

Local Food Production in the Washington Metropolitan Region

*Agriculture's Role in Washington Regional
Green Infrastructure*

Cooperative Forecasting and Data Subcommittee
February 12, 2013



Metropolitan Washington Council of Governments

Map

- In 2004, COG produced the first region-wide land use / land cover database providing a ‘snapshot’ of green infrastructure (i.e. forest, agricultural lands, grassland, parks, etc.) Using a combination of Landsat 7 Imagery (30 Meter Resolution) and Ikonos Satellite Imagery (1 Meter Resolution, 1999/2000 data).

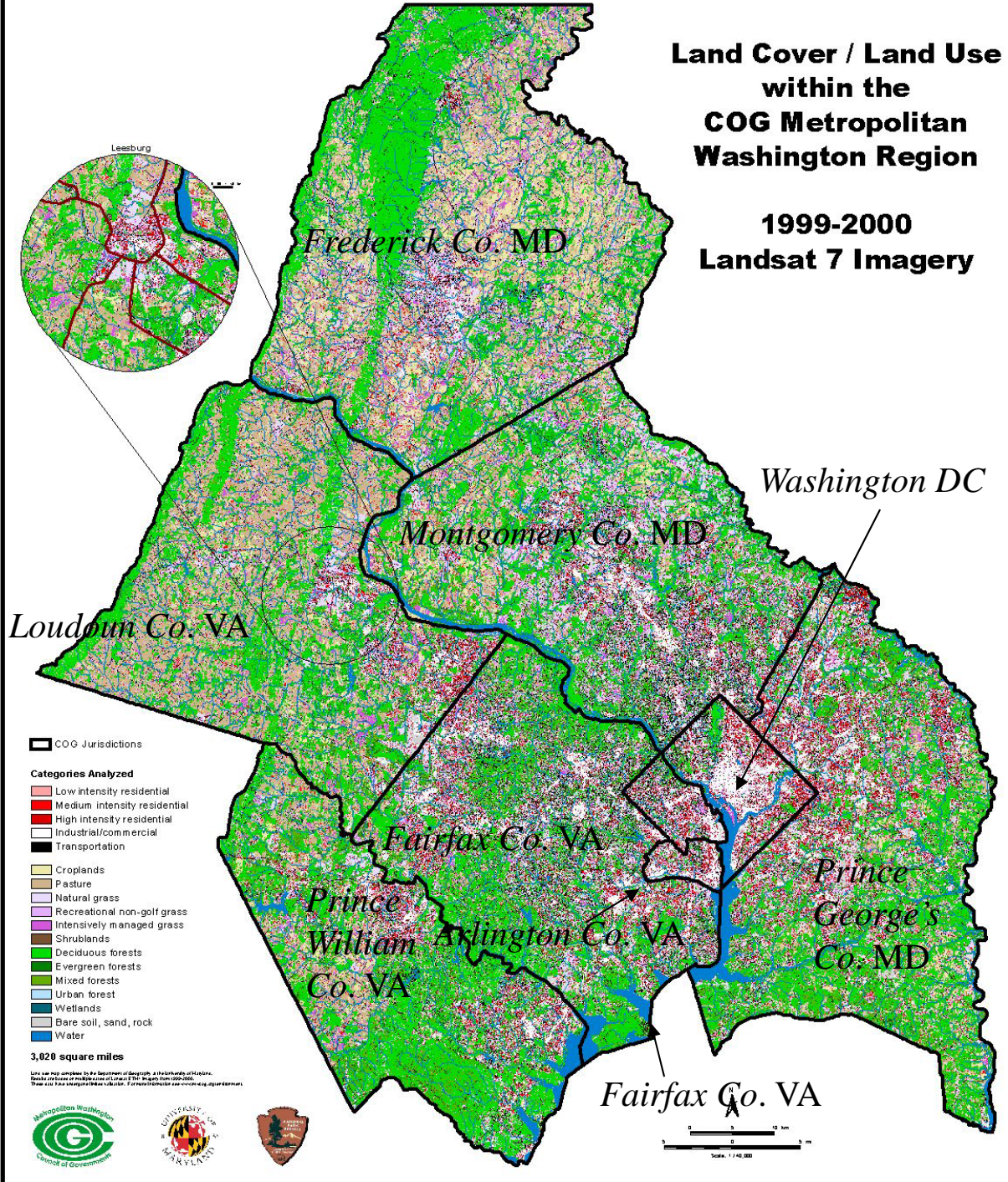


Metropolitan Infrastructure?

- ❖ Seek Innovative Approaches to Regional Planning Challenges
 - ❖ Develop Incentives and Tools for Open Space Set-Asides
 - ❖ Promote Case Studies of Green Infrastructure Success Stories
 - ❖ Support Regional Farm Preservation Efforts and Local Food Production
 - ❖ Maintain, Enhance & Connect Existing Green Infrastructure
-

Land Cover / Land Use within the COG Metropolitan Washington Region

1999-2000
Landsat 7 Imagery



- COG Jurisdictions
- Categories Analyzed**
- Low intensity residential
- Medium intensity residential
- High intensity residential
- Industrial/commercial
- Transportation
- Croplands
- Pasture
- Natural grass
- Recreational non-golf grass
- Intensively managed grass
- Shrublands
- Deciduous forests
- Evergreen forests
- Mixed forests
- Urban forest
- Wetlands
- Bare soil, sand, rock
- Water



















3,020 square miles

Use as map symbol by the Department of Geograph, at the University of Maryland.
 Thanks to the use of the Landsat 7 imagery (2000-2001).
 Data: USGS Landsat 7 Imagery, 2000-2001. See www-1.usgs.gov/landsat



 COG Jurisdictions

Categories Analyzed

-  Low intensity residential
-  Medium intensity residential
-  High intensity residential
-  Industrial/commercial
-  Transportation
-  Croplands
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-  Deciduous forests
-  Evergreen forests
-  Mixed forests
-  Urban forest
-  Wetlands
-  Bare soil, sand, rock
-  Water

Chesapeake Bay Program Land Cover Categories

**13 - Total – Land-
Cover Classes**

**5 - Primary Land-
Use Classes**

Quantifying

- **Green Infrastructure 2012 Update** to the 2004 Regional Landsat / Land Cover Map (Spring 2013)
- Provide recommendations for local forest cover and agricultural lands protection

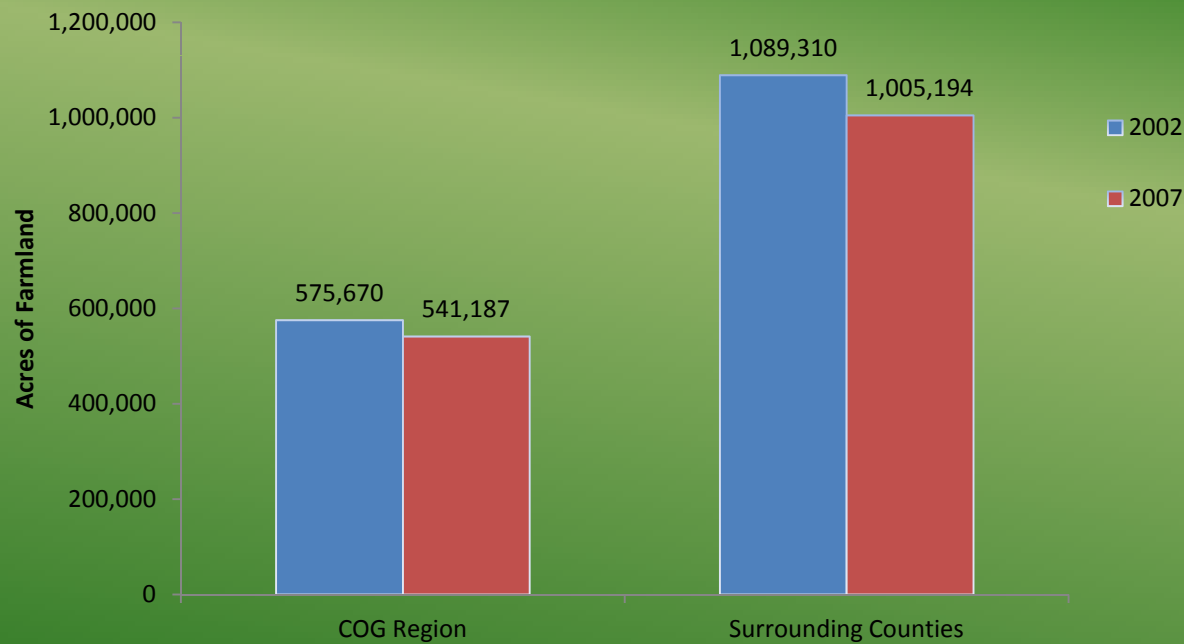


Working Lands in the Washington Region



Land In Farms

Figure 3. Acres of Farmland, 2002-2007



In 2007 1,549,381 acres (28%) of the 5,600,544 acres in the Washington Region were being used for Agriculture

Agricultural Economy

Crop and Livestock* + Vegetables +
Horticultural + Orchard + Vineyard +
Wineries + Equine
= (over one billion dollars) !!!

* Livestock production does not include horse boarding facilities.

Promoting and Protecting Working Lands in the Washington Metropolitan Area

Formed: 2005

The Regional Agricultural Workgroup's key focus is to investigate potential approaches for sustaining an economically viable regional agricultural system through better support of farms, farmers, farm programs and marketing of local agricultural products in the Washington Metropolitan Area.

Members of the Washington Regional Agricultural Workgroup include:

- *Frederick County, MD*
- *Montgomery County, MD*
- *Prince George's County, MD*
- *Loudoun County, VA*
- *Fauquier County, VA*
- *Jefferson County, WV*
- *Fresh Farm Markets*
- *Potomac Vegetable Farms*
- *Piedmont Environmental Council*
- *Metropolitan Washington Council of Governments*



Agriculture

- **Business Incentive/Disincentive Factors:** Economic / Financial, Regulatory, Agricultural Infrastructure, Crop / Product Diversification, Labor, Technical Support, Farm Operator Recruitment
- **Advocacy and Outreach:** Regional Networking, Public Education, Community Support, Lobbying, Database Creation and Sharing
- **Marketing:** “Buy Local” Marketing, Farmers Markets, Agri-Tourism, Non-Regional (Interstate & International) Marketing

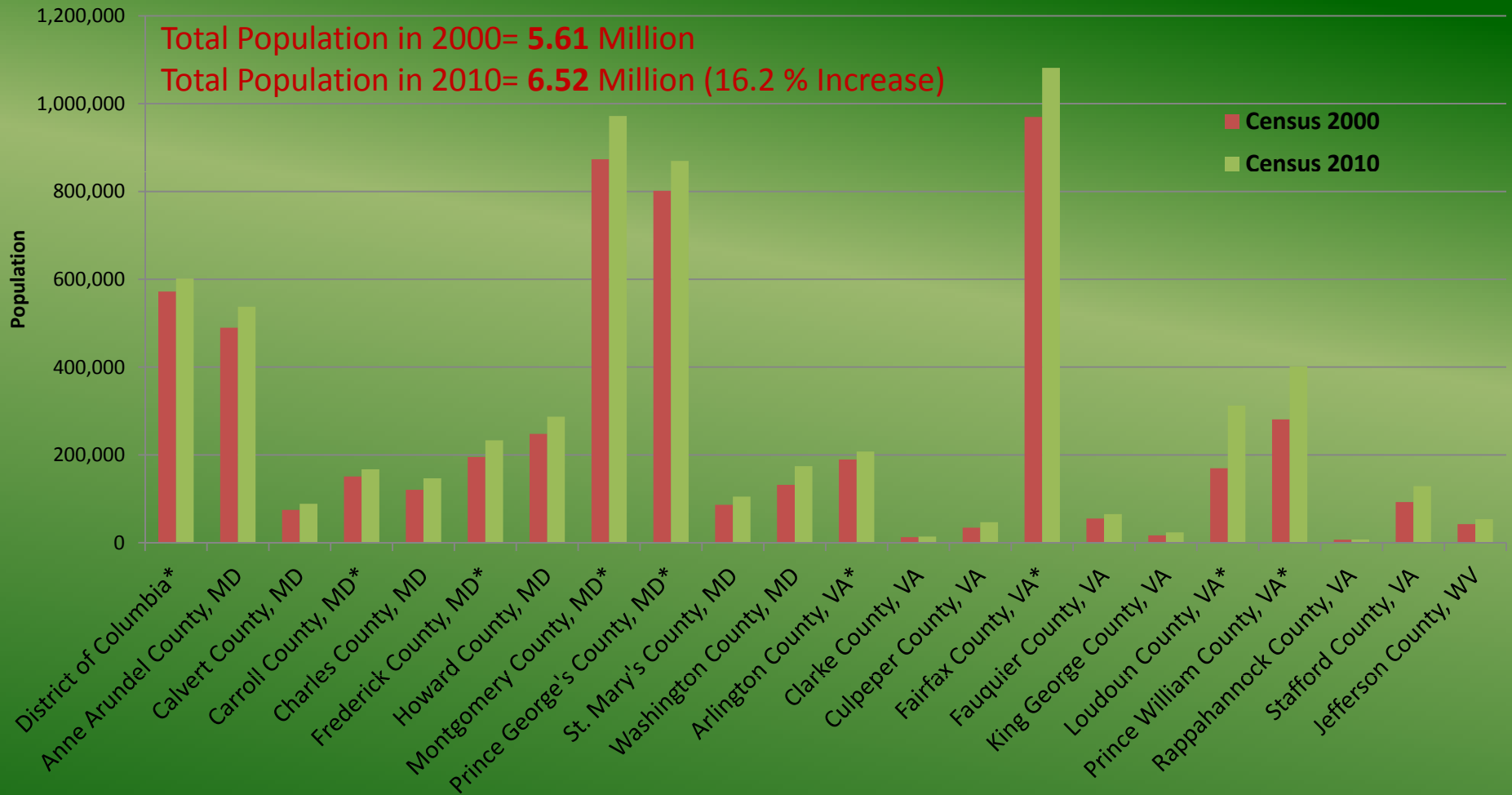
Priorities & Initiatives

- Promote Local Government Ag. Programs & Initiatives
- Cross-Jurisdictional Coordination
- Farm / Farm Market Support
- 2005 & 2010 Agricultural Working Lands Forums
- Regional Agriculture Web Site
www.nationalcapitalfarms.org
- Regional Agricultural Data
- *“What Our Region Grows”* Report
(December 2012)



Population Growth

Regional Population: 2000-10



What Our Region Grows:



A look at Agricultural Production and Demand in the Washington Area Foodshed¹

¹Based on the U.S. Food Market Estimator

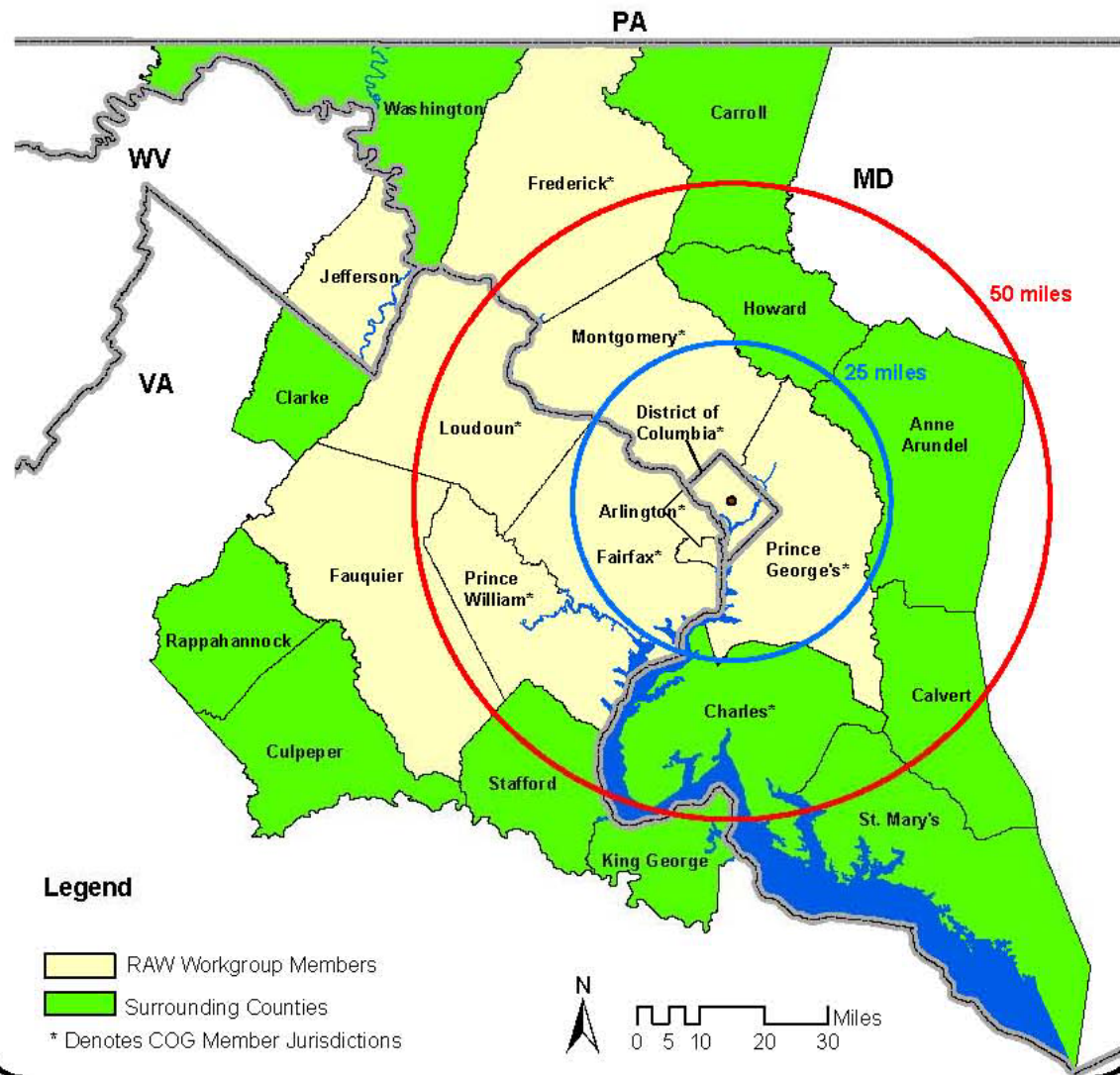
December 2012



Table of Contents

	Page
Glossary of Terms.....	vi
Executive Summary.....	ix
The Washington Agricultural Region.....	1
Where Does Our Food Come From?.....	4
Dairy.....	10
Regional Relationship: Poultry and Grain.....	11
Local Agricultural Challenges.....	13
Most Frequently Reported Impediments to Agriculture.....	15
Opportunities.....	19
Local Food and Wines.....	19
Agritourism.....	19
Community Supported Agriculture.....	20
Local Experiences.....	21
Montgomery County, Maryland.....	21
Frederick County, Maryland.....	22
Prince George’s County, Maryland.....	24
Loudoun County, Virginia.....	26
The Increasing Demand for Growing Local.....	28
Summary Recommendations and Next Steps.....	30
Literature Cited.....	31
Photo Credits.....	32
Special Thanks.....	32
Appendix 1: Regional Data on Select Crops and Animals.....	33
Fruits.....	34
Vegetables.....	37
Grains.....	42
Meats and Dairy.....	45

Figure 4: The Core Washington Agricultural Region



Products delivered to local farmers markets travel an average of 50-75 miles one-way; much of which originates in the twelve counties that surround the 3,600 sq. mi. Metro-region.

Conclusion

- 2007 – Total of 12,093 Farms in the Washington Region
- Regionally grown products made up less than 1% of the total food sold
- Top five beef-producing states – TX, MO, OK, TN, KY
- Increasing amounts of imported fruits and vegetables (principally from Mexico, Latin American, Canada & China)

www.ctre.iastate.edu/marketsize

What is the U.S. Food Market Estimator?

The U.S. Food Market Estimator is designed to help users determine the potential demand, by county in the United States, for more than 200 different food items. This is an expansive tool, using data collected each year by the U.S. Department of Agriculture's Economic Research Service (ERS).

What are the limitations of this tool?

- The U.S. Food Market Estimator is intended for comparative and strategic uses.
- Information is based on national averages; it does not account for seasonal or geographic dynamics of specific product markets.
- Results should be used to gauge approximate market size for general applications.

- What is the U.S. Food Market Estimator?
- How does this tool work?
- Does this tool show actual consumption?
- What are the limitations of this tool?
- What food products are included?
- How are units of measure determined?
- Who might use this tool?
- Who developed the U.S. Food Market Estimator?

For more information

Contact Craig Chase, (515) 294-1854, cchase@iastate.edu.

Published by the Leopold Center for Sustainable Agriculture at Iowa State University. Developed and hosted by the Center for Transportation Research and Education at ISU.

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1. Select Food Products

Fields left blank will include results for all items in that group or product.

Food Group	Sub-Group	Product	Sub-Product
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. Select Market Factors

Units	Distribution	Timeframe
Pounds	Production Needed	Annually

State

3. Market Share

(national, state or county)

Percentage (%):

CALCULATE

RESET

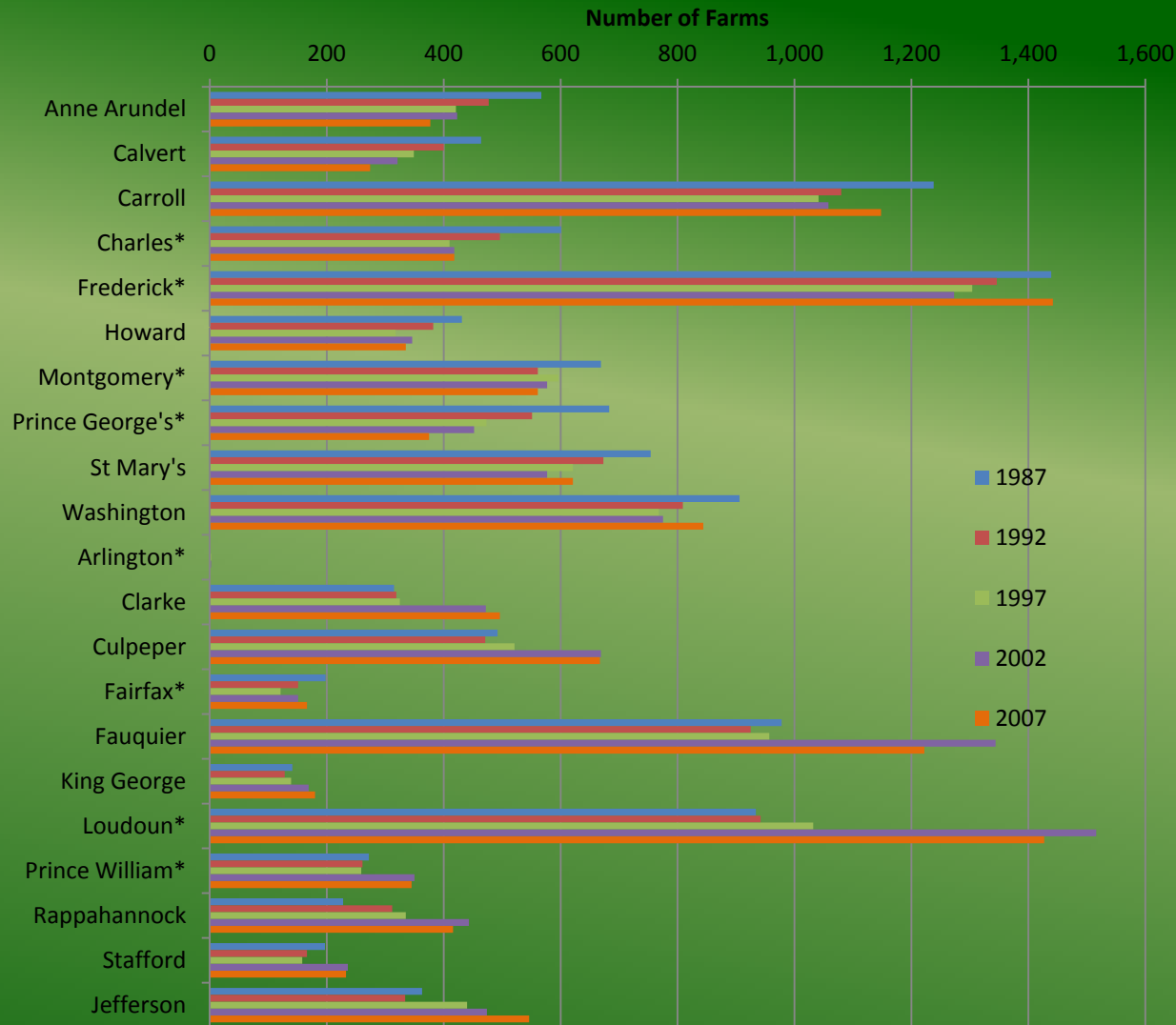
Select Regional Production and Demand



(According to the 2002 & 2007 USDA NASS Census of Agriculture)

	Fruits			Vegetables				Starches			Meats			Dairy	
Jurisdiction	Blueberries	Strawberries	Apples	Beans	Tomatoes	Pumpkins	Squash	Potatoes	Sweet Corn	Corn Meal	Wheat Flour	Chicken	Beef*	Hogs	Milk
Maryland															
Frederick	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No	No	Yes
Montgomery	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
Charles	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
Prince George's	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
Virginia															
Arlington	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Fairfax	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Loudoun	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
Prince William	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No

Number of Farms



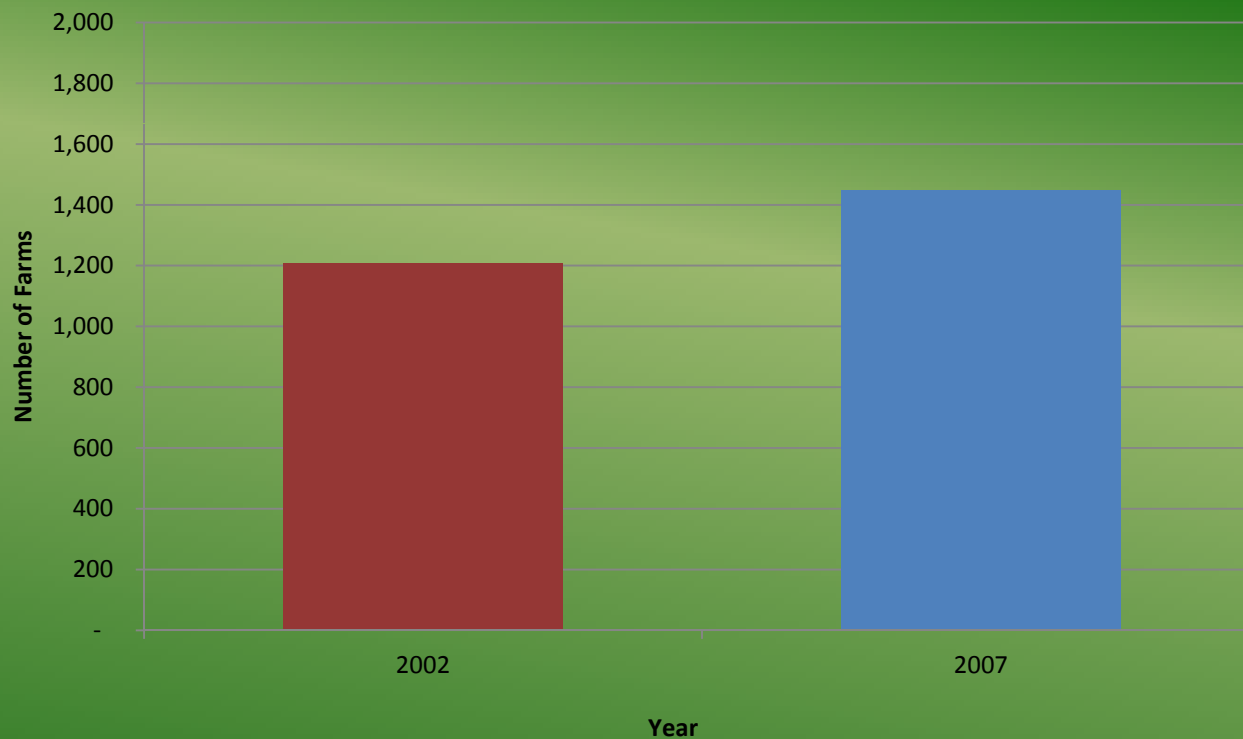
Total Number
of Farms in
the Region

1987= 11,871

2007= 12,093*

*Note: Average
farm size is
decreasing.

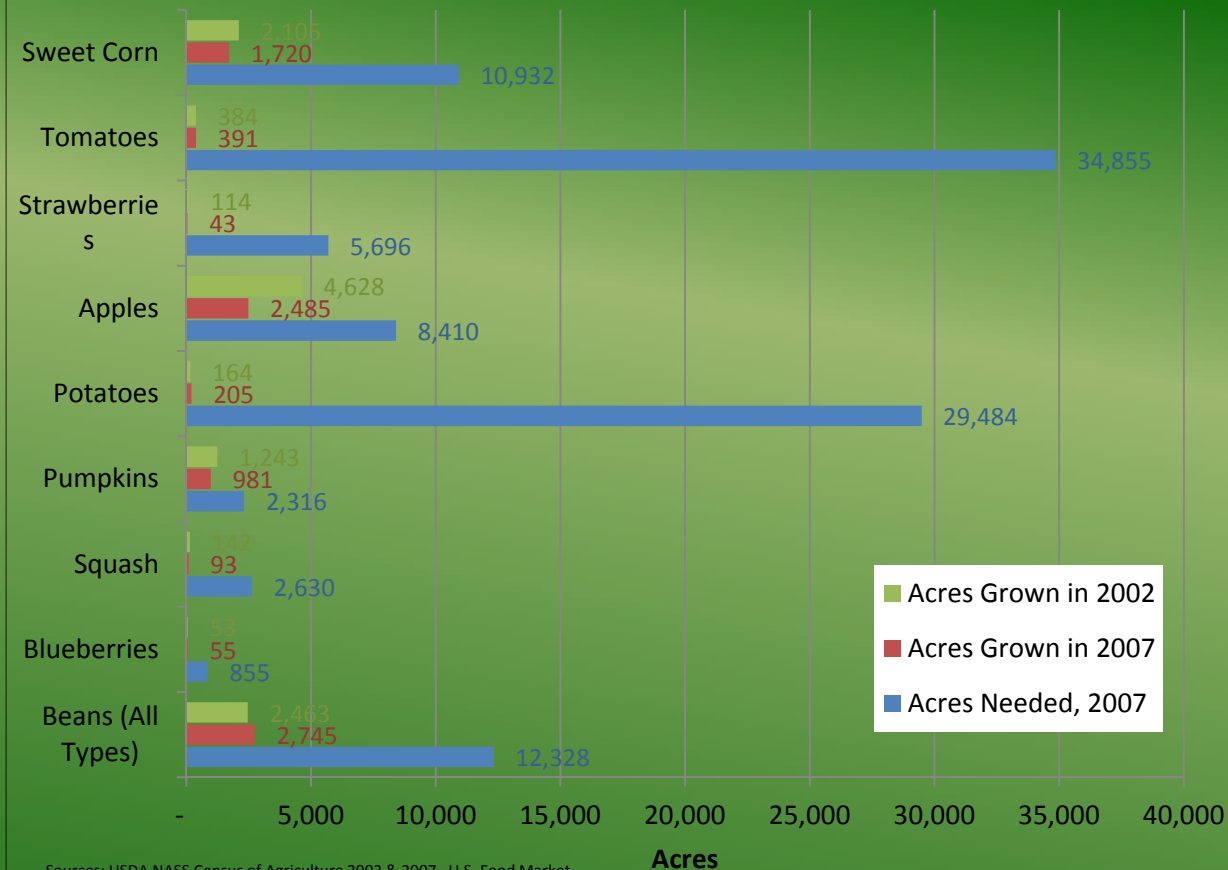
More Small Farms



Source: USDA NASS Census of Agriculture 2002 & 2007.

Crop Production vs. Demand in the Washington Region (2002 & 2007)

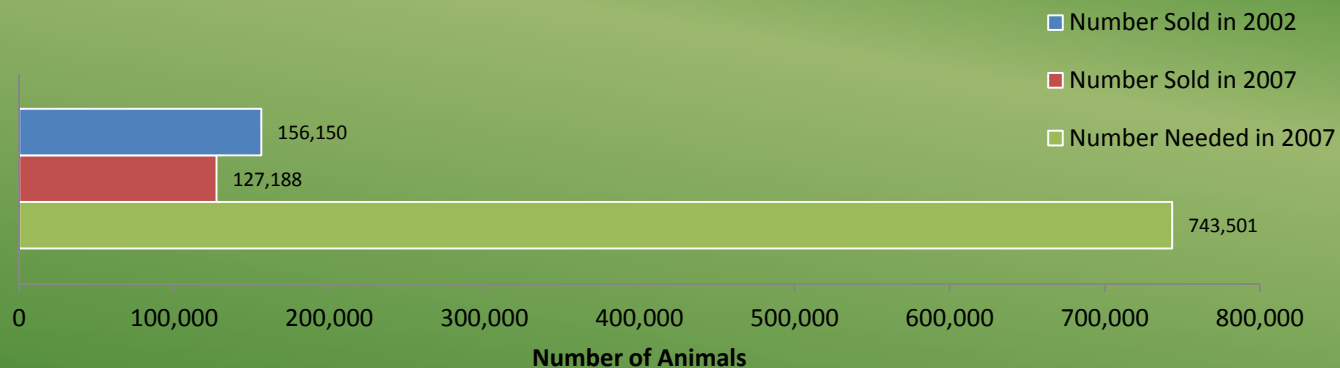
Figure 1. Crop Production Versus Demand in the Washington Region (2002 & 2007)



Sources: USDA NASS Census of Agriculture 2002 & 2007. U.S. Food Market Estimator hosted by the Leopold Center for Sustainable Agriculture.

Select Livestock Production vs. Consumption in the Washington Region (2002 & 2007)

Figure 7b. Beef Production Versus Demand in the Washington Region



Poultry

- 1.5 million acres in the Washington agricultural region is used for growing corn and soybeans
- The Delmarva poultry industry is the largest consumer of these grains, and in 2009 consumed over 98 million bushels
- The Eastern Shore poultry industry supports Western Shore farming

Issues

- High price of land
- Loss of support services (*equipment dealers, meat processing, feed stores*)

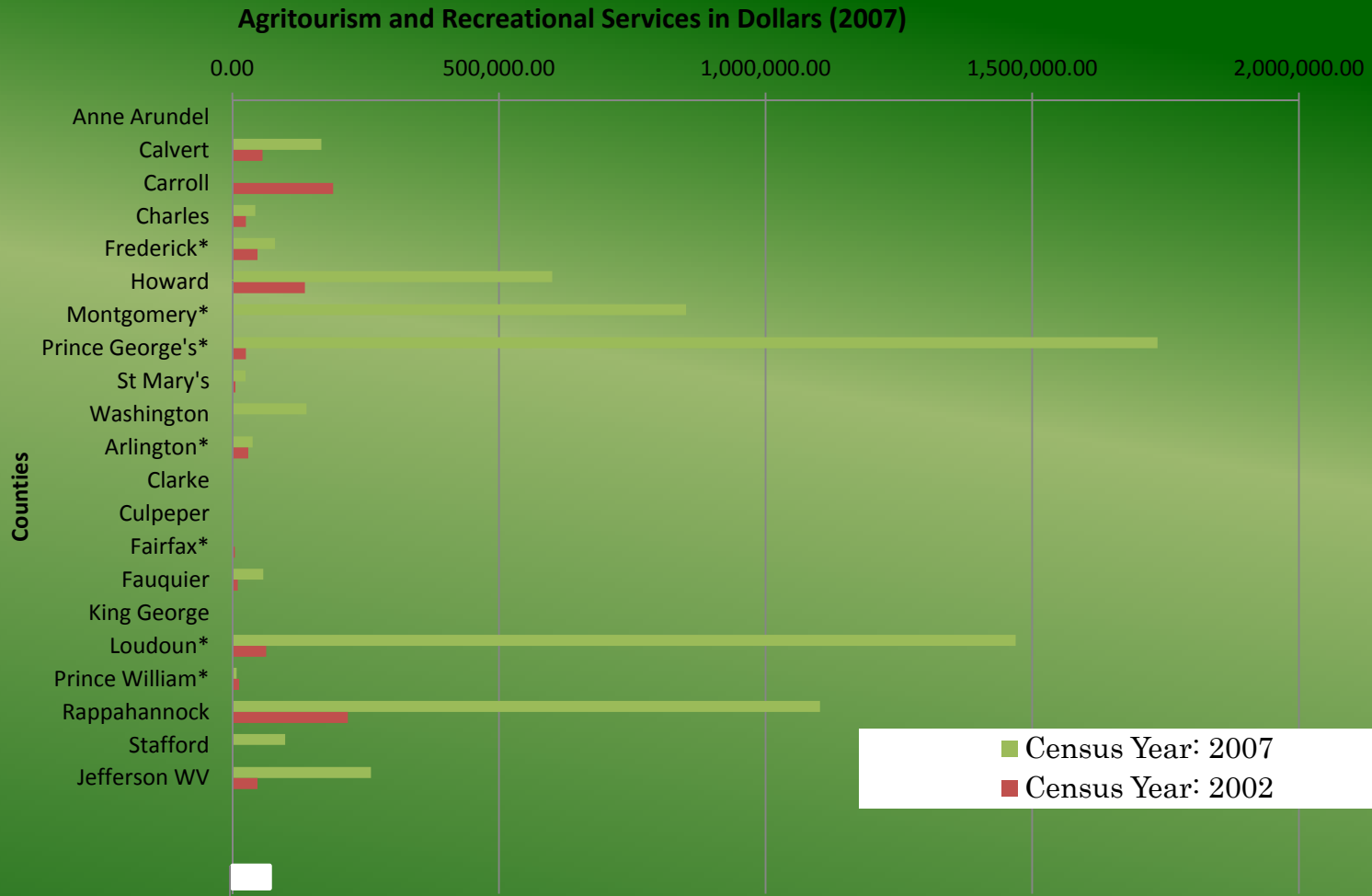


Impacts

- Aging farmer population
- Not enough new farmers
- Farmland fragmentation
- Labor (cost, housing & benefits)
- Regulations (environment & health)
- Restrictive zoning
- Water

- ‘Niche’ farming (specialty meats, fruits, vegetables, etc.)
- Local food and wines
- Community supported agriculture (CSA)
- Agritourism

Agri-tourisms Contribution



*Four counties featured: Montgomery, Frederick,
Prince George's & Loudoun*

- Includes Challenges, Top Three Lessons-Learned & Snapshots

A Snapshot of Montgomery's Rural Economy:

- 561 farms, 27 percent female principal operator
- 71,622 acres of farmland protected
- Expanding hay industry feeding a growing horse population of nearly 10,000 animals
- Over 1.0 million bushels of corn for grain harvested on 12,675 acres
- 279,039 bushels of soybeans harvested on 11,688 acres
- 244,446 bushels of winter wheat grown on 4,161 acres
- 80 beef cattle farms (ranked 8th among all MD counties in 2007)
- 49 fruit, vegetable, and/or nut farms
- Seven sod farms, 150 landscape, arborist, and lawn care businesses
- **Economic contribution to County's economy - \$243,378,896/year**

*Four counties featured: Montgomery, Frederick,
Prince George's & Loudoun*

- Includes Challenges, Top Three Lessons-Learned & Snapshots

A Snapshot of Frederick's Rural Economy:

- 1,442 farms
- Approximately 202,087 acres of remaining farmland in 2007 (ranked 1st among all MD counties); an increase of almost 4,000 acres over 2002
- Beef cows - ranked 1st among all MD counties in 2007
- Hogs - ranked 1st among all MD counties in 2007
- Milk cows - ranked 1st among all MD counties in 2007
- Organic farms - ranked 1st among all MD counties
- 1,850,000 bushels of corn for grain harvested on 26,000 acres
- 844,000 bushels of soybeans harvested on 33,700 acres
- 885,000 bushels of winter wheat grown on 14,000 acres (ranked 3rd among all MD counties in 2007)
- Number one in wineries in MD (Nine)
- **Economic contribution to County's economy - \$130,000,000/year**

*Four counties featured: Montgomery, Frederick,
Prince George's & Loudoun*

- Includes Challenges, Top Three Lessons-Learned & Snapshots

A Snapshot Of Prince George's Rural Economy:

- 375 farms
- Approximately 37,005 acres of remaining farmland in 2007
- 330,000 bushels of corn grown for grain harvested on 3,800 acres
- 120,000 bushels of soybeans harvested on 3,400 acres
- 31 sheep farms and approximately 358 sheep
- 7,100 horses and equine inventory valued at \$196,715,000
- Horticulture - approximately 615,000 square feet (14.1 acres) under glass
- Vegetable production - ranked 8th among all MD counties in 2007
- Five CSA farms
- 18 Farmers markets

*Four counties featured: Montgomery, Frederick,
Prince George's & Loudoun*

- Includes Challenges, Top Three Lessons-Learned & Snapshots

A Snapshot Of Loudoun's Rural Economy:

- 1,427 farms
- Largest number of female-operated farms in VA (468)
- Largest equine population in VA (15,500 horses and ponies, valued at \$208,855,000)
- Largest number of cut flower growers in VA (14 farms)
- Largest number of berry growers in VA (3rd largest acreage)
- Largest number of alpaca farms in VA
- Largest number of wineries in VA (2nd largest acreage)
- 2nd largest number of Christmas tree farms
- 2nd largest acreage of nursery stock production
- 4th largest hay production in VA (64,300 acres)
- 14 Farmers markets/wayside stands

‘Growing Local’

- Over 150 CSA's in the region, and growing
- Over 100 restaurants serving locally grown food
- From 2002 to 2007, 17% increase in direct to consumer sales

Report

- Develop a regional strategic agricultural support plan
- Remove / modify regulatory obstacles
- Create farm incubator training and local processing facilities
- Promote farmer-friendly tax incentives
- Maintain adequate funding for agricultural-related support services

Report

Continued

- Develop new food hub / aggregator opportunities
- Support agriculture in the school curriculum
- Aggressively market local agriculture
- Expand farmer-mentoring and land leasing opportunities
- Make farming-related loans easier to obtain

www.nationalcapitalfarms.org



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