



# THE MARKET BULLETIN

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Visit the WVDA's web site at: <http://www.wvagriculture.org/>

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## Happy NEWYEAR Folks!

### Welcome to 2004!

A New Year and new hope that we can cope with the many challenges, both man-made and natural, that will greet us. When the Charleston region broke all rainfall records, the flooding caused people to be displaced from their homes. The farming industry didn't fare too badly; the work and planting went on between the frequent rains.

Speaking of water, I recently attended my first meeting of the Chesapeake Bay Executive Council at George Mason University in Fairfax, Virginia. The Governors of Virginia and Maryland were there to reassert their efforts to make greater progress in the cleanup of the Chesapeake Bay. Great progress has been made to this point and New York, Delaware and West Virginia were recognized as the latest signatory states.

I recently wrote a letter to the Administrator of the United States Environmental Protection Agency, Region III, in Philadelphia, informing him of my experiences and concerns with nutrients in the waters of West Virginia and the Chesapeake Bay. One of my concerns is the accepted practice of using a farm fertilizer, Urea, as a deicer. Urea is one of the most potent nitrates we have in agriculture. This is a problem in surroundings states that have more highways, malls and airports. I copied my letter to all the states involved in the Chesapeake Bay Cleanup Program.

I attended the Chesapeake Bay meeting with Secretary Stephanie Timmermeyer of the West Virginia Department of Environmental Protection. Coincidentally, when we exited the terminal at Dulles Airport, I noticed two bags of Urea 46-0-0. We were there right after the heavy snowfall, and I can imagine how many tons of Urea had been used on the airport runways. Urea is a preferred deicer because it is least corrosive to aircraft.

At an opportune moment during the meeting, I made known my observation and what I surmised was a cause of the high nitrate levels in the Bay. Testing should be done now on the surrounding tributaries to

determine what the load is from the use of this fertilizer as a deicer at airports and malls. Again, as good citizens, agriculture is taking responsibility and making progress in limiting its nutrient load going into the Bay. The farm community cannot continue to be blamed for all water and environmental issues.

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**As my column was heading to print, we received the news of a case of Mad Cow Disease in Washington State. I want to assure folks that USDA has the proper protocols in place to ensure a safe food supply in the US.**

**We appreciate the cooperation of farmers reporting any abnormalities observed in their cattle to their local veterinarian. Please see *Department of Agriculture Adds Incentive to Disease Surveillance Program on page 2 for more information on this situation.***

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On another note, the farm community should be alert to cattle rustlers. I have recently received several reports of this activity, the latest from Old Fields in Hardy County. In this instance, six cattle were taken, four purebreds and two show steers. If there is easy access to where you are holding your livestock, I encourage you to take security measures. I believe it will get worse as livestock prices are projected to be good for a while.

The USDA-APHIS will be creating a national Animal Identification System that can track livestock movements from birth to slaughter, which will help with disease tracebacks, as well as thefts. The proposed U.S. Animal Identification Plan will provide standardized ID numbers, eartags and data collection. Phase I of the plan is scheduled to begin in July 2004. All premises involved in livestock production, including farms, auction barns and processing facilities will receive an ID number that is unique throughout the US. In Phase II, set to begin in July



### Gus' View . . .

2005, all livestock will receive individual ID numbers. The system will use radio frequency identification devices (RFID) to electronically identify animals.

How costly this will be to the livestock farmer, and whether there will be federal assistance, has not yet been determined.

Another challenge that must be met by farmers is from the coyote. In addition to direct livestock kills, the coyote can carry a parasite which is transferable to livestock and can cause bovine abortion. Neosporosis is caused by the protozoan parasite Neospora caninum. Dogs were the first identified as definitive hosts in 1998. These diseases can be spread rapidly by farmers not properly disposing of diseased animals and wildlife feeding on them. If you have any questions or concerns about this problem, please contact our Animal Health Division at 304-558-2214.

It seems Americans cannot determine what trend to follow when it comes to a healthy diet. A few years ago, researchers indicated the diet of red meat and eggs (like I was raised on) was bad, and grains, vegetables and fruit were more healthful. Now there is another food revolution. An online report from Market Research Associates notes the changes in food consumption resulting from the Atkins low-carbohydrate diet and new nutritional findings. The per capita consumption of sugar, wheat, potatoes and fruit that was previously increasing declined after 1997, and consumption of red meat and eggs is increasing. The increase in egg and red meat prices indicates our struggle to meet the increased demand. The change is quite favorable to both industries.

**continued on page 3**

# Gus' View...

continued from page 1

This deer season was productive and beneficial on the Douglass farm. To date, family, neighbors and friends have harvested 24 deer off the farm. However, we hear that too many does have been killed and the deer kill is down, but I think this is a false evaluation. Weather was certainly a determining factor. Furthermore, if you were staying in one place looking for deer, you probably didn't see many unless someone out there scattered the herd. Our experience was the deer stayed in a herd and did not move very much.

The question arises: How long is the public going to put up with 28,000 deer accidents as reported by the insurance industry here in West Virginia? Nationally, some 150 people die each year in traffic accidents involving collisions with deer. There has not been much success with various methods used by motorists to prevent collisions.

You would have been very proud of being a West Virginian if you had visited the *Holiday Taste of West Virginia* during the Southern Christmas Show in Charlotte, North Carolina, last month. The winners at the Show were the 50 or so West Virginia agribusinesses whose products were showcased and offered for sale by the West Virginia Department of Agriculture (WVDA). The Show drew over 100,000 people and many of them were "displaced West Virginians." I visited two days of the Show. It was great to have people visit with me and identify themselves as former West Virginians. Our award-winning booth was a joint effort between the WVDA and West Virginia Division of Tourism.

I just read with enthusiasm an article in the Charleston Gazette stating that Tamarack is a "Boondoggle no more." It noted that Tamarack is a "robust representation of arts, crafts and food," and now sells the goods of 2,200 state artisans, with 1,500 featured at one time. Last year, Tamarack generated more than \$11 million in economic activity. This is West Virginia industry. This is inside growth. I appreciate the struggle of the WVDA's Marketing and Development staff who have done a tremendous job in working with the development, manufacture and production of homegrown West Virginia products. Our state's internal growth is good and certainly exceeds the cost of investments.

Before closing, I want to mention the passing of Jim Graham, former Agriculture Commissioner in North Carolina. Jim was a close and dear friend of mine during his 36 years as

## Nutrient Management Exam

February 6, 10 a.m.  
Guthrie Agricultural Center  
Sissonville, W.Va.

To register for exam or for information,  
contact Brenda Mobley at 558-3200.

## Nominations Sought for Agriculture and Forestry Hall of Fame

Nominations for the West Virginia Agriculture and Forestry Hall of Fame (WVAFHF) are being accepted through February 5, 2004. Nomination forms are available from:

- **WVU Extension Service** (Brenda Aldridge, 293-5691, [Brenda.Aldridge@mail.wvu.edu](mailto:Brenda.Aldridge@mail.wvu.edu))
- **WVU Davis College of Agriculture, Forestry and Consumer Sciences**  
(Denise Hunnell, 293-2395, [dhunnell@mail.wvu.edu](mailto:dhunnell@mail.wvu.edu))
- **W.Va. Forestry Association** (Sherry Barnette, 372-1955, [sbarnette@wvadventures.net](mailto:sbarnette@wvadventures.net))
- **W.Va. Farm Bureau** (LeVera Gillum, 472-2080, [vera@wvfarm.org](mailto:vera@wvfarm.org))
- **W.Va. Department of Agriculture** (Robin Gothard, 558-3200, [rgothard@ag.state.wv.us](mailto:rgothard@ag.state.wv.us))

The WVAFHF is devoted to honoring those who have made outstanding contributions to agriculture, forestry and family life in West Virginia and the nation. It is an incorporated, independent, nonprofit, nonpartisan foundation. Membership is composed of West Virginia agriculture and forestry organization and individuals.

Also, the WVAFHF Recognition Committee will meet from 10 a.m. - 3 p.m. February 24, 2004, at the Jackson's Mill Agriculture and Forestry Building. The WVAFHF annual membership meeting will take place April 7, from 10 a.m. - noon at the Agriculture and Forestry Building, and the annual banquet will begin at 5 p.m. July 10, at the Jackson's Mill Center for Lifelong Learning.

commissioner. I know of no one more dedicated to agriculture than Jim, who was known as the "Sod Father." He will be very much missed on the national scene. As a tribute to my friend, I have included his eulogy on page 3.

Life on the farm is getting back to normal.

Anna Lee is trying to clean up after the family and friends we enjoyed during the Holiday Season. This is a time of intense enjoyment for both of us. I hope your holidays were good as well.



## Department of Agriculture Adds Incentive to Disease Surveillance Program

Commissioner of Agriculture Gus R. Douglass reminds cattle farmers and veterinarians that the West Virginia Department of Agriculture (WVDA) is offering a supplemental fee to veterinarians for collecting and submitting central nervous tissue samples from cattle that exhibit neurological problems associated with Bovine Spongiform Encephalopathy (BSE), or "mad cow disease."

"Thanks to a cooperative agreement with the U.S. Department of Agriculture (USDA), we were in the process of setting up this program before the recent discovery of BSE in Washington State. In light of that discovery, we want to make sure that any remotely suspicious animals in West Virginia are tested," said Commissioner Douglass.

"It's important for consumers to know that, not only are this nation's agriculture professionals hard at work tracing and eradicating this current problem, but we have been protecting America's food supply for decades," he continued.

Cattle growers should be on the lookout for any signs of neurological problems – such as poor coordination, head shaking, excessive salivation, or cattle that cannot stand – and report them to their regular veterinarian. Those animals should not continue in the food chain. Instead, the veterinarian should euthanize the animal and contact the WVDA's Animal Health Division at 304/558-2214 for instructions on how to take and submit the sample.

Similarly, any livestock producers who notice unusual behavior or appearance in any of their animals, but who do not have access to a regular veterinarian, should contact the WVDA's Animal Health Division. Messages will automatically be forwarded to the State Veterinarian after regular business hours.

Agriculture officials across America have been on the lookout for BSE because of the economic effect a positive case could have on U.S. cattle exports. Plus, a strong surveillance program is the best weapon at stopping BSE, or any other foreign animal disease (FAD) disease outbreak, in its tracks.

"Thorough surveillance of a disease outbreak of any kind is critical because early detection is the key to containing the spread of the disease," said State Veterinarian Joe Starcher. "Of course, early detection requires manpower and training, and it requires that people on the local level be educated about the signs and consequences of FADs."

According to Commissioner Douglass, other diseases could be even more problematic than BSE. Unlike Foot and Mouth Disease (FMD) and other contagious animal diseases, BSE does not spread through the air or through animal-to-animal contact. It can only be contracted through the ingestion of central nervous tissues of infected animals. The infectious agent is not contained in meat or milk, he noted.

"There is absolutely no scientific indication that the safety of either meat or milk has been compromised," he said.

# “A Career of Service”



## James Allen “Jim” Graham

April 7, 1921 - November 20, 2003



*“We have truly lost a great giant.”*

(North Carolina) State Auditor Ralph Campbell

Former longtime North Carolina Agriculture Commissioner James Allen “Jim” Graham passed away November 20, at age 82.

Hundreds of relatives, friends and political leaders crowded First Baptist Church in Raleigh, North Carolina on a brilliant November 23 afternoon to pay their respects and share stories

Few seats were empty for the 45-minute public memorial service for a man whose name was synonymous with old-fashioned politics and North Carolina agriculture for 36 years.

Many in the crowd



James Allen “Jim” Graham

wore red campaign buttons that declared “Jim Graham is my friend.”

A men’s choir sang “Amazing Grace” and the Rev. J. Daniel Day recalled Graham as an “authentic slice of Americana” who cared as “much about the little folks in Watauga County as the suits in downtown Charlotte.”

A portrait of Graham wearing his trademark Stetson hat rested on an easel in the front of the sanctuary, flanked by harvest arrangements from North Carolina fields: cotton, tobacco leaf, apples, peppers, carrots and more.

Graham retired as state agriculture commissioner in 2001 with a legacy that stretched from the time when tobacco was king of the state’s crops, raised by thousands of farmers, to an era of far-reaching agricultural consolidation.

“We have truly lost a great giant,” State Auditor Ralph Campbell said.

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## Can You Make Money Growing Fi\$h?

*Julie Delabbio, Associate Professor of Aquaculture, Bluefield State College*

If you are interested in growing fish as a secondary income, hobby or full-time occupation then you should attend the West Virginia Aquaculture Forum January 17, at Jackson’s Mill (see more information on page 8). The theme for this year’s Aquaculture Forum is **“Farm Raised Fish and Recreation.”** The day-long event (starting at 9 a.m.) will touch on a diverse range of topics and will include information on market opportunities with Fishing Clubs, Fee Fishing Business, Bed & Breakfast Resorts and the Division of Natural Resources.

The featured speaker for this year’s Forum will be Jim Kahrs of Osage Catfisheries in Osage Beach, Missouri. Mr. Kahrs has received numerous awards for his leadership and contributions to aquaculture development. His presentation will focus on practical aquaculture strategies, methods and problem-solving.

Also included in the day’s agenda will be two presentations by West Virginia University (WVU) researchers on the business aspects of growing fish. Cy Logar of the WVU School of Business will describe a strategic approach for marketing recreational fee fishing in Appalachia. Chad Pierskalla of WVU Parks and Recreation will present results from his research on fee fishing in West Virginia.

This year, the Forum will be held in the Assembly Hall at the WVU Jackson’s Mill Center for Lifelong Learning (driving directions can be found at <http://www.wvu.edu/~exten/depts/jmill/jmill.htm>). Forum pre-registration is \$15. On-site registration is \$25. The registration fee includes a lunch buffet of W.Va. Aquaculture Products. In order to help organizers plan adequately for the meal, try to pre-register by January 7. To pre-register, or for more informa-

tion, contact Becky Casteel at 304/293-6131, ext. 4231 or via email at [rcasteel@wvu.edu](mailto:rcasteel@wvu.edu) or visit (<http://www.wvu.edu/~agexten/aquaculture/aquacult.htm>).

The meeting is sponsored by the WVU Cooperative Extension Service, West Virginia Aquaculture Association, and West Virginia Department of Agriculture. It is coordinated by Ken Semmens, WVU Extension Specialist – Aquaculture. He can be reached at 304/293-6131 ext. 4211 or via email at [ksemmens@wvu.edu](mailto:ksemmens@wvu.edu).

If you have an aquaculture-related question that you would like to see answered in this column, please send it to:

**219 Rock St., Bluefield State College  
Bluefield, WV 24701**

Bluefield State College offers a two-year degree program in Commercial Aquaculture.

**N**orth Carolina residents, along with a throng of tourists and even some West Virginia expatriates, were treated to a "Holiday Taste of West Virginia" during the Southern Christmas Show at the Charlotte Merchandise Mart last month, thanks to an award-winning booth sponsored by the West Virginia Department of Agriculture (WVDA) and the West Virginia Division of Tourism.

The goal of the joint venture was to promote the state's people, products and attractions, and to reach out to an important, nearby travel audience.

The big winners at the show were the 50 or so West Virginia agribusinesses that had products for sale in the 1,000-square-foot booth. Those companies received a holiday boost in excess of \$40,000, thanks to a steady stream of customers who, at times, stood in line just to get in the door. Simply keeping the shelves stocked turned into a perpetual task.

"I was floored by the response we received at the Show, and when I saw the final sales tally, I just could not have been more pleased," said Jean Smith, Director of WVDA's Marketing and Development Division.

"Well over 100,000 people attended this year's show, and I think every one of them stopped at our booth. We met tour groups from all over the southeast, former West Virginia residents now living in the Charlotte area, and current West Virginia residents who came all the way to North Carolina to discover the great products made right here in our

state," she said.

Commissioner of Agriculture Gus R. Douglass credited the success of the show to the state's producers and the hard work of WVDA employees.

## State Agribusinesses have tremendous success at the Southern



Visitors to the Southern Christmas Show in Charlotte, N.C., browse the West Virginia Store.

# Christmas Show

"It is so gratifying to me to see the attention West Virginia agribusinesses bring to our state. And, thanks to the efforts of the Marketing and Development staff, people all over the country are discovering what our state has to offer. With the recent criticism of state employees, I think it's important to note that our Marketing staff spent 10 days in Charlotte working 10 and 12-hour days. I'm very proud of their efforts to help develop and promote West Virginia-based businesses."

Commissioner Douglass also noted the cooperation of the Division of Tourism, which provided a large portion of the

funding that made the WVDA's participation possible. "Without the support of Commissioner of Tourism Betty Carver and her staff, this great success would not have been possible," he said. "The primary emphasis of this Department must continue to be the safety of food and the people who consume it, and our budget priorities must continue to reflect that; however, agricultural development can play a large part in bringing tourists and money into our state, and I'm happy that the Division of Tourism has signed on as a partner."

"We urge the Governor and state legislators to take these kinds of events into consideration during budget deliberations. It takes money to make these things happen, and clearly successes like this will only have a positive effect on West Virginia's economy," said Commissioner Douglass.

Tourism-related promotions were also a large part of the booth, which is actually the permanent WVDA "Country Store" from the state fairgrounds, dismantled and moved to Charlotte to lower show-related expenses.

The booth featured a "gift-giving tree" with ornaments sponsored by many of West Virginia's resorts and destinations. Visitors could buy gift certificates to attractions throughout the state.

West Virginia's presence at the show also included spinning demonstrations, along with "cooking with West Virginia products" demonstrations by state chefs and high school culinary students.

Also helping to sponsor the booth were the Southern West Virginia Convention and Visitors Bureau, which is host to the annual "Coal Camp Christmas," and Mountain RC&D, Inc.



Homer Cobb (Tasty Blend Foods) visits with show attendees as they enjoy taste testing products.



Marketing and Development Director Jeanie Smith (pictured above) and her staff spent 10 days in Charlotte working 10- to 12-hour days alongside Division of Tourism staff.

# HALF OF RECALLED POTPOURRI CONTAIN LIVE BEETLE LARVAE

Commissioner of Agriculture Gus R. Douglass is urging consumers to check their homes for any potpourri products that contain pine cones from India, particularly Candle-lite™ potpourri purchased at Wal-Mart or Kmart.

A high percentage of the Candle-lite™ products that contain pine cones are infested with beetle larvae from India that could pose a threat to American pine trees.

Target also sold Scented Pine Cones from India that were recalled last week, and officials wonder if other product brands may contain infested pine cones.

"Particularly at Christmas, no one wants to think about a foreign pest that could hurt West Virginia's important Christmas tree industry," said Commissioner Douglass. "But as foreign trade increases, the chances for dangerous pests to make their way to this country inevitably increase as well."

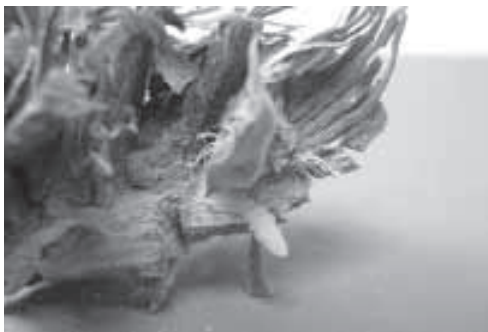
According to Dr. Charles Coffman, Plant Industries Division Director for the West Virginia Department of Agriculture (WVDA), preliminary sampling by WVDA employees and staff from the U.S. Department of Agriculture-Animal and Plant Health Inspection Service-Plant Protection and Quarantine (USDA-APHIS-PPQ) showed that half of the packages of Candle-lite™ potpourri containing pine cones contained live larvae of the beetles, which are considered to be an "actionable pest" by USDA.

In addition, larvae have been discovered in stores across West Virginia and in nine other eastern states, increasing the risk that the insect might be introduced into West Virginia's ecosystem.

"As a scientist, that is quite a startling range and number," said Coffman. "When you consider how many of these packages are on store shelves, the total number of live larvae out there is alarming."

Wal-Mart and Kmart have agreed to remove selected Candle-lite™ products from their shelves, but many of them may already be in consumers' hands.

"We would like consumers to return unopened packages to where they were purchased, to thoroughly burn the pine cones from opened packages, or freeze the pine cones for three days, then put them in the trash," said Coffman.



Larvae in pine cone.



Adult beetle emergence hole.



Larvae from cone compared to the size of a dime.



A high percentage of the Candle-lite™ products (seen above) that contain pine cones are infested with beetle larvae from India that could pose a threat to American pine trees.

Plant Industries Division is also asking consumers to report any elongated beetles with long antennae that may have emerged from the pine cones. Consumers are urged to call 304/558-2212 if they spot such an insect in their homes.

"At this point we are looking for details about this particular insect. Because it comes from a foreign country, information on it is not easily obtainable from the scientific literature," said Coffman. "And we have no reference specimens in the Department's insect collection."

What is known is that the scientific family of the beetle in question, Cerambycidae, contains some members that have already proven to be serious tree pests in this country, such as the Asian longhorned beetle that was introduced from China and that has destroyed thousands of trees in New York and Chicago. Current eradication efforts against the Asian longhorned beetle are costing millions in tax dollars.

"The biological security of our country is of great importance to every American," continued Coffman. "If this were a single fruit fly in California, that whole state would be in an uproar. West Virginians, too, have to realize the economic consequences of ignoring foreign pests. We spend literally hundreds of millions of dollars every year controlling invasive foreign pests in the U.S. and we're trying to do everything we can here to avoid getting another one."

The recall at Wal-Mart and Kmart was initiated by the USDA-APHIS-PPQ in cooperation with the stores. A similar recall action with Target stores is already underway nationwide because of infested Scented Pine Cones that include the labeling "Made in India." Commissioner Douglass thanked the stores for their cooperation in the matter.

## REMINDER!

**Deadline for AGR-Lite farm insurance program sign-ups is January 31, 2004.**

Contact your County Extension Agent for details.

# Anthracnose Diseases

## What Are They and How Do You Prevent Them?

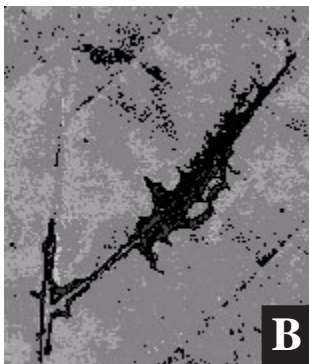
Jill A. Hoff, Forest Pathologist, WVDA Plant Industries Division

This past growing season, West Virginia experienced an above normal amount of rainfall. According to the National Weather Service in Charleston, many areas had

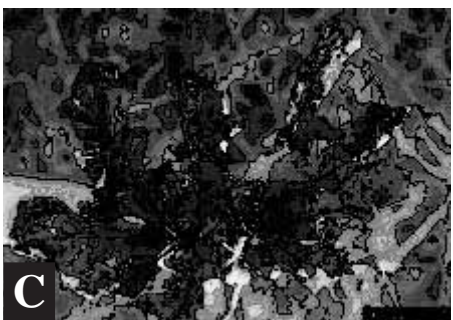


**A** Spots formed on oak from anthracnose.

Sycamore anthracnose lesion that developed along leaf vein.



**B**



**C** Young leaves on oak curled and distorted with only a portion of each leaf dying.

Anthracnose lesions on oak.



**D**

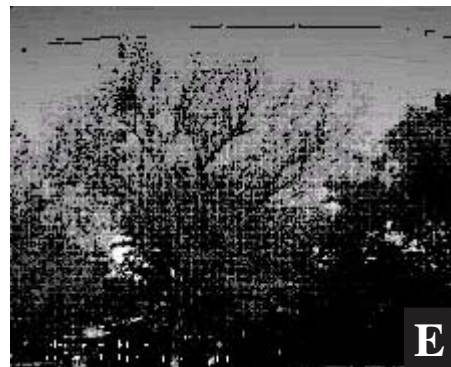
greater than 10 inches beyond normal expected precipitation. In Charleston, this was the wettest summer season since 1958 (normal is 12.59; this year it was 22.35), Terra Alta had 41 inches of rain (22 inches is normal) and Pineville had 39.5 inches (19.8 inches is normal). Several counties experienced flooding due to the downpour conditions that occurred periodically over the summer.

These elevated precipitation levels created ideal conditions for some plant disease outbreaks statewide. The diseases most frequently called about were the anthracnose diseases, which were showing up on various hardwoods including many popular shade trees, such as sycamore, ash, oak, maple and walnut. These trees started to exhibit symptoms in early spring and sustained them into late summer. Although the symptoms appeared to be serious, anthracnose diseases rarely kill trees. In most cases, healthy trees quickly recover from anthracnose infections with little damage to their long-term health.

Infections on deciduous plants are more severe in areas where prolonged spring rains occur after new growth is produced, as in the case of this past spring and summer. Anthracnose fungi need water to be disseminated and infect; they do not spread under dry conditions. Symptoms typically appear in the early spring and intensify in late spring and early summer if weather conditions remain favorable for fungal growth and dispersal.

Anthracnose results from infection by any of several different fungi, including

*Apiognomonia errabunda*, *A. veneta*, *Discula fraxinea*, *Glomerella* sp., *Gnomonia* sp., and *Stegophora ulmea*, depending on the tree attacked. Anthracnose symptoms vary with the plant host, weather and time of year infection occurs. The fungi affect developing shoots and expanding leaves. Small tan, brown, black or tar-like spots appear on infected leaves of hosts, such as elm or oak (see photo A). Dead leaf areas may be more irregular on other hosts such as ash. Sycamore

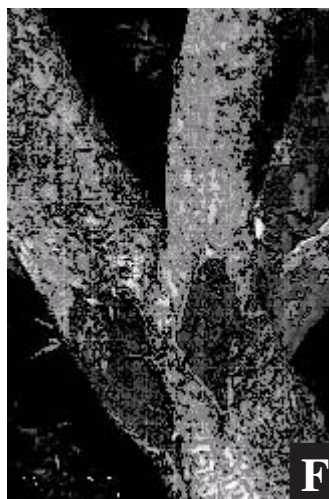


**E** Ash defoliated by anthracnose.

anthracnose lesions typically develop along the major leaf veins (see photo B). If leaves are very young when infected, they may become curled and distorted with only a portion of each leaf dying (see photo C).

Generally, mature leaves are resistant to infection, but when conditions are favorable, they may become spotted with lesions (see photo D). Heavily infected leaves fall prematurely throughout the growing season, and sometimes trees are completely defoliated (see photo E). Early leaf drop is usually followed by production of more leaves. Twigs and branches may also be attacked and killed, resulting in a tree with crooked branches (see photo G).

On some trees, cankers (infected areas that may or may not be surrounded by callus tissue) are another symptom of anthracnose infection. Cankers develop on twigs, branches and the trunk, occasionally resulting in girdling and dieback (see photo F). **continued** ⇨ ↓



**F** Cankers on elm from anthracnose.



**G** Sycamore limbs distorted into shepherd's hook shapes by anthracnose infection.

# Moving Honeybees

George Clutter, State Apiarist  
and Paul Poling, Apiary Specialist

Moving honeybee colonies to increase honey production or for pollination purposes can be very rewarding unless something goes wrong and a bunch of angry bees get loose. If the latter should happen, it can quickly turn into a lawsuit or a stinging incident you'll never forget.

There are a number of ways to move a colony of bees. The bees can be confined within the colony or they can be confined to the bed of a truck or trailer by covering the entire structure with netting. Confining the bees within the colony is the best method. A net could then be used as a precaution, in case any bees escape the hive.

To prepare a standard colony of honeybees for moving, you should first remove all surplus honey and empty supers to make the colony as light as possible. Check the bottom board and all exterior hive components for holes that could allow bees to escape and repair them with caulking or duct tape. The inner cover should be replaced with a screened, inner cover made of 1/8-inch hardware cloth with a 3/4-inch bee space for top ventilation. Window screen should not be used to make the screened, inner cover, because the bees will quickly propolize the small holes in the screen rendering the device useless. If the lid must be left on the colony when it's moved, place two 3/8-inch spacers on the top of each side of the screen to hold the lid up and allow air to circulate.

Each colony will need to be held together during the move. Two-inch-wide hive staples (available from bee supply dealers) can be used for fastening the bottom board to the deep super and for fastening the

deep super to the medium super. One staple is used on each corner of the colony. The screen can be held on with nails or wood screws. Hive staples can cause damage to your equipment and are not the only way to hold a colony together, so you may want to opt for one of the alternatives. A ratchet strap could be placed around the center of the colony, or one strap near the front and one near the rear. The hives can also be banded with plastic strapping using one strap in the middle, or one near the front and one near the rear. If straps are used to secure a colony, always be careful when the colony is scooted, as the bottom board could catch on something and separate from the deep super.

Move bees only when they are all in the colony. A piece of aluminum window screen placed over the front entrance of the colony will keep the bees inside the hive and provide ventilation. Also, colonies should be moved in early morning before foraging begins or just before dark when foraging is over and the bees return to their colony. If they are moved during the day while foraging bees are still out, the foraging bees will return and begin stinging anything within 30 yards of where the colony had been sitting. The loss of the field bees will also mean lower honey production and poor pollination service.

After the colony is placed in its new location, puff some smoke into the hive entrance with a bee smoker and remove the screen that covers the entrance. If the bees were not confined to the colony when it was moved, but the colony was simply covered with some netting, use smoke before removing the net and unloading the hive.

At night, bees will fly to any light source. Turning on the headlights of an automobile and standing in front of them will help to remove bees from your clothing. Also at night, bees will crawl on your clothing until they can find a hole to enter or a place where the clothing is touching your skin and then they will sting. Clothing that provides protection during the day may not work at night.

A final piece of advice if you do choose to move your bees, make sure your vehicle has enough gas to make the trip without stopping. Bees that are left at a gas station can cause a stinging hazard and a possible lawsuit. If you should have an accident in an area where there is the danger of others getting stung, use liquid soap and water to kill the bees that escape the colony.

## All Fifth-Graders Invited to Participate in 2004 Arbor Day Poster Contest

The National Arbor Day foundation is calling on all fifth-grade classrooms in West Virginia to showcase their artistic talent by creating posters reflecting the theme "Trees are Terrific... in Cities and Towns!" Students from West Virginia are eligible to participate in a statewide competition, with the winner advancing to the national level in Lincoln, NE. The deadline for submission is March 1.

Public, private and home-school educators in the Mountain State can participate by contacting Andy Sheetz at the W.Va. Division of Forestry, 304/558-2788 or by e-mail at [asheetz@gwmail.state.wv.us](mailto:asheetz@gwmail.state.wv.us). Participants will receive free ecosystem curriculum material and a copy of the winning 2003 W.Va. Arbor Day Poster.

All winning posters will be on display at the United States Botanic Garden in Washington, D.C., from April 30-May 23.

The State winner will receive a \$100 U.S. Savings Bond from the W.Va. Forestry Association, a National Arbor Day Foundation shirt, and a tree to be planted in his/her honor at the school. The first-place winner will be a finalist in the national competition.

### ⇒ Anthracnose Diseases, *continued*

If defoliation, branch dieback or cankering does not occur every year, anthracnose will not seriously harm plants.

In most cases, control of anthracnose is unnecessary because the disease is usually not damaging to the long-term health of trees. When control is desired, various techniques can help reduce the severity of the disease. Raking and destroying fallen leaves and twigs and pruning out dead branches on the tree in the fall and winter will help reduce the overwintering population of anthracnose fungi. Pruning will also

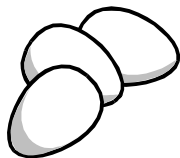
increase air circulation in the canopy, reducing the time that wet conditions, which favor fungal infection, are present on leaf surfaces. Healthy trees are more likely to recover from a severe anthracnose attack than are stressed trees, so mulching and watering during dry periods to help maintain tree health are good investments. Valuable landscape trees like dogwoods may be protected with fungicides. For specific recommendations on fungicides, contact the West Virginia Department of Agriculture's Plant Industries Division at 304-558-2212.

# What's Cookin'

## Happy New Year!

by Jean Smith, Director,  
Marketing and Development Division

If your food budget is tight, consider serving eggs as a high quality, but inexpensive meal. In addition to being a nutrient rich food, science has now discovered that eggs contain special nutrients that may provide health benefits.



One large egg contains 75 calories. Eggs are a good source of protein and contain 13 essential vitamins and nutrients including iron, folate and vitamin B12. The iron found in egg yolks is essential for making hemoglobin, which carries oxygen in our red blood cells and for development of the brain, nervous and immune systems.

Eggs are considered an ideal protein... the one that all others are compared to for quality. All the important amino acids, the building blocks of body protein, are found in the egg in the correct proportions for our body's needs. Therefore, it is clear that egg protein is good for all ages and at 8 cents per egg — it is one of the most inexpensive sources of high quality protein available.

This month's recipes are sure to become family favorites! — *Bob Appetit!*

### Recipes

## Peanut Butter-Banana Bread Pudding

- Cooking Spray
- 3 cups day-old bread cubes (about 3 slices)
- 1 cup peanut butter baking chips
- 1½ cups sliced bananas
- 4 eggs
- 2 cups milk
- ⅓ cup sugar
- 1 teaspoon vanilla

Evenly coat 9x9" baking dish with cooking spray. In coated dish, toss together bread cubes, peanut butter chips and banana slices. In medium bowl, beat together eggs, milk, sugar and vanilla until well blended. Pour over bread cube mixture.

Bake in preheated 350°F oven until knife inserted near center comes out clean, about 40-45 minutes.

### Recipes

## Chocolate Cheesecake Brownie Cake

- Cooking Spray
- 1 15.5-ounce box cheesecake swirl (contains both brownie and cheesecake filling mix)
- 1 cup self-rising flour
- ¾ cup water
- ½ cup oil
- 2 eggs, beaten
- ⅓ cup French vanilla whipped topping

### Cheesecake Filling

- Cheesecake filling mix
- 2 tablespoons water
- 1 egg, beaten
- 1 small jar maraschino cherries, rinsed and drained well

### Glaze

- 1 cup powdered sugar
- ¼ teaspoon vanilla flavoring
- 5 teaspoons milk

Heat oven to 350°F. Lightly spray a 10" Teflon-coated bundt pan with cooking spray; set aside. Combine brownie mix, flour, water, oil and eggs in large bowl. Using a mixer, beat until mixed well. Gently fold in whipped topping, being careful not to overmix; set aside.

**Cheesecake Filling:** Combine filling mix, water and egg in small bowl, mix with spoon until smooth; set aside. In bundt pan, place cherries evenly around the bottom of pan. Spoon filling mixture over cherries. Pour brownie cake mix over cheesecake filling. Bake for 30 minutes or until toothpick comes out clean. Let cake set for 5 minutes, making sure the cake has loosened from the pan. Invert pan onto cake plate; cool completely.

**Glaze:** Combine powdered sugar, vanilla and milk. Mix until smooth. To make a thinner glaze, add milk by teaspoons until desired consistency. Drizzle over top of brownie cake.

### Recipes

## Ham and Asparagus Strata

- Cooking Spray
- 12-16 slices French bread
- 1 cup shredded Italian blend cheese
- 1 cup chopped, cooked ham

- 2 cups chopped, fresh asparagus
- 6 eggs
- 1 cup milk
- 2 tablespoons lemon juice
- ¼ teaspoon garlic powder

Preheat oven to 350°F. Evenly coat 8" square baking dish with cooking spray. Layer 6 slices of bread on bottom of baking dish; sprinkle with ½ cup cheese, ½ cup ham and 1 cup of asparagus. Cover mixture with remaining slices of bread, laying bread slices either flat or in a shingle pattern. Sprinkle with remaining cheese, ham and asparagus. In medium bowl, beat together eggs, milk, lemon juice and garlic powder; pour evenly over layers. Cover with aluminum foil.

Bake until thermometer inserted near the center reads 160°F or a knife inserted near the center comes out clean. Approximate baking time 40-45 minutes.

## WVU Extension Plans Fish-farming Forum

People interested in raising fish for food and sport are invited to the annual Aquaculture Forum on Jan. 17, at Jackson's Mill Center for Lifelong Learning near Weston.

The featured speaker will be Jim Kahrs of Osage Catfisheries in Osage Beach, Mo.

The event, which runs from 9:30 a.m. to 5 p.m., is sponsored by the West Virginia University Extension Service, W.Va. Department of Agriculture and W.Va. Aquaculture Association.

Registration is \$15 before January 7, or \$25 on-site.

For information or to register, contact Becky Casteel at 293-6131, ext. 4231 or by e-mail, [Becky.Casteel@mail.wvu.edu](mailto:Becky.Casteel@mail.wvu.edu).