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### New Ministry Beginnings

Yet God tested me during these beginnings of the new ministry. The greatest challenge was the financial beginnings. Last March 2014, I phoned Morningstar Fishermen, an international aquaponics research and training center for the cost of their training, spoke to the receptionist, then replied that I would have to think about it since this community could not afford the tuition. A wise friend R. knew this could be a great thing if God wanted it, and knew in her heart this called for immediate prayer. God immediately heard as I discovered the next morning when my friend phoned the receptionist again to ask if a discount was available. God had intervened. A \$500 scholarship was sent by email after the phone call. Then the challenge became finding community money to fund the balance so R. and I approached my community for it. And so it happened.

Training in Tilapia Culture With Aquaponics was April 7-11, 2014, after which I presented a plan weeks later to the sisters, architects, and workers for our new monastery explaining the importance of aquaponics. The air was “electric” as workers looked at me in disbelief since aquaponics was not in their original design. Importantly, the sisters agreed to have it—another God moment. “God’s deeds delight me.” Psalm 104

As my recent reading about St. John of the Cross assured me, “In every area of life God provides a program for daily living and we discover our true freedom in Christ. The whole person is in a process of change as intellect, memory and will are fused with faith, hope and love.” Door Through Darkness by S. Eileen Lyddon

Mingled in with our August 2014 move to the newly constructed monastery came my responsibility to get donors to finance the aquaponics construction. What a stressful scramble that was to have half the amount before the community Council met to decide to scrap the project, postpone it or move forward. Our Advancement Director F. urged us not to delay. On the feast of St. Francis of Assisi, Oct. 4, my spoken intention at Eucharist, “for a special intention that God may be glorified,” was fulfilled when the Council approved the aquaponics construction and decided, “It’s not S. Miriam’s responsibility to raise the money for it.” That trial was over thanks to St. Francis for whom my father and brother are named.

The town of St. Leo got into the mix thinking we needed to pay for a construction permit which further delayed construction. Aquaponics was a foreign term to them as was convincing them the plan called for a non-permanent structure.

There was even an “invisible check” for the first installment of the greenhouse construction which was sent to the builders without my knowledge. Thinking it was a duplicate copy of the contract, the builder never opened the envelope, also not knowing of its contents.

The trials and tribulations of our new beginnings abound. If you think about it, every day, we go through times of wholeness and brokenness over and over. We break, weaken, someone comes along, we mend, we heal. Starting the system and making an in-ground garden were labor intensive as reflected subconsciously in a nightmare in which I screamed, “Help! Someone help me, help me! Someone help me!” It seemed as though I was abandoned by everyone. The following day in the greenhouse, I felt the strong family presence of my mother, father, and two brothers in eternity with assurance that everything would be fine. Soon after, an angel of a friend B. came to encourage me asking what I needed, saying God would get me help and to calm down. In February, I decided to be anointed in the Sacrament of Healing as an assurance against depressing thoughts and to keep me off of the “pity pot.” After 10 weeks of working alone, God answered a prayer and we hired a perfect part-time employee to help me.

Now with God’s grace, I keep an open mind to the guidance of the Holy Spirit and if a person or idea surfaces as I go about, I contact someone and they have come to the rescue. One of many blessings is that I am open-minded and now am as flexible as a fish.

### Aquaponics in History

Some history—Long before it was called aquaponics, the Aztecs used floating islands called chinampas to grow crops. And in the 6<sup>th</sup> century, ancient Chinese farmers used a flow-through system for growing rice with fish, thereby taking advantage of the fertilizers made by fish.

How does aquaponics work? It is water farming. After feeding the fish, they produce ammonia rich waste. The system keeps a balance through a

biological process called nitrification or the nitrogen cycle. A bacteria called nitrosomonas which lives and grows in the water and on other surfaces, consumes ammonia and converts it to nitrite. ammonia to nitrites. Too much nitrites is harmful for the fish and deprives them of oxygen, so then another bacteria called nitrobacter consumes nitrites and changes it into nitrates. The plants need nitrates to grow as it is the primary source of their nutrition. In all, sixty elements are found in plants and eventually the crops will produce a higher yield than the fish. Water transports the nutrients to the plants. Mother nature is in perfect harmony. Two organisms, fish and plants, work together both benefiting from the relationship.

Tilapia contains all nine essential amino acids, and so is an excellent choice for meeting our daily protein needs. It is highly digestible and is more readily broken down and absorbed than the protein in red meats and poultry. In aquaponics, water is recycled and in this homestead model with ten 250 gallon IBC fish rearing tanks, 1200 gallons are moved per hour.

Two barrels, the clarifier and bio-filter, have a lot of surface area on which to grow bacteria. Both the clarifier and bio-filter remove excess waste for the balance needed. It's a perfect system.

By contrast, in traditional farming, cows, pigs and chickens spend their life standing in their feces in cages, and are fed antibiotics.

### The Path

We have partnered with our good neighbor Morningstar Fishermen, who motivate me with their world view to fight hunger. They are a faith-based non-profit training and research center, who taught me sustainable living as a path we take one step at a time, one decision at a time. The familiar symbol, "Reduce, reuse, recycle" is only the beginning of the path. We must wean ourselves from irresponsible consumerism one day at a time, wean ourselves from consuming more than we truly need, from processed and chemically treated foods, from what is convenient instead of what is healthy for the body and the earth. This world is overwhelmed with poverty and the struggle for survival.

Nature is so perfect and people take it for granted, destroy it every time they burn their leaves and trees putting carbon in the air, buy plastic products, allow agri-business farming to put methane gas into the atmosphere

destroying the thin layer of air around the earth, every time we throw plastic cutlery and styrofoam into the garbage to fill our landfills, every time we water our lawns and let fertilizers run into the aquifer, every time we use toxics to kill weeds and pollute the soil, every time we kill a bee out of fear of getting bit, every time we contribute to global warming, every time we consume, consume. We must stop destroying our environment.

Here at the monastery, we lay cardboard in the in-ground garden walkways to stop weed growth which will decompose naturally. For 10 years, we've made compost from kitchen scraps and raked leaves to add to the bin, connecting with goat farms and rabbit owners for their "bunny balls" to speed decomposition. Tree services come here to empty their load which we spread out for weed control and soil amendment. With the help of my dear sister Marge and a friend Dennis, I have saved every cinder block from my previous garden and made 8 new grow beds. And yes, we transported all the 15 bins of ready compost from across the highway for the new garden.

Having learned how to make bio-char from free workshops at Morningstar Fishermen, our next resource for soil amendment is ready for action. Bio-char is wood roasted in a low oxygen barrel. Bio-char is a 2,000 year old practice which converts agricultural waste into a soil enhancer that can hold carbon, retain nutrients and water. It reduces deforestation and is a simple tool to combat climate change. Making bio-char lets us be sustainable.

I have a renewed sense of urgency about my work, and if I analyze why, there are dozens of reasons for working passionately each day. I've been an educator all my life, and now the message to respect the earth is so critical. Malnutrition, obesity, widespread cancer, the circle of poverty, lack of knowledge and apathy must not continue if we "have our head on straight" as a friend recently said. Hippocrates, the father of medicine said long before Christ walked this earth, "All diseases begin in the gut." We must teach each person as we go about our day to begin that path of respecting our earth, protecting our resources, especially our water, land, and air. Psalm 8 tells us, "You charged us to care for all creation."

As regards aid to the poor, visitors to the greenhouse are seeking new ways to be sustainable and grow their food, so I regularly explain our system and show them how doable it is. It's all about education. In short, my real ministry is loving the world, as Sister Sally a retreat director, once said.

I am grateful to Phil, all the staff of Morningstar Fishermen and a new circle of fish farming friends who are environmentally responsible and love God's people and the earth. God has a new face—all the curious but cute visitors to the greenhouse and beautiful men and women who volunteer their skills and energy to lay cinder blocks to lay grow beds, bring tractors to spread wood chips, purchase top soil, plant new seeds, Tom who donated the irrigation system, friend Richard who prepared the barrels for making bio-char, Dennis who built the compost bin, Bud who gave me a digital camera the weekend prior to the greenhouse construction, and the beautiful face who paid off our greenhouse debt. Whoever I meet each day, I keep them in my thoughts and pray God will give them whatever they truly need.

I personally feel my heart has expanded and I'm more alive and renewed. As I go about the garden, I'm in communion with God because the perfect balance of nature is always in my mind and focused on God's creation. We pray Psalm 65, "You bless its growth..." and know that many more members younger than I will find this way of life as attractive and join us in sustaining life spiritually, physically, mentally and enjoy each day as a gift to be lived to the fullest. So much good comes when we ask God to use us as we remain open to the Spirit. I am so grateful to be building an aquaponics community. I am not the same person I was yesterday, not the same person I was last April, nor 5 minutes ago. Our lives are a beautiful mystery. Our lives become history. I live in dreams of happy yesterdays, dreams of the world as it could and should be. I live in the Spirit.