June 30, 2016

Stacy Ritter
President
Greater Fort Lauderdale Convention & Visitors Bureau
101 N.E. 3rd Ave, Suite 100
Fort Lauderdale, Florida 33301

Dear Ms. Ritter,

Tradewinds Farm, run by Broward County, could be much more than an educational farm for children. The farm animals include goats that could be bred for dairy and the farm has potential as an educational resource for adults (residents as well as visitors).

California and Wisconsin are the country’s leading states for cow’s milk dairy. The dairy industry started in Wisconsin in the mid-nineteenth century and by 1915, Wisconsin had become the leading dairy state in the nation, producing more butter and cheese than any other state. California has surpassed Wisconsin in the last few decades.

Florida needs high-quality egg and dairy production. Hens need high-quality pasture, and vermiculture (described later in this letter). Goats are small animals that are easier to manage than cows. As I’ve mentioned in a previous letter, goat milk has a higher proportion of medium-chain fatty acids that are easy-to-digest and Florida has an established Dairy Goat Association (FDGA.org).

**Nutrient-Dense Plants Important in Egg and Dairy Production**

I lived in Wisconsin for ten years and the plant research I described in my previous letter grew out of an investigation of nutrition-rich dense plants for hens and goats. Goats and cows are both ruminant land animals whose milk is an important source of Vitamin B12. The term ruminant refers to their digestive system that is divided into four stomach compartments (instead of one in humans). The largest compartment is called a rumen.

Symbiotic bacteria that produce Vitamin B12 live in the rumen. Cobalt is required in the production of Vitamin B12 that is also called “cobalamnin.” Mollusks (e.g. clams) are sea animals that are also hosts for the symbiotic bacteria that produce Vitamin B12. Cobalt, that must be present for Vitamin B12 production, may sometimes be absent in soil, but it is never absent in sea water. As a result, mollusks are the richest source of Vitamin B12. Most people have heard of Vitamin B12, but they may not know about its importance. Vitamin B12 deficiency diseases can be organized into the following categories:

- Cardiovascular (Heart and Circulatory System)
- Neurologic/ Psychiatric (Nervous System and Mental Disorders)
- Hematologic (Blood or Blood-Forming Organs)
- Gastrointestinal
- Skeletal

Of these, neurologic/psychiatric are the most misunderstood. Early neurologic Vitamin B12 deficiency symptoms include tingling of the hands and feet, weakness, motor disturbances (including gait abnormalities), vision loss, leading to a wide range of cognitive and behavioral changes (e.g., dementia, hallucinations, psychosis, paranoia, depression, violent behavior, and personality changes).

**Joel Salatin: An American Celebrity Alternative Farmer**

Joel Salatin, who founded Polyface Farm in Virginia, is an American celebrity alternative farmer who has popularized rotational grazing for hens that lay eggs. Farmers who use rotational grazing methods explain that animals are moved to fresh, new grass every 24 hours where they can eat new growth. Because
hens lay their eggs in a chicken coop, the coop needs to be rotated to new grass. Joel solved this by placing his chicken coop on a flatbed trailer that he moves with a tractor. He calls the chicken coop-on-wheels an “eggmobile.” Joel’s eggmobile is home-made and one-of-a-kind. I found a group of young British industrial design students who created a chicken coop on wheels that could be used at Tradewinds Farm (https://www.omlet.us). The movable coop made in Britain is made of recycled plastic.

Some alternative farmers believe goats need to graze on grass, but they prefer to “browse” on a smorgasbord of woodier plants such as small trees and shrubs. Browsing, according to Wikipedia, is “a type of herbivory in which a herbivore feeds on leaves, soft shoots, or fruits of high-growing, generally woody, plants such as shrubs. As I searched for nutrient-dense plants, trees and shrubs, the list grew to 40 varieties. The following illustration includes a layout for garden plants in an arrangement I’ve called a “Permaculture Garden.” The numbers in the various plots refer to a list of numbered plants at the left edge of the document:

http://articles.x10.mx/garden_playground_layout.pdf

The proposed plan in this letter includes:

• Ideas and steps and methods that would create rich soil for a pastured hen demonstration project component.
• Brick walkways and plots for planting a permaculture garden—for goats and hens to explore (and eat) and for visitors to study.
• Invitations to Florida Goat Association Members to provide consulting and young female goats.
• Construction of a large classroom facility (4 classrooms and 2 labs) to teach the public about minimum daily protein requirements. Adult women need a minimum of 50 grams each day and men need 60 grams. It is impossible to reach these totals without eggs and dairy—almost at every meal. For example, a large egg contains about 7 grams of protein that is 90% usable. Dairy foods contain about 76% usable and meat, fish and poultry contain about 15-20% usable protein. When the public understand these percentages as well as the available nutrients, they will develop an appreciation for these foods.

Walmart may want to be a partner in the construction of a classroom facility for reasons that I’ll describe in my next letter.

Tillage, Seaweed Applications and Re-seeding of Tradewinds Pasture
The pastures at Tradewinds need to be tilled and mixed with seaweed (from Fort Lauderdale’s seaweed compost) and re-seeded with high-quality grass. Midwestern Bio-Ag’s “Pasture Mix” is an example of a seed mixture that has been created for rotational grazing.

NCSU’s 18th Vermiculture Conference Should Be Held in South Florida
The Biological and Agricultural Engineering Department at North Carolina State University hosts an annual vermicomposting conference that attracts participants from all over the world. Vermiculture is worm farming and worms are a source of animal protein for hens that have a daily requirement. The Biological and Agricultural Engineering Department at North Carolina State University should be invited to partner in the Tradewinds project because of the important role that Earthworms have in soil improvement. Vermicomposting should be used at Tradewinds for soil improvement and for the hens’ diet. The NCSU vermiculure department can help set this up. Their participation will help spread news about a Tradewinds project.

Goat Milk Cheese and Goat Milk Soap
Adult education at Tradewinds can include steps for making goat milk cheese and goat milk soap. I’ve mentioned the nutritional benefits of goat milk in a previous letter. Goat milk soap contains caprylic acid that is the correct pH for human skin. For the last 2,000 most soap has been made with lye that is one of the most alkaline compounds on the planet. Alkaline soap destroys the body’s acid mantle that is a natural
barrier against bacteria and parasite infection. Soap with the correct pH leaves the skin soft because it stimulates the production of new skin cells. Martha Stewart has produced a how-to video that teaches the steps to make goat milk soap.

**Demonstration Farm With Presentations at National Farmers’ Conferences**
Details about Tradewinds could be presented at national agricultural conferences. Contacts at these conferences can be invited to small educational events at the Hyatt and Crowne Plaza.

The Encyclopedia of Associations (EA) is a directory of more than 20,000 associations, societies, and other non-profit membership organizations in the United States. This 5-volume set, published by Gale Research Inc., sold on Amazon.com, and available at research libraries, can be used to identify organizations to invite to Tradewinds egg and dairy educational events at Tradewinds as well as the following hotels:

- **Hyatt Regency Pier Sixty-Six**
  2301 S.E. 17th Street
  Fort Lauderdale, FL 33316
  888-882-1234

- **Crowne Plaza Hollywood Beach**
  4000 South Ocean Drive
  Hollywood, FL 33019
  877-859-5095

Farmers and other Ag industry members who attend these events should be introduced to methods as though they are brand new (due to the politics that exists between conventional farmers and pioneers in alternative agriculture). Use words such as “Nutrition-Focused Agriculture” instead of “Alternative Agriculture.” Plan guided sightseeing tours for visitors who have probably never traveled to Florida. Signs could include the Pontoon Boat Tour at the Anne Kolb Nature Center and the Water Taxi.

**Martha Stewart, Hotel Chefs and Nutrient-Dense Edibles**
Celebrity chefs are valuable marketers in the food industry. Consider inviting Martha Stewart to demonstrate her recipes for the goat cheese (and goat milk soap). Chefs at the following hotels should also be invited to participate in recipe creation for agricultural industry visitors:

Martha Stewart’s talent is clear instruction that includes interesting anecdotes. The large volume of new information may require video-taped segments (of Martha, Hotel Chefs and possibly demonstration farms). News of an agricultural revolution in South Florida will spread and these visuals will be valuable.

Sincerely,

Mary Jo Fahey