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# Award-Winning Quality, Outstanding Results

**Exploring Synergy WorldWide's  
Product Development Process**



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## Award-Winning Quality, Outstanding Results

Synergy WorldWide believes that natural supplement makers should be focused on just one thing: **YOUR HEALTH.**

As the natural supplement industry becomes more mainstream and the market is flooded with companies looking to capitalize on “the next big thing,” creating quality products that produce real results has taken a back-seat for some. But not at Synergy WorldWide.

This booklet details the incredible lengths to which Synergy goes to ensure that our products provide you with the most outstanding results possible. From our ingredients and testing procedures, to our facilities and research and development staff, Synergy takes every effort to ensure your health and satisfaction.

Thank you for taking the time to learn about Synergy WorldWide. We hope you enjoy the information that follows.



## Partnering with the Best

Since 2000, Synergy WorldWide has partnered with Nature's Sunshine Products to create the very best natural supplements in the industry.

Nature's Sunshine Products is a nutritional supplement giant whose unfailing reputation for quality has earned the highest awards in the industry. Since their founding in 1972, Nature's Sunshine Products has made quality their top priority, resulting in some of the best processes and facilities in the world.



Nature's Sunshine Products purchased Synergy WorldWide in 2000. Synergy manages its own marketing, sales, and administration; but when it comes to product development and production, we lean on the expertise of Nature's Sunshine, recognized as one of the very best at creating great products with great results.

# Doing Things Right

You've heard the old adage:

*"If you want something done right, do it yourself."*

That's why Synergy WorldWide, in conjunction with Nature's Sunshine Products, controls all its own product manufacturing and testing. We simply refuse to leave the quality of our products in someone else's hands.

**By manufacturing our products in house, we control the environment in which everything is done. We know without a doubt that:**

- ✓ Our raw materials will be clean and pure because we test them ourselves before beginning production.
- ✓ Our formulas will be effective because we develop and test them ourselves.
- ✓ Our raw materials and finished products will be stored properly because we store them ourselves.
- ✓ Our products will be pure because we clean the machinery used to produce them.
- ✓ The correct equipment is used because we determine what is needed, we acquire it, and we employ our own mechanics and engineers to maintain it.

By doing it ourselves, Synergy WorldWide has total control of the production process.



**We make sure it's done right, because when it comes to your health, nothing else will do.**

# Best-in-Class Procedures

Validation is our top priority when it comes to product development and testing. Validation is the process by which you make sure something works—you develop a method and then repeatedly test that method to see if you get the same results each time.

To validate a testing procedure, a Synergy WorldWide scientist repeats a procedure a specific number of times to see if he consistently comes up with the same results. If he does, he then passes the test to another scientist to repeat it. If both scientists find the results are satisfactory, the test is then repeated on a different instrument. To validate properly, we have to verify that the process—not the scientist, instrument or any other outside force—determines the outcome.

This regimen of validation is applied to all our processes, from start to finish. For example, when we clean our manufacturing bins, we want to make sure they are truly clean. We swab a bin and culture the swabs to see if anything grows. If it does, we know that whatever method we used to clean that bin doesn't work, and we develop a different method. In order for a cleaning method to be validated, it has to pass three consecutive culture swab tests.

The goal of validation is consistency. Without assurance of consistency, you can't produce quality. Through validation, we find out what adjustments are needed to maintain our standards and provide you the highest quality product every time.

Core Greens includes the highest quality grasses, inspected meticulously by our scientists before any production begins. Wheat grass, barley grass, kamut grass, and oat grass combine to deliver essential antioxidants, phytonutrients, and flavonoids in an easily digestible form.





# 646

The total number of validated methods used by Synergy WorldWide and Nature's Sunshine Products.

# Highest Quality Ingredients

Our quality begins with our ingredients. Each supplier is pre-screened, their processes are tested, and they must send samples of ingredients for us to test so we can make sure their tests match ours.

**Each year we personally visit the facilities of our suppliers.**

Each supplier is given the required specifications for the raw materials we want. Once accepted, vendors are constantly under review: we track performance and provide them with monthly feedback



on timeliness, rejections, responsiveness, and anything else that may affect their ability to supply high quality ingredients.

In addition, we regularly audit our vendors. Each year we personally visit the facilities of our suppliers and perform an on-site audit. We have dozens of suppliers and rotate through them, visiting 40-50 sites per year.

Even though we work closely with our suppliers, we sometimes find that a batch of raw materials doesn't meet our standards. When this happens, the materials are rejected and sent back to the supplier at their cost. We annually reject about five percent of the raw materials we receive.

ProArgi-9 Plus gives you the remarkable properties of L-arginine to deliver powerful cardiovascular benefits. Based on Nobel Prize-winning research, the L-arginine in ProArgi-9 Plus is of the highest quality and has been validated by thousands of clinical studies.





## Remarkable Quality Assurance

Once raw materials are obtained, they must pass through five days of quality control testing to verify purity and potency. If an ingredient doesn't pass, we don't use it. Only the finest materials will earn the Synergy WorldWide label.

Four separate laboratories—herb, mineral, vitamin and microbiological—are involved in the quality control process. This represents an immense investment by Synergy and Nature's Sunshine. Each lab employs several full-time scientists and is outfitted with millions of dollars of equipment and testing machinery. We constantly upgrade and add to these facilities to make sure we remain atop the industry when it comes to quality.

You don't take chances with your health, and neither do we. That's why we run more than 600 tests to determine the quality, purity and potency of our materials and products. We test for things like salmonella, aflatoxins, melamine, and many more.

These tests are run throughout the production process—from issuing, mixing, and encapsulation to finished product. If an in-process or finished product check fails, more samples are taken and tested to verify the results. If at any time a product doesn't pass, it is pulled from production.



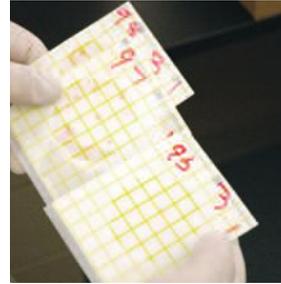
**Below are just a few of the tests we perform to ensure the quality and effectiveness of Synergy WorldWide products.**

- **Fourier Transform Infrared Spectrometer** – Takes an infrared scan of raw materials to verify what the material is and whether there are any adulterants or contaminants present.
- **Thin Layer Chromatography** – Identifies not only the species, but the specific part of a plant used. It also checks for contamination, adulterants and toxins.
- **High Performance Liquid Chromatography** – Using a liquid solvent, it quantifies product purity and potency. It is also used to verify label claims.
- **Geiger Counter** – Tests for several forms of radiation.
- **Ashing Oven** – Burns away samples of raw materials at 700 degrees Celsius to verify sample cleanliness.
- **Particle Size and Tap Density** – Ensures that correct dosage levels are observed.
- **UV Vis Detector** – Quantifies purity and potency of raw materials to guarantee label claims.
- **Gas Chromatography** – Tests for purity, potency and all pesticides.
- **ICP/MS** – Measures all minerals listed on the periodic table, including heavy metals, to the parts-per-billion level.
- **Mercury Analyzer** – Tests for the presence of mercury in all raw materials and finished products.

# Industry-Leading Standards

Because production includes the human element, we follow Current Good Manufacturing Practices (CGMP) to ensure consistency and accuracy in our processes. These CGMPs include:

- Processing dietary supplements in a consistent manner to meet quality standards.
- Manufacturing dietary supplements consistently as to identity, purity, strength and composition.



**Adherence to CGMPs also means meeting requirements for:**

- Design and construction of physical plants that facilitate maintenance
- Cleaning
- Proper manufacturing operations
- Quality control procedures
- Testing final product or incoming and in-process materials
- Handling consumer complaints
- Maintaining records





Manufacturing personnel are provided with clean uniforms each day. When employees arrive, they change into their clean uniforms, and when they leave the building at the end of their shift, they change back into their regular clothes. Visitors to CGMP areas of the manufacturing facility must also follow these same standards. They are given a long-sleeved lab coat, shoe covers, and hair covers.

Following these CGMP standards limits the chance of exposure and contamination of our products by employees and visitors. One more step to ensure the highest quality products possible.

## Outstanding People

Synergy WorldWide and Nature's Sunshine Products are lucky to have some of the best and brightest minds in the business running our product research, development, and testing. Our R&D staff is made up of more than a dozen scientists, including multiple PH.D.'s and Master's degrees in pharmacognosy, analytical chemistry, engineering, and more. These researchers have been published in more than 100 scientific journals and magazines, and they serve on various industry and university boards around the country.

**Our R&D staff is made up of more than a dozen scientists, including multiple PH.D.'s.**

And it's not just our scientists that stand out. Those involved in our product development and manufacturing are highly trained and must renew different certifications each year to ensure they are up to speed on all the latest technologies and processes.

Employee retention rate is another great indicator of the caliber of people at Synergy and Nature's Sunshine. Of the over 200 employees in our manufacturing facilities, nearly 70% have been with us five years or more, and nearly half have been here longer than 10 years. That kind of loyalty speaks to the quality of our company and the dedication of our invaluable staff.



## Cutting-Edge Technology

The best testing in the industry requires more than just bright minds and willing hands—it means giving those great researchers the machinery they need to be successful. Synergy WorldWide has invested heavily in state-of-the-art testing equipment to maintain our position as the quality leader.

### QA LABS

Four quality assurance labs—herb, vitamin, mineral and microbiological testing—each contain millions of dollars worth of equipment that is constantly being upgraded whenever new, pertinent technology arises. As an example, we recently purchased a new Inductively Coupled Plasma Mass Spectrometer (ICP/MS)—at a cost of nearly \$190,000—that features a temperature-controlled spray chamber and an octopole reaction system (ORS). The new ICP/MS easily handles our large sample volume, including finished product, in-process, raw material and Prop 65 sample testing. It also requires less solvent and generates less waste for a more favorable environmental impact.

## BIN SYSTEM

Our production facilities feature an L. B. Bohle bin mixing system. The bin system consists of four conical mills, 40 mixing bins, a PM 2000 bin mixer, an HS 2000 bin hoist, a pilot bin mixer with 300-L and 50-L bins for development purposes, and a two-station bin washing system with HEPA-filtered bin drying rooms.



This pharmaceutical-grade bin system is designed to help eliminate the possibility of direct and cross-contamination. The stainless steel bins reduce exposure and the need to transfer materials from one container to another, and they reduce the amount of handling our products experience.

We employ two sizes of bins—800-L and 1800-L. After use, each bin is cleaned in special bin-washing rooms. Using filtered water, we wash each bin with detergent and pure water rinses. Clean bins are then taken to a specially constructed drying room, which is heated to 140° F. HEPA-filtered air eliminates the chance of contamination as the bins dry.



## BIN CHARGING & MIXING

Bin charging begins in the Issuing Room where quality-tested, approved raw materials are measured. Each ingredient passes through a conical mill, which ensures that any clumps are sifted into fine powder. The conical mills empty into a tube leading to a collection bin.

Once all of the raw materials for a formula are loaded into the bin, it is weighed and compared to specifications to verify that the formula is complete. The bin is then sealed with an airtight lid to keep out dust or any other airborne particles as it is transported within the facility. This not only protects against foreign contamination, it prevents cross-contamination from product to product and ensures our formulas are pure and clean from start to finish.

**The bin system ensures our formulas are pure and clean from start to finish.**

Sealed bins are taken to the mixing room where they are attached to the bin hoist and mixer. The bin is raised and gently rolled by the mixer to create an even blend. Tooling in the lid of the bin helps to stir the materials as the bin is rolled. This method provides excellent mixing efficiency and preserves the integrity of individual granules.



## WATER PURIFICATION

Water is a key ingredient in many products, and Synergy WorldWide has outfitted our manufacturing facilities with state-of-the-art water purification systems to support our liquid line. Reverse osmosis technology guarantees that the water in our liquid products is of the highest quality.



### **We use a four-stage purification system:**

1. Culinary water is routed through a carbon bed filtration system to remove chlorine and any other chemicals that may have been added to the water supply.
2. A water softening system reduces the mineral content of the water.
3. The softened water passes through a reverse osmosis water purifier and an ultraviolet sterilizer to remove any remaining impurities.
4. The finished water is sent to a sterilized 1,200-gallon storage tank for safe keeping.

This purified water is routed through a continuously circulating loop that runs throughout the plant. Before it enters the distribution loop, it's filtered again by a 1.0 micron pre-filter, another UV sterilizer, and a 0.2 micron absolute filter. This pure, filtered water is used in all of our liquid products and for our cleaning needs within the plant.

## AIR QUALITY

Synergy's manufacturing facility is built to limit every possible form of contamination, right down to the air inside the building. A special air filtration system helps eliminate airborne contaminants throughout the facility by passing 100 percent outside air through high-efficiency filtration and into the processing areas. Air is then exhausted through a dust-collection system and is not re-circulated into any other areas of the building. Pressure differentials are also used in certain areas to control the airflow and limit the potential of cross-contamination.

## LIQUID PROCESSING

A sophisticated tank system, which includes three 750-gallon mixing tanks, handle the production of Synergy WorldWide's liquid supplements. These tanks can be sealed to ensure purity and eliminate contamination, and they increase mix efficiency to provide an even, consistent blend. Their large size also gives us greater production capabilities as well.



This is a Clean in Place (CIP) system, meaning it uses a self-contained, automatic process to clean itself. Other systems have to be torn down and the individual parts cleaned separately—the CIP system is more efficient and the cleaning process has been validated by our quality assurance personnel.



We process Mistica using the most sophisticated liquid processing system in the industry. This enhances both the flavor and the beneficial elements of the Brazilian açai fruit, including anthocyanins, essential fatty acids, amino acids, and plant sterols.















