

The Dark Issue III: **Greed**



Botanical extracts: Is there a war out there?

A report from the front lines

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Retail sales for botanical extract products continue to grow at 7-10 percent each year. This should be good news for consumers. In addition to the thousands of published studies that support the benefits of high grade extracts, as one herbalist said to me, “One of the things that I like about herbal supplements is that they have a focused ability to kickstart real change.” We’re talking here about the benefits of mainstream herbal extracts such as ginkgo, milk thistle, bilberry, turmeric and the others that form the mainline of herbal usage today.

Where does the supply of these products really stand? On one hand, there’s the genuine science supporting their benefits; on the other, reliable reports from ABC, AHP, and industry sources confirm the widespread use of adulterated materials, designed to reduce costs but consequently reduce beneficial outcomes.

And where does this leave companies trying to make sense of the supply chain? With the appearance of a new set of virtual vendors promising transparency that’s only pixel deep, it could leave them short on answers to questions they’re not bothering to ask.

The bright side

Though this piece is for The Dark Issue, let’s start by looking at the clear horizon. Here reside the core brands of our natural products sector, names such as **NOW, Dr’s Best, Nutraceuticals, Nature’s Way** and many others who insist on buying from suppliers who maintain rigorous testing programs. These programs cover not just identity and potency but heavy metals, pesticides, solvent residues and known adulterants. These companies then do their own confirming tests.

There are also core suppliers, such as **In-vena, Euromed, Botanicals International, Sabinsa** and (I must say) **Ethical Naturals**, that do this level of testing work, and also expend substantial resources on the development of methods to identify and test for the evolving adulterant patterns that grow and change over time. Together these groups, suppliers and dedicated brands, build a rigorous system that protects the quality of finished consumer products with the best science available.

So, with all this positive work, is there really a substantial dark side to the botanical ingredients industry? Objective reports from a variety of respected sources say “yes.”

Let’s look at *Ginkgo biloba* extracts as an example (estimated retail sales of approximately \$17.5 million in 2016). The recent ABC Botanical Adulterants Report on ginkgo references a number of industry and published studies that tested commercial ginkgo products. These studies (generated from 2006 to the present) showed on aver-

age that 15-70 percent of the samples tested were not fully what they claimed to be. That’s a stunning number. Similar problems are well documented in the turmeric extract market (where sales in the natural channel have tripled in the last four years).

In respect to another mainstream botanical, saw palmetto, Guy Woodman of Euromed gave me the following comments on the current and future situation:

“The low palmetto berry harvest volume in 2016 and global extract shortage opened the door for adulterated oil products. In addition to adulteration with vegetable oils, four types of animal oil derived adulteration have been identified.”

Failing the test

So here we have a quick snapshot of our current situation: leading brands, contract manufacturers and suppliers taking every precaution in providing top quality products to the consumers, and an alternative universe of ingredients failing in quality assurance.

What is the business model that allows this confusion to happen? How does it affect suppliers to the industry, and how can we change this picture to one in which the problem is the rare exception?

First, let’s take a look at the supply chain. We generally think that this chain begins with the manufacturer of the raw material, and proceeds from there. But really the opposite is true: the chain begins with the companies that buy the products here in the U.S. *It’s the demand that drives supply.* The many companies in the U.S. that demand products at below true production cost are the reasons these adulterated products are made.

For a long time, Chinese and Indian manufacturers have been scapegoats and source of much righteous indignation in the supplements industry: they’re the ones

to blame for our quality problems. But let's be honest—these companies provide what's in demand by a large segment of the market: ever-lower cost ingredients. When one asks these botanical manufacturers why they make adulterated products, their answer is usually simple: "If I don't make products that meet the lowest price points, I go out of business; that's what U.S. contract manufacturers demand, so I make it."

Often these manufacturers make several grades of material: higher and more expensive quality for Europe, and for those companies that demand the real thing in the U.S.—and cheaper diluted grades for those companies in the U.S. that buy only on price. When cost drives decisions, you get what you pay for.

Virtual transparency

How do these products come into the country, get distributed, used by contract manufacturers, and get into brands on store shelves? In the old days (say 10-15 years ago), U.S. suppliers at least brought extracts into their warehouses and shipped them out under their name and reputation. Many went to the expense of basic or advanced testing before shipping (though there were some notable and notorious exceptions).

The first step is quite simple, and won't cost companies a lot: insist on detailed U.S. testing results on all batches of botanical raw material purchased.

But a major change came several years ago, when a new business model appeared: online ingredient traders began to set up business. This new model is the cheapest way to go because all it requires is a phone and email, a website, and access to material generally stored in a contract warehouse. Low overhead is the centerpiece of this business model.

On the ingredients sold, the manufacturer's C of A is used, often transferred onto the trader's letterhead. Manufacturers are "qual-

ified" not by objective, on-site audit, but by filling in a simple questionnaire (with the right answers). The products will usually pass a basic ID and potency test because they've been built to do so. How that potency is accomplished is another question.

There are many "advantages" to this system. Extracts can (and often are) imported under different names or categories to avoid duties, or to avoid detailed inspection

testing; labels can then be changed after import. This all saves the online supplier a lot of money: producing a legitimate product, from a high-quality manufacturer, and then proving it so through testing at a U.S. GMP warehouse and testing lab, is expensive. That's why some of these on-line companies can confidently claim, "we guarantee to meet the lowest price."

So, with leading, high-volume companies in the natural products industry doing the right thing, where does this untested, unverified material go, and how much of it

gets onto the market?

It's certain that high volumes go through contract manufacturers into the mass market. Anyone who's competed in the "reverse auction" system through which many mass market contracts are awarded knows it's impossible to meet the lower bids without using the very cheapest materials available. Once again, the demand for the cheapest material creates the supply.

Other material ends up in product lines of companies that don't really care, or that

may not know exactly what processes their contract manufacturers are using.

So, how much of the botanical business do these systems and products represent? In reviewing the inventory levels offered by these on-line companies, or talking candidly with some of their owners, one can only conclude that the volume of untested products entering the market in this way is very large indeed.

When cost drives decisions, you get what you pay for.

So yes, this is a dark subject, and this is The Dark Issue, but I'd like to end by looking past the darkness to a more enlightened model for herbs and botanicals. How can we make the changes that will win the quality war in our botanical supply chain, and how much will it cost us?

The first step is quite simple, and won't cost companies a lot: insist on detailed U.S. testing results on all batches of botanical raw material purchased. A good supplier can provide these results, and they should include tests for adulterant screening, pesticides and solvent residues. In addition, suppliers should be able to provide details of their long-term testing programs, and the qualification of their supply sources. If finished products are purchased through contract manufacturers, they also should be able to pass along this information on the ingredients they've used. Asking questions isn't expensive.

We'll never fix this problem 100 percent. That's not the way business or life work. But each company, large or small, can make a real contribution to the solution, to winning this war, by asking questions and demanding the answers.

As a final note, I'd like to acknowledge the many companies, the brands and contract manufacturers, that do ask the tough questions, and demand the detailed answers. That's what keeps the quality end of our supply chain of real products working, it's what keeps those with integrity in business, and it builds real hope for the future. 🌱