

MONTGOMERY COUNTY AGRICULTURE TODAY – CORN, BEANS, HORSES AND HORTICULTURE

2012 CENSUS OF AGRICULTURE RESULTS FOR MONTGOMERY COUNTY

Every five years, the U.S. Department of Agriculture (USDA¹) completes a Census of Agriculture, and the results of the 2012 census became available this year. The National Agricultural Statistics Service (NASS) maintains a list of farmers and ranchers to be surveyed for the census. A special effort was made for the 2012 census to include as many minority and new farmers on the list as possible. Analysis of the data gathered by the census form takes a substantial amount of time, but when the results are available they can be accessed by county and a review provides a relatively current picture of agriculture in Montgomery County.

In many respects, Montgomery County reflects the national trends which show the number of family farms decreasing, historically high farm sales... and expenses, the number of organic farms increasing and more direct farm sales (from farmers' markets, farm stands, Community Supported Agriculture (CSA) programs and other markets). In Montgomery County the majority of farms are quite small with 93 from one to 9 acres, 268 from 10 to 49 acres, 114 from 50 to 179 acres, 39 from 180 to 499 acres, 15 from 500 to 999 acres and 11 of 1,000 acres or more. Farming of small livestock – goats, sheep, rabbits and chickens has become more prevalent in the county. The trend toward local food consumption may also account for small farms raising produce for local sale. Equestrian facilities also account for a large number of small operations with 7,900 horses in the county according to the carefully conducted 2010 Maryland Equine Census.

Some of the census figures may be a bit surprising. For example, of the 540 farms identified in Montgomery County, 276 reported crop sales of less than \$2,500. The fact that equine facilities do not market crops may partially account for this. Only 227 (42%) of the farms are operated by a person who considers farming his or her principal occupation; this is 7% fewer than in 2007. The trend is for fewer acres to be farmed with 63,493 acres reported for 2012, a decrease of 15% in the past ten years. Of these acres, only 40,482 were for harvested crops, including vegetables. Of the 540 farms in the county, only 264 reported harvested cropland and the major commodity crops are produced by a few farms; 37 farms produce corn for grain; 31 farms produce soy beans; 29 farms produce wheat and 4 farms produce barley. The other harvested crops are forage and vegetables.

Horticulture is one of the largest sectors in agriculture and includes nurseries and landscaping companies, arborists, sod farms and lawn care firms, and greenhouse businesses. As of 2012 the county's Agriculture Services Division reports 350 horticultural businesses employing more than 7,000 of the people working in agriculture. Twenty percent of the horticultural industry in Maryland is in Montgomery County, which ranks second in the State in total number of horticultural firms. "Agriculture has constantly been evolving," farmer Ben Allnut told *The Washington Post*. Ben Allnut's father grew corn, but he plants fruits and vegetables that supply local supermarkets.

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¹ A complete list of acronyms is given on page 8.

Unique farm-related sites in Montgomery County include the Star Gazing Farm Animal Sanctuary, which provides safe haven to abused, stray, and neglected farm animals and also provides modern agricultural technology programs and community service opportunities to young people. The Button Farm Living History Center interprets the period when slave labor shaped the landscape and modern agricultural technology had not yet been developed. Their Heritage Breeds & Heirloom Crops program preserves authentic 19th century local livestock types and guests are invited to help create the experience by cultivating crops, learning a trade or helping out with plantation-era chores. Sugarloaf Mountain Vineyard raises 17 acres of grapes, enough to produce 3,000 cases of wine and supplements that with grapes from as far away as New York and California to make even more. Other farms house beekeeping operations and artisan communities.

EQUESTRIAN FACILITIES

In 2004 Montgomery County revised the zoning ordinance to include the horse industry as part of the agricultural industry in the County. The number of horses in the county had grown to exceed all other animals (estimated then at 3,000) and the county expected equestrian facilities to utilize services provided by the University of Maryland Extension and the Montgomery Soil Conservation District (MSCD). A nutrient management plan is required by state regulation of agricultural operations having eight animal units where one animal unit is 1,000 lbs (about six horses) or grossing more than \$2,500 from equine operations. The county zoning code requires any equestrian facility that keeps or boards more than 10 horses to meet all nutrient management, water quality and soil conservation standards of the county and state. A nutrient management plan prepared by a qualified professional and a soil conservation and water quality plan (SCWQP) prepared by the Montgomery Soil Conservation District Board must be submitted through a letter of certification by the landowner to the Department of Permitting Services, or other relevant agency.

Inquiry into the number of letters of certification received by the Department of Permitting Services (DPS) produced a comment from the chief of the Zoning and Site Plan Enforcement Division that no such certification has been received from agricultural zones and that DPS would only have knowledge of those facilities that were established under special exception procedures in residential zones, but DPS has no current certifications. The state currently licenses 90 equestrian lesson and boarding stables in Montgomery County having more than 10 horses. The 2010 Maryland Equine Census reported 1,490 equine places in Montgomery County, a number that includes stables that offer lessons, that board or rent horses, rescue facilities and private stables. Currently the number of horses in the county is estimated to exceed 10,000.

Equestrian activities in the county include polo, fox hunting, pony clubs, dressage, trail riding, eventing, show jumping and special clubs for paso finos, paints and other special breeds. The most popular riding activity is trail riding followed by dressage. Trail riding enthusiasts want more trails and better trail maintenance. Trail riding supports the need for open land. The need for hay and grain to feed the horses supports farms and the veterinarian services that have proliferated to meet the needs of the horse community enhance the veterinary service for other animals.

The state nutrient management regulations require that horses be prevented from walking into streams damaging stream edges and polluting the water. Livestock access to streams and certain surface waters is restricted by a minimum 10 feet. Fencing is not a requirement. The regulations allow MSCD staff to evaluate each site to determine whether alternative best management practices (BMP) such as watering facilities, stream crossings, pasture management techniques or vegetative exclusion will work as well as fencing in protecting water quality, while offering farmers more manageable or cost-effective solutions as alternatives to fencing.

The County's horse resource conservationist strongly recommends SCWQPs and BMP measures to the equestrian community and provides information on manure management and pasture care. Horses are very heavy animals and their walking on wet fields compacts the soil and prevents grass growth. Most horse farm owners indicate that they maintain a separate exercise area, mow fields regularly and rotate grazing fields, but they do not meet the BMP standards. The equestrian community tends to continue their current practices and not to obtain or voluntarily implement SCWQPs.

Manure management varies with the size of the operation. Capitol Polo with 50 horses contains manure in large dumpsters that are hauled off twice a month by a licensed provider. Another stable with five horses and two donkeys in Dickerson has a large, deep pit into which the manure is dumped. It is removed every two years. Both have nutrient management plans. Some operators spread their manure on their operation – some legally (with a nutrient management plan), some not.

VOLUNTARY PROGRAMS SUPPORTING FARMING

Farming is a complex operation subject to risks from weather, market and other factors, but it is essential for maintaining a good food supply. A variety of voluntary government programs have been developed to support agriculture for these reasons. The federal agricultural subsidy programs are most frequently noted, but numerous other federal programs provide training, loans and marketing services to farmers. The state provides support through the agriculture tax assessment which values farmland at \$500 per acre for property tax purposes, the multiple services of the University of Maryland's federal/state extension programs and through cost sharing for implementation of BMPs. Participation in these programs is voluntary, but most farmers participate in some of them.

Soil Conservation and Water Quality Plans: These plans developed by the MSCD personnel are optional for farmers, but are encouraged to preserve soil and maintain water quality. The mission of the MSCD is education, not regulation and its services are provided to farmers who volunteer to participate. Plan development begins with an aerial view of the property on which various tracts are delineated in terms of the use of the property – crop, pasture, forest, stream bank, etc. The soil types for each tract is taken into account along with the topography of the land. With this basis, various management practices are evaluated to determine their potential benefit and the landowner and planner agree upon the BMPs to be implemented along with a recommended implementation schedule. An operation and maintenance plan for installed BMPs is developed and information on soil loss, seeding, tillage and fertilization may be included. MSCD personnel personally visit the land in question and work with the farmer to develop and implement the plan. There is no cost to the farmer for the development of this plan.

Developing the plan is a major undertaking, but monitoring and assisting with the implementation of the plan requires a great deal of onsite activity. Recent cuts in staffing have delayed the implementation of plans that require engineering services. Inspection of the progress as plans are implemented is limited by the space available to house MSCD personnel as well as resources to provide staff.

Implementing a SCWQP can be a long term project and may entail a considerable expense if there are severe erosion issues on the property. Major expenses are eligible for reimbursement, but the project has to be fully implemented and operational before money is received. Some BMPs such as no till farming provide an immediate savings to the farmer through fuel and time savings from making fewer trips over the land with equipment, but other BMPs such as a manure storage structure may entail up-front expense. Many of the benefits such as heavy use area protection may not result in actual cost savings to the farmer, but provide long term benefit to water quality. Busy managers may tend to be less than eager to undertake such tasks. Equine facilities especially tend to focus upon the immediate activity and set aside developing SCWQPs.

Manure Transport Program: This program particularly helps dairy farmers in Montgomery County to cover the cost of transporting excess manure off their farms, but was developed primarily to deal with chicken litter produced on the Eastern Shore. Animal producers with high soil phosphorus levels and inadequate land to spread their manure can receive cost-share assistance of up to \$20 per ton to transport excess manure to other farms or alternative use facilities that can use the product safely. Dairy, beef and other non-poultry producers may receive up to \$15,000 per season or \$30,000 per year in cost-share assistance to transport manure. The high funding thresholds are made possible in part by a \$500,000 grant secured from the Chesapeake Bay 2010 Trust Fund.

Maryland's Manure Matching Service: This online resource connects farmers who have excess animal manure with farmers or alternative use projects that can use the manure as a valuable resource. The service is available to all types of animal producers with excess manure, including poultry, dairy, beef, hog and horse operations. The service is voluntary, free and available to both sending and receiving operations.

REQUIREMENTS FOR AGRICULTURAL OPERATIONS

To comply with the Clean Water Act, Maryland and other states in the Chesapeake Bay watershed agreed upon Total Maximum Daily Load (TMDL) of nitrogen, phosphorus and sediment that the Bay could receive and maintain acceptable water quality. To meet the TMDL goals, the state has imposed nutrient management requirements upon agricultural operations. Since 1998, farmers have been required to develop plans for nutrient management with penalties for non-compliance as discussed in some detail in the May 2013 fact sheet FARMING AT METRO'S EDGE.

Nutrient Management Program: This program applies to all agricultural operations grossing \$2,500 a year or more or livestock producers with 8,000 pounds or more of live animal weight (approximately 6 horses). Implementation plans are required to be filed with the Maryland Department of Agriculture (MDA) and its inspectors are charged with inspecting for compliance. The MDA inspector reports that a total of 218 nutrient management plans have been filed for Montgomery County even though the 2012 Census of Agriculture reports 264 farms making more than \$2,500 and the county code requires equestrian operations keeping or boarding more than 10 horses to file such plans. Last year only 8% of the operations that filed were inspected. Inadequate staffing by MDA was cited as a problem by the University of Maryland Extension which oversees the development of nutrient management plans.

The Phosphorus Management Tool: Phosphorus is a major nutrient in animal manure and is a principal cause of dead zones in the Bay. The Phosphorus Management Tool (PMT) was developed by University of Maryland scientists to incorporate new scientific knowledge, taking into account subsurface leaching of phosphates as well as surface runoff. MDA proposed new regulations limiting the months during which manure may be applied to farmland in 2012 including the use of the PMT to replace the Phosphorus Site Index (PSI) currently in use for nutrient management planning, which is outdated science. As a result of concerns identified in the public meetings and public comment process on implementing these regulations, MDA withdrew the regulation. The MDA developed an approach that addresses the concerns raised and resubmitted a new proposal to the 2014 legislature that included a phased implementation schedule for the new tool. The legislature did not approve the proposal and instead budgeted funds for an economic analysis of the impact of the tool's use. Salisbury University was tasked with conducting the analysis, but has repeatedly delayed release of the study.

RELIEF FROM TAXES AND FEES

Maryland law provides that lands which are actively devoted to farm or agricultural use shall be assessed according to that use. Currently the agriculture use assessment rate is \$500 per acre. One acre is removed

from that category for a house on the property. A non-agricultural unimproved acre in a rural area may be assessed at about \$160,000 per acre while an improved lot in the Rock Creek Hills area is assessed at more than \$980,000 per acre. County fee schedules also give consideration to agricultural use.

The Water Quality Protection Charge: Montgomery County has assessed the Water Quality Protection Charge on all residential and associated non-residential property since 2002, but expanded its application last year. The charge, which is incorporated into the property tax bill, is based upon all the impervious surface of residential property including driveways and ancillary structures, but the impervious area for agricultural properties only includes the houses on those properties. The collected fees are put into a dedicated fund to address stormwater issues including street sweeping, tree canopy, maintenance of sediment control ponds, etc. A grant for this fund was made to the MSCD for rural projects including support for installation of environmentally superior septic systems. Counties have discretion in determining which categories of property are subject to the charge. As an inducement to encourage the implementation of SCWPs, Howard County grants relief from the Water Quality Protection Charge to farms that implement such a plan; otherwise all impervious surface is included in the calculation of the charge.

Fuel- Energy Tax: The level of taxation for fuel and energy was reviewed by the County Council this year and they recognized that the agricultural industry consumes large quantities of energy. Since the rising cost of fuel, propane, electricity and the associated energy taxes passed on to the consumer may impact the economic viability of county agriculture, the council reduced the tax rate overall and changed the rate for certified agricultural producers from that of commercial users to that of residential users. The Agricultural Services Division administers the Fuel-Energy Tax Program for Certified Agricultural Producers by identifying those producers who qualify for certification. Any **one** criterion from a variety of options such as owning land under conservation easement, having a nutrient management plan, being enrolled as a member of the Montgomery County Farmers Market Association or other membership options is sufficient for certification.

OTHER SERVICES TO FARMERS

Agricultural Certainty Program: Montgomery County farmers must control the amount of nitrogen, phosphorus and sediment that runs from their operations into the Chesapeake Bay watershed under the US Environmental Protection Agency's Total Maximum Daily Load (TMDL) requirements. Farmers who have complied with those requirements may choose to implement additional BMPs to reduce nutrient runoff even more. Under a Nutrient Trading Program developed by MDA and the Maryland Department of Environment (MDE) these additional practices can generate credits which can be sold to point sources such as a wastewater treatment plant or non-point sources such as agriculture or urban stormwater sites or systems.

To participate in the program, the farmer must first show that his farm meets the current TMDL load requirements. An online tool (MDtool) using farm data on crops, nutrient management and BMPs in place assists in this determination. The tool also evaluates potential additional BMPs for their ability to further reduce nitrogen and phosphorus coming from the farm. An evaluation component of the MDtool determines how much each BMP contributes to reduction and the amount of pollution reduction credit its implementation would generate.

The additional BMP must be built and operating according to USDA's Natural Resource Conservation Service standards and specifications, then inspected and certified. Credits will be generated once the BMP is installed and functions as designed and approved. The program requires on-farm inspections by an independent third party selected at random at a minimum of every three years to verify compliance.

The farmer also must submit annual nutrient management records, soil test data, crop fertility recommendations, operation maps, and soil conservation and water quality records to MDA. BMPs funded by federal or state cost-share programs are not eligible for credits

Maryland is establishing an online Nutrient Trading Program as a public marketplace for the buying and selling of nutrient credits. A farmer who has generated such credits can market them directly to point source operators or to other farmers or may choose to sell through a broker. For further information, see www.MDnutrienttrading.com.

New Farmer Program: A pilot New Farmer Program was launched in August 2012, and is now in its second session (2013-2014). The League's Fact Sheet in May 2013 contains a good description of the program. The University of Maryland Extension provides mentoring and specialized business training like marketing, accounting, business planning and advanced sustainable farm practices. The eight-week training was attended by about 25 people, including the four New Farmer participants. The training includes topics on what to grow, creating farm business plans, information on nutrient management, sustainable agriculture and value added offerings.

Courtney was selected as a New Farmer last year and completed the program this year. She now has a three acre farm near her home in Poolesville and she says it is successful and profitable. She is an experienced farmer, having farmed in Minnesota, Wisconsin, and southern Maryland; however, she needed to learn about the growing conditions and rules and regulations and markets here. The eight weeks of classes provided this. The Land Link program matched her with a landowner willing to lease land for farming for at least five years. She was matched with two mentors to provide advice.

Courtney grows a wide variety of vegetables: tomatoes, eggplant, squash, beans, cauliflower, spinach, beets, kale, carrots, and strawberries. She began harvesting them in late May and marketed them at two farmers' markets, a small food club and a subscription farm program (CSA) with seven families who provide money "up front" to receive a weekly supply of produce. She has joined the Montgomery Countryside Alliance which provides connections with other farmers and a "List Serve" where one can get information and help on-line.

New Farmer participant Charles has a two acre farm near Sugarloaf Mt. and grows fruit and nuts. This is his second year and he has started harvesting some persimmons. He has planted persimmons, blackberries, papaws, and hazelnuts; things he grew before in his backyard in Michigan. He plans to market at Butler's Orchard and at Rockville and Rockhill Farmers' Markets. Charles also works at other jobs, so he is a part time farmer. He says he loves farming, "but it is not for the fainthearted". He and Courtney both have high praise for the New Farmer Program.

Land Link: Through a grant from the County, the Montgomery Countryside Alliance has established a Land Link web site to "link" beginner and experienced farmers with available land and farms within Montgomery County. Using an online form, a farmer seeking land provides information indicating experience in farming, the products to be produced, type of farming (organic, conventional, other), etc. The landowner seeking a farmer provides information about the available land including the location, size, type of terrain, etc. Land Link participation requires a one-time fee of \$30 to cover administrative expenses. This fee must be paid before a listing is posted online. The program has been operating successfully for a couple of years with over 300 acres being utilized.

Equipment Leasing: A partnership involving the Agricultural Services Division, University of Maryland Extension, MSCD and a donation of \$5,000 from the Farm Bureau has established a small equipment

leasing program. Through a grant from the Small Business Administration four pieces of equipment have been purchased: a walk-behind tractor, no-till drill, manure spreader and a mulch lifter. The University of Maryland Extension will provide training on the use of this equipment. Any farmer who is a member of the Farm Bureau can lease the equipment for short-term use and it will be available in the spring, or as soon as liability issues are worked out.

Deer Management: Montgomery County has two initiatives aimed at helping farmers overcome the problems caused by the over-population of white-tailed deer. Deer management workshops educate farmers on effective deer management on private property and the Deer Donation Program encourages farmers and hunters to harvest more deer in a responsible manner by providing a local, minimum-hassle deer collection site. It is administered in partnership with William F. Willard Farm, LLC and Patriot Wildlife Management Services, to coordinate the collection, processing and donation of venison to local area food banks. In the 2012-14 deer hunting season 152 deer providing 6,080 pounds of venison were donated to local area food banks.

LOCAL MARKETING

Three local marketing approaches: pick your own, farmers' markets and community supported agriculture (CSA) were described in some detail in the May 2013 fact sheet *FARMING AT METRO'S EDGE*. There are several listings of farmers' markets available. Each spring the Washington Post prints a comprehensive list which is also available online; another listing is on the Agriculture Services' web site <http://www.montgomerycountymd.gov/agsservices>. Both give comprehensive information for some 27 markets including the name of the market location, its address, a phone number with name of the contact person, an email contact address, the days and hours of operation and the season during which the market is operating. The list indicates those markets that accept SNAP, WIC and senior farmers market nutrition program benefits. In addition, on its web site Bethesda Green lists 59 table food farms in the county with a map showing the location of each.

While raw fruits and vegetables can be sold anywhere, a limited number of home kitchen prepared foods (including samples of the produce) can be sold at markets that are licensed by the Department of Health and Human Services. These foods include non-potentially hazardous hot-filled canned acid fruit jellies, jams, preserves and butters that are unadulterated and properly packaged and labeled. Licensed markets can also sell non-potentially hazardous home prepared baked goods and candy as well as other products produced by a licensed food processor.

The CSA model takes the marketing arrangement beyond the usual commercial transaction. In most CSAs, members pay up front for the whole season and the farmers do their best to provide an abundant box of produce each week. If things are slim, members are not typically reimbursed. The result is a feeling of "we're in this together". On some farms the idea of shared risk is stronger than others, and CSA members may be asked to sign a policy form indicating that they agree to accept without complaint whatever the farm can produce. The advantages for farmers are to be able to schedule marketing activity early in the year before the long days of cultivation begin, to receive payment early in the season to help cash flow and to get to know the people who eat the food they grow. The advantages for consumers are to eat ultra-fresh food with all the flavor and vitamin benefits, to be exposed to new vegetables and new ways of cooking, to visit the farm at least once a season and develop a relationship with the farmer who grows their food and learn more about how food is grown.

CSA marketing mainly features produce and various organizations promote CSA with a special purpose for their involvement. The **Maryland Organic Food & Farming Association (MOFFA)**, a non-profit educational organization whose mission is to support organic and ecological farming and local food

production supports a web site <http://marylandorganic.org/csa/> that contains a list of area organic farms that provide CSA produce. **Hungry Harvest, LLC** in Tacoma Park aims to create an efficient agricultural food system with zero waste by supplying gleaned and recovered produce that is cheap, healthy, and convenient to fight hunger in food deserts. Customers (residents of the Washington D.C. and Baltimore metropolitan areas) sign up for a 10-week period, during which a 10 lb bag of surplus produce is delivered to their door once a week. The cost this year was \$17 per week. **Red Wiggler Community Farm** of Germantown is a 501(c)3 non-profit founded in 1996 to create meaningful, fully inclusive jobs for adults with developmental disabilities through the business of growing and selling high quality vegetables in Montgomery County.

The variety of CSA farms in Montgomery County is amazing. It includes: **Serendipity Farm** in Rockville, a small hobby farm and home to a mixed spinning flock of heritage breed sheep including Shetlands, Jacobs, Border Leicesters and crosses, two Pygora goats, three dairy goats, chickens, honey bees and a large flower garden; **One Acre Farm** in Boyds, a small diversified vegetable CSA not certified organic, but following principles and use products that fall into that category; **Cherry Glen Farm** in Boyds, a 58 acre farm producing goat cheese from the milk of Toggenburg and Alpine dairy goats; **Rocklands Farm** of Poolesville includes grass-fed beef, pasture-raised meats (pork, lamb, and chicken), free-range eggs, a wide variety of sustainably grown vegetables and wine.

CONSENSUS QUESTION

Should the County adopt measures to induce farmers to develop and implement Soil Conservation and Water Quality Plans (SCWQP)?

ACRONYM LIST

BMP Best Management Practice
 CSA Community Supported Agriculture
 DED Department of Economic Development
 DEP Department of Environmental Protection
 DPS Department of Permitting Services
 MDA Maryland Department of Agriculture
 MDE Maryland Department of Environment
 MOFFA Maryland Organic Food & Farming Association
 NASS National Agricultural Statistics Service
 PMT Phosphorus Management Tool
 PSI Phosphorus Site Index
 MSCD Montgomery Soil Conservation District
 SCWQP Soil Conservation and Water Quality Plan
 TMDL Total Maximum Daily Load
 USDA United States Department of Agriculture

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