

IN THIS ISSUE:

1. Discipline Courses for Teachers (and Extension Agents) ~Online
2. "How Mother Nature" Collection
3. Marine Science Careers
4. NEW PBS Series: Edens Lost & Found
5. 7 Generations EE Manual
6. Water Science Experiments & Projects
7. From "Concerned Families for ATV Safety" Web Page
8. ATV Safety for Farm Work and Recreation
9. How Much Do You Know About ATV Safety?
10. EPA Announces New Publication Services
11. How to Determine Ecological Harm to Rivers & Streams
12. Algae-Like a Breath Mint for Smoke Stacks

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1. DISCIPLINE COURSE FOR TEACHERS ~ ONLINE

Solving Classroom Discipline Problems is a new online course that gives teachers the knowledge and skills to handle common discipline problems. Earn 2.4 continuing education credits.

<http://www.classroomdisciplinecourse.com/>

2. "HOW MOTHER NATURE" COLLECTION

By Tom Schwartz, Reagent Press, Publisher. How Mother Nature Flowered The Fields of Earth and Mars is a collection of three original Mother Nature stories: Flowering Fields of Earth; Saving Flowering Fields; and Flowering Mars! Stories make learning about environment fun, and interesting. Recommended for young readers transitioning from picturebooks.

<http://www.reagentpress.com/tomschwartz.htm>

3. MARINE SCIENCE CAREERS

Interested in learning more about careers in Oceanography, Marine Science & Marine Biology? Check out this online career directory from Scripps Institution of Oceanography Library, University of California, San Diego.

<http://scilib.ucsd.edu/sio/guide/career.html>

4. NEW PBS SERIES: EDENS LOST & FOUND

New PBS Series examines how cutting edge sustainability strategies are used to revitalize the urban landscapes and improve city life in Los Angeles, Chicago, Philadelphia and Seattle. Series scheduled to air in spring and fall, 2006, on PBS stations nationwide.

<http://www.edenslostandfound.org/>

5. GENERATIONS EE MANUAL

"Addressing Village Environmental Issues for the Future Generations of

Alaska" 7 Generations downloadable EE Manual, designed for people in rural Alaska who want to accomplish environmental planning, and management using a community based approach.

<http://www.7generations.us/page2.html>

6. WATER SCIENCE EXPERIMENTS & PROJECTS

Science Fair Water projects: <http://www.sciencefaircenter.com>

Experiments and demos for teachers: <http://www.watercenter.net>

Basic water information and terms: <http://www.watercenter.org>

Blog on Water Impacts caused by Hurricane Katrina:

<http://www.watercenter.org/blog>

<http://www.watercenter.org/>

7. FROM "CONCERNED FAMILIES FOR ATV SAFETY" WEB PAGE

(<http://www.atvsafetynet.org/>): Grandchild Killed in ATV Accident

By Nadia Mohandessi (Tuesday, August 09, 2005 Mobile Register)

A 3-year-old boy was killed Monday afternoon when he was thrown from the all-terrain vehicle his grandfather was driving in south Mobile County, authorities said.

Jacob Daniel Bradford was taken to the University of South Alabama Medical Center, where he later died of his injuries, according to a nursing supervisor. The hospital staff could not release the type of injuries he sustained because of federal privacy laws.

Bradford's grandfather, Kenneth E. Henderson Sr., was driving the ATV up a steep hill in a dirt pit in the 10200 block of Boe Road in St. Elmo around 4 p.m. when it flipped, said Mobile County Sheriff's Office spokeswoman Christina Bowersox.

Both Henderson and Bradford were thrown from the vehicle, Bowersox said. Henderson suffered minor injuries and Bradford was taken to USA Medical Center by the LifeFlight-Mobile helicopter, according to Bowersox. Henderson's two teenage grandchildren were also riding ATVs at the time of the accident but were not injured, Bowersox said.

The Sheriff's Office and the Alabama Department of Forensic Sciences were still investigating the accident Monday night, Bowersox said.

8. ATV SAFETY FOR FARM WORK & RECREATION

Charles V. Schwab, Laura Miller and Sonny Sarre , Iowa State University Extension

Farm operators may purchase all-terrain vehicles (ATVs) to haul livestock feed or get to the field but ATVs often serve another purpose: recreation. Since youth are frequently victims of accidents involving the popular multi-wheeled vehicles, it's important that all family members know and follow necessary precautions every time ATVs are used - for work or for play.

According to the U.S. Consumer Product Safety Commission, four out of every 10 people treated each year in emergency rooms for ATV injuries are under age 16. In 1993, the Iowa Department of Public Health reported at least 50 injuries (including one fatality and nine hospitalizations).

This publication briefly discusses major safety concerns related to ATVs, including the need for protective gear, a pre-ride inspection, and proper operation. Parents also should determine each family member's readiness to operate an ATV based on physical size, coordination, balance, ability to judge distances, willingness to follow rules, and peripheral vision.

Manufacturers' guidelines suggest that no one under age 16 should operate an ATV with an engine larger than 90CC. They also recommend an engine between 70 and 90CC for youth under 12, and an engine 70CC or smaller for children under age 6. Although a child may be old enough to ride a certain sized ATV, not all youth have the strength, skills, or maturity needed to operate it safely. See the back page for how to get more information on how to decide.

All ATVs must be registered in the county of residence in Iowa. Iowa law also prohibits their use on public roads, and certain restrictions apply to their use on public land and land purchased with snowmobile registration fees. Anyone under age 18 must have a valid safety certificate to operate an ATV, and youth between ages 12 and 15 must have a certificate and be under direct parental or adult supervision.

Wear the Right Gear

Head protection. A helmet is the most important piece of safety gear for an ATV operator. If designed for ATV use, a helmet can prevent serious head injuries. Helmets used for bicycling, skateboarding, and rollerblading should not be used on ATVs because they lack face protection and the ability to absorb energy on impact. Look for helmets with a label from the American National Standards Institute, Department of Transportation, or the Snell Memorial Foundation to verify that the helmet has been safety tested. The helmet also must be able to resist a blow from a sharp object, stay in place, and provide a minimum amount of peripheral (side) vision. Correct size is essential, especially for young operators.

Eye protection. A face shield may be part of the helmet. If not, wear an ANSI-approved pair of goggles or glasses with hard-coated polycarbonate lenses. This will protect your eyes from rocks, twigs, branches, flying dirt, insects, or water, that can cause you to lose control or damage your eyes.

Body protection. Gloves protect hands from scrapes and scratches, improve grip on the controls, and reduce soreness from the pressure of holding onto the handle bars. Boots protect feet from trail debris and keep feet properly placed on the footrest, which is important in maintaining balance and control of the ATV. Also recommended are a sturdy, long-sleeved shirt or jacket and long pants to protect arms and legs from cuts or scrapes caused by trail debris and branches. Proper clothing also protects the operator from problems caused by weather conditions, including sunburn and frostbite. Optional gear, worn by professional riders, includes a padded jersey and shin guards.

Make a Pre-Ride Check

- Tires and wheels - Make sure air pressure in tires is as recommended and check for cuts or gouges. Tighten axle nuts and secure by a cotter pin.
- Controls and cables - Check location and make sure all work. Throttle should move smoothly when handlebar is in different positions. Brakes should be properly adjusted and foot shift firmly fastened.
- Lights and electrical system - Ignition switch should stop engine when in "off" position and when in "on" position, headlights and taillights should work.
- Oil and fuel - Check oil and fuel levels.
- Chain and/or driveshaft chassis - Inspect, adjust, and lubricate chain and/or drive-shaft chassis. Check for nuts and bolts loosened by vibration.

Start It Properly - BONEC

This refers to steps to use every time you start the ATV:

- Brakes - Always have parking brakes on.
- On position - for fuel cap vent or valve, and then for ignition key (if equipped).
- Neutral - The transmission always must be in the neutral position.
- Engine - The engine stop switch should be in the "run" or "start" position.
- Choke - If the engine is cold, put the choke in the "on" position and start the engine according to the manual.

Know How to Operate

ATVs handle differently from other vehicles, such as motorcycles and cars. Therefore, it's important to know how to turn, go up and down hills, and select safe routes. Operators also need good judgment in maintaining a safe distances behind other ATVs, knowing when to turn around due to weather, fuel needs, or darkness, and following laws.

Always scan the environment ahead and identify visible hazards, such as rocks or stumps, low or fallen branches, fences, guy wires, and rough or unstable trail surfaces. Some hazards may be hidden or appear unexpectedly, such as other riders or wildlife. Fixed obstacles, such as railroad tracks, driveways, or waterways also can be hazardous if the operator does not anticipate them.

Operating an ATV safely also requires skill and practice. The ATV operator must know the proper speed, also where and how much weight to shift while making turns and riding up and down hills.

The operator also must be willing to follow rules. Never allow passengers on the ATV, or allow anyone to operate it who has not had proper training or may be under the influence of alcohol or drugs. ATVs are designed for one person only - the operator. An extra person will interfere with normal operation of the vehicle. The added weight also will complicate handling of the ATV up and down slopes, around curves, and stopping distances. Operators also must know and be willing to follow local and state laws that apply to ATVs.

All-terrain vehicles can be both practical and fun for farm families but they also pose risks. Reduce the dangers, and the number and severity of injuries, by following good safety practices whenever an ATV is used.

9. HOW MUCH DO YOU KNOW ABOUT ALL-TERRAIN VEHICLE SAFETY?

1. What does each letter in the BONEC acronym mean?
- 2.. Tire pressure may cause ATVs to handle improperly. True or false?
3. How many passengers, at most, are ATVs designed to carry?
 - a. none
 - b. one
 - c. two
 - d. three
4. What is the most important piece of safety gear needed for riding an ATV?
 - a. chest protection
 - b. boots
 - c. helmet
 - d. gloves
5. ATVs must be registered in Alabama. True or false?

See answers at the end of the next section.

What can you do?

- Become trained in how to use and handle an ATV.
- Always wear an approved helmet when riding an ATV. A strip of reflective tape on back of helmet gives extra visibility at night.
- Inspect the helmet for wear; replace after every accident or every two to four years.

- Know and follow laws that apply to ATV operation.
- Use caution on unfamiliar roads and avoid excessive speeds.
- Ask permission before riding on private property and leave the area clean.
- Never allow passengers.

Answers to quiz:

1-Brakes, On, Neutral, Engine, Choke; 2-True; 3-a; 4-c; 5-False.

Source: Iowa State University Extension

10. US EPA ANNOUNCES NEW PUBLICATION SERVICES FROM NSCEP

The EPA's National Service Center for Environmental Publications is Proud to Announce NEW Digital Services Now Available at

<http://nepis.epa.gov/>

Full text searching on-line! Locate specific and related publications, ranked by hit!

- * Publications for Education, Business and Government.
- * Over 13,000 environmental publications maintained in the Agency's on-line archive.
- * New Bookshelf Feature allows the recall of saved links to on-line documents for use in future visits.
- * PDF's of scanned documents can now be created for downloading and printing!
- * As always Environmental Publications in hardcopy, on DVD,CD-ROM and video are still available for ordering at: <http://www.epa.gov/ncepihom/index.htm>.

For more information visit <http://nepis.epa.gov/> ,

Call Toll Free 1-800-490-9198 or call 513-489-8190

11. NEW TOOL FOR DETERMINING CAUSE OF ECOLOGICAL HARM TO RIVERS AND STREAMS

To improve the nation's waters, EPA has released a new web-based tool, the Causal Analysis/Diagnosis Decision Information System (CADDIS), which simplifies determining the cause of contamination in impaired rivers, streams and estuaries. An impaired body of water does not meet the state or federal water quality standards for one or more pollutants.

More than a thousand U.S. water bodies have been identified as impaired, and in many cases, the cause is unknown. There are many possible sources of pollution such as industrial waste, municipal sewage, agricultural runoff, naturally occurring minerals in rock and sand, and biological materials. Before restorative or remedial actions can be taken, the cause of impairment must be determined. By helping to find the source of contamination, state and local organizations will be better able to implement the Clean Water Act.

CADDIS provides a standardized and easily accessible system to help scientists find, use and share information to determine the causes of aquatic impairment. Causal analyses look at stressor-response relationships, meaning the effect of a specific substance or activity (stressor) on the environment. Typical water stressors include excess fine sediments, nutrients, or toxic substances.

CADDIS was developed by EPA scientists through partnerships with EPA programs and regions, as well as states and tribes.

"The development of CADDIS has been an impressive effort and a great example of customer focus by EPA's Office of Research and Development," said Michael Shapiro, deputy assistant administrator in EPA's Office of Water

The version of CADDIS released recently is the first of three. Future versions will include modules to quantify stressor-response relationships, and databases and syntheses of relevant literature on sediments and toxic metals. CADDIS is available on EPA's Web pages at: <http://www.epa.gov/caddis>

Contact: Suzanne Ackerman, 202-564-4355 / ackerman.suzanne@epa.gov

12. ALGAE - LIKE A BREATH MINT FOR SMOKESTACKS

By Mark Clayton | Staff writer of The Christian Science Monitor, 1/11/06 edition
BOSTON - Isaac Berzin is a big fan of algae. The tiny, single-celled plant, he says, could transform the world's energy needs and cut global warming.

Overshadowed by a multibillion-dollar push into other "clean-coal" technologies, a handful of tiny companies are racing to create an even cleaner, greener process using the same slimy stuff that thrives in the world's oceans.

Enter Dr. Berzin, a rocket scientist at Massachusetts Institute of Technology. About three years ago, while working on an experiment for growing algae on the International Space Station, he came up with the idea for using it to clean up power-plant exhaust.

If he could find the right strain of algae, he figured he could turn the nation's greenhouse-gas-belching power plants into clean-green generators with an attached algae farm next door. "This is a big idea," Berzin says, "a really powerful idea."

And one that's taken him to the top - a rooftop. Bolted onto the exhaust stacks of a brick-and-glass 20-megawatt power plant behind MIT's campus are rows of fat, clear tubes, each with green algae soup simmering inside.

Fed a generous helping of CO₂-laden emissions, courtesy of the power plant's exhaust stack, the algae grow quickly even in the wan rays of a New England sun. The cleansed exhaust bubbles skyward, but with 40 percent less CO₂ (a larger cut than the Kyoto treaty mandates) and another bonus: 86 percent less nitrous oxide.

After the CO₂ is soaked up like a sponge, the algae is harvested daily. From that harvest, a combustible vegetable oil is squeezed out: biodiesel for automobiles. Berzin hands a visitor two vials - one with algal biodiesel, a clear, slightly yellowish liquid, the other with the dried green flakes that remained. Even that dried remnant can be further reprocessed to create ethanol, also used for transportation.

Being a good Samaritan on air quality usually costs a bundle. But Berzin's pitch is one hard-nosed utility executives and climate-change skeptics might like: It can make a tidy profit.

"You want to do good for the environment, of course, but we're not forcing people to do it for that reason - and that's the key," says the founder of GreenFuel Technologies, in Cambridge, Mass. "We're showing them how they can help the environment and make money at the same time."

GreenFuel has already garnered \$11 million in venture capital funding and is conducting a field trial at a 1,000 megawatt power plant owned by a major southwestern power company. Next year, GreenFuel expects two to seven more such demo projects scaling up to a full production system by 2009.

Even though it's early yet, and may be a long shot, "the technology is quite fascinating," says Barry Worthington, executive director of US Energy Association in Washington, which represents electric utilities, government agencies, and the oil and gas industry.

One key is selecting an algae with a high oil density - about 50 percent of its weight. Because this kind of algae also grows so fast, it can produce 15,000 gallons of biodiesel per acre. Just 60 gallons are produced from soybeans, which along with corn are the major biodiesel crops today.

Greenfuel isn't alone in the algae-to-oil race. Last month, Greenshift Corporation, a Mount Arlington, N.J., technology incubator company, licensed CO₂-gobbling algae technology that uses a screen-like algal filter. It was developed by David Bayless, a researcher at Ohio University.

A prototype is capable of handling 140 cubic meters of flue gas per minute, an amount equal to the exhaust from 50 cars or a 3-megawatt power plant, Greenshift said in a statement.

For his part, Berzin calculates that just one 1,000 megawatt power plant using his system could produce more than 40 million gallons of biodiesel and 50 million gallons of ethanol a year. That would require a 2,000-acre "farm" of algae-filled tubes near the power plant. There are nearly 1,000 power plants nationwide with enough space nearby for a few hundred to a few thousand acres to grow algae and make a good profit, he says.

Energy security advocates like the idea because algae can reduce US dependence on foreign oil. "There's a lot of interest in algae right now," says John Sheehan, who helped lead the National Renewable Energy Laboratory (NREL) research project into using algae on smokestack emissions until budget cuts ended the program in 1996.

In 1990, Sheehan's NREL program calculated that just 15,000 square miles of desert (the Sonoran desert in California and Arizona is more than eight times that size) could grow enough algae to replace nearly all of the nation's current diesel requirements. "I've had quite a few phone calls recently about it," says Mr. Sheehan. "This is not an outlandish idea at all."

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