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The Herbal Dispatch

A monthly publication of the Medicinal Botanical Program

The goal of this newsletter is to inform readers of the Program's educational, research and outreach activities and events; and of results of the latest research on the chemistry, cultivation, processing and preventive and therapeutic use of herbs, botanicals and vegetables

The views expressed in The Herbal Dispatch are those of the individual authors and do not necessarily reflect those of MSU or the Medicinal Botanical Program staff

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MSU/WVHA hold 2006 Herb Conference at MSU Martinsburg Campus

The Mountain State University Medicinal Botanicals Program and the West Virginia Herb Association held their 2006 Fall Herb Conference at the MSU Martinsburg, West Virginia, campus Friday and Saturday, September 15-16, 2006. The title of the conference was "Discovering the Fascinating World of Herbs"

Friday morning, September 15, participants drove from Martinsburg, WV, to Fulton MD, to tour the Green Farmacy Garden of Dr. James Duke, an internationally acclaimed ethnobotanist. The Green Farmacy Garden holds around 300 plants, several of tropical origin. Dr. Duke shared with participants his knowledge of scientific names, active chemical compounds, and lore of the plants in his garden. He entertained the audience narrating experiences of his encounters with healers and shamans during his trips to Amazonian Peru and other places, and, accompanied by a guitar, sang songs where plants are the main characters.

In mid afternoon, participants drove back to Charles Town, West Virginia, where they visited the Burr Farm, an authentic 1800's farm, to eat dinner prepared with home made bread and vegetables grown organically in the back yard garden, listen live music, and participate in the roundtable



"What would the grannies do?"

Attendance to the conference was good and several first-time conference attendees became members of the association.

MSU Medicinal Botanicals Program personnel and WVHA directive members briefly discussed plans for the 2007 conference, which will be held in October at Jackson's Mill, Weston, West Virginia.

Saturday, September 16, participants had the opportunity to choose lectures and workshops from three concurrent sessions. Classes dealt with a wide variety of topics on production, marketing, crafting, and medicinal and culinary use of plants. Dr. Morales, Director of the Medicinal Botanicals Program, spoke about the production of essential oils of basil and Dean Myles, Coordinator, on the conditions of the herb market for 2006. Other presentations included history of herbs (Jimmy Foltz, Peace in the Valley Herbs), medicine making (Tina Pirrone, Sage Moon Herb Shop), creating a marketing strategy to build profits (Christina Lundberg, CTC Shepherd), Kat Braun (Walking the Talk), etc.



Efficacy of an extract of North American ginseng containing poly-furanosyl-pyranosyl-saccharides for preventing upper respiratory tract infections: a randomized controlled trial

AU: Predy,-G-N; Goel,-V; Lovlin,-R; Donner,-A; Stitt,-L; Basu,-T-K. 2005. *Canadian-Medical-Association-Journal* 173(9): 1043-1048

Background: Upper respiratory tract infections are a major source of morbidity throughout the world. Extracts of the root of North American ginseng (*Panax quinquefolium* [*P. quinquefolius*]) have been found to have the potential to modulate both natural and acquired immune responses. We sought to examine the efficacy of an extract of the North American ginseng root in preventing colds.

Methods: We conducted a randomized, double-blind, placebo-controlled study at the onset of the influenza season. A total of 323 subjects 18-65 years of age with a history of at least 2 colds in the previous year were recruited from the general population in

Edmonton, Alberta, Canada. The participants were instructed to take 2 capsules per day of either the North American ginseng extract or a placebo for a period of 4 months. The standardized extract, for which batch-to-batch consistency is ensured in the production process, contains 80% poly-furanosyl-pyranosyl-saccharides and 10% protein formulated from the roots of North American ginseng. The freeze-dried extract was encapsulated to contain 200 mg/capsule. The placebo was rice powder, which was encapsulated identically to the active treatment. The primary outcome measure was the number of Jackson-verified colds. Secondary variables measured included symptom severity, total number of days with symptoms and duration of all colds. Cold symptoms were scored by subjects using a 4-point scale.

Results: Subjects who did not start treatment were excluded from the analysis (23 in the ginseng group and 21 in the placebo group), leaving 130 in the ginseng group and 149 in the placebo group. The mean number of colds per person was lower in the ginseng group than in the placebo group (0.68 (SD 0.82) v. 0.93 (SD 0.91), difference 0.25%, 95% confidence interval (CI) 0.04-0.45). The proportion of subjects with 2 or more Jackson-verified colds during the 4-month period (10.0% v. 22.8%, 12.8% difference, 95% CI 4.3-21.3) was significantly lower in the ginseng group than in the placebo group, as were the total symptom score (77.5 (SD 84.6) v. 112.3 (SD 102.5), difference 1.5%, 95% CI 1.2-2.0) and the total number of days with cold symptoms (10.8 (SD 9.7) v. 16.5 (SD 13.8) days, difference 1.6%, 95% CI 1.3-2.0) for all colds.

Interpretation: Ingestion of the



poly-furanosyl-pyranosyl-saccharide-rich extract of the roots of North American ginseng in a moderate dose over 4 months reduced the mean number of colds per person, the proportion of subjects who experienced 2 or more colds, the severity of symptoms and the number of days with cold symptoms.

Berry ripening and harvest season in wild American ginseng

McGraw,-J-B; et al. 2005. *Northeastern-Naturalist* 12(2): 141-152

American ginseng (*Panax quinquefolius*) is a rare to uncommon CITES Appendix II-listed perennial plant species that is harvested from the wild to supply the herbal trade. Harvest seasons for American ginseng are intended to coincide with berry ripening in the species. However, geographic patterns of harvest seasons among states suggest

they may not be tied to ripening phenology. In this study, we experimentally established the relationship between berry colour and subsequent seed germination one and a half years later in a natural population. We then monitored berry ripening on 15 August, 1 September and 15 September in 31 populations across much of ginseng's natural range in Illinois, Kentucky, Minnesota, Montana, North Carolina, Ohio, West Virginia and Virginia, and

Quebec, Canada. We found no biological basis for state-to-state differences in harvest seasons, and clear evidence that in some states the harvest season is set too early to ensure full berry ripening. Variation among years was examined in a subset of populations. Results from that analysis do not alter the conclusion that improvement in ginseng management could be achieved by establishing biologically based harvest seasons



DCNR, PA

American Spikenard (*Aralia racemosa* L.)

By David C. Carman
Grower and Collector
Princeton, West Virginia

American Spikenard, *Aralia racemosa* L. is a native medicinal perennial, belonging to the Ginseng family (*Araliaceae*) of plants. Growing to 10 feet tall under ideal conditions of shade/sunlight, moisture, and soil conditions, this plant is rather common in our eastern woods. American spikenard is known locally as spikenard, spignet, old man's root, spice berry, American sarsaparilla, Indian root, Petty Morrell, life of man, and pigeon weed.

The plant is quite impressive when located in the woods and even the experienced outdoorsman will always pause long enough to admire it on a chance encounter. The root system is quite extensive comparable (though, to a lesser extent) to that of the common poke root.

Summer and fall harvested spicy, aromatic root has been used extensively to treat a wide array of ailments including skin diseases, back aches, and colds; and is presently listed by buyers paying about the same as for Black cohosh. Growers



can propagate from seed, root cuttings, and small transplants.

A Growers Note: Like other members of this family of

plants, spikenard is susceptible to fungal infections, namely powdery mildew, which causes premature winter dormancy.

Invitation to Roundtable on Ginseng Poaching

The Mountain State University Medicinal Botanicals Program would like your participation in the roundtable "**Roots and Remedies of Ginseng Poaching in Central Appalachia**" that will be held on campus (Carter Hall, room 204), Beckley, West Virginia, Friday, October 13, 2006, at 9:00 am, and conducted by Randi Pokladnik, a doctoral student in environmental sciences from Antioch University, Keene, New Hampshire. Below is her letter of invitation

My name is Randi Pokladnik and I am doctoral student in the Environmental Studies

Program at Antioch University New England located in Keene, New Hampshire. I was born and raised in southeastern Ohio and am interested in using non-timber forest products programs as a tool for sustainable economical development in rural Appalachian communities. My research has led me to examine some of the major obstacles to increasing NTFP programs. One of those obstacles is poaching from both cultivated and wild ginseng populations. Part of my research involves ascertaining the perspectives of the many stakeholders involved in trying to curtail

poaching. I am currently in the process of interviewing people about their ideas and opinions on the issue of poaching. These stakeholders include: public land managers, wildlife officers, ginseng program managers, ginseng growers and gatherers, ginseng buyers, and lawyers/judges who prosecute poaching cases. My major questions are: What do stakeholders believe causes or influences people to engage in poaching? Do stakeholders believe that current methods of intervention are helping to decrease poaching incidents? It is hoped that the results of this study will help inform policy makers, law officials, and

public land managers, as well as the ginseng gatherers and growers of Appalachia involved in sustaining the ecological, economic, and cultural integrity of this species.

Anyone who believes they fall into one of the stakeholder groups and is interested in participating in this research is welcome to attend.

Thank you

For more information contact Randi Pokladnik at Randi@clover.net or Dean Myles at dmyles@mountainstate.edu, 304-929-1687

Appalachian Plant Profile: Purslane

By Dean Myles, Coordinator
Medicinal Botanicals Program
Mountain State University

Portulaca oleracea L., commonly known as purslane was introduced from Europe and naturalized across the entire North America [1, 2]. Purslane is a prostrate annual herb spreading up 12 to 15 inches in length. [2]. Cultivated varieties grow upright. The succulent leaves are smooth and may be opposite, alternate or whorled around its reddish stem. The small yellow flowers are ¼ to ½ in size and open only on sunny days from early June to September. [2].

Purslane has been used as food and medicine for many centuries. As a food, purslane can be used in salads, as a cooked green, pickled, and the seeds can be ground into flour [3]. Purslane is very nutritious and is high in iron, omega-3 fatty acids, calcium, potassium, vitamins A, B1, B2, B6, and C [4]. As medicine, a leaf tea is considered antibacterial, antioxidant, antibiotic, antiscorbutic, diuretic, and a poultice treats skin rashes, burns and insect stings [4, 5]. The American Indians used the juice for earaches, and a leaf tea for headaches [5]. It has also been used in Europe as a poultice to treat inflammation, open sores, eczema, abscesses and strangury (painful urination). The seeds are considered to be anthelmintic and are being

investigated as a natural anthelmintic for goats by the MSU Medicinal Botanicals Program at this time.

P. oleracea can be easily propagated from seed or cuttings. Simply sow seed on top of the soil insuring moist until germination. Once seedlings are established, transplant into the garden location. Cuttings are also quite simple. Simply cut the stem, remove ½ the leaf area to reduce transpiration (water loss) and plant in pots or trays until well rooted. Purslane grows in average to rich moist soil with good drainage. *P. oleracea* can be quite invasive and self-seeds readily. Sustainable harvest of *P. oleracea* may be conducted if your state has no regulations concerning harvest. Contact your local native plant program or the National Plants Database at <http://plants.usda.gov/> for species harvesting and invasive status. Seeds and plants for cultivation can be purchased through reputable dealers and collected from the wild.

Here is a recipe for purslane pizza from Eva Ristl of Left Fork Farm LLC, *Medicinal Herbs, Botanicals, Forest Products* in Gandeeville, WV 25243

Purslane Pizza (a simply delicious no-brainer recipe)

On a surface, put 2 cups or more of flower



Please contact your state's Department of Forestry for laws and regulations concerning Purslane harvest in your area.

Make a hole in the middle; add a packet of dry yeast and a little lukewarm water, and salt
Stir to dissolve and wait a while
Add as much water/milk/liquid as it needs

Make it into dough








Roll out on a cookie sheet, or use your hands to spread the dough
Bake for 10 min. so it does not get soggy

Meanwhile fry bits of bacon
Throw in a couple of handfuls of purslane (as much as 4 cups)
Let soften a little
Take pizza out and put bacon/purslane mixture on it
Finish baking until ready!

1. USDA Plants Database *Portulaca oleracea* Accessed 9/18/06 at <http://plants.usda.gov>
2. Strausbaugh, P. D., Core E., 1978 **Flora of West Virginia** Seneca Books, Inc., Morgantown, WV
3. Peterson, L. A., 1977 **Edible wild plants Eastern/Central North America** Houghton Mifflin Co. NY
4. Plants for a future database *Portulaca oleracea* Accessed 9/18/06 at <http://www.pfaf.org>
5. Foster, S., Duke, J. 2000 **Medicinal Plants and Herbs Eastern/Central Ed.** Houghton Mifflin Co. NY

For Some Herbal Enthusiasts, It's Back to Nature

Instead of buying bottles of processed supplements, some consumers, including many members of ethnic communities, buy medicinal herbs as plants — selecting fresh or dried leaves, bark and berries to make teas or to mix into cooking for their purported health benefits. Herbs can pose risks in any form, and their efficacy is often not proven. Here is a snapshot of what's known about some plants sold locally as medicines. Assessments of efficacy come largely from the Natural Medicines Comprehensive Database, available through Consumer Reports. Claims and safety warnings listed are illustrative, not exhaustive; avoid herbs if you are pregnant or breast-feeding.

	Ethnic Group	Claim	Preparation	Efficacy	Safety
 <p>Holy Basil</p>	Indian	Reduces inflammation, lowers blood sugar levels in diabetics, stabilizes cortisol levels. Treats heart disease, headache, flu.	Leaves are chopped and boiled with water to make a tea.	Not proven	Could reduce action of anticoagulant drugs. May increase drowsiness from barbiturates.
 <p>Ashwagandha</p>	Indian	Reduces inflammation, lowers blood pressure, improves sexual stamina in men, boosts immune function, reduces effects of aging.	Powdered form of plant is used to make tea.	Not proven	May cause drowsiness. May magnify effect of sedatives and thyroid hormone pills.
 <p>Rue</p>	Hispanics and Sephardic Jews	Relieves digestive upset, heart palpitation and breathing problems. Regulates menstrual cycle, relieves arthritis.	Made into tea or used in salads.	Not proven	Considered unsafe as a medicine. Can cause stomach irritation, mood changes, sleep problems, skin disorders, increased sun sensitivity and kidney and liver problems.
 <p>Wolfberry</p>	Chinese	Helps lower blood pressure and blood sugar, relieves fever and dizziness, aids blood circulation. Treats impotence, cancer.	Dried berries and root bark can be made into tea or mixed with other herbs to make soups.	Not proven	Can cause nausea and vomiting. Avoid if pregnant or have low blood pressure. May increase side effects of certain medicines that are broken down by the liver.
 <p>Pau D'Arco</p>	Latinos	Treats pain, arthritis, prostate infections, cold and fever, asthma, bronchitis, sexually transmitted diseases.	The bark of this Brazilian tree can be boiled to make tea.	Not proven	Considered unsafe. May cause severe nausea, vomiting, diarrhea, dizziness and internal bleeding.
 <p>Wild Chrysanthemum</p>	Chinese	Treats flu, sore throat, high blood pressure, fever, headache, dizziness, angina and prostate cancer.	Can be made into a tea.	Not proven	May cause sun sensitivity, produce allergic reaction, increase blood flow to the heart and sensitivity to insulin.
 <p>Dong Quai</p>	Chinese, Koreans, Japanese	Eases menstrual pain, recovery from childbirth. Treats fatigue, high blood pressure, headache, infections, premature ejaculation.	Used in soups or tonics. Powdered root taken orally.	Not proven	May increase sun sensitivity, interact with anticoagulant drugs, increase cancer risk, especially in large doses.

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About the Medicinal Botanical Program

This Program was created as a result of a Specific Cooperative Agreement between Mountain State University and the USDA/ARS-Appalachian Farming Systems Research Center in Beaver, WV. The establishment of this agreement came through the efforts of Senator Robert C. Byrd and a Congressional Appropriation. The mission of the Program is to promote the medicinal plant industry through research, education, marketing and outreach. Educational offerings include a Bachelor degree in Herbal Sciences, a symposium and workshops. The Program also conducts research on the chemistry, propagation and cultivation of native medicinal plants.

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mmorales@mountainstate.edu

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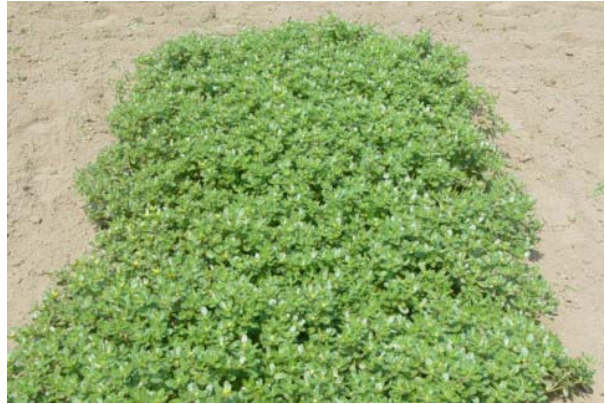
Dear reader:

Would you like to share your knowledge, skills and experience with us? Do you know how to produce, process, market and/or use herbs and medicinal plants? Would you like to share this knowledge with our readers? It is quite simple. Just write your ideas on a piece of paper and mail it to us. We will type it and make sure that it gets published in our newsletter.

Please send contributions to the addresses indicated above.

Thanks.

MBP in Pictures



Accession of purslane (*Portulaca oleracea*) under observation at the USDA Plant Materials Center, Alderson, West Virginia, during the 2006 growing season. This plot is part of an ongoing research project to evaluate the nutritional qualities of purslane and its potential as a crop for animal and human consumption.

Classified Ad

Native southern West Virginia Ginseng and Goldenseal rootlets; 40 cents each, any quantity, while they last. Postage paid for 50 or more.

Native southern West Virginia Virginia Snakeroot (*Aristolochia serpentaria* L.) seeds, limited quantity, 40 cents each, postage paid.

Contact: 304-384-9147

Garden Tour

Location: Honeysuckle Hill Garden, Oak Hill, WV
Date: September 30, 2006
Time: 1:00 pm to 4:00 pm
Cost: Free

Terri Johnson, former owner of Pea Ridge Gardens in Oak Hill WV, will discuss plant selection, garden design and growing tips to create your own Aromatherapy, Biblical, Bird & Bee, Desert, English, Fairy, Grandmother's, Herb, Japanese, Thyme, and Peter Rabbit garden.

Terri has been gardening for twenty-five years. She is currently working year round on her new venture Honeysuckle Hill Gardens, opening spring 2007, where you will find unusual plants displayed in diverse garden settings.

Participants will meet at Carter Hall at 12:30 on September 30, 2006. Seating on the MSU van will be assigned as first come first served. Other may need to car pool. Space will be limited. This event is approved for Master Gardener educational credit.

Registration Form

Name: _____ To register, return form to:
Address: _____ Medicinal Botanicals Program
City: _____ Box 9003
State: _____ Zip Code: _____ Beckley, WV 25801
Telephone: _____ Info: Dean Myles, 304-929-1687
E-Mail: _____ dmyles@mountainstate.edu

The Proceedings of the 5th Medicinal and Aromatic Plants Symposium held at MSU, Beckley, WV, on Sep 16-17, 2005 have been published. The book contains the 2005/2006 WV Ginseng Law and its Regulations. It has excellent articles on production, use, and marketing of medicinal plants. The price is \$40 (\$36 plus \$4 for shipping). The number of copies is limited, order yours immediately. To order send check or money order made to Mountain State University

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