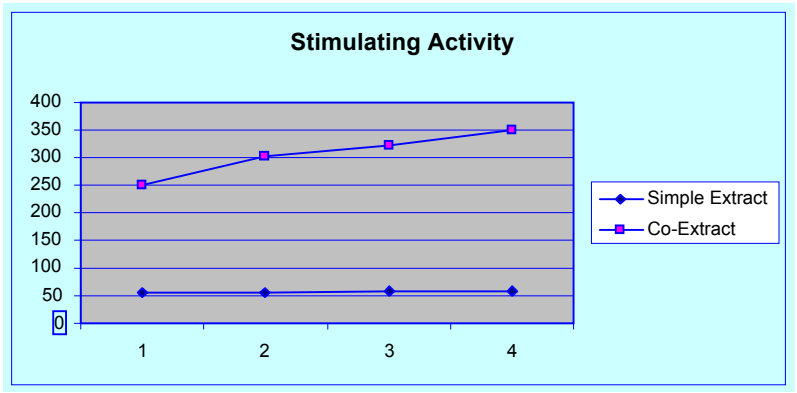
Sunrise Global Trading, LLC
"A Little Company Doing Big Things"

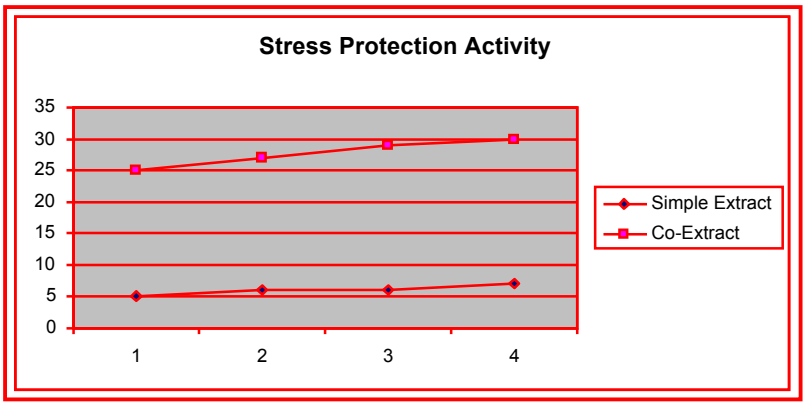
The Extraordinary Benefits of Co-Extraction
vs.
Combining Simple Extracts

What is Co-Extraction? This is a process envisioned by Dr Brekhman where the beneficial herbal components from plants are extracted together rather than individually in individual extracts. The theory is that by co-extracting, the biological active substances will work in synergy in a homogenous blend. It is well known that when combining simple liquid extracts many of the active compounds are rendered inactive for various reasons. (We will elaborate on this within the document).

Brekhman's research proved his theory when he made the first seven herbs blend in 1992. The initial results in terms of available active substances exceeded the expectation by at least five times.

Simple extracts of Schizandra, Rhaponticum, Rhodiola and Eleuthero were combined and tested for comparison with a co-extract containing the same plants. The stress protective activity for the single combined extracts ranked a score of 55 to 59 against known stress protective and stimulating activity standard. These standards had been well established in various animal tests. The co-extract scored between 250 and 350 demonstrating a five times expected benefit using the co-extract.





Since the early research, scientists have improved the original formulation which is now a unique and scientifically thought out combination of 10 adaptogenic herbs.

Why? Every herbal contains a host of biologically active compounds. These compounds are traditionally extracted from the native plant in various ways but almost always using water and alcohol.

The compounds extracted have different chemical properties and specific gravities and consistencies making them difficult if not impossible to blend into a homogenous and useful product. When taking a simple extract and combining it with other simple extracts certain chemical reactions will take place reducing the benefit of each of the compounds combined to the lowest common dominator. Furthermore, the blended extracts will have a much shorter shelf life than a co-extract.

All extracts contain a variety of secondary beneficial parts. These include important organic substances. While these are quite stable individually in a simple, single plant extract, they are anything but stable the moment they are combined with other extracts. Because each plant has a different solubility and because of the very high antioxidant capacity, oxidation occurs at the point of combining extracts forming complex chemical reaction that results in a massive spontaneous precipitation or "falling out of solution." This precipitant unfortunately includes many of the active compounds that are beneficial to the user but now would have no benefit. The resulting precipitant is a gel like substance that is not soluble and that would be readily apparent to anyone looking at the finished product.

In order to overcome these difficulties, the scientific group went to work and developed a process of complex co-extraction.

1. Plants are first measured for their native content of active substances. The desired substances are well known and easily measured by HPLC and other methods. Annual harvests may change in the quantity of active compounds in each plant. Thus, we quantify the amount of plant material to be utilized in the extract so that the end result is consistent (standardized) over time.
2. Certain plants require different amounts of extracting mixture thus proper layering in the extraction columns becomes a key element in the processing. Plants that are more water soluble are layered in the bottom of the extraction column while those that are not appear at the top layers.
3. Certain plants used in the proprietary co-extract are much less soluble and they will be "partially extracted" in an ethanolic solution prior to loading into the extraction columns. This helps assure the homogenous nature of the resulting extract.
4. During the extraction process, all substances from the raw plant materials interact multiple times and precipitants go back into the solution again and again bringing the resulting extract to one containing the highest biological value possible. Natural stabilizers like the carbohydrates from the fruits and berries are extracted into the final product with vitamins and microelements. The result is a very stable

array of active substances. The percolation process takes about 24 days from the time the first column is charges until a useful extract is available.

5. The product is cleaned via a sedimentation process and then chilled and further cleaned.
6. The resulting extract is very stable and has all the biological active substances in the desired balance and in a water soluble state that is readily bio-available.

The co-extraction process is the proprietary intellectual property of Sunrise Global Trading, LLC and is carried out by agreement with our contracting partner in Russia.

The process of co-extraction is not simple and has not been duplicated. In fact, Sunrise Global Trading, LLC has the only license for making co-extracts. The process is unique, tested and gives proven positive results to the end user.