

Entomology

Food Science

Penn State

Poultry Pointers



Agricultural & Biological Engineering

Agricultural Economics

AN IMPORTANT REMINDER ABOUT RESPIRABLE DUST

Sam Steel
Project Associate
Ag & Bio
Engineering Dept.

Poultry house dust has the potential for creating health problems among farmers.

It's not just any dust that farmers should be concerned about — it's the *invisible* dust particles known as respirable dust.

Respirable dust particles are less than 5 microns in diameter and are easily inhaled into the lungs, where they may cause hypersensitive reactions among poultry workers.

All inhaled dust is potentially dangerous to poultry farmers. It can cause an abrasive irritation to the inside of the lungs, or a condition known as "pneumonconiosis."

As additional dust is inhaled, irritating an already severe condition, the lung's efficiency level is reduced. This becomes a chronic or long-term disability which will adversely affect an individual's energy and exertion levels.

In other words, farmers of all ages find that they do not have the ability to accomplish farm tasks which require an increased level of strength and endurance.

Studies conducted with poultry farmers shown that many have excessive dust inhalation symptoms, including burning eyes, run-

ny nose, scratchy throat, abnormal production of sputum and phlegm, and excessive coughing. When researchers expanded their observations, it was apparent that more serious side-effects may occur from prolonged dust inhalation, especially dusts containing unknown organisms and chemicals.

One recent study in the midwest indicated that aerosols and ammonia may combine in confined animal housing and, when inhaled, may be deposited in the lungs.

The human body does have an efficient filtration system for keeping toxic and potentially dangerous materials out. Nose hair, along with the moist linings inside the nose, catch larger dust particles before they reach the throat and upper respiratory tract. Dust which gets by this filter can still be entrapped by hairlike cilia inside bronchial tubes above the lungs.

Unfortunately, large volumes of air contaminated with smaller dust particles still bypass this filtration system and reach the very absorptive inner linings of the lungs.

It has been estimated by Dr. Ron Jester of the University of Delaware that more than tons (77,000 cubic feet) of air is breathed into a farmer's lungs each year. This represents a weight greater than a person eats or drinks during the same period. If this quantity of air is contaminated with respirable dust, such as that found in poultry houses, then a *dangerous* level is being inhaled.

Even if you have not experienced symptoms of respirable

Trusts Preserve Natural Landscape

UNIVERSITY PARK (Centre Co.) — More than 3,000 acres of wetlands, farms, and forests in the U.S. are sold for redevelopment each day. But since the late 1800s, land trusts have been working to permanently protect these and other valuable lands.

Land trusts, or land conservancies, are nonprofit organizations that preserve land to benefit the environment and the public. The nearly 900 regional, statewide, and national land trusts in the U.S. have protected more than 2.7 million acres.

Farms, forests, wetlands, watersheds, urban gardens, historical buildings, and other kinds of property can be protected from development through different arrangements with land trust organizations.

"Land trusts range from small, local groups that protect only a few acres to large national organizations like the Nature Conservancy, which manages millions of acres and employs large staffs of

professionals," said Steven Thorne, Maurice K. Goddard professor of forestry and environmental resources in Penn State's College of Agricultural Sciences. "Perhaps the organizations' biggest strength is that they can be designed to meet the needs of particular communities or areas."

Property owners can arrange with a land trust to protect their land without selling it. One of the most effective and flexible ways to do this is through a conservation easement.

"In a conservation easement, the landowner and land trust enter into a legal agreement permanently restricting development of the property," said Thorne. "The land stays in private ownership, and the organization sees that development restrictions are carried out even if ownership changes."

Another way to protect land is through a life estate. With this arrangement, a landowner sells or donates land but retains the right to live on it throughout his or her lifetime. When the landowner dies, the land trust remains permanent owner of the property.

Landowners who no longer wish to live on their property can donate or will it outright. Many land trusts also buy property, sometimes for less than market value. This arrangement, called a bargain sale, stretches the organizations' land acquisition budget and provides tax advantages for the seller.

"Sometimes an owner would like his or her land to go to a land trust organization but can't afford to donate it or sell it at bargain price," said Thorne. "In this case, the owner can work with the land trust to arrange for part of the property to be developed, to finance conservation of the rest. Development often can be done so that the land is harmed as little as possible."

If you decide to conserve property in cooperation with a land trust, the organization will help you obtain professional assistance in estate planning, reviewing tax and conservation laws, and environmental and land planning.

Because an arrangement with a land trust is legally binding, you can be reasonably sure that the land will be preserved indefinitely, even if the land no longer meets the organization's conservation requirements.

There are more than 40 land trust organizations in the state, including the Northcentral Pennsylvania Conservancy, the Western Pennsylvania Conservancy, the Pennypack Watershed Association in southeastern Pennsylvania, and the West Branch Conservancy in central Pennsylvania.

To find out more about land trusts and to locate one near you, call or write The Land Trust Alliance, Suite 410, 900 17th St., NW, Washington, DC 20006, (202) 785-1410.

dust inhalation, personal protective equipment should always be used when working in poultry houses. Obviously, a properly fitted and maintained respirator should be used. Farmers with beards and those who wear glasses should be extra careful to ensure a proper fit. However, if you have extenuating medical circumstances such as heart and/or lung problems, including allergies, asthma, or high blood pressure, check with your doctor to ascertain whether you can wear a respirator.

Although it is easy to forget about respirator maintenance, don't take chances with your livelihood by ignoring the use of correct filter canisters and proper storage procedures. Your family and our nation's agricultural community need farmers who maintain a high level of awareness for their individual health.

Sponsors Scholarships

GETTYSBURG (Adams Co.) — The Adams County Poultry Association has approved \$2,000 in scholarships to Penn State University for the 1992-1993 academic year.

To be eligible, students must be residents of Adams County, be enrolled or accepted for enrollment at Penn State University, have an acceptable scholastic average, and be in need of financial assistance. Students must be enrolled in the College of Agricul-

ture or human development. The student should also apply for assistance through the college's financial aid office.

Registrations should be completed and returned by June 30. Application forms and any additional information can be obtained from Walter P. Griest, 2710 Mummasburg Rd., Gettysburg, PA 17325, (717) 677-8646 or the Adams County Extension Office, 1135 Chambersburg Rd., Gettysburg, PA 17325, (717) 334-6271.



BOSS HOG WOVEN WIRE

They're Talking About Boss Hog!



MOST ECONOMICAL

MOST DURABLE

REDUCES SCOURS

NON-SKID FOOTING

The wire with the BUMP!

It's More Than A Sales Gimmick. It's Proof That You Are Getting Genuine Boss Hog Woven Flooring. So Look For The "Bump" To Be Sure You're Getting The Best...

Boss Hog Woven Wire!

Our Great New Boss Hog Super Heavy 3x2, 5 16 Gauge Galvanized Woven Wire To Fit Your Needs!

Tired Of Replacing Woven Wire... SEE US NOW! Other Gauges Also Available.

PUMP OUT PIT FAN



Many manure storage pits have been constructed without providing for ventilation of the pit, particularly in buildings constructed several years ago when pit storage was first popular.

A non-ventilated pit results in a build-up of harmful, caustic gases, such as carbon dioxide, hydrogen sulfide, methane, ammonia and mercaptans. Hydrogen sulfide and carbon dioxide are heavier than air and, as the level of pit waste rises closer to the slats, the gases are forced closer to the animals. Results of inhaling these gases may be deep, fast breathing from CO₂. Hydrogen sulfide is one of the most toxic gases to animals and humans associated with liquid manure storage. This gas can cause severe irritation to the eyes and respiratory system and sometimes can result in death.

SPECIFICATIONS

FAN SIZE	FAN MODEL	MOTOR H.P.	PROP RPM	0	05
8"	POPF-8	1/15	3400	585	570
10"	POPF-10	1/6	3400	1155	1140

SEE US FOR YOUR VENTILATION NEEDS



Swine & Poultry Systems Specialists

FARMER BOY AG.

410 E LINCOLN AVE

MYERSTOWN PA 17067

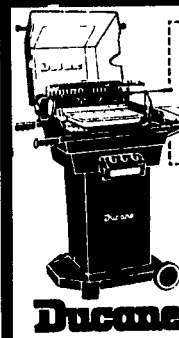
Hours: M-F 7:00-5:00; Sat. 7:30-11:30

PH. 717-866-7565

Check Our Warehouse Prices

D-23

Largest Selection Of Quality Patio Furniture In The Area!



Coupon
20 lb. Tank
Fill Up
\$4.99
Exp. 7-3-92 LF

The Quality Makes The Difference

Prices Start At \$179.00

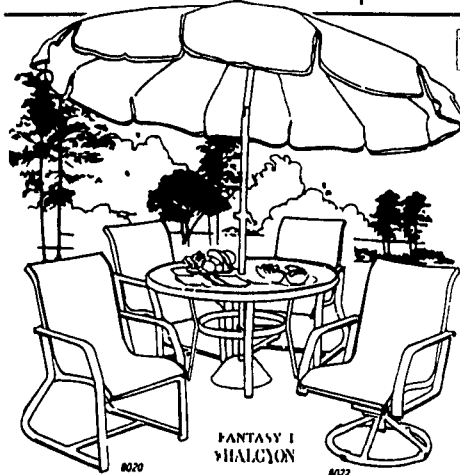


Hand Crafted Quality

Prices Start At \$90.00

Hatteras Hammocks

A Hatteras Hammock provides Endless Pleasure.



HALCYON Casual Furniture

Coupon
\$50.00 off
Any 5 Piece Set
Over \$500.00
Exp. 7/3/92 LF

15 Year Warranty Stop in to see our large selection soon!



BOWMAN'S STOVE & PATIO, INC.

(717) 733-4973

906 E. Main St., Ephrata Rt. 322 (1/8 Mile E of Rt 222)

Hours M-T-W 10-6, Th-F 10-8, Sat. 10-4