



February 4, 2015

**Subject: Herb Pharm Purity & Safety Systems**

Dear Herb Pharm Valued Customer,

In light of recent scrutiny focused on certain store brand herbal supplements, we offer this reminder of the meticulous and thorough nature of Herb Pharm's quality systems.

Ensuring the purity, safety and efficacy of our products has been a core principle since Herb Pharm's founding over 35 years ago. In meeting and often exceeding the FDA's Good Manufacturing Practices (GMPs) Herb Pharm carefully performs extensive raw material and finished goods evaluations. Our systematic screening and testing protocols are designed to ensure that the herbs we work with match their intended species, that they meet our exacting standards for purity and that they begin and remain potent throughout their labeled shelf life.

**Species Identity** – Distinguishing one species from another is a complex skill that takes years to develop. Our herbal experts perform multiple evaluations on every one of our herbs and compare their findings to our extensive digital catalog, compiled and updated over three decades. Analytical methods that are employed on every herb lot include:

- Macroscopy – visual examination of unique morphological characteristics
- Organoleptics – sensory tests of taste and odor

And where appropriate:

- Microscopy – magnified view of the plant's structure

**Species Confirmation** – Our experts' macro and microscopic identity findings are confirmed by our Botanical Sciences Laboratory. Our scientists generate a phytochemical "fingerprint" of each herb sample to reveal the herb's array of natural compounds. The compound array must match our reference standards or it is either subjected to further testing or rejected. Methods for phytochemical analysis include:

- Phytochemical fingerprinting by High Performance Thin Layer Chromatography (HPTLC)
- Use of third Party verified Botanical Reference Materials (BRMs)
- Genetic testing on selective botanical species when necessary

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**Herb Purity** – We put our herbs through a multitude of careful tests. We screen for synthetic fungicides, herbicides and pesticides and for heavy metals.

- Screening for pesticide residues with a panel of 300 pesticides, fungicides, herbicides and miticides by a third party accredited testing laboratory using Gas chromatography/Mass Spectrometry and Liquid Chromatography/Tandem Mass Spectrometry.
- Heavy Metal Testing for Lead, Mercury, Cadmium, and Arsenic inductively by a third party accredited testing laboratory using inductively coupled plasma-mass spectrometry (ICP-MS).
- A full array of microbiological test including Total Viable Count (Aerobic plate count)
- E. coli, Salmonella, and Total Yeast and Mold using Neogen Soleris®, Neogen ANSR® and 3M Petrifilm®.

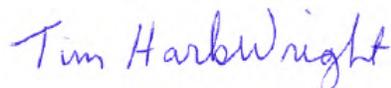
**Potency** – Natural and environmental factors affect an herb’s potency, so even the purest herbs need to measure up. Our Botanical Sciences Laboratory verifies herb potency both before and after manufacturing through state-of-the-art High Performance Thin Layer Chromatography (HPTLC) analysis to ensure that every batch is consistent and meets or exceeds its labeled shelf life.

- All label claims for potency of Herb Pharm products are tested by third party, fully accredited testing laboratories employing only valid scientist analytical methods including high-pressure liquid chromatography (HPLC), Gas chromatography (GC) or ultraviolet-visible spectrophotometry (UV-VIS).

**Traceability** – Every raw material is assigned a unique identifier, which is electronically recorded and forever associated with all of the products that material goes into. This ensures complete traceability of all of our products. We can pinpoint the exact seed lot and field from which the herb originated.

As a pioneer and leader in the herbal products industry, Herb Pharm takes great pride in continually advancing our quality and purity systems. Please feel free to contact us at (800) 348-4372 with questions or requests for additional information.

Sincerely,



Tim HarkWright, Quality Assurance Director



Marc Allen, CEO