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# JOURNAL

of veterinary botanical medicine

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*A publication of the Veterinary Botanical Medicine Association*



# Veterinary Botanical Medicine Association

## VBMA Purpose

The Veterinary Botanical Medicine Association is a group of veterinarians and herbalists dedicated to developing responsible herbal practice by encouraging research and education, strengthening industry relations, keeping herbal tradition alive as a valid information source, and increasing professional acceptance of herbal medicine for animals.

## VBMA Goals

- Represent member veterinarians and herbalists as political and professional issues arise.
- Establish standards of training and herbal training programs and to identify established programs with the goal of developing or reviewing certification standards and Degree Programs in Herbal Medicine.
- Support ethical scientific clinical research in herbal veterinary medicine and maintain avenues for exploration of traditional care in veterinary botanical medicine.
- Explore cultural traditions such as TCM, Greek/western herbalism and Ayurveda for their proper translation to and application in modern day animal conditions and communicate these.
- Compile databases of existing science, ethnoveterinary medicine advances, and eventually a library online.
- Liaise with manufacturers so that they have an expert body to advise them on the needs of veterinary herbalists and quality control concerns.
- Support sustainable environmental, agricultural and husbandry practices.

## VBMA Certification of Competency

The VBMA seeks to provide animal owners, farmers, and veterinarians with some standard of competency by which to choose a veterinary herbalist. Veterinarians certified by VBMA will earn the title "Certified Veterinary Herbalist". Nonveterinary herbalists "Certified Veterinary Herbalism Educator." Certification by the VBMA will require passing the exam with a grade of at least 70%, submission of 3 publication-quality case reports for peer review within 1 year of taking the test and donation of at least 10 test questions for future exams. Guides available online [HERE](#). Examination is administered yearly by VBMA at the AHVMA conference in the USA, where the VBMA holds their symposium. In 2014 the exam will be held in Portland, OR.

## BOARD OF DIRECTORS

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## SUBMITTING CONTENT

### The VBMA invites contributions to the Journal of Veterinary Botanical Medicine.

The JVBM publishes material on all aspects of veterinary medical herbalism with emphasis on the clinical application of medicinal plants in veterinary medicine, the philosophy of veterinary herbal medicine, and the phytochemistry, pharmacology, herb drug interactions and research that applies to veterinary botanical medicine.

### Editorial Policy

Subject material must relate to veterinary botanical medicine. Accepted articles become the property of the Journal of Veterinary Botanical Medicine. Contributions are subject to peer review and editing. Contributions to the Journal of Veterinary Botanical Medicine must not be submitted elsewhere.

### Contribution Requirements

Contributions should be word processed and forwarded by email to the editor, with the file(s) saved in plain text or Microsoft Word formats. All statements must be referenced and a full reference list must be included. If the statement is the author's observation or opinion, this should be made clear. All statements should be of a professional nature and exclude any inappropriate style of writing. An abstract of the article should be included. A brief profile of the author should be included.

### Peer Review

All feature articles will be reviewed by two independent peer reviewers. Reviewed articles will be returned to the author for modification if required.

### Referencing

Textual citation methods should be employed. Requires the name of author and year of publication in brackets at the end of statements or paragraphs. The reference list should be arranged in alphabetical order. *JOURNALS* Author's surname Author's initials. Year. Title of article. Journal name volume; issue: page numbers. *BOOKS* Author's surname Author's initials. Year. Book title. Edition. City of publication: Publisher.

**Send all submissions via email to:**  
VBMA Communications Coordinator  
[communicationscoordinator@vbma.org](mailto:communicationscoordinator@vbma.org)

# Veterinary Botanical Medicine Association



Laurie Dohmen, VBMA President

## Greetings!

The world is growing and shrinking at the same time...

I was perusing my advanced copy of the journal, and I noticed with pleasure how many articles in here are either by veterinarians outside the USA or about places outside the USA. The world is growing in our ability to travel to far-away lands, and meet and converse with people from around the world. I am excited about how multi-cultural our journal is becoming! We can all learn so much from one another and discourse is the way to make that happen.

The world is shrinking, in that as we meet people from foreign lands, we realize we all have the same basic make-up: we all need food, air, water, shelter, and love. As holistic vets, we all are treating our patients in similar ways. I was struck in Astri Hagenlund's article that two of her go-to herbs



are two of my favorites: plantain and yarrow. I was recently in Peru, and we saw "una de gato" or cat's claw (*Uncaria tomentosa*). I have been taught to use cat's claw for arthritis (rheumatic and osteo), immunomodulation and GI ulcers. In Peru, it is much bigger, and they use it for hydration: if you are in the jungle with no water, you can cut a big stalk and tip it into your mouth: it will work like a spigot and you will have fresh mineral water already filtered by the bush! Another thing that struck me was that different locales have different plants due to the ecology and weather of the area, but we all treat the same things: aches and pains, venomous bites, colds and flus, stomach ailments and mental disorders (among others).

In a world that is increasingly divided, we should remember that underneath it all, we are so similar. Whether we use Western herbs, Chinese herbs, homeopathy, acupuncture, allopathic medicine, or any of the many other modalities, we are all just here to help and to spread wellness and nurturing to our world.

Let's do it together!

Laurie

## VBMA TELESEMINAR Incorporating Herbs in Food Therapy

Wednesday, December 10th at 8 PM ET  
Featuring Dr. Constance DiNatale

Dr. DiNatale will discuss techniques to use medicinal herbs in cooking, both to enhance treatment options, as well as offer clients options for animals that are difficult to medicate.

Dr. DiNatale graduated from the University of Florida School of Medicine in 1992. While in veterinary school she became certified in veterinary acupuncture through the International Veterinary Acupuncture Society (IVAS). In 1999, she completed her certification in veterinary chiropractic and opened her practice in Winter Park.

Dr. DiNatale is a professor at the Chi Institute in Reddick, Florida, teaching acupuncture and traditional Chinese medicine to veterinarians. A much sought after speaker, Dr. DiNatale lectures around the country at veterinary conferences on acupuncture, herbs and food therapy. She enjoys spending her "spare" time with her son Valentine and her three dogs - Jordy, Sophie and Bailey.

[CLICK HERE TO REGISTER](#)

## VBMA EDUCATIONAL SCHOLARSHIP

The Veterinary Botanical Medicine Association currently offers a yearly educational scholarship in the amount of \$500 in order to promote herbal education.

### 2015 Requirements TBD

We'll be announcing the 2015 requirements in our next Journal. The essay will be read and the award decided by the President and President-Elect of the VBMA. The winning essay will be published in the VBMA journal as well as on the VBMA website.

### Announcement of Award:

The winning essay will be announced at the VBMA's annual meeting at the AHVMA convention of that year.

### Use of Award Money:

The recipient of the educational scholarship may use their award money for any AHG (American Herbal Guild) event or class by an RH(AHG), and any CIVT, Chi, IVAS, VBMA or equivalent veterinary herbal class. Alternatively, the funds may be used for the purchase of herbal books, VBMA CDs, teleconference registrations or similar educational events.

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# VBMA MEMBERS HONORED AT AHVMA

Every year the Council of Elders of the AHVMA honors individuals whose stellar service and accomplishments represent the mission statement of the AHVMA: the voice, the leaders and resources for holistic veterinary medicine. At this year's AHVMA conference, VBMA members Bernie Fischer, Neal Sivula, Mona Boudreau and Ihor Basko were all presented with awards. The VBMA also honored Dr. Ihor Basko with the Herbal Educator of the Year award, in recognition of his standing as one of the leading herbal educators in this country and in recognition for his work on hosting the VBMA's eco-tour in Hawaii in March of 2014.

## **The Council of Elders selected Bernie Fischer, DVM, PhD to receive the 2014 Behind the Scenes award for his active involvement as Senior Editor of JAHMA and for his contributions on the AHVMF Research and Grant committees.**

Dr Fischer graduated from NCSU-CVM in 1988 and received his PhD in 1997 for his thesis, Regulation of Airway Epithelial Mucin Secretion. He is now employed at Duke University where he serves as Associate Professor in Pediatrics (Research), Assistant to Vice Chair for Research, in the Department of Pediatrics, and as a pre-veterinary adviser. He has authored many research papers and evaluates NIH research grants and also works on the Editorial board for the American Journal of Respiratory Cell and Molecular Biology. Bernie became involved in CAVM when his beloved pet developed arthritis and acupuncture helped. Later, his Golden Retriever had three cancers and received an integrative approach including metronomic chemotherapy, Bach flowers and reiki. She lived well until passing gently in 2008. His experiences opened his tool box and now he is an active user of CAM for his animals and family. Bernie became trained in reiki and went to help the Shelter Animal Reiki Association and Kathleen Prasad, his reiki mentor, with their exhibit at the AHVMA meeting in Kentucky. He met PJ Broadfoot at the airport and the rest is history. He has been an AHVMA advocate ever since. This year, he brought the first research poster board session to the AHVMA meeting. Bernie's spiritual service extends from reiki to the Beth El synagogue education committee and service leader coordinator. Unlike the Wizard of Oz, this guy behind the curtain is creating big effects. He certainly is one of AHVMA's voices and resources for CAVM. Bernie is also the co-chair of the VBMA's research committee. Congratulations and thanks, Bernie!

## **The Holistic Teacher of the Year Award was given to Dr. Neal Sivula.**

Dr. Sivula has been an indispensable instructor in both acupuncture and chiropractic topics for many years for IVAS, the Veterinary Chiropractic Association and for The Healing Oasis. He is a long standing member of the VBMA. Congratulations, Neal!!

## **Dr. Mona Boudreau was the recipient of the "Butt-Busting" Award.**

Dr. Boudreau has been working tirelessly for the AHVMA this past year in her position of president-elect...i.e., she has been working her "butt" off. As a VBMA member, she owns the company "A Time to Heal", and has been a leader in herbal education and a supporter of responsible herbal industry. She is now the president of the AHVMA.

## **Dr. Ihor Basko received the Carvel Tiekert Lifetime Achievement Award AND the VBMA's Herbal Educator of the Year Award.**

There is no one more deserving of being honored twice than our special eco-tour guide! Dr. Basko graduated from Michigan State Veterinary College with a special focus in the fields of internal medicine, cardiology and orthopedic surgery. His early years were spent working in a busy animal emergency hospital in California. In 1974, he had the wonderful opportunity to participate in the first ever US acupuncture study at the University of California in LA. Since that early age, his life has been devoted to the study and practice of acupuncture, herbal medicine, dietary therapy, homeopathy, massage and other alternative therapies for animals. Today he is an educator and leading authority on animal health. He is one of the founders of the VBMA, and a strong supporter on the listserv; freely giving of his wealth of knowledge and advice. He opened his home up to 25 VBMA members and family on our Hawaiian eco-tour and organized the incredible experience for those who attended. In Hawaii, we were able to truly witness and appreciate how Dr. Basko "walks the talk!!!" Congratulations on both of your awards, Ihor!

Thanks to all who attended the AHVMA conference, VBMA Annual Meeting and VBMA Annual Herbwalk!

# 2014 EDUCATIONAL SCHOLARSHIP RECIPIENT

The Veterinary Botanical Medicine Association currently offers a yearly educational scholarship in the amount of \$500 in order to promote herbal education. This year required the submission of a 1000 word essay on "The potential role of herbal medicines as an alternative to antibiotics in veterinary medicine". Essays were read and the award decided by the President and President-Elect of the VBMA, and we're thrilled to publish the winning entry by Margo Mercer.

## **The Potential Role of Herbal Medicines as an Alternative to Antibiotics in Veterinary Medicine**

by Margot Mercer, Oregon State CVM , Class of 2016

The rich history of veterinary botanical medicine is interwoven with the advancement of human medicine around the world and across cultures. Asclepias, the Greek god of medicine, is said to have declared that of all the creatures it was the dog he admired most because of its ability to know and use herbs to prevent and cure all ailments of the canine race.

Ayurvedic veterinarians wrote about the importance of medicinal plants in the treatment of elephants and horses in ancient India and texts from the Shang Dynasty describe treating horses with traditional Chinese herbs. Evidence of veterinary herbal medicine is found in ancient Egyptian parchments and in the famous code of Hammurabi. The first official veterinary medical school was founded in France in 1762 where students grew and administered medicinal plants to their patients. Until the first half of the 20th century, herbs formed the basis of veterinary medicine and before the 1960s veterinary textbooks included extensive herbal pharmacopoeias.

A major distinction between herbal and pharmaceutical medical approaches is the complex interaction of the many constituents contained within whole plant material in contrast to single chemical compounds used in modern drug therapy. The medicinal effects of herbs are due to hundreds of metabolites that can have additive, synergistic or antagonistic effects on one another. The vitamins, minerals, flavonoids, carotenoids, alkaloids, sugars and amino acids contained within a single plant all contribute to the action seen within the body. Together these compounds assist the body in mounting a physiologic response while potentiating desired and inhibiting detrimental effects. Many of the 'active' constituents within plants remain unknown to modern medical science, which means they cannot be extracted or isolated and can only exert their actions when used as part of a whole plant. External variables such as climate, soil conditions and the season harvested all impact the levels at which certain constituents are found within a given plant. The intricate evolutionary dance between plants and animals has led to the development of receptors within the bodies of animals into which these plant metabolites can fit and exert physiologic effects.

Botanical medicine works on many levels. Herbs can act as disease modifiers, they may improve the efficacy of the body's own systems via enhancing circulation or immune response, or they may increase the bioavailability of certain compounds while decreasing the toxicity of others. Herbal medicine aids the body in reestablishing homeostatic balance and tries to address the root cause of imbalance, whereas in conventional medicine often the focus is on masking symptoms.

Antibiotic resistance is becoming an obvious problem worldwide; it would behoove medical professionals to consider increased use of antimicrobial herbs and to save pharmaceuticals for serious cases when they are truly needed. When using botanical medicine to treat an animal suffering from an infection it is important to develop a formula that includes more than just an herb with direct antimicrobial properties. Immune-modulating plants can be added to support the body's own ability to fight off infection and restore vital energy, these include adaptogens like licorice root, Panax ginseng or Astragalus and alteratives like Scrophularia, cleavers or nettles. Herbs to enhance elimination can be added, including diuretics like couch grass or dandelion, laxatives like burdock or aloe and expectorants like mullein or Angelica. Often it is important to incorporate anti-inflammatory herbs such as chamomile, turmeric or chickweed. It may be necessary to promote rest by including nervine or sedative herbs such as lavender, passionflower or valerian. Final-

ly, analgesic herbs such as Corydalis or meadowsweet may be called for. Additionally it is important to consider the primary constitution of the patient as well as the properties of particular diseases and herbs, for example using cooling herbs such as marshmallow or peppermint for hot conditions.

Herbs can be used in place of antibiotics in many situations for various types of infections in our veterinary patients and the plants available to practitioners are myriad. The path of a veterinary herbalist is one of lifelong learning; the following examples are the tip of our vast materia medica. Matthew Wood says the following about berberine, an alkaloid found in Oregon grape root, goldenseal, coptis and barberry, "In the days before antibiotics, the berberine-containing herbs were one of the few medicines strong enough to combat dangerous fever and infection". Berberine has been shown to have antibacterial activity against various organisms including resistant strains of *Pseudomonas aeruginosa* & *Escherichia coli*, to inhibit enterotoxin activity and effectively treats skin, urinary, GI & ear infections.

There are a number of antimicrobial and anti-inflammatory botanicals we can use topically for wounds, burns and abscesses. Some herbs, such as *Calendula*, also accelerate the rate of contraction and epithelialization to speed wound closure. Sage, yarrow, dilute tea tree oil and demulcent marshmallow are additional soothing options for inflamed skin lesions. Plantain is especially effective for dog and cat bite-wounds and is an excellent drawing & drying agent. *Echinacea* was traditionally used for snake and spider bites as well as systemic infections.

Bacteriostatic cranberry is known for its use in the prevention and treatment of urinary tract infections via inhibiting the binding of bacterial fimbrial adhesins to uroepithelial cell receptors. Gentle antimicrobials like couch grass and *uva ursi* can also be used to relieve urinary tract infections. Expectorants like mullein and thyme are effective against contagious bronchitis and for soothing inflamed mucous membranes; immunostimulants like thyme are also great for use in leukopenic patients. Milk thistle provides gentle support against drug-induced hepatocellular damage and is an excellent adjunct for patients on long courses of liver-depleting drugs.

The practice of veterinary botanical medicine has been refined over millennia and science is now able to describe in modern terms many of the mechanisms behind this ancient art of healing. Plants are often a more balanced way to heal the body, but it is important to remember that 'natural' does not always mean harmless, veterinarians practicing herbal medicine should do so with caution and respect, both for our animal patients and the tradition of botanical medicine.

### References:

- de Bairacli Levy, Juliette. The complete herbal handbook for the dog and cat. Macmillan, 1991.
- Fougere, Barbara. Essential of Western Veterinary Herbal Medicine – course notes. College of Integrative Veterinary Therapies. 2012.
- Guerena, Jaci. Introduction to Healing with Herbal Medicine – course notes. 2011.
- Wood, Matthew. The book of herbal wisdom: Using plants as medicine. North Atlantic Books, 1997.
- Wynn, Susan G., and Barbara Fougère, eds. Veterinary herbal medicine. Elsevier Health Sciences, 2007.



**I am member of the class of 2016 at Oregon State CVM, about to begin my third year of vet school. I have been interested in holistic medicine since well before starting vet school, which has given me a unique perspective as I navigate through my conventional education. Many of my friends are in the holistic health field and I rely on herbs, acupuncture and nutrition for my own health -- why not also for the animals in our lives? Our animal companions are often so receptive to the subtle, yet strong, actions of the holistic modalities we have in our toolbox that we can use to nudge their systems back into balance. I have a background in western herbal medicine, am a Reiki level 2 and am certified in small animal rehabilitation massage. I am looking forward to continuing down the path of holistic veterinary medicine and am very excited about my most recent endeavors into TCVM.**

## Barbara Fougere's Lecture - Integrative Approaches

by Kris August, DVM, Harmony Housecalls, Ames, IA

As one of the original students in Barbara Fougere's CIVT Graduate Western Herbal Veterinary Medicine course, I am tempted to think, "oh, I've heard what she has to say about\_\_\_\_", but she is always adding in new bits of information or ways of looking at things, always looking for new research. And for those, who will remain nameless, whose eyes began to gloss over when the conventional drug treatment slides came up, this is Barbara's way of saying, "this is how these conditions are treated in conventional medicine, what can we do as holistic practitioners to improve upon this?" Either adjunctively, by reducing doses and supporting side effects or by eliminating the need for those drugs completely, Barbara shows how we can improve the lives of our patients with a holistic approach, herbs and acupuncture, nutrition and GI support, other beneficial supplements, environmental modifications and more. Barbara not only integrates a CAVM approach with conventional medicine, she does not lose sight of traditional herbal therapies, integrating history into our modern understanding of phytochemistry and physiology, which is continually being updated as research continues.

## Taoist Tai Chi Workshop With Jim Clark

by Kris August, DVM, Harmony Housecalls, Ames, IA

The entire conference seemed for me a well choreographed dance between yin & yang, inbreath and outbreath, from Jeffrey Yuen's deeply philosophical talk on essential oils to Kevin Spelman's diagrams of phytochemicals, all of these things that create our perception of what "is". Time spent with Jim Clark was a perfect extension of this. He physically embodies that feeling of giving and receiving energy, "playing with chi" as we scooped it up and sent it around between us in our close molecular arrangement, forming a new group organism living and breathing tai chi. It is so important for us as healers to remember to honor ourselves, care for ourselves and take time to connect with the world around us. Tai chi offers a way to open up to that healing energy. Jim explained that instead of blocking and fighting in the more "martial" tai chi styles, the taoist philosophy in this particular form of tai chi emphasizes opening up to receiving, being vulnerable, accepting what comes. Perhaps when we learn to do this, we can transform what we receive into some new perception of what "is". Thank you, Jim, for quietly being there to remind us to be open, to receive so that we may give.

## Barbara Fougere's Lecture - Backyard Chickens and Herbal Medicine

by Cynthia Lankenau, DVM, Colden, NY

Dr. Fougere's love of her chickens was clearly felt during this informative and, yes, entertaining, lecture. We saw pictures of chickens with names like Poppy, Sassafras, Ginger, (get the herbal connection here?!), Daisy and so on.

Backyard chickens are becoming more and more popular as individuals seek out healthier food and are repulsed by the horrific lives many commercial chickens live. Many wish to eat eggs from an antibiotic free animals, but most of these backyard hobby farmers have little to no farm background and need help and guidance to ensure they raise healthy chickens.

After giving a short bit about safe chicken coops, typical backyard hazards (watch for shiny bits of garbage), and dietary needs, the lecture then focused on herbs for those backyard birds. The information presented was from recently conducted research. Echinacea is proven to have antibacterial, antiviral and antifungal properties, and chickens fed Echinacea show a significant antibody production as well as an increase in natural Killer NK cells. Calendula clears IBD virus. Reishi mushrooms enhance innate immunity in chickens and are effective against Eimeria tenella. Dichroa febrifuga has anticoccidial activity. Chickens sprayed with Allium sativum have significantly fewer mites. Neem is

effective against *E. tenella*. Elder can inhibit infectious bronchitis and viral replication. *Nigella sativa* can increase shell thickness. Ginger improves laying performance. Flaxseed creates a significant reduction of ovarian cancer. Rooibos tea positively prolongs the productive period in animals. *Ligustrum* has beneficial effects on the immune function. Essential oil use is a growing field of interest as many oils are shown to be repellent to *D. gallinae*, red mite. The use of fresh Kale leaves increases egg weight; hempseed and hempseed oil in hen diets leads to increased omega-3 polyunsaturated fatty acid content and enhanced color intensity of egg yolks; we are what we eat! Herbs can be administered to chickens as a tea in drinking water, as a tincture directly, or finely chopped fresh or dried mixed in the feed.

In the the last part of the lecture, Dr. Fougere described common chicken diseases and their herbal treatments. She suggested growing aromatic herbs near the hen house as an insect repellent; wormwood, lavender, lemon balm, and rose geranium are ideal. For Coccidiosis, try probiotics and immune support with herbs like Echinacea, reishii mushroom, astragalus, garlic, calendula to name a few; anticoccidial herbs like *Dichroa febrifuga*, and Neem. Chronic Respiratory diseases can be treated by cleaning eyes with Euphrasia or chamomile tea, supporting immunity with Echinacea, Reishi astragalus, garlic, and calendula. If respiratory signs are present/persist, she suggests elder, marshmallow, licorice and nebulizing or steaming with Thyme. Cases of infectious laryngotracheitis can be treated with Elder, Echinacea, marshmallow, garlic; bathe face with thyme tea, eucalyptus or lemon myrtle tea. Marek's may be treated using Echinacea, gotu kola, turmeric and cinnamon. For crop impactions, dispense olive oil into mouth and gently massage the crop, feed mash and yogurt; olive oil, mild and gentian powder with probiotics; for emergencies, saline flushes of crop are effective. Chickens suffering from Egg Binding, insert 50 mls of heated fluid and liquid Calcium into the crop (but wondering if she might vent?); heat the bird to 30 degrees for 10 minutes, and be sure to use a lubricant...this protocol should help restore vaginal tone. Firm digital pressure can then be used. Repeated administration of the fluids and calcium may be needed if the egg binding is long standing. Antibiotics are usually recommended. Ginger powder or grated ginger in tea can also be given into the crop for its thermogenic properties. Heat Stress can be an issue among chickens, so avoid overcrowding, feed early in the AM and remove food during the hottest time of day. Try adding 20 mls of apple cider vinegar and a pinch of Celtic sea salt into 2 l of drinking water (bicarb is acidosis). Another sure bet is mist spraying the chickens. Herbal options for mites include Garlic, neem and thyme.

This was an incredibly informative lecture...all of the uses of herbs that Dr. Fougere referenced have been proven effective.

## Jeffery Yuen's Lecture - Use of Essential Oils in Accordance w/Chinese Medicine

by Cynthia Lankenau, DVM, Colden, NY

During the first day of the AHVMA conference in the VBMA speaker track, attendees were completely enthralled with Jeffrey Yuen's talk, on "The Use of Essential Oils in Accordance with Chinese Medicine". Jeffrey Yuen is a Dipl, CH (NCCAOM) and, more impressively, traditionally ordained from the 88th Generation of Yu Ching Huan Lao Pai and 26th Generation of Chuan Chen Lung Men Pai. He is truly a master. We received six hours of incredible insights into not only the use of these oils but the energetic reason why diseases appear....many diseases are the result of habituations that create chronicity. It was time well spent sitting at the feet of a master, and Jeffrey has a wonderful, riveting lecture style as he uses a simple overhead to clarify his points.

**"Sensations create our perception and oils can change our perception."** Essential oils represent the genetic unfolding of the plant, the Jing of the plant, thus having potential effects on physical developmental problems as well as the spiritual and mental developments of an individual. The Jing of the plant will resonate with the Jing of the Body. Thus there are a vast amount of possibilities that can occur when applied to the Eight Extraordinary channels, Yuan-source points, or Mu-points. Jeffrey encouraged us to start our own Materia Medica Journal so that we could feel personally the effects of the oils. These aromas can induce five different states that can influence and affect an individual. The needle oils can transform one emotion to another-such as fear into acceptance. They help the Lung and can help with respiration. The aromas can create a healing relaxation. This is often the resins, Frankincense and myrrh, which can be used to heal the non-healing wounds. They create an emotion in which you can learn to love, create a sense of internal beauty, help with self-esteem, self-worth, and lifting the spirit - florals and carnations are used. Nobility is enhanced when one is able to embrace the bad and the good and still see the beauty or the worth in any situation. Sage would be an example. Finally the aromas can invite a solitary state without distraction where one can evolve. Examples would be sandalwood, vetiver, and spikenard root. A light intensity, like citrus, will affect

the moods very quickly; moderately intense aromas will affect the emotions; and a strongly intense aroma can affect temperaments.

From a western point of view, these oils can be examined in terms of their chemical constituents. Monoterpenes are found in almost all essential oils and tend to be antiseptic and antibacterial. They are used to stimulate acupuncture points; they tend to irritate the skin. An example would be using Lemon on St 26 to stimulate the Wei Qi. Sesquiterpenes tend to be also antiseptic, anti-bacterial, and anti-viral but they tend to be soothing on the skin. They are more cooling and nourishing. An example would be Chamomile to help with sleep. The Diterpenes are not usually found but have hormonal influences. There are also groups attached: alcohols tend to be strong antibacterial, anti-viral, and anti-inflammatory. An example would be Lavender. Caution must be used with cats if the phenol group eugenol is used as eugenol is hepatotoxic in cats. Phenol groups in general tend to break up lymphatic congestion and stimulate WBCs. Cinnamon bark is another example; Bay Laurel is helpful especially if a goiter is present. Ketone groups strongly break up fat (lipolytic) and phlegm (mucoytic). They help regulate fluid metabolism and help with Phase 1 conjugation in Liver detoxification. Garlic would be an example. (Rosemary would assist Phase 2 detoxification). The esters are analgesic and regulate pain as well if not better than NSAIDs. There are three "notes" of the oils that correspond with the level that the oil works. The High notes are oils that evaporate rapidly, and influence the Wei Qi level. These top notes are the Citruses, Mints, Wintergreen (toxic to animals), and Eucalyptus. These oils evaporate in a few hours. They are going to be the most useful for acute conditions, like Peppermint. They will awaken the senses and serve as the first invitation for a patient to change. The middle notes have duration of 5-7 hours and are used for more sub-acute problems that tend to be in the Ying level. The oils in this level tend to be the spices, fennel, dill, caraway, rosemary, parsley, oregano; the floral oils of chamomile, ylang ylang, geranium and lavender; grass seeds like lemon grass; and melaleuca, tea tree oil. The base notes evaporate in 24-48 hours, that work on chronic constitutional issues at the Yuan level. They are the resins, like frankincense, myrrh, and sandalwood; Precious floral, like rose and jasmine; roots like spikenard and vetiver; and wood oils.

There are three ways to use the essential oils: esthetically as a cosmetic, holistic as a topical for bodywork therapy and cranial-sacral work, topical on acupuncture points and lastly as a medical usage as an internal ingestion. NEVER use an absolute internally or topically in an area that could be licked off. Absolutes have been extracted using chemicals and are never for internal use. He recommended a company called Original Swiss Aromatics. Hydrosols could be used in place of essential oils to avoid issues of toxicity. Topical application will depend on the humors you want to affect, lymphatics, blood or nerves and also the regions you want to influence. Massaging the ears can have an effect on the nervous system. Massaging the paws will have an effect on the circulation of blood.

Carriers for the oils: fat soluble oils are good for systemic effect; safflower oil is good for vascular issues and circulatory issues, and cases of blood stagnation; Olive oil is good to nourish the blood and to be used in cases with anemia; Sweet Almond and grape seed are non sticky help with functional imbalances, help ying/qi functions and have a humeral effect. Coconut and Palm oil help with constitution issues and neurologic issues and can be used whenever there is a problem with the curious bowels-brain, spine, genitals, bone, and marrow...which would be good for arthritic conditions.

Some of the affinities are for neurologic cases-Liver; Lung respiratory system; sour-citrus, bitter, use roots, spikenard, vetiver; salty, think of desert plants. Jeffrey gave throughout the lectures many examples that illustrated not only the complexity of disease but also how to unravel it. The final hours were devoted to treatment strategy for chronic disease. First, open the portals, this is short term using for example long leaf Pine or Eucalyptus radiata. Second, the fluids must be nourished with diet by Geranium or Ylang Ylang could help. Third, clear heat and fire toxins using Melissa, Helichrysum, German Chamomile. Fourth, tonify Qi using conifers-Pine, Spruce, Douglas Fur, Cypress, or Juniper. Origin of Heat toxins could be exogenous, endogenous or congenital; Heat toxins can be Blood Heat-for example leukemia, use Helichrysum, Damp Heat-use Germanium, Phlegm Heat use Bay Laurel or Latent Heat use Terebinth. With viral infections they cause a cold stagnation so the top note must be warming. Bacterial infections use a cooling top note.

When I listen to Jeffrey Yuen, I am deeply affected. He so clearly describes how profoundly spiritual our modalities are and how disease can be of a thoroughly spiritual cause. He is one of the most amazing lecturers I have ever had the pleasure of hearing. Essential oils resonate with the Jing. Jeffrey said it best in one of his final thoughts for us, **"Oils change the perception of the world via the aroma scenting the way to a place of reckoning"**.

# Kevin Spellman's Talks

by Laurie Dohmen, VMD, Purple Moon Herbs and Studies, Hartly, DE

## Hour 1: Introduction to Ayurveda

In his first hour, Dr. Spelman introduced the audience to the concepts of Ayurveda. "Ayur" means life and "Veda" means knowledge, so "Ayurveda" is life knowledge. (However, the "Vedas" are the holy science books because they contain the knowledge.) In Ayurveda, there are 5 elements that make up the universe: ether, air, water, fire and earth. He described the elements of the 3 doshas: vata (ether and air), pitta (fire and water), and kapha (water and earth). The vata personality's energetics are cold, light dry and fluctuating. The pitta personality's energetics are hot, light, moist and intense. The kapha personality's energetics are cool, heavy, oily and stable. Dr. Spelman was able to tie this Ayurvedic theory to biology – he started with DNA/RNA/Proteins and explained that the information that each individual is bombarded with leads to SNP's (single nucleotide polymorphism), which is the basis of epigenetics. This all leads to our dosha.

He then continued with the 6 Tastes in Ayurveda: sweet (water and earth), salty (fire and water), pungent (air and fire), bitter (ether and air), sour (fire and earth), and astringent (air and earth). The energetics of sweet are cool, heavy, moist and soft. The energetics of salty are warm, heavy, moist and soft. The energetics of pungent are hot, light, dry and sharp. The energetics of bitter are cold, light and dry. The energetics of sour are warm, light and moist. Lastly, the energetics of astringent are cool, heavy and dry.

According to Dr. Spelman, the most important diagnostic tool is pulse, and treatment should be done with a taste that is opposite the patient's dosha. For example, sweet and salty treats vata.

This brief, yet fascinating, introduction to Ayurveda allowed Dr. Spelman to continue by discussing Ayurvedic herbs within this framework.

## Hour 2: Ayurvedic Pharmacology I

In his next 3 hours of lecture, Dr. Spelman began discussing specific Ayurvedic herbs. These hours were basically an Ayurvedic Materia Medica.

The first herb covered was Neem (*Azadirachta indica*). It is in the Meliaceae family. The whole tree is used medicinally, although often only the leaf is sold commercially. There are numerous actions and uses of Neem that Dr. Spelman mentioned, but he highlighted research articles discussing its efficacy as an anti-malarial, anti-cancer (especially gastric), antibiotic, anti-fungal and as a pesticide. Its energetics are bitter, astringent, cold and reducing. Specific indications of use include: acute lung disorders, skin conditions, GIT and liver conditions with heat, inflammation, and itchiness. It increases vata, but decreases pitta and kapha.

The second herb covered was Guduchi (*Tinospora cordifolia*), of the Menispermaceae family. Once again, the entire plant is used medicinally. Dr. Spelman again mentioned a myriad of actions and uses, but he showed research on its use for allergic rhinitis, prevention of hepatotoxicity and diabetic wound healing. Specific indications are diarrhea, dysentery, dyspepsia, infectious hepatitis, jaundice, diabetes, hyperlipidemia, rheumatoid arthritis, amelioration of symptoms from chemo/radiotherapy, deficiency due to all stressors, frequent illness, malaria, general debility, asthma, bronchitis and chronic cough. It decreases vata, pitta and kapha. Its energetics are bitter, astringent, sweet, warming and building.

## Hour 3: Ayurvedic Pharmacology II

The third herb Dr. Spelman covered was Kutki (*Picrorrhiza kurroa*), of the Scrophulariaceae family. The part of this herb that is used medically is the rhizome. Again, he gave us lists of actions and traditional uses, but he explained that there is proven efficacy as an antioxidant, anti-diabetic, cardioprotector, and it has hepatic effects. Dr. Spelman showed research comparing Kutki's effectiveness with that of milk thistle (*Silybum marianum*). Kutki was either equal to or more effective than milk thistle in the studies. He went on to show further studies proving Kutki's hepatopro-

tective qualities. Dr. Spelman expects that Kutki will be in more general use as a hepatic herb in the relatively near future, as more and more herbalists see the growing cache of research. Specific indications of use for Kutki include: atherosclerosis, hyperlipidemia, parasites, cholestasis, hepatomegaly, infectious hepatitis, jaundice, toxic liver conditions, diabetes, oxidative stress, metabolic syndrome, allergies, amelioration of symptoms from chemo/radiotherapy, autoimmune disorders, fever, splenomegaly, asthma, bronchitis, URI's, skin inflammation and vitiligo. Its energetics are bitter, cold and pungent. It increases vata, but decreases pitta and kapha.

#### **Hour 4: Ayurvedic Pharmacology III**

In his last Ayurvedic Materia Medica hour, the herbs were more familiar to the Western Herbalist. Dr. Spelman started with Ashwaganda (*Withania somnifera*) of the Solinaceae family. However, in Ayurvedic tradition, both the leaves and the roots are used, while in Western Herbalism, only the roots are commonly used. The leaf is used as an anti-helminthic and a hypnotic. The root has a variety of pharmacologic effects, including adaptogenic activity, immunomodulatory activity, CNS activity, antioxidant activity and thyroid stimulating activity. Its indications include use for immunosuppression, amelioration of chemo and radiotherapy, deficiency induced by stress, anxiety and as a longevity tonic. Dr. Spelman listed a variety of traditional uses, but he highlighted use for senile debility, emaciation, general debility, lumbago and as a nutritive supplement. Its energetics are slightly bitter, slightly sweet, warm and building. It decreases vata and kapha but it increases pitta. He also highlighted some formulations, such as using it with reishi or licorice as an adaptogen. He also mentioned that there are 2 phenotypes: a US and an Indian, but he prefers the US phenotype.

The last herb Dr. Spelman covered was Shatavari (*Asparagus racemosus*), of the Liliaceae family. The word "shatavari" means "100 husbands," and there is a tradition of use of ashwaganda for men and shatavari for women. Again, the tradition parts used do not mirror Western Herbalism. Western Herbalism uses the root, but traditional Ayurvedic use includes the leaves. Dr. Spelman went through the actions and traditional uses, and then discussed research on reduction of gastric emptying time, protection against alcohol induced gastrointestinal damage, antibacterial efficacy comparable to chloramphenicol, induction of WBC proliferation, and reduction of mortality rates in peritonitis. He went over some specific indications for shatavari: tonic for emotional or physiological irritability with "hot blood," inflammation and dysmenorrhea. Its energetics are sweet, slightly bitter, cooling and building. It decreases vata and pitta, but increases kapha.

#### **Hour 5: Western Herbal Pharmacology**

In hour 5, Dr. Spelman shifted gears away from Ayurvedic medicine. He spent the hour on the pharmacology of Echinacea (*Echinacea* spp.). His intention was to present novel research and less common uses of the herb than just to treat URI's. These were the indications he covered: ergogenic effects, anxiolytic activity, enhancement of insulin sensitivity, brown recluse bite treatment, IgE response inhibition, life extension and autoimmune diseases.

The ergogenic research shows that Echinacea upregulated erythropoietin transiently for about 2 weeks. Dr. Spelman referenced a veterinary article in *Equine Vet J* 34(3) pp. 222-223 about its use as a blood tonic. He also showed studies in which Echinacea protected athletes from illness.

The anxiolytic activity is due to its cannabinoid activity. Echinacea binds to CB2 receptors on immune cells, which calms the immune system.

Echinacea may have an insulin sensitizing effect, which can lead to decreased metabolic syndrome.

Dr. Spelman presented a case study in which he prescribed Echinacea and turmeric to treat a brown recluse bite (internally and externally) due to its anti-hyaluronidase activity, stimulation of fibroblast activity and wound healing properties.

He also mentioned its anti-anaphylaxis activity, due to its cannabinoid and antioxidant activities down-regulating the secretions of leukotrienes and histamines from mast cells.

Dr. Spelman presented studies in which Echinacea increased the life span of mice that were healthy and mice with cancer due to NK cell increase.

Lastly, Dr. Spelman gave some personal opinions about Echinacea being effective against autoimmune diseases (it is purportedly contraindicated). He also recommends very high doses at the onset of infection.

## **Hour 6: Practical Applications: Ordering and Dispensing**

In his final hour, Dr. Spelman went over a variety of general herbal topics.

He started by explaining that bacterial resistance to allopathic antibiotics occurs because the premise is one chemical attacks one target, so it is easy for the bacteria to mutate that target. With herbs, there is a multifactorial approach, so the bacteria cannot mutate everywhere the herb attacks. He also pointed out that diseases are multifactorial! Along with this, he discussed the concepts of synergy and buffering.

Dr. Spelman moved on to discuss herb quality and adulteration. Factors that can affect quality include the source, drying process, storage, and method of extraction. Quality control can be macroscopic authentication, microscopic authentication, regulation or chemical authentication. He stated that if the company you purchase herbs from does not occasionally run out of a certain herb, there is probably some adulteration or other problem. He emphasized that we should ask our suppliers questions about their quality control practices.

Next Dr. Spelman discussed standardization. Standardization is altering herbs to get constant percentages of certain active constituents. This involves the manipulation of chemicals and stock – lots get combined. He also mentioned sampling – the use of one herb only, which is a rarely used practice.

Dr. Spelman spent a considerable amount of time going over methods of administration and their pros and cons. He discussed powders, tinctures, syrups, teas and capsules.

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# VBMA HERBWALK 2014 AT AHVMA

## VBMA Herbwalk - A Holistic Learning Experience

by Olivia Harris Barkoff, DVM

Photos by Cornelia Wagner, DVM, Laurie Dohmen, VMD and Olivia Harris Barkoff, DVM



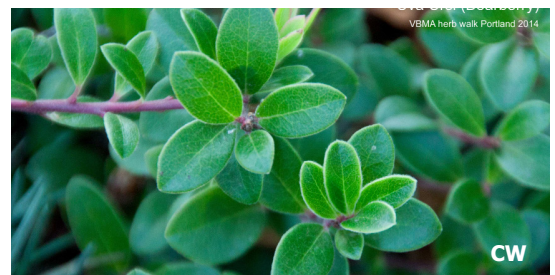
The setting of the 2014 VBMA Annual Herbwalk was glorious. The location was the Hoyt Arboretum atop a ridge in the west hills of Portland, Oregon. It was hard to ignore the towering conifers, but our extremely engaging and informative guide, Dr. Kevin Spelman, kept us focused on the plants we were there to meet.

Dr. Spelman has over twenty years of experience as a clinical phytotherapist. He is a principal scientist for HERB Med, and spent many years doing both laboratory and clinical research. With his knowledge he was able to address every aspect of the herbs he discussed, from their chemical structure to their taste and use in practice. The small area we traversed was packed with medicinal plants and herbs.



Dr. Spelman introduced us to five herbs. The first herb we explored was Ginkgo biloba. Ginkgo is a highly adaptable, large deciduous tree. Both seeds and leaves have medicinal use. Ginkgo leaf increases circulation and oxygen metabolism in the brain and extremities, as well as serving as an antioxidant, anti-inflammatory, and anti-histamine. It's best known use is for improving short-term memory and protecting the brain. The leaf is mildly sour. This flavor is usually associated with astringents. The shape of the leaf is easily identifiable with its fan-shape and slit down the center, seeming to follow the doctrine of signatures by resembling the two hemispheres of the brain.

Uva ursi, the second plant we came across, is a trailing shrub also known as Bearberry. Its bitter leaves are used most commonly in the treatment of urinary tract infections, particularly caused by E. coli bacteria. Ironically, the herb can cause nephrotoxicity, so it is not recommended for long-term use. The high amount of tannins in the leaves give them their astringent quality. Similar to Ginkgo, the leaves have a sour taste reminding me of sour grapes (uva is Latin for grape).





The next herb we were introduced to, Oregon grape, also known as *Mahonia aquifolium*, or *Berberis aquifolium*, is an evergreen shrub. The root is the only part with a medicinal use. The berberine in the root gives it its antibacterial properties. It's antiparasitic, anti-inflammatory, in addition to being a cholagogue. Its bitter taste portends a good digestive aid and cleanser. To call on the doctrine of signatures again, the leaf of the Oregon grape has conspicuous sharp spines, resembling a stem cell. It's thought of mainly as the principle component in Hoxsey formula. Both stem cells and Hoxsey are called upon to treat cancers and inflammatory diseases.

Red Root was the fourth plant we explored. A member of the buckthorn family, the root is the medicinally significant part of the plant, although the leaves can be made into a tea. The root is used to treat a wide variety of ailments, including contradictory ones. When diluted it treats conditions of hypercoagulation and encourages lymphatic drainage. At higher doses it can actually encourage coagulation. It is an astringent that can be gargled or used topically. It was actually Dr. Cindy Lakenau that got me thinking about the doctrine of signatures in the first place when she noticed that the little berries on the shrub looked like a blood clot due to their color and lobed structure.

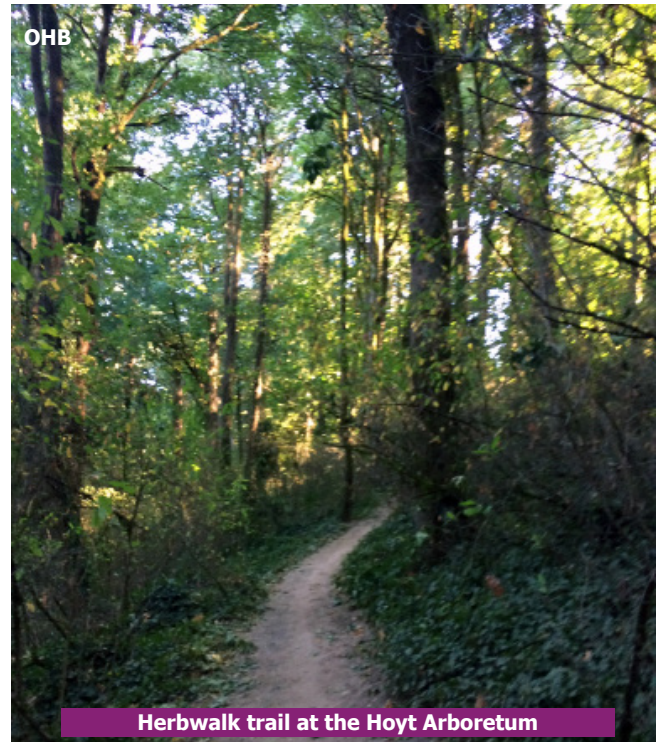
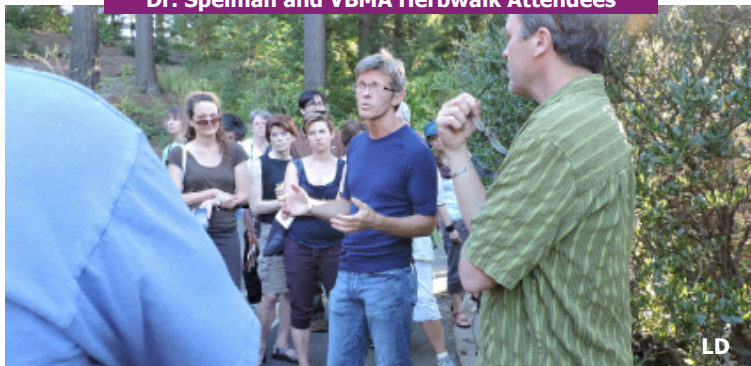


Willow was our final herb. It is one of the better-known medicinal plants for the salicin found in the bark. Salicylic acid is derived from salicin and is a precursor to acetylsalicylic acid, otherwise known as aspirin. It's a COX inhibitor with the added balancing phytochemicals of an herb that prevent toxicities such as the gastric ulcers that we see in pharmaceuticals. Calling on the doctrine of signatures again...the leaves are veiny and may imply the outward movement of pain relief to the extremities. In the case of the weeping willow, it is said that the flexible nature of the branches corresponds to the increased flexibility of the individual taking the herb. Either way, it is a great medicine to have in your pharmacy.

After discussing these five herbs, Dr. Spelman led us on a walk through the woods. It was a genuine opportunity for the physician to heal thyself. At the outset of the walk, Dr. Spelman explained the concept of "forest bathing". It has been proven that spending time with plants in nature is good for the endocrine, neurologic and cardiovascular systems, and reduces stress. Plants release volatile organic compounds called phytoncides. These compounds are anti-microbial, and are also a way for plants to communicate with one another. Breathing in these light organic compounds provides most of the health benefits of walking in the woods. Learning about the indigenous plants and having time to selfheal made the time on the herb walk both valuable and truly holistic.



Dr. Spelman and VBMA Herbwalk Attendees



Herbwalk trail at the Hoyt Arboretum

# A DAY IN THE LIFE

**Featuring Olivia Harris Barkoff**

DVM, CVA (IVAS), Glencoe, IL

It's Monday night and I've finally said goodnight to my twin 10-year-old daughters. I'm settling down at the computer to write about my day for the VBMA "A Day in the Life" column, but I know I will soon be interrupted by my 14-year-old who I expect will burst through the door from soccer practice at any moment. Squeezing extracurriculars (like writing a journal article) into a day packed with family obligations and responsibilities is not easy. Your brain wants to focus on one thing, but the little voices in your head, in your house, and on your mobile phone keep distracting you. Maybe that's why after twenty years of being on a journey to become a holistic veterinarian it still overwhelms me. Pretty much every day starts with a twinge of trepidation.

I'm a house call veterinarian and I live in a suburb 15 miles north of Chicago. I typically travel as far south as the south loop and as far north as Lake Bluff (about 40 miles north of the city). I'd like to work a smaller area, but it is very hard to say "no" to a client, as so many of you know well. The travelling has many nice advantages...being in the car gives me the opportunity to make phone calls and collect my thoughts between appointments. It's also a comfy spot to eat lunch and listen to talk radio. But I must admit, it also stresses me out. Starting the day knowing that I have to get to one neighborhood in the city by a certain time, then get to another neighborhood in the city (which can take longer than driving to Lake Bluff), then get to Lake Bluff can definitely cause a mini anxiety attack.

Other anxiety producing aspects of the job are the usual feelings of insecurity about whether the client will like you and be satisfied with your level of skill, and whether the patient will like you, tremble in terror at the sight of you, hide under the bed and never come out to see you, or want to eat you. But there's an additional piece of the puzzle you encounter as a holistic vet that is the icing on the crazy cake...there are so many tools in the toolbox. Will you choose the right one - the right remedy, the right points, the right diet modifications, the right supplements? And then there's the faith factor. After you decide upon a holistic plan of action, is the client going to be on board?

I've reached the point where I now give my clients a wish list. I actually call it that, like I recognize that what I'm asking for my patient may or may not come true. Maybe you couldn't sell them on homeopathy, or maybe they don't want to spend the time and the money on acupuncture. Maybe they don't really see the importance of what you're recommending. One of the great benefits of house calls is seeing when your patient isn't getting what you recommended. Client: "Oh yes, I'm feeding the raw diet you recommended." Me: "Oh, well then what's that bag of Iams doing in the hallway closet over there?" I don't actually say that, but I make a note of it so that when the client tells me the remedy I prescribed for atopy isn't working, I have an idea why.

So what am I supposed to be writing about again? Oh right, my day. My first appointment was a visit to the city to see Chocolata. She is a 9-year-old FS chocolate Lab with a history of unilateral lip fold pyoderma that resolved six months ago with cold laser therapy, oral colloidal silver and topical calendula ointment. Her mom just found a flea on her for the first time ever on Friday night. So Saturday, on my way to my high school reunion, I stopped by her house to drop off emergency Allergy from BHI HEEL and Parasite Dust from Buck Mountain Botanicals to be applied after a bath with Dawn from Procter & Gamble. I told Chocolata's mom I would be back Monday morning to do a complete exam.

Chocolata had a thin body condition, around a 2 on a 1-5 scale. She had a soft, shiny haircoat that didn't shed excessively or scale much at all. Her vital force wasn't obviously weak. But fleas after nine years of no fleas does have me worried. The dog mom and I discussed her diet. Her mom feeds her a "BARF" diet. She confessed that she hasn't been feeding her any organ meat or veggies lately, and that the diet wasn't well balanced. I asked her to balance the diet better, and feed more. Her itching is much improved today, but I would recommend a Stinging Nettles, Bromelain and Quercetin combination to reduce inflammation and histamine production if she didn't continue to improve. I also told her that I'd like to choose a homeopathic remedy, but I have to go home to repertorize it.

The appointment took too long, and Chocolata's mom was late for seminary. I too was late...I almost always am. I dropped my client off at her class and headed to my next appointment in a suburb about 45 minutes away.

My next stop was the home of nine cats and four dogs. The house resembles a shelter with all the beds on the floor and different groups of animals somewhat confined to different living areas. The human caretakers of these animals are totally dedicated, but they aren't really on board if you know what I mean. There are bowls of dry food out everywhere, and they do see an allopathic vet who prescribes allopathic medications. They have greatly modified their vaccination schedules, and they sometimes use herbs, homeopathics and supplements.

Today I was there to examine their cats Cody and Bundle. Cody needed a physical since he hadn't had one in a while. He has chronic conjunctivitis and mild dry seborrhea, probably related to the diet. I know I won't make progress with the diet, so I recommended L-Lysine. I don't like to do more than one thing at a time, and it seemed like an okay place to start. The Bundle is quite large...she is having trouble getting around lately. I was hoping to give her some relief from the great strain placed on her back and knees in particular. So, she received aquapuncture with B12 and cold laser therapy. I'd like to see her again next week, but the humans in the house are planning to move everybody up to their home on the Minnesota-Canada border, definitely out of my range. Saying goodbye was sad.

I had a quick stop to make on my way home. Romann is a wild and crazy 9-year-old Great Dane mix with a lump his mom just felt, a very sensitive stomach, excessive shedding and a recent roaring problem. The lump felt very lipoma like. We measured it and I told her we would re-measure in two weeks. But I'm not worried about it. She just started using a choke collar about two weeks before the roaring, so I have a feeling it's traumatic. His tonsils did look inflamed, so we'll keep an eye on that too. In the meantime I prescribed the homeopathic remedy Phosphorus, soil-based probiotics from Vitality Science and a good grooming with a shampoo containing Propolis from Pavia. I also begged her to transition him to a raw diet. The summer storms are subsiding so we may not be able to use his reaction to them as a gauge of remedy choice, but I would love to see the inflammation in his throat go down, and less burping and vomiting at that slightest divergence. I'm keeping my fingers crossed.

Finally I headed home to meet an old friend visiting from Minnesota. He wanted to discuss his cat Noodles, who is hyperthyroid. My friend is a human chiropractor. He uses homeopathic remedies and seed remedies. I hadn't heard of seed remedies before I met him...the thought is that they are more potent than classical homeopathic remedies as they are made from this totipotent baby plant material. He chooses his remedies using applied kinesiology. In the past he tested Melissa and Bugleweed for Noodles. He used it for a while, but he didn't see a big difference in her. She still ate a lot, lost weight a lot and talked a lot. We used a homeopathic remedy as well. It has been about three years and her symptoms have just gotten more severe. We discussed whether it was time to start Methimazole versus trying a homeopathic. I know he's going home to check the two options out with AK. I'm worried about Noodles' heart, and I'm okay trying a low dose of Methimazole. I'm not going to Minnesota to see her anytime soon, so I'm counting on him for the final answer. I can always check it out with my pendulum.

What a way to end the day, and this article, with the mention of an allopathic drug. Maybe I should lie and say it wasn't mentioned - but lying never gets you anywhere. There is a time and a place for everything. Hopefully you choose wisely. Which takes me right back to where I started my day, with lots of questions.



**I am a 1998 graduate of the University of Wisconsin-Madison SVM. I made my first pilgrimage to the AHVMA conference as a second year vet student. I think that experience changed my life. In 2003 I completed the IVAS course in acupuncture and started a house call practice. I live in Glencoe, a suburb just north of Chicago, with my husband, son, twin daughters, dog, cat, rat and fish. As an undergrad I majored in Mandarin and Spanish. I never saw myself as a scientist, even though I always loved biology. Studying plants and the energy medicine of acupuncture and homeopathy has allowed me to mix all of my passions. I am so very grateful to the VBMA community for their support.**

# VBMA MASTERCHEF

## Quick & Easy Dog Food Recipes for Busy People

by Ihor Basko, DVM, Kappa, HI

### Hina's Broccoli Beef and Spouts

#### Ingredients:

- 1/2 cup Beef chunks (grass fed or organic)
- 1/4 cup Broccoli (steamed) 1 tablespoon of butter
- 1/4 cup Gluten free noodles (boiled)
- 4 tablespoons Cottage cheese
- 1 tablespoon Clover Sprouts (finely cut with scissors)

#### Directions:

Mix all together and serve.



### Sweet Potato and Chicken Liver

#### Ingredients:

- 1 cup of chopped up sweet potato (cooked, steamed or baked, peel skin if not organic)
- 1 cup of chicken livers (raw) from [Foster Farms](#)
- 1 tablespoon of Olive oil
- 1 tablespoon Butter
- 1/2 teaspoon of Hawaiian salt

#### Directions:

In a frying pan heat up butter with olive oil and add the chicken liver when the oil is hot. Cook on medium heat, stirring until the livers are done. Put the livers in a large glass mixing bowl and add salt, then add chopped up sweet potato. Mix well, and let sit covered until room temperature. Then put all of the ingredients in a Cuisinart. Makes about 3 – 4 meals. Feed about 1/2 cup per meal.

### Grass Fed Beef Burgers IN Paradise

*(You can substitute ground turkey or pork)*

#### Ingredients:

- 1/2 celery stalk
- 1/2 carrot
- 1 tablespoon of ketchup
- 1/4 tsp ginger powder
- 1 tsp Hawaiian sea salt
- 1/8 tsp garlic powder
- 1 organic / local chicken egg / cracked and raw
- 1-1/2 slices multigrain bread
- 1-1/2 to 2 cups of ground grass fed Kauai Beef

#### Directions:

Put everything in a Cuisinart or Vitamix and make into a mush. Make into 2 patties (one for your dog and one for you) and cook in a wok in 2 tablespoons of coconut oil on medium high heat/or on a gas grill or barbeque.

### Sardines, Egg, and Greens

#### Ingredients:

- 1 can Sardines in water (You can substitute 1/2 cup of Light Tuna, Alaskan Salmon, or Mackerel)
- 1 Egg yolk
- 2 tablespoons Sprouts: Clover or Alfalfa
- 1/2 teaspoon Nutritional Yeast
- 1/2 cup Brown rice (cooked)

#### Directions:

Mix the egg yolk and nutritional yeast with the sprouts, then with the sardines. Serve over brown rice. Makes one meal for a 20 to 25 lb dog.

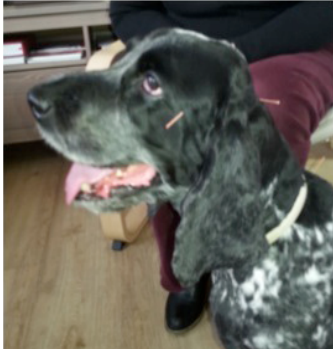


# CASE STUDY: CANINE

## Acute Outburst of Kerato Conjunctivitis Sicca Treated with Chinese Herbal Medicine and Acupuncture as Integrated Therapy in a Rita, a Cocker Spaniel

by Lorena Lloret Nadal, DVM, CVA, CVFT, Madrid, Spain

Director @ Chi Institute Europe, Board member WATCVM, President @ AEMVTC



### Introduction:

The patient is Rita, a Cocker Spaniel - spayed female, 5 years old. She is presented at TCVM for a consultation, referred from their usual vet when seeking an integrative approach.

Post-administration of sulfamides during 2 weeks, after the last shot the patient developed within 24 hours red eyes, bilateral conjunctival hiperemia, erosion with bilateral retention fluoresceina, current absence of corneal vascularization. Schirmer test: 0 on both eyes. Even though KCS is considered as chronic disease of the eyes, in this case the clinical signs developed as emergency within 24 hours post administration of sulfamides.

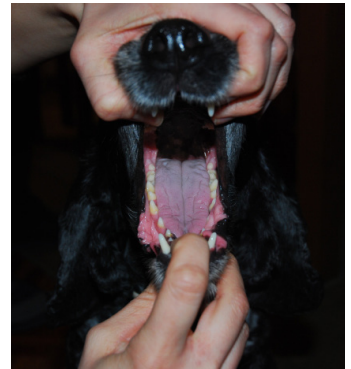
### Western Diagnosis:

Kerato Conjunctivitis Sicca bilateral, Guarded Prognosis. The western treatment included Tobramicine and Tacrolimus (artificial tear).

### TCVM Approach:

Rita is a Water - Fire constitution dog, on TCVM examination her pulses quality overall were rapid but slippery, superficial and tight on Liver position, deeper in lower positions, however Kidney Yin and Blood seemed weaker than Kidney Yang. Spleen position is weak and slippery. Heart position is rapid and thin. Her tongue reveals a white-greasy coat especially on SP/ST area and kidney/liver sides red-purple, tip of tongue red and wet, gums are dry.

Her eyes were red and hot with swollen eyelids. Her ears are hot with the four fingers technique. Paws and pads are hot but dry. She has history of licking paws, especially in summer/spring. She loves to drink cold water especially during the night, and she normally wakes up during the night. She pants and looks for the cool places at home. She has been incontinent for 4 years.



Because of this clinical evidence, I diagnosed her as chronic Spleen Qi Deficiency and Kidney Qi and Yin deficiency. Spleen Qi deficiency leads to Dampness which is retained generating Heat. Deficiency on Kidney Qi and Yin will lead to relative Liver Yin deficiency, which in turn creates Liver False Heat. Pathogenical Damp and Heat link as Liver Damp-Heat. The continuous administration of antibiotics for during 2 weeks created more Dampness and stress to the Liver, leading to an acute outburst of Liver Heat affecting the eyes.

### Treatment Strategy:

As emergency treatment - Clear Toxic - Heat in eyes, drain Damp-Heat affecting Liver. As long-term goal - Tonify Spleen Qi def, avoiding more Dampness, tonify Kidney Qi and Yin def, address Liver Yin deficiency.

In order to achieve this, we used **Acupuncture**: Dry needle on local points GB1, Tai Yang, GB14, ST1, BL1, BL2. Points to clear Liver Stagnation and Heat and stop itching - LIV 2, LV3, GB41, GB43 BL17, 18, SP10, GB20, GV14, LI4. Points to drain DAMP - SP6, SP9, ST40, ST36. Influential point for eye conditions - GB37. Tonify Kidney Yin and Qi using points KI3, KI10. After 20 minutes needling with hand manipulation every 5 minutes, some of these points alternately were injected with aquapuncture: sterile saline diluted 50% with Vit B12. The Local acupuncture points and

Damp-Heat clearing points ( LIV 2, 3 Spleen 6 and 9 ) were stimulated everyother day for a week.

We also used **Herbal Therapy**, as follows:

**LONG DAN XIE GAN TANG** (Gentiana for purging the liver)

*Long Dan* refers to Long Dan Cao (Gentiana), *Xie* means purging or clearing the Fire, *Gan* means the Liver and *Tang* means decoction, the form of herbal administration. Thus, Long Dan Xie Gan translates to Gentiana for Purging the Liver (Fire).

**Table 1: Long Dan Xie Gan Tang**

Gentiana	<i>Long Dan Cao</i>	Clears Liver Heat, clears Damp Heat
Gardenia	<i>Zhi Zi</i>	Clears Damp Heat
Scutellaria	<i>Huang Qin</i>	Clears Damp Heat
Plantago	<i>Che Qian Zi</i>	Drains Damp Heat
Alisma	<i>Ze Xie</i>	Drains Damp
Akebia	<i>ChuanMu Tong</i>	Drains Damp Heat
Angelica	<i>Dang Gui</i>	Nourishes Blood
Rehmannia	<i>ShengDiHuang</i>	Nourishes Yin, clears Heat
Bupleurum	<i>Chai Hu</i>	Soothes Liver Qi, transporter
Glycyrrhiza	<i>Gan Cao</i>	Harmonizes

**Analysis of Formula:** Long Dan Xie Gan Tang was formulated to treat excessive Liver Fire/Heat or Liver Damp-Heat. In the formula, Long Dan Cao (Gentiana) is the King herb, purging Excess Heat/Fire from the Liver and eliminating Damp Heat of the Lower Burner (Xia Jiao). Zhi Zi (Gardenia) and Huang Qin (Scutellaria) have the function of purging pathogenic Fire and clearing Heat, which assists Long Dan Cao (Gentiana) to clear Excess Fire of the Liver and Gallbladder. Ze Xie (Alisma), Mu Tong (Akebia) and Che Qian Zi (Plantago) are diuretics that drain Damp Heat and enhance the ability of Long Dan Cao's (Gentiana's) to clear Liver Heat. These five herbs are the Minister herbs. Dang Gui (Angelica) promotes Blood flow, Sheng Di Huang (Rehmannia) nourishes Blood, and Chai Hu (Bupleurum) soothes Liver Qi and disperses Stagnation. These three herbs are the Adjuvant herbs. Gan Cao (Glycyrrhiza), as the Messenger Herb, coordinates the herbal actions of the formula. All of the herbs together purge Excess Liver Fire, drain Damp, and nourish Blood. Purge Heat and Fire in the Liver and Gallbladder, clear Damp Heat in the Triple Burner (San Jiao).

**Indications:**

Excessive Liver Fire or Heat flaring up characterized by aggression, irritability, conjunctivitis, red and swollen eyelids, pain in the anterior abdomen, inflamed and swollen ears, red tongue with yellow coating, wiry pulse. Liver Qi and disperses Stagnation. These three herbs are the Adjuvant herbs. Gan Cao (Glycyrrhiza), as the Messenger Herb, coordinates the herbal actions of the formula. All of the herbs together purge Excess Liver Fire, drain Damp, and nourish Blood.

**Dosage:**

For Rita, this formula was first administered as 1.5 grams per 10 kgs body weight , twice a day for 2 weeks, in order to Purge the Liver.

**BO YUN SAN** (Clearing the Opacity)

*Bo* means clearing. *Yun* refers to opacity, or nebula. *San* is the powder form of the medication. Thus, Bo Yun means Clearing the Opacity.

**Table 2: Bo Yun San**

Borneol	<i>Bing Pian</i>	Clears Heat, resolves swelling, stops pain
Borax	<i>Peng Sha</i>	Clears Heat, detoxifies
Calamina	<i>Lu Gan Shi</i>	Detoxifies, brightens eyes, stops itching

**Indications:**

This formula is used to treat various ocular conditions: Keratoconjunctivitis Sicca, chronic conjunctivitis, keratitis, uveitis, Equine Recurrent Uveitis due to Liver Heat/Fire with local Stagnation, swollen eyelids, ocular discharge, opacity of the cornea, miosis, photophobia, grey or blue nebula (turbidity of the cornea), red or purple tongue, and surging and fast (or weak) pulse. This formula is indicated for inflammatory eye conditions due to Liver Heat or Fire with local Stagnation. Serving as the King herb, Lu Gan Shi (Calamina) clears Heat, detoxifies, brightens eyes, and stops itching. Peng Sha (Borax) and Zhu Sha (Cinnabaris) are the Minister ingredients that clear excess Heat and detoxify. Bing Pian (Borneol) clears Heat and reduces swelling and serves as the Adjuvant and Messenger herbs.

**Dosage:**

For Rita, I decided to give as Topical application 2-3 drops (Powder diluted with Lactated Ringers at 50%). During the first month, this was applied 8 times a day and the frequency diminished over the next 3 months to twice a day .

We also incorporated **Food Therapy:** Cooling Food and Draining Damp Foods that are Green in color which are known to soothe Liver Qi were added with some earth-balancing foods; Pumpkin, Miso and seaweed soup, and greens. Blood enriching foods such as bone meals, Longan (Dragon ´s eyes), Watermelon, fish, duck, and red chinese dates were fed on a daily basis. Also, added to the food was a daily cup of tea made of Jujube Da Zao, Chrysanthemum Ju Hua and Lycium berries Gou Qi Zi. The actions would be Tonifying Liver Yin and Blood as well as nourishing the Kidney Jing and Yin, to brighten the eyes, and to remove toxins. She truly enjoyed her daily cup of tea. One drop of honey was added to help with taste. Honey also has soothing actions.

**Outcome and Final Notes:**

24 hours after the first needling session, the reports from her conventional vet stated that her Schirmer Test was 5 in the left eye, 9 in the right eye. The TCVM treatments were followed and 4 days later the Schirmer Test measured as 18 in each eye. One week later, the Schirmer results increased to 20 in each eye. The treatments were spread to one every 3 days over the next week. The eye condition remained remarkably fine, with a Schirmer Test result of 21 in both eyes.

Rita recovered totally from her KCS acute stage with two weeks of intensive treatment. After two weeks, the treatment was lessened to once every week for 2 weeks, then twice a month for 2 months, then one treatment monthly.

The herbal recommendation was changed from Long Dan Xie Gan to QI JU DI HUANG PLUS for an addition 3 months. This clinically proven formula is designed for Liver/Kidney Yin deficiency to brighten the eyes.

**QI JU DI HUANG WAN** (Lycium, Chrysanthemum and Rehmannia)

*Qi* refers to Gou Qi Zi or Lycium. *Ju* is Ju Hua or Chrysanthemum. *Di Huang* refers to all ingredients of Liu Wei Di Huang Wan. *Wan* is teapill. Thus, Qi Ju Di Huang Wan is Liu Wei Di Huang Wan, adding Gou Qi Zi and Ju Hua.

**Table 3: Qi Ju Di Huang Wan**

Rehmannia	<i>Shu Di Huang</i>	Nourishes Blood and Jing
Lycium	<i>Gou Qi Zi</i>	Nourishes Liver Yin, brightens the eyes
Cornus	<i>Shan Zhu Yu</i>	Nourishes Yin
Dioscorea	<i>Shan Yao</i>	Tonifies Qi
Moutan	<i>Mu Dan Pi</i>	Cools Liver
Alisma	<i>Ze Xie</i>	Drains Damp, clears Kidney false Fire
Angelica	<i>Dang Gui</i>	Nourishes and moves Blood
Chrysanthemum	<i>Ju Hua</i>	Clears Heat, brightens the eyes
Paeonia	<i>Chi Shao</i>	Cools Blood, moves Blood
Haliotis	<i>Shi Jue Ming</i>	Clears Liver Heat, brightens the eyes
Tribulus	<i>Bai Ji Li</i>	Brightens the eyes

**Indications:**

Eye problems due to Liver Heat with Yin Deficiency, which are characterized by photophobia, dry, painful and red eyes, wiry pulse and red tongue. This herbal formula can be used for the treatment of Keratoconjunctivitis Sicca (KCS), chronic conjunctivitis, hypertension.

**Analysis of Formula:**

Liu Wei Di Huang is the basic Yin Tonic. Gou Qi Zi (Lycium) nourishes Liver Yin and Blood and brightens the eyes. Ju Hua (Chrysanthemum) clears Liver Heat and brightens eyes. Qi Ju Di Huang Wan is designed for any chronic eye problems due to Liver Heat with Yin Deficiency.

One year after occurrence, Rita is doing great and only comes for revision once every 3 - 4 months. She is on "pulse therapy" with Qi Ju Di Huang 1 week per month, which keeps her balanced. Her Scrimmer test remains on 18-21 in each eye.

**Conclusions:**

The Acupuncture and Herbal Therapy integrated quickly to treat this acute onset of KCS for a rapid recovery. Acute onset of KCS was resolved within a week, after 4 treatments of acupuncture. This resolved with a good prognosis. TCVM is a reliable and fast tool in acute conditions.

**References:**

1. Xie's Veterinary Acupuncture
2. Practical guide to TCVM: Emergencies and Five Elements Syndromes
3. TCVM Fundamental Principles
4. Xie's Veterinary Herbology



**Dr. Lloret graduated DVM from Murcia University, Spain, in 2002. In March 2004 she obtained her Veterinary Acupuncturist Certified via ABVA and University of Bristol, UK, where she started to integrate Acupuncture in her daily clinic. In 2005, she became Acupuncture Veterinary Certified by the Chi Institute and University of Chiang Mai, Thailand, where she met Dr. Xie. She then moved to the USA for an internship at UF with Dr. Xie. She also obtained in 2006 Certified in Advances techniques by Chi Institute and is Certified on Veterinary Food Therapy and Veterinary Herbal Medicine.**

**In 2008, she became a founding member and Director of the Chi Institute of Europe, and speaks internationally on TCVM. In 2015, she will be the co-chair speaker with Dr. Xie at the international ACP and Herbal Course.**

# CASE REPORT: EQUINE

## Jack Arrison, a retired 16 year old Thoroughbred gelding.

by Cynthia Lankenau, DVM, Colden, NY

**Patient:** Jack Arrison, a retired 16 year old Thoroughbred gelding.

**Date of Initial Presentation:** January 8th, 2014 (for the below acute problem)

**History:** I have known Jack for 5 years. He is a worn out, beat up 16 year TB gelding. He had raced very successfully until a tendon injury ended his racing career. He was then used as a hunter/jumper until his legs broke down and was thrown away by the previous owner. His current owner is new to horses and tries her best to care for him. I had treated Jack in the past for his tendency to "stock up" from circulation issues. He is stabled in the coldest barn in western NY. It is drafty with the stalls located on the windward side of the barn. The stalls are small with minimal bedding. The horses are either in these drafty stalls or out in an open paddock that has no wind shelter. Jack is very sensitive and barely grows a winter coat. Although he is blanketed, he will normally be found shivering...and this has been one of the most bitter winters in decades. Jack wasn't wintering well and had been losing weight. He was found down in a snow bank with marked abdominal distension on 1/3/14. His regular vet referred Jack to Cornell University. Due to the severe distention and frigid weather, a warm hospital was felt by all concerned to be the best treatment option. Cornell found a mild impaction and he was hospitalized for medical treatment and observation. He was treated with IV fluids, Banamine, and had a nasal-gastric tube placed with the administration of mineral oil. Cornell thought that Jack had prior Gastric ulcers and sent him home on pro-biotics. He was discharged on 1/7/14. Jack's owner felt he was still distended and depressed and was fearful of a recurrence; I was called for a second opinion.

**Signs/Symptoms:** Jack on 1/8/14 did seem depressed. He just stood in the corner of his stall. This horse is normally a very active nervous horse. He had significant abdominal distention, with minimal GI sounds. There were areas of gas distention in his bowels. He had significant pain on B1 18 and 20, and the Alarm points of both Large and Small intestines. His tongue was purple, swollen and phlegmy. His pulse was deep and fast.

**Western Diagnosis:** GI stasis with prior mild food obstruction possible prior gastric ulcers; TCM Cold invasion in Abdomen with Sp Qi Deficiency with Blood and Qi stagnation.

**Western Diagnostics:** Cornell had performed multiple rectal and ultrasound exams, scoped his stomach and found old gastric scars.

**Treatment Goals:** Jack needs to have his general level of his physical and mental health improved and his vitality restored his organ and intestinal function needs to be restored with stronger intestinal motility. Jack needs a stronger peripheral circulation; with his purple tongue and past stocking up, he has strong evidence for improved blood flow.

- To return Jack to health and vitality using adaptogens, digestive tonics.
- To expel the "cold" from his abdomen using intestinal warming herbs, digestive tonics.
- To restore GI motility using bitters, tonics.
- To give symptom relief of pain and discomfort using spasmolytic, carminative; slight laxative options.
- To improve peripheral circulation with circulatory stimulants.

### Prescription - Herbs Selected and Why:

**Foeniculum vulgare, Fennel:** Fennel is a carminative that tonifies and regulates Stomach and Spleen Qi to help with weak digestion, and epigastric distention, while it helps to regulate intestinal Qi with an additional carminative action to help moderate any cramping. It is a warming herb. Fennel will help to warm the interior, give symptom relief, and restore GI motility.

**Cinnamomum cassia, Cinnamon**, is a hot warming and tonifying herb that is a digestive tonic, carminative with anti-nausea effects. It has a strong ability to warm the Yang and to regulate the Qi of the Spleen, Stomach, and Intestines. This herb will help to expel the cold from his abdomen, give symptom relief, restore gut motility and return him to health and vigor. It is also a circulatory stimulant.

**Glycyrrhiza glabra, Licorice**, is an adaptogen, antispasmodic, mild laxative sweet tonic herb that has a demulcent anti-inflammatory, spasmolytic antiulcerogenic effect. Licorice was added for several reasons; Jack had been given several doses of Banamine and had evidence of past gastric ulcers and Licorice has strong anti-ulcer effect especially as a side effect of NSAIDs, it has adaptogenic effects to help restore Jack's vitality, it has a tonic effect and will strengthen his digestion and its spasmolytic effect will help symptom relief of any intestinal pain. Its mild laxative effect will help to move any stagnate food.

**Crataegus monogyna, Hawthorn**, was used chosen for this formula due to its traditional use in China for Food Stagnation. In the past Jack's main health issue had been poor peripheral circulation. I felt that with the combination of Intestinal Qi stagnation with poor circulation, Hawthorn was the perfect herb to treat both conditions.

**Citrus reticulata, Citrus peel**, was also added for the purpose of moving Qi stagnation thus relieving symptoms and restoring GI motility in the intestines. It has a strong anti-inflammatory effect while stimulating the contraction of smooth muscle and increases intestinal peristalsis.

**Angelica sinensis, Dang Gui**, is a anti-inflammatory, circulatory stimulant and vasodilator. It was incorporated in this formula to move "Blood", as evidenced by Jack's purple tongue and also build blood. This herb is well indicated in cases of constipation, poor digestion and abdominal pain. This herb will help restore normal GI function and give symptom relief from any pain or discomfort.

**Advice Given:** These herbs were given in a ground powder form of equal parts and Jack's owner was instructed to give two tablespoons three times a day. She was to give big warm bran mashes with apples and carrots with one teaspoon of salt with two tablespoons of flax seed added as nice bulk laxative. I advised her to buy an additional blanket and a neck wrap and to keep out of drafts (virtually impossible), to try to keep him moving about, and not to let him just stand all day and night in a draft.

#### **Follow Up:**

**1/14/14:** Tongue color better, gut sounds are better; instructed to continue the herb formula.

**2/14/14:** Tongue color better, almost pink, gut sounds are normal but still painful on the LI and SI alarm points, instructed to continue; the owner had stopped the bran mashes and was asked to please continue all.

**3/25/14:** Color is better; just noticed that legs are tight with no evidence of any fill; gut sounds are good. But the weather is still very changeable so owner instructed to continue all until spring and really warm weather is persistent.

**Reflections on This Experience:** Environmental influences are huge triggers for disease. Jack's poor circulation, under normal environmental conditions, was not a very significant issue. With the invasion of Cold into the Abdomen from the bitter cold winter weather, and the resulting Blood Stagnation, it became a life-threatening issue. The use of this herb formula, I am sure, prevented a relapse of life-threatening colic.

**HAVE A CASE STUDY YOU'D LIKE TO SHARE?**

[Send it in](#) now for inclusion in the next edition of the Journal!

# Taiwan Trip - 2014 TCVM Conference

## Traditional Chinese Veterinary Medicine Conference - My Adventures in Taiwan

by Cynthia Lankenau, DVM, Colden, NY



TCVM Conference Building.

After stepping through customs in Tai Pei, Taiwan, a Chi Institute sign was the first image seen as I walked into the airport lobby. Being a tad nervous about traveling in Asia, I was amazed at this incredible event, the 2014 Traditional Chinese Veterinary Medicine Conference. The focus of the conference was Emergency conditions, Eye, Nose, and Ear conditions. The conference itself was filled with four days of great herbal and acupuncture instruction. Huisheng Xie, DVM was a main speaker and covered emergency, food poisonings, fracture, eye problems, open wounds and burns, otitis, rhinitis and sinusitis, and traumatic injuries. Dr. Xie's lectures were his classic well-organized and thorough style, clearly illustrating various patterns of disharmony and the various treatments. Our host, Dr. Cheng, was also a main speaker. What wonderful material! He discussed a few of his cases: one with puerperal tetany which was treated successfully with Ping Gan Qing Nao Tang (and acupuncture and cool baths with IV calcium) and another with case of tetanus that he treated with White Tiger Decoction and Four Marvels. He gave a detailed discussion on Eye pathology.

We learned about Nutshell Moxibustion, Japanese abdominal palpation, acupuncture techniques for tarantulas, the use of Platelet-rich Fibrin with acupuncture, gold bead implant in birds, and learned more about the sinew channels. **At right is a photo of the lecturers, who came from all corners of the globe to share their knowledge with conference attendees.** The lectures were of excellent quality and every aspect of the entire conference was incredibly informative.



After the main conference, a third of the attendees went on the post-conference tour. It was beautifully coordinated; great food and lodging, and perfect travel plans. We were able to see the sunrise in Mt. Alishan, see the sea of clouds, and hike through the Taiwanese giant red cypress trees. We went to Tainan and saw how oysters are "fished", then walked through the original Netherlanders settlement, the Eternal Golden Castle and the Tree house. We spent a day at the Buddha Memorial Center, had a ferry ride on a solar powered boat and saw Night Herons. Another day took us to Kenting where we participated in some exciting water activities that were just a hoot. It is such an incredibly gorgeous country. Traveling back north, we went high up in the mountains to Taroko National Park, where we were able to hike through the 7 tunnel trail that ends in an amazing Water Curtain. Our last day brought us back to Taipei, where we visited the National Palace Museum and were able to see the famous jade cabbage up close!



1700 year old Taiwanese giant red cypress.

**The next TCVM Conference will be held in Beijing, China from Friday, August 16th through Wednesday August 31st 2016.** Events will include travelling to Mongolia and horse-riding in the Grassland to experience the Mongolian herder life (raising sheep/goats/cows), a Beijing tour wherein we visit the Great Wall, Buddha temple, and the Prohibited City/ Tian-an-men square/Summer Palace, and a one-day Herbal field trip including local herbal identification/collection, visiting the biggest herbal daily trade market/manufactory tour at An-guo, Hebei Province, China.

For those interested in participating, please email [Cynthia Lankenau](mailto:Cynthia.Lankenau).

# THE ABC'S OF KJERRINGGRAD

## A Tale of Herbs and Folk Medicine from the Norwegian Woods

by Astri Hagenlund, DVM, CVA, Norway



*Photo of Reine Lofoten in Northern Norway by Petr Šmerkl, Wikipedia*

A tale of herbs from the Norwegian Woods - and of course of herbs found in the kitchen, in the garden, on hikes and outings along the coast or in the mountains.

I grew up in a family where nature's "gifts" were both food and medicine and this is still very much part of my everyday life; I'm still picking berries in the woods – bilberries, raspberries, elder-berries and lingon-berries – in the garden we have black and red currants. Harvesting on hikes and outings is a joy; sun shining, light a fire for food, and coffee breaks. And then the warm satisfaction of bringing back "the loot"...preparing berries for jam, juice and desserts for the coming winter. Back in the fifties and sixties when I grew up all food was made from scratch and fruit, vegetables and berries were harvested, picked and preserved for the winter-season. We did fish a lot during summer-months, and eventually got our own space in a huge freezing facility for this catch and for meat when it came cheaply. Herbs, folk medicine and home cures was our number one doctor; "tummy-ache" and diarrhea was treated with bilberries and/or weak black tea; coffee in the morning was good for constipation; wounds, itches, insect bites were treated with my dad's favorite herb, plantain. Also, vinegar was used on insect bites...a sugar cube was soaked in vinegar and placed on the bite. Small bleeding cuts: yarrow. One thing that probably did us no good was ice-cream for fevers and flu; but it tasted great and kept us happy, which of course is an important aspect of any cure. Another popular and interesting treatment was gentle rubbing of gold (wedding-ring is good for this) on sty (hordeolum) of the eye...and great help it was! Treats and "goodies" to be found: Rhubarb stalks dipped in sugar; a favorite treat on our trips in the forests, was chewing gum made from spruce-resin – and digging out and eating the fresh roots of licorice-tasting polypody-root (*Polypodium vulgare*). Pignut was my mother's favorite – these are quite common along the West-coast of Norway – ok, I think you get the picture. One more curious "treat" – we took a fresh twig, removed the bark and put it in ant hills. The ants would "pee" on this (actually formic acid) and it tastes quite good. There were no candy-stores out on our Summer island.

Folk medicine, home-made remedies and "kjerringråd" (to be translated into something like "old woman/wise woman/granny-advice") are generally well known in Norway. We do not have a large population (5 million) but we do have quite a big country – it's long, partitioned by mountains and with deep fjords along a "crinkly" coast line that exceeds 21,000 km or 13,000 miles and also includes the Arctic islands of Svalbard and Jan Mayen.

People live in the most remote places – maybe one reason for wanting to be able to help yourself, family and friends on two legs and four, if and when disease and accident happen. With the exception of the Sami-people of the North, Norway has no systematic traditional medical history and culture. But "kjerringråd" or good, old advice with roots in folk medicine flourish, are popular and actually not controversial – as opposed to the practice of herbal medicine. This could easily be another topic for articles (and probably books!) – but we'll stay with folk medicine for now.

More than 20 years ago, the presenter of a popular radio program, encouraged her listeners to share their favourite "kjerringråd". Response was massive and resulted in several books on the subject. Here are some of the highlights that I recognize and remember from my own family as well as "health hints" in my friends' families – an A – Z of all my favorite herbal and folk medicine tips.

**Allergy** – pollen; regular chewing of beeswax during winter; or one tbs honey with each meal during autumn/winter + multivitamin- and minerals – will relieve hay fever problems next season.

**Bites and stings** – plantain and vinegar/sugar-cube I've mentioned; other soothing treatments include spit (preferably your own), wet moss, clean earth or clay on sting. After close encounter with the stinging jelly fish; place a non-stinging one on the affected area – does help. Sore skin and wounds – farmers and lumberjacks who had accidents when working in the woods; they used resin from spruce softened and warmed on wounds. My dad told me this, but as you know we just used the resin as chewing gum. Spider web is good – stops bleeding wounds – I never tried this, but it sounds sensible.

**Common cold** – preventing; chew young sprouts from spruce, larch or pine. These sprouts were cherished in earlier times – early, fresh food of spring. Pickled in vinegar or oil; great! My grandmother's generation was particularly fond of wearing a small muslin-bag with camphor around the neck for prevention of colds.

**Diarrhoea** – carrots, boiled and mashed – good for young and old. And – a favourite for many, even though this must be considered a rather "new" medicine; buy Coca Cola, uncork so most of gas disappears, then drink small sips during the day.

**Eyes and ears** – dogs and cats know this: to remove debris from the eye; lick it out! Aching ears can benefit from a few drops of luke-warm oil, or for babies: mother's milk.

**Flatulence** – more a prevention; do not eat cruciferous vegetables or legumes if you tend to get gas/colic – certainly not if you breast-feed.

**Gums and teeth** – stomatitis from fungus, virus, bacteria is not uncommon and very unpleasant; some of you might have heard of the brown, sweet cheese made in Norway – this has been used quite successfully by placing a thin slice of cheese on wound – replace as needed. (Might be due to the content of lactic acid!?) Poultice bandage/warmish placed on cheek where aching tooth is – no cure, but soothing while getting to dentist!

**Hiccups** – drink water up-side-down; bend forward and drink water from the outside of the glass – it works! We were also encouraged to breathe in/out in a paper- or plastic bag if drinking up-side down was too difficult.

**Itching** – a lot of advice here! Kefir, yogurt or other curdled milk products – not so elegant but nice and soothing on sunburn. Also plain sweet cream; lemon or lemon juice, and don't forget potato-flour; it's most useful. Itching eczema – again mother's milk for itching babies. And this is a hear-say; cod liver oil as a "hand-cream" for itchy hands – supposedly very efficient.

**Joints/aching** – well, whipping aching joints with nettle-leaves is efficient; rolling in ant-hills, however, I'd have to be in serious pain to try that! Again – tea from fresh spruce-needles; potato-water – either from the cooked or from raw, grated ones left in water overnight; drain and drink first thing every morning. Also tea from juniper-berries – juniper being one of the most popular and treasured herbs in this country.

**Kennel cough and other coughs** – for dogs and people – tea from (again!) juniper-berries, thyme, dried lingon-berry leaves, coltsfoot, lemon-juice, raspberry, black-currants...take your pick! Usually drunk with honey. Whooping cough; horse milk has been used for this.

**Love** – pick 7 flowers on midsummer's Eve and place under pillow before you go to sleep – then you will dream of the man you'll marry – of course at a time, we all did this. And of course finding out if "he" loved you; loves me – loves me not while pulling one and one petal of an Oxeye daisy.

**Migraine and headaches** – pierce your ears and wear gold earrings. Chewing bark from goat willow or other Salix spp.

**Nosebleed** – tie a piece of string around a finger on opposite side of the bleeding; still used and supposed to work. Or take a small piece of ordinary wrapping-paper and place on palate. Have vinegar handy for a good sniff when nose-bleed starts – usually stops on first in-sniff! Or just bend head backwards and keep still. If you place a small coin on the forehead as well it is supposed to be even better. I was bothered with nose bleeds as a child, and have tried most of these "tricks" – they all work, more or less.

**Optimal memory** – actually an old recipe of a herbal tea to work wonders for your memory; 1 ts rosemary, 1 ts sage, steep in 250ml water 5-10 min, drain and drink daily from time to time. Use dried or fresh herbs.

**Piles** – cabbage leaves is the thing here! Soften in warm water, or use an iron; place leaves in bum and leave over-

night. Cabbage is known as “the poor man’s doctor”, and used to treat all kinds of wounds – particularly good for old ones that will not heal! Honey – of course. A new one for me; warm sea water (hot as you can take) and sit in this 30 min daily – must be worth a try!

**Quack** – all “hearsay” and good advice should be tried out carefully. Luckily for us, we should be well equipped to sort good from bad – we do not want the term “quack” to be associated with herbal medicine.

**Rash, “bad skin”** – a good, old advice on how to avoid this: “roll naked in the morning dew on midsummer’s Eve”.

**Sleep** – and sleep well! Lavender muslin bags in all drawers in the bedroom were common in my grandmother’s house and also with all “old folks” in my family – great tradition. Warm cocoa, warm milk or chamomile tea was the thing at night – for kids and grown-ups.

**Trauma** – a bump on the head – or bruises anywhere - was always treated with my mum or dad placing the flat side of a knife over it – looking worried and talking soothingly and reassuringly...Very powerful treatment this – just the sight of the knife was enough to wipe the tears off your face – yes, yes we saw the point of cooling the thing down – but cold, wet cloth is not too bad either. A really bad bruise/broken skin would stir my mum or grandmother into making soft caramels or pancakes for all – both are, as we know, great painkillers.

**Urinary problems** - cystitis: keep warm – wear wooly knickers! Juniper-berries – eat a few from time to time/preventing – drink juniper-berry tea for a couple of days as treatment; first thing in the morning, have a glass of water with two tbs of vinegar.

**Vomiting, nausea and/or diarrhea** – this is a rather rough treatment – and an old advice from the Sami-people: Strong coffee with milk, mixed with pepper and some strong liquor...a kinder version is warm milk with a generous amount of pepper.

**Warts** – advice en masse! Rub warts with the milky juice of dandelion. Rub wart with piece of fat – bury the fat (some say on a church-yard); when fat rots, wart falls off..Or – tie a piece of wool around each wart, then place all wool-strings under a rock; when these rot, the warts are gone! Still a popular treatment. Also – cover wart with nail-varnish, or glue, or candle wax or plain white school chalk; the point being to “starve” the wart – mind not to get any of this on the skin, only on the wart. For warts under foot; put the red end of a match-stick in water and rub on wart daily for a couple of weeks.

**X-files** – a few old superstitions; dogs eating grass in the Summer, meant there would soon be rain – and when the cat washes her head, dry weather is expected. Cat eating grass means a change in the weather. A new piglet could be used to predict future happenings; he was placed inside on the floor, and then it depended on where he ran; if he ran for the headseat at the table there would soon be a “gathering” – wedding or funeral – if he ran for the door it meant really good luck. There are hundreds of these – and we all tend to have a few we still believe; personally I have problems with spiders, but they’re supposed to bring good luck so they’re to be left in peace!

**Yeast, fungus and molds** – Athlete’s foot, nail fungus – vinegar-wash is a much used house remedy; likewise for Malassezia rash and stains in dogs. For molds indoors, pick an armful of fresh juniper twigs and place in affected room – replace as needed. The room can be washed with decoct made on juniper twigs as well.

**Zoster, Herpes** – the most beautiful plant for this painful condition – twinflower – called linnea in Norway (*Linnaea borealis*) – is still used and highly valued as a wonder cure. Tea is made from leaves and stem (not flower!) – one handful of herb steeped in 1L boiling water – leave for 15 min, strain and drink three times daily. This can also be used topically.

Finally – if I should pick a favourite it would have to be the one herb that must have filled nearly every need in this part of the world – as food/spice, as medicine, as cosmetic, shampoo, soap for washing and cleaning, material for building and tools, decoration, antiseptic and with a nice smell – wonderful juniper!



**Astri has worked with small animals part time or full time ever since graduation in 1988, combined with large animal practice for a few years and later as veterinary inspector in Ministry of Agriculture. After working in various clinics, she founded AlternatiVet AS in 2004 with two colleagues. The clinic’s main focus was alternative medicine and rehabilitation. Today she works at her own home-based clinic, concentrating on acupuncture, herbs, nutrition, behavior and manual therapy. She writes articles on herbs and herbal medicine for small animals, lectures and gives short herbal-courses for animal-owners. Astri has been on the NoVAS board since 2004 with main responsibility as course arranger.**

# HERBAL EXPOSITION: VALERIAN

## Valerian (*Valeriana officinalis*)

by Laurie Dohmen, VMD, Purple Moon Herbs and Studies, Hartly, DE



There are over 250 species in the family Valerianaceae. All species are similar and since the exact species varies regionally, most are used medicinally. However, the most commonly used medicinal species in Western Herbalism is *Valeriana officinalis* (Alternative Medicine Review, 2004) (hereafter referred to as "Valerian"). Valerian is among the oldest herbs reported to be used medicinally. Hippocrates used it 400 years B. C., Dioscorides and Galen used it in the first and second centuries (they called it phu), and the ancient Chinese and Indians used it (Hobbs, 1996), (Grieve, 1971).

Valerian is a perennial garden plant (*V. officinalis* is also called by the common name "garden Valerian") that grows 3-4 feet tall with white-pale pink/purple flowers (Hartung, 2000). It is native to Europe and Asia, but has been naturalized to the United States (Patocka & Jakl, 2010). It grows in almost any conditions, but prefers partial shade near water where the soil is moist (Hartung, 2000). The most commonly used medicinal parts are the roots and rhizomes, however there are references to use of aerial parts (Chevallier, 1996). The roots are best harvested in the fall of the second year for potency (Chevallier, 1996).

Many Western scientists have tried to elucidate the "active" constituents in Valerian, but it seems quite apparent that the plant works synergistically. Valerian has over 150 chemical constituents, including alkaloids, essential oils and valepotriates (Patocka & Jakl, 2010), (American Herbal Pharmacopoeia, April 1999). The main essential oils are sesquiterpenes and valerenic acid (American Herbal Pharmacopoeia, April 1999). It is the valerenic acid as well as the isovaleric acid that give Valerian its distinctive "dirty-sock" odor (Patocka & Jakl, 2010). Valerenic acids have been found to inhibit the CYP3A4-mediated metabolism (Lefebvre, et al., 2004) but not in such a way as to cause herb-drug interactions with drugs that are metabolized via the CYP3A4 or the CYP2D6 pathways (Donovan, et al., 2004). Valerenic acids have also been proven to be partial agonists of the 5-HT(5a) and 5-HT(1a) receptors (Dietz, Mahady, Pauli, & Farnsworth, 2005), (American Herbal Pharmacopoeia, April 1999). One of the alkaloids, actinidine, is intoxicating to cats, similar to catnip, and cats are often attracted to Valerian plants and even dried roots (Grieve, 1971), (Patocka & Jakl, 2010). Grieve (1971) also mentions that the legend of the Pied Piper may have come from the man carrying Valerian, which she states is as attractive to rats as it is to cats. The alkaloids valtrate and didrovaltrate have cytotoxic activity (Hoffmann, 1998). The valepotriates are amphoteric, and regulate the autonomic system some by sedation and other by stimulation (Hoffmann, 1998). According to Spinella (2002) and Patocka and Jakl (2010), Valerian has GABAergic effects, and "Valerian shows evidence of pharmacodynamic synergy" (Spinella, 2002). Other studies discuss that it is difficult, if not impossible to determine one or more specific constituents that cause Valerian's medicinal effects (Lefebvre, et al., 2004), (Dietz, Mahady, Pauli, & Farnsworth, 2005), (Attele, Xie, & Yuan, 2000), (Klepser & Klepser, January, 1999), (American Herbal Pharmacopoeia, April 1999). The American Herbal Pharmacopoeia (1999) goes on to explain that the valepotriates degrade rapidly so are most likely not playing a major role in Valerian's medicinal effects. Additionally, valerenic acid is not available in methanol extracts (Dietz, Mahady, Pauli, & Farnsworth, 2005).

Traditionally, the energetics of Valerian are warm and pungent, slightly bitter or acrid (Holmes, 2006), (Wood, 2008), (Wynn & Fougere, 2007). Being amphoteric, it is restorative; bitter and sweet, stimulating and relaxing, and warming and cooling (Holmes, 2006). Even Dioscorides described Valerian as “warming and drying,...bitter, astringent and sweet” (Hobbs, 1996).

Most commonly, Valerian is used as a sleep aid. Most Western research involving Valerian is about insomnia. It is also quite positive. A double blind study performed by Lindahl and Lindwall (1989) found that “44% of subjects had perfect sleep and 89% reported better sleep.” Additionally, “subjective evaluations on valerian have reported significant decreases in the time it takes to fall asleep, improvement in the quality of sleep, and unaffected night awakenings, dream recall and somnolence” (Buckland, 1999). Other studies have confirmed improvements in the quality of sleep, sleep latency, and reductions in the number of nighttime awakenings (Attele, Xie, & Yuan, 2000). These results even were found in cancer patients undergoing treatment (Barton, et al., 2011). This study found that cancer patients taking Valerian had less fatigue and drowsiness as well as increased sleep and decreased sleep latency. Other Western uses of Valerian include anxiety (Alternative Medicine Review, 2004). Valerian decreases blood pressure and stress related heart problems including angina, loss of blood supply in ischemic myocardium and hypertrophic cardiomyopathy in cats (Buckland, 1999), (Wynn & Fougere, 2007), (Alternative Medicine Review, 2004), (Hoffmann, 1998). It is a good muscle relaxant, especially of smooth muscle, including relieving uterine cramps (Wynn & Fougere, 2007), (Hoffmann, 1998). Due to these smooth muscle effects, Valerian is useful for the gastrointestinal tract for cramping and indigestion (Hoffmann, 1998).

Traditionally, Valerian’s uses have changed throughout the centuries in which it has been used. Despite its modern reputation for smelling like “dirty socks,” Valerian was used in perfume around the time of Aristotle (Hobbs, 1996). Dioscorides and other herbalists into the 1600’s used Valerian as a bitter (for digestive issues especially as a carminative), for urinary tract problems (including as a diuretic), as an emmenagogue, and for the respiratory tract (for coughs and asthma) (Hobbs, 1996). Applying current medical knowledge, most of the above problems involve smooth muscle relaxation. From the 1600’s until the early 1900’s, Valerian’s primary use was for nervous disorders, such as epilepsy and hysteria (American Herbal Pharmacopoeia, April 1999), (Hobbs, 1996). Grieve (1971) also mentions Valerian’s use as an analgesic and for overwrought nerves during air raids during World War II. Wynn and Fougere (2007) mention other historical uses in animals including the Blackfoot tribe using variant species of Valeriana in horses with colic internally and externally to heal skin problems.

Proper preparation and dosage of Valerian is important. Most roots and rhizomes are decocted, but Valerian is infused. In fact, a cold water infusion is very effective (Holmes, 2006), (Hoffmann, 1998). It is most commonly used as a tincture, despite the findings of Dietz et al. (2005) that valerenic acid is not available in ethanol. It can also be used as a tablet or in capsules, both of which are found commonly over the counter in the United States and many other countries. (This is part of why Valerian has been so well researched by Western researchers: its availability over the counter). As with all herbs, it is important to know the source, dosage and bioavailability of the actual herb in the preparation being used. Most references recommend using Valerian in relatively high doses (i.e., in tinctures, dosages should be measured in teaspoons, not drops) (Hoffmann, 1998).

The reason Valerian is so available is that it is listed on the FDA’s GRAS (generally recognized as safe) list (Alternative Medicine Review, 2004), (Klepser & Klepser, January, 1999). It is approved as a sedative by German Commission E to treat sleeping disorders and restlessness (Dietz, Mahady, Pauli, & Farnsworth, 2005), (Klepser & Klepser, January, 1999). Canada approves it as a sleep aid (American Herbal Pharmacopoeia, April 1999). It is included in the Pharmacopoeias of Austria, France, Germany, Italy, Switzerland and England (American Herbal Pharmacopoeia, April 1999), (Hobbs, 1996). There will always be a few individuals who have adverse reactions to any product, from food to clothes to medicines. However, the reports of adverse reactions to Valerian in people for whom it is properly indicated are rare (see below for discussion of indications for use by temperament) (Alternative Medicine Review, 2004), (American Herbal Pharmacopoeia, April 1999). There are some poorly substantiated reports of Valerian prolonging sleep time when mixed with barbiturates (Alternative Medicine Review, 2004), (Klepser & Klepser, January, 1999), (American Herbal Pharmacopoeia, April 1999), (Wynn & Fougere, 2007). Side effects listed included: tachycardia, nausea, headache and hangover-like effect (Wynn & Fougere, 2007), (Klepser & Klepser, January, 1999).

There is one very important factor about Valerian that every herbalist should always keep in mind. "It is a plant that fits people better than conditions" (Kane, 2009). There are many reports of Valerian having paradoxical effects in people for whom it is incorrectly indicated (Holmes, 2006), (Wood, *The Practice of Traditional Western Herbalism*, 2004), (Kane, 2009), (Wynn & Fougere, 2007). "Valerian works best for those with lowered innate vitality" (Kane, 2009). Many sources discuss using it in people with poor circulation, cool skin, pallor and who are generally "feeble" or deficient (Wood, *The Practice of Traditional Western Herbalism*, 2004), (Wood, *The Earthwise Herbal: A Complete Guide to Old World Medicinal Plants*, 2008), (Holmes, 2006). In people for whom it is contraindicated, as well as in cats (Wynn & Fougere, 2007), Valerian can cause a euphoric state with "the symptoms it is supposed to cure: nervousness, irritation, wakefulness, and restlessness" (Wood, *The Practice of Traditional Western Herbalism*, 2004).

Overall, *Valeriana officinalis* is a safe herb with many uses, primarily involving smooth muscle effects and insomnia. It is important to use Valerian only in weak and deficient people. Use Valerian in large enough doses to be effective, both in the dose prepared and administered. It is also important to prepare the Valerian correctly: either as an infusion or a tincture (tablets and capsules are used less frequently). Valerian can be identified by its appearance and confirmed by its characteristic "dirty-sock" odor (Grieve, 1971). If all of these things are kept in mind, Valerian can be a powerful herbal ally for many nervous and other conditions.

### References:

- Alternative Medicine Review. (2004). *Valeriana officinalis*: Monograph 9:4. Thorne Research, Inc.
- American Herbal Pharmacopoeia. (April 1999). Valerian Root. Santa Cruz: American Herbal Pharmacopoeia.
- Attele, A., Xie, J.-T., & Yuan, C.-S. (2000). Treatment of Insomnia: An Alternative Approach 5:3. Thorne Research, Inc.; Alternative Medicine Review.
- Barton, D., Atherton, P., Bauer, B., Moore, D., Mattar, B., LaVasseur, B., et al. (2011). The Use of *Valeriana officinalis* (Valerian) in Improving Sleep in Patients who are Undergoing Treatment for Cancer: A Phase III Randomized, Placebo-Controlled, Double-Blind Study: NCCTG Trial, N01C5. *The Journal of Supportive Oncology* 9:1, 24-31.
- Buckland, E. (1999). Medical Attributes of *Valeriana officinalis* - Valerian. Retrieved from [www.klemow.wilkes.edu](http://www.klemow.wilkes.edu).
- Chevallier, A. (1996). *The Encyclopedia of Medicinal Plants*. London: Dorling Kindersley Limited.
- Dietz, B., Mahady, G., Pauli, G., & Farnsworth, N. (2005). Valerian extract and valerenic acid are partial agonists of the 5-HT(5a) receptor in vitro. *Molecular Brain Research* 138, 191-197.
- Donovan, J., DeVane, C., Chavin, K., Wang, J.-S., Gibson, B., Gefroh, H., et al. (2004). Multiple Night-time Doses of Valerian (*Valeriana officinalis*) had Minimal Effects of CYP3A4 Activity and No Effect of CYP2D6 Activity in Healthy Volunteers. *Drug Metabolism and Disposition* 32:12, 1333-1336.
- Grieve, M. (1971). *A Modern Herbal*. New York: Dover Publications, Inc.
- Hartung, T. (2000). *Growing 101 Herbs that Heal*. North Adams: Storey Publishing.
- Hobbs, C. (1996). Valerian and Other Anti-Hysterics in European and American Medicine (1733-1936). Retrieved from [www.healthy.net](http://www.healthy.net), Herbal Medicine.
- Hoffmann, D. (1998). Valerian. Retrieved from [www.healthy.net](http://www.healthy.net), Herbal Medicine *Materia Medica*.
- Holmes, P. (2006). *The Energetics of Western Herbs*. Boulder: Snow Lotus Press.
- Kane, C. (2009). *Herbal Medicine: trends and traditions*. Lincoln Town Press.
- Klepser, T., & Klepser, M. (January, 1999). Unsafe and Potentially safe herbal therapies. *American Journal of Health-System Pharmacists* 56, 125-138.
- Lefebvre, T., Foster, B., Drouin, C., Krantis, A., Arnason, J., Livesey, J., et al. (2004). In vitro activity of commercial valerian root extracts against human cytochrome P450 3A4. 7:2. *Journal of Pharmacy and Pharmaceutical Science*, 265-273.
- Lindahl, O., & Lindwall, L. (1989). Double Blind Study of a Valerian Preparation: Brief Communication. *Pharmacology Biochemistry and Behaviour* 32, 1065-1066.
- Patocka, J., & Jakl, J. (2010). Biomedically relevant chemical constituents of *Valeriana officinalis*. *Journal of Applied Biomedicine* 8, 11-18.
- Spinella, M. (2002). The Importance of Pharmacological Synergy in Psychoactive Herbal Medicines 7:2. Thorne Research, Inc.; Alternative Medicine Review.
- Wood, M. (2004). *The Practice of Traditional Western Herbalism*. Berkeley: North Atlantic Books.
- Wood, M. (2008). *The Earthwise Herbal: A Complete Guide to Old World Medicinal Plants*. Berkeley: North Atlantic Books.
- Wynn, S., & Fougere, B. (2007). *Veterinary Herbal Medicine*. St. Louis: Mosby Elsevier.

# HERBAL MONOGRAPH: BORAGE



Photo by VBMA Member Cornelia Wagner

**COMMON NAME:** Borage

**LATIN NAME:** *Borago officinalis*

**OTHER NAMES:** Borage seed oil. starflower

<b>Common Name: Borage</b>	<i>Borago officinalis</i> ; Borage, Borage seed oil
<b>Family</b>	Boraginaceae
<b>Part Used</b>	Seed: as oil Leaf, flower: picked at end of season during flowering. Culpeper preferred to use the fresh herb preserved in syrup, which increases the cooling and moistening properties.
<b>Active constituents</b>	Mucilage 30%; saponins, potassium nitrate, cyanogenic substance; tannins 3%; Pyrrolizidine alkaloids, trace minerals, resins, essential oil traces; Borage oil has 18% to 26% gamma-linolenic acid
<b>Actions: restoring, astringing, calming, softening</b>	Anti-inflammatory, antioxidant; tonic and nervine; <b>TCM Actions:</b> 1. Treats Lung Yin deficiency; lung heat/wind dryness; intestines dryness/heat. It enriches Lung yin, moistens dryness and clears deficiency heat; relieves constipation; promotes lactation; supports the heart and lifts the spirit 2. Treats external warm dryness; lung wind heat; it promotes sweating, dispels warm dryness and reduce fever; promotes eruptions and benefits the throat 3. Clears Heat and toxins, reduces the inflammation; Kidney Fire; bladder and kidney damp heat; kidney Qi Stagnation with general toxicosis
<b>Indications</b>	Severe nervous exhaustion; downcast, heavyhearted, nervousness, insomnia, fainting, overwork; sore and inflamed eyes (topical eyewash); colds, bronchitis; chronic catarrh, congestion, pleurisy, fever; indigestion; heart palpitations; hyperthyroidism; diminished lactation; menopausal hot flashes; corns; fever with mucus, scarlet fever, chicken pox; peritonitis; constipation; low grade Shao-Yin fevers; eruptive fevers; flu laryngitis; Acute respiratory distress syndrome; Rheumatoid arthritis; Dermatitis use borage seed oil
<b>Cautions</b>	Toxicity issues with pyrrolizidine alkaloids, use very small doses. Borage seed oil products contain only a very small amount of PAs.
<b>Contraindications</b>	Avoid in liver disease Borage may lower the seizure threshold
<b>Herb Drug Interactions</b>	Interactions with anticoagulants

**Dosage** (*use animal doses where available, otherwise human doses can be included here but specify*)

**Human:** 1-3 drops; 1-3 X a day

**Large Animal:** Feed two to four handfuls mixed with bran and cereals, once or twice daily. Lotion: one handful to ½ pint water.

**Notes:** Native to the eastern hemisphere but easily grown in gardens elsewhere; (Julio) This annual plant, about 60 cm in height and covered in almost throbbing thick hair, generates large leaf bases that make up most small according to the stem; culminates in several very showy, blue or white starry flowers. Its seeds sprout easily in autumn being common in lowlands and middle of the mountains in the vicinity of towns, roads, ditches, meadows and terraces up to 1300 m altitude; likes moisture and avoids dry conditions.

**Temperature:** Cooling in the third degree; capable of sedating heat from systemic infection, microbes, and poisons.

**Energetics:** Slightly sweet and salty, moist

**Meridians:** Lung, Large Intestine, Heart Kidney, Bladder

**Tissue State:** atrophy, stagnation

**Julio Donat:** This plant attracts bees, is beneficial in the garden for pollination of crops and if the leaves are eaten before it blooms or flowers adorning the salad provides important minerals. The flower infusion is good for colds, flu and bronchitis, has sudorific effects. The oil obtained by cold pressing of the seeds is recommended for many skin conditions (eczema, psoriasis, dermatitis ...), to lower cholesterol and prevent arteriosclerosis; contains iron and potassium salts that stimulate the production of adrenaline, which reason has been called the "flower of joy."

**Precautions:** People with liver disease should not consume in excess.

**Trivia:** In Bach flower used to help act with courage and to chase away the sadness in difficult situations. Wynn and Fougere: GLA decreases production of interleukin 1 (IL-1)-beta (which likely plays a role in inflammatory diseases like rheumatoid arthritis). GLA is promptly metabolized to dihomogammalinolenic acid (DGLA)(prostaglandin E1 (PGE1) precursor), a potent anti-inflammatory substance. The high mucilage content renders borage useful for respiratory conditions such as pleurisy, being soothing and demulcent. It is also anti-inflammatory due to its saponin content. GLA found in borage seed oil also seems to have an inhibitory action on the growth of tumors and might lower triglycerides, increase high-density lipoprotein (HDL) levels, decrease blood pressure, have antiplatelet effects, and prolong bleeding time.

**Wynn and Fougere:** GLA decreases production of interleukin 1 (IL-1)-beta (which likely plays a role in inflammatory diseases like rheumatoid arthritis). GLA is promptly metabolized to dihomogammalinolenic acid (DGLA)(prostaglandin E1 (PGE1) precursor), a potent anti-inflammatory substance. The high mucilage content renders borage useful for respiratory conditions such as pleurisy, being soothing and demulcent. It is also anti-inflammatory due to its saponin content. GLA found in borage seed oil also seems to have an inhibitory action on the growth of tumors and might lower triglycerides, increase high-density lipoprotein (HDL) levels, decrease blood pressure, have antiplatelet effects, and prolong bleeding time.

**Juliette de Bairacli Levy:** The plant is always linked with courage. It is also called lungwort because of its beneficial effect on all ailments of the respiratory system, especially the lungs. A great cough remedy. The plant is also called bee-bread because its honey-rich flowers are much sought by bees. The young leaves are used as salad herbs by North African Arabs. The herds are driven far to pasture upon borage because of this powerful tonic properties. It is tonic and nervine. The whole plant is used. Use: Heart ailments, rickets; also for chest ailments and as mild laxative. It will greatly increase milk flow. Externally as an eye lotion, to cure general eye ailments, and as a ringworm remedy.

**Holmes:** Borage leaf addresses Yin Deficiency, warm dryness and wind heat. Like the other sweet, cool, moist demulcents, Borage specializes in clearing deficiency heat manifesting tissue dryness, irritation and inflammation.

Because it specifically addresses the organs of the Upper Warmer, Borage leaf is especially used for relieving heat and dryness from the lungs and heart. It excels at relieving painful, swollen throat, dry cough and low-grade fever. Because of its cooling diaphoretic action, it is one of the best remedies for releasing warm dryness from the Upper Warmer. As a result, fever, dry cough and thirst are relieved. Borage's eruption-promoting and diuretic actions also acting in concert to speedily resolve children's eruptive fevers. Through a combination of detoxicant, anti-inflammatory, astringent, diuretic and demulcent properties. Borage clears fire toxins arising from infections, which include acute bladder damp heat. Borage leaf supports the heart. The Four Heart Tonics are violet leaf, Rose petal, Sweet Woodruff and Borage. Borage strengthens the Heart and Vital Spirit, takes away anxiety, depression and grief. It is used for Heat Yin deficiency manifesting as irritability and Heart Fire as seen by fever and dark, burning urination. Its reliable diuretic action not only helps to clear heat that enters the small intestines, but also Kidney Fire with obstructed urination.

**Matthew Wood:** Borage is a deep-acting nervine suited to cases where there is thorough exhaustion and low spirits. Often the person is just run to death by responsibilities, or alternately, runs themselves down with self-criticism and impossible standards. Borage contains silicon, which has a powerful rebuilding effect on the nervous system. "Borage for courage" is an expression oft quoted in herbal lore. It is for people who are so run-down that they lack the fortitude or courage to face a responsibility or stress. It is cited as a remedy for adrenal exhaustion. It has been recommended for thyroid issues. It has been traditionally used to increase lactation. By strengthening the heart, borage is good against fainting and swooning fits and other passions of the heart and revives the spirits. Borage contains some mucilage. The syrup is used for coughing, wheezing, shortness of breath, colds and asthma, the distilled essence strengthens nature meaning that it improves resistance to chills and fevers by toning the sweat pores of the basic immunity. Borage can be used externally on wounds, running sores and ulcers in bodies of an ill habit, also on inflammation of the eyes. Banckes used it to cure abscesses due to collection of melancholic humors.

**Grieve:** It promotes the activity of the kidneys; to treat melancholic conditions especially those affecting the heart.

**Salmon:** "Effectually purifies the blood, and is of excellent use in all putrid, malign, spotted and pestilential fevers, to defend the heart from their poison and malignity, and to expel the same, as also the poison of other creatures. Mixt with juice of fumitory, it cools and cleanses the blood; and is profitable against the yellow jaundice."

**Culpeper:** It is of Jupiter and under Leo; great cordials, and great strengthener of nature. The leaves and roots are to very good purpose used in putrid and pestilential fevers, to defend the heart, and help to resist and expel the poison, or the venom of other creatures; the seed is of the like effect; and the seed and leaves are good to increase milk in women's breasts; the leaves, flowers and seed all or any of them are good to expel pensiveness and melancholy; it helps to clarify the blood, and mitigate heat in fevers. It is used to open obstructions and help the yellow jaundice, and mixed with fumitory, to cool, cleanse, and temper the blood thereby; it helps the itch, ringworms and tetter, or other spreading scabs or sores. The flowers candied or made into a conserve are helpful for those that are weak in long sickness, and to comfort the heart and spirits of those that are in consumption, or troubled with often swoonings or passions of the heart. Helps the redness and inflammations of the eyes, being washed therewith; the herb dried is never used but the green; but the ashes boiled in mead is available against the inflammations and ulcer in the mouth or throat, to gargle it therewith.

**Edible Wild Food:** Also works well as a companion plant as it deters tomato homworm and Japanese beetles. It also stimulates the growth of strawberries.

**Recent Research:** Borage consumption may lead to an improvement of cognitive dysfunction; antioxidant activity could be attributed to their polyphenol and tannin and flavonoids contents; relevant and promising strategies for preventing aged-related locomotor dysfunctions; support the use of borage to prevent diseases associated with *E. histolytica* infection; justification for the traditional use of the Iranian borage flower for infectious diseases and antifebrile activity.



# HERBAL MONOGRAPH: MARSHMALLOW



*Althaea officinalis*, Alberto Salguero, Wikipedia

**COMMON NAME:** Marshmallow

**LATIN NAME:** *Althaea officinalis*

**OTHER NAMES:** Marsh Mallow, Common Marsh Mallow

<b>Common Name: Marshmallow</b>	<i>Althaea officinalis</i> , aka Marshmallow, Schloss Tea, guimauve tea, malve, malvavisco, malvavisce, gul-khairu, k'uei
<b>Family</b>	Malvaceae
<b>Part Used</b>	Root from 2-year plants, in early spring or autumn. The fleshy part is used; leaf can also be used.
<b>Active constituents</b>	Root: 5%-30% mucilage; aspargines, tannins Leaf: mucilage, flavonoids, phenolic acid
<b>Actions:</b>	Nutritive, demulcent, vulnerary, diuretic, anti-inflammatory, antitussive <b>TCM Actions:</b> 1. Treats Yin and fluids deficiency, clears deficiency heat; relieves cough and reduces gastric secretions 2. Clears Intestinal/Stomach Damp Heat, Bladder Damp Heat; tonify Stomach Yin 3. Moistens and cools the skin; draws pus, and softens sinews 4. Promotes Lactation
<b>Indications</b>	Digestive complaints, GIitis, gastric ulcer, colitis, diarrhea, UTI (cystitis, nephritis, urethritis), stomatitis, laryngitis, bronchitis, and chronic coughs, whooping coughs. Topically for ruptured abscesses, ulcers, and open wounds.
<b>Cautions</b>	None -safe in pregnancy and lactation
<b>Contraindications</b>	In TCM, with high-dose or long-term use, use with caution in Excess Damp or Phlegm, Spleen Deficiency and Cold
<b>Herb Drug Interactions</b>	Theoretically reduce absorption of drugs, glucose, and other soluble molecules from the gut.
<b>Dosage</b> (use animal doses where available, otherwise human doses can be included here but specify)	Cold infusion is best preparation <b>Small animal:</b> Dried herb: 25-300 mg/kg divided TID; Infusions: 5-30 g per cup of water given ¼-1/2 cup per 10 kg divided TID; Tincture: 1:2-1:3: 0.5-1.5 per 10 kg divided TID and diluted <b>Human:</b> Dried root: 5-10 g TID(cold infusion) to 6X a day; Syrup: ¼-1 tsp as needed; Infusion: 5-30 g per cup/ 1 cup TID to 6X;* Tinctures*: 1:2-1:3: 1-5 ml TID

**Native:** to Europe and Asia, likes wet marshy ground.

**Energetics:** sweet, bitter, cool.

**Organs:** Lung, ST, LI, BL

**Dioscorides:** Used topically for heat-type swellings, wounds, ulcers, abscesses; as a poultice for burns and insect bites; urinary dribbling, painful urination, urinary stones.

**Galen:** Effective for preventing pus.

**Culpeper:** Said it clears hot, choleric, and offensive humors; for hot-type diseases of lungs, including pleurisy and TB; for hot-type diseases of bowels, bloody diarrhea, and constipation; for urinary stones: it opens the passages of the body making them more slippery; topically to soften and digest hard swellings and the clear their inflammations and pain.

**Wood:** Treats atrophy and excitation dependent on lack of moisture. It is the most anti-inflammatory of the common mucilages, curative in any hot, dry, hard condition. It has a specific relationship with the kidney, most diuretic of mucilages, a soothing effect on the kidney and bladder while increases diuresis. A good specific indication is a tongue that is red and dry with a glazed, shining surface, with horizontal cracks in the glaze. It is very helpful for individuals undergoing chemotherapy.

**Dalton:** Use of flower essence for a hardening of the personality, inflexibility, hardheartedness, intolerance and inability to feel one's emotions.



Photo by VBMA Member [Cornelia Wagner](#)

# 2015 INTERNATIONAL HERB SYMPOSIUM



## International Herbal Symposium - Veterinary Speaker Track Details

June 12-14, 2015 at Wheaton College in Norton, MA

A quote from Rosemary Gladstar, the organizer of IHS, "A Symposium to touch your heart and soul as well as mind and spirit, this gathering is for all people enraptured by the healing essence of herbs. The International Herb Symposium offers herbal enthusiasts an incredible opportunity to learn from the worlds leading experts in botanical medicine and herbal lore. Whether a novice or advanced in your herbal interests, the Symposium offers classes, workshops, panel discussions and learning experiences to touch every level of your being." **For the third time, we will be able to offer a veterinary speaker track.**

**Dr. Barbara Fougere will give Lecture 1: Take a virtual herb walk in my garden** - take a walk through a year in my garden discussing trees and plants (and vegetables) with herbal healing qualities and how our common plants can be used to treat humans and animals by getting back to our roots with simples. **Lecture 2: Grow your own medicinal mushrooms** - this visual lecture takes you through the process of growing your own mushrooms cost effectively and includes a demonstration on how to cultivate through a simple tissue culture process. You will be able to grow your own fungal medicine after this talk.

**Intensive: Essential Oils in Veterinary Medicine** - this intensive explores the potential for essential oil therapy in veterinary medicine. Veterinary herbalists have an excellent understanding of the phytochemistry of plants, this intensive draws on chemistry and metabolic differences in animals as well as recent research on essential oil use in animals. The intensive includes practical applications and case studies and the top essential oils that can safely be incorporated into herbal medicine practice immediately. Come and enjoy this sensory stimulating class!

**Dr. Jorden Kocen will speak on Talk Abstracts.**

**Intensive: Case Evaluation and Chinese Herbal Medicine Selection in Small Animals.** Chinese Herbal Medicine can be very effective to treat chronic diseases in companion animals. An understanding of the species and breed in question can be helpful since companion animals do not always respond to stressors the same way people do. It is important to be able to correctly identify the disease pattern to determine the best herbal formulas to use. The underlying disease is not always where the symptoms are most prominent since symptoms are the body's way of trying to return to a state of health. Cases will be presented to illustrate a variety of presentations and conditions typical to companion animal veterinary practice.

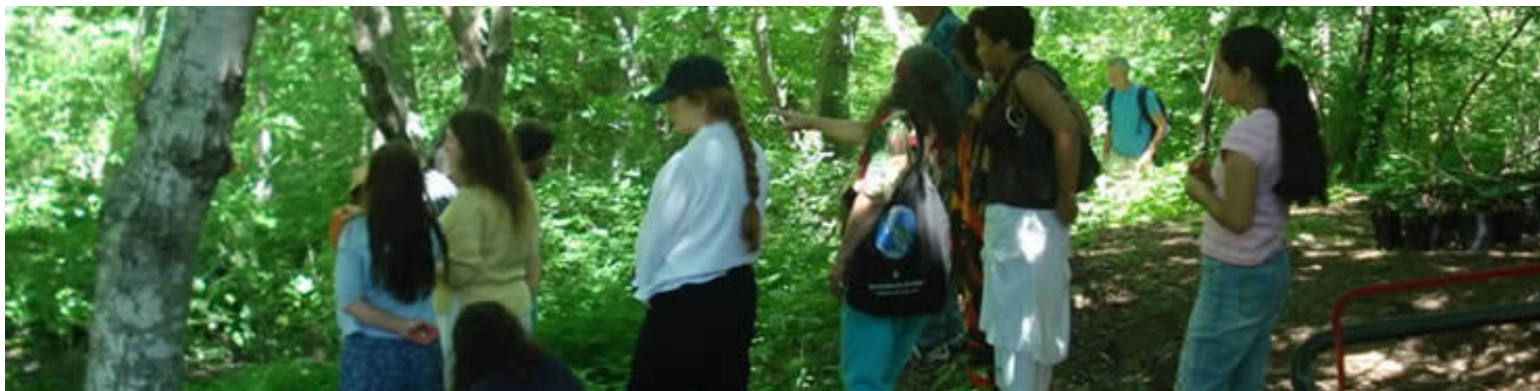
**Regular Lecture: Chinese Herbal Formulas Commonly Used for Liver Imbalances in Dogs.** There is a high incidence of Liver imbalances in dogs. This lecture will outline why this is and ways to provide treatment using Chinese Herbal formulas.

**Regular Lecture: Integration of Chinese Herbal Medicine and Conventional Therapy in Companion Animals.** Many patients are responding well to conventional therapies but still have some ongoing problems. Chinese Herbal Medicine is very helpful in supporting the action of the conventional therapy or can be used to support symptoms not addressed by the conventional therapy.

**Dr. Cynthia Lankenau will present Lecture 1: Equine Self Treatment of Lyme Disease** - this lecture will be focused on a horse by the name of Knight who when diagnosed with Lyme Disease was turned out in a scrub pasture and was able to control his disease and return to full physical ability. **Lecture 2: Difficult Respiratory Cases in the Equine and Bovine** - this lecture will focus on two syndromes, acute respiratory disease in cows with secondary pneumonia and Chronic Obstructive Pulmonary Disease in the Equine.

**Dr. Rona Sherebrin will present Lecture 1: Introduction to Phytopharmacology for the Veterinary Clinician** - the major types of phytochemicals will be introduced, outlined and explained, with specific examples drawn from commonly used herbs. Being able to understand and explain the method of action of the phytochemical constituents of various herbs and herbal formulas (both TCM and Western) is essential to effectively choose and use herbs, and to be able to communicate with conventional practitioners in language that they understand. **Lecture 2: Phytopharmacology for the Clinician part 2, Flavenoids & Alkaloids** - this in-depth lecture will expand on the information introduced previously to help the clinician understand and be able to explain to colleagues the method of action of flavenoid and alkaloid-containing herbs and formulas. Best medicinal applications, toxicological concerns, dosage and processing considerations will be discussed. Real-life case studies will be used to strengthen the clinician's ability to apply the knowledge gained in their practice. **Phytopharmacology for the Clinician, part 3: Sterols and Sterolins** - this in-depth lecture will expand on the information introduced previously to help the clinician understand and be able to explain to colleagues the method of action of sterol and sterolin-containing herbs and formulas. Real-life case studies will be used to strengthen the clinician's ability to apply the knowledge gained in their practice. **Phytopharmacology for the Clinician, part 4: Polysaccharides & Tannins** - this lecture will help the clinician understand and be able to explain to colleagues the method of action of polysaccharide and tannin-containing herbs and formulas. Real-life case studies will be used to strengthen the clinician's ability to apply the knowledge gained in their practice.

**Registration info for the 2015 IHS will be available at [www.vbma.org](http://www.vbma.org) soon.**



## We hope you enjoyed the Fall 2014 Edition of the Journal of Veterinary Botanical Medicine!

Our Journal content is provided entirely on a volunteer basis, and we'd be remiss if we didn't take a moment to thank all of our generous contributors. They take time out of their very busy schedules to write articles, take photos, dig up case reports, recipes and so much more in order to share their knowledge with all of our readers. So, a hearty THANK YOU to all our contributors!

**If you'd like to contribute material (case reports, articles, book reports...anything related to herbal veterinary medicine) for the next journal, simply email our [Communications Coordinator](#), Amy Keane.**



*Image courtesy of [Cornelia Wagner](#), DVM: Corydalis, from the [Lan Su Chinese Garden](#).*



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