

American Herbal Pharmacopoeia[®] *and Therapeutic Compendium*

Stinging Nettle Herb *Urtica dioica* L. *Urtica urens* L.

STANDARDS OF ANALYSIS, QUALITY CONTROL,
AND THERAPEUTICS

2009

Editor

Roy Upton RH

**Associate Editor &
Monograph Coordinator**

Teresa Soria BS

Research Associates

Teresa Soria BS

Diana Swisher MA



Authors

History

Greg McCrone RPh
Dover, NH

Roy Upton RH
American Herbal Pharmacopoeia®
Scotts Valley, CA

Botanical Identification

Robin Bencie MA
Eastsound, WA

Alison Graff PhD
American Herbal Pharmacopoeia®
Scotts Valley, CA

Macroscopic Identification and Commercial Sources and Handling

Tammi Hartung Herbalist
Desert Canyon Farm and Learning
Center
Canon City, CO

Microscopic Identification

Prof Dr Reinhard Länger
Austrian Medicines and Medical
Devices Agency AGES PharmMed
Dept. Herbal Medicines and
Homoeopathics
Vienna, Austria

Constituents

Francois Xavier-Garneau PhD
Professor Emeritus
Universite du Quebec a Chicoutimi
Chicoutimi, Quebec, Canada

Analytical Substantiating Laboratories

High Performance Thin Layer
Chromatography (HPTLC)

Anne Blatter PhD
Eike Reich PhD
CAMAG
MuttENZ, Switzerland

High Performance Liquid
Chromatography (HPLC)

Klaus Reif PhD
PhytoLab GmbH & Co
Versternbergsgreuth, Germany

Quantitative Standards and International Status

Josef Brinckmann
Traditional Medicinals
Sebastopol, CA

Therapeutics and Safety Profile

Prof Dr med Sigrun Chrubasik
University of Freiburg
Freiburg, Germany

Medical Indications Supported by Traditional or Modern Experience

Amanda McQuade Crawford
MNIMH, AHG
Ojai, CA

Reviewers

7Song Herbalist
Director
Northeast School of Botanical
Medicine
Holistic Health - Ithaca Free Clinic
Ithaca, NY

Reid Blackwelder MD
Professor, Family Medicine
James H. Quillen College of
Medicine
East Tennessee State University
Johnson City, TN
Kerry Bone BS Dip Phyto MCCC
FNHAA FNIMH
School of Health
University of New England
MediHerb PTY LTD
Warwick, Queensland, Australia

Steven Dentali PhD
American Herbal Products
Association
Silver Spring, MD
Sue Evans PhD
School of Health and Human
Sciences
Southern Cross University
Lismore, NSW, Australia

Richard Ko PharmD PhD
Herbal Synergy
Oakland, CA

Art Presser PharmD
President
Huntington College of Health
Sciences
Knoxville, TN

Jeanette Roberts PhD MPH
University of Wisconsin
Madison, WI

Aviva Romm MD CPM RH (AHG)
President
American Herbalist Guild
Cheshire, CT

James Snow RH (AHG)
Tai Sophia Institute
Laurel, MD

Jill Stansbury CAM BS ND
Department of Botanical Medicine
National College of Naturopathic
Medicine
Portland, OR

Andrew Weil MD
Director
Arizona Center for Integrative
Medicine
College of Medicine
University of Arizona
Tucson, AZ

Keith GR Wheeler PhD
Freelance Science Photographer
North Devon, United Kingdom

David Winston RH (AHG)
Herbal Therapeutics Research
Library
Broadway, NJ

Final Reviewers

Francis Brinker ND
Department of Medicine
College of Medicine
University of Arizona
Tucson, AZ
Eclectic Institute Inc.
Sandy, OR

Mary Hardy MD
Medical Director
Simms/Mann–UCLA Center for
Integrative Oncology
Los Angeles, CA

Gulsel Kavalali PhD
Herbal Medicine Research and
Development Center
Cerrahpasa Faculty of Medicine
University of Istanbul
Istanbul, Turkey

Colin Randall MD MRCP FRCP
Hon Clinical Lecturer
Primary Health Care Research
Peninsula Medical School
Plymouth, United Kingdom

ISBN: 1-929425-27-9 ISSN: 1538-0297

© 2009 American Herbal Pharmacopoeia®

Post Office Box 66809, Scotts Valley, CA 95067 USA

All rights reserved. No part of this monograph may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without written permission of the American Herbal Pharmacopoeia®.

Literature retrieval provided by CCS Associates Inc, Mountain View, CA.

The American Herbal Pharmacopoeia® is a nonprofit corporation 501(c)(3). To purchase monographs or botanical and chemical reference standards, contact the American Herbal Pharmacopoeia® • PO Box 66809 • Scotts Valley, CA 95067 • USA • (831) 461-6318 or visit the AHP website at www.herbal-ahp.org.

Medical Disclaimer

The information contained in this monograph represents a synthesis of the authoritative scientific and traditional data. All efforts have been made to ensure the accuracy of the information and findings presented. Those seeking to utilize botanicals as part of a health care program should do so under the guidance of a qualified health care professional.

Statement of Nonendorsement

Reporting on the use of proprietary products reflects studies conducted with these and is not meant to be a product endorsement.

Design & Composition

Beau Barnett
Santa Cruz, CA

Cover Photograph

Stinging nettle (*Urtica dioica*)
Courtesy of Roy Upton, Soquel CA

*Urtica dioica*

Published by W. Phillips, Junr. Coltr.

***Urtica dioica* herb**

Source: Woodville W. 1832. Medical Botany. 3rd ed. London: J. Bohn.

TABLE OF CONTENTS

Nomenclature 1

Botanical Nomenclature
Botanical Family
Definition
Common Names

History 1

Identification 4

Botanical Identification
Macroscopic Identification
Organoleptic Characterization
Microscopic Identification

Commercial Sources and Handling 11

Sourcing
Collection
Cultivation
Handling and Processing
Drying
Storage
Qualitative Differentiation
Adulterants
Preparations

Constituents 13

Analytical 15

High Performance Thin Layer Chromatography (HPTLC)
High Performance Liquid Chromatography (HPLC)
Quantitative Standards

Therapeutics 19

Pharmacokinetics
Clinical Efficacy and Pharmacodynamics
Anti-Inflammatory, Analgesic, and Local Anesthetic Activity
Histamine desensitization
Platelet Anti-Aggregation Activity
Antioxidant Activity
Chemopreventive and Immunomodulatory Activity
Central Nervous System Activity
Cardiovascular and Smooth Muscle Activity
Hypotensive Effect
Diuretic, Natriuretic, and Uricosuric Activity
Antidiabetic Activity
Gastrointestinal Activity
Liver Protecting Activity
Antilipidemic Activity
Effect on Erythropoiesis
Antimicrobial and Antiviral Activity
Medical Indications Supported by Clinical Trials
Medical Indications Supported by Traditional or Modern Experience
Tonic Effects
Diuretic Activity
Alterative Effects
Allergic Rhinitis
Topical use
Less Common Modern and Traditional Uses
Actions
Substantiated Structure and Function Claim
Dosages

Safety Profile 36

Adverse Reactions
Contact Urticaria and Local Pain
Interactions
Reproductive and Developmental Effects
Lactation
Carcinogenicity
Toxicology
Contraindications
Precautions
Influence on Driving
Overdose
Treatment of Overdose
Classification of the American Herbal Products Association

International Status 39

Addendum 40

References 46



American Herbal Pharmacopoeia®
PO Box 66809
Scotts Valley, CA 95067 US
Tel: 1-831-461-6318
Fax: 1-831-475-6219
Email: admin@herbal-ahp.org
Website: www.herbal-ahp.org

