Operation Medicine Cabinet ...

What: Come dispose of your unused and expired medications
When: Saturday, January 30, 2010 from 10 am to 2 pm
Where: Any Food Lion parking lot in Onslow County
Why: Safely dispose of medications while also protecting our children and our environment

Operation Medicine Cabinet is a local effort to provide a safe means for disposing unused and expired medications. Abuse of these drugs by our youth is a growing problem. The drugs are often readily accessible, since they may be found in home medicine cabinets. The child might ingest the medicines, share them with friends, or sell them. Reports indicate that as many as 20% of teens have taken prescription medications that weren’t their own. Over-dosing, addiction, and harmful interactions are possible outcomes from children experimenting with medicines.

With the rising cost of both prescription medications and over-the-counter drugs, people often hang on to medicines “just in case.” So, are expired medications safe to use? A quick web search with this question brought up a lot of responses. The news was mixed. Taking medications past their expiration date can be very dangerous. Some medications, such as tetracycline, can become toxic. Others may lose their effectiveness. For example, the active ingredient in aspirin turns into acetic acid, which makes the pills smell or taste like vinegar.

Manufacturers set the expiration date on packaged drugs. In effect, they are certifying that the drug will retain 90% of its original potency until that date. How long the drug retains its potency past that date is not evaluated. The date on individual prescriptions, however, is set by the pharmacist as a “use-by date.” The US Pharmacopeia requires a one-year or less “use-by date” on repackaged medications.

In 1985, the Air Force had a stockpile of medications that were about to expire. They wanted to know if the drugs were still safe, so they asked the Food & Drug Administration (FDA) to check them for safety and effectiveness. From that, the Shelf Life Extension Program (SLEP) was created. Drug stockpiles from each military branch are now evaluated and the expiration dates adjusted.
This program has saved the military (and the taxpayers) millions of dollars; however, these medications are stored in original packaging under controlled temperature and humidity. Home bathroom medicine cabinets are one of the worst places to store medication. Medicines should be stored in a cool, dry location. If in doubt about the safety or effectiveness of an expired medication, dispose of the medicine or speak with your pharmacist.

Recommendations for the proper disposal of medication have changed over the years. In the past, many of us were told to flush medications down the drain or toilet. That is no longer recommended, except for a very few specific medications. If you are on a septic system, the medications may adversely impact the system’s function. Medications and their breakdown products can also pass through the system and end up in ground water, ditches, and streams. If you are on a sewer system, the medications can disrupt the wastewater treatment plant’s operation. As with septic systems, medications and their breakdown products can pass through the treatment plant and be discharged to local waterways.

So, how should we dispose of medications? The U.S. Fish and Wildlife Service, the American Pharmacists Association, and the Pharmaceutical Research and Manufacturers of America have created the SMART DISPOSAL campaign to educate consumers on disposing of medicines in a safe and environmentally protective manner. Their website is located at:

http://www.smarxtdisposal.net/

The FDA has a telephone number that people can call to ask about proper disposal methods: 1-888-463-6332.

The current recommendations are:

1) Turn in the unused medications at a medication collection event (such as Operation Medicine Cabinet). The medications are then destroyed, usually by incineration.

2) If accepted, turn in unused medications at a hazardous household waste collection event (be sure to remove all personal information from the labels).

3) Dispose of the medications in the trash by following these steps:
   a. Remove or destroy all personal information on the bottle label.
   b. Crush or dissolve the medicine, if it’s a solid.
   c. Add sawdust, salt, kitty litter, used coffee grounds or other materials that will make the drugs less attractive to pets or children.
   d. Seal the medication in a non-transparent container and place in the trash.

It’s science fair time again! …

The 2010 NC State Science & Engineering Fair will be held on March 26th & 27th at Meredith College in Raleigh. The participants are those students who won at one of the regional fairs and were recommended to advance to the state level. The 2010 Southeast Regional Science Fair will be held on February 20th at UNC-Wilmington’s Trask Coliseum. This region contains Brunswick, Carteret, Craven, Duplin, Greene, Jones, Lenoir, New Hanover, Onslow, Pamlico, Pender, Sampson, and Wayne County.

Information about the NC State Science & Engineering Fair is available at:

http://www.ncsta.org/sciencefair/

Science Fairs provide an excellent opportunity for students in grades 3-12 to explore their interests in science and technology. In doing so, they enrich their education experience. Conducting a good project combines the areas of science (scientific method, study, hypothesis), math (working with data, making and interpreting graphs), and language arts (writing the report, presentation skills).
These skills are very useful as the students pursue their future careers. The fairs also give the students the chance to compete for awards, college scholarships, honors programs, and other prizes at the local, state, national, and even international level. North Carolina students have done very well, with some students winning several thousand dollars each:

http://www.ncsta.org/sciencefair/students/winners.html
http://www.ncsta.org/sciencefair/students/isef.html

Dr. Ellen Smoak and Dr. Robert Williamson, with NC A&T State University Cooperative Extension, wrote A Student’s Guide to Keeping the Science in Your Science Project, to help students with their projects. This guide is available online at:


Your local NC Cooperative Extension office may be able to help students with project ideas. Keep that in mind for next year’s event! A science fair entry can also fulfill the high school graduation requirement of a senior project, as the same elements are required:

Paper: This needs to demonstrate that the student can research a topic and write about it.

Product: The possibilities range from a service project to something the student designs or builds.

Portfolio: This demonstrates progress with the project through journal entries, a log, or other method.

Presentation: This can include a display board, slideshow presentation, and oral presentation (respond to judges’ questions).

Green Thumb Challenge 2010 …

Big gardens, small gardens, indoors or outside, the Green Thumb Challenge aims to motivate schools and youth groups across the country to plant 10,000 gardens between February and August in 2010. The Green Education Foundation (GEF) Web site provides informational resources needed to start and maintain a garden of any size, and includes standards-based lessons that link gardening to science, math, language arts, creative arts, and technology:

http://www.greenthumbchallenge.org

Don’t forget that NC Cooperative Extension also has information on proper plant selection, growing various plants, gardening, soil testing, and much more!

SSDRIP $50 Rebate …

Attention all Onslow residents with a septic system! Onslow County received funding from the Clean Water Management Trust Fund to establish the Septic System Database, Repair, and Information Program (SSDRIP). One of the components of this program includes a $50 rebate to septic system owners for maintaining their septic system by having the septic tank pumped. This funding is currently scheduled to end in February 2010. Therefore, all rebate requests must be submitted to the county by February 1, 2010. If the county is successful in getting an extension on the program, that information will be made available.

After the tank is pumped, the resident and pumper complete the rebate form and mail it to Onslow County Health Department Administration. Rebate forms and a brochure about the SSDRIP program are available from NC Cooperative Extension, Onslow County Health Department, Onslow County Planning Department, and various septic tank pumpers.

It is recommended to have the septic tank pumped every 3-5 years, depending upon homeowner practices. The use of “additives” is NOT an alternative to having the tank pumped, nor is it a recommended practice. Our recent rains have caused several people to comment that their lines “gurgle” a lot when they flush. The wet soils are making it harder for the water to soak into the ground. Limiting household water usage is highly recommended.

The NC Cooperative Extension Service has several publications to help homeowners learn about their system: Septic Systems & Their Maintenance, Septic System Owners Guide, and Why Do Septic Systems Fail? It is also recommended that homeowners obtain a copy of their septic system
permit from the county health department. The permit can tell them a lot about their system, such as system location, designated repair area location, and if the system has been repaired.

**Electric usage, Kwh/month**

![Electric usage graph]

**Save on your electric bill ...**

Be sure to take advantage of tax credits for the installation of energy saving products! The graph shows the change in electric usage for a 2-storey 1,700 square foot Jacksonville home built in 1971. Improvements to the home (programmable thermostat, radiant barrier, insulation, etc.) were made in two phases: some from 2001-2006; the rest during October & November 2007. The current energy bill savings is roughly $80 per month. Can’t afford to make improvements? The Weatherization Assistance Program is available to low-income residents in all counties. In Onslow and Carteret, contact Coastal Community Action (866-210-1630) for program information.

**Don’t forget ...**

Help save paper, postage, and your tax dollars! This newsletter is available online at:

http://onslow.ces.ncsu.edu/content/Envedarchive

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