CHESAPEAKE BAY FOUNDATION

Environmental Protection and Restoration
Environmental Education

Senate Bill 11

Sales and Use Tax – Agricultural Purpose Exemption –
Seedlings and Fruit Trees

Date: January 26, 2021
To: Senate Budget and Taxation Committee

Position: Support
Contact: Rob Schnabel, Maryland Restoration Specialist rschnabel@cbf.org

Chesapeake Bay Foundation (CBF) **SUPPORTS** SB 11 which provides for an agricultural tax exemption for the purchase of seedlings and fruit trees in addition to existing exemptions for farm trucks, tractors, fuel, seed, livestock, pesticides, herbicides, and fertilizer.

Extending the Agricultural Tax Exemption to seedlings and fruit trees may reduce polluted runoff from agricultural lands into local waterways and the Chesapeake Bay

The Maryland agricultural community is tax exempt for many purchases related to production needs. SB 11 extends that tax exemption to seedlings and fruit trees. This extension could encourage more tree planting on agricultural lands, including buffers that filter nitrogen pollution from entering local waterways and the Chesapeake Bay. The State's Agricultural Sector Watershed Improvement Plan relies heavily on reductions in pollution from farms to meet the goals of the Chesapeake Bay Blueprint. SB 11 will complement the efforts of the Department of Agriculture to plant forested buffers on agricultural lands.

SB 11's exemption may encourage local food production, reducing greenhouse gas emissions that negatively affect the Chesapeake Bay

Maryland fruit production does not meet annual consumer demand, only producing 9% of apples and 15% of peaches consumed every year.[1] Seedlings used to plant buffers along cropland will sequester carbon and reduce that State's greenhouse gas emissions.

Fruit trees planted may support local food markets, reducing the need from transporting produce from other states or countries and the associated greenhouse gases. According to the 2012 USDA Agriculture census data there are approximately 282 fruit farms on 3,454 acres in Maryland. Increasing the number of fruit farms and acres in orchards may allow Maryland to fulfill more demand for fruit through local sources.

CBF urges the Committee's FAVORABLE on SB11.

[1] Maryland Grown: How what we grow compares to what we eat", Johns Hopkins Center for a Livable Future, April 2015 https://clf.jhsph.edu/publications

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April 2015

Maryland Grown:

HOW WHAT WE GROW COMPARES WITH WHAT WE EAT

Maryland Food System Map

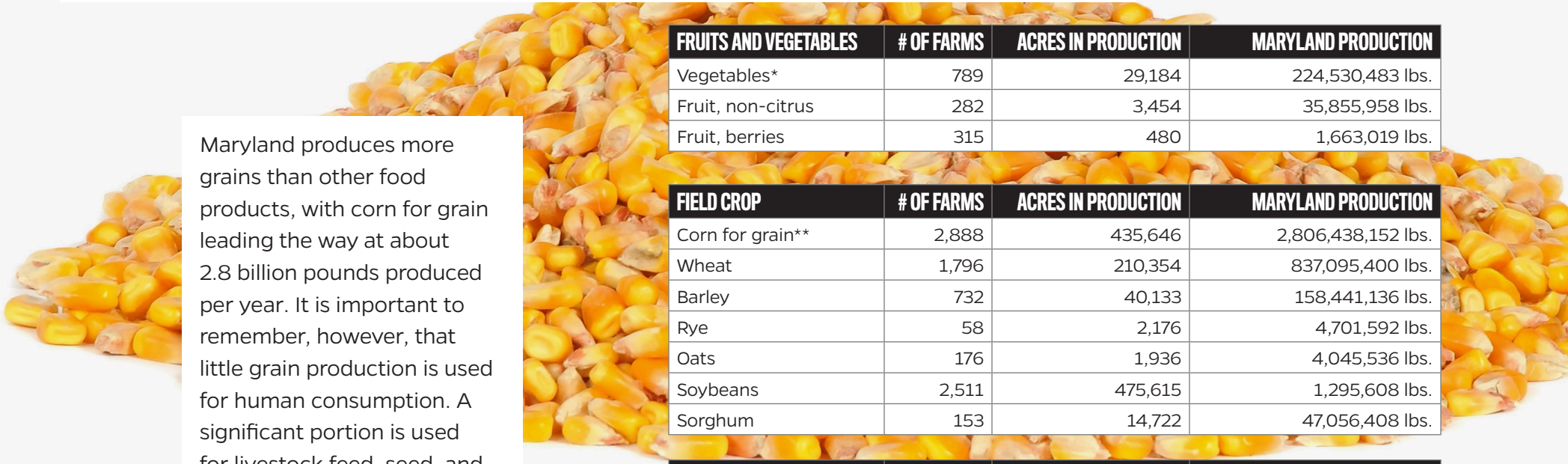
JOHNS HOPKINS
CENTER *for* A LIVABLE FUTURE

INTRODUCTION

The USDA Census of Agriculture provides a wealth of data on what, where and how much land is farmed across the country. This invaluable information can help inform and guide agriculture planning and allow researchers, farmers and consumers to see trends from past to present. This report will examine crop, acreage, and animal data from the 2012 Census of Agriculture and translate them into estimates of how many pounds of food is produced per crop and livestock animal in the state of Maryland. It also explores how much food is consumed by Marylanders using estimates of food availability. Lastly, a comparison is made between production and consumption estimates.

This comparison is an exercise to help understand the potential for Maryland agriculture to meet Maryland consumption demands, especially as consumers and large institutions are beginning to prioritize purchasing local foods. We recognize that most food produced locally does not stay within the state and is consumed by people outside of Maryland. While it is unrealistic to propose that Maryland agriculture could attempt to meet all demand, we could increase the percentage of food grown in Maryland that is consumed locally. Additionally, the link between agriculture and the foods we eat is often missing or neglected. This report helps to create that connection and can be used to guide and inform local production, distribution, and buying.

SUPPLY: WHAT'S PRODUCED IN MARYLAND? AND HOW MUCH IS PRODUCED?



Maryland produces more grains than other food products, with corn for grain leading the way at about 2.8 billion pounds produced per year. It is important to remember, however, that little grain production is used for human consumption. A significant portion is used for livestock feed, seed, and industrial uses.

Fruit production is relatively low in comparison to other food products.

The number of farms that sold cattle is almost 3 times the number of farms that sold chicken for meat; however, the actual number of chickens sold is much higher than cattle. This indicates that, in terms of number of animals per farm, the size of cattle farms is much smaller than poultry broiler farms.

FRUITS AND VEGETABLES	# OF FARMS	ACRES IN PRODUCTION	MARYLAND PRODUCTION
Vegetables*	789	29,184	224,530,483 lbs.
Fruit, non-citrus	282	3,454	35,855,958 lbs.
Fruit, berries	315	480	1,663,019 lbs.

FIELD CROP	# OF FARMS	ACRES IN PRODUCTION	MARYLAND PRODUCTION
Corn for grain**	2,888	435,646	2,806,438,152 lbs.
Wheat	1,796	210,354	837,095,400 lbs.
Barley	732	40,133	158,441,136 lbs.
Rye	58	2,176	4,701,592 lbs.
Oats	176	1,936	4,045,536 lbs.
Soybeans	2,511	475,615	1,295,608 lbs.
Sorghum	153	14,722	47,056,408 lbs.

ANIMAL PRODUCTS	# OF FARMS	# OF ANIMALS	MARYLAND PRODUCTION
Cattle, dairy	573	50,923	977,517,908 lbs.***
Chicken, broilers, meat	854	304,729,435	580,527,583 boneless lbs.
Chicken, egg layers	1,544	2,364,942	85,475,240 lbs.
Cattle, beef	2,663	89,755	83,385,150 boneless lbs.
Turkey	117	154,404	2,881,185 boneless lbs.
Hogs and pigs, pork	340	D****	D****

*Due to production practices, the USDA classifies melons as vegetables and, therefore, they are represented in the "Vegetables" category above. In subsequent tables and graphs, melons will be represented as fruits.

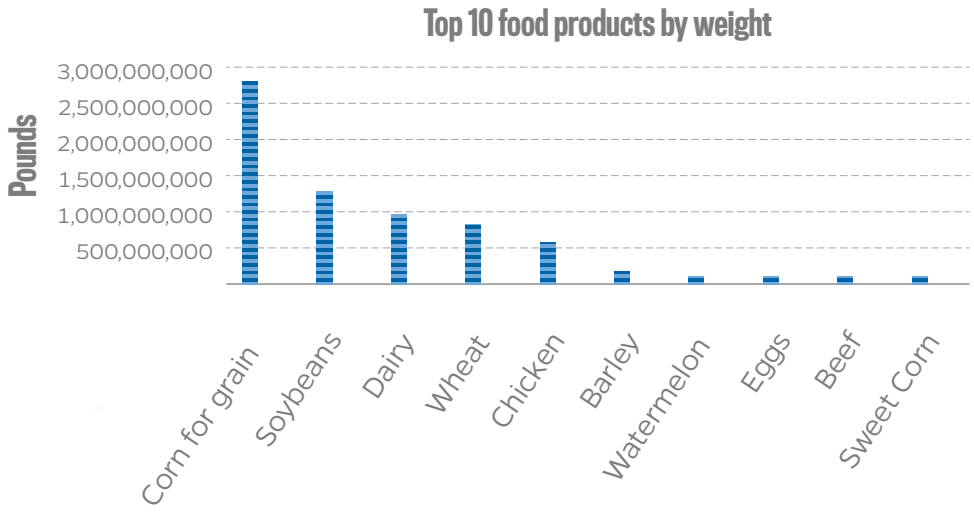
**Corn for grain, also known as field corn, does not include sweet corn, which is specifically grown for the vegetable market.

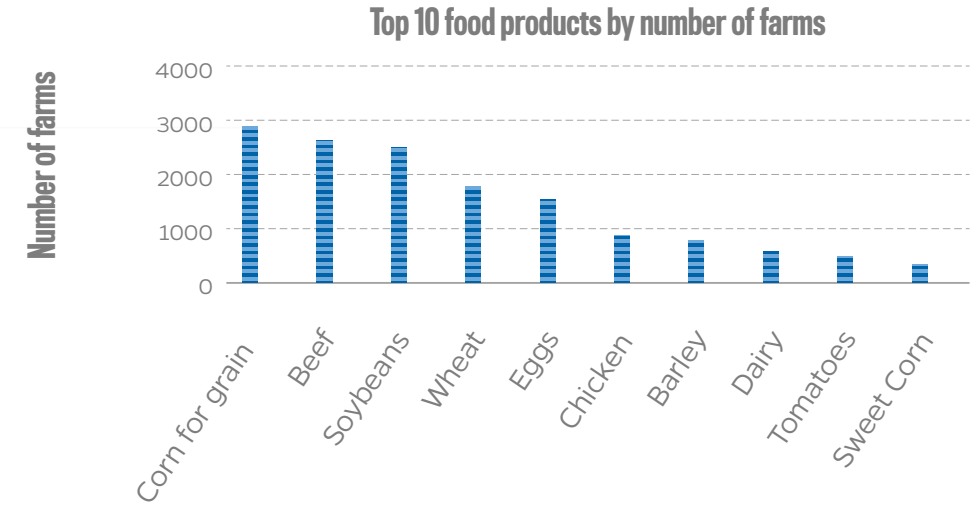
*** Pounds of farm milk, for direct consumption or for making other dairy products

****Hogs and pigs are raised in MD for pork but data on the number of animals sold have been withheld from the Census of Agriculture to avoid disclosing data for individual farms. Therefore, production has not been calculated.

Maryland has a total of 12,256 farms covering a total of 2,030,745 acres. For a full list of crops included in this analysis, please see appendices A and B.

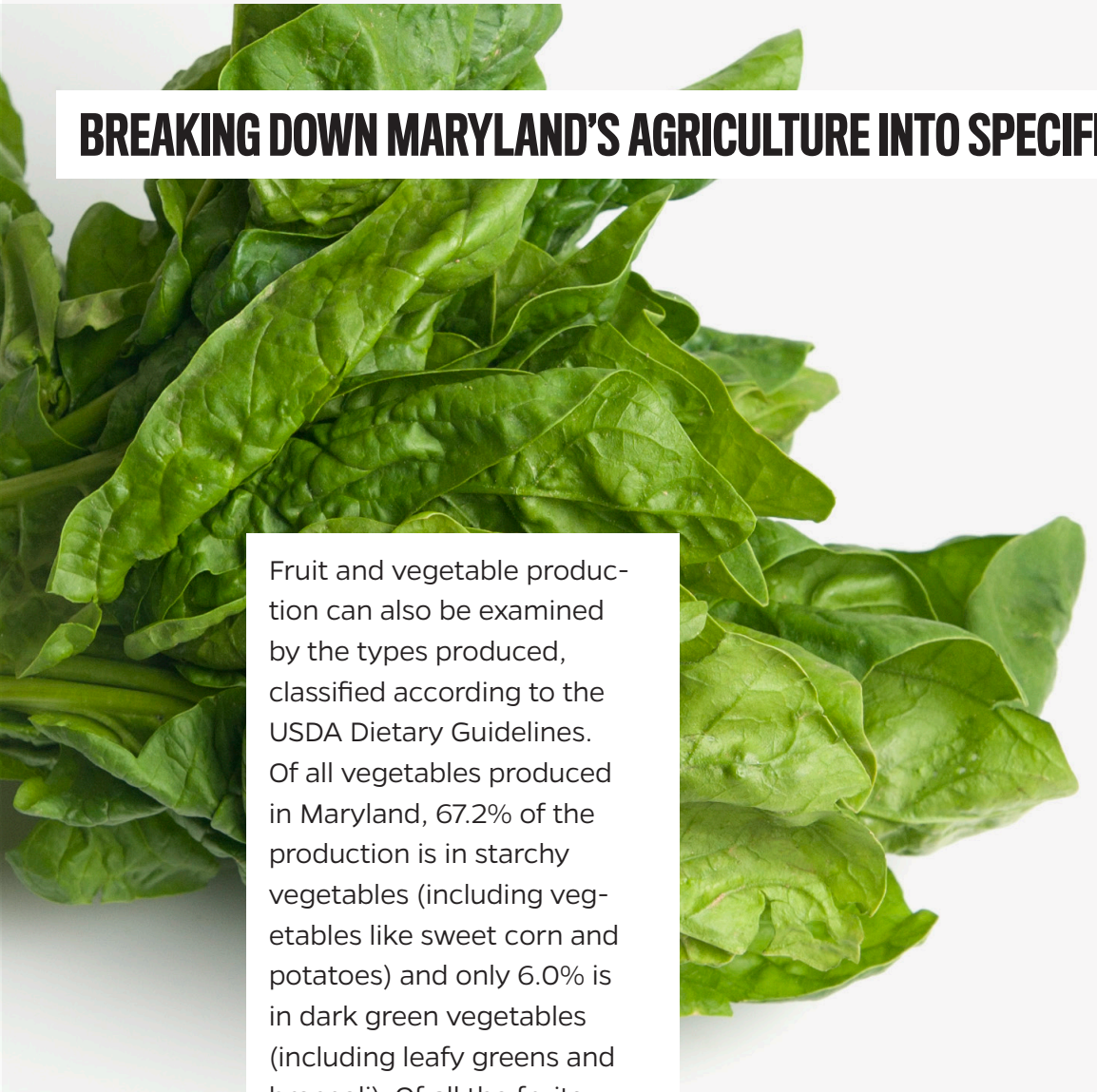
BREAKING DOWN MARYLAND'S AGRICULTURE INTO SPECIFIC FOOD PRODUCTS



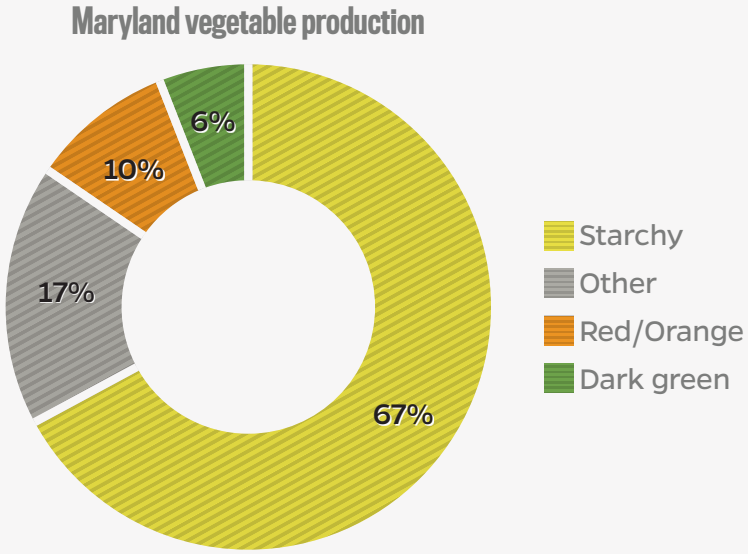


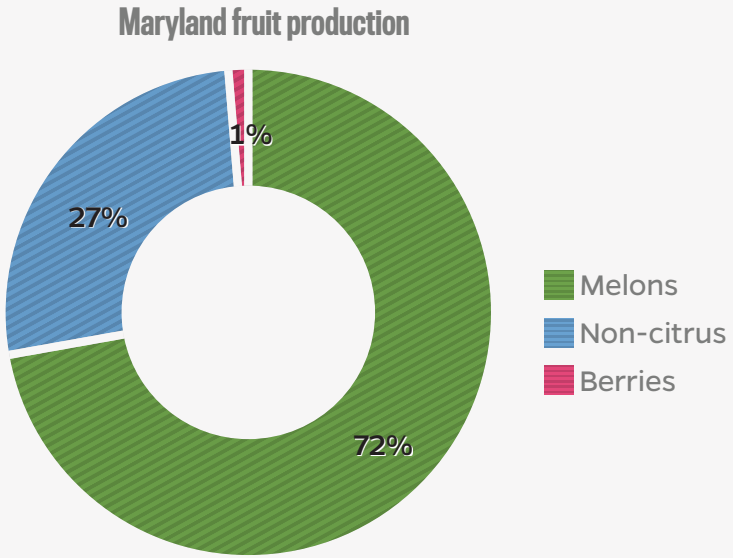
A large number of farms raising or growing food products does not necessarily mean a large number of pounds of production for that item. Some farms may be more diversified and have small amounts of acreage devoted to many products, while other farms may specialize and devote all of their acreage to one food product. For example, tomatoes are grown on almost 500 farms in Maryland—the 9th most popular food product produced on farms—but tomato production in pounds is comparatively low. This may be because a large number of farms have only a small portion of their land in tomato production. On the other hand, corn for grain is typically grown on farms that specialize in grain and devote a large amount of land to growing corn.

BREAKING DOWN MARYLAND'S AGRICULTURE INTO SPECIFIC FOOD PRODUCTS



Fruit and vegetable production can also be examined by the types produced, classified according to the USDA Dietary Guidelines. Of all vegetables produced in Maryland, 67.2% of the production is in starchy vegetables (including vegetables like sweet corn and potatoes) and only 6.0% is in dark green vegetables (including leafy greens and broccoli). Of all the fruits produced in Maryland, 72.2% of the production is in melons and only 1% in berries. For a full list of what vegetables and fruits are included in each category, please see the appendices A and B.





DEMAND: HOW MUCH FOOD DO MARYLANDERS CONSUME EACH YEAR?

FRUITS AND VEGETABLES	PER CAPITA CONSUMPTION*	MARYLAND CONSUMPTION**
Fruits, all types	244.8 lbs.	1,404,294,977.3 lbs.
Oranges	54.9 lbs.	314,883,384.0 lbs.
Apples	44.0 lbs.	252,457,524.0 lbs.
Grapes	17.9 lbs.	103,048,571.2 lbs.
Watermelon	14.8 lbs.	84,917,530.8 lbs.
Strawberries	9.7 lbs.	55,483,278.6 lbs.
Vegetables, all types	394.8 lbs.	2,265,232,510.8 lbs.
Potatoes	116.1 lbs.	666,143,603.1 lbs.
Tomatoes	86.8 lbs.	498,029,842.8 lbs.
Sweet corn	25.3 lbs.	145,163,076.3 lbs.
Spinach	2.6 lbs.	14,917,945.0 lbs.
Lima Beans	0.42 lbs.	2,409,822.0 lbs.

ANIMAL PRODUCTS	PER CAPITA CONSUMPTION	MARYLAND CONSUMPTION
Dairy***	611.0 lbs.	3,505,716,981.0 lbs.
Chicken	56.6 lbs.	324,752,178.6 boneless lbs.
Beef	54.5 lbs.	312,703,069.5 boneless lbs.
Pork	42.6 lbs.	244,424,784.6 boneless lbs.
Eggs	32.6 lbs.****	187,048,074.6 lbs.
Turkey	12.6 lbs.	72,294,654.6 boneless lbs.

*Data are compiled from the ERS Food Availability database, which reflects the amount of food available for human consumption in the United States and often used as a proxy for actual food consumption or demand.

**Maryland consumption was calculated using the Maryland population estimate for 2012, minus those under the age of 2 due to significantly different eating patterns, for a total of 5,737,671 people.

***Measured in milk equivalent. Milk equivalent is the amount of farm milk required to make all dairy products consumed on an annual basis, including products like cheese and butter.

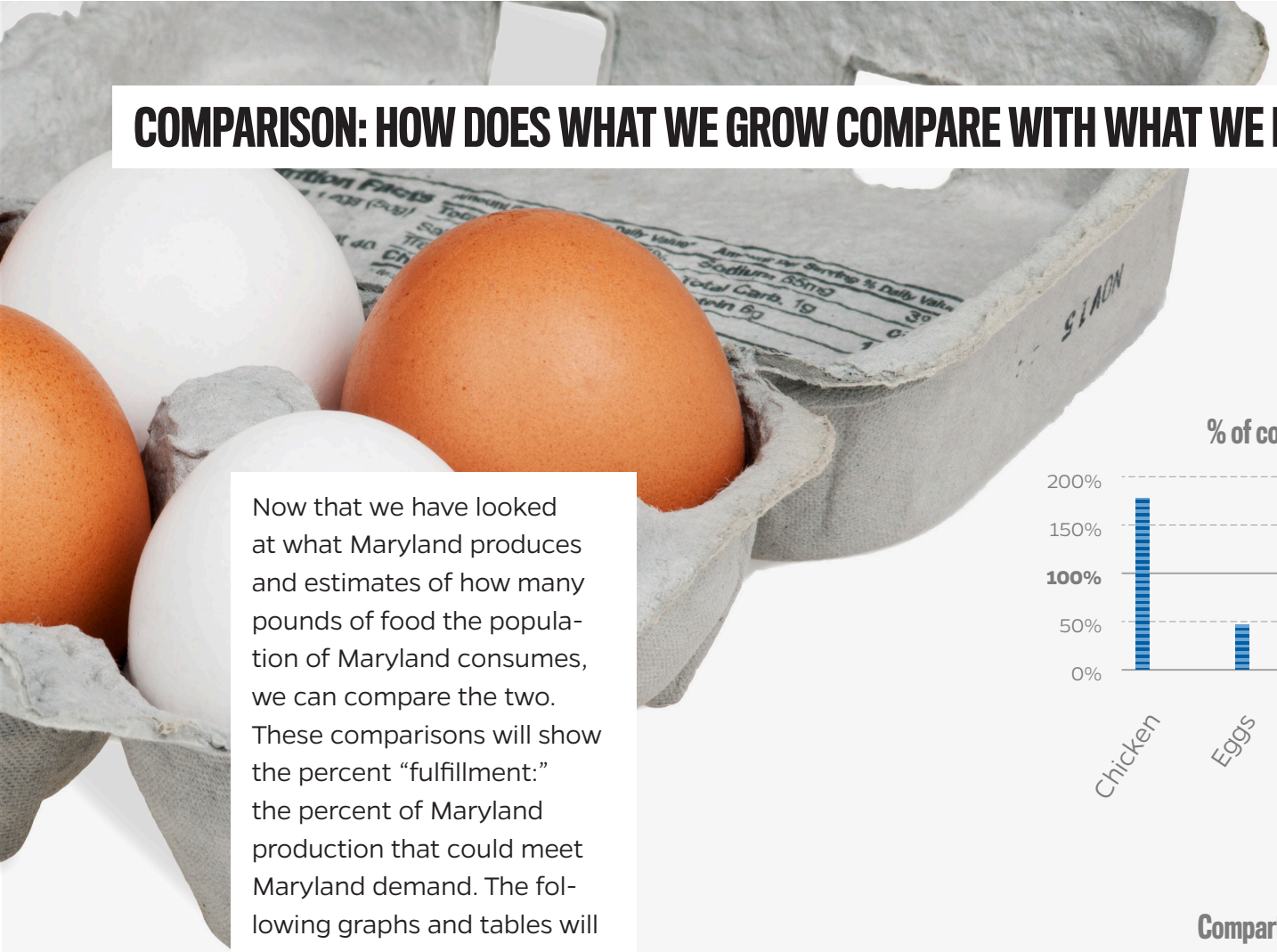
****About 249.5 eggs per year

This table to the left shows an estimate of how many pounds an average person might consume of different foods annually. This table does not represent every food item a person may eat but instead includes only whole, unprocessed foods, including fruits, vegetables, meats, eggs and dairy (excluding grains which may be made into numerous processed products).

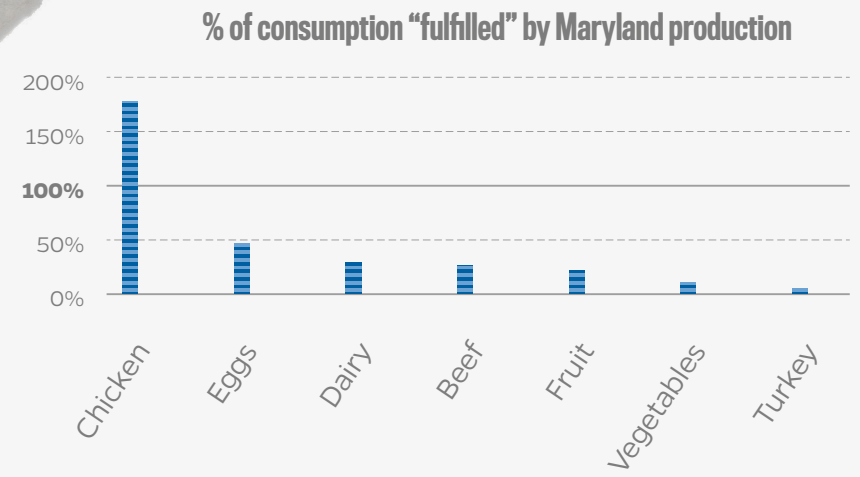
It is important to note that some fruits and vegetables consumed are produced outside of Maryland. For example, citrus fruits, like the oranges shown on this page, are one of the top consumed fruits but are difficult to grow in the Mid-Atlantic region due to its climate.

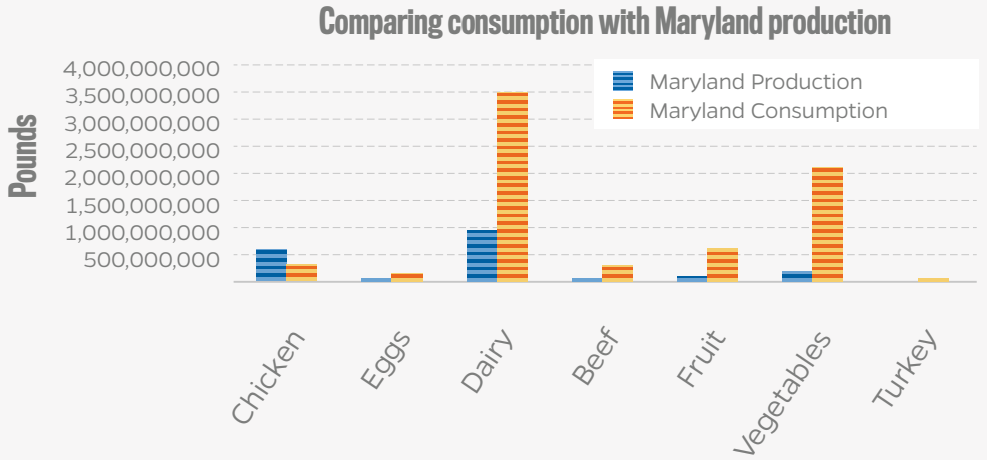
The following analysis will specifically focus on what is grown *and* produced in Maryland and how demand of those food types in Maryland compare.

COMPARISON: HOW DOES WHAT WE GROW COMPARE WITH WHAT WE EAT?



Now that we have looked at what Maryland produces and estimates of how many pounds of food the population of Maryland consumes, we can compare the two. These comparisons will show the percent "fulfillment:" the percent of Maryland production that could meet Maryland demand. The following graphs and tables will only include those products in which Maryland grows and where consumption estimates on those items were available. Please see appendices A and B for a full list of food items included and excluded from analyses.





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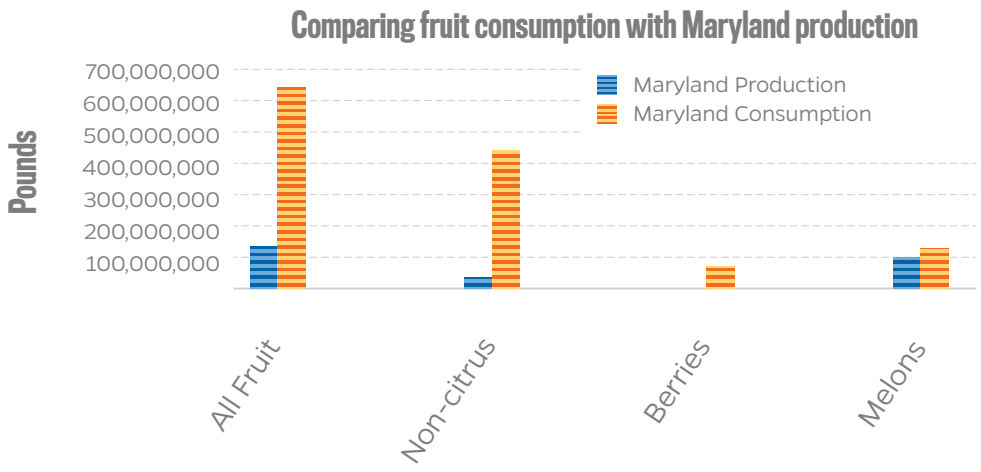
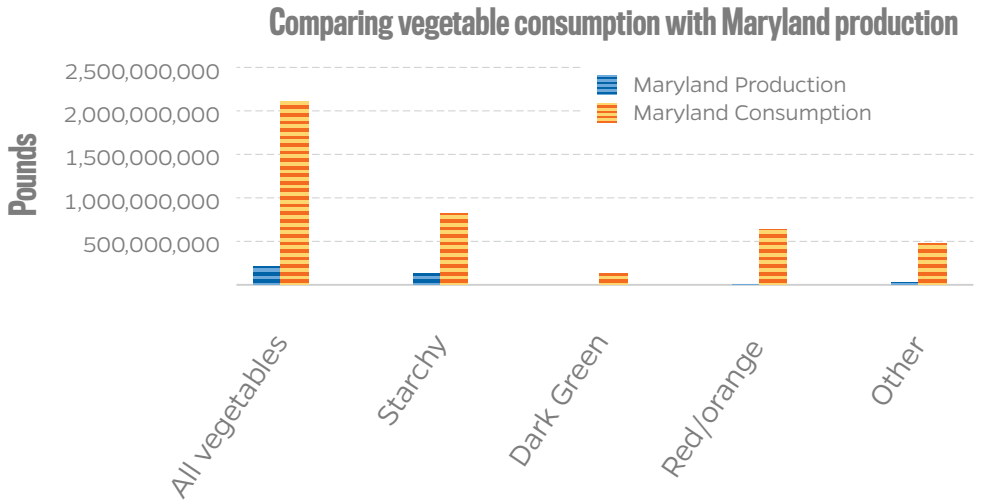


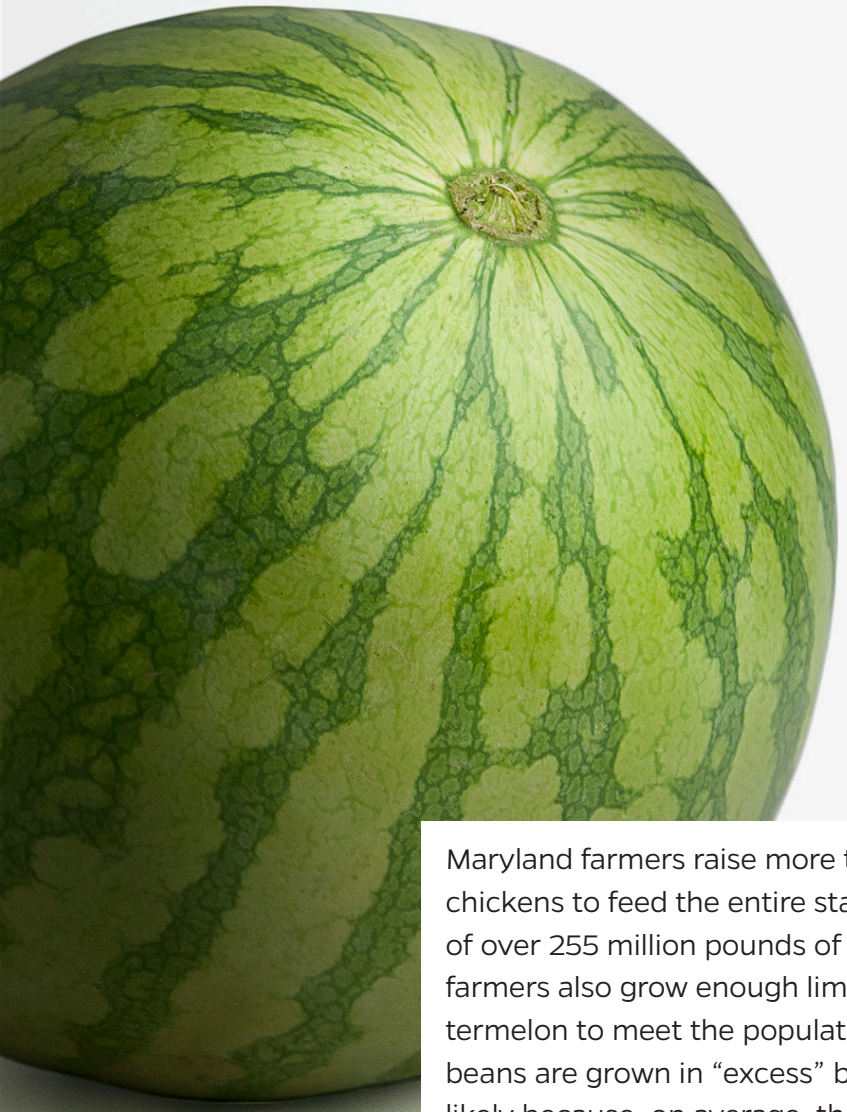


Overall vegetable production only meets 10.61% of current demand.

As mentioned previously, dairy is measured in milk equivalents, the pounds of farm milk needed to produce all the dairy products we eat and, therefore, is the largest food product represented for production and consumption estimates, with almost 3.5 billion pounds consumed and Maryland production "fulfilling" about 28% of that demand.

The "fulfillment" percentage for fruit is twice as high as that of vegetables. The graphs and charts left show that melon, specifically watermelon, production is driving the "fulfillment" for fruit.

COMPARISON: HOW DOES WHAT WE GROW COMPARE WITH WHAT WE EAT?



FOOD PRODUCT	% FULFILLMENT	SURPLUS/DEFICIT
Chicken	178.76%	255,775,404 lbs.
Lima beans	165.14%	1,569,807 lbs.
Watermelon	107.70%	6,538,669 lbs.
Spinach	67.74%	-4,813,245 lbs.
Sweet corn	57.39%	-61,851,666 lbs.
Snap beans	46.27%	-20,964,453 lbs.
Eggs	45.70%	-101,572,835 lbs.
Dairy	27.88%	-2,528,199,073 lbs.
Beef	26.00%	-237,323,534 lbs.
Pumpkins	23.98%	-23,116,615 lbs.
Peaches and Nectarines	15.46%	-35,747,285 lbs.
Apples	9.37%	-228,805,694 lbs.
Potatoes	8.64%	-608,614,395 lbs.
Grapes	4.36%	-98,554,235 lbs.
Turkey	3.99%	-69,413,470 lbs.
Asparagus	3.14%	-9,447,614 lbs.
Tomatoes	2.14%	-487,387,485 lbs.
Strawberries	1.38%	-54,720,223 lbs.
Onions	0.26%	-122,212,392 lbs.
Carrots	0.05%	-55,626,486 lbs.

Maryland farmers raise more than enough broiler chickens to feed the entire state, with a surplus of over 255 million pounds of chicken. Maryland farmers also grow enough lima beans and watermelon to meet the population's needs. Lima beans are grown in "excess" but this is most likely because, on average, the Maryland population consumes only 2,409,822 pounds annually (.42 pounds per person), which is quite low. On the other hand, tomato production would need to increase by a large amount (487,387,485 pounds!) to meet consumption demand due to the popularity of tomatoes and tomato products in the US diet (86.8 pounds per person annually). It is also important to note that local factors like climate and soil type may favor or hinder production, driving production up for what grows well, and down for what doesn't.

FUTURE QUESTIONS AND LIMITATIONS

Although Maryland has a strong agriculture sector with production of diverse foods, it is a relatively small and population dense state. This comparison is not meant to advocate that the entire state could or should feed its entire population based solely on what it grows within its own borders. Rather this can help create a stronger connection between the local and regional food movements, the foods we choose to buy and eat, and agriculture within the state and region.

As consumers and institutions begin to prioritize local purchasing and are setting ambitious goals to source a certain percentage of food from local sources, it's important to have a better grasp of what Maryland could theoretically provide to local buyers and where there may be opportunities for growth.

We acknowledge that the majority of crop production occurs in the summer months while people continue to consume products year round. Season extension efforts and how this may affect production numbers are questions for future research.

Similarly, as Maryland is part of and contributes to the global food system, most of the food produced in Maryland is sold for consumption outside of the state. Food distribution is a complex and sophisticated system with food exported and imported across the world. Future research on the flow of food is needed to better understand the amount of food grown locally, and what is actually available for local consumption.

There are also some food products that are grown in Maryland but not included in this summary due to data being withheld, unavailable production yields, or unavailable consumption estimates. Baltimore City urban production is not included in the Census of Agriculture although there are 15 farms (as of 2014) producing varying amounts of produce. This is another point for future research in an attempt to understand the production capacity of this urban space.

We will continue to work with this data to create additional comparisons and analyses, to further unpack the connection between local production and local consumption.

REFERENCES:

Economic Research Service (ERS), U.S. Department of Agriculture (USDA). Food Availability (Per Capita) Data System. http://ers.usda.gov/data-products/food-availability-(per-capita)-data-system.aspx.

Maryland Department of Planning, Maryland State Data Center. Summary Data for Maryland State Total Population Estimates by Single-Year Age, Gender and Median Age, 4/1/2010 to 7/1/2013. http://planning.maryland.gov/msdc/Pop_estimate/estimate_10to13/CensPopEst10_13.shtml

National Agriculture Statistic Service (NASS), U.S. Department of Agriculture (USDA). 2012 Census of Agriculture. Volume 1, Chapter 2: County Level Data, Maryland

Yield data provided by Timothy Griffin and Zach Conrad, as summarized in Griffin, T., Conrad, Z., Peters, C., Ridberg, R., and Parry Tyler, E. 2014. Regional self-reliance of the Northeast food system. Renewable Agriculture and Food Systems 1-15.

APPENDIX A

This table shows the different fruits and vegetables produced in Maryland and the type of data available for each. If an item has a check across all three columns, it is included in the analysis.

FOOD PRODUCT	LAND AREA	YIELD DATA	CONSUMPTION ESTIMATE
Fruit, Non-citrus			
Apples	✓	✓	✓
Apricots	✓	✓	✓
Cherries	✓	✓	✓
Figs	✓		✓
Grapes	✓	✓	✓
Kiwifruit	Z		✓
Nectarines	✓	✓	✓
Peaches	✓	✓	✓
Pears	✓	✓	✓
Persimmons	✓		
Plums and prunes	✓		✓
Other non-citrus	✓		
Fruit, Berries			
Blackberries	✓	✓	✓
Blueberries	✓	✓	✓
Raspberries	✓	✓	✓
Strawberries	✓	✓	✓
Other berries	✓		
Fruit, Melons			
Cantaloupe	✓	✓	✓
Honeydew	D	✓	✓
Watermelons	✓	✓	✓
Vegetables, Dark Green			
Broccoli	✓	✓	✓

FOOD PRODUCT	LAND AREA	YIELD DATA	CONSUMPTION ESTIMATE
Collards	✓	✓	✓
Romaine lettuce	✓	✓	✓
Leaf lettuce	✓	✓	✓
Kale	✓	✓	✓
Spinach	✓	✓	✓
Turnip greens	✓	✓	✓
Watercress	✓		
Vegetables, Starchy			
Potatoes	✓	✓	✓
Sweet corn	✓	✓	✓
Green peas	✓	✓	✓
Sugar and snow peas	✓		
Green southern peas	✓		
Vegetables, Red/orange			
Squash	✓	✓	✓
Sweet potatoes	✓	✓	✓
Tomatoes	✓	✓	✓
Carrots	✓	✓	✓
Pumpkins	✓	✓	✓
Vegetables, Other			
Asparagus	✓	✓	✓
Beans, Snap	✓	✓	✓
Beets	✓	✓	✓
Bell peppers	✓	✓	✓
Cabbage	✓	✓	✓

D = Data withheld from the Census of Agriculture to avoid disclosing data for individual farms

Z = Less than an acre produced

APPENDIX A

FOOD PRODUCT	LAND AREA	YIELD DATA	CONSUMPTION ESTIMATE
Cauliflower	D	✓	✓
Celery	D	✓	✓
Cucumbers and pickles	✓	✓	✓
Eggplant	✓	✓	✓
Garlic	✓	✓	✓
Herbs	✓		
Horseradish	D		
Head lettuce	✓	✓	✓
Mustard greens	✓	✓	✓
Okra	✓	✓	✓
Onions, dry	✓	✓	✓
Onions, green	✓	✓	
Parsley	D	✓	
Other peppers	✓	✓	✓
Radishes	✓	✓	✓
Rhubarb	✓		
Turnips	✓		
Other vegetables	✓		

D = Data withheld from the Census of Agriculture to avoid disclosing data for individual farms

Z = Less than an acre produced

APPENDIX B

This table shows the full dataset used in this analysis.

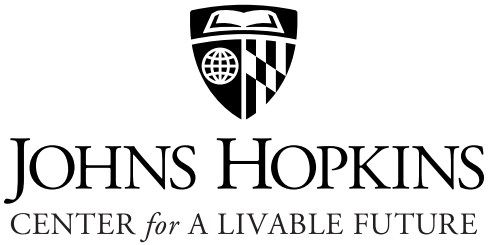
FOOD PRODUCT	# OF FARMS	ACRES	MARYLAND PRODUCTION (LBS)	% OF ALL PRODUCED	TOP COUNTY (PRODUCTION)	PER CAPITA CONSUMPTION	MARYLAND CONSUMPTION (LBS)	% FULFILLED	SURPLUS/DEFECIT
Eggs, lbs.	1,544	2,364,942	85,475,240		Washington	32.60	187,048,075	45.70%	-101,572,835
Dairy	573	50,923	977,517,908		Frederick	611.00	3,505,716,981	27.88%	-2,528,199,073
Chicken	854	304,729,435	580,527,583		Somerset	56.60	324,752,179	178.76%	255,775,404
Turkey	117	154,404	2,881,185		Frederick	12.60	72,294,655	3.99%	-69,413,470
Beef	2,663	89,755	83,385,150		Frederick	54.50	320,708,684	26.00%	-237,323,534
Grain, corn	2,888	435,646	2,806,438,152		Queen Anne's				
Grain, wheat	1,796	210,354	837095400		Caroline				
Grain, barley	732	40,133	158,441,136		Caroline				
Grain, oats	176	1936	4,045,536		Garrett				
Grain, rye	58	2176	4,701,592						
Grain, sorghum	153	14,722	47,056,408		Dorchester				
Soybeans	2,511	475,615	1,295,608,620		Queen Anne's				
Fruit, all			**134,724,767**			**111.92**	**642,160,138**	**20.98%**	**-507,435,371**
Fruit, non-citrus	282	3,454	35,855,958	26.61%	Washington	77.29	443,464,592	8.09%	-407,608,634
Fruit, apples	126	1,717	23,651,830	17.56%	Washington	44.00	252,457,524	9.37%	-228,805,694
Fruit, apricots	12	6	101,430	0.08%		0.86	4,934,397	2.06%	-4,832,967
Fruit, cherries	53	100	479,900	0.36%		2.23	12,795,006	3.75%	-12,315,106
Fruit, grapes	140	528	4,494,336	3.34%		17.96	103,048,571	4.36%	-98,554,235
Fruit, peaches and nectarines	105	951	6,539,350	4.85%		7.37	42,286,635	15.46%	-35,747,285
Fruit, pears	45	81	589,113	0.44%		4.87	27,942,458	2.11%	-27,353,345
Fruit, berries	315	480	1,663,019	1.23%	Montgomery	12.24	70,229,093	2.37%	-68,566,074
Fruit, blackberries	73	42	420,000	0.31%		0.09	516,390	81.33%	-96,390
Fruit, blueberries	112	125	391,875	0.29%		1.76	10,098,301	3.88%	-9,706,426
Fruit, raspberries	92	52	88,088	0.07%		0.72	4,131,123	2.13%	-4,043,035
Fruit, strawberries	168	205	763,056	0.57%		9.67	55,483,279	1.38%	-54,720,223
Fruit, melons			97,205,790	72.15%	Wicomico	22.39	128,466,454	75.67%	-31,260,664
Fruit, cantaloupes	273	627	5,749,590	4.27%	Caroline	7.59	43,548,923	13.20%	-37,799,333
Fruit, watermelon	303	3,278	91,456,200	67.88%	Wicomico	14.80	84,917,531	107.70%	6,538,669

APPENDIX B

FOOD PRODUCT	# OF FARMS	ACRES	MARYLAND PRODUCTION (LBS)	% OF ALL PRODUCED	TOP COUNTY (PRODUCTION)	PER CAPITA CONSUMPTION	MARYLAND CONSUMPTION (LBS)	% FULFILLED	SURPLUS/DEFECIT
Vegetables, all	**789**	**29,184**	**224,530,483**		**Caroline**	**368.92**	**2,116,741,585**	**10.61%**	**-1,892,211,102**
Vegetables, starchy			150,825,664	67.17%		144.42	828,634,446	18.20%	-677,808,782
Vegetables, sweet corn	342	8,182	83,311,410	37.10%	Caroline	25.30	145,163,076	57.39%	-61,851,666
Vegetables, potatoes	260	2,266	57,529,208	25.62%		116.10	666,143,603	8.64%	-608,614,395
Vegetables, lima beans	38	2,112	3,979,629	1.77%	Caroline	0.42	2,409,822	165.14%	1,569,807
Vegetables, peas	70	2,484	6,005,417	2.67%	Dorchester	2.60	14,917,945	40.26%	-8,912,528
Vegetables, greens			13,530,918	6.03%		25.20	144,589,309	9.36%	-131,058,391
Vegetables, collards	14	123	2,003,670	0.89%		1.00	5,737,671	34.92%	-3,734,001
Vegetables, spinach	32	938	10,104,700	4.50%	Kent	2.60	14,917,945	67.74%	-4,813,245
Vegetables, broccoli	44	27	75,465	0.03%		8.90	51,065,272	0.15%	-50,989,807
Vegetables, kale	54	72	480,000	0.21%		0.40	2,295,068	20.91%	-1,815,068
Vegetables, leaf lettuce/romaine	62	26	300,058	0.13%		11.50	65,983,217	0.45%	-65,683,159
Vegetables, mustard greens	17	8	72,000	0.03%		0.40	2,295,068	3.14%	-2,223,068
Vegetables, turnip greens	8	48	432,000	0.19%		0.40	2,295,068	18.82%	-1,863,068
Vegetables, red/orange			21,079,976	9.39%		113.40	650,651,891	3.24%	-629,571,915
Vegetables, tomatoes	441	657	10,642,358	4.74%	St Mary's	86.80	498,029,843	2.14%	-487,387,485
Vegetables, sweet potatoes	52	75	903,750	0.40%		6.90	39,589,930	2.28%	-38,686,180
Vegetables, pumpkins	124	874	7,293,041	3.25%		5.30	30,409,656	23.98%	-23,116,615
Vegetables, carrots	20	3	28,923	0.01%		9.70	55,655,409	0.05%	-55,626,486
Vegetables, squash (all)	131	272	2,211,904	0.99%		4.70	26,967,054	8.20%	-24,755,150
Vegetables, other			39,093,924	17.41%		85.90	492,865,939	7.93%	-453,772,015
Vegetables, snap beans	330	4,070	18,051,710	8.04%	Carroll	6.80	39,016,163	46.27%	-20,964,453
Vegetables, asparagus	47	89	306,427	0.14%		1.70	9,754,041	3.14%	-9,447,614
Vegetables, beets	60	16	260,616	0.12%	Frederick	0.40	2,295,068	11.36%	-2,034,452
Vegetables, cabbage	54	226	1,853,200	0.83%		7.60	43,606,300	4.25%	-41,753,100
Vegetables, cucumbers and pickles	297	1,822	11,912,470	5.31%	Caroline	10.80	61,966,847	19.22%	-50,054,377

APPENDIX B

FOOD PRODUCT	# OF FARMS	ACRES	MARYLAND PRODUCTION (LBS)	% OF ALL PRODUCED	TOP COUNTY (PRODUCTION)	PER CAPITA CONSUMPTION	MARYLAND CONSUMPTION (LBS)	% FULFILLED	SURPLUS/DEFECIT
Vegetables, eggplant	75	60	1,132,020	0.50%		0.90	5,163,904	21.92%	-4,031,884
Vegetables, garlic	25	7	35,000	0.02%		2.30	13,196,643	0.27%	-13,161,643
Vegetables, lettuce head	14	4	53,416	0.02%		14.20	81,474,928	0.07%	-81,421,512
Vegetables, okra	34	19	133,000	0.06%		0.40	2,295,068	5.80%	-2,162,068
Vegetables, onions	31	16	312,672	0.14%		21.30	122,212,392	0.26%	-121,899,720
Vegetables, bell pepers	127	154	3,075,094	1.37%		11.70	67,130,751	4.58%	-64,055,657
Vegetables, other peppers	53	115	1,814,470	0.81%		7.40	42,458,765	4.27%	-40,644,295
Vegetables, radishes	20	15	97,500	0.04%		0.40	2,295,068	4.25%	-2,197,568



Maryland Food System Map

A PROJECT OF THE JOHNS HOPKINS CENTER FOR A LIVABLE FUTURE

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