KERNELS OF LEARNING

Quarterly Personalized Education– Generation 5 Edition Q3 2018

Let Your Dreams Set Sail

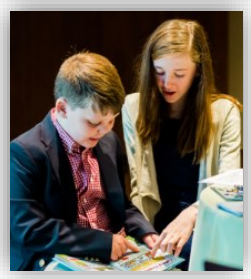
The Maruffa & Maaroufa

Our very first newsletter highlighted all the accomplishments of your great-great grandfather, Henry Babson. In subsequent newsletters, we dug deeper into his success in selling phonographs for Thomas Edison, the Babson Farms entities, the Surge Bucket Milker and establishing a horse breeding group known as the Babson Straight Egyptian Arabian. In this newsletter, we are going to focus on his passion for sailing that developed during his summers on the Eastern Shore.

At age nineteen he sailed his first racing boat, the *Old Maid*, at Seaside Park, NJ. In 1936, at the age of 61, Henry commissioned an innovative boat designer to design a 68-foot yawl (a two-masted sailing craft whose mainmast is taller than the mizzen mast). Henry named the boat *Maruffa* and raced on the Great Lakes until WWII. In 1946, this same boat designer designed a 77-foot ketch (a two-masted, fore-and-aft-rigged sailboat with a mizzenmast stepped forward of the rudder and smaller than the foremast), that Henry named *Maaroufa* after his favorite Arabian mare who had died some years before. He sailed the Maaroufa until he was 85 years old.

The family took sailing trips through the Greek Isles. Libby charted out one of their trips on this map.

Libby's Celebration of Life In Pictures



"What you leave behind is not what is engraved in stone monuments, but what is woven into the lives of others." - Pericles

Celebration corner

- Henry's 7th Birthday July 28th
- Zeff & Andronica's Anniversary August 12th
- Tim's Birthday September 14th
- Dave's Birthday September 15th

Financial $ense

History of the Mint

Courtesy of: www.usmint.gov

Artist's rendition of the first Mint in Philadelphia

In a past newsletter we learned a little bit about how currency came to be, which led us to the development of the US Mint. Let's pick up where we left off...

On April 2, 1792 Congress passed the Coinage Act, establishing the first national mint in the United States. Congress chose Philadelphia (the nation's capital at the time), as the site of our first Mint.

Coin production began immediately. The Act specified the following coinage denominations:

In copper: half cent and cent
In silver: half dime, dime, quarter, half dollar, and dollar
In gold: quarter eagle ($2.50), half eagle ($5), and eagle ($10)

In the early 1800s, America experienced its first two gold rushes in the South. Demand on the Philadelphia Mint to melt, refine, and produce coins from this gold pushed the Mint to its limits. In 1835, Congress passed legislation to establish three new branch Mints located in North Carolina, Georgia and Louisiana.

In 1849, the California gold rush brought a flood of people west for the chance to get rich. Transporting the gold east all the way to the Philadelphia Mint was time-consuming and fraught with risk. In 1854, a branch Mint opened in San Francisco to convert the miners' gold into coins. By the end of that year, the San Francisco Mint produced $4,084,207 in gold coins. Gold fever spread to Colorado in 1858, bringing hundreds of people to settle around the new city of Denver. In 1862, Congress approved a branch Mint in Denver.

The Mint's demand for the gold and silver needed to produce coins in increasing quantity for the growing U.S. population meant that there needed to be a secure location to store the country's bullion. In 1936, the Fort Knox Bullion Depository opened in Kentucky. The bullion was shipped by train through the U.S. mail. This picture shows loaded mail trucks guarded by police.

Today, the Mint maintains production facilities in Philadelphia, San Francisco, Denver, and West Point, and a bullion depository in Fort Knox.

Check It Out

Libby Memorial Slideshow https://youtu.be/sgSMyGQrlIs

Babson Memories Slideshow https://vimeo.com/231610306

The Babson Family Website https://zalongo.com/group/babson

Giving Back

An Ear Full– Babson Farms in the Community

Courtesy of the DeKalb Area Agricultural Heritage Association

In the last newsletter we shared about the recognition gathering Babson Farms held for the five farm families that have been affiliated with and worked in partnership with Babson Farms from fifty to over seventy years.

Subsequently, the DeKalb Area Agricultural Heritage Association (DAAHA), did a story on Henry Babson in their Spring 2018 newsletter, "An Ear Full", and made note of the recognition ceremony as well as Babson Farm's role in the community (see excerpt of the story below).

"Henry Babson's legacy in agriculture also continues to live on in northern IL today. In 2011, Taylor Kirkpatrick (Henry's great grandson) became President of Babson Farms. Their holdings consist primarily of thirty-five farms in fourteen blocks. The farms are located mostly in northern and western IL. Locally, the farms are managed by Steve Glascock who has been employed with Babson since 1976. The family continues Henry's management style of conducting their business professionally and without a need for public acclimation or fanfare.

They foster good relationships with tenants and neighbors alike. In addition, the Babson family continues to be most generous in financial support to their local community. DAAHA is very grateful to Babson Farms for their recent donation via their family foundation."

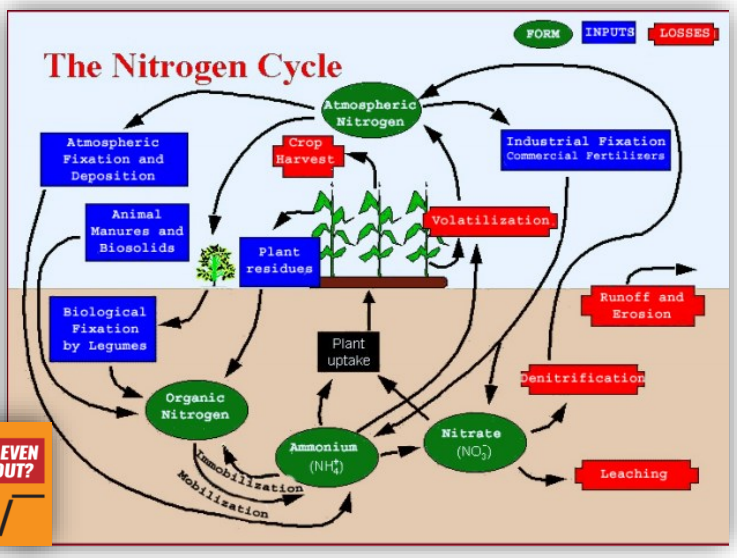
unlock the secrets in the soil

The Nitrogen Cycle

By Eric Lawler - Babson Farms, DeKalb, IL

My last article discussed two of the three primary macro-nutrients: phosphorus (P) and potassium (K). I will now touch on the third and, some may argue, the most important: nitrogen (N). All of these elements are considered macro nutrients because of the higher quantities the plant needs and takes up, but Nitrogen can be one of the most frustrating nutrients because the two forms most used by plants are very volatile. There are several forms of nitrogen, but plants generally benefit only from ammonium (NH_4^+) and nitrate ($N0_3^-$). The nitrate form is susceptible to leaching and denitrification. Leaching occurs because both the soil and the nitrates are negatively charged; nitrates can't bind to soil particles and are often washed away by excess water. Denitrification is a process where the nitrate form is converted back to nitrite and then into a nitrous gas which is released into the atmosphere rather than the soil. This occurs in anaerobic soils (saturated soils/low oxygen) where soil microbes take the oxygen from nitrates, converting it to a gaseous form of nitrogen.

Ammonium is a more stable form of nitrogen until it gets converted to nitrate (NH_3^-). In the ammonium form, it is able to bind to soil particles which prevents leaching. However, once temperatures are above 50°, ammonium begins the conversion process. Soil microbes convert ammonium ➡ nitrite ➡ nitrate through a process called nitrification. Unfortunately, plants end up absorbing the majority of the nitrogen in the nitrate form.



Denitrification– A microbial process of reducing nitrate and nitrite to gaseous forms of nitrogen.

Biological fixation– A process in which nitrogen gas (N_2) from the atmosphere is incorporated into the tissue of certain plants.

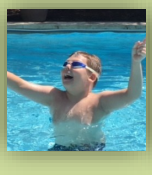
Atmospheric fixation- The enormous energy of lightning breaks nitrogen molecules and enables their atoms to combine with oxygen in the air forming nitrogen oxides. These dissolve in rain, forming nitrates, that are carried to the earth.

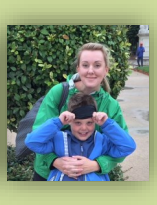
Industrial fixation– A deliberate attempt of humans to produce ammonia (fertilizer).

Leaching– Washed away by excess water.

Family Spotlight

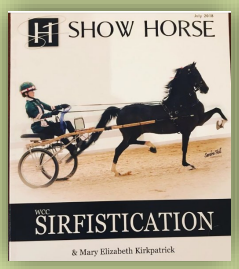
Henry enjoyed his birthday in Libertyville and their trip to France. He is continuing swimming lessons, flag football, tennis and golf.

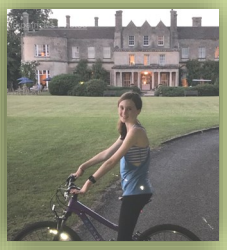


Sarah pictured below with New England Patriots coach, Bill Belichick, at the Preakness Stakes. She continues to be a flyer on her competitive cheer team and will be participating in competitions this year. The Atlanta Kirkpatricks enjoyed their trip to England & Paris.


Mary Elizabeth received a 2nd & 3rd place ribbon in the Saddlebred Horse Show with Sirfistication. ME is also running cross country this fall.





JT was recognized in May for his contributions on the Equestrian team at New Hampton School.

Questions?

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