

The APPALACHIAN VOICE



A publication of

APPALACHIAN VOICES

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Appalachian Voices brings people together to solve the environmental problems having the greatest impact on the central and southern Appalachian Mountains. Our mission is to empower people to defend our region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns. Appalachian Voices sponsors the Upper Watauga Riverkeeper® and is also a Member of the Waterkeeper® Alliance.

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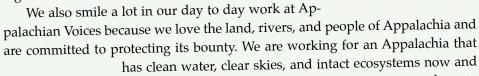
A Note From Our Executive Director

There can be no other occupation like gardening in which, if you were to creep up behind someone at their work, you would find them smiling, "~Mirabel Osler

Appalachia has some of America's most beautiful and abundant vegetable gardens that generate a lot of pleasure in the growing and especially at the family table. I consider it a privilege to be able to plant and harvest my own food and the work is an exercise of love for those of us who thrive in being outdoors with nature. I find myself smiling often.

Vibrant family farms have the potential to positively contribute to the economy and ecology of our region. Make a commitment to support local sustainable agriculture and get close to your food.

It will benefit your health as well as the health of our



for generations to come. But, as with gardening, we have to focus on what can destroy the vision we hold and respond appropriately. Your support of our work makes that possible. Thank you.

Here's to a bountiful harvest! Willa

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Sunflowers grace a table in summer.

Photo by Joan Naylor, Sunflower Farm Vacation Rentals

Cover photo:

Brussel sprouts await harvesting at the Springhouse Farm in Vilas, N.C. Photo by Amy Fiedler Johnston, courtesy of Springhouse Farm

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GETINVOLVED ****

environmental & cultural events in the region

To be included in our listing of environmental and cultural events for the Appalachian areas of VA, W.Va, NC, TN and KY, please email voice@appvoices.org. Deadline for the next issue will be Friday, August 13, 2010 at 5 p.m. for events taking place between Sept. 1 and Nov. 30.

Coke Ovens Music Festival

June 4: A music festival featuring local and regional bluegrass bands including Valley Grass, The Coalition Band, The Cumberland Band and the Cumberland Gap Connection. Hosted at the Coke Ovens Park & Museum in Dunlap, Tenn. CokeOvens.com

Bonnaroo

June 10 – June 13: Held in Machester, Tenn., each June, Bonnaroo is one of the nation's largest music festivals. It features popular artists across multiple genres, from rock and roll and jazz to hip-hop and electronica. Tickets start at \$234.50. Bonnaroo.com

Chuck Copeland Memorial Kid's Fishing Rodeo

June 12: Hosted by the Town of Spring City and Tennessee Wildlife Resources Agency (TWRA), the Kid's Fishing Rodeo teaches children about fishing while hosting games, contests and other activities. Rain or shine.

Solar Domestic Water Heating Workshop

 $\label{eq:June 12: Learn how to design and construct various} freeze protected solar water heating systems for domestic hot water and space heating needs at this workshop with ASU's Dr. Brian Raichle. Cost: $150 ($75 for students). Find info and register at <math>Wind.AppState.edu$

Grandfather MTN's Animal Birthday Party

June 16: A birthday celebration of all the animals in the park, including games, contests and crafts. Cost: Included with park admission to Grandfather Mountain.

Community-Scale Biodiesel Production Workshop

June 18-19: Learn production techniques, quality control, and byproduct recycling of biodiesel fuel at Appalachian State University's biodiesel facility. ASU's Jeremy Ferrell will run the workshop. Cost: \$300, \$150 for students. Find info and register at Wind.AppState.edu

Valle Sqworm

June 19-20: Enjoy a family-friendly afternoon at Valle

Crucis park with music, educational workshops about permaculture, arts and crafts, swimming, a potluck and a bonfire. Event starts at 11 a.m. Tickets \$15 in advance, \$20 at the door, and kids 12 and under get in free. For more information visit Toddscalendar.com

RibFest

June 26: A day of family entertainment featuring a silent auction, kid's events, a craft fair, musical entertainment and a rib cook-off competition. Hosted in Mylan Park in Morgantown, W.Va. Cost: \$5

All Good Music Festival

July 8-11: A 4-day folk and jam music festival held at Marvin's Mountaintop in Masontown, W.Va. Tickets \$159 for 3-day pass and \$179 for 4-day pass. AllGood-Festival.com

4th Annual Bamboo Festival

July 10-11: A popular festival at The North Carolina Arboretum that includes bamboo nurseries offering live plants and artists selling bamboo products. Also included are lectures and demonstrations. NCArboretum.org

Herpetology House

July 17: Guest speakers from Kentucky Fish and Wildlife and other organizations will offer presentations about Kentucky "herps." Hosted at Salato Wildlife Education Center, Frankfort, Ky.

Watauga Riverkeeper Festival

 $July\ 24$: Enjoy an outdoor recreation celebration at the Valle Crucis Community Park from 11 a.m. to 5 p.m., rain or shine. Guests can bring their own flotation devices or rent one from the park.

Third Annual Blueberry Festival

July 24: Enjoy blueberry picking, food, and dancing while listening to Grammy award winning musicians Cathy Fink and Marcy Marxar. Festivities begin at 3 p.m. at Old Orchard Creek Farm in Lansing, N.C., and benefit Blue Ridge Conservancy. BlueRidgeConservancy.org

"The Firefly Gathering helps people to deepen and expand their connection with the natural world through providing Earth Skills education, networking, and good, old fashioned fun by the fire."

Get Back to Nature at the

Firefly Gathering



The Firefly Gathering is a four-day event that focuses on the instruction of "Earth Skills." Earth Skills can be anything from wilderness survival techniques to sustainable food-growing practices. The Firefly Gathering hopes to educate the public about reconnecting with nature and working with the earth in a harmonious way.

The gathering is held July 22 to 25 just outside of Asheville, N.C., and features over 100 classes taught by more than 40 experienced teachers. The classes cover

a wide variety of fun, interesting, and most importantly useful skills, including fire building, bow making, solar energy, natural building, herbal medicine, blacksmithing and more.

Among the many knowledgeable instructors are naturalist and storyteller Doug Elliot, Natalie Bogwalker of Wild Abundance, and musician and flute maker Hawk Hurst.

To find out more about registration, costs, and lodgings, visit *FireflyGathering.org*

FloydFest

 $July\ 22-25$: A world music festival in the Blue Ridge Mountains held near Floyd, Va. Participate in arts and crafts in addition to the concerts. Tickets \$125 for 3-day pass and \$135 for 4-day pass. FloydFest.com

Grayson Highlands Dog Show

August 8: Anyone can participate in this show of fetching, dress-up and catching at the Grayson Highlands State Park in Mouth of Wilson, Va., from 1 p.m. to 3 p.m. \$5 per dog.

Bluegrass Music Festival

August 28: Five local bluegrass bands perform

at the campground amphitheater. Seating is limited so bring a chair or blanket. Concessions will be available. Tickets are \$10 per person. Holliday Lake State Park, Appomattox, Va.

Music on the Mountaintop

Aug 27-28: The third annual Music on the Mountaintop Festival in Boone, N.C., at The Old Fairgrounds features several national acts, creating an eclectic blend of Americana, bluegrass, and acoustic funk and folk. Check out the green village, which is full of interactive and multi cultural activities. Appalachian Voices will be the event's main featured nonprofit organization. MusicOnTheMountaintop.com

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Learning to "Live Lightly" on The Farm in Summertown

n's Green Hol

Story by Julie Johnson

Home building can be one of the most challenging aspects of a carbon-neutral lifestyle. At the The Farm Ecovillage Training Center in Summertown, Tenn., participants learn how to build and maintain their dwellings in an environmentally friendly way.

Traditional stick-frame construction is a cheap and fast way to build, but it is often resource intensive. Lumber is often unsustainably timbered, insulation contains pollutants, and drywall can be made from toxic byproducts like coal combustion wastes.

The Ecovillage, located on an intentional community known as "The Farm," boasts many examples of natural alternatives and seeks to teach a style of building that leaves the smallest environmental footprint possible.

The main building, called the "Eco-Hos-

tle," is a partial remnant of the first dwellings on The Farm. When 300 hippies relocated from San Francisco to rural Tennessee in 1971, seeking a place to start an

intentional community, they constructed temporary housing from tent scraps and recycled construction material.

A tent remains the center of the Eco-Hostle, but is now bolstered by an Earth Bag foundation, a building method where long bags are stuffed with soil and gravel and stacked on top of one another. Solar panels power the compact flourescent lighting and an attached green house heats the space.

Those who come to train at the Ecovillage receive instruction in natural building, community food production and permaculture design. Apprentices live in

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The Green Dragon, at left has been a teaching tool for about ten years. It is a usable, public space to and is composed of several natural building techniques. The EcoHostel, below, faces South, to help heat the house in the winter. Photos by Merry Moore

one-room "Hippi-tats" often made of cob, a building material, similar to adobe, composed of clay, mud and straw. Other structures are made of straw bales, and their interiors decorated with natural plasters and paints.

"As an apprentice, the Ecovillage was a great, supportive environment for learning," said Merry Moore, current Ecovillage Innkeeper.

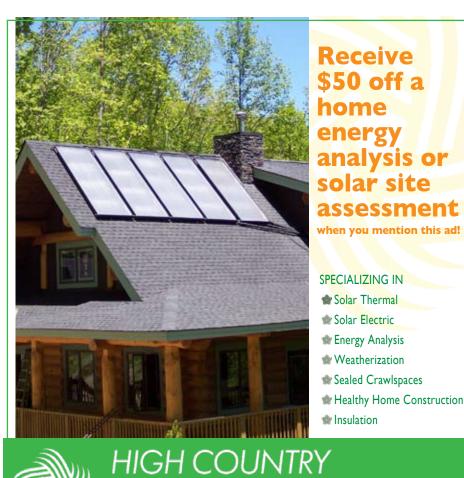
While apprenticing, Moore helped build the Shout House, a bathhouse containing a solar shower and composting toilet. The Shout House is made with daub and wattle construction, an ancient technique that fixes a woven lattice of wooden or fibrous strips with a sticky daub material.

"For the wattle we used bamboo grown on our land," said Moore. The water for the shower is pumped from a nearby stream and is heated by two solar panels.

The Ecovillage is landscaped with

edible and medicinal plants. The tops of many structures support "living roofs," where sun-loving herbs and vegetables thrive. On the village's unique Herb Spirals, rows of plants swirl around mounds of earth. Herbs that prefer more shade are planted on the lower, backside of the spiral, and those needing the most sun go right on top.

To train at the Ecovillage, participants pay \$600 per month, which includes instruction, housing and staple foods. To learn more about the Ecovillage, or the farm, and to apply for the program visit *TheFarm.org*.



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Conserving Appalachia: Land Trusts Strive To Protect Natural Areas

Story by Julie Johnson

Thanks to organizations like the Blue Ridge Conservancy, land trusts have protected hundreds of thousands of acres in Appalachia from development-and

In North Carolina, the Blue Ridge Conservancy recently formed from the merger of two existing organizations—has collectively protected over 15,000 acres of rural and scenic land in the northwestern corner of the state since the late 1990s.

"Our aim is to preserve the land from development and to maintain a heritage of farmland for years to come, which in turn benefits not only us as human beings, but also wildlife on large scale," said Blue Ridge Conservancy Board Member Hanes Boren.

Land trust organizations partner with private landowners to protect natural areas from development by acquiring acreage through conservation easements, which are either purchased by the organization or donated by the landowner. The organization gains control of protecting the land while the private individual retains ownership.

These agreements typically prevent any development or other actions that would interfere with conservation efforts or affect biodiversity and migration routes.

And it's not just for the short-term: Even if the land is sold or passed to family members as inheritance, the terms of the easement are still binding.

One of the most well-known national land trust



The Foothills Conservancy protects this section of the Wilson Creek area managed by the Wildlife Resources Commission. Photo by Kevin Knight

groups is The Nature Conservancy, a non-profit organization that has acquired—and protected—hundreds of thousands of acres in the last 40 years.

Other Appalachian land trusts include:

Tennessee: The Land Trust for Tennessee works throughout the counties of middle and eastern Tennessee to protect rare habitats and important agricultural areas. The trust recently acquired farmland in Greene County that will help protect the fertile area from development and preserve two endangered

species in the Little Chucky Creek. LandTrustTN.org

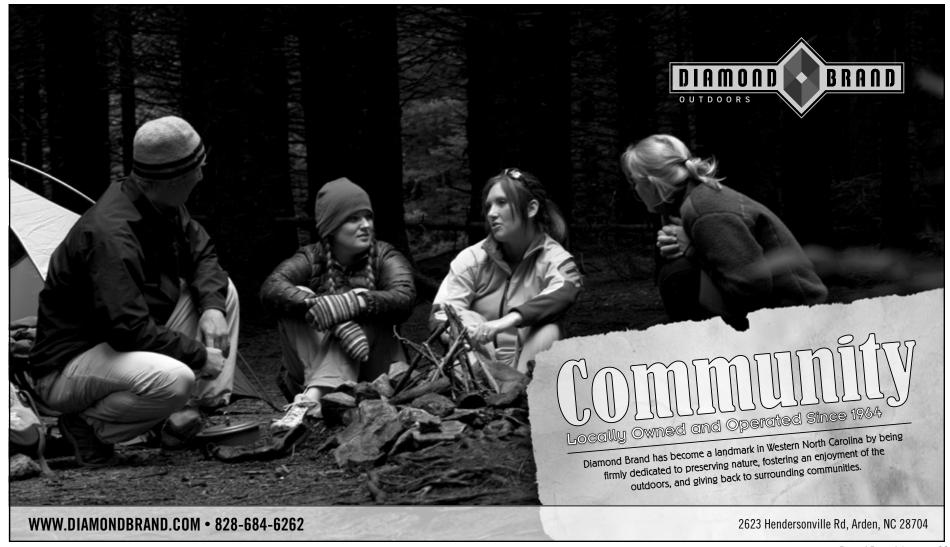
Ohio: The Richard and Lucile Durrell Edge of Appalachia Preserve is owned by the Ohio chapter of The Nature Conservancy and the Museum of Natural History and Science. To date, it is the largest privately owned protected natural area in Ohio. The area provides a habitat for over 100 species of rare plants and animals. CincyMuseum. org/explore_our_sites/edge_appalachia/

Kentucky: The Kentucky National Lands Trust organization is working to connect existing protected areas on Pine Mountain. The linked system of lands will conserve a 110-mile migratory path. Areas within the forest block will be designated as Kentucky State Nature Preserves. KNLT.org

West Virginia: The West Virginia Land Trust holds a number of easements, many protecting lands adjacent to state and national parks and forests. The Trace Fork Canyon easement allowed the landowner to open up a pre-historic Indian trail for public access. WVLandTrust.org

Virginia: The Land Trust of Virginia promotes a project called the Appalachian Trail Buffer Initiative. Easements in this area are acquired to protect properties near the trail that provide a natural buffer between it and developed areas. LandTrustVA.org

North Carolina: The Foothills Conservancy is working to protect lands in seven counties. In 2007, they helped facilitate a transfer of 43 acres to the Blue Ridge Parkway. FoothillsConservancy.org



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Story by Maureen Halsema

Space Cadet reads out the clues of the cache. While Zergle decodes the hidden message, Map Man checks the GPS.

"We should be right on top of it," Map Man says.

Space Cadet scans the area as Zergle pauses to think. Where could the cacher have hidden the treasure? The hunt begins.

After a long search, Zergle sits on a log to ponder the guides our cacher had given us. Suddenly his eyes light up as he recites the clue, "So many times have I sat on this bench, little did I know it was right beneath my... nose." He reaches beneath the log and his fingers close in on a pencil box.

Treasure Hunting

Geocaching is an international treasure hunting game that uses GPS coordinates as a map to the plunder, or cache. From books to bouncy balls, the treasure varies as widely as the hunters.

These treasure chests come in all forms; pencil boxes filled with assorted riches hidden on branches or underneath rock piles. A microcache may be as simple as a tiny canister magnetically gripping the bottom of a railing, often so small that they might only fit a rolled up piece of paper, a registry for successful hunters. Geocachers sign the log with their trail names, like the ones we chose--Space Cadet, Zergle and Map Man. It is up to the person who designs the cache to devise the treasure chest.

We used *Geocaching.com*, a central database for registering and locating caches, to identify the cache we wanted to hunt. In the late 1990s, web developer Jeremy Irish tried his hand at geocaching, and was so thrilled by his first caching expedition that he decided to unite his new hobby with his current skills, launching *Geocaching.com* in September 2000. Now, fellow treasure hunters can simply type in their zip codes and access information to hundreds of caches in their region. Cachers also use this site to register new caches, update their own caching list, or share tales of their quest for the cache.

Selecting a Quest

In order to prepare for our endeavor, we needed to locate a cache to hunt. We talked about what type of hike we wanted



Space Cadet holds up the treasured cache. Photo by Map Man

to do—long or short, strenuous or easy, or even a "park and grab." We selected a long, moderately strenuous hike.

Since this was our first adventure, we selected a lower graded cache--one considered easier to find--to familiarize ourselves with the geocaching process.

Map Man researched and printed out the clues for our first cache. He loaded the GPS coordinates to guide us to the treasure hunting search area. (For an added challenge, try geocaching without a GPS!)

A little bit of research goes a long way in your quest for the cache. Local maps provide detailed information of any terrain obstacles you may encounter, such as steep elevations and waterways, helping you determine the best route to reach your cache.

For your own safety, know your surroundings and bring navigational aids, to avoid becoming lost while searching for the hidden item. Marking your starting position as a waypoint on your GPS can help you navigate back from your hunt.

"X" Does Not Mark the Spot

The greatest challenge arises as we close in on our cache. As we discovered, GPS coordinates only narrow down the location; they do not pinpoint the exact position of the treasure.

Once we arrive at our waypoint where the cache is located, we have to think like treasure hunters, keeping a keen eye out for things that seem unnaturally placed. The cache will not be buried, we know that much, but it could be placed anywhere--in or under a log, on a tree branch, in a bucket, or even in plain sight.

Oftentimes, registered caches will have additional clues. Tips like "Eat Outside" or "Guarded...watch your step!!!" may seem vague, but once you arrive at the site of the cache, they can help you decipher the puzzle. For example, guarded could infer that the cache is hidden in a guardrail or eat outside might tip you off to look for a picnic table.

Opening the pencil box, Zergle pulls out a glittery snowman pin, a ladybug button, a hackey sack and the registry log. Unrolling the scroll, he inscribes our names beside the date as successful seekers of this loot. As custom dictates, we trade one of our treasures for one of the cache's riches—a turtle toy for a hackey sack.

Closing the cache, we restore it to its hiding spot, exactly as we had found it.

KNOW THE LINGO

BYOP: Bring your own pen to write your name in the log.

Cache/Geocache: A hidden treasure that contains a logbook and sometimes other "treasures" left by or exchanged for by other geocachers.

Microcache: Very small caches, often a capsule containing a rolled up piece of paper for a log. Examples: film canisters; hide-a-keys, tin boxes.

Muggles: Refers to nongeocachers. Oftentimes, cache instructions will alert you to "Beware of Muggles" if the cache is hidden in a public place.

Mystery Caches: These caches provide an added challenge, you must decipher the puzzle in order to determine the cache's coordinates. Everything from word puzzles to mathematical codes are fair game.

Waypoint: A reference point on a GPS. You can drop a waypoint using the latitude and longitude coordinates.

And happily, with our prize in pocket, our motley band of treasure hunters treks back the way we had come.

When we return home from our expedition, we log on to the cache page on *Geocaching.com* to note the details of our quest so that other cachers can revel in our victory and plot their own excursions to find the cleverly hidden cache.



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Hiking the Highlands

GET Going—TREKKING THE GREAT EASTERN TRAIL

Story by Derek Speranza

It is only fitting that poet Robert Frost took "the road less traveled by" in his poetry collection entitled *Mountain Interval* – and now long distance hikers everywhere have a new opportunity to do exactly that.

The Great Eastern Trail is to be a 2,000-mile alternative to the well-worn Appalachian Trail, and it's growing toward that goal everyday. Volunteers on the GET project are taking a series of existing trails that run parallel to the AT and creating one contiguous route from Alabama to New York.

Becky Morris, West Virginia coordinator for the GET, is working hard to fill in the gaps of the trail, the largest of which are in West Virginia and Alabama.

"In expanding the trail I have to consult with delegates about current and future legislation, work with parks and wildlife management to see which trails will work, and all that good stuff," said Morris.

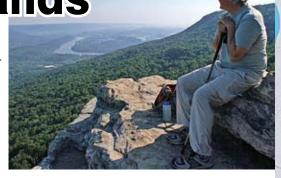
She also helped create a hiking club to support the creation of the trail in West Virginia. The newly formed TuGuNu club (a portmanteau of the Tug (Tu), Guyandotte (Gu), and the New (Nu) Rivers) has received a positive response from the community.

"[For the first meeting] we had look 40 people show up, and in a town of 800 I'd say that's great participation."

The GET is not just another version of the AT – it is unique and exciting because a large part of it is new territory to explore, and it will be completely free of motorized vehicles for the entire length of the trail.

"Our biggest goal is to have people going out and walking, getting physical and healthy," said Morris, "as opposed to riding ATVs or sitting in front of the TV."

While a large part of the GET is meant to be hiked, some places will include



The Great Eastern Trail will eventuall span from Alabama to the Fingerlakes Trail in New York. Above, looking off Sunset Rock in Tennessee.

mountain bike and equestrian trails. Morris also intends to make some sections of the trail wheelchair accessible, because, as she said, "Anyone who wants to get on the trail should be able to."

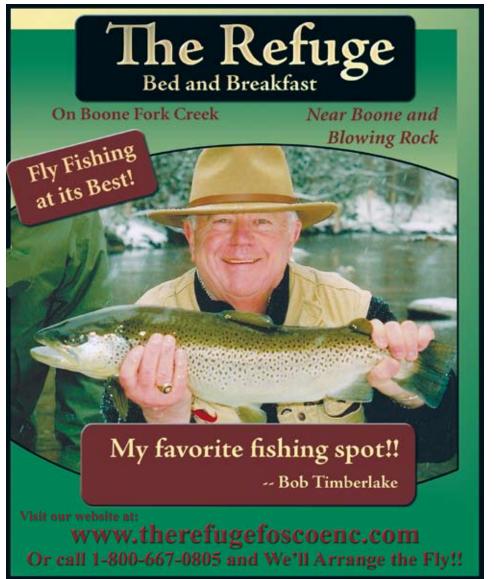
According to the GET Association, between 70 and 80 percent of the trail is complete and connected, and the project is well on its way to making the dreams of hikers everywhere come true.

"I guess the biggest thing we want people to know is that it's an alternative, 2000-mile, challenging trail of beautiful wilderness," said Morris.



So if you're out hiking and two roads diverge in a yellow wood, the Great Eastern Trail looks like your best bet.

For more info, contact Becky Morris at queenbecky@mail.com, 304-732-6707, or visit www.greateasterntrail.net





BEAUTIFUL AND DELICIOUS

Review by Maureen Halsema

Plump cherries ripe for picking, weighty pears begging to be plucked, aromatic lavender ready to be gathered—all within the confines of your yard!

Nan K. Chase shares how to plant, manage and prepare these delectable plants in her book, "Eat Your Yard! Edible trees, shrubs, vines, herbs and flowers for your landscape," (Gibbs Smith, \$19.99) released this year.

It is a cookbook, a gardening guide and

a storybook all in one beautifully packaged, visually-compelling arrangement.

"The edible yard combines beauty and practicality: beautiful form in the garden with bounteous crops to eat fresh or preserve for year-round enjoyment," Chase writes.

Chase's passion for gardening is

punctuated in each word, an enthusiasm that has been cultivated since she was a toddler playing in her parent's fruit trees in California. Now, she can climb into the branches of her own trees in North Carolina and snack on the fruits of her labors. Chase has developed a strong relationship with her plants, as gardeners do, one that she cherishes.

"After all, fruit trees are like children: they need sunshine and fresh air, dry feet, balanced nutrition, and an occasional haircut.

Then they'll grow up big and strong," Chase writes.

Chase selected 35 plants, both common and exotic, that are versatile in the kitchen, pleasing to the palette, aes-

thetically rich throughout each season and most are capable of thriving in Southern Appalachia, particularly in Western North Carolina.

OOK CLU

With each chapter, Chase unfolds a new possibility: favorite fruits, nuts and berries, and herbs and vines. From pears to kumquats to sunflowers, Chase has a special connection with each plant she describes. Sharing stories from her lifetime or from

notable historical references, she makes each plant significant in its own way and reveals important lessons learned from edible landscaping.

Chase gives insider advice on which plants are simple to cultivate, such as blueberries, and which plants pose a greater challenge, like peach trees. For each possibility, Chase also tells you whom to turn to in order to seek further guidance as you start to grow your own edible landscape.

In addition to where, why and how to grow each plant, Chase includes some of her favorite recipes. Although I have yet to create my own edible garden, I cannot wait to cook up a stack of orange-almond pancakes or bake some of Nan's fresh herb popovers.

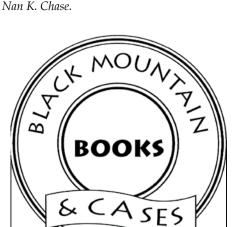
So, even if you cannot have a large farm, you can still self-sustain and satisfy your taste buds with your own edible landscape. Peruse the pages of this useful book, pick up some seeds, grab your trowel and get to work. In a few short seasons your garden can be a delicious display of fruits, nuts, vines and herbs.

Bon appétit!



Cherry blossoms brighten up any edible landscape. Strikingly beautiful in each season, cherry trees are one of the first to blossom in the spring and bear delicious fruit early in the season. Photo by Nan K. Chase

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1/3 cup peeled, pureed peaches
2/3 cup vanilla yogurt

Lightly swirl all ingredients together in a small bowl. Spoon into 4 popsicle molds and insert handle.

Eat Your Yard!

Freeze for at least 4 hours.

NOTE: For extra-sweet pops, add 1 to 2 tablespoons of honey to yogurt before swirling.

Recipe courtesy of the California Tree Fruit Agreement.

the perfect treat for a sunny afternoon. Photo by Joanne Firth, courtesy of the California Tree Fruit Agreement.

Peaches and cream pops are

Across Appalachia Environmental News From Around The Region

Growing Community Agriculture

Story by Maureen Halsema

A community vision, a team of volunteers and generous donations will transform a 90-year-old school into the new Agricultural Development Center for Polk County, N.C.

Mill Springs School is a 40,000 square foot building that rests on six acres of pristine, viable farmland, and is the future site of the County Agricultural Economic Development Office's demonstration gardens for the community.

"We are truly appreciative to receive such community-spirited support and sense of personal ownership in the vision and mission of this unprecedented project," said Lynn Sprague, Polk County Agricultural Economic Development Director.

The former school will be a resource for agricultural development, with tours, demonstrations and courses on farmland pres-

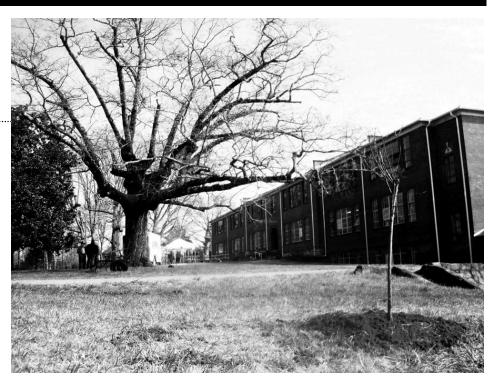
Mills Springs School is under transformation, soon to be Polk County's Agricultural Development Center. Photo by Kyle Wolff

ervation and cultivation. The first ever Polk County Agri tour is scheduled for June 26.

The school's fully equipped commercial kitchen will be used for cooking demonstrations in cooperation with the county's healthy living programs. The facility will also be open to local entrepreneurs to create value-added products using locally grown foods.

The Agricultural Development Center will accommodate several businesses and organizations, including the Soil and Water Conservation District and the Forest Conservation District. Some offices will be open Sept. 1, as renovations of the school continue.

On the last Saturday of each month, the center will supplement the farmers markets with a flea market.



"Our monthly school-yard swap meet is just another attempt by the Polk County Agricultural Development Center at creating anchor programs for folks to stimulate their economic growth and sustainability," Sprague said.

For a sustainable and desirable future

Solutions

An online and print publication devoted exclusively to showcasing bold and innovative ideas for solving the world's integrated economic, social, and environmental problems.



A Quilted Memorial

The Floating Lab Collective, an arts collective based out of Washington, D.C., is calling for submissions of quilt patches to commemorate mountains lost to mountaintop removal. The patch may be any size or shape, but they must have the name of the memorialized mountain on them. Submissions are due by July 1. Send them to Kate Clark, 5308 39th St. NW Washington, D.C., 20015.

Virginia Resiliance Awards

The University of Virginia's Tayloe Murphy Center announced a call for entries for the Tayloe Murphy Resilience Awards Competition. This award is granted to applicants who have five years of sustained growth in agriculture, manufacturing, retail, service or wholesale, and whose entrepreneurship has proven to be an economic lift in their community. Winners will receive a scholarship to a select Darden Executive Education Program. To apply, click to *ResilienceAwards.info* by June 30.

Green Public Service

U.S. Public Service launched the National GREEN Volunteer Program in April. Volunteers will help the green industry in their efforts to educate and motivate

people about green initiatives.

The program offers unique opportunities for volunteers to meet with employers in the green industry. Volunteers also utilize the Go Green Network, a social networking tool that helps people to find and share information about sustainable living. To find out more click to *USPublicService.org*.

Across Appalachia-Literally

Forrest Griffen is planning a big trip on the Appalachian Trail, and wants to help out Appalachian Voices in the process.

Griffen lives in Covington, Kentucky, and works at an NPR affiliate station in the Cincinnati area. While living in Kentucky, he learned about mountaintop removal and the work of Appalachian Voices.

Griffen will take time off to hike the Appalachian Trail and get in touch with the region.

"One of the reasons I'm doing this is to become familiar with and immerse myself in this unique, beautiful region of the country," said Griffen.

But the trip is not just for him. He wants to partner with Appalachian Voices to raise awareness about mountaintop removal and the dangerous things that are going on in the region.

Stay tuned for more about Griffen's work with Appalachian Voices.

Across Appalachia Environmental News From Around The Region

Southern Representatives Introduce Efficiency Bill

Story by Jed Grubbs

A bipartisan coalition of southern Representatives—along with members of the Senate and the National Rural Electric Cooperative Association—have introduced federal legislation that promises to conserve energy, save Americans money on their power bills and create tens of thousands of domestic jobs.

The Rural Energy Savings Program Act (H.R. 4785), a bill in the U.S. House, would provide electric cooperatives with \$4.9 billion in loan authority through the U.S. Department of Agriculture's Rural Utilities Service. This money would be offered by cooperatives in the form of low-interest micro-loans to residential and small business customers who undertake energy-saving retrofit and structural improvements.

The bill was introduced by southern state Congressmen James Clyburn (D-SC), Ed Whitfield (R-KY), Tom Perriello (D-VA), and John Spratt (D-SC), alongside members of the Senate, and National Rural Electric Cooperative Association (NRECA) CEO Glenn English.

Typical customer loans would range

from \$1,500 to \$7,000 and would be paid back through a charge on extra utility bills within 10 years. Most, if not all, of the charge will be made up in the savings a customer receives from having made energy-saving improvements, and once the loan is repaid, customers will continue to enjoy savings on their energy bills.

Representative Tom Perriello, an original co-sponsor of RESPA, calls the bill "a victory for common sense," and adds, "the cheapest electricity is the electricity you don't have to buy in the first place, because

you are conserving."

"Rural households are getting hit the hardest with rising energy costs," said Perriello. "These efficiency programs will make our rural homes more sustainable and cost efficient and will create much-needed jobs here at home."

How many jobs? Because efficiency products are primarily manufactured in





Appalachia Represented: Congressman Tom Perriello from Virginia, left, and Ed Whitfield of Kentucky, right, are two of the original cosponsors of the Rural Energy Savings Program Act, introduced in the House this spring.

the United States and installation of these products requires domestic labor, the bill is expected to generate 20,000 to 40,000 jobs—significantly bolstering America's manufacturing and construction industries

Examples of efficiency improvements that are expected to generate jobs include sealing, heating, insulation, heat pump, HVAC system, boiler and roof work.



Photo by Seth Buller

Freewheelin' Across America

Story by Maureen Halsema

Two friends hopped on two wheels and began a cross-country adventure with a flexible route that will transform as the weeks pass and a timeline that has no set dates.

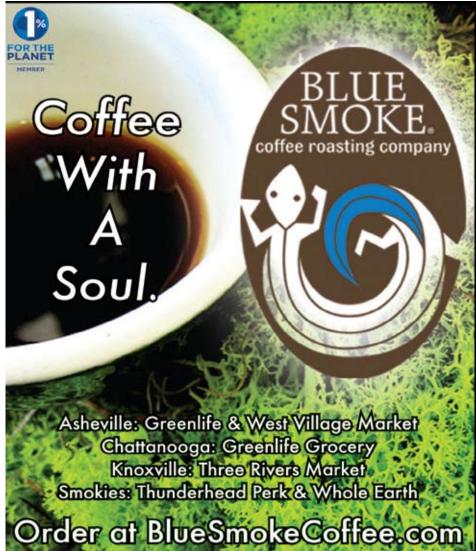
Seth Buller began his venture in Richmond, Va., zigzagged through Virginia, West Virginia, and North Carolina where he met up with fellow cyclist, Samantha Theall. Together, the two cyclers will travel through the Appalachians this summer and head west across America, stopping to camp and to work on farms along the way via the World Wide Opportunities on Organic Farms (WWOOF) program.

"It has been a great way to explore the parts of the country I've never had the chance to see," Seth said. "And I get to do it at a slower, more enjoyable pace. Hosts pay you in fresh food, safe accommodation, valuable knowledge and skills to keep a farm running just for a couple hours of work a day. Not a bad deal."

As part of this journey, Seth is riding to raise awareness and funds for Crohn's disease, an illness his brother has been coping with for over 10 years.

Their route is loosely mapped out on Freewheelin.info. The site is also host to their blog, so you can follow their tale as it unfolds. You can also contribute to their trip or to the Crohn's and Colitis Foundation of America.

Follow their trail, make a donation, offer them a place to stay, or even join them on their freewheelin' journey across America.



Ison Rock Ridge, Spruce No. 1 Mining Permits On the Line

By Jamie Goodman

Coalfields residents and conservation groups continue their ongoing tug-of-war with the coal industry over new mountaintop removal mining permits.

In a massive blow for the environment the Virginia Department of Mines, Minerals and Energy (DMME) announced approval of a vast 1,230 acre permit for A&G Coal's Ison Rock Ridge Mine in Wise County, Va, despite sustained EPA objections to the permit.

The operation would affect several communities in Wise County, potentially devastating the tourism industry in nearby Derby and mining within the town limits of Appalachia. The community of Inman, which sits directly below the area DMME has deemed mineable, was devastated in 2004 when a boulder at another A&G mine site crashed into a private home, killing three-year-old Jeremy Davidson in his bed.

"They're not looking out for the safety of the people and environment, and they're going to blast this mountain despite the federal rules," said Sam Broach, president of the Southern Appalachian Mountain Stewards, a Wise County community organization that has been fighting the permit for three years. "They only care about the bottom dollar, and we care about the future of our community."

The mine would fill three miles of streams

outlined by the Obama Administration.

In 2009, the U.S. Environmental Protection Agency recommended that the Army Corps of Engineers revoke the mining permit issued for Ison Rock Ridge, and insisted that A&G Coal reapply for a new permit that included stronger environmental protections.

Following the recent announcement, DMME spokesman Mike Abbott, said "all that's needed now for mining to begin is for A&G Coal to submit its bond and fees to DMME." The federal EPA, however, reacted with a letter to DMME noting that "the NPDES permit cannot be issued until EPA withdraws its objections."

In another twist, less than a quarter of the proposed site can legally be mined until A&G obtains a required federal 404 permit from the Army Corps of Engineers for valley fills.

Spruce No. 1 Mine

The fight for the largest mountaintop removal mining permit to date—the Spruce No. 1 surface mine in Logan County, W.Va. continued in a public hearing on May 18 in Charleston, W.Va.

• Nitrous Oxide (Laughing Gas)

Adult and Child Orthodontics

within the Powell River watershed with over 11 million cubic yards of mining waste. Area streams already show significant impacts by surface mining; the DMME itself has recorded conductivity readings at nearby creeks that are nearly 60 percent higher than new rules

EPA officials accepted comments from the public at what was a subdued and small gathering compared to the large, heated Army Corps of Engineer hearings held last fall.

The EPA announced in March that it planned to significantly restrict or prohibit mountaintop removal mining at Spruce No. 1. If permitted, Arch Coal's operation would bury more than seven miles of headwater streams and impact 2,278 acres of forestland.

In a statement showing support for the EPA's actions on mountaintop removal, Senator Robert Byrd from West Virginia said: "EPA Administrator Jackson reiterated to me that more wide-ranging guidance is forthcoming in the near future, providing clarity relating to water quality issues and mining permits. I encouraged her to move forward as soon as possible so those seeking approval of permits can fully understand the parameters for acceptable activity under the Clean Water Act."

The EPA comment period on Spruce No. 1 was scheduled to end on June 4. Visit appvoices.org/frontporchblog for updates.

Christian Coalition Takes Stand on Mountaintop Removal

In March, the National Council of Churches announced that a multi-denominational coalition of 28 Christian groups petitioned the EPA to restore original Clean Water Act protections which would prohibit mountaintop removal mining coal companies from labeling coal waste as "fill."

"As Christians, we are called to be good stewards of God's creation, to love and care for our neighbors, and to speak out against injustice," said Peter Illyn, executive director of the Christian environmental ministry, Restoring Eden. "As Appalachia's communities and ecosystem suffers, we feel called by our faith to speak out against the unnecessary practice of mountaintop removal coal mining.

"We believe only God should move mountains. Closing the Clean Water Act loophole is a good first step," Illyn said.

Agencies Move to Regulate The Coal Industry -- Sort Of

In a historic move, the Environmental Protection Agency announced new waterquality guidelines that would severely limit impacts caused by mountaintop removal mining vally fills in central Appalachia.

The Office of Surface Mining Reclamation and Enforcement (OSM) is also drafting proposed regulations for mountaintop removal coal mining that would restore a 100-foot buffer zone for streams, among other regulations. The rules will only apply to new permits and not to existing operations. Regulations are scheduled to be finalized by mid-2012.

The EPA also released two public options to regulate toxic coal ash waste (CCW) in May, one which would treat-but not label-the ash as hazardous material and one which would consider CCW as nonhazardous. Neither option addressed the disposing of coal ash in abandoned mine sites, a practice which some scientists believe is poisoning nearby groundwater.

Banks. Universities Changing Their Tune On Fossil Fuels

A Synapse Energy Economics study reported that the federal government is providing billions of dollars in subsidies through tax credits, loans, tax-exempt bonds and support of international institutions that finance fossil fuel use and extraction.

But after months of pressure from environmental groups and private citizens, JPMorgan Chase joined Bank of America, Citibank and Wells Fargo in reviewing financial connections with companies that

engage in mountaintop removal.

And last but not least, students at the University of North Carolina-Chapel Hill won a commitment from Chancellor Holden Thorp to phase out burning coal in the school's power plant by 2020 and to end the use of moutaintop removal mined coal sooner. The university is looking into biomass, energy conservation and efficiency methods to meet electricity on campus.

In Other Coal-Related News...

Greenville, OH: Greeneville residents blocked the U.S. government's plans to sequester CO2 emissions deep beneath their homes, protesting and holding community actions until the project was scrapped. West Virginia: The EPA announced up to \$800,000 in Brownfields grants to help turn abandoned industrial properties throughout the state-including several old mine sites—into useful community spaces.

Pittston, PA: The EPA conducted a five-day training exercise in late April to test the emergency response

system for the Butler Mine Tunnel Superfund site, part of the new requirements by the EPA to help minimize the impact of discharges from the tunnel.

Hong Kong, China: Joy Al-Sofi recently won first prize in a competition of the Hong Kong Writers Circle for a monologue focusing on the dangers of mountaintop removal coal mining.

Columbus, OH: Rather than bring their facility into compliance with the Clean Air Act, American Municipal Power elected to permanently shut down its coal-fired power plant near Marietta, Ohio.



• Restorative & Cosmetic Dentistry

Three Minute Whitening

Business As Usual At Massey

Story by Jed Grubbs

It's been two months since the deadly April 5 explosion at Massey Energy's Upper Big Branch (UBB) mine claimed the lives of 29 American Miners in Raleigh County, West Virginia.

The incident, which was our nation's deadliest mining accident in 40 years, was unquestionably made more tragic by the fact that it was preventable. In the wake of the accident, an ocean of company transgressions has come (and continues to come) to light.

The Mine Safety and Health Administration (MSHA) issued the UBB mine over 500 citations in 2009 alone (amounting to \$897,325 in proposed penalties) and over 50 citations in March of 2010 alone.

According to MSHA, "Massey failed to address these violations over and over again." Before the explosion, Stanley Stewart, an UBB miner who survived April 5, told his wife that UBB was a "ticking time bomb."

Following the tragedy, Massey CEO Don Blankenship said, "it's too late to bring back those that we lost, but we must do everything that we can to find out what happened and do our best to keep it from happening again." Let's take a closer look at Blankenship's company, Massey Energy.

The NYTimes reports that in the past 10 years, there have been 52 deaths at Massey mines. In 2006, a fire at Massey's Aracoma Alma mine killed two miners, and the company eventually paid \$4.2 million in criminal fines and civil penalties. In 2009, Massey was charged with \$12.9 million in proposed fines for safety violations. The company appealed 75% of the violations, and awarded its CEO, Don Blankenship, a stunning \$2 million safety bonus the same year.

In 2008 the EPA fined Massey \$20 million for 4,500 violations of the Clean Water Act. This was the largest fine in the history of the law. Then, in 2010 four environmental groups filed a lawsuit against the company citing evidence that, unbelievably, Massey's Clean Water Act violations had, increased in frequency since its record 2008 fine.

Massey is also the country's number one producer of mountaintop removal coal, and bears a large degree of responsibility for



the degradation of Appalachian mountains, streams and communities. Still, Don Blankenship touts Massey Energy's environmental credentials. "Environmental stewardship has become part of this company's DNA," says Blankenship.

On May 18, officials at Massey held their annual shareholder's meeting at the Jefferson Hotel in Richmond, Va, as the United Mine Workers of America and citizen activists protested outside, calling for the company to hold Blankenship and members of the company's Board of Directors accountable for UBB. Prior to the meeting, nine large investor groups, heavily invested in Massey Energy, also called for the resignation of Massey directors.

Don Blankenship speaks at last year's Friends of America Rally. Photo by FluxRostrum

Despite them all, Massey reelected its board.

On May 20th's Senate hearing on mine safety, Blankenship was unapologetic about his company's responsibility for UBB. According to Blankenship, the 23 fatalities at Massey mines in the 10 years prior to Upper Big Branch were "about average."

"Massey does not place profits over safety," Blankenship said. "We never have and we never will. Period. From the day I became a member of Massey's leadership team 20 years ago, I have made safety the number one priority."

West Virginia Senator Robert Byrd was unconvinced. "I cannot fathom how an American business could practice such disgraceful health and safety policies while simultaneously boasting about its commitment to the safety of its workers," the senator stated.

"This is a clear record of blatant disregard for the welfare and safety of Massey miners. Shame."

New Links Found Between Water, Coal and Cancer

Story by Derek Speranza

New research suggests that residents in close proximity to coal plants have to worry about the water as much as they do about the air.

Nathaniel Hitt, Ph.D., of Viriginia Tech, recently published a study entitled "Ecological Integrity of Streams Related to Human Cancer Mortality Rates," which correlates the ecological health of streams in West Virginia to the public health of those who live nearby.

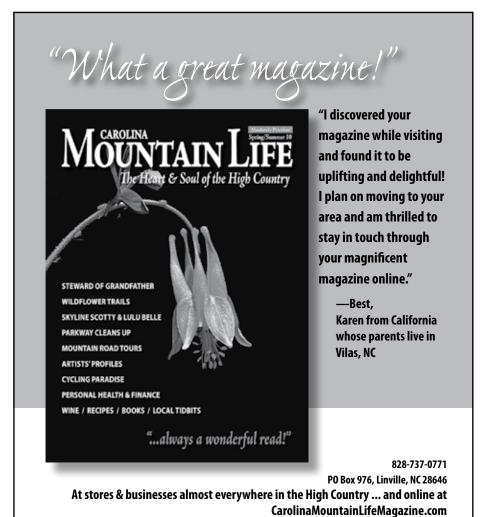
The study concluded that there were "significant associations" between the lack of ecological integrity in the streams and human mortality rates from certain types of cancer.

"Our research shows the importance of streams for people," Dr. Hitt said. "We learned that some of the smallest organisms living in streams can provide a warning system for one of the largest human health problems, cancer."

According to a study released by the American Heart Association, air pollution caused by fossil fuel byproducts is another source of concern-linking it to risks such as heart attacks and strokes.

This, too, is a concern of West Virginia and the entire Appalachian region, which is dominated by the production of coal power.





livingcarolina@bellsouth.net

Home Grown

From farm to farmers market, Appalachians seek to bring new meaning to modern agriculture

Story by Bill Kovarik

troll through any farmer's market and you'll find a riot of color, taste, and sensation. And, quite likely, crowds of con-

Farmers markets are the most visible sign of rapid change in agriculture. For consumers it means healthier choices, better tasting vegetables and a new relationship with the farmers. For farmers, it means more income, more opportunities for young farmers and better environmental practices.

And according to the Farmers Market Coalition, the number of farmers markets in the U.S. has doubled in the past 10 years, topping 5,000.

Various labels describe the change—sustainable farming, organic produce, community supported agriculture, and the locally grown food movement. Each is aimed at enhancing consumer health, food security, the environment and the farm economy.

"It's exploded in a way that's really kind of astounding," said Charlie Jackson, director of the Appalachian Sustainable Agriculture Project (ASAP) in Asheville, N.C. "When we started to focus on 'local' as a market it was a brand new concept. Now it's far exceeded what we could have imagined."

Urban - rural balance

The idea of striking a balance between urban and rural life is not entirely new to America. Benjamin Franklin, for example, was concerned about a benign balance between city and country, according to historians.

Thomas Jefferson favored the idea of independent "yeoman" farmers as the backbone of democracy. Others, like Henry Thoreau and Ralph Waldo Emerson extolled the virtues of rural life in the mid 19th century.

During the early 20th century, the Country Life movement envisioned nature-centered education as helping to slow down the problems of urbanization. It was backed by President Teddy Roosevelt and others in the early 1900s.

Through the 1930s and 40s, the idea of helping small farmers animated most political discussions about agriculture. At the same time, food needs were increasingly met by large scale agriculture, and the proportion of farmers in the population dropped from one-third in Teddy Roosevelt's day to less than two percent of the population today.

An early reaction to industrial agriculture involved new concepts about sustainable farming. British, German and American agronomists worried about soil depletion and overuse of synthetic chemicals and fertilizers. The term organic farming was coined in1940 by Walter James from the idea of the farm itself as a living organism. And the concern over the environmental impact of pesticides was heightened in the 1960s with the publication of Silent Spring by Rachel Carson.

The "back to the land" movement of the 1970s saw a modest resurgence of interest in farming and rural life. And the "slow food" reaction to fast-

food franchises in the 1990s, along with the recent emergence of lcoal food activists like Michael Pollan, have made a dramatic impact. Pollan's bestselling "Omnivore's Dilemma" of 2006 described agribusiness as having lost touch

with natural cycles, and advocated old and new farming methods to make agriculture sustainable.

Organic food is healthier, according to a May 2010, report by the President's Panel on Cancer, which recommended that consumers seek out foods that are grown without carcinogenic pesticides and herbicides. Some 1,400 pesticides have been registered for use in the US, many of which are known carcinogens.

Organic and local foods tend to be somewhat more expensive, and organic methods mean somewhat lower crop yields, but the disadvantages are offset by higher productivity per unit of land, often with ten times the dollar output per acre than large farms, according to Food First/Institute for Food and Development Policy. The trend may be seen in the sharp upswing in the number of small and micro-sized farms, from 580,000 to 700,000 out of a national total of 2.2 million in the past decade.

Continued on page 17



Amy Fiedler Johnston, top, runs her 8-acre sustainable Springhouse Farm and produce stand in Vilas, N.C. with seven interns and her two children. The farms' produce is Certified Naturally Grown, a grassroots alternative to the often costly USDA certification process. "Our main goal farming is to make a sustainable living doing something that is good for the community, good for the earth, and ultimately good for ourselves," said Johnston. Photo by Lonnie Webster

Jean Majewski, a student at Berea College in Kentucky, pulls a frame from a beehive, right. Honey sales to local food outlets help support students who work and study at the college. Photo by Frances Buerkens

Young Journey Emmons, below, display's spring sunflower sprouts at her parents' Harmony Acre Soap Company stand during the Watauga County, N.C. farmers market. Photo by Lauren Essick



Appalachia's Farmers Build Community

Story by Julie Johnson

As locally produced foods gain popularity, Appalachia's family farmers help create a supportive system of community services to reclaim the marketplace.

Sprouting a Small Farm

"In this region, where people have always relied on self-sufficiency, agriculture is about making a job," said Martin Richards, a former farmer and current Economic Development Organizer for Kentuckians for the Commonwealth.

Faced with dwindling job markets in industry and manufacturing, enterprising Appalachians are

again turning to agriculture for income. To do this independently, as opposed to contract farming for a large industrial operation, a farmer faces many challenges.

The climate and geography of the steep slopes and hollows present a unique challenge to the region's farmers. "Having a small or steep field definitely puts constraints on the type of equipment that can be used, " said Richard

Boylan, an Ashe County, N.C. farmer and agricultural agent for the Watauga County, N.C. Cooperative Extension

"The short growing season can be challenging," Boylan said, "but also provides growers in this area with a huge opportunity to produce cool season crops far earlier than other regions." Offering crops like broccoli and lettuces in late August allows Appalachian farmers a competitive edge.

"Permaculture design teaches us to take each challenge and find the opportunity in it," said Boylan. Farmers that can adapt to Appalachia's challenging landscape can produce unique crops that thrive in mountainous conditions.

At Upper Mountain Research Station in Ashe County, N.C., crop researchers have hybridized a strawberry called "day neutral." This crop is unique to high elevations, and continues to fruit throughout the summer, as long as temperatures stay below 90 degrees. For farmers in Appalachia, this means the ability to offer vine-fresh berries long after lowland producers.

Making it to Market

Once a farmer begins production finding a niche in the marketplace can be difficult. Competing with the low prices of mass-produced goods is extremely difficult for an independent farmer trying to make a profit.

"The small farmer has always had to be a jack of all trades," said Johnson County, Tenn. farmer Tommy Culver. "I don't know

William Edmisten of Love Valle Farms sells freshly harvested onions to farmer's market patron Nobu Tanaka. Photo by Lauren Essick

if anyone's ever been able to make a living just on farming; you have to be creative and have something to fall back on in case your crop fails.'

Culver, who also brings in income making musical instruments, is growing heirloom tomatoes and is experimentally cultivating hops. "I found out that my soil was particularly acidic, and those two crops thrive in it."

Understanding soil quality and knowing what to grow and when can be a daunting challenge for a green farmer.

Research farms and county-run agriculture extension offices provide farmers with valuable resources to overcome farming obstacles. Many offer soil quality testing. Often farmers can attend workshops that teach a variety of techniques, or networking events that connect farmers to chefs and restaurateurs.

> "We've taught everything from making hoop houses for season extension to canning and preserving to making solar-powered dehydrators," said Brooke Kornengay, manager of the Goodnight Family Endowment sustainable development research farm in Valle Crucis, N.C., part of the Appalachian State University

"Because these services are subsidized by the state, we don't have worry about making a profit," said Kornengay. "We're just here to support the community."

Continued on page 18



Buy Local: Support Community Agriculture

As commercial farming brings us farther away from our food sources, Community Supported Agriculture (CSA) programs provide a way for consumers to reconnect with their food system

In the 1960s, CSA programs were developed in Japan by a group of women concerned with modern industrial changes in agriculture.

By 1985, the first American CSA was established in South Egremont, Mass. The U.S. now has over 2,500 CSA farms, allowing consumers to act as shareholders for

CSA members pay a yearly fee, and receive weekly portions of available vegetables, fruits, herbs and other products.

to farm and is dependant on the farm's

For many, the transition from readily available produce at local grocery stores to eating seasonally grown produce requires some adjustment. Quantities can vary throughout the season and from year to year, depending on crop availability and growing conditions. Be sure to ask how much produce your CSA farmers expect to deliver each week throughout the season.

This relationship benefits both parties. Consumers know where and how their food is grown, while farmers have an immediate income early in the season. Many CSA arrangements allow consumers to provide farm labor for a reduced share cost. Other



farms may require volunteer time as part of

To find out about CSAs in your area check out LocalHarvest.org.



Bats voice Forging A Life As A Dairy Farmer

John and Andrea Woodworth operate a small goat dairy farm outside of Gate City, Va. Thirty-five alpine goats provide the family with enough milk to make a variety of cheeses, which they sell at local farmers markets as well as online.

By Julie Johnson

The Woodworth's journey to enter the dairy market has taught them much about the value of patience, trial-and-error, and diversifying their skills.

John and Andrea decided to begin farming in 1994. After a bad experience with a troublesome cow, they realized that smaller livestock was better suited to the steep geography of their land.

They bought two milk goats and two billies, and soon assisted their milkers in birthing twins--named Adam and Eve-and quadruplets.

"I'd never helped birth a kid before, but around here, the things I don't have be licensed to do, I do," John said.

While raising their own family, Andrea and John expanded their herd and in 2001 decided to pursue a state license to sell their dairy products.

The dairy industry is one of the hardest for small farmers to gain entry to. Strict sanitation laws make overhead costs expensive and the licensing process requires multiple visits by state officials.

"We poured the concrete footers for the pasteurizing room in 2001, and finally had the license in hand in 2008," said John. "Everything had to be done in stages." The final product is Ziegenwald Dairy, which means "goats woods" in German, Andrea's native language.

Andrea's inheritance money helped pay for the \$14,000 pasteurizer and the large press used for their hard cheeses. The rest of their equipment was acquired and installed piecemeal, some handed down from neighbor farmers or bought used.

Electric charts that resemble seismograph machines record the exact temperature of the cooling tank, pump system and pasteurizer. The charts and daily logbook are collected by their inspector and carefully monitored for any discrepancies.

"Its most important to keep that inspector involved every step of the way," John said. "That state inspection is always a trial."

Sanitation precautions are extremely important at the dairy, both for inspection and quality production. The dairy building is a three-room cinderblock structure, with each room separated by a self-closing door.

The milking room is beside a large pen where the goats play in the mud. Three large guard dogs roam the yard, protecting the herd from coyotes and wolves.





Young kids play in their pen, above. John Woodworth, below left, shows off the family's pasteurizers—one of the biggest investments in their cheese making business. Photos by Julie Johnson.

When Andrea comes to the gate at morning and evening milking times, the herd pushes up against the door, fighting for first dibs at the milking platform. Andrea knows

each one by name, and handles inevitable goat antics with a firm hand.

Six goats at a time are hooked up to a suction milking system, and their product is pumped into a cooling tank in the next room. There, John empties the milk into buckets and fills the pasteurizer in the cheese-making room, where bags of soft cheese hang above a stainless steel sink, slowly draining whey to be fed to the hog lolling in the mud outside.

The cheese making process is Andrea's craft, and the quality of the product truly reflects the hours of hard work that go into its creation. The Woodworth's cheese has become a hot seller at the Jonesborough Farmers Market, and orders from restaurants and retail markets have begun to trickle in.

In the fall, when the goats produce fattier milk, Andrea makes limited edition butter.

Having access to this market, as well as their community supported agriculture program (CSA), has allowed John and Andrea to find a niche for their product. Blending the cheese with fresh herbs and fruits from their garden helps expand their product line, and gives buyers a chance to try new varieties every time they shop at the farmers market.

In addition to dairy farming, Andrea is a registered nurse and John raises heirloom vegetables to sell to a seed catalog service.

"Its extremely hard to make a living on a farm if it's your only thing," John said. The Woodworths also help run the Highlands Bioproduce CSA.

"We've already met, if not exceeded, our family capacity for production," John said, "but we keep on going."

Ziegenwald does not fully support the family, but operates as an essential part of their diversified farm.

Luckily, the popularity of goat-milk products has drastically increased in the past few years.

"The lactose in goats milk breaks down much easier than that of cow's milk," Andrea said. Many lactose-intolerant people can tolerate goat milk products. "It won't solve all your health problems," she said, "but it can be a good part of a healthy lifestyle."

Appalachian Alternatives: other options in sustainable husbandry

From ostrich farms in Virginia to bison ranges in North Carolina, farmers are finding unique animals that help them gain entry to specialty markets.

As with any livestock, each of these alternatives has its pros and cons.

BISON: Once a common wild Appalachian species, these massive bovines were pushed west and hunted to near extinction in the 1800s. No longer endangered, they are now commonly farmed for their healthy red meat and their multiuse pelts. **Pros**: Lean meat fetches high prices in specialty markets and upscale restaurants; resilient animals rarely get sick and prefer to

sleep in pastures rather than expensive-tobuild barns. **Cons**: More skittish in temperament than cattle, easily disturbed and require very strong fencing at handling facilities; can jump up to 6 feet!

OSTRICH: These flightless birds, distant relatives of the mighty T-Rex, are farmed for a variety of products. **Pros**: Their lean meat is often substituted for beef hamburger; leather goods are highly priced at specialty shoemakers; eggs, weighing up to 5 lbs, that can be laid every other day are considered a delicacy in fine dining establishments. **Cons**: Known for "investigative pecking," their sharp beaks can

easily injure handlers; can run at sustained speeds of forty miles per hour, sometimes making them difficult to wrangle.

EARTHWORMS: Vermiculture composts trash practically overnight. Red Wigglers are the most commonly farmed worm. **Pros**: Eat their weight in kitchen scraps and dead leaves per day and excrete nutrient-rich compost; worm compost started with organic scraps can be sold to organic gardeners to naturally fertilize their soil; can also be sold as fish bait. **Cons**: Soil temperature and hydration must be carefully maintained for proper composting.

Home Grown

Continued from page 14

Large farms have also created large environmental problems that are external costs of industrial agriculture. David Kirby, in the April 2010 book Animal Factory, notes that the volume of domestic animal waste is 100 times that of humans in the U.S., and that concentrated in confined animal farming operations (CAFOs), the waste is causing fish kills and deadly human diseases.

To endure and endure ...

Farming in Appalachia is somewhat different from the rest of the nation. Despite the economic challenges, there seems to be a Faulknerian quality of endurance among Appalachian farmers.

Appalachian farms have an average size of 152 acres – about one-third of the U.S. average, and regional land in cultivation has dropped 36 percent in the past 35 years, compared to the national average of 16 percent, according to a paper by Dale Colyer of West Virginia University.

But the Appalachian region is in a different—and potentially better—position for catching the wave of the local foods movement.

Dennis Dove, who earned a PhD in agronomy and worked at Virginia Tech in the 1980s, found to his surprise that many old agricultural practices and heirloom varieties were still being cultivated in Appalachia.

"I'd go into the hollows and coves of the coalfields and find varieties [of vegetables] that haven't been seen in years and years," he said. People still passed on knowledge of farming to their children, and while most small farms needed some other income source, the basic pattern of agriculture had not been altered as it had been elsewhere.

"It was all still here," Dove said.

Dove and partner Tenley Weaver began organizing the Good Food Good People marketing co-op in 1997, a Floyd, Va.-based project to bring produce from local farms to restaurants and farm markets, and one that was able to work with both older and younger farmers.

"I realized we had to promote and preserve local and regional agriculture from the tractor-trailer situation," Dove said. By demonstrating the success of an organic and local farm marketing co-op, Dove feels he is doing more for farming than he could

Saving Appalachian History - One Seed At A Time

By Julie Johnson

Appalachia's growers are encouraging crop diversity and saving heirloom vegetable varieties from extinction by creating a network of seed saving and swapping.

Heirloom fruits and vegetables are often far tastier than their supermarket cousins and express characteristics that have been developed by generations of natural growth in backyard gardens and small farms.

From the yellow-striped

Green Zebra tomato to the Dark Pot Liquor butterbean to the crimson Bloody Butcher corn, heirloom varieties deliver diversity in agriculture and allow each grower to bring something unique to market.

There are many organizations and seed swap events in and around Appalachia that promote planting heirloom varieties and help growers save and share their seeds after harvest.

The Southern Seed Legacy (SSL), based out of the Univer-

sity of Georgia's Anthropology department, has numerous research farms and operates a program called "Pass Along Southern Seed" (PASS.) For a \$15 annual membership, you can order any of 130 heirloom seeds from their seed bank. Once successfully grown, you must keep one-third of the next generation for yourself, pass one-third to another grower and return one-third to SSL.

Check in your area for seed swaps near you.

infrastructure problems. Other non-profits include Southern Sustainable Agriculture Research and Education.

Universities are also beginning to offer more programs in sustainable agriculture. Notable are new sustainable agriculture programs at Appalachian State University, the University of Tennessee Knoxville and North Carolina A & T. Two regional colleges have used farming as a way to help support edu-

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cation since their founding over a century ago: Warren Wilson in North Carolina, and Berea College in Kentucky.

Berea operates a 500-acre working farm, and about 90 acres are in the process of transitioning to certified organic, according to Sean Clark, an associate professor in the agriculture and natural resources department.

Transitioning to organic certification is a process that requires inspections and record keeping. "It's a lot like doing income taxes," Clark said. "We do it for the educational process, and because it makes you plan and be a better manager, thinking ahead, and anticipating potential problems."

Online Resources

NC Farm Fresh: www.ncfarmfresh.com

Southern Organic Resource Guide: attra.ncat.org/ sorg/where.html

Appalachian Sustainable Ag Project: buyappalachian.org/

Appalachian Transisiton: appalachiantransition.net/ sust-agriculture.htm

Central Appalachian Network: www.cannetwork.org/ our_work.htm

have done as an agricultural researcher.

Today, organizing is easier, Dove and Weaver say, because digital communications technology in rural areas is now helping to link farmers and consumers.

Grayson Landcare

Another model of innovation is the Grayson County Landcare co-op, based in Independence, Va. The group was formed by five local farmers committed to returning more money to the local community, and sparked by Jerry Moles, a PhD who started the Landcare movement in Australia and Sri Lanka.

What resulted was Grayson Natural Foods, which specializes in grass-fed beef and "hair" sheep that are marketed without hormones, antibiotics or animal byproducts in the feed.

"What Landcare is about is institutional change," Moles said. "What I'm trying to do is find out how to change the flow of money, how to change the flow of information and how to change the flow of materials."

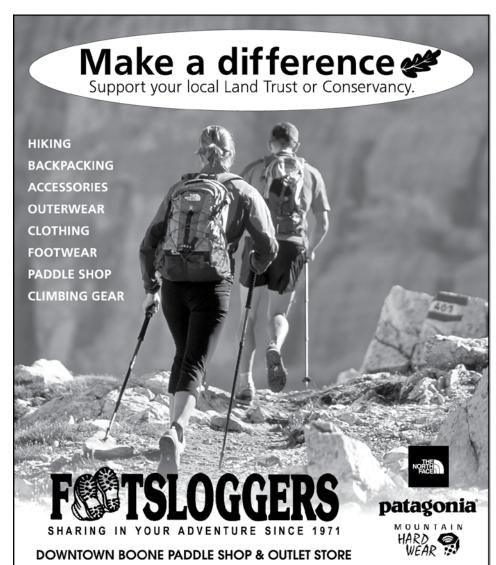
Training a new generation

Twenty five years ago, the focus in reforming agriculture was on reducing input costs to make farming more profitable, said Jim Lucans, executive director of the Southern Sustainable Agriculture Working Group (SSAWG).

"That same thing happens with consumers buying local, not depending on supermarkets, and having more control."

Since local operations are smaller in scale, this also cuts down on environmental damage from factory farming of livestock, he notes.

The SSAWG is one of several nonprofit organizations in the Appalachian region taking on an educational role. The organization holds annual conferences where farmers talk about their local and organic operations, about marketing issues, and about legal and



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Appalachia's Farmers **Build Community**

Continued from page 15

"We're still trying to create networks for Eastern Kentucky farmers," said Richards. A recent weekend of workshops hosted by Kentuckians for the Commonwealth members in Floyd County brought out farmers interested in improving their marketing skills and sharing information.

"In our region, the imposed quotas set by the tobacco industry eliminated the need for a farmer's marketing skills," said Martin. "The workshops are aimed at making farmers independent marketers as well as producers." Participants learned how to set up an eye-catching table at market, and how to work with restaurateurs and cooperative wholesalers.

Farmer's markets are an obvious choice for many, but they require a strong organizer and an easily accessible, central location. There is no middleman between farmer and consumer, but the farmer's profit can vary strongly from week to week.

Farming in the Shadow of Coal

Story by Julie Johnson

Many farmers in the coalfields are finding environmental pollution has ruined their irrigation.

"In the coal fields," said Martin Richards, Economic Development Organizer for Kentuckians for the Commonwealth, "you can have a nice piece of bottom land with great soil, but if there is a mine site, active or inactive, in your watershed, the residual pollution can ruin your field."

Institutions like Pine Mountain Settlement School in Harlan County, Ky., help mitigate this problem. The school functions as a research center and local outreach service. They provide workshops on stream and water quality testing, and raise test plots that help community members learn to grow according to the rigorous parameters that mountain geography provides.

Visit PineMountainSettlementSchool. com to find out more.

The schedule can also be rigorous for a farmer that has already worked in the fields all week. "Sometimes you just get tired of waking up at 4 a.m. every Saturday," said Boylan. "However, it's a great place to connect customer to farmer and those connections are very important."

Creating Community

Regardless of the method or market, "agriculture creates community," said

Kornengay. Farming communities have long fostered neighborly bonds to help plant, produce and harvest one another's yields.

Mike Hindman, a Butler, Tenn. alpaca farmer, said that he lets a neighbor down the road cut and use the hay from one of his emptier fields. "I got the field, and more hay than I need for my animals and I don't want to keep it cut all the time," he said.

"No money changes hands, we just help each other out and we both benefit."

Increasing the number of farmers in an area also increases demand for equipment sellers, supply shops and livestock veterinarians. Area restaurants also benefit from a steady supply of fresh meat and produce that they can order practically on demand, without having to sacrifice quality to crosscountry shipments.

The Watauga County, N.C. Agriculture Extension Service is hosting a chef-to-farm field trip this June. "We want to get chefs and farmers together so they can see what's growing and what's cooking," said Boylan. "Making personal connections helps strike up business opportunities for both."

"We want to create a better knowledge base on who has resources, and spark discussions with farmers, consumers and restaurateurs to find out how we can all strengthen community relationships," said Kornengay.

"At the core of it, being a farmer is about feeding people. The farmer is really a community philanthropist," said Culver.



Farming Forestry: A Pianist's Tale By Maureen Halsema

By Maureen Halsema

He is a champion of trees, fighting for them in the legislative arena, teaching about them on educational platforms, and managing them on Charlane Plantation, his 25,000-acre tree farm southeast of Macon, Ga.

Chuck Leavell is most recognized for his musical talent and his travels with the Rolling Stones, Eric Clapton, and the Allman Brothers. But over the last few decades, Leavell has been rising in distinction in his other passion as wellfamily forestry.

"I wouldn't have that marvelous thing called a piano to play if it were not for the resource of wood," Leavell said. "As a tree farmer, it provides me a great balance, personally. I get a lot of spiritual lift listening to the wind in the pines, rather than loud guitars in my ears."

In 1999, Leavell's farm won the National Outstanding Tree Farmer of the Year Award, selected out of approximately 80,000 family farms for its exceptional forest management.

Leavell sits on the board of the American Forestry Foundation, an organization dedicated to ensuring the sustainability of forests through education and strong conservation policy. He serves on the board of the U.S. Endowment for Forests and Communities, which works with forest management communities to develop sustainable, healthy forests.

"All countries are different, but one of the important things to note, here in the United States, is the amount of private landowners," Leavell said. "Two thirds of our country's forestland is owned by individuals."

Leavell's wife, Rose Lane, inherited their prized property from her grandmother

"We kind of woke up with this awesome

responsibility to take on this heritage of family stewardship," Leavell said.

Leavell began to devour information on farming and land use, studying in dressing rooms, on tour buses and in hotels. He realized he needed a crop that could work with his busy lifestyle as a touring musician. So, he went to meetings, enrolled in seminars, and met with landowners, eager to find out more.

"And next thing you knew, I was a tree farmer," Leavell said.

Leavell and Rose Lane have been farming trees for 30 years now. In addition to cultivating their land, Leavell has become an advocate for family forestry.

"You have to incentivize ways to keep land in families and families on the land," Leavell said. He has testified to Congress on the last two farm bills in order to encourage policy makers to allocate more funding for family forestry.

"When it comes to help for family forest landowners through the farm bill, the funds directed to forestry are a minuscule part of the pie, less than 1 percent of the overall funding, while agriculture gets the bulk," Leavell said. "This is way out of balance and needs to be addressed. We have to shake up our lawmakers. We need to say, 'look, if you want to have healthy forests, you need to engage our private forest landowners and have good programs that incentivize them to plant, to manage, and just keep their lands and trees.' That has been my focus on the last two bills and that will be my focus this time around.

We've been able to have baby steps, but we need to have bigger steps."



Leavell loves his trees and his piano, which he would not have without trees.Left photo by Roger Gupta.

Leavell often invites children, particularly from metropolitan areas, to come take a nature walk on his tree farm and explore the natural habitats of 30 different species of trees and a wide variety of animals.

Leavell also dedicates much of his time to the Mother Nature Network, an environmental news website launched in 2009 that covers topics related to environmental issues.

"It has been a heck of a journey so far. Over 15 months, we've had a meteoric rise, and we are now the number one most visited, independent environmental website in the world," Leavell said.

Whether on stage, online, or in his forest, Chuck Leavell will continue to grow and foster his passions in order to cultivate a better foundation for generations to come.

In addition to his legislative work, Leavell has written a children's book, "The Tree Farmer," and "Forever Green: The History and Hope of the American Forest," which is an in-depth look at sustainable forestry and conservation. Leavell is now in the process of finishing his third book, "Growing America: Smart, Strong, and Sustainable," which addresses the need for smart-growth communities and a vision for America's future. Leavell hopes to have it on the shelves by fall.

Non-timber Product Offer Farmers a Unique Opportunity

Collecting ginseng, ramps and yellowroot has been an Appalachian tradition for generations.

It is a skill that families pass on; recognizing, harvesting and even selling these non-timber forest resources, particularly in southern Appalachian hardwood forests.

"There is a tremendous growth of interest in these products both from an economic standpoint and from and ecological standpoint," said James Chamberlain, a forest products technologist for the U.S. Forest Service. "Nontimber forest products are critical not just to forest health but also to community health."

Non-timber products are generally divided into four categories of use:

• Edible and culinary, such as ramps, black walnuts, fungi, dandelions and fruits.

 Handicrafts and specialty woods like sassafras saplings that may be used to carve walking sticks or using bark and trees not rated for timber

> to craft bowls, knickknacks and instruments.

• Floral and decorative, such as dried flowers for florists or woven vines for baskets and wreaths, using items like galax, kudzu, and grapevines.

 Medicinal plants and dietary supplements such as ginseng and yellowroot are often collected as natural remedies.

As with any forest management, harvesting the plants sustainably in order to avoid adversely impacting the ecosystem is the biggest challenge. Chamberlain is working to develop best management strategies in order to help facilitate sustainable harvesting.

"The big things about [these] products is that you don't have to cut your trees down to grow them or to manage them," Chamberlain said. "As an alternate income source, here is an opportunity for landowners to keep their forests intact, but to manage and grow their understory."

"It's sort of a double-edged sword," said Dr. Tom Hammet, wood science and forest products professor at Virginia Tech. "If you provide more info on the markets, people go and collect more of it, which affects the long term sustainability," said Tom Hammet. "That is the dilemma right now-sustainability."

Hammet works with landowners, farmers and extension agents to educate them about the products and to find the markets to sell them in.

"For the medicinal plants, most of them grow wild, and people just now are starting to plant them on their land and [cultivate] them," said Hammet.

"We are seeing the most interest by farmers who want to diversify their lands, and have an alternative to cattle ranching or other crops," Hammet said. "We work with them to pick up these other crops."

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USDA ORGANIC: Label Fuels Continued Controversy

By Bill Kovarik

The USDA certified "Organic" label first appeared on foods in 2002 following 12 years of testing, rulemaking and controversy. By last year, organic agriculture had become a \$26.6 billion business, growing at a rate of 5.3 percent per year – five times faster than regular foods.

As its importance has grown, so too has controversy over what can be appropriately labeled "organic."

According to USDA standards, at the very least, certified organic fruits and vegetables must be grown without chemical pesticides, herbicides or fertilizers. Organically grown livestock must have access to pasture and not given antibiotics or growth hormones.

The agency charged with keeping these rules is the U.S. Department of Agriculture's National Organic Program, and its performance has been widely criticized.

For example, 65 major recommendations made by a volunteer expert advisory committee over the past eight years were completely ignored by USDA, leaving the decisions to private organic certifiers who created a confusing patchwork system of standards, according to critics.

In a March 2010 audit of the organic program, the USDA inspector general's office said that the National Organic Program (NOP) didn't even have a regular way to communicate with these advisors.

The report also noted that organic product tests had not been done by the NOP, and that complaints had been poorly handled.

In one case, petroleum-based hexane was used in organic infant formula, despite NOP staff objections, according to an investigation by the Washington Post in 2009.

Critics point out that there is a wider problem.

"Spotty enforcement...has enabled a number of giant factory farms engaged in suspect practices to place ethical family farmers at a competitive disadvantage, particularly in organic dairy, beef and egg pro-



Experts call for stronger standards for organic labeling process. Photo by USDA.

duction," said Will Fantle, research director at the Cornucopia Institute, a Wisconsinbased organics watchdog group.

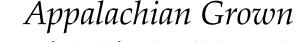
One of the ongoing points of contention has been with confined animal farming operations (CAFOs). Some large dairy farms have been interpreting the organic

requirement that cows have "access to pasture" as a minimal requirement, keeping organic dairy cows in pens most of the time. The USDA has addressed this by establishing new standards on pasturing organic beef and dairy cattle that will take effect June 17.

The standards are needed, says Jim Lucas of the Southern Sustainable Agriculture Working Group. "It's the linkage between farm production and the customer, and sometimes it comes down to a label," he said.

"But we have to remember that it's the relationship that's really important, whether it's organic produce

or [community supported agriculture programs] or farm stands," Lucas said. "The important thing is that there is a more direct connection between the consumer and the farmer."



The Appalachian Grown label is a project of the Appalachian Sustainable Agriculture Project (ASAP) based in Asheville, N.C. The label certifies that the food comes from a family farm in a Southern Appalachian county, including western counties of the Carolinas, Virginia and northern Georgia, along with eastern Tennessee.

According to ASAP, "To become a certified farm and market products with the Appalachian Grown label, producers must confirm the location of their farm in an Appalachian County and certify that they will only

market products as Appalachian Grown that are raised on the certified farm... It means that you

are supporting a local food

system that contributes to the local economy, that is better for the environment, preserves the farming heritage of Appalachia, and protects our mountain landscape."

To learn more about ASAP visit *ASAP-Connections.org*.





This Green Yard: BRINGING ORGANICTO YOUR HOUSE

By Jillian Varkas

If you are not convinced that organic gardening and knowing what goes into your ground is important, place a few sticks of celery in a cup full of water and add red food coloring.

After a few days, the celery will begin to turn red. That is what happens to our food; pesticides and chemicals are absorbed by our vegetables and are introduced into our bodies.

Organic gardening employs natural methods in caring for gardens without using synthetic fertilizers or pesticides.

Everyone can have a vegetable garden by following simple steps. Even folks who lack the space for a garden plot can grow simple vegetables in containers adding organic materials and natural fertilizers. Water them well, and those inexpensive seeds will provide baskets of produce.

A Greener Garden

SOIL TEST- Have your soil tested by a county extension service and take the steps recommended in the report to bring the chemistry of your soil into balance. It is easy to maintain proper balance. You may

need to add organic materials such as lime, manures, organic fertilizers and compost in order to grow crops successfully and improve the health of your plants.

WEEDS-Learn about weeds and how to identify and manage them without chemicals. Corn gluten is an effective pre-emergent, and cider vinegar is an excellent weed killer.

INSECTS- Create a garden ecosystem that encourages beneficial insects to balance the population of the pests. If pests become a problem, use botanical insecticides, such as insecticidal soap and Neem products. For slugs and slimy critters, put out saucers of beer; they will crawl in, but not out. For fruit flies, put a banana peel into

COMPOST- Start a compost bin or pile to recycle organic wastes and make a rich organic amendment for your soil; for organic gardeners, this is black gold! See our story below for tips on composting.

a plastic container, add a few holes in the top

and you have an ideal fruit fly trap.



USE NATIVE PLANTS- Learn about native and sustainable plants and make sure the plant matches the site in terms of soil, sunlight, moisture and other growing conditions. By buying sustainable planting—those that closely match the environment—you will reduce your need for pesticides, fertilizers and additional water. Buy healthy plants from a knowledgeable source; ensure they are disease resistant and tolerant to your environment.

Mulched flower beds offset the lawn areas at Sunflower Farm vacation rental in Barnardsville, N.C. Photo by Joan Naylor

Sustainable Landscaping

Less lawn equals less fertilizer, pesticides and watering, so limite your lawn size. Consider the use of a native ground-cover in place of a lawn.

Use mulches, which are attractive and hold moisture into the soil, and hardscapes (walkways, gravel) for heavily traveled areas so that people are not compacting the soil and causing erosion.

Consider raised flowerbeds and raised beds for vegetables. Soil in raised beds generally warms up quicker in the spring and is easier to cultivate and to cover to protect plants from cold and wind. Raised beds are also ideal for incorporating water-saving drip irrigation systems, retaining moisture.

If you have an irrigation system, be sure to have a rain sensor and program it based on the temperature and sun in each of your growing months.

Construct an environmentally-friendly design, shape the land using its natural topography, select your plants and enjoy!

Feed Your Lawn: COMPOSTING FOR BEGINNERS

By Maureen Halsema

Instead of tossing those table scraps in the trash, try feeding your lawn those leftovers. Composting is a natural recycling process that takes little to no management. Follow these quick guidelines to a hardier, healthier lawn.

Bacteria, worms, fungi, protozoans and other microorganisms break down the plant and animal matter into nutrient-rich compost that improves soil structure, mitigates erosion and increases water-holding capacity and aeration, making your plants more resilient. Compost can help plants develop a greater resistance to pathogens, while reducing the need for chemical fertilizers and pesticides.

This easy-to-make concoction also helps to reduce your trash heap and ultimately the amount of waste that ends up in landfills.

To begin, select an accessible spot in your lawn approximately three feet in diameter. Use a ready-made compost bin, build a fence around the area or even just designate a spot and build your pile.

Caging your compost can help keep it out of the paws of oppossums, raccoons and other scavengers.

"Put the compost site somewhere that

some smells can be tolerated, especially if you are going to be more hands off about it," said Dr. Sean Clark, associate professor of agriculture and natural resources at Berea College.

Start adding ingredients; a combination of green materials, like vegetables, and brown materials, like woodchips, makes for the best compost. There is no set recipe for composting, however; every pile is a unique conglomeration of biodegradable products.

There are a couple of ways to maintain your compost heap. All of these steps are optional; the only required maintenance is ensuring that you have the right amount of moisture. Some signs of imbalanced moisture may include foul odors, which could signify that the pile is too wet or that there may be an

······

Do Compost

Grass Trimmings, Fresh manure, Eggshells, Coffee grounds, Tea bags, Fruits, Vegetables, Leaves, Straw, Sawdust, Dead weeds and plants, Hay, Woodchips, Shredded cardboard, Newspaper, Paper plates, Pine needles and pine cones

Do Not Compost or Compost with Care

Meat*, Bones*, Cheese*, Milk*, Olive oil, Salad Dressing, Big pieces of wood, Cat or dog waste, Grass clippings from chemically treated lawns

* Odorous or may attract pests.

excess of green material. Turn the pile and add more dry material—crisis averted!

Stirring compost helps to mix up the materials, aerating them and facilitating microbial growth. To stir compost, use a pitchfork or a shovel.

"The more you aerate the pile, the less likely it is that you will have those bad smells," Clark said.

Another way to curb unwanted odors is to put a layer of sawdust on top or add some bulky materials, like wood chips.

There are two simple ways to compost: hot and cold.

"The biggest difference between the two would be time required for decomposing and the fact that without generating that heat, you are less likely to kill plant and human pathogens and weed seeds," Clark said.

Cold composting: Simply add materials and let it mature for six months to two years, the microorganisms will do the work. Keep your eye on moisture levels and remember that the bottom of the pile will mature first.

Hot composting: This pile can be ready for use in less than two months, but it's advisable to let it mature longer because quick compost does not have time



Send scraps to the compost pile. @istockphoto/Edward Shaw Photography

to cultivate a diverse microbial population. To hot compost, build up the pile to about 9 cubic feet. A pile of this size helps maintain an elevated temperature, because the microorganisms exert heat as they metabolize your composted items.

To measure the temperature, dig a small hole in the center of the pile; it should be warm to the touch. For greater precision, use a stem thermometer. The pile should reach 140° to 160° F. It's recommended to stir compost on a weekly basis and, as with cold composting, keep an eye on the moisture levels. When the compost has cooled, and you can no longer differentiate grass clippings from eggshells, it is ready to be used.

So, cut down on waste and give your lawn that second helping; it may behungry for some composted nutrients.

Editorials

Hold Fossil Fuel Industries Accountable

The last few months have shocked us all with headlines reporting the fossil fuel industry's negligent disregard for security and safety.

Mine disasters devastated a West Virginia community in April, with 29 miners killed in a blast at Upper Big Branch — the biggest mining disaster since the 1970s. In Kentucky's Coal Dotiki Mine, a cave-in killed two more miners. And off the coast of Louisiana, the Deepwater Horizon oilrig explosion, which occurred when the blowout preventer failed to engage, robbed 11 men of their lives; as of the writing of this editorial, oil continues to spew into the Gulf of Mexico at an alarming rate, threatening coastal wildlife areas as well as coastal communities.

These recent incidents are not unusual. In December of 2008, TVA's Kingston Fossil Plant sludge dam failed, dumping 5.4 million cubic yards of toxic coal ash into the Emory and Clinch Rivers.

In 1972, West Virginia's Buffalo Creek disaster killed 125 people overnight, when a sludge dam broke, flooding and devastating the community.

In both instances, officials were aware of structural issues with the dams, but the communities were not informed.

The TVA recently announced that a full cleanup of the spill in Kingston, Tenn., is impossible; the impacted watersheds will remain polluted.

These disasters should have been avoided, and would have if responsible measures were taken to protect our communities and the natural resources they depend on.

The fossil fuel industry seems to be cutting corners while receiving "special treatment" from regulators. The hands-off approach of permitting fossil fuel industries to practically self-regulate and self-report is clearly a massive failure.

Prior to the disaster, Massey's Upper Big Branch mine had been cited for numerous safety violations. BP had been cited on many occasions for health and safety violations aboard their rigs. Fines were paid, but were corrections made? The industry often dismisses community concerns as naive or anti-business, suggesting there is "nothing to worry about."

With all these tragedies and catastrophes, critical questions yet remain: What have we learned? How will the safety of American workers and citizens be secured? How much do we value our fragile ecosystems? And will we take the lessons from these disasters and ensure that our planet and people will not suffer future repercussions from similar oversights, or will big business continue to be given priority in decision making?



Letters to the editor

Appalachian Voice welcomes letters to the editor and comments on our website. Letters are subject to editing due to space limitations (letters can be read in full on our website). The views expressed in these letters, and in personal editor responses, are the opinions of the authors and are not necessarily the views of the organization Appalachian Voices. Write to editor@appvoices.org.

A Miner's Response

Dear Editor,

I am writing on behalf of myself and many coal miners throughout Southwest Virginia. I am a reader of your newspaper and an avid outdoorsman and conservationist.

Recently, as I read through [Two Miles from Hell: a Miner's Story in the March 2010 issue], I was appalled at the biased point of view that you let be published in your paper.

The way this man feels is in no way how the industry of coal mining is, and therefore should not be depicted as such. The mining industry cannot help that he is unhappy with his job, and giving him a platform to bash the entire industry for it is shameful.

I work in a deep mine much like the one described in the story, and I really love my job. I am third generation coal miner and I am proud to work for my family.

I, like many if not most coal min-

ers, am disgusted at mountaintop removal. It is a cheap and disrespectful way to ravish our land. Many of us are ardent hunters and fishermen, as well as hikers who love the outdoors and work hard to protect it.

Nonetheless, this article has undoubtedly tarnished the view of the

coal industry, when it is just one man's opinion. I am saddened at this, as coal is much of the livelihood of our area. I am proud to provide for my family, and this man needs to either become proud of the work he does or leave the industry, because his type of attitude leads to neglect of the job and eventually accidents.

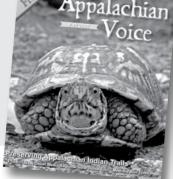
I hope that a retraction or apology is printed underscoring the values of true coal miners. We love our country, our lands, and our jobs.

Thank you, Justin Honaker

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issues in Appalachia!

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Lawsuit Puts Bat Concerns on Wind Industry's Radar

By Marsha W. Johnston

Developers say the future for wind energy in Appalachia remains bright despite a federal court decision that has imposed requirements under the Endangered Species Act.

In 2009, the Animal Welfare Institute sued to stop a project on Beech Ridge in Greenbrier County, W. Va., which it said posed a threat to the endangered Indiana bat.

Under the Endangered Species Act, as long as wind developers get an "incidental take permit" (ITP) from the US Fish & Wildlife Service, they cannot be sued even if an endangered species animal or bird is killed on the project site. It is not, however, required.

Chicago-based Invenergy LLC, developers of the Beech Ridge project, had not gotten an ITP for the project because its own surveys of the site concluded that no endangered bats lived in the area.

In December, a federal court judge ordered Invenergy to stop expansion of the project, to move 10 turbines farther away from bat caves and to run its turbines faster to reduce potential bat deaths. The slower turbines run, the more insects—and bats—they attract.

As a result, Invenergy has started the one- to two-year ITP process for the first time in its history in order to build 33 more turbines. "We are taking another look at how we handle ESA issues," said David Groberg, vice president of business

development at Invenergy and lead developer of the Beech Ridge project.

"Invenergy still has projects that we're moving forward within the range of the Indiana bat, including in Appalachia, at Poor Mountain, outside Roanoke, for example," Groberg said.

Meanwhile, Highland New Wind Development LLC spokesman Frank Maisano said its project in Highland County, Virginia has "lots of interest" from potential investors, even if none had yet "signed on the dotted line."

According to Maisano, Highland New Wind will re-start construction on its project this spring, despite the possibility of another lawsuit over bats from Highland Citizens for Respon-

According to an analysis by the National Renewable Energy Laboratory and consulting firm AWS Truewind, the U.S. could generate 37 million gigawatt-hours of electricity each year if current wind technology were developed in viable areas that are not under environmental protection.

sible Development. He said the developer is likely to get an ITP, but added that the company's studies had not identified any endangered bats in the area.

With thousands of mountain caves, Appalachia is home to many bats, including two other endangered species—the Virginia Big-Eared and grey myotis. To date, no official studies have been released on the total number of wind turbine-related deaths of Indiana bats. But in Ohio, Groberg said, Invenergy recorded

the unexpected death of an Indiana bat in farm country, far from hibernacula, and in March, the U.S. Fish and Wildlife Service reported one of the bats had been killed on an Indiana farm.

All species of bat are at greater risk than birds from wind turbines, as they can be killed by the sudden drop in air pressure around turbine blades, known as barotrauma, and do not have the same legal protections as do birds.

Consequently, siting wind turbines properly in bat country can be difficult. "For bats," said Laurie Jodziewicz, siting man-

ager for the American Wind Energy Association, "I think the jury is still out as to how to best site projects. We don't really know that yet, but we're learning more and more each day. Bats appear to be a much bigger issue for

the industry [than birds] because there is some kind of attraction [to turbines], and the impacts are higher."

Avoiding bats on a wind project can be difficult, but there are solutions, says Dr. Thomas Kunz, professor of biology and director Center for Ecology and Conservation Biology of Boston University. Running wind turbines at higher speeds reduces the number of bats killed by up to 80 percent, and does not cause any significant loss of generated electricity.

When Tragedy Struck: Reflections on Upper Big Branch Mine

By Daniel A. Hawkins

When the tragic explosion of the Massey owned Upper Big Branch mine rocked the small mining community of Montcoal, W.Va., on April 5, 2010, reverberations of sadness and fear echoed throughout the Appalachian Mountains, touching the hearts of nearly everyone laboring in the coal industry.

Words could not possibly describe the sadness known by the families who must now live without their loved ones. The happiness they had once felt was taken from them inside the darkness of a mine.

The outpouring of support from mountain communities has brought people together as this tragedy lends itself to confirm the fear so many coal miners and their families face on a day-to-day basis.

Since the disaster, time with my family has become more precious. The words "I love you" hold added meaning as I put my children to bed, letting them know each night how much they mean to me. My wife is more worrisome about my time in the mine, and my parents call often to tell me

how much they love me and to be careful when I am at work.

We all hope with increased desperation that I will find a different profession, one with less risk and a brighter future for our children. There are times that I am willing to just quit, pack everything we own, and leave this place, but I know without another job lined up, my family would be forced to face unnecessary risks in a poor economy.

Changes have occurred at the mine where I work, both in the attitude of the men as well as in the company. The mining officials have placed an extraordinary emphasis on safety, wanting every man to make sure they take as much time as needed to be safe—something we are more than willing to do. Production is still essential, but unlike the stories of Massey operations we often hear from their previous employees, safety comes first at our mines.

As coal miners, we know the risks; but with each trip into the mine, we become more complacent, more comfortable that nothing will go wrong. For the men at the Upper Big Branch mine, I am sure it was just another day at work. They took another trip into the mine, down the same familiar entryways, but on this day, it would only take a few short moments for things to go terribly wrong. Knowing this, we find ourselves both consciously and subconsciously striving for a safer way to perform our jobs.

As I followed the news about the explosion, I was brought to the realization of how easily I could have been one of those miners. I am sure that many miners find themselves having the same thoughts after this tragedy—thoughts that we will have to deal with as we hope for something better to come along.

But for now, this is all we have, and all we know.



INSIDE APPALACHIAN VOICES

In Loving Memory: Sarah Percival

APRIL 6, 1985 - APRIL 23, 2010

By Austin Hall

When I first started as a volunteer at Appalachian Voices, I quickly learned that this was no ordinary organization. The members of the staff and the volunteers function as a family, working feverishly together to right some of the most egregious environmental wrongs in our country.

It is this tight knit familial environment that makes the loss of Sarah Percival, a former intern and all-star volunteer at Appalachian Voices so difficult.

Sarah joined Appalachian Voices as an intern from Appalachian State University, where she completed her degree in environmental science with a focus in sustainable development. I was a new hire at Appalachian Voices, and Sarah was to be my first official intern.

During Sarah's internship, she assisted

in the management of a multi-state legislative campaign focused on the Appalachian Mountains Preservation Act. These bills, introduced across the southeast, were designed to outlaw the use of mountaintop removal coal for the generation of electricity. Having visited a mountaintop removal mine in West Virginia, Sarah was intimately familiar with the devastation associated with this type of surface mining and was highly motivated to work to make it illegal.

Sarah had no previous organizing or legislative experience, was completely new to the nonprofit world, and at times said I spoke in a separate language full of indiscernible acronyms. Sarah was certainly green and it would take time to hone her skills, but she had a set of rock solid traits that are absolutely impossible to teach–she was intelligent, committed

and fiercely passionate. Sarah had decided that she was going to make a real difference in the world and was willing to leave her comfort zone to do so.

Her transition from green intern to highly functioning activist was amazing, and I came to depend on her as a valuable member of our team who assisted and participated in all facets of the campaign. In a week, she could easily be asked to travel to Raleigh to directly lobby state decision makers, schedule presentations, edit

press releases, print and design materials and manage my insane schedule (which is no easy task). She was dependable, forever positive and contributed a great deal to our work during her internship.

Sarah's sudden passing was far too early in her life, leaving a distinct void in the world. Her dedication to her cause was palpable, and even still, she continues to help protect of the Appalachian Mountains. We have been deeply moved by recent donations given to our organization in Sarah's honor.

At Appalachian Voices, we feel blessed to have known and worked with such a beautiful, passionate individual. I will never forget Sarah, and she will always serve as an inspiration to my work.



Appalachian Voices mourns the loss of Sarah Percival, passionate intern, but friend above all.

Appalachian Voices 🔊



Bare Essentials Char Restaurant Melanie's Food Fantasy Jimmy John's Gourmey Sandwiches Our Daily Bread Pepper's Restaurant Stick Boy Bread Company

These Boone, N.C. businesses donated to our special Earth Day fundraiser for Larry Gibson, and made it possible to help raise the necessary funds for a security system on Kayford Mountain. Thanks so much!

March-May New and Renewing Business League Members

BetterWorld Telecom.....Reston, VA
High Country Energy Solutions....Boone, NC
Mast General Store....Valle Crucis, NC

Yellow Dog Entertainment, LLC.....
Asheville, NC

Trophy Water Guide Service.....Boone, NC

We encourage you to patronize members of the Business League. To become a business member visit www.AppalachianVoices.org or call us toll free at 877-APP-VOICE



E-nvironmental Kudos

Appalachian Voices was recently honored by *E Magazine* when we were included in the magazine's "5 Ways to Honor Earth Day." The number one idea from *E* was to "Join the Movement," and *E* listed Appalachian Voices as one of their favorite causes, among such notables as 350. org, Heartwood, and the Waterkeeper Alliance.

Bottled Aid

Appalachian Voices' Riverkeeper will be partnering with Keeper Springs Bottled Water to provide clean, safe drinking water in the Appalachian coalfields. Many coalfield residents must turn to bottled water as a result of contamination of their groundwater by coal processing. If water test results confirm your water is unsafe to drink, please contact Appalachian Voices to find out how to acquire clean drinking water.

Support From Beyond

Appalachian Voices receives \$10,000 from the beyond! The Concerned Loved One's and Lot Owners Association (CLOLA) was formed to prevent strip mining on land adjacent to a cemetery. The organization was dissolved after winning a settlement against a coal company, and they donated their winnings to benefit Appalachian Voices and other anti-strip mining organizations.

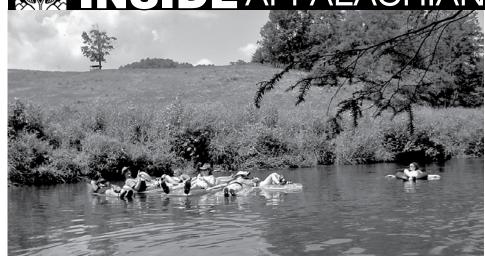
Now Hiring: National Field Coordinator

Appalachian Voices is seeking a National Field Coordinator for our End Mountaintop Removal Campaign. The position will oversee our Washington, D.C. office, recruit interns and volunteers, assist in furthering legislative goals, and manage our national citizen's network. Must have at least two years of organizing experience. Accepting resumes until filled.

Visit AppVoices.org/Employment for more info and to apply!



INSIDE APPALACHIAN VOICES



Floaters enjoy an afternoon on the Watauga River. Photo by Jeff Deal

Come Celebrate the River

WATAUGA RIVERKEEPER FESTIVAL JULY 24

Appalachian Voices is hosting Watauga Riverkeeper Fest, an outdoor recreation celebration, July 24, at the Community Park in Valle Crucis, N.C. from 11 a.m. until 5 p.m., rain or shine.

"Outdoor recreation is healthy, wonderfully fun, and leads to resource stewardship," says Willa Mays, Appalachian Voices' executive director. "We need to get more people outdoors and comfortable floating, fishing and bird watching, all of which will be represented at the Riverkeeper Festival."

Our Watauga Riverkeeper, area business league members, and Appalachian Voices staff will be on hand providing

floats, games for children, food and fun.

"We hope to raise awareness of the Watauga River and give people some hands-on experience with it," said Donna Lisenby, Appalachian Voices' Watauga Riverkeeper. "This is one of the best family-friendly floats on the river, and for those who have never been on the Watauga this is the perfect opportunity."

Guests can bring their own flotation device or for a small fee rent or purchase one. A shuttle service will be provided to take floaters back to the park. Come enjoy a day at the park and celebrate the Watauga River!

For details and more information, visit appvoices.org/riverfest.



Racers battled the rapids of the gorge. Photo by Dot Griffith

High Country Rapids: Riverkeepers Host Gorge Race

Forty-one of the best kayakers from North Carolina, Tennessee and Virginia came out to race for bragging rights at Appalachian Voices' Watauga Riverkeeper and Penstock Productions' first annual Watauga River Gorge Race in March.

"This race is not for the faint of heart, it is for expert kayakers only," said Assistant

Watauga Riverkeeper and race organizer Eric Chance. "If you just put on in an inner tube and tried to float down, you probably wouldn't make it to end in one piece."

There are high hopes for an even bigger turnout at next year's event. For more details and to view videos from the race visit *Riverkeeper.AppVoices.org*.

Strong Support at Wind Stakeholders Meeting

Appalachian Voices recently partnered with the Southern Alliance for Clean Energy and Catawba College Center for the Environment to host a successful North Carolina Wind Energy Development Stakeholders meeting.

Participants came to the meeting to address concerns about developing wind energy in North Carolina. They represented groups from a variety of interests, including, landowners, county government representatives, state regulatory agencies, members of rural county and development boards, local renewable energy initiatives, Blue Ridge Parkway, and Appalachian Trail Conservancy.

"At Appalachian Voices, we believe a diverse group of interested citizens in North Carolina can benefit from responsible commercial wind development across the state," said Austin Hall, Appalachian Voices' North Carolina field organizer.

The meeting culminated in the drafting of a statement of action that provided a guiding set of principles regarding wind energy. The document

stresses the economic vitality of building a sustainable, renewable energy future for North Carolina. It also emphasizes the need for responsible development. According to the resolution, "...North Carolina has important scenic, cultural, historic, and ecological resources that should be protected and preserved as the state develops its wind resources."

Seven organizations have already agreed to utilize the resolution as a tool to continue building efforts in support of responsible wind energy development in Western North Carolina. These organizations include Appalachian Voices, Southern Alliance for Clean Energy (SACE), Appalachian Institute for Renewable Energy (AIRE), Acciona, Small Wind Certification Council, World's Edge Renewables, and American Energy System (AES).

The document is a foundation for sharing information about wind opportunities and environmental protections with our state political leaders, interested parties and decision-makers, and the media.

For more information, contact Austin Hall at Austin@appvoices.org or call 828-262-1500.

A wind energy survey conducted by Public Policy Polling in April 2010 found that 85 percent of the 629 Western North Carolina residents surveyed said tthey would like to see more of their electricity come from wind power.



Watauga and Avery Counties successfully collected thousands of pills and gallons of medication at Operation Medicine Cabinet. Photo by Donna Lisenby

Operation Medicine Cabinet: A Huge Success

By Derek Speranza

River conservationists and law enforcement officials collected approximately 188,563 pills and 20.2 gallons of liquid medication during High Country's second prescription drug take back event on May 22.

More than 38 volunteers and 16 law enforcement officials from Watauga and Avery counties participated in Operation Medicine Cabinet, and the amount of drugs obtained was over four times that of last year's event.

"Anytime we can bring together a community in partnership to prevent drugs from harming kids and rivers, its a win for everybody," said Donna Lisenby, Watauga Rivekeeper. "We're really proud of the High Country's high level of participation and support. It was the best drug take-back program in North Carolina this year."

Approximately 154 people turned in a wide variety of unused medications, from oxycodone and hydrocodone to anti-depressants and pet medications, for safe disposal.

June / July / August 2010

Wonders Never Cease



The Grandfather Mountain Stewardship Foundation is a not-for-profit corporation which was established to preserve Grandfather Mountain, operate the nature park in the public interest, and participate in educational and research activities. All proceeds from sales of tickets and souvenirs go toward caring for and presenting Grandfather Mountain in a manner that inspires good stewardship in others.









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Naturalist's Notebook

What's the Buzz About Honey Bees?

EMPTY HIVES LEAVE SCIENTISTS QUESTIONING

By Maureen Halsema

Empty hives around the globe have alerted beekeepers and scientists to a crisis: honey bees are disappearing, and no one knows exactly why.

According to the United States Department of Agriculture (USDA), honey bees are essential for production of over 90 food crops and \$15 billion in added crop value. Honey bees are the primary insect pollinator used in commercial agricultural production, for crops such as, almonds, blueberry bushes, apple and peach trees, squash and cucumbers.

"With the loss of such an effective pollinator, the prices of those crops—and many others—could increase," said Dr. Sean Clark, associate professor of agriculture and natural resources at Berea College.

Populations have been in decline since the 1980s when varroa mites, an ectoparasite that affects honey bees, were introduced.

In fall 2006, the first reports of what has been dubbed colony collapse disorder (CCD) were filed.

A survey conducted by the Apiary Inspectors of America, a nonprofit organization established to promote better beekeeping conditions in the United States, and the Agricultural Research Service (ARS), reported that managed honey bee colony losses reached 33.8 percent this winter, a 4.8 percent increase from last winter. And according to the USDA, some colonies have lost over half of their populations, some cases as high as 90 percent.

"The issue is that it's unstable," said Dr. Dave Tarpy, associate professor and extension apiculturist at North Carolina State Uni-

versity. "We don't go year to year knowing how many bees we have, so that we are able to meet the pollination requirements. The issue here is to make sure we have a reliable, healthy honey bee population so that our food production requirements are met."

The exact cause of CCD is still under investigation, but scientists believe the die-off is the result of a combination of factors.

A healthy colony of honey bees has approximately 60,000 workers in the summer season in order to sustain the honey bee eggs, termed the brood.

A hive on the verge of collapse will show signs of a dwindling workforce, characterized by bees flying away from the hive and dying without returning. A hive that is showing

As honey bee hives fall in

Leafcutter and mason bees

Polyester bees

Mining bees

Sweat bees

Bumble bees

Digger bees

Squash bees

Sunflower bees

Carpenter bees

despair, native bees are stepping

up to the pollinating platform.

signs of CCD will have an apparently healthy queen who is still laying eggs, but affected bees may not consume nutrients provided by the beekeeper.

A hive that has collapsed suffers sudden, widespread death. The few left are generally not a strong enough population to be viable pollinators or honey producers.

In a hive impacted by CCD, food stores, such as honey and bee bread, are

often present, hive raiders, such as the wax moth and small hive beetle, who would normally have invaded the supplies, delay their attacks for unknown reasons.

 $\label{thm:continuous} The USDA has labs dedicated to researching causes and remedies to the honey bee malady in $$ (2000) and $$ (2000) are the continuous properties of the continuous pro$



Honey bees are one of commercial agriculture's best pollinators, but hives are disappearing at an alarming rate due to colony collapse disorder. Photo by Becca Childress

Beltsville, Md., Baton Rouge, La., Weslaco, Texas, and Tucson, Ariz.

According to the ARS, there are four ma-

jor categories of investigation regarding potential causes of CCD: pathogens, parasites, environmental stresses and management stresses.

Some scientists believe that pathogens, such as Nosema, a microbe that attacks insect guts, and Israel acute paralysis virus, could play a role in CCD.

Parasites like varroa mites and tracheal mites, may be contributing to the negative impacts on

bees, but experts believe that they may not be the only factor.

Environmental stresses, including the introduction of pesticides, are under greater scrutiny, particularly with the release of a study published in the scientific journal

Public Library of Science that found 121 different types of pesticides in samples of wax, pollen, bees and hives.

In her paper "Protecting Honey Bees from Chemical Pesticides," Maryann Frazier, senior extension associate at Penn State, wrote: "Chemical contamination is one of the possible contributing factors that is being investigated. These include chemicals being used within the hive for mite and disease control as well as chemical pesticides used on crops that may inadvertently find their way into hives."

Experts recommend avoiding pesticide use or using strict management to avoid honey bee exposure.

Management stresses, such as poor nutrition and strain incurred by transporting the hives long distances to different pollination sites, are also possible factors.

As scientists continue to investigate CCD, the mitigation strategies of the honey bee plight are simply maintaining best management practices and trying to improve bee health and habitat.





"This forsythia caught my eye on a walk through a park in West Asheville. The way the yellow flower was dancing in the blue sky was just majestic; it was one of those

APPALACHIAN VOICE

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Sustainability and Conscious Sound: Music on the Mountaintop

By Megan Naylor

Moving into its third year, Music on the Mountaintop festival, an event that unites music and environmental consciousness, has swiftly evolved into one of the largest-scale music festivals ever to be held in Boone, N.C.

'hello spring' moments." Photo by Kyle Wolff.

The two-day event will take place August 27 to 28, and will feature headliners Sam Bush, Keller Williams, Toubab Krewe, Acoustic Syndicate, Yo Mama's Big Fat Booty Band, along with numerous regional and local acts from around Western North Carolina.

This year, Appalachian Voices will be the event's main featured nonprofit organization, and will receive a portion of the net proceeds.

The mission of the festival is to bring together a combination of good music, local food and environmental awareness. Festivalfounder Jimmy Hunt believes offering practi-

cal information to the public about how to live a more sustainable lifestyle can change the world for the better, one person at a time.

"Appalachian Voices does a wonderful job setting a high environmental example and being a conscious voice in our community," said Jimmy Hunt, owner of Yellow Dog Production Inc., and founder of Music on



Attendees flocked to the stages at the Music on the Mountaintop festival last year. This year the environmentally-conscious music event will last two days. Photo by Megan Naylor.

the Mountaintop. "They have a progressive and positive attitude that is contagious while being one of the hardest working nonprofits in the nation."

Other nonprofits partnering with the festival will include: Appalachian Institute for Renewable Energy (AIRE), ASU Energy Center, NC Green Power, High Country Conservancy, Dogwood Alliance, Habitat for Humanity and the Hunger Coalition.

In addition to three music stages, there will be a Green Village, a 35-foot climbing wall, and local, organic food and crafts available.

Hunt says that measures are taken to minimize the festival's environmental footprint, including solar staging, a shuttle system, compostable products, and recycling and waste removal systems designed for large events.

Prior to the event, a river cleanup is hosted adjacent to the fairground and surrounding area. The cleanup is open to everyone and will be held on Friday, August 27, from 11 a.m. to 2 p.m.

"In addition to the efforts we have made in the past to ensure the event has as low an impact as possible on the environment, we will focus on making everything even more efficient," said Hunt. "We will be stepping up our efforts to ensure food vendors use biode-

gradable dishware and silverware, and our river cleanup this year will be longer and cover more distance leading up to the festival."

Tickets to the event are currently on sale, and limited campsites will be available. Details about how to purchase tickets or reserve camping are available on the festival's website.

For more information visit MusicOnTheMountaintop.com.