

From: Sun God Medicinals

Sent: Saturday, March 28, 2015 8:30 AM

To: Crawford Adam; Sen Beyer; Sen Burdick; Rep Buckley; Rep Helm; Rep Olson; Sen Ferrioli; Rep Wilson

Subject: Problem with Extract Definition in Oregon HB3400 and SB936

(3)

(a) "Cannabinoid extract" means a product containing cannabinoids that have been separated from marijuana, generally by chemical processes.

(b) "Cannabinoid extract" does not include:

(A) A product containing cannabinoids that have been separated from marijuana by mechanical processes;

(B) A product containing cannabinoids that have been separated from marijuana using glycerin, fats, oils or water; or

(C) If no heat or pressure is used to separate the cannabinoids from the marijuana, a product containing cannabinoids that have been separated from marijuana using ethanol or carbon dioxide.

To Whom it May Concern,

I'm concerned with the definition of cannabis extract in the two bills mentioned above. The same language is written in both the bills. I feel the definition of cannabinoid extract in these two bills needs to be re-written to account for all extraction methods scientist and herbalists have used for centuries, specifically cold-pressed alcohol (ethanol), water, and glycerite extractions.

At Sun God Medicinals we use a standard maceration extraction method to make all our plant extracts. Maceration is one way to extract delicate or highly volatile herbal essences "cold" and thus preserve their signature more accurately. For our cannabis extracts we decarboxylate the cannabis first (to activate the cannabinoids) in the oven before we put the ground upherb in a jar with our 190 proof, organic alcohol. We then put the jar in a dark cupboard for two weeks, shake daily, and manually press after this time. Then we run the herb through a fine filter before we store to blend with other medicinal herbs for specific symptom relief tinctures and elixirs. We believe this cold-process method allows for the greatest extraction of the healing benefits of the plant in an organic preservative.

Sounds to me that since we use, alcohol without pressure and heat, our extracts would no longer be considered extracts under these new bills. In addition we have explored using glycerin as our extraction menstrum for recovering alcoholics or those who can not have any alcohol for health reasons. Glycerin is an ideal alternative and used by herbalist world wide for cannabis and other herbal extractions.

Our extraction method, called maceration, for our tinctures and elixirs at Sun God Medicinals is very safe and is a process herbalists have been using for centuries to extract the healing benefits from medicinal plants. Please take a few moments to skim a great reference, [Extraction Technologies for Medicinal and Aromatic Plants](#) a book written by the United Nations Industrial Development Organization in 2006 for further information.

The preface of the book states,

"The first step in the production of herbal drug preparations (i.e. extracts), using a variety of methods from simple traditional technologies to advanced extraction techniques.

Extraction (as the term is pharmaceutically used) is the separation of medicinally active portions of plant (and animal) tissues using selective solvents through standard procedures. Such extraction techniques separate the soluble plant metabolites and leave behind the insoluble cellular marc. The products so obtained from plants are relatively complex mixtures of metabolites, in liquid or semisolid state or (after removing the solvent) in dry powder form, and are intended for oral or external use. These include classes of preparations known as decoctions, infusions, fluid extracts, tinctures, pilular (semisolid) extracts or powdered extracts. Such preparations have been popularly called galenicals, named after Galen, the second century Greek physician. The purpose of standardized extraction procedures for crude drugs (medicinal plant parts) is to attain the therapeutically desired portions and to eliminate unwanted material by treatment with a selective solvent known as menstruum. The extract thus obtained, after standardization, may be used as medicinal agent..."

"The industrial processing of [herbs] starts with the extraction of the active components using various technologies. The general techniques of medicinal plant extraction include maceration, infusion, percolation, digestion, decoction, hot continuous extraction (Soxhlet), aqueous-alcoholic extraction by fermentation, counter-current extraction, microwave-assisted extraction, ultrasound extraction (sonication), supercritical fluid extraction, and phytonic extraction (with hydrofluorocarbon solvents)."

As any reader can see from exploring this book there are many ways to extract the healing properties from medicinal plants. Oregon's marijuana policy should define extracts in a way that leaves room for historical plant extraction methodologies while at the same time not limiting future innovations as new plant extraction technologies are explored.

In summary, the definition of cannabinoid extract in these two bills needs to be re-written to account for the definitions as outlined in the [Extraction Technologies](#) book referenced above. All technologies are applicable and should be considered viable and legal in Oregon when defining cannabinoid extracts.

Thank you,

Brie Malarkey
Founder and CEO

Sun God Medicinals
Herb Infused Product Company