25 Years of DSHEA: A Historical Perspective

Loren Israelsen
*President, United Natural Products Alliance*

19th Annual Oxford ICSB
Oxford, Mississippi
April 8, 2019
And...

Why life sucked before DSHEA.
EARLY SHAKER SPIRITUALS

Of singing about the American Shakers there is no end. This two-hundred-year-old millenarian, celibate, communal sect has passed attention generally disproportionate to its size. Articles and books, pamphlets and parts of books discuss its theology and its influence upon other communistic ventures, its barns and its cookers, its dances and its drawings, but particularly in crude chairs and candlesticks, cabinets and clocks, windows and
door trim, and furniture in general.

SIDE A

Singing Praises

SID B

I Cannot Believe

Other Spirituals
The Advent of Synthetic Chemistry

- Wonder drug
- Wonder business
- Comparative ease of regulation
FOOD AND DRUG ADMINISTRATION
COMPLIANCE POLICY GUIDES

CHAPTER 17 - FOOD RELATED

SUBJECT: Botanical Products for Use as Food

BACKGROUND

CFSAN receives numerous inquiries from the public concerning the food additive status of various botanical products, most of which have some history of medicinal use but have little or no history of use as food. Many of these botanical products are referred to CFSAN by the Center for Drugs and Biologics after the therapeutic claims have been removed from the labeling of these products. Other products are presented to the agency without labeling, e.g., bulk shipments, but are assumed by the agency to be, or are represented to the agency as, products that are intended for use as food. There is also a category of botanical products that includes ethnic foods that are represented to the agency as being consumed in other countries but that are unknown for any use in the United States of America.

FDA has stated that a prior history of use of the product or ingredient as a drug would not provide support for establishing a history of use in food. The agency has also stated that the removal of therapeutic claims from product labels does not automatically convert those products to foods, especially in the absence of a history of food use for the products. FDA has expressed its belief that the purpose of such relabeling is to circumvent the drug provisions of the Federal Food, Drug, and Cosmetic Act. When such relabeling occurs, however, the agency has found that it may be unable to prevent the marketing of these products in the absence of any scientific support that the products are toxic in the quantities offered for consumption.

In the past, FDA has detained and barred many herbs from entry into this country on the basis that they had no history of common use as food in the USA, and therefore did not qualify for GRAS status based on their history of use. On September 15, 1983, the United States Court of Appeals for the Ninth Circuit declared regulation 21 CFR 170.3(f), which restricted "common use in food" to use in the USA, to be invalid. Eschelherb, Inc. v. Heckler, 715 F. 2d 9th Cir. 1983. As a result of this ruling, the agency can no longer impose such a restriction. The court ruling, combined with allegations of previous foreign food use and a manufacturer's ability to market foods based on independent GRAS determinations, make it necessary for CFSAN to be prepared to demonstrate that a substance is not GRAS and thus is an unsafe food additive based upon scientific evaluation. The agency published a proposal (50 FR 27294) that identifies factors that FDA will consider in determining whether a substance with a long history of use in a foreign country qualifies the substance for GRAS status.
Nutrition Facts: Good Idea

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size 1 Piece (35g)</td>
</tr>
<tr>
<td>Servings Per Container 12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories 570</th>
<th>Calories from Fat 560</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat 63g</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>Saturated Fat 7g</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholesterol 10mg</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Sodium 140mg</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Total Carbohydrates 3g</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Dietary Fiber less than 1g</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Sugars 0g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein 1g</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Vitamin A 4%      | Vitamin C 20% |
| Calcium 2%        | Iron 4%       |
| Vitamin D 2%      |               |

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

<table>
<thead>
<tr>
<th>Calories</th>
<th>Total Fat</th>
<th>Saturated Fat</th>
<th>Trans Fat</th>
<th>Cholesterol</th>
<th>Sodium</th>
<th>Total Carbohydrates</th>
<th>Dietary Fiber</th>
<th>Calories per gram:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>Less than</td>
<td>Less than 20g</td>
<td>Less than</td>
<td>less than 1g</td>
<td>2400mg</td>
<td>300g</td>
<td>25g</td>
<td>Fat 9 • Carbohydrates 4 • Protein 4</td>
</tr>
<tr>
<td>2,500</td>
<td>Less than</td>
<td>Less than 20g</td>
<td>Less than</td>
<td>less than 1g</td>
<td>2400mg</td>
<td>375g</td>
<td>30g</td>
<td></td>
</tr>
</tbody>
</table>

©2019 UNPA
Health Claims: Good Idea
Things get suckier...
DIETARY SUPPLEMENTS TASK FORCE

Final Report

May 1992

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
This report (also known as the Dykstra Report) was requested by Commissioner David Kessler and offered general findings and conclusions that:

- The regulatory framework for supplements was inadequate.
- Many dietary supplements are of uncertain safety.
- Botanicals and amino acids in particular present the greatest safety concerns.
- Many botanicals and amino acids can and should be regarded as drugs or unapproved food additives.

©2019 UNPA
EUROPEAN-AMERICAN
PHYTOMEDICINES COALITION

CITIZEN PETITION
TO AMEND
FDA’s
OTC DRUG REVIEW POLICY
REGARDING FOREIGN INGREDIENTS

Robert G. Pinco, Esq.
Loren D. Irwin, Esq.
Counsel for EAFC

July 24, 1992
MEMBERS OF EAPC

Bioforce (Netherlands)
Bioforce AG (Switzerland)
Bioforce of America (U.S.A.)
Boehringer-Ingelheim (Germany)
Indena (Inverni Della Beffa S.p.A.) (Italy)
Institut Henri Beaufour (France)
Lichtwer Pharma GmbH (Germany)
Lichtwer US (U.S.A.)
Madaus AG (Germany)
Murdock International (U.S.A.)
Pharmaton S. A. (Switzerland)
R.P. Scherer (U.S.A.)
R.P. Scherer (United Kingdom)
Dr. William Schwabe GmbH & Co (Germany)
Botanicare Natural Products (Israel)
EUROPEAN-AMERICAN
PHYTOMEDICINES COALITION

CITIZEN PETITION
TO AMEND
FDA'S
MONOGRAPH ON NIGHTTIME SLEEP-AID DRUG PRODUCTS
FOR OVER-THE-COUNTER ("OTC") HUMAN USE
TO INCLUDE VALERIAN

Robert G. Pinco, Esq.
Loren D. Israelin, Esq.
Counsel for EAPC

June 7, 1994
S. 2835

To amend the Federal Food, Drug, and Cosmetic Act to establish provisions regarding the composition and labeling of dietary supplements.

IN THE SENATE OF THE UNITED STATES

JUNE 11 Legislative day, MARCH 26, 1992

Mr. HATCH introduced the following bill, which was read twice and referred to the Committee on Labor and Human Resources

A BILL

To amend the Federal Food, Drug, and Cosmetic Act to establish provisions regarding the composition and labeling of dietary supplements.

1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

2. SECTION 1. SHORT TITLE.

3. This Act may be cited as the “Health Freedom Act of 1992”.

4. SEC. 2. DEFINITIONS.

5. (a) DIETARY SUPPLEMENT.—Section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321) is amended by adding at the end the following new paragraph:
One Hundred Third Congress
of the
United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Tuesday,
the twenty-fifth day of January, one thousand nine hundred and ninety-four

An Act

To amend the Federal Food, Drug, and Cosmetic Act to establish standards with
respect to dietary supplements, and for other purposes.

Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; REFERENCE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Dietary Supplement Health and Education Act of 1994”.

(b) REFERENCE.—Whenever in this Act an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section
or other provision, the reference shall be considered to be made
to a section or other provision of the Federal Food, Drug, and
Cosmetic Act.
Somehow we are back to botanical medicines.
"Phytomedicines Development: Botanicals for the Twenty First Century"

February 24-26, 1998
The Mount Nelson Hotel
Cape Town, South Africa

Presented by:
Floyd Leaders, PhD
Botanical Enterprises, Inc.
Rockville, MD 20850
Evidence-Based Botanical Medicine
Effectively & Safely Integrating Complementary & Alternative Medicine Into Clinical Practice

Featuring Case Studies & Expert Reports on:
- Thorough Descriptions of Plants & Derived Compounds
- Summarized Pharmacological Effects
- Documented Indications & Summary of Other Usage
- Any Precautions, Contraindications, Adverse Reactions & Overdose Data
- Modes of Administration & Typical Dosage
- Literature Citations
- Safety & Toxicity Issues
- Characterization & Standardization of Botanicals
- Regulatory & Control Initiatives

Now Being Offered in 4 Special Venues!
Monday, May 17, 1999 - Boston, MA
Friday, May 21, 1999 - Los Angeles, CA
Friday, June 4, 1999 - Dallas, TX
Friday, June 11, 1999 - Chicago, IL

Distinguished Faculty:
Dennis V.C. Avram, Ph.D., FCIC, President, MediPharm Consulting Services, Former Head, Natural Products Bureau of Drug Research, Health Protection Branch, Health and Welfare Canada
Tieraona Low Dog, MD, AHG, Department of Family Practice, University of New Mexico Health Sciences Center

Supported by:
ALTERNATIVE THERAPIES IN HEALTH AND MEDICINE

Jointly Sponsored by:
CAM INSTITUTE
Medicinal Plants
The New Paradigm for Developing Products from Botanical Sources

November 21 & 22, 1999 • Washington, Vieta Hotel • Washington, D.C.

Andes Pharmaceuticals, Inc.
Bioresources International, Inc.
Botanics Labs International, Inc.
East Earth Herb Inc.
Forest Stewardship Council
The Healing Forest Conservancy
Parceland, Inc.
Pharmacognetics, Inc.
Phytera, Inc.
Shaman Pharmaceuticals, Inc.
Trinity Alps Botanicals
Univea Phytoceuticals, Inc.
USDA Forest Service
Wakunaga of America Co., Ltd.
Xechem, Inc.

Benefit from 12 results-oriented case studies and strategies from savvy firms that are utilizing and profiting from the biodiversity of medicinal plants!

- Phytera's Concept-to-Reality Case Study of the Pharmaceutical Potential of Plant Cell Culture
- Univea Phytoceuticals' Documentation, Handling and Processing Standards
- Andes Pharmaceuticals' Bioprospecting Paradigm Shift from "Extractive" to "Partnership" Model
- East Earth Herb's Protocols for Preparing an IND for an Herbal Product
- Shaman Pharmaceuticals' Ethnobotany Approach to New Drug Discovery
- Bioresources International's Case Study of Commercializing MIRACULIN

Sponsored by:

Power-Packed Panel Discussion: Forging a Closer Relationship among the Botanical, Phytopharmaceutical and Ethical Pharmaceutical Industries.
International Workshop to Evaluate Research Needs on the Use and Safety of Medicinal Herbs

September 23-24, 1998
Brownestone Hotel
Raleigh, NC
FIM (The Foundation for Innovation in Medicine)
10th Nutraceutical Conference

NUTRACEUTICALS & PHARMACEUTICALS TAKEN TOGETHER: A NEW HEALTH SECTOR

A New FIM Congressional Proposal:
The Nutraceutical Research & Education Act - NREA

November 10/11, 1998
The Waldorf-Astoria, New York

Nutraceuticals (include the legal-regulatory entities dietary supplements, foods and medical foods) are being consumed together with pharmaceuticals by a large percentage of the U.S. population. We must assume that, to a significant degree, nutraceuticals and pharmaceuticals interact with each other, having a significant impact on disease - either beneficially or detrimentally. There is little doubt that this potentially enormous new health sector already exists. There is also little doubt that the medical community, health industry, and federal government are not addressing this new explosive health sector.

FIM announces a ½ day conference which will present the current information on the business and regulatory aspects of foods, medical foods and dietary supplements. Also included will be presentations on actual or virtual clinical trials of nutraceuticals and pharmaceuticals taken together. A medicine versus law panel regarding claims will follow each presentation. The physicians will propose claims based on the clinical data itself. The lawyers will propose claims based on federal law and regulations.

Products to be discussed are Benecol, Ocean Spray Cranberry Juice, St. John's Wort, Intelligent Quisine, Zocor, Cispro, Prozac and Antihypertensive Pharmacueticals.

The Nutraceutical Research & Education Act - NREA

In 1991 FIM published its white paper, "The Nutraceutical Initiative: A Proposal for Economic and Regulatory Reform". In it, FIM called for Congress to enact The Nutraceutical Research & Education Act - NREA. We believe that this proposal may be a timely solution to the current state of confusion which would expedite the establishment of a vigorous research-oriented nutraceutical industry.

Authorities from various health sectors will participate and make comments and recommendations on the FIM proposal, including members of Congress, both the House and the Senate, corporate, medical and legal thought leaders, who play key roles in formulating U.S. health policy. There is little doubt that the time has come for new nutraceutical laws and regulations.
DECEPTION IN WEIGHT-LOSS ADVERTISING WORKSHOP:
Seizing Opportunities and Building Partnerships to Stop Weight-Loss Fraud

A Federal Trade Commission Staff Report
December 2003
STEROID NATION

*JUICED HOME RUN TOTALS,
ANTI-AGING MIRACLES,
AND A HERCULES IN EVERY
HIGH SCHOOL: THE SECRET
HISTORY OF AMERICA’S
TRUE DRUG ADDICTION

SHAUN ASSAEL
NEW YORK TIMES BESTSELLING AUTHOR OF
SEX, LIES, AND NECKLACES
Part IV

Department of Health and Human Services

Food and Drug Administration

21 CFR Ch. I
Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Dietary Supplements; Proposed Rule
ANTI-AGING Nutraceuticals: Dietary Supplements for the Chronic Diseases of Aging

The 3rd Annual Scientific, Marketing & Regulatory Symposium for Preventive Health & Treatment of Aging
March 15-16, 1999 · Anaheim, CA · Hyatt Regency Alcante

2 TRACKS

SCIENTIFIC UPDATES
Antioxidants
The Value of Soy
Mental Acuity
New Delivery Methods
Effects of Fluctuologics (FOS)
Biotechnology & Nutraceuticals
Natural Energy: Preventing Aging

MARKETING STRATEGIES
Brand Identity
Multiple Channel Marketing
Taking An Aging Product To Market
Anti-Aging Product Differentiation
Marketing Case Studies
Post-Monopolistic Market
Patenting Claims

PANEL DISCUSSION
Making Claims: Treating A Fine Regulation Line
What claims can you place on your labels? Stacey Zasvili from the OMA, Antonio C. Martinez II, a Government Relations Consultant specializing in Food & Drug law, and Mark L. Deneen, PhD a Regulatory Director from Mead Johnson Nutrionals will answer all questions concerning the current regulatory environment surrounding the anti-aging nutraceutical arena.

Important Note:
Mark your calendar for Nutracon'99 Anti-aging Nutraceuticals should not be confused with our annual NUTRACON conference, an annual review of all the important scientific breakthroughs, marketing and investment strategies for nutraceuticals. Mark your calendar for the Sixth Annual NUTRACON event for July 12-14 in Las Vegas!
Global Guide to
The Handling of
Adverse Event Complaints
Guidelines for Supplement Companies

IADSA
International Alliance of Dietary/Food Supplement Associations
According to a recent study, more than 50% of surgical patients took herbs, vitamins, dietary supplements or homeopathic medicines during the 2 weeks prior to surgery.

Over 39 million Americans take dietary supplements on a weekly basis.

Do you know which herbs have the greatest potential for interacting with pharmaceutical agents?

Do you know what kind of interactions are likely and which patients are at greater risk?

Join us

for an exclusive audio conference
Tuesday, February 26, 2002
2:30 to 3:30 pm EST

Drug-Herb Interactions: A Clinical and Surgical View

Featuring:

Mary L. Hardy, MD, Medical Director
Cedars-Sinai Integrative Medicine
Medical Group, Los Angeles, CA

Betty L. Chang, DNP, FNP-C, FAAN
Professor, School of Nursing
University of California, Los Angeles

Quality education for your entire facility for one low fee that includes CE or CME.

Cost: $249 for AHC subscribers
$299 for non subscribers

Call for more information or to sign up today!

1-800-688-2421
Inflammation?

Extinguish the fire.

Zyflamend
Herbal COX2 Inhibitor

- Patented herbal formula featuring 10 whole herb extracts with over 75 key constituents shown to naturally inhibit COX-2*
- Solvent-free, supercritical CO2 extraction
- COX-2 inhibition demonstrated at Columbia University, Department of Urology

Effects of Zyflamend on COX-2

Zyflamend inhibits COX-2 activity at levels almost equivalent to the specific prescription COX-2 inhibitor, NS-398.*

Zyflamend Affects Cell Growth

Following 72 hrs of treatment with Zyflamend (0.1ug/ml), a significant reduction (78%) in cell numbers is shown.

* The statement has not been evaluated by the Food and Drug Administration. The product is not intended to diagnose, treat, cure or prevent any disease.

To request more information or place an order please call: 1-866-963-9075
NewMark, PO Box 1036, Burlington, VT 05402. www.newmark.com

Whole Foods Whole Herbs Life Sustaining Life
Supplement Market Grows to $32.5 Billion

But are stormy skies ahead, thanks to legislative creep & non-GMO movement?

The U.S. dietary supplement market grew to $32.5 billion in 2012, posting more than $2 billion in incremental sales and 7.5% annual growth, but thought leaders and industry insiders suggest that the skies up ahead aren’t quite so blue.

"After some even stronger than normal growth in the last couple of years, we expect the sector to revert to a more normalized rate of growth in the 5% range or so," says Scott Van Wyk, managing director of equity research at New York-based Canaccord Genuity. "Even with some challenges—whether regulatory challenges such as DMAA or recent focus on NDA, or some recent unsupportive research—the sector continues to expand in all channels of trade. We expect further growth and believe that the regulatory environment, while always challenging, is favorable for sustained growth."

Van Wyk points to a number of factors contributing to overall industry growth. "The protein category remains robust and appears to have significantly broadened its scope from sports and weight loss to mass market adoption," he says. "Trends such as cleansing have also driven growth, and the supplement industry is seeing growth in weight loss while many other weight-loss segments are flat." "Brain health is poised to be another exciting segment," he adds. "We continue to look for something big in brain health to become the success story, just as glucosamine/chondroitin or omega-3 exploded into billion dollar categories."

"The top hindrance to industry growth continues to be conflicting media reports about supplement research, according to Van Wyk. "It appears to us that the ratio of positive to negative research on supplements has been swinging unfavorably. While there hasn’t been a catastrophic study impacting sales trends, as has occurred a few times in the past, we generally believe that the research drives the media and the media drives consumers."

Countering mixed media messages may require an industry-wide effort. "Transparency is the key to trust, and education is the foundation from which that transparency should be built," says Scott Strain, president of Doctor’s Best Vita-ready/Geo, based in San Clemente, California. "It’s not enough to merely advertise. Both supplement and ingredient manufacturers should partner to provide a more respectful and transparent supply chain and then inform the consumer of the same.""
2019: DSHEA at 25
New FDA Initiatives

1. Amendments to DSHEA.
2. Regulatory pathway for cannabis.
3. Three focus points:
   • GMP improvements
   • Unlawful claims
   • Spiking
A few industry issues:

• NDI reassessments.
• Inspection consistency.
• Recognize a “no-483” inspection.
• Synthetic botanicals.
• CBD / Hemp Extracts -- status
Where we make progress.
Thank you!

Loren Israelsen  
President  
United Natural Products Alliance  
1075 E. Hollywood Ave.  
Salt Lake City, UT 84105  

p: 801.474.2572  
info@unpa.com  
unpa.com