# Science

## Officials call for stricter food label regulations

By BETH HARMEN Collegian Staff Writer

Until the U.S. Food and Drug Administration passes new regulations, some state officials fear that manufacturers can mislead consumers with words like "light," "low." and "free."

"Let's take a product traditionally high in fat," said Leroy Corbin, director of the state's Bureau of Foods and Chemistry. "One packer could reduce the fat by 5 percent and label it 'light.' The next could reduce the fat by 50 percent and also label the product 'light.' But nowhere on the package will

The FDA is currently deciding on "foodlabeling descriptors such as 'free,' 'low,' and leading, consumers are not in danger, said 'light' " state Agriculture Secretary Boyd E. Wolff said.

"These words need to be defined so that consumers know what they are getting," Wolff

Both Corbin and Wolff agreed that the new regulations will protect the consumers.

The new regulations will not only mandate a uniform definition and standard for food descriptors, they "will also prevent tricky wording like 'lower' " Corbin said. "Man-

you see the nutritional information. This misleads the consumer." ufacturers will only be able to use terms approved by FDA."

Though food descriptors may be mis-Madeline Sigman, assistant professor of food

"There is probably more confusion than danger." Sigman said. One manufacturer could label something "low-sodium" by "reducing the sodium by only 5 percent."

'Consumers are confused — is something 'light' or 'lighter?' And what's the difference?" Sigman said.

But heart patients are not in danger, she

counseling from a physician," she said. "Lowsodium patients would look at actual grams not desciptors.

The most important result from the proposed label changes will be that consumers will have information about a product before they buy it, Sigman said.

Manfred Kroger, professor of food science, agreed that consumers need to be informed.

"The new desciptors will probably not affect non-intelligent consumers who choose their food by weight and smell, but they will especially help intelligent consumers who

from us.'

The new regulations shouldn't hurt manufacturers or their business, Kroger said. "They have the information, now the manufacturers just need to print it," he added. "I don't think any manufacturers will lose business, only those that want to hide something

"In the long run, we're going to have a more educated and happy consumer," Kroger said. "More information makes for a more intelligent lifestyle. The more you know, the more you are in control of your own destiny; and that's what everyone who eats should care about."

## PSU researchers to study clouds, greenhouse effect

By BETH HARMEN Collegian Staff Writer

In order to better understand the effects of global warming, University researchers have designed a collection of ground-based instruments to study clouds.

Clouds can either warm or cool the earth. They reflect away 20 percent of the energy from incoming sunlight, but also act similarly to greenhouse gases by absorbing thermal energy emitted from the ground, said Thomas Ackerman, associate professor of meteorology.

"If we want to improve global climate models, we have to develop an understanding of cloud formation," Ackerman said. "That is the purpose of the (Cloud Observing System.)'

The greenhouse effect occurs as more gases such as carbon dioxide and methane enter the earth's atmosphere.

'The gases act as a blanket and trap the heat that would normally escape," said Ken Reeves, a meteorologist for Accu-Weather. "Therefore the atmosphere is warmed."

The amount of global warming due to carbon dioxide depends on cloud increase or decrease, said Bruce Albrecht, professor of meteorolo-

cover increases as the gases increase," Ackerman agreed. "Then you could reflect the solar radiation and there wouldn't be any greenhouse warming."

"There is no problem if the cloud

On the other hand, if there is an

clouding in the atmosphere, this increases the greenhouse effect," he added.

Ackerman and Albrecht would eventually like to predict the atmospheric structure of clouds if there is a continued increase in greenhouse gases.

"During the past hundred years, there has been an increase in the amount of carbon dioxide in the atmosphere," Ackerman said. "We're burning more oil and gas. Any combustion process will yield carbon dioxide.

The COS will help to simulate the world's atmosphere when there is a higher level of carbon dioxide, Ackerman said.

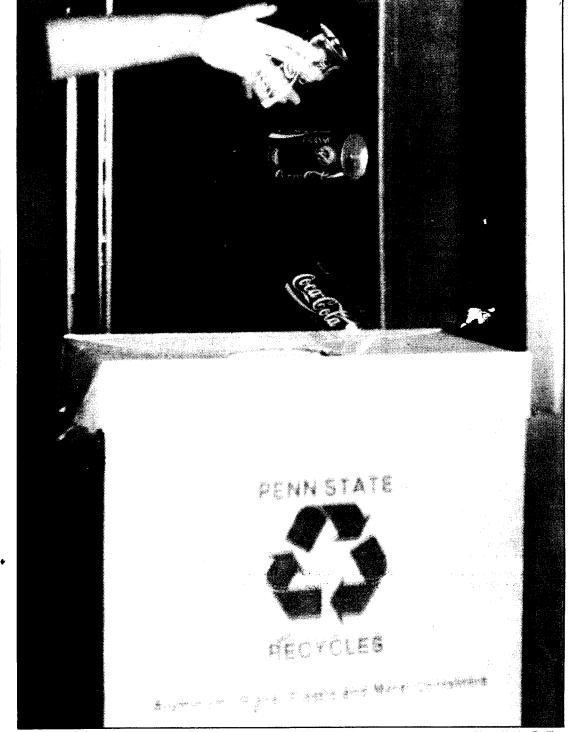
It is important to predict if the atmosphere will warm as a result of increased carbon dioxide, Albrecht

"We must understand if the temperature increases, will clouds increase or decrease?" Albrecht added. "Obviously the more clouds, the more energy reflected back to space," and consequently, decreased global warming.

Creating clouds would probably be a solution to global warming. Researchers have tried to create clouds but, "the projects have been a dismal failure," Ackerman said. The University researchers will

study the properties of clouds for years before they compile the necessary data needed to predict cloud formation.

"State College is a great place to observe because we certainly have increase of gases and a decrease in our share of clouds," Ackerman added.



Joining state efforts to recycle, the University now provides collection bins for cans, glass, metal and paper materials in all of its buildings.

## PSU device to ride Argentinean satellite

#### Device to measure release of X-ray radiation from sky

Collegian Science Writer

The University will join Argentina in launching a satellite that will scan for the origins of X-rays in space.

The United States became involved with Argentina's space mission after Terence A. Todman, U.S. Ambassador to Argentina, and Raul F. Matera, the Argentinean Secretary of State for Science and Technology, signed an agreement in August to cooperate in launching Argentina's first satellite.

Soon after, the University was contracted by NASA to build an Xray cosmic background instrument that will be launched as part of the Argentinean satellite, said France Cordova, head of the University's department of astromony and astrophysics.

The instrument detects X-rays and measures the amount of X-ray radiation the sky is giving off, said Gordon Garmire, Evan Pugh Professor of astronomy, who is also

heading the team working on the project.

The University received the contract to build the instrument after NASA let a few astronomy teams know what they needed and how fast they needed it, Cordova said.

"We responded quickly and got it." she said.

The University will receive approximately \$500,000 a year during the construction on the instrument, said Garmire.

But the University will not make a profit from the construction, Cordova

"They're paying us just enough to

build it," she added. By launching the X-ray instrument, astronomers are hoping to discover where all the X-rays that are bouncing around in space came from, Cordova said. Although there are many theories about the X-rays, no one really knows their origin, she

The satellite should be launched sometime in 1994, Garmire said.

### Summit explores use of recyclables in businesses

By JEANNINE LUBY Collegian Staff Writer

In order for the state's recycling program to be successful, items made from recycled material must become more widely used

A demand must be created for the supply of recycled materials, said Phillip Melnick, University recycling coordinator. The marketplace has not kept the same pace as the collection of recyclable materials.

"You're not really recycling until you use products made from recycled materials," Melnick said. "It takes time for businesses to catch up," said

Gina McBean, administrative assistant for Lt. Gov. Mark Singel.

Market development of recycled materials was discussed at a one-day summit held on Aug. 15 in Harrisburg, she said.

"Nothing very concrete occurred at the summit, but the most positive thing that happened was the dialogue that was opened between municipalities' officials, private recyclers and members of industry," said Joanne Shafer, recycling coordinator for Centre County.

The meeting was attended by recycling haulers,

state and municipal officials and non-profit organizations to discuss the second phase of recycling mandated by the state's recycling law. The second phase will require all communities in the state with 5,000 or more residents to recycle by September.

The first phase began in 1988 when communities with 10,000 or more residents were required

State College began recycling in 1989 — a year ahead of its deadline.

Bellefonte and College Township are affected by the second phase but both communities started recycling ahead of time, Shafer said.

A cabinet-level task force on recycling market development, chaired by Lt. Gov. Mark Singel, has also been developed.

New uses for recycled items are now being researched.

The Pennsylvania Department of Transportation is examining the possibility of using recycled vinyl for noise barriers, Singel wrote in a recent weekly column.

One of many uses for old newspaper is animal bedding, but the state cannot tell all farmers to switch from hay to paper, McBean said.

## Volcano's eruption brightens sunsets

By BETH HARMEN Collegian Staff Writer

The recent eruptions of Mount Pinatubo are causing brilliant, bloodred sunsets in the Philippines and may cause a colder winter.

"We are seeing brilliant reddish sunsets that are related to the Pinatubo plumes," said Barry Voight, professor of geosciences.

Mount Pinatubo spewed molten rock and a miles-high cloud of swirling ash in "a series of eruptions with plumes up to 100,000 feet," Voight said. The plumes "threw ash into the atmosphere, which affected the transmission of light from the sun to the viewer.'

"The reflection of sunlight off of the tiny dust particles results in brilliant glowing skies." Voight added.

After the Pinatubo eruption, there has been "selective attenuation," said Craig Bohren, professor of meteorology. "You're looking through more particles, more dust. Particles act as a filter in which sunlight gets scattered.'

The June 16 eruption caused volcanic ash to enter into the stratosphere, said Bob Larner, meteorologist for Accu-Weather. "Therefore rays of light got bent from the volcanic crystals in the atmosphere."

"Spectacular sunsets can also be caused by forest fires," Bohren added. 'Red suns also occur in industrial areas because pollution particles also act as a filter - like cellophane, which filters out some of the light.'

"If you want blood-red sunsets, you must put particles in the air," Bohren said. "And in the case of Pinatubo, the more ash, the more particles, the more filtering," therefore, the more

brilliant the skies. The extraordinary sunsets after a volcanic eruption usually last from one month to a year and "there are varying degrees of brilliance," Voight

In some cases an eruption may cause gorgeous sunsets thousands of miles away, said Bohren.

"Because the atmosphere is always in motion, prevailing winds can carry particles a great distance." Bohren said. "However, there are no big reports about spectacular sunsets in this part of the world."

In addition to the awesome sunsets, "volcanic erruptions are believed to cause a temperature decrease in the climate for a year," he said. This theory was introduced over 200 years

"In 1784, Benjamin Franklin wrote an article saying volacanic eruptions might make winters colder," he added.

"It makes sense that the temperature would drop after a volcanic eruption," Larner said. "Because there is very little movement of the air in the stratosphere, particles get trapped. Incoming solar radiation gets trapped by the dust," preventing the rays from reaching the earth.

### Common causes of allergies may lurk in beds, rugs and stuffed animals

By ORLANA M. DARKINS Collegian Staff Writer

For many students the hot, hazy days of summer may not be a season of comfort. According to the American Academy of Allergy and Immunology one out of six Americans has an allergy or

But what many students may not realize is that common causes of allergies, like the mold and dust mites, can be found in their own rooms.

"Mold and dust mites can be found in mattresses, pillows, and blankets if they are stored in basements or attics over the summer," said Sarah Kaluzny, director of communications for the American Academy of Allergy and Immunology. "They can also be found in stuffed animals. indoor plants, carpets and books."

But Donald Arndt, director of Housing Services, said these causes - called allergens - do

Causes of allergies can be found in many household items.

not have a very high chance in appearing in dorm

students mattresses, pillows or sheets. "Our mattresses and pillows are not stored," Ardnt said. "They are mostly used during summer conferences. Even though the number varies, we buy a specific number of mattresses each year. The mattresses and pillows are replaced when

Even though Housing Services does not get many complaints about possible allergic symptoms to its bedding, when one is made it is investigated. But some students believe Housing Services

should work harder

holes or do not fit properly and if housing services could improve the screens it would help eliminate the outdoor pollen from coming in," Kimi Bush (senior-broadcast cable).

Kim Amster (sophomore-division of undergraduate studies) agreed, saying: "If the rooms were air-conditioned there wouldn't be any pollen coming indoors. With the money we pay we should be able to have air-conditioning in our rooms. Even if students had to pay a monthly bill depending on how often they used it."

But the University only accommodates stu-

dents that have severe allergy conditions. People who severely have a low tolerance to dust and pollen can work out arrangements where air conditioning can be used," Ardnt said. "If the person is an early applicant Housing Services can make accommodations. Our ability to respond to those needs depend on vacancies and most "Sometimes the screens in the dorm rooms have importantly the legitmacy of the person's allergy.

#### Allergy tips

Line 1-800-822-2762.

For allergy sufferers the American Academy of Allergy and Immunology recommends these tips:

■ To minimize exposure to pollen outdoors, stay indoors between 5 to 10 a.m. and 4 to 6 p.m., when pollen levels are at their highest.

■ Keep windows closed and use air-conditioning, which cleans the

Take over-the-counter medications such as antihistamines or other medications prescribed by an allergist. ■ Dust desks, dressers, stereo equipment, books and wall deco-

■ Vacuum after dusting the room to remove as much as possible. For more allergy and asthma information from the American Academy of Allergy and Immunology call the Physicians' Referral and Information