,582	0%	-74,104,225
Pork	36,966	1,905,264	2%	-1,868,298
Dairy	44,041	235,067	19%	-191,026

Sources: U.S. Census, USDA NASS Census of Agriculture, USDA ERS Food Availability data, and others. Complete methodology and data sources will be provided in full report.

In 2012, COG's Regional Agricultural Work Group published its first *What Our Region Grows* report. The report used the most recent agricultural information available from the 2007 Census of Agriculture.

The Agricultural Work Group understood that the region's **foodshed**⁵ is larger than the COG membership region and provided data for the larger, Washington Agricultural Region. (Figure 2)

⁴ The values for corn are based on the per capita consumption of corn for grain used for direct human consumption, not for animal feed. Products include corn flour, corn meal, hominy and grits, and corn starch.

⁵ A foodshed is the geography between where food is produced and is consumed. Conceptually, it is a relationship, similar to a watershed where instead of describing the flow of water, the flow of food origin to a particular population is described. The term is often used when describing the regional food production supporting a local or regional population.

This update provides new measures and information on Washington Agricultural Region's farms, farmers, and agricultural production. It primarily uses 2012 Census of Agriculture data. In some cases, the agricultural data is also provided for the COG Region and the larger Mid-Atlantic. Despite the fact that this information is dated, it's important to benchmark the changes that are taking place to provide the most current picture possible of agriculture in the region.

COG members may want to reassess the geographic extent of the foodshed in the future, given growing efforts to develop regional supply chains.

Figure 2. Washington Agricultural Region



The equine, horticulture, and landscaping industries are also integral parts of the region's agricultural economy. These use some of the same support services as farmers and ranchers growing and raising food for animals and people, such as large animal veterinarians and farm supply stores.

The new and expanded Local Experiences section of the full report contains 2012 Census of Agriculture data on agricultural production in every COG jurisdiction, along with more current state and locally collected data on the economic impact of agriculture, preserved lands, the craft beverage industry, urban agriculture (i.e. farms, community and school gardens, farmers markets, etc.). This section also includes data on the equine, horticultural and landscaping industries.

Agriculture is a dynamic industry. Today, some sectors are facing tremendous pressure regionally and nationally, not the least of which is the dairy industry. Simultaneously, new enterprises are opening their doors, like farm-based craft beverage businesses. Agritourism experiences and sales are on the rise. Urban farming is also growing, and there are new operations taking advantage of rooftops, buildings, and other nontraditional spaces for food production. A lot has changed since 2012. Since the Census of Agriculture occurs once every five years, there is a need to supplement this information with more current data as available.

Major Themes and Agricultural Trends in the Washington Agricultural Region

FARMING IS A CRITICAL AND DIFFICULT BUSINESS

Red barns, green pastures, fields of vegetables, and farm animals. This is how many people picture farming. However, farming is more than food production and animal husbandry. Farms are businesses that face the same challenges other businesses face.

Farmers need a diversified skill set to be successful. Every day, they must make complex short and long-term decisions related to production, finance, accounting, marketing, management, and more. Farmers contend with swings in commodity prices, rapidly changing market conditions, inappropriately scaled infrastructure, changing laws and regulations, difficulty attracting farm labor, and unpredictable weather. Frequent adjustments in these factors require being entrepreneurial, resourceful, adaptive, and resilient.

These challenges make farming a low-margin and risky business. In fact, the average net farm income in the region was \$2,676 in 2012. As a result, many farmers have a second job as their primary source of income; in the Washington Ag Region, 63% of all farmers also work off-farm.



Future Harvest CASA 2018 Beginning Farmer Field Day (Future Harvest CASA)

As stated, it is not easy to make a living in farming. Despite these challenges, farmers remain committed to the industry and way of life. Many farmers are adapting through new technology, diversifying production, offering agritourism experiences, adding value-added processing, and working together to reach new markets and meet changing consumer demands.

There is also increasing interest from new farmers. The Future Harvest CASA (Chesapeake Association of Sustainable Agriculture) Beginning Farmer Training Program, which operates in the Chesapeake Bay region, enrolled 80 trainees in 2018. This is the

largest class of trainees since the program started 9 years ago.

THE FARM LANDSCAPE IS CHANGING RAPIDLY

The number of farms and farm acreage continues to decline in the Washington Agricultural Region. In 2012, there were 507 or four percent fewer farms than in 1997. During this same 15-year period, land in farms declined by 278,000 acres—a 15.5% decrease.

Moreover, there has been a significant decline in mid-sized farms (as defined by acreage and income). Today, there are more larger farms and many more smaller farms than just two decades ago. In 2012, there were 22.3% more farms under 50 acres than in 1997. Meanwhile the number of farms between 50 and 999 acres declined by ten percent, and the number of farms greater than 1,000 acres increased 43%.

Figure 3. 2018 Urban Food and Agriculture Highlights from the COG Region

Indicator	Total
Farmers Markets	166
Community Gardens	190
School Gardens	295
Urban Farms	23
CSAs	72

Many factors have contributed to this polarization in farm size, including farm transition challenges, land development pressure, and a range of industry dynamics. For urbanizing jurisdictions within the region, this has created conditions more suitable to smaller scale farms. In the COG region, this has provided niches for Community Supported Agriculture (CSA) shares, farmers markets, and urban farms where farmers sell directly to consumers at retail prices. At the same time, urbanizing communities are also creating more community and school gardens for a variety of benefits, including growing food.

Source: COG/Regional Agricultural Work Group

However, small scale farming alone is insufficient to support a vibrant agricultural economy. There are many interdependencies between the various scales and types of farming operations. Large farms are essential in keeping large contiguous areas of land in agriculture and maintaining agricultural support services. Losing them would cause important services to leave the region, making it difficult for all scales of farming. Small farms play key roles in connecting consumers with local food and the farming community; however, local zoning regulations known to restrict start-up opportunities and growth need to be reviewed and revised. In other words, strengthening operations across all scales is important for a more diverse and robust regional food supply chain.

RISE IN AGRITOURISM AND CRAFT BEVERAGE

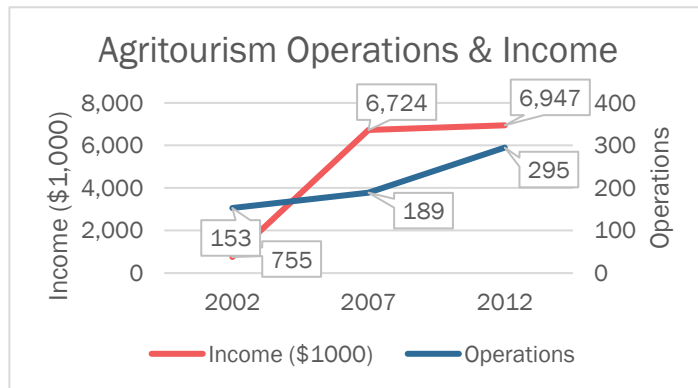
While food production in the region is declining driven by the decline in the number of farms and farm acreage, farmers and rural business owners are turning to other ways to keep land in agriculture. Craft beverage, including on-farm enterprises and agritourism, have become significant ways to diversify. Today, there are over 200 craft beverage operations in metropolitan Washington, along with various wine trails and craft beverage tours. In addition, there is a growing number of agritourism enterprises including pick-your-own operations, farm weddings and events, on-farm restaurants, tours and classes, and more.

Agritourism is Growing

Income from Agritourism
\$0.75M to \$7M

Number of Businesses
Doubled
from 153 to 295

Figure 4. Agritourism in the Washington Ag Region, 2002 to 2012



Source: USDA NASS, Census of Agriculture

DECLINE IN FOOD PRODUCTION, REGIONAL SELF-RELIANCE, AND RESILIENCE

In the Washington Ag Region, food production is declining across major crops and livestock. For the basket of products that this report tracks, most have declined between 30% and 85%. Notable production declines include apples, strawberries, sweet corn, wheat, chicken, pork, and dairy.

For instance, apple acreage declined 61% between 2002 and 2012. Similarly, between 1997 and 2012 sweet corn acreage declined 55%, corn acreage declined 46%, and soybean acreage declined 48%. These declines in grain production can impact the poultry industry on the Eastern Shore and Shenandoah Valley which provide a market for most local grain.

Livestock production is shrinking significantly. The number of chicken, hogs, beef, and dairy cows all declined between 34% and 76% between 1997 and 2012. The dairy industry is continuing to struggle. In 2017, Maryland and Virginia had 53% fewer dairy farms than in 2002.

In 2017, Maryland and Virginia had 53% fewer dairy farms than in 2002. Milk is one of few local products for direct human consumption in which the region has historically demonstrated a high level of self-sufficiency.

These declining trends present two important and related issues for the region's communities. The first is to determine how to support the future success of agriculture and its diverse sectors. The second is how to most effectively work towards a more self-reliant and resilient food system. The findings and recommendations in this report suggest that supporting agriculture has economic, social, and food security benefits.

A self-reliant food system aims to provide as much of the population's food needs through a regional supply chain, with significant economic and social benefits accruing to farmers and community members. Relying only on a few key parts of the globe for different food products poses sustainability challenges.

The Washington Ag Region is home to millions of people who consume a lot of food. This demand presents many market opportunities for farmers and food enterprises. However, urbanization and development place pressures on the agricultural land where this food is grown.

Due to population and land use dynamics, much of the food consumed in the region comes from other states and countries. The region does not have sufficient production to meet all the food needs. In fact, we do not grow enough to meet demand for most major crops except for corn, much of which is for livestock.

While it is not realistic to be entirely self-sufficient, the region is struggling to maintain self-reliance and should set proactive goals to become more so.

GROWING THE NEXT GENERATION OF FARMERS IS AN URGENT CHALLENGE

Will there be enough farmers in the next generation to keep land in agriculture and to produce food for the region? Farm transition and farm viability issues are major concerns, and several indicators suggest that the number of farmers will continue to decrease.

In 2012, farmers represented about 0.5% of the labor force in the Washington Ag Region, a number which has been declining during the last century.

The farm population is also aging, with the average age rising from 54.1 in 2002 to 59.2 in 2012. Unfortunately, there are not many young farmers to replace those who are retiring. Only five percent of farmers are younger than 35 years old, and 48% of farmers are older than 60. Furthermore, 19% of farmers are beginning farmers, a third of whom have only farmed for fewer than 5 years.

Key Trends:

- 1. Fewer Farmers**
- 2. Aging Farm Population**
- 3. Few Beginning Farmers**
- 4. Farming Is Not the Primary Job**
- 5. Increased Off-Farm Work**

Despite these downward trends, there may be a slow resurgence of younger farmers. From 2007 to 2012, there was a slight growth in farmers under the age of 34. Also, there are many individuals pursuing farming as a second career. Locally, anecdotal evidence suggests that urban agriculture is attracting enthusiastic young farmers, but a lack of standardized data collection currently inhibits quantifying any trends.

Still, there remain significant barriers for entry into farming, including for women and minority farmers who are underrepresented in the profession. Some of the obstacles include access to affordable land, land tenure, capital costs, farming knowledge, cost of labor and availability, market access, and local regulations, including zoning.

LOCAL INVESTMENT IN FOOD AND AGRICULTURAL ECONOMIC DEVELOPMENT

COG's Regional Agricultural Work Group has noted positive, modest public investment in agricultural economic development at the local level. In 2016, DC created a Food Policy Director position, charged in part with supporting the District's growing food economy. In 2017, Charles County hired its first agricultural marketing specialist, joining Loudoun, Frederick, Montgomery, Prince George's, Howard, and other Maryland and Virginia counties which recognize the importance of supporting farmers, ranchers, and food and beverage entrepreneurs with specialized expertise as they develop their businesses. These local agricultural marketing and development specialists help farmers

navigate the requirements of permitting and zoning, and work with communities and local government staff to evaluate how proposed regulations impact farm viability.

In addition, several COG member jurisdictions have also hired farm-to-school coordinators to improve connections between farmers and schools and to support garden-based education. Yet others are home to food policy councils. Anecdotally, several Ag Work Group members report that staffing for University Extension seems to be rebounding to pre-recession levels, though not in every jurisdiction in the Washington Ag Region. Soil Conservation Districts and state departments of agriculture also provide critical technical assistance to farmers on a range of issues from research and field support, to regulatory guidance, to market development. More information is needed on staffing and resources relative to demand.

Public investment in technical assistance for agriculture is critical, as farmers and ranchers are impacted by a host of evolving policy and regulatory issues and changing growing conditions. For example, most farmers and ranchers raising food for human consumption must put new processes and procedures in place to comply with a landmark overhaul in federal food safety rules in the Food Safety Modernization Act (FSMA). Its aims are important, however, it will add to the cost of doing business. While FSMA is in the public's interest, it is equally important to provide public support so farmers do not shoulder all the costs.

CAPITALIZING ON UNPRECEDENTED INTEREST IN LOCAL FOOD

Better information and regular collaboration around issues such as agricultural land use, land preservation, transportation, supply chain infrastructure, and market access is required to capitalize on the increasing interest in local food and to plan for a more resilient future. Stabilizing our agricultural land base is of utmost urgency if the region aspires to maintain agriculture in its economic future. Healthy soil is a critical investment for farmers. It is also increasingly being studied as a potential carbon sink.

The Sacramento Area Council of Governments' Rural-Urban Land Use Connections Program provides one example for how councils of government can leverage data to help members plan for vibrant, rural economies. As this report will demonstrate, there is a need for additional, regularly maintained and publicly available data on food and agriculture to inform decision-making, including public and private investment at the local and regional level. The Census of Agriculture is a critical source of data, but it does not cover issues like urban food production, distribution, land preservation, and farm transition.

Recommendations

COG's Regional Agricultural Work Group recommends the following actions to preserve and strengthen agriculture in the region.

CREATE A REGIONAL COMMITTEE ON FOOD AND AGRICULTURE AT COG

Maintaining farmland, profitable farms, and connecting them to markets merits regional attention, particularly as the region's farmland continues to decline. A regional committee is needed where COG members can share information on state and local initiatives, examine best practices to address the unique challenges that agriculture faces, support new opportunities as they emerge, and elevate this essential sector in the same way the region focuses on other necessities like water.

CO-HOST REGIONAL FORUMS ON FARM VIABILITY, LAND PRESERVATION, AND NEXT GENERATION FARMERS IN THE WASHINGTON AGRICULTURAL REGION

Local agriculture will not survive long-term unless it is profitable as a profession. Sufficient, accessible, high-quality land and soil must also be maintained or opportunities for current and future farm activities will diminish.

The region should leverage the expertise and work of state departments of agriculture, its land grant universities, Soil Conservation Districts, nonprofit organizations, land trusts, Maryland Agricultural and Resource-Based Industry Development Corporation, Farm Bureau, Future Harvest CASA, VA Association of Biological Farming, Mid-Atlantic Farm Credit and other lenders, COG's Regional Agricultural Work Group, and others, to co-host forums focusing on the unique opportunities and challenges of farming in metropolitan Washington. Initial forums should focus on ensuring that farming remains a viable profession now and in the future. Conversations on soil health, supporting a diverse farm workforce, and support services for a profitable farm economy also need a metropolitan audience.

FUND AGRICULTURAL-RELATED TECHNICAL, EDUCATIONAL, AND MARKETING SERVICES AT THE COUNTY-LEVEL

Ongoing funding for roles such as Agricultural Marketing Specialists, University Extension Services, and K-12 educational programs and opportunities will continue to be critical to supporting agriculture in the region moving forward and promoting public understanding of the demands and benefits of farming. Agricultural technology is evolving rapidly and support for technical assistance for farmers in evaluating new tools to strengthen their operations should be considered.

COMMISSION AND IMPLEMENT A STRATEGIC PLAN FOR AGRICULTURE

The region's political leaders and decision-makers should formulate a strategic plan and identify priority steps to sustain agriculture and capitalize on new opportunities through the 21st century. Such a plan should consider best practices for supporting vibrant rural economies, land preservation, connecting urban and rural farmers to market opportunities, the emerging role that soil

health can play in protecting farmers' investments and providing community benefits like climate change mitigation, and more. It should also establish baseline data and metrics for benchmarking progress towards goals. This is needed to complement and accelerate work happening at the local level by farmers and food entrepreneurs, researchers, investors and philanthropic funders, nonprofit organizations, and citizen advocates. This could be accomplished through leadership provided by COG working in partnership with local member and non-member jurisdictions.

MAKE CONTINUED IMPROVEMENTS IN STATE AND LOCAL POLICIES AND REGULATIONS TO SUPPORT DIVERSIFICATION OF FARM ACTIVITY

Farmers need to be able to diversify their operations to remain competitive in a dynamic marketplace and region. For many farmers, but especially those with limited resources, keeping up with evolving regulations can be costly. Local regulations and policies like zoning and permitting also have a profound impact on farm businesses. Several jurisdictions are in the process of updating their comprehensive plans and zoning ordinances. Member jurisdictions are encouraged to streamline requirements whenever possible, and to prepare for a future where agriculture is embedded into architecture and city design, not rural communities alone. Keeping, or bringing, agriculture close to where residents live and work is important for a variety of reasons.

INCENTIVIZE LOCAL FOOD AGGREGATION, PROCESSING, DISTRIBUTION, AND PURCHASING

Interest in local food is at an all-time high and the size of the local food market is growing. Meetings with COG's Local Food Distribution Work Group have demonstrated that there are many local farmers around the region interested in providing more food to the region. However, a lack of infrastructure, information, and appropriate market signals prevents farmers from growing, raising, and processing more product.

Local governments can help by assessing their public purchasing programs and how accessible they are to local producers. Changes to procurement policy and or incentives may be needed. Engaging with other local institutions such as colleges and universities, as well as hospitals, to encourage local purchasing would also be helpful. A regional forum on this issue could also be useful advance this recommendation.

In some cases, growers are lacking the necessary infrastructure to work with institutional and wholesale buyers. The answer may not be for every jurisdiction to build its own aggregation, distribution, or processing infrastructure. Rather jurisdictions should collaborate and evaluate what is available jointly to meet regional demand and needs. There are several important studies underway in the region to assess regional food infrastructure and the supply chain. COG will make it a priority to share the results with a broad set of stakeholders as this information becomes available.

COG's full report, *What Our Region Grows*, will be available before the end of the year. To learn more about COG and its agricultural and forestry work, visit www.mwco.org.

The Council of Governments is an independent, nonprofit association where area leaders address regional issues affecting the District of Columbia, suburban Maryland, and Northern Virginia.



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