



The Story Behind Bio-Chelated®

In The Beginning

The **Bio-Chelated®** process describes a proprietary cold extraction technique developed by Mr. Frank D'Amelio Sr., founder and owner of Bio-Botanica and well-respected author. Long before Bio-Botanica was formed (1972), Mr. D'Amelio was immersed in the study of botanical medicine, researching the various herbal texts including the national USP/N.F. (United States Pharmacopeia/National Formularies) dating back to the mid -1800's. (*The USP/N.F. is a reference source that provides manufacturing standards and extraction techniques used to make herbal formulas; these standards were considered official prior to 1938.*) This authoritative formulary discussed the use of plant parts such as leaf, stem, bark, flowers and roots. It recommended certain solvents known as "menstruums", in which plant parts were soaked in order to extract their active constituents. High heat was also often utilized to concentrate the extract. Mr. D'Amelio noticed that high amounts of solvents, *usually alcohol*, were often recommended, and that sediment would fall to the bottom (precipitate) in certain solutions. He began to investigate how he could offer the consumer potent herbal products made with very low heat, with minimum precipitation, and *without a lot of alcohol!*

A Clue From Nature

In working towards the goal of attaining a final botanical extract product with little alcohol, Mr. D'Amelio turned to Nature for the apparent answer. He realized that plants were composed of 80-85% water as well as some alcohols, fats, etc. If plants were able to keep the active constituents in solution and use them as needed mainly *through water*, not alcohol or other solvents, why couldn't he? Thus, he began a long, in-depth series of experiments with many different plants. Through rigorous research protocols and scientific testing, he discovered that the active constituents of some plants could be extracted using lower alcohol amounts with water and other natural solvents such as organic apple cider vinegar or vegetable glycerine. At other times, however, higher alcohol was necessary, such as when he was extracting volatile oils like menthol from peppermint. The experimentation process continued, with Mr. D'Amelio documenting the optimum menstruum combinations required for each plant to yield the maximum beneficial components. (*Note that there are differences in alcohol. The alcohol consumed in wine and beer is derived through a natural fermentation process with no processing other than filtration. When distilled alcohol is added to an extraction, which*

some herbal manufacturers use, it effects the body in a more detrimental way; thus the development of the Bio-Chelation® process, which uses only organic alcohol).

The Bio-Chelated® Method Is Developed

As Mr. D'Amelio continued his experimentation with various plants and menstrooms, his extraction processes became more refined, and eventually led to the development of the **Bio-Chelated®** method. The **Bio-Chelated®** method incorporates aging (maceration), using *different menstruum ratios* for different plants to optimize their therapeutic values. Furthermore, this procedure offers additional significant advantages when compared with other types of extraction processes commonly employed by competitors in the herbal industry.

Bio-Chelation includes the use of “cold extraction”, where the plant parts are extracted without being exposed to excessive amounts of heat. Cold extraction helps the herb maintain vital minerals and other trace elements in solution, thus enabling the herb to keep its **Holistic Balance™** intact. (*Holistic Balance™ means that extracts retain as many of the natural constituents of the original plant as possible.*)

Bio-Botanica Products Stand The Test of Time

For thirty years, the **Bio-Chelated®** cold extraction process has been painstakingly tested and proven to **stand the test of time**. Incorporating Mr. D'Amelio's proprietary cold extraction process in today's manufacturing procedures continues to yield a measurably superior product.

One such example is Sabaltone®, a standardized herbal extract made from ripe Saw Palmetto berries. Sabaltone is produced utilizing our Bio-Chelated® method versus the more expensive CO2 method. Our Bio-Chelated®, cold extraction process yields a product that not only contains the same amounts of active constituents as the more expensive CO2 extracted product, but features a *higher percentage* of polyphenols, the compounds responsible for the herb's antioxidant properties. The end result is a Saw Palmetto extract that maintains its holistic balance! (*Note that most prior **successful studies** done on Saw Palmetto utilized grain alcohol extracts **which contained** naturally occurring polyphenols; the CO2 extracted products **do not** contain polyphenols!*)

Although larger quantities of herbal products are now being produced as compared to the earlier experimental batches made by Frank D'Amelio, his founding corporate philosophy remains intact – combine the *greatest care* with the *highest quality* of raw material to create the *ultimate* herbal extract that *works*. After all, that's what it's all about, isn't it?