



# UltraHD™

## High Density Powders and Teas

### The Power of Powder

Botanical powders—as we’ve come to know them in the supplement industry—are the light, dusty, finely ground product of whole herbs. Powdered botanicals have become the preferred form of raw herbs for supplement formulations because of their unmatched versatility, flexibility, availability, and price. Powders are easy to measure, can be blended for customized formulations, and can be fashioned into most any dosage form. At BI Nutraceuticals, we’ve been producing botanical powders for nearly three decades. Long enough to not only learn the benefits of powders, but the problems they create as well.

### The Solution: Increased Density

As one of the world’s largest suppliers for raw botanical powders, we understand your frustrations. Yet, because of the nature of botanical powders, such manufacturing problems have been accepted as inevitable and irresolvable.

### Until Now

UltraHD™ powders are every bit as pure and potent as our regular powders, but have superior flow properties, less dusting, more uniform particle size, and higher densities than our regular powders.

By developing and implementing a proprietary, patented process, we can significantly alter the actual physical character of our botanical powders without affecting efficacy or potency. And all without the use of excipients. Our high density powders don’t include any additives—they are one hundred percent herbal powder.

### Put High Density Powders to Work for You

There are many advantages to using BI Nutraceuticals’ high density powders. They offer formulation flexibility by allowing complex, multi-herb formulations that previously weren’t able to fit into one capsule to be mixed with ease. This is possible because powder particulate size is uniform. Formulations that were once a tight fit into capsules now fill smaller sized capsules without machine jams, substantially improving total yield, making production more cost-effective. Equipment runs more efficiently because the powders flow more evenly. And minimal raw materials are lost to dusting.

But the greatest advantage of using UltraHD high density powders is the significant cost savings you’ll see by taking a step into the future and employing what may well be the greatest evolution of powdered botanicals ever.

### Has This Ever Happened to You?

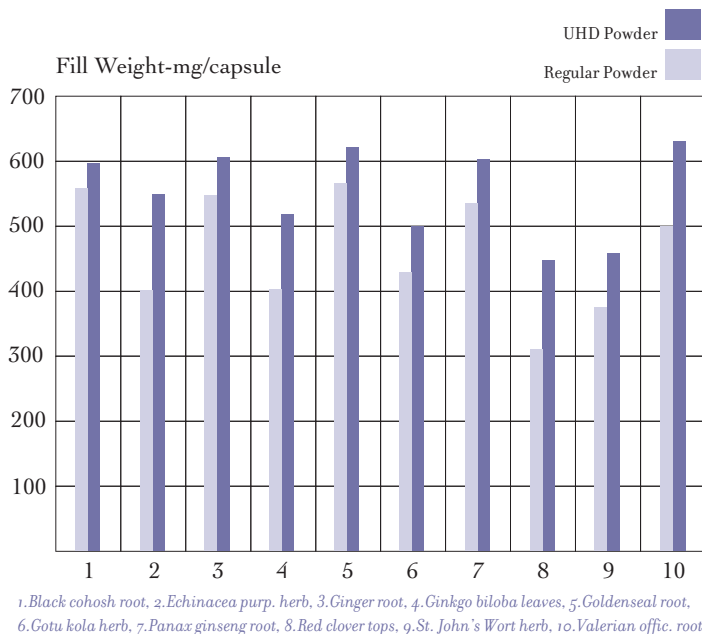
- You are mixing a new formulation with an assortment of different herbal ingredients, but the variance in particulate size between the botanicals makes production a nightmare.
- You are producing a complex formulation that fills your 00 capsules to capacity. During production, you must continually stop and restart the capsule filling machines because overfilled capsules are cracking and splitting. Total daily production yield plummets.
- Your encapsulation equipment stalls regularly because traditional powders have a tendency to clump and obstruct flow.
- An incalculable amount of powder is lost due to excessive dusting and fly-away particles—consequently decreasing your profit margin for each batch of raw botanicals purchased.
- You are manufacturing tea bags and the tea cut material bridges in the dosing area.



[www.binutraceuticals.com](http://www.binutraceuticals.com)

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For more information, or to place an order call 310-669-2100



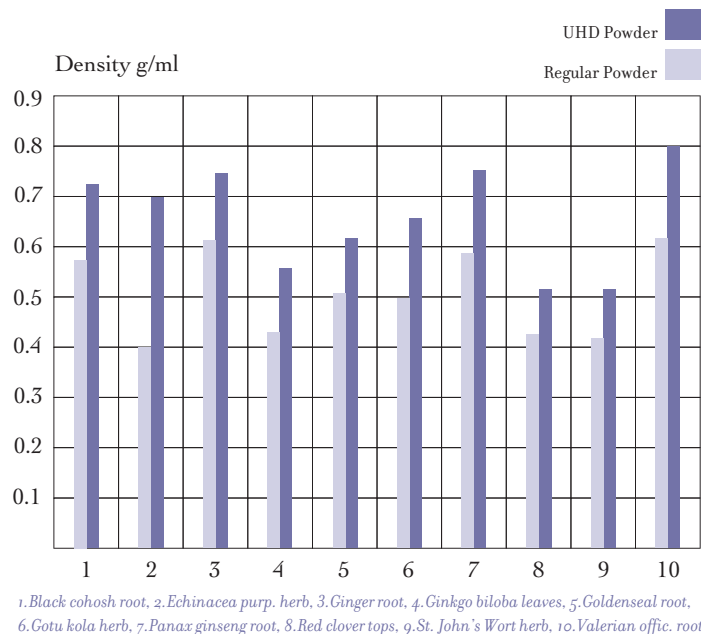
## Fill Weight

Multi-product formulas can be difficult to fill in capsules. Using an UltraHD™ product might be the difference between formulating in a "0" capsule vs. a "00" capsule.

Examples\*:

PRODUCT.....	FILL WEIGHT
Oriental Ginseng Root Powder .....	534 mg
UltraHD Oriental Ginseng Powder.....	606 mg
St. John's Wort Herb Powder .....	376 mg
UltraHD St. John's Wort Herb Powder.....	458 mg

\*Capsule fill weights are based on using a size "0" capsule.



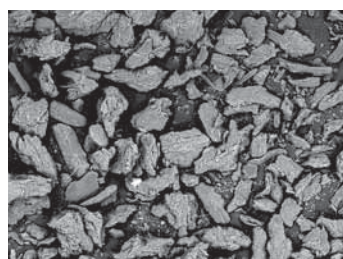
## Density

UltraHD powders have a marked improvement in tapped density.

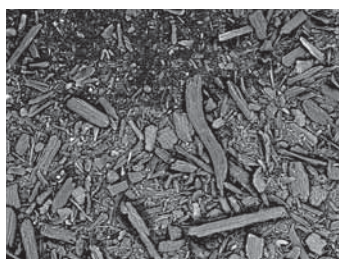
Densities are increased by an excipient-free patented pending process and typical increases are between 20%-80%. (Tapped density results are based on 300 taps.)

Examples:

PRODUCT.....	DENSITY
Echinacea purpurea Herb Powder.....	0.40 g/ml
UltraHD Echinacea purpurea Herb Powder .....	0.70 g/ml
Valerian officinalis Root Powder.....	0.62 g/ml
UltraHD Valerian officinalis Root Powder.....	0.80 g/ml



Ultra HD St. John's Wort Herb Powder



St. John's Wort Herb Powder

## PARTICLE SIZE DISTRIBUTION

Consistent particle size is key to manufacturing efficiencies. A more consistent particle distribution increases machine speed, reduces capsule rejections and improves production yields. Our patented process creates a more consistent particle size without the use of any excipients.

For more information, or to place an order call 310-669-2100

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