



The Queen Anne's Chronicle

CELEBRATING QUEEN ANNE'S COUNTY

INFORMING THE CITIZENS

IS PATH-BREAKING RESEARCH AND DEVELOPMENT GOING ON IN QAC?



Black angus cattle in the fields of Wye Research and Education Center Photo Credit – David Godfrey

THE WYE ANGUS PROGRAM AT WYE PLANTATION

Wye Plantation in Queenstown has been farmed continuously since the 17th century. One of its early owners was William Paca, a signer of the Declaration of Independence. His heirs sold it to a Centreville family before it was ultimately purchased in 1937 by Arthur A. Houghton, a member of the family that had founded Corning Glass Works in Massachusetts in 1851.

Arthur Houghton's goal in establishing

his cattle herd on Wye Plantation was quality food production – converting grass into animal protein. He and his farm manager, James Lingle, agreed early on that the breed that they wanted to raise was angus. In 1938, they started with 18 heifers (young female cows) and a bull calf. These 18 heifers, the only females that Wye has ever purchased, turned out to be consistent breeders, long-lived good mothers, and satisfactory milkers.

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The answer is yes – but not many of us are aware either of this R&D activity or its impact on our County's economy and environmental health.

At this time of year, we are very much aware of Queen Anne's County's leading business – agriculture. Corn and soybeans are growing rapidly and densely, and farm stands are everywhere. This is also the time of year when we are out and about on our waterways – the Bay, our rivers and creeks – often enjoying their yield as well.

But almost out of sight, in the southern end of our County, is an important contributor to the successes of our farms and the efforts to heal our waterways. Located in Queenstown away down Carmichael Road, little known to most of us, is the home of many and diverse R&D activities: the Wye Research and Education Center of the University of Maryland's College of Agriculture and Natural Resources.

Wye Research and Education Center

Wye Research and Education Center (WREC) carries out its work on almost 1,000 acres. It employs over 55 staff, and around 50 more researchers regularly use the Center. Scientific collaboration brings in faculty from the

University of Maryland as well as scientists and faculty from many other institutions including the US Department of Agriculture, the US Geological Survey, EPA, Johns Hopkins, and Carnegie Mellon University's Robotics Laboratory.

As we all have learned, agricultural lands contribute nitrogen, phosphorus, and sediment pollution to our rivers and streams. As we have also learned, these pollutants can be reduced by farmers using best management practices like stream buffers and cover crops. Cost-effective practices like these and the science behind them are a focus of WREC's research and development efforts. These efforts have taught us much for the benefit of both farming and the Bay.

At WREC they do research-based, independent science: no company is paying them – but many agribusinesses, QAC farms included, benefit greatly from their work. The WREC scientists and researchers do not make any regulations – but some important regulations are based on their research, and they are sometimes asked to help in implementing regulations.

In this issue, the *Chronicle* celebrates the contributions to agricultural progress that have been and are being made here in Queen Anne's County. In a series of articles, we tell the stories of some of these impressive R&D and educational activities.

LANDS AND FARMLANDS

Queen Anne's County has more land in farmland than any Maryland county but one (Frederick, a much larger county). We have a higher proportion of our land in farmland than any Maryland County but three (Caroline, Talbot and Kent, all smaller counties). The contrast with our neighbor across the Bay, Anne Arundel, is stark. Here's the picture:

	Queen Anne's	Frederick	Caroline	Talbot	Kent	Anne Arundel
Total land area (acres)	238,036	422,592	204,428	171,865	177,301	265,546
Land in farms (acres)	156,941	181,512	150,357	119,481	133,201	28,111
Proportion of land in farmland	65.9%	43.0%	73.6%	69.5%	75.1%	10.6%

Source: 2012 Census of Agriculture, released May 2, 2014 (County-level Data for Maryland, Table 8)

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LEADING AG RESEARCH AT THE HUGHES CENTER

The mission of the Harry R. Hughes Center for Agro-Ecology, founded in 1999 and located at the Wye Research and Education Center (WREC), is to “Promote Economically Viable and Environmentally Sound Agriculture and Forestry as Maryland’s Preferred Land Use.” Among Center’s most important and widely known successes has been its leading role in establishing the use of cover crops as a cost-effective means of reducing nutrients into the Bay.

Advancing Cover Crops

Beginning in the 1980’s, WREC farmer-scientists Dr. Ken Staver and Center Director Dr. Russ Brinsfield began what journalist Tom Horton has called “a classic series of studies on lands of [Maryland’s] Wye Research and Education Center that documented how cover crops could pull as much as 40 percent of the leftover nitrogen fertilizer out of farm fields before it escaped to degrade rivers and the Bay”.

Staver actually started his nutrient studies looking at how excess nutrients in Eastern Shore rivers fed algae that were coating and killing submerged aquatic grasses, then tracked the nutrients to their source on the land, and studied how nutrients move from farm fields through Coastal Plain watersheds. A complicating factor is that most nitrogen moves unseen from crop fields into groundwater on its way to the Bay.

Brinsfield tells the story of how his father planted a winter crop to combat soil erosion and feed the cows on

their dairy farm. The unfertilized cover crop was always bright green. That, he later realized as a result of his research, was because the cover crop was drawing on fertilizer left over in the field.

As a result of the pioneering work of Staver and Brinsfield, published by them in a widely-cited 1998 article, Maryland farmers now annually plant 425,000 acres in cover crops, keeping 3 million pounds of nitrogen from our waters. The cost of the cover crop program is \$20 million per year – making it the most cost-effective means so far developed to reduce nitrogen loadings to the Bay.

Interest in cover crops has grown nationally, with a major effort just underway in the Mississippi watershed, as in the Chesapeake, to use cover crops to reduce nitrogen inputs to the Gulf of Mexico. With its focus on increasing productivity while reducing environmental impact, the Center continues its cover crop research, studying when, how, and what to plant.

Brinsfield expects that by 2020, cover crop acreage nationally will rise rapidly to 20 million acres (as against a goal some have set of 100 million acres by 2025). Staver gives talks on cover crops to farmers and watershed managers as far away as Nebraska.

The Center’s Research Portfolio

Other nutrient-related research coming out of the Center for Agro-Ecology includes developing a device to inject poultry litter under the surface of the soil to keep it from running off and changing the amount of phosphorus in poultry feed to create less phosphorus in the poultry litter used to fertilize crops.

A look online at www.agroecology.umd.edu shows the number and breadth of the Center’s research projects in land use and preservation, nutrient reduction, agricultural profitability, and forests and forestry. For over a decade, the Center has carried on research for niche crops and alternative fruit crops to help diversify and expand Maryland’s agricultural base. Their forestry research led to options for reducing forest fragmentation in order to preserve the values that forests provide for harvest, wildlife and recreation.

The Center, a 501 (c)(3) foundation, is affiliated with the University of Maryland, College Park. It is supported by research funds from the Hatch Act, the Maryland General Assembly, and the USDA, as well as by grants from charitable foundations and gifts from individual donors.



Photo Credit – David Godfrey

DEFINITIONS

Agribusiness is the business of agricultural production. It includes agrichemicals, breeding, crop production (farming and contract farming), distribution, farm machinery, processing, and seed supply, as well as marketing and retail sales.

Agroecology is the study of ecological processes that operate in agricultural production systems. The prefix *agro-* refers to *agriculture*. Bringing ecological principles to bear in agroecosystems can suggest novel management approaches that would not otherwise be considered.

Agronomy is the science and technology of producing and using plants for food, fuel, fiber, and land reclamation. Agronomy encompasses work in the areas of plant genetics, plant physiology, meteorology, and soil science.

Horticulture is the branch of agriculture that deals with the art, science, technology, and business of plant cultivation. It includes the cultivation of fruits, vegetables, nuts, seeds, herbs, sprouts, mushrooms, algae, flowers, seaweeds and non-food crops such as grass and ornamental trees and plants.

Source - Wikipedia

HIGH VALUE HORTICULTURE

Did you know that an acre of strawberries can be worth in excess of \$10,000 in profit? Horticultural crops – vegetables, fruits, ornamentals – are high-value per acre.

On a recent visit to the Wye Research and Education Center (WREC), the *Chronicle* looked at fields where strawberries, grapes, and Asian pears were being grown. A number of the strawberry varieties had been harvested and were being compared for size, shape, uniformity, color, flavor and sugar content. Out in the field, a study was underway that compares planting strawberries each year as an annual crop and growing the crop as a perennial.

The Horticultural Research Agenda

Fruit scientist Mike Newell manages WREC’s Horticulture Program. He has lots of testing going on besides strawberries – asparagus, tomatoes, cantaloupes, spinach, sweet corn, tree fruits, ornamentals, grapes. In its test vineyard, the Program has more than 25 grape selections, some of which it has been growing and studying since it acquired these varieties in the mid-1990’s, made available when the Soviet Union collapsed. Some of these look promising for Maryland.

Across the range of horticultural crops, the researchers are looking for high yield and disease resistance. Disease resistance is key, because it is the first line of defense against plant diseases. The Horticulture Program also does pest control testing and nutrient management research. As concern about the health of the Bay has grown, so has interest in avoiding extra nutrients in crop production.

One of the Program’s missions is to carry out research on food safety requested by University of Maryland scientists. As we are eating more fresh, uncooked fruit and vegetables, food safety has become a primary research focus of the Program at Wye. Timing of manure application and surface water irrigation are studied with preventing food-borne pathogens in mind.

Education for Agribusinesses

What is particularly helpful to the local agribusiness community – our farms – are the outreach and education programs that share the results of WREC’s research. One such program is the Annual Strawberry Twilight meeting, with speakers presenting up-to-date information on cold injury (after our very cold winter!), bio-fumigation, and variety trials, as well as how to deal with various “rots,” molds, and insects. Information about pollinator health and pesticide sprays is also written up in detail and shared – helpful information in a time of declining bee populations.

Other WREC outreach activities in the horticultural sector include meetings for wine industry members. Winery owners, brokers, distributors, growers, all come to examine the grapes and test the bottled product. As vineyards and wineries become increasingly popular here, the focus is on developing a signature variety unique to our terrain.

The R&D noted above is just a glimpse of what is going on in the Horticulture Program at WREC. As more of our farms diversify their crops, WREC will be providing crucial research, development and education in support of horticultural initiatives.



Different varieties of strawberries are tested for size, color, uniformity and sweetness as part of WREC’s Horticulture Program. – Chronicle Photo

R&D COMPLEX GROWS IN SOUTHERN QAC

Cutting-edge agricultural research has now been carried on in southern Queen Anne's County for several decades. The prime movers – the Wye Institute, Wye Plantation, and the Maryland Agricultural Experiment Station (MAES)/University of Maryland – have worked productively together in both formal and informal arrangements.

The roots of this cooperation began to grow as early as the 1950's and 1960's, but the decisive moment came in 1978, when Arthur Houghton donated his carefully-managed Wye Angus herd, located on his Wye Plantation Farm, to the University of Maryland for use in the Experiment Station's research. And he accompanied this gift with a sizable endowment.

The Houghton Initiative

Houghton, a former President of Steuben Glass, was a philanthropist who had served as Chair of the Metropolitan Museum of Art and New York Philharmonic. (Locally, he had also been behind the restoration of the 1721 Old Wye Church in Wye Mills.) Houghton wanted to share with the public, and advance further, his considerable success in achieving a quality beef product through careful genetics.

The Houghton gift immediately spurred development of a larger plan, completed at the end of 1979, for an innovative multidisciplinary research, extension, and education center at Wye. Six major fields of work were laid out:

- Cattle Breeding and Genetics;
- Integrated Pest Management;
- Plant Breeding and Genetics,
- Energy Development, Usage and Conservation;
- Quality of Life; and
- Interaction of Land and Water Agriculture-Aquaculture.

In 1982, The Wye Research and Education Center (WREC), the umbrella organization, was formally established by the Maryland Agricultural Experiment Station, with Eastern Shore farmer-scientist Russ Brinsfield as its director. The 16,000 square foot Arthur A. Houghton, Jr. Laboratory was opened in 1991, adding considerably to the scope of scientific inquiry at the Center.

The Hughes Center

The Harry Hughes Center for Agro-Ecology, Inc. came along in 1999. Located at WREC and affiliated with the University of Maryland, this 501(c)(3) foundation was established to help retain Maryland's working landscapes and the industries they support, while protecting and improving the Chesapeake watershed.

In 2006, the Lead Maryland Foundation, another 501(c)(3) organization, was established at Wye dedicated to identifying and developing leadership to serve the agriculture, natural resources and rural communities.

Over the years, additional land has been made available to the WREC, so that it now utilizes almost 1000 acres.

FIELD CROPS – SUCCESSES AND CHALLENGES

Field crops are the area where Queen Anne's County has been particularly successful during recent years. In the most recent agricultural census, the County once again led the State in production of corn, wheat and soybeans.

According to Russ Brinsfield, Director of the Wye Research and Education Center, most of the public varieties of soybeans were developed at WREC. ("Public" varieties are ones developed by land grant institutions using taxpayer funds to develop varieties for the public good.) Scientists and researchers here look for and breed plants for resistance to a variety of diseases without lowering crop yield. They have developed most public varieties of soybeans with a high oil content particularly good for chickens and frying. And they study to see how much and at what rates different chemicals present in pesticides and herbicides carry over into the crops they are applied to and how long they remain in the soil.



Growing corn in QAC

– Chronicle Photo

Joe Streett, Agricultural Technician Supervisor, says that agronomy, the science of using plants for human purposes, "is not rocket science, it is more complicated" – due to the constant variables of weather, the morphing of bacteria and disease-causing agents, and the environment's constant flux. He cites wheat that gets turned down at the mills due to wheat scab. When – how many days ahead of harvest – should you spray for the scab? Humidity, temperature, rain – all variables – play into the variable answer.

In light of the growing world population, one of the major goals of agronomy is increasing food production while reducing environmental impact. WREC's Field Crop Program (and the Horticulture Program) work to find ways to profitably meet the worldwide demand for food without having to cut down more forests to clear additional land for food production. Here in QAC, WREC is on the forefront of meeting a global challenge.

WHY ARE QUEEN ANNE'S AGRIBUSINESSES FLOURISHING?

Agriculture is QAC's most successful business. Our County leads the State in production of wheat, corn, and soybeans. Its annual products sold have a market value of over \$166 million.

Why such success? As with most successful businesses or business sectors, a number of factors come into play. QAC agribusinesses are succeeding by:

- **Utilizing the County's "brown gold".** This is QAC's high proportion of irreplaceable, extraordinarily productive class 1 and 2 soils (as explained by USDA soil scientist Diane Shields of Centreville in the March/April 2012 issue of the *Chronicle* available at www.qaca.org).
- **Adjusting to change.** County agriculture has, over time, focused on producing tobacco, dairy products, peaches, to name a few of the crops that are no longer among our dominant

products. Going forward, we are seeing the growth of vineyards and wineries, organic vegetables and grains, nurseries, and niche farms like lavender and strawberries. QAC agribusinesses are diversifying to respond to the local food movement symbolized by "farm to table".

- **Taking advantage of the County's location.** QAC is near the poultry industry concentrated in the southern Eastern Shore, and near the ever-hungry population centers of the mid-Atlantic with their grocery stores, restaurants, and increasingly popular farm markets.
- **Accessing locally-focused agricultural R&D.** As this issue of the *Chronicle* reports, the Wye Research and Education Center and its multiple program arms are great "business incubators" for QAC farming.
- **Looking toward the future ("succession planning").**

QAC farmers support and use programs like the LEAD Maryland Foundation (dedicated to developing leadership for agriculture, natural resources and rural communities), the 4-H, and the Future Farmers of America.

- **Embracing new marketing strategies.** As part of farm to table, some of the farm industry now sees itself as both grower and middle man (provider to stores, restaurants, "finishers") and as both grower and retailer (farm stands and markets, growing grapes and selling the bottled wine).
- **Staying nimble and entrepreneurial.** The QAC farm sector is largely made up of farmers and farm families who are committed to the land, committed to farming as a way of life, and committed to acquiring the technologies and expertise required for successful 21st century farming.

EDITORIAL: FEMALE FARMERS LEAD DIVERSIFICATION AND MARKETING

The *Delmarva Farmer* ran an editorial in its June 3 edition about women's increasing role in agriculture ("Women's role in ag no small one"). This piece appeared just a few days after the *Chronicle* attended the first Eastern Shore Local Government Exchange, hosted and supported by the Hughes Center for Agro-Ecology and the Maryland Chapter of the American Planning Association, among others. The lead-off session at the Exchange was "Agricultural Economic Development and Diversification", and the presenters were — two women!

Jennie Schmidt, co-owner of Schmidt Family Farms and owner of Schmidt Vineyard Management Company, described how she and her family have diversified their large ag holdings in QAC. Among a wide variety of crops, they now grow clean, uniform seed (soybean, wheat, barley) for seed companies; 150 acres of tomatoes; 160 acres of fresh market green beans; 80 acres of lima beans; and 250 acres of hay.

The Promise of Growing Grapes

Although she is involved in all aspects of the family farms, Schmidt is particularly committed to their grapes. She has been growing grapes in ever increasing quantities to sell to wineries — wineries which have in turn produced award-winning wines. The Schmidt farm has also become a research operation with a UMD scientist studying new varieties and how they fare on the Shore.

Jennie Schmidt's vineyard management company helps other grape growers grow optimal fruit for Eastern Shore conditions. She is excited by the growing numbers of vineyards and their successes and looks toward a "Chesapeake Wine Country" that will attract tourists and spread the word about our local wines. Running all through her presentation was the theme of "marketing." In our age of constant communication and advertising, it is increasingly clear that marketing is a key factor in the success of many farms.

The Importance of Marketing

The second presenter at the Exchange, Judy Crow, co-owner of Crow Vine-yards, brought home the importance of good marketing for ag success. The Crows' farm in Kent County has morphed from a typical Shore working farm with soybeans/corn/dairy to a diversified farm that includes grass-fed beef (sales in 2005 = 10,000, in 2012 = 40,000) and, since 2010, a vineyard and winery that are already producing award-winning wines.

Judy Crow does not end her diversification and marketing efforts there. She runs an increasingly popular "farmstay" B & B on their farm (2010 = 50 rooms occupied; 2012 = 150 rooms occupied). Her marketing program includes emphasis on the "experience" of farming, organizing volunteer farming days, hosting B & B guests, and putting on Farm Events featuring "Crow local."

Notable QAC Female Farmers

Here in QAC, Kate Mason Kraszewski, armed with a BA and MA from Cornell and 4 years in the MD Department of Agriculture, returned with her husband to Sudlersville to be the fifth generation of her family to farm Mason's Heritage. She runs a flourishing produce operation (www.masonsheritage.com) on their preserved farm with a popular roadside market.

On another preserved farm, Boxer's Rest, Lori Sallet has launched and oversees a highly successful organic vegetable and feed grain farm (www.boxersrest.com). She sells to farm markets, restaurants and natural food stores. Dedicated to healthy foods and with a background in marketing, she, too, is a strong advocate of farm diversification.

Alison Howard, featured in an earlier *Chronicle*, recently retired from Queen Anne's Soil Conservation to devote full time to Homestead Farm, also an organic vegetable and feed grain farm. Along with supplying farm markets and restaurants, Alison sells shares of her produce on a weekly basis through the Community Supported Agriculture Program (CSA). Her website (freshorganicvegetables.com) has recipes, great pictures, and a blog that makes the reader feel a part of the farm experience.

Niche Farms

It's not just the large farms that depend on good marketing. The niche farms — wine, lavender, honey, ornamentals, to name a few — all need to appeal to consumers in order to sell their products. Women, traditionally the family shoppers, know what appeals and what doesn't. They have a good marketing sense.

The *Delmarva Farmer* editorial noted that as of the 2007 census, almost half of all farmland was owned or co-owned by women. Further, "more than 75 percent of women operators are also the sole owners of their land, and the number of women farm operators jumped 19 percent from 2002 to 2007." The editorial goes on to observe that women "bring with them a whole new outlook, a new perspective, about the industry and their role in it." We certainly are seeing that around here.

MORE AG R&D IN QAC

Under the University of Maryland Extension Program, managed by the Director of Operations, **Tom Miller**, there is R&D and educational work going on at WREC in:

- Aquaculture, supporting water-based businesses, soft crab production, pond management, and aquatic weed control.
- Commercial horticulture, including programs in partnership with Carnegie Mellon University's Robotic Laboratory and Decagon Devices, Inc.
- Forestry programs, supporting sustainable forest and woodland management and offering a Master Logger Program.

• The honeybee program that includes basic bee-keeping courses.

- Watershed restoration and protection

On Railroad Avenue in Centreville, Maryland Extension Agent **Jenny Rhodes** assists those wanting to learn about and make use of the results of the research and development taking place at WREC and elsewhere in Maryland and around the country. Her webpage at <https://extension.umd.edu/queen-annes-county/agriculture> is very helpful in finding out about the many useful offerings, including workshops, of the Maryland Agricultural Extension Service. She is the "go to" person for questions and advice.



QAC Century Farm on Route 18 — Chronicle Photo

QAC'S CENTURY FARMS

"Family farms" and "farm families" — these often-used alliterative phrases reflect the special relationship that farm owners have with the land they work. Because the tradition of working the land to provide food for others is a heritage to be treasured and recognized, Maryland, like many other states, has a Century Farm Program. The Program recognizes the "agricultural heritage of farm families who have operated the same farm for a century or longer" — through the generations.

It is notable that Queen Anne's County leads the list of Maryland's Century Farms with 15 farms, followed closely by neighboring Eastern Shore counties (Caroline - 14; Talbot - 14). To be recognized as a Century Farm, the following criteria have to be met:

- The farm must have been owned by the same family for at least 100 consecutive years up to the date of the application.
- The farm must be lived on or actually farmed by a descendent of the original owner.
- The farm must consist of at least ten acres of the original holding and must gross over \$2,500 annually from the sale of farm products.

Not all farms that have been in the same family for more than 100 years are on the list. The requirements of being recognized aren't terribly onerous, but they do take some time and trouble. Applications must include copies of legal descriptions found in the deeds, title abstracts, or tax statements that establish consecutive ownership. Not every farm owner who is qualified gets around to filling out the application!

Among the benefits of being officially recognized as a Century Farm are being listed on the Century Farm plaque at the Maryland Department of Agriculture and receiving a sign suitable for posting on the farm. But the biggest reward to Century Farm families, whether or not recognized as such, must be the pride and satisfaction of carrying forward a unique family heritage that combines land and home ownership with a continuing business devoted to meeting the first of the three basic human needs: food, clothing and shelter.

The Queen Anne's Chronicle

The Queen Anne's Chronicle is published by Queen Anne's Conservation Association.

Chris Pupke — Chairman of the Board | Jay Falstad — Executive Director
Mary Campbell — Editor

Queen Anne's Conservation Association (QACA), a nonprofit 501(c)(3) corporation, is the Eastern Shore's oldest conservation organization. Its mission is to promote stewardship of Queen Anne's County's natural resources and to protect its rural character and small towns while encouraging the management of prudent and sustainable growth.

Queen Anne's Conservation Association

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4 Back issues of *The Queen Anne's Chronicle* can be accessed at www.qaca.org

MONARCHS IN TROUBLE?

BY JANE SCOTT

These days, every time I encounter a stand of common milkweed, I look for a Monarch butterfly egg – a tiny yellow bump on the underside of a leaf. I do this because, like so many others, I am worried. Monarchs must have milkweed to survive, but, considered a weed by many farmers, the plant is fast falling prey to an accelerated use of herbicides – now that we have crops that are genetically modified to be immune to them.

The Monarch Begins

Butterfly eggs are no bigger than a grain of sand, yet viewed through a hand lens, they are as beautiful and complex as sea shells and come in almost as many colors and shapes. A Monarch's egg is an intricately fluted dome, as translucent as etched glass. If you find one, keep an eye on it. A few days later you might see a tiny black and yellow caterpillar hiding where the leaf meets the stem. If it's lucky, it will have time to dine on enough of the milkweed's toxic sap to escape being gobbled up by a bird. The milkweed's white juices will not only protect it, but also the butterfly to follow.

Over the next ten days, the caterpillar will periodically shed its skin like a snake, growing fat and handsome with yellow and black stripes on its body and short black "horns" fore and aft. Eventually, it will hang upside down and wrap itself into an inch-long jade green chrysalis that is decorated with tiny gold dots and suspended by a minute black thread from the underside of a leaf.

The Monarch Emerges

The adult Monarch that will emerge from that chrysalis will be altogether different. Every part of the caterpillar will be transformed. Its chewing mouth will be exchanged for the butterfly's coiled, nectar-sipping proboscis. Its three pairs of walking legs and two pairs of grasping legs will be replaced by the butterfly's six trembling wires. The caterpillar's bold body stripes will become the butterfly's equally bold white dots, and from somewhere quite mysterious will come a flamboyant pair of orange and black wings. After a week or so, it will find a mate and the whole cycle will begin again.

Incredible as this transformation may seem, it is everyday stuff for the butterfly tribe. As the summer wears on, this drama will be repeated at least twice, with each generation taking about two to six weeks from egg to butterfly. As the summer wears down, however, something new and equally mysterious will happen. We will begin to see small flocks of Monarchs, the summer's last generation, gathering for their long autumn journey. They will fly all the way to the mountains of central Mexico, where they will spend the winter in a semi-dormant state hanging off the trees like so many orange and black leaves.

The Monarch Returns

Next spring, the essential mystery of this creature's life will become even more astonishing. The wintering butterflies will rouse themselves to begin the long flight north, yet they will never reach their destination. Somewhere en route, these Mexican migrants will mate, lay eggs, and die. Over the weeks that follow, the new crop of eggs will hatch into caterpillars, metamorphose into



Photo Credit – David Godfrey

butterflies, and live out their lives wherever they happen to be. It is the butterflies that appear from the eggs they leave behind, who will then complete the return flight to Maryland and points north!

The Monarch butterflies we see this summer will spend their entire lives here in Queen Anne's county. Yet something will nudge their September offspring to again set off for Mexico. How will they know where to go? The whole mysterious process boggles the mind!

Milkweeds for Monarchs

Surely we must all do what we can to keep these lovely creatures around. So, if you have a stand of milkweed on your property, please allow it to stay. I am even thinking of planting some in my garden! It is, after all, a handsome, stately plant with flowers that look like pink popcorn balls and smell really sweet.

I already have its cousin, the brilliant orange butterfly weed. While it lacks the milky fluid of the common milkweed, its sap is also toxic and apparently protects the Monarch caterpillars, although I confess I have never found one on it. It does bloom most of July, however, and Monarchs as well as black and yellow swallowtails all gather to sip its nectar.

Jane Scott, a writer and illustrator, is the author of Between Ocean and Bay: A Natural History of Delmarva (Centreville, MD: Tidewater Publishers, 1991), and Field and Forest, A Guide to Native Landscapes for Gardeners and Naturalist (Blackburn Press, 2002), as well as other works. She traces her roots in Delaware back to the 1730's and now lives on the Eastern Shore.



"Pretty Animal"

– Chronicle Photo

COUNTY FAIR, AUGUST 11–16!

If you have ever been to other counties' fairs, you know what a terrific fair QAC has. Why is ours so good? A big reason is that it is both serious and fun. Our youngsters' dedication and hard work are clear as they show or tend their animals. And there's lots of fun to be had, with the Pretty Animal Contest, Truck and Tractor Pull, rodeo, amusement rides, good food and music.

The County Fair this year is August 11-16. A detailed schedule and information about the events are available at www.queenannescofair.com.

This is QAC's 72nd County Fair. The first Fair was held in 1942, one day long with 900 people attending. The Fairgrounds had been donated the year before by George Moffett of Blakefield Farms, in response to "plans by Older 4-H Youth . . . to secure a permanent 4-H site to hold agricultural events." The new facility for the first Fair consisted of a show ring, 5 picnic tables, 40 hog pens, gravel roads, a well, and two toilets – all the result of volunteer efforts.

Volunteers continue to guide the care and use of the 4-H Park. It has become the venue for many events and, as the Fair website says, "is maintained so that we can continue to celebrate the joys of living in an agricultural community."

TELLING THE STORIES OF OUR QAC CIVIL WAR VETERANS

BY MARY MARGARET REVELL GOODWIN

There were many more than we know from Queen Anne's County who fought on both sides of the Civil War, as either Union soldiers or Confederates. Those who fought as Confederates had to sneak away in escapades that were both dangerous and hilarious in the retelling in later years. As we are still commemorating the 150th anniversary of the Civil War, I would like to present the short version of one of the stories that illustrate the participation by men who lived among us in the years after the War.

This story is about John R. H. Embert. Growing up in the Queenstown area, in his early 20's he, along with a few friends, decided to go off to join the Confederate Army. He and his comrades slipped out of the Wye River on the sloop Sallie. Meeting up with the 4th Maryland Chesapeake Battery Artillery, they made their way to Richmond and were attached to Bushrod Johnson's Brigade.

Stories claim that Embert's first battle was that of the Wilderness, but that battle was towards the end of the war (May 1864). It is much more likely that his first battle was under Johnson in February 1862 at Fort Donelson in Tennessee, a battle decisively won by the Union forces under General Grant. Johnson's Brigade, however, were able to slip away with ease in the cold snow.

Embert Captured – Twice

While scouting the Winchester area in 1864, likely for the Confederate effort to dismantle the B & O Railroad, Embert was captured by Union soldiers. Imprisoned, he was luckily exchanged with other Confederates for a group of Union prisoners. Had he remained in prison he most probably would have been executed by either Major General Milroy, who truly hated any secessionist, or Major General Sheridan, whose attitudes towards prisoners was no better.

After his participation in the Battle of the Wilderness in Spotsylvania County, Virginia in 1864, Embert by this time

wanted only to return home to the Eastern Shore. Somehow he made his way up and across the Chesapeake Bay towards the Wye area of Queen Anne's County. There are several versions as to how he came to be found in the waters of the Wye River. Nevertheless, he was captured (again) by the Union troops out of Baltimore patrolling our waters in their gun boat. They determined he must be a spy.

Put in jail in Baltimore, in the charge of a truly despotic officer who hated all Confederates, he was tried and formally considered to be a spy. By this time his parents were aware of his predicament. Pleas in writing went from every possible Maryland source to the Secretary of War, Edward Stanton, for his release as a spy, all to no avail. Stanton had issued a standing order in 1862 to: "arrest and imprison any person or persons who may be engaged, by act, speech or writing, in discouraging volunteer enlistments, or in any way giving aid and comfort to the enemy, or in any other disloyal practice against the United States". Given the extremely strong feelings young John Embert had as a secessionist, he fit Stanton's views of traitor exactly. John R. H. Embert was condemned to hang on the 20th of August, 1864 between the hours of 5 and 8 a.m. The news made the *Baltimore Sun* newspaper.

Embert's Fate in the Balance

Embert's father determined to go to the White House, to President Lincoln, and plead for mercy as a last resort. He and a little group in Baltimore boarded the train for Washington, with less than 24 hours before the execution at Fort McHenry.

Arriving at the White House in the evening, they found the President not in residence. In the steamy hot summer months, Lincoln had removed himself to the Soldier's Residence on the edge of D.C. Making their way there, Mr. Embert remembered he had grown up with a man named Duhamel who had become a doctor and now was at the Soldier's Residence. Begging Dr.

Duhamel's help, and assured that the good doctor knew Lincoln well, they went to Lincoln's residence.

Lincoln appeared in his nightshirt, and Dr. Duhamel explained the urgency of the circumstances. Lincoln wrote the note revoking the hanging, commuting the sentence to penitentiary confinement, but expressed doubt that Mr. Embert could arrive in Baltimore in time to stop the execution. (This part of the story was later told to the Washington papers by Dr. Duhamel's wife as a tribute to her husband.)

Dash to Fort McHenry

With that, the little group rushed back to the train and on to Baltimore in the early hours of the morning. A newly ordained priest, Father James Gibbons had already given young John Embert the last rights. This was the same James Gibbons who later became the most famous Cardinal Gibbons of the Catholic Church. At the time he was the chaplain at Fort McHenry where the hangings took place.

Young John Embert's father presented the handwritten note from President Lincoln commuting the hanging, saving John R. H. Embert's life. He was sent to a prison in Albany, New York. From there he was exchanged for a group of Union prisoners and finally made it home to the Eastern Shore.

He lived some forty years more in Queen Anne's County, dying in March of 1904. He is buried at St. Peter's Catholic Church cemetery in Queenstown. The deepest letters engraved on his tombstone are, across the top, "A Confederate Veteran".

Centreville Historian Mary Margaret Revell Goodwin has led the War of 1812 commemoration on the Eastern Shore. She is completing a book on the War of 1812 on the Eastern Shore scheduled for December of this year, and working on a major new book, enriching and updating Emory's late 19th century account, on the history of Centreville and Queen Anne's County.



Photo Credit – David Godfrey

The Wye Angus Program, continued from Page 1

Angus Ambitions

But Lingle and Houghton wanted more – they wanted to develop the best beef in size, quality, and economic profitability. They wanted their angus cattle to have a larger frame than the small, compact animals that were then common.

Lingle went in search of larger, rangier cattle to "hang more meat on" without a sacrifice to quality. He particularly admired the very large-framed Scottish cattle. Over time, from 1941 until 1959, 25 bulls were imported to Wye from Scotland, Ireland, England and Wales. Since then, no new cattle have been added to the Wye Angus herd. It is a closed breed – a breed within a breed with carefully supervised genetics.

Today Wye Angus is an important player in the beef industry. The cattle are renowned for their problem-free consistency and noted for their good marbling, their adaptability to different environments, and their fertility and mothering ability. Visitors from as far away as Brazil and Argentina visit WREC's Angus program because they want moderately-framed, grass-eating beef cattle.

Wye Angus has sold to cattlemen and breeders in Canada,

New York, Texas, Mississippi, Kansas, to name a few of the diverse environments that Wye's cattle are successful in adapting to. This past April, Wye Angus at WREC made \$275,450 at its 36th Annual Wye Angus Sale of bulls, cow/calf pairs, semen (sold all over the world), and embryos. The proceeds from this sale help sustain the Wye operation that produces all its own feed and crops.

Angus Research

But Wye Angus does more breed excellent beef cattle. The Program, under manager Eddie Draper, carries on research projects designed by scientists at the University of Maryland, Johns Hopkins, and the US Department of Agriculture. These projects include the effects of feeding cattle on grass as opposed to grain; forage research on different kinds of orchard grasses and warm season grasses; the efficacy of some vaccines for cattle; if and when to apply fly control agents.

Driving or bicycling by the Wye Angus Research Facility on the way to Wye Island, seeing the fenced-in pastures dotted with handsome black grazing cattle, one seems to be looking at the essence of "bucolic". But this pastoral scene is also a scientific laboratory. It's beautiful, but it's also a place of business research, of testing, discovery, and product development – serving and benefiting a segment of the agricultural industry: the beef business.

WHAT CITY-DWELLERS CRAVE

Many QAC farmers sell their produce at their own farm stands, offer pick-your-own opportunities, or supply other farm stands and farm markets (and sometimes grocery chain stores).

Listed below are the QAC farm stands and farm markets we know about. A new stand may at any time pop up at the end of a farm driveway, the result of a particularly abundant yield or enterprising children looking to pick up a little extra money.

We wish we knew them all, large and small, established and new, and we apologize to any not listed.

LOCAL PRODUCE STANDS,

PICK YOUR OWN FARMS, VINEYARDS & WINERIES

ARNOLD FARMS

219 Double Creek Road
Chestertown
410.778.4833
Home grown vegetables
Tues-Sun, 10-6

BENGUSTA MARKET

1214 Barclay Road, Barclay
410.758.3583
Vegetables and melons –
home grown
Fri-Sun, 10-5

CASCIA VINEYARDS

1200 Thompson Creek Road
Stevensville
410.604.2127
Tasting Room
Sat-Sun. 12-4

CASSINELLI WINERY AND VINEYARD

3830 Church Hill Road
(Route 213)
www.cassinelliwinery.com
Pick your own plums,
peaches, apples, pears
End of June-October
Tasting Room Sat-Sun. 12-5

CENTREVILLE FARMERS' MARKET

Court House Square,
Centreville
Local farmers have stands
Wed 3-7, Sat 9-1

FARMER JOHN'S

324 Romancoke Road
Stevensville
410.643.CORN
Local produce in season
Mon-Sat 9-7; Sun 9-6

GODFREY'S FARM

302 Leager Road,
Sudlersville
www.godfreysfarm.com
Farm stand and pick your own

Large variety of home grown
fruit and vegetables.
Mon-Fri 7-6; Sat, Sun. 7-5

KENT FORT FARM

135 Eastern Lane,
Stevensville
410.643.1650
Home-grown produce,
U-Pick peaches, blackberries
Wed & Fri 9-2; Sat 9-4;
Sun 10-4
Peach Festival Aug 3, 10-4

KENT ISLAND FARMERS' MARKET

Christ Episcopal Church
830 Romancoke Road,
Stevensville
www.kentislandfarmers-market.com
Wide variety of fruit,
vegetables, dairy products,
meat, chicken, baked goods,
etc., some organic
Thursdays, 3:30-6:30 year
around, except Thanksgiving
(on Tues. before)

LOWERY'S PRODUCE

1908 Main Street, Chester
410.643.4557
Home grown and local
produce
7 days a week, 9-7

MASON FARMS MARKET

1905 Ruthsburg Road
(Route 304), Queen Anne
www.masonsheritage.com
Home grown and local fruit,
vegetables, baked goods,
dairy products
Sun, Mon, Wed - Fri 10-6
Sat 10-4, closed Tues

McQUAY PRODUCE STAND

Route 18 & Shopping

Center Rd
on Kent Island
Variety of local produce
Every day 10-6

PERKINS PRODUCE & FLOWERS

301 Wright's Neck Road
Centreville, off Route 18
Local produce
Mon-Fri (except Tues)
10-5:30,
Sat 9-5; Sun 9-4

TILMON'S ISLAND WINERY

755 Millington Road
Sudlersville
443.480.5021
Wine from grapes grown
within 20 miles of winery
Tasting Sat 12-5

TOMAHAWK FARMS

213 at Windy Acres
Farm Lane,
6 miles north of Centreville
443.829.7776
Vegetables, flowers, breads &
Bakery items
Daily during daylight hours

WHITE MARSH ACRES

515 White Marsh Road,
Centreville
www.whitemarshorchard.com
410.490.6137

Pick your own peaches,
nectarines, plums, apples,
pears, blackberries
Daylight hours, July on

WHITE PINES FARM

213 & White Pines Lane
Church Hill
410.490.1369
Wide variety of home-grown
produce
7 days a week, 10-6

WHEN WILL ALL THOSE GOOD VEGETABLES AND FRUIT BE READY TO EAT?

Harvest times vary with variety and weather (especially after this year's cold and rainy spring), but here's a good list of what to expect when.

VEGETABLES

Asparagus	Apr 25-June 15	Gourds	Sept-Oct
Beans, <i>snap</i>	June 10-Sept 15	Okra	July 15-Aug 30
Beans, <i>lima</i>	July 20-Sept 1	Peas, <i>green</i>	June 10-July 1
Beans, <i>pole</i>	June 25-Aug 30	Peas, <i>black eye</i>	July 20-Aug 30
Beets	July 4-Sept 1	Peppers	July 25-Sept 15
Cabbage	June 1-Sept 15	Potatoes	July 1-Sept 30
Carrots	July 10-Sept 15	Potatoes <i>sweet</i>	Sept 5-Dec 15
Corn, <i>yellow</i>	June 25-Sept 15	Pumpkins	Sept 10-Nov 30
Corn, <i>white</i>	June 25-Sept 15	Spinach, <i>spring</i>	May
Corn, <i>Indian</i>	Oct-Nov	Spinach, <i>fall</i>	Oct-Nov
Cucumbers	July 1-Sept 1	Squash, <i>summer</i>	June 25-Sept 1
Cucumbers, <i>pickling</i>	July 1-Aug 1	Tomatoes	July 4-Sept 15
Eggplant	July 25-Sept 10	Turnips	Aug 15-Nov 1
Gourds	Sept-Oct		

FRUIT

Apples	Aug 15-Nov 5	Cider	late summer-fall
Blackberries	July 4-Aug 1	Grapes, <i>wine & table</i>	Aug 15-Sept 20
Blackberries, <i>thornless</i>	Aug 1-Sept 10	Nectarines	July 25-Aug 25
Black raspberries	June 15-July 10	Peaches	July 5-Sept 20
Red raspberries	June 15-July 10	Pears	Aug 15-Oct 15
Blueberries	June 20-Aug 1	Plums	July 15-Sept 15
Cantaloupes	July 15-Sept 15	Strawberries	early May-June 20
Cherries, <i>sour</i>	June 15-July 15	Watermelons	Aug 1-Oct 1
Cherries, <i>sweet</i>	June 10-July 10	Watermelons, <i>sugarbaby</i>	July 20-Oct 1

– Adapted from Queen Anne's County Farm and Services Directory

COMMISSIONERS' MEETINGS

Here are selected items summarized from the approved minutes and QACTV coverage of the County Commissioners' meetings.

May 20, 2014. The Commissioners:

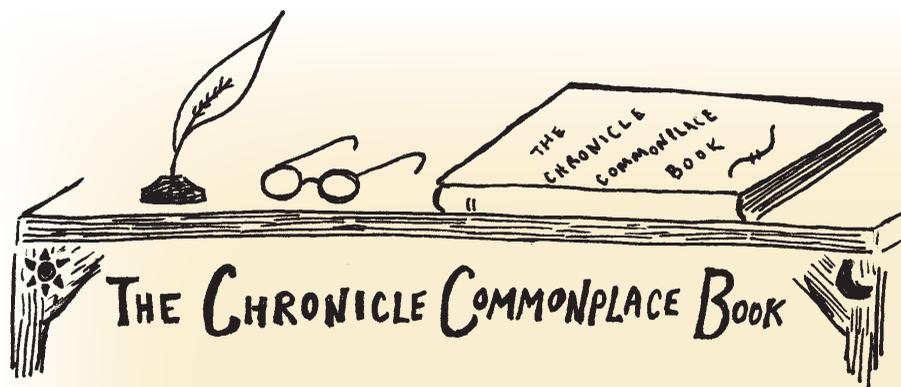
- Approved \$1.6 million for FY 2015 (from the FY 2014 surplus of about \$10 million) for the Board of Education's technology education program (principally laptops for Grades 6,7,8 = \$1.3 million) and other school needs.

May 27, 2014. The Commissioners:

- Appointed, Commissioner Simmons opposed, realtor David Kaufmann as an Alternate on the Ethics Commission.
- Adopted the FY 2015 Budget keeping property tax and income tax rates at the present levels.
- Adopted, Commissioner Olds opposed, a package of measures authorizing construction of the Southern Kent Island Sanitary Project.
- Rejected, as recommended by the Town of Centreville, an ordinance that would have allowed regional shopping centers and convenience stores at the intersection of Routes 301 and 213.

June 10, 2014. The Commissioners:

- Approved a preliminary engineering study and county-wide mailer concerning the Southern Kent Island Sanitary Project.



✂ **Food for People.** “Over the past half century, the human population has doubled [to over 7 billion] but food production has more than kept pace, and the fraction of people with insufficient food has declined dramatically, from 60% in 1960 to about 15% in 2010. . . Although the human growth rate peaked in the early 1960’s, the human population is still growing and will likely plateau at around 9 billion in the middle of this century. . . [G]rowth in population and in per capita consumption will require continued increase in agricultural production, necessitating an estimated doubling of crop production between 2005 and 2050.” — *Science*, 16 May 2014, p. 699.

✂ **The Naming of Full Moons.**

Algonquin tribes gave a name to each full moon and used the name to designate the whole month in which the full moon occurred. The early settlers adopted many of these names and invented some of their own. **July [12]: The Buck Moon** — Buck deer start growing velvety hair-covered antlers in July. Frequent thunderstorms . . . also resulted in the name Thunder Moon. . .



The new moon in the old moon’s arms

Photo credit – David Godfrey

August [10]: The Sturgeon Moon — The sturgeon

. . . is most easily caught during this month. The reddish appearance of the moon through the frequent sultry hazes of August also prompted a few tribes to dub it the Red Moon. . .

September [8]: The Harvest Moon — Many of the Native American tribes’ staple foods, such as corn, pumpkins, squash, beans, and rice, are ready for gathering at this time. The strong light of the Harvest Moon allowed European farmers to work late into the night to harvest their crops. . . Sometimes the September full moon was called the Corn Moon.” — www.moonconnection.com

✂ **Changing Places.** “We all react, consciously and unconsciously, to the places where we live and work, in ways that we scarcely notice . . . These places have an impact on our sense of self, our sense of safety, the kind of work we get done, the ways we interact with other people. . .

“As places around us change — both the communities that shelter us and the larger regions that support them — we all undergo changes inside. This means that whatever we experience in a place is both a serious environmental issue and a deeply personal one. Our relationship with the places we know . . . is a close bond, intricate in nature, and not abstract, not remote at all: It’s enveloping,

almost a continuum with all we are and think. And the danger, as we are now beginning to see, is that whenever we make changes in our surroundings, we can all too easily shortchange ourselves, by cutting ourselves off from some of the sights or sounds, the shapes or textures, or other information from a place that have helped mold our understanding and are now necessary for us to thrive. — Tony Hiss, *The Experience of Place* (Vintage Books, 1990)

✂ **New Farm Bill.** In the Agriculture Act of 2014, “[w]hile traditional commodities subsidies were cut by more than 30 percent to \$23 billion over 10 years, funding for fruits and vegetables and organic programs increased by more than 50 percent over the same period, to about \$3 billion. Fruit and vegetable farmers, who have been largely shut out of the crop insurance programs that grain and other farmers have enjoyed for decades, now have far greater access. . . For farmers of fruits and vegetables, oddly referred to in ag-speak as specialty crops, the ability to participate in crop insurance programs . . . is a major victory.” — *New York Times*, March 8, 2014.

✂ **Growing..Yes and No.** During the 3-year/3-month period from the completion of the 2010 census to July 1 of last year, QAC population grew by 719 persons, or 15%, resulting from 417 net in-migration and 302 more births than deaths. This was the greatest percentage growth of any of the 5 Upper Eastern Shore counties. (Talbot grew by only 149, or 0.4%, the result of 477 net in-migration but 328 more deaths than births.) Among all 9 Eastern Shore counties, QAC was second in percentage growth, exceeded only by Wicomico (+2.2%). — *Population Division, U.S. Census Bureau, release date March 27, 2014; http://planning.maryland.gov/msdc/Pop_estimate/Estimate_13/county/popest_cnty13.shtml*

✂ **Fish Deceits** “Every species generally of salt water fish are best fresh from the water, tho’ the Hannah Hill, Black Fish, Lobster, Oyster, Flounder, Bass, Cod, Haddock and Eel, with many others, may be transported by land many miles, find a good market, and retain a good relish; but as generally, live ones are bought first, deceits are used to give them a freshness of appearance, such as peppering the gills, wetting the fins and tails, and even painting the gills, or wetting with animal blood. Experience and attention will dictate the choice of the best. Fresh gills, full bright eyes, moist fins and tails, are denotements of their being fresh caught; if they are soft, it’s certain they are stale, but if deceits are used, your smell must approve or denounce them, and be your safest guide.” — *The First American Cookbook: A Facsimile of “American Cookery,” 1796, by Amelia Simmons* (Dover, 1984).



Fresh gills, full bright eyes, moist fins and tail

Photo credit – David Godfrey

✂ **Farm Bells.** “People might wonder just why farmers put bells on their animals. We know about cows, of course, and how a belled animal can be located even in a deep forest; yet with a little research we find that cats and dogs and ducks and geese and goats and sheep and even turkeys once had bells of their own design. . . Geese and turkeys had bells for their own protection as well as identification, for only a century ago the average farm was always troubled with attacks from bears, foxes, wolves, and bobcats. . . Farmers often kept a bell in their kitchen garden with a string to the bedroom; a frequent pull on the string whenever the thought came to mind would keep the raccoons or other destructive animals away.” — Eric Sloane, *The Sound of Bells* (Doubleday, 1966)

* A Calendar * * Of Verses *

JULY: OCEAN BEACHES

. . . [I]n a season of calm weather
Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And see the children sport upon the shore,
And hear the mighty waters rolling
evermore. . . .

— William Wordsworth

AUGUST: APPLE THOUGHTS

Brother, that breathe the August air
Ten thousand years from now,
And smell—if still your orchards bear
Tart apples on the bough—
The early windfall under the tree,
And see the red fruit shine,
I cannot think your thoughts will be
Much different from mine.

— Edna St. Vincent Millay

SEPTEMBER: CREATURES OF LAND AND SEA

O Lord, how manifold are your works!
in wisdom you have made them all;
the earth is full of your creatures.

Yonder is the great and wide sea
With its living things too many to number,
Creatures both great and small.

— Psalm 104:25-26 (BCP)