

ALL ABOUT PROFESSIONAL BUTTERFLY FARMING

Successful, Profitable Businesses Raise Butterflies World-Wide



What is Butterfly Farming?

Butterfly farmers raise butterflies – the adult butterflies, or the various stages in the lifecycle (eggs, larvae, pupae) and sell to buyers that use them for different purposes. A butterfly farm or butterfly business can be a small, at-home endeavor using limited space indoors with a low overhead requiring less work and fewer supplies. Or, a butterfly farm can be a large, high-volume business that grows thousands of plants in large greenhouses, shipping out hundreds of dozens of butterflies every week!

Butterfly farming involves growing plants and raising butterflies in specialty, controlled environments for predictable, quality output and sale to the public, to butterfly exhibits and other butterfly farmers. Butterfly farming is a hands-on, do-it-yourself opportunity that can be started with limited investment and grown as time and finances permit. It will require your vision, dreams, hard work, study and enthusiasm to become a reality. This small but growing industry has room for more success stories, including yours!

Who Buys Butterflies?

Adult butterflies are raised and shipped for people to release at special events such as weddings, funerals, birthday parties and other celebrations. A butterfly release is an enchanting **moment that lives in people's memories** forever! It is exciting and beautiful.

There are approximately 2.5 million weddings in the U.S. each year, or 6,000 per day. The wedding industry averages \$60 billion/year. The average spent on a wedding in the U.S. is \$26,989.

There are about 2+ million funerals every year in the U.S., with spending at \$20.7 billion per year.



Over the last 15 years, the number of commercial butterfly farms has grown and exposure on the internet connects butterfly raisers and buyers. People are thrilled to discover they can purchase live butterflies to release at their special event. They are also purchased as special fund raisers, for community events such as cancer walks. For example, do an **internet search for “release butterflies at cancer relay” and see the results!**

Butterflies are also sold to butterfly exhibits, schools, and nature centers. Butterflies are **often sold as “fund raisers” at special events such as cancer relays, and community projects.** Some butterfly farmers sell their larvae in raising kits to schools with host plants, or in cups with instant diet mix for the larvae to eat. Students get to see the larvae eat, grow, and turn to pupae, then emerge as butterflies!

Is Butterfly Farming Profitable?

Successfully starting and expanding a butterfly farm is the same as any **other business.** It's best to do careful research and make a plan based on your available space, time and finances. Starting out small at first and then building up to a larger operation as you learn is the best way to succeed. You will be able to learn the business as you go, if **you don't take on too much to begin with.**

Making a realistic business plan after doing thorough research; investing in plenty of question-and-answer time with an expert; and figuring your resources will lead to successful startup.



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A **startup plan and expense budget will keep things under control and you won't be overwhelmed.** In this area, you will shorten your learning curve (and related expenses) by working with an expert in butterfly farming. Consulting with an expert for startup will save you money, headaches and waste! Also, an expert consultant will be able to advise you on how to configure and plan your raising operation based on your location, climate, **conditions and special considerations.** **Butterfly farming setups are not "one size fits all"** and your success depends on getting it right!

You will be able to concentrate on learning and operating your business by working with a professional in the beginning, avoiding the pitfalls! Reading butterfly breeding manuals, taking butterfly raising workshops, and consulting with an expert can help you start out and remain profitable in the long run. Profitability and the success of your business are directly affected by your making the right decisions for business size, equipment, supplies, disease control, choice of plants, livestock production, inventory management and other business aspects. Become an expert by working with an expert! This prevents costly and discouraging mistakes and will put your business on a paying basis, so that you can enjoy the profits and joys of working with happy customers!

Many commercial butterfly farmers raise and sell their livestock to retail customers, wholesale clients, and butterfly exhibits. Most butterfly farmers bring in additional income by offering educational presentations, selling butterfly raising kits, and have beautiful butterfly-related merchandise such as gifts and jewelry for sale on their websites.

How Do Butterflies Grow, and Can They Be Raised in Captivity?

In nature, free-flying, wild butterflies lay their eggs on host plants, the larvae emerge from the eggs and eat the leaves of the host plant. Then, a metamorphosis takes place and the larvae change into pupae state and redevelops itself into a butterfly inside **it's casing, which hangs onto the plant** or other object. The adult butterfly then emerges from the pupal case, once the metamorphosis is complete!



The cycle begins anew with the adult butterflies mating and laying a new cycle of eggs onto the host plants. Photo above shows a mature Gulf Fritillary larvae happily munching on Passion Vine!

Egg, larvae, pupae, adult butterfly – these are the stages in the lifecycle. Different kinds or species of butterflies have their own specific host plants. You will need to grow host plants for the butterflies you wish to raise, for their larvae to eat. Some butterflies species, such as Painted Lady butterflies, can be raised on host plant OR fed an instant diet you prepare for them.

So, a butterfly farmer must duplicate the conditions found in nature to raise butterflies with ideal lighting, temperature, humidity and the correct host plants for the larvae. The adult butterflies must have good nectar to sustain them until they are used in the breeding operation or are sent out in orders for ceremonial releases. A butterfly farmer must provide **for each part of the butterfly's lifecycle, giving optimal conditions for healthy, vibrant livestock.**

At right is a photo of Monarch eggs on tropical milkweed, one of **the Monarch's favorite food** plant. Below are some photos that **give a visual walk through the Monarch butterfly's amazing life cycle** from egg to adult. Photo credits: Used by permission, Jacob Groth, Swallowtail Farms. (Article Three of this workshop provides detailed information about the lifecycle and raising process, by Nigel Venters.)

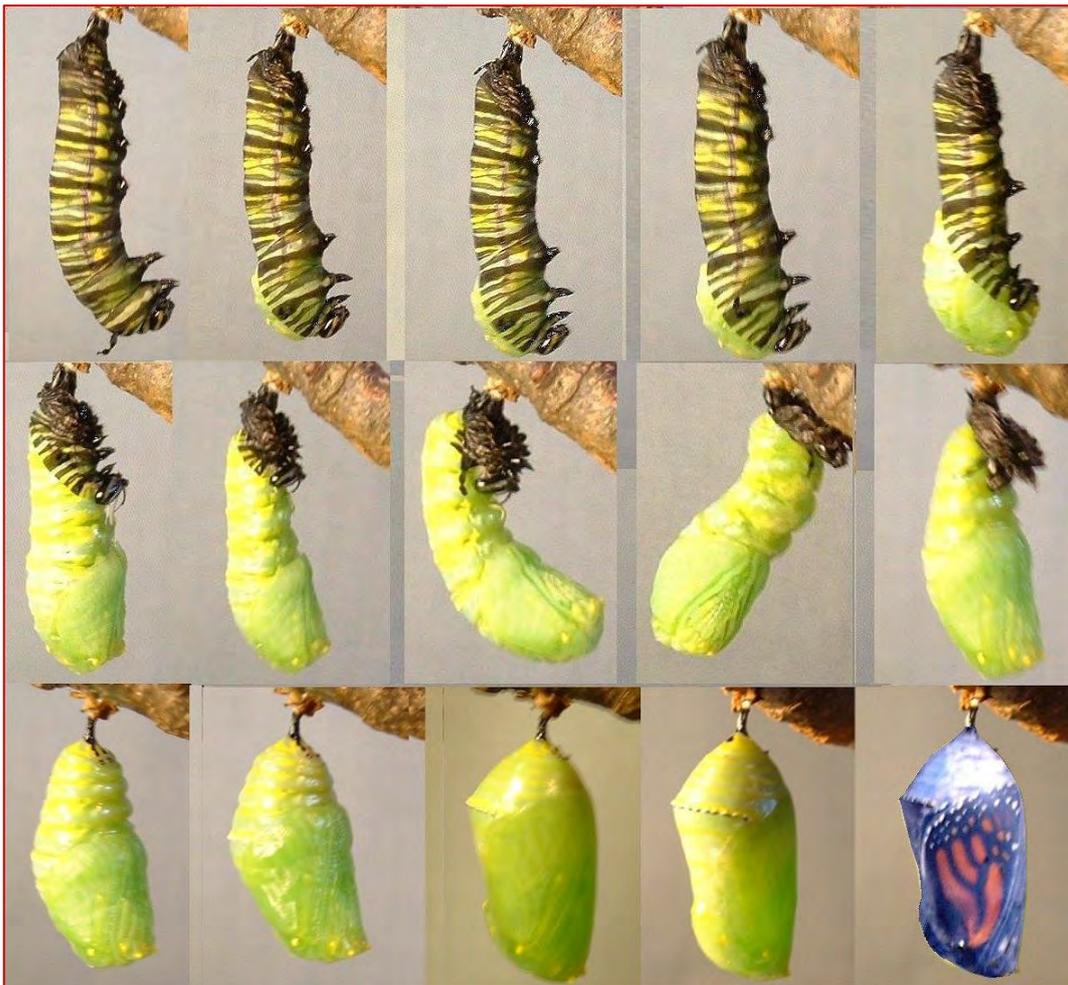
The newly-emerged larvae are the size of an eyelash! Below see **tiny larva emerge, then turn and eat it's egg casing.** Larvae eat and grow incredibly fast over a period of about 15 days. Larvae are eating machines with over 2000 muscles! During this **tremendous growth period, larvae pass through five "instars" or skin sheddings,** and then go through a phenomenal metamorphosis known as pupation. This is when the larva turns into a pupa (or chrysalis). The adult butterfly emerges from the pupa in about 12 days.



Eyelash size when emerged, mid-way through larval stage, and final size larva.



Monarch lifecycle, continued.... Larvae to pupae sequence photos by Nigel Venters



Emerging Monarch photos used with permission, Jacob Groth, Swallowtail Farms, CA



A butterfly farmer must provide the correct host plant (or instant diet) to feed the growing larvae. Space, equipment, time and labor are all considerations. Butterflies will need a **place to breed or mate. Then, the “gravid” females will need a place or a container to lay their eggs,** and there must be a place set up for larvae to eat and grow.

There are many different ways to raise butterfly livestock in captivity. There are now more efficient methods of raising considerable volumes of butterflies, without having to own a lot of acreage or numerous facilities. These methods will be explored in Article Three of this workshop, Part I, and Article Five in Part II of this workshop. It is important to know that you do not have to own large parcels of land or huge greenhouses to start up a butterfly farm! A spare room, your garage, an outbuilding and even a suburban-sized yard are enough to start your own butterfly raising enterprise!

Small-Scale, At-Home Butterfly Raising Businesses

A beginning butterfly farmer can easily set up and manage an operation to raise Painted Lady butterflies on instant diet, at their home, with limited space. This small-scale raising operation is simple, costs little to start up, and can generate income very quickly. The photos that follow are from Dean Kirkwood, a Florida butterfly farmer. He used a **16’ X 20’ room with no expensive equipment, and shipped out hundreds of dozens of Painted Lady butterflies every week!** Instruction regarding this set-up is provided in Part I of this workshop, Article Three.



Note: shelf unit with drawers contains 2,400 larvae! When this operation is worked by one person, 500 butterflies can be raised, packed and shipped out each week. With two people working this set-up, the production numbers can double to 1,000 per week going out. That translates to about 80 dozen, and at the going rate for Painted Lady butterflies, that equals \$4,400/week. The only growing, live plants required for this set-up are thistles, for the females to lay eggs in cages. See photo at right, below and you will see female Painted Lady butterflies laying eggs on green plants hanging in cage!

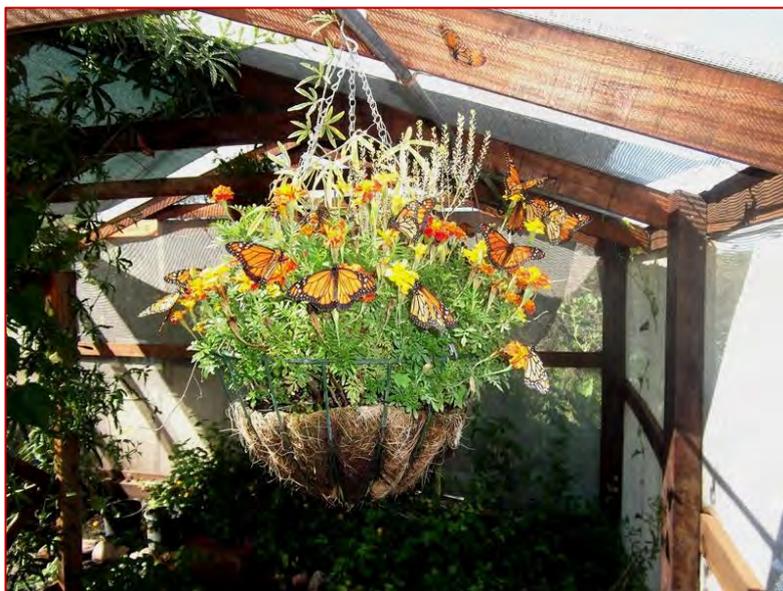


Below is another example of a very simple, smaller-scale, at-home (Monarch) butterfly farming set up. Milkweed plants are being grown indoors in hydroponic units, totally without soil. Mating and egg laying are accomplished in special netted cages, called **“Pop Ups”**. Two to four hundred Monarchs per week can easily be produced in this small space, with some plants being started in seed trays or in pots outdoors and then brought into the hydroponic system for rapid growth. The 400 Monarchs per week equals about 33 dozen, or \$2,475/week using the average price of \$75/dozen for Monarchs. This method combines the **“Max Monarchs and More” Method by Nigel Venters**, with a hydroponic growing unit for indoor plant growth. This set-up can be used to continue raising Monarch butterflies through the winter months. This method will be explained in Part II of this workshop, Article Five.



Medium-Scale Commercial Butterfly Farms

Here are photos of Nigel Venters' flight house at his home in Argentina. He and his wife, Grace Venters, raise a considerable number of butterflies for ceremonial releases and educational presentations in their community. This nice-sized greenhouse/flight cage combined with Nigel's expert methods to raise butterflies efficiently results in the maximum output of healthy, beautiful butterflies, using the available space!



Large-Scale, Commercial Butterfly Farms



There are many large butterfly farms in the United States and around the world. Most of the commercial butterfly farms in the U.S. raise butterflies for ceremonial releases. There are farms that ship out as many as 200 dozen per week, during the spring, summer and fall months. Some butterfly farms sell to butterfly houses. However, most of the butterfly houses get their pupae/livestock from butterfly farms in South America and other tropical countries.



Monarchs and Painted Lady butterflies are the two most popular butterflies used for releases at weddings, funerals, and other special occasions. Swallowtails, Mourning Cloaks, Gulf Fritillary, Zebra Longwings and Red Admiral butterflies are some of the other species that may be shipped in the U.S. from butterfly farms to be released at special events.

Most often, the larger Monarch-raising facilities raise large amounts of milkweed in big greenhouses, shown in these photos. The cut food plant is fed to the larvae, usually in containers, as shown below, kept in climate-controlled rooms or buildings. Butterflies raised indoors in closed containers are more susceptible to disease and infections than those butterflies grown in more natural conditions.



Raising butterflies in this setting, indoors and in closed containers, is extremely challenging and sterilization for disease prevention and control is a labor-intensive task. Many butterfly farms have switched from using the “tub” method to Nigel Venters’ “Maximum Monarchs Method” where butterflies complete their lifecycle inside special, netted “Pop Up” cages. This allows for a more natural environment with healthy airflow, sunlight and live, growing food plant. (Growing Monarchs in Pop Up containers is explained in Part II of this workshop, Article Five.)



Below are greenhouse structures designed by Nigel Venters, used to raise large numbers of butterflies on sleeved, live-growing food plant in natural conditions.

The more natural the raising environment, the healthier the butterflies will be and the less likely disease and infection will enter and contaminate the raising operation. This is known as a “melt down” in the butterfly raising world.





Getting Started – Frequently Asked Questions

What Knowledge Do I Need to Raise Butterflies?

You will need to know about how to raise nectar and host plants for the butterfly species you wish to raise. A general knowledge of gardening is helpful. You will need to know about the lifecycle of butterflies, butterfly anatomy, butterfly diseases.

This can all be learned from butterfly-rearing manuals, internet sites for butterfly raising, workshops, butterfly farming email forums and butterfly consultants.

What Knowledge Do I Need to Run the Business End?

You will need general business management skills and knowledge, including business planning and bookkeeping. Computer skills are needed, to include word processing and **bookkeeping programs. You'll need to be able to answer and send emails to your customers and suppliers, as well as using "social sites"** and internet tools such as facebook, YouTube, blogging, etc.

Your customers will find you through your website and presence on the internet. In addition to having your own website, it can be posted on other sites that offer group listings, for wider exposure on the internet. You may wish to join groups that offer business listings and website/contact information. Various trade association websites offer this opportunity and you can interact with other members for buying and selling of livestock.

You will need to be able to interact well with your customers for sales, and to send out promotions by regular mail and internet. You should enjoy getting out and introducing yourself and sharing your business information with local companies, such as wedding consultants, florists, wedding caterers and funeral home directors.

How are Butterflies Advertised and Sold?

Most of your orders will come from your website on the internet. Potential buyers are **searching the internet for butterfly suppliers every day, and they'll find your website and contact you to purchase butterflies.** This will be the primary source of your orders for butterflies to release at special occasions.

You will be able to promote your sales by working with local businesses near your home. Making personal contact with local companies can bring considerable business your way. Funeral home directors are a great source of local orders. Wedding coordinators love

offering butterfly releases as part of their service packages. Florists and schools are two other potential buyers.

What About the Competition?

Supply and demand numbers shows that in this special industry, demand far exceeds the available supply. Look at the number of weddings and funerals in the U.S., for example, and the number of commercial butterfly farms there are to fill the orders. A butterfly farmer with a good website, local contacts and reliable, steady production of healthy butterflies could expect to do very well.

What Personality Traits Make for a Successful Butterfly Farmer?

Ideally, a butterfly farmer will enjoy interacting with people and won't mind spending time on internet and telephone sales. You must be able to share your excitement with your customers, for beautiful butterflies and the magic they can bring to an event. Strong "people skills" – a valuable asset!

A butterfly farmer must have flexibility, patience, determination, and be willing to work hard to learn the business, promote and expand. A successful butterfly farmer has a love for living things – both creatures (butterflies) and growing plants.

Really loving what you do and your product will have a big effect on your sales! Being willing to really be "out there" and talk to people makes a big difference. Wearing a T-shirt with butterflies on it, that says "Ask Me About My Butterflies!" when you go out in public, is an example. Always have your business cards with you to hand out!

What Do I Need to Start Up a Butterfly Farm?

- The knowledge of raising specific plants
- Knowledge of the butterflies you wish to raise and sell
- Business Plan for start-up, expansion, sales, budgeting
- Indoor space for raising, office and storage
- Outdoor space for raising plants and butterflies
- Greenhouse or enclosed, outdoor growing area
- Permits for butterfly shipping as required
- Shipping accounts (FedEx, UPS)

- Website
- Host Plants
- Start Up Livestock
- Computer
- Office Supplies
- Microscope
- Equipment
- Raising Supplies

- And, your best resource is ***A GOOD BUTTERFLY FARMING CONSULTANT!***

What Are the Pitfalls and Problems Associated With New Start-ups?

Underestimating the time, labor and cost to start up and operate a butterfly farm is a big mistake, but preventable if you study first and try to work with a consultant. Do your homework! Learn all you can first, from butterfly education workshops, books, the internet and butterfly breeding manuals.

A thorough understanding of the diseases and health issues for raising butterflies is make-or-break. You must face the fact that butterfly diseases are a reality and purchasing a quality microscope is a must. Educating yourself about butterfly diseases and parasites, and learning how to check your livestock will prevent a lot of heartache and loss. A butterfly farm will certainly fail if proper disease control measures are not in place. Prevention is the key here.

Steady, controlled output of quality butterfly livestock depends on careful management of the production processes for pairing, egg laying, larval growth, pupation and emergence. Knowledge of controlling livestock growth and development is required in order to produce the desired output numbers of healthy, beautiful butterflies, coordinating production numbers with the number of sold butterflies going out in weekly orders. Without a working knowledge of livestock management and QA/QC measures in place, production can fail.

Sales and filling orders depend on steady production. When production fails, then order refunds must be given. With a good, working knowledge of the butterfly lifecycle, growing the butterfly host plants, production methods, disease control and having resources available when problems occur will result in success.

Some butterfly farms buy in livestock from other butterfly farmers to fill their orders or to **use in their own production processes. A dependable, quality supplier can “drop ship”** orders for you directly from their facility to your customers. You may also want to buy livestock from another farmer for your butterfly breeding. Of course, having a dependable supplier will result in your orders being filled with beautiful, vibrant butterflies and great customer satisfaction! Using butterfly livestock for your own breeding purposes must be done with the greatest caution, to avoid bringing in disease and ruination to your operation.

Learning More About Professional Butterfly Farming

Please see www.butterflyboutique.net to find out more about how to raise butterflies for fun and profit. Butterfly Boutique provides articles from A to Z about starting up a butterfly farm very small scale, then expanding later for more volume and more profit. The Professional Butterfly Farming Manual is available for purchase, as well as several special articles from previous online workshops to raise the various species, build a greenhouse or flight house, etc. Materials are downloadable after purchase for your instant viewing! And, Butterfly Boutique offers several online “desktop workshops” every year that are easy to attend, anywhere, anytime from your computer or other device. The workshops have downloadable articles and online discussion forums with Nigel Venters, the world’s most knowledgeable expert on butterfly raising!

A Day In The Life of a Butterfly Breeder

by Melanie J. McCarthy : The Monarchy Butterfly Farm

This really is no ordinary day, but neither was yesterday or the day before. Waking up, a screen appears in front of my eyes rapidly portraying a list of what the priorities will be in the next hour and, of course, the rest of the day. It may be--actually it most likely will be--that my smooth white, yellow and black *Danaus plexippus* larvae will be enjoying breakfast long before I do. Thinking about what will come before me, I am thankful that my two children, Evan, age 13 and Ryan, age 18, are well prepared to cook for themselves and get off to school this morning. What is different about today is that it is one day out an approximately 180-day period, which we lovingly and sometimes wearily refer to as "butterfly season".



Melanie and family

Our farm, aptly called The Monarchy, is set atop Wilbraham Mountain in the Pioneer Valley of Western Massachusetts. Having re-located here from a less rural setting in town just two years ago, we are fortunate to have the perfect setting for a butterfly farm. Our five-acre property, replete with a two-story barn-garage, room to plant milkweed fields and plenty of room to have constructed a 30 by 96-foot enclosed butterfly exhibit next to our pond, is exactly what was needed to accommodate us. This last move was the final stop in searching for the perfect spot to raise our lepidoptera and the final realization of our dream. Often I think about how it all began--with a shy, young boy's interest in lepidoptera.

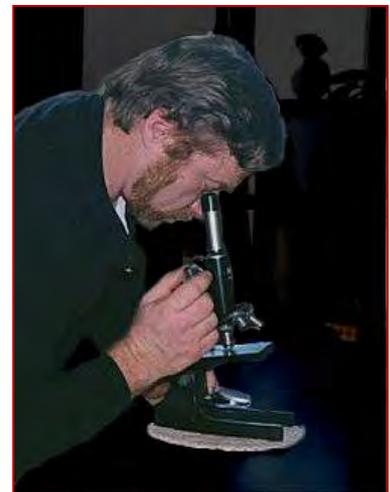
Terry Terbush, my husband, always had a passion for butterflies - a passion this family would later share with as many people, young and old alike, as possible. Since childhood, he watched them, chased them, and tirelessly studied the various species. When he was a

youngster in Webster, New York, his Little League coach once remarked that he'd be a much better player if he caught fly balls instead of butterflies in the outfield. Many years later, when our first son, Ryan entered school, Terry would volunteer his time amidst a renewed passion, to teach little ones in the classroom about the metamorphosis of both butterflies and moths, something that he continues to do. Now, ready to begin the tasks at hand, I gaze at the 800 larvae set before me and I begin my task. *Asclepias syriaca*, better known as common milkweed, leaves, picked earlier and thoroughly sterilized with a grain alcohol/water solution, are piled before me.

Since about 75% of my larvae, in the spring, are raised in special sterilized plastic and net covered containers, I must clean and sterilize those containers at feeding time which is twice a day. The other 25% are being raised outside within sleeves on *Asclepias curassavica* which is now just beginning to be voluminous outdoors in our fields. Toward the middle and end of the season, much of our butterflies will be raised outdoors. Keeping in mind that there are advantages to indoor rearing versus outdoor rearing and vice versa, I always have a sizable brood being raised indoors as well as outdoors. Larvae outdoors is always subject to the preying of other insects and birds! However, I know, if one has the space, outdoor rearing is very desirable because it mimics nature. While completing this 5-hour task, other responsibilities are not overlooked and I must keep my mind and hands busy with those simultaneously.

Newly emerging Monarchs, typically around 11 a.m. each morning, are being watched to be sure they emerge with room and are assisted if they occasionally fall from their precarious perch on the casing of the empty pupa. Egg laying almost exclusively takes place indoors in a four by three and half foot illuminated cage. This is to better control the humidity, temperature, lighting and cleanliness of the area. It is time to hand feed my gravid females, replace their nectar with fresh nectar or some other special treat for the day, mist so that the leaves of the plants stay fresh and the wings of the butterflies stay strong. I take a few moments to delight and stand in awe of these powerful females whose basic mission is to insure survival of the species! Indoors, newly laid eggs are collected after 24 hours and sterilized using a specially developed solution which kills bacteria and dissolves the O.E. (*Ophryocystis Elektroscirra*) spore, a harmful protozoan that if left unchecked can be devastating to butterflies.

The small number of eggs laid in my outdoor exhibit area are not sterilized although the scales of the parents of those butterflies released in this area will have been checked, prior to mating, under the microscope for the O.E. spore. We have found that when rearing outdoors, the eggs, larvae, adults and plants are continuously cleaned by the elements of the weather and have a reduced risk of disease, just as they would in the wild. As an added precaution, however, every adult used in production is checked under a microscope and then another 10% of our general population is randomly checked once a week, for the presence of the O.E. spore. With these safeguards in place, we rest assured that all of our livestock will be healthy and vibrant. As with any livestock industry, we know disease will bring operations to a full halt and possibly closure.



Terry Terbush

After sterilization, the eggs are placed in airtight containers to hatch. As the larvae emerges from the egg, they are carefully "brushed" onto milkweed. As I continue to work, I hear my two employees, Judy and Matt, arriving. Thank goodness. Judy will relieve me of the laborious task of feeding the larvae and sterilizing the containers. Her love of nature and wildlife is apparent as she often takes larvae home for "fostering" in the same way she "fosters" abandoned dogs and puppies. Matt, a life-long butterfly and moth enthusiast and an Environmental Science major at the University of Massachusetts will tend to outdoor tasks. Before going outside for the day, he relates a story about his third grade Science Project in which he researched and reported on various species of moths and butterflies from his collection. He seems proud of this.

Given what seems like a good opportunity, I talk about a recent Science Fair project completed by my own son, Evan in which he hypothesized, studied and reported on color attractants for the Painted Lady Butterfly. I am so proud of all his hard work! Highlights of Matt's day will include going out to the exhibit area to replenish nectar supplies, rotate, trim, water and fertilize plants and, of course, check on our insect control squad, two gorgeous Chinese Button Quail. Matt has graciously accepted to share duties with my husband in the roles of lecturing lepidopterists during our exhibit hours. They will present programs on the lifecycle as well as migration habits of the Monarch butterfly to inquisitive children and adults.



Visitors from the Willie Ross School for the Deaf

Today, Matt will observe a program being presented to hearing impaired children and 3 staff members, including an interpreter, from the Willie Ross School for the Deaf, which is located in Longmeadow, Massachusetts. I take time out from my own schedule to sit back and listen to my husband's presentation. What a pleasure! Beforehand, I remind Terry that his dry sense of humor may not be appropriate with these children since they rely heavily on visual gestures. He heeds my words of caution and is very animated, indeed! It turns out to be a very valuable program both for the children and the adults, staff included. With a cage full of Morning Cloaks, we allow the children to carefully release them in our exhibit area. Of course, the butterflies show off their acting ability first, playing dead, then spring to

action and fly off. It is a remarkable moment for each child. We are grateful to serve this school for a second year and look forward to their visit next year.

As the day wears on my oldest son Ryan comes home from school and assumes the task of transplanting milkweed. He, also, has a childhood story to tell. He shows us the story he and his dad wrote in 1989 for the magazine published by The Young Entomologist Society. His contribution to the story related to what kinds of unusual things can happen when you are searching for butterflies. We enjoyed hearing about his encounter with a porcupine, how he captured two Viceroy's and Skippers, letting them go a short time later and how he especially liked looking at the colors, shapes and patterns of the wings of the butterflies. I guess I can say we are a family of "lepidopterists".

We finally break for lunch and I sneak away to return phone calls. A bride asks about our shipping policies. Reviewing our careful packing and shipping procedures with her, I explain how each butterfly is hand-fed and exercised prior to packing. Then, the butterfly is carefully placed in an envelope just large enough for its body to be comfortable in the resting position but snug enough to protect its wings against damage. Boxes for shipping are padded and fit into a second box with insulating material and ice packs between both, all insuring protection against temperature extremes, drop shock and any type of compression injury. I further explain that shipping of the butterflies across state lines, for release, is regulated by the USDA which issues permits under strict guidelines that assure releases only take place in states that have appropriate habitat.

Hanging up, I hear my friendly mail carrier in the driveway. She "toots" to let me know the mail has arrived. I find an envelope containing a thoughtful note from a recent client. It reads: ". . .the Monarchs arrived as you said they would. That same night just before dinner, all fifteen of us gathered outside and I handed everyone a little envelope and told all to be very careful as a living creature was inside. On the count of 3, we opened the envelopes and sent the Monarchs on their way. It was a sight to behold. Some guests from the hotel as well as staff members came out to watch the opening. The next morning, there was still one flying around. Thank you for helping to make our 50th more special than it was. It will be remembered for many a year. Thanks again, from Bernice and Don Murphy, Pelham, New Hampshire."

Finally, I walk down to my exhibit and flight area. It is about 1 hour before dusk and many of our species are still flying. I watch a Monarch glide gently to sip from a supply of nectar within the flower of a penta. Spicebush are engaging in mating rituals and chasing one another, stopping on the floor of the exhibit looking for minerals among the stone pebbles which are still wet from an earlier watering. A handsome male Zebra Longwing patiently awaits, while hovering, the emergence of a female still encased in her pupa. Approaching too closely, I startle a Black Swallowtail who gives his wings a powerful downbeat and lifts off his perch to seek another spot to nectar. Sorry! Amidst of all this is the sound of a brook just outside the door, the emerging sounds of the evening birds and the trilling sounds of night-calling insects. The pond is still and quiet, although I know the visiting Great Blue Heron is there, somewhere. This was, indeed, a good day. No, a splendid day!