



Ventilation system consists of 14 pipes buried 10 ft. deep. The pipes run 150 ft. from the barn to these stand pipes, which extend about 5 ft. above ground.

## “Underground” Ventilation System Keeps Pigs Warm In Winter, Cool In Summer

Twenty years ago during the energy “crisis”, farm magazines were full of stories on using “earth energy” to heat and cool buildings.

Have you ever wondered how those systems stood up to the test of time?

In 1978, George Holsapple saved a bundle by equipping a new farrow-to-finish barn with an “underground” ventilation system that helps keep hogs cool in summer and warm in winter.

The Jewett, Ill., farmer buried 14 pipes in the field surrounding the barn. Pipes are buried 10 ft. deep where ground temperature is a constant 55 degrees.

The 14 pipes run into a 2 ft. dia. black plastic pipe that connects up to a squirrel cage fan at the barn, which pulls air through the pipes.

A sump pump in the 2 ft. pipe pulls out the water that collects in the underground pipes.

The 14 8-in. dia. aluminum stand pipes are fitted on top with bird and rain guards. They’re spaced 14 ft. apart and are arranged

in a big 150-ft. semi-circle leading to the building. The pipes extend 5 ft. above.

The fan runs at 1,720 rpm’s in winter and 3,450 rpm’s in summer. Air is then directed through a stainless steel air duct, with 2-in. dia. holes every 1 ft., suspended from the ceiling and running the length of the building.

“Even on the hottest days of summer, the temperature inside never gets above 80 degrees and on the coldest days the air coming out the ground never goes below 36 degrees,” says Holsapple, who supplements the underground heat with an Aero Vent heater inside the barn.

Holsapple estimates he saved \$5,000 over the cost of fans and ventilators when he installed the system 20 years ago. And he’s saved money every year since in reduced heating and cooling costs.

Components were all purchased locally. Contact: FARM SHOW Followup, George Holsapple, 21341 North 500th St., Jewett, Ill. 62463 (ph 217 924-4163).

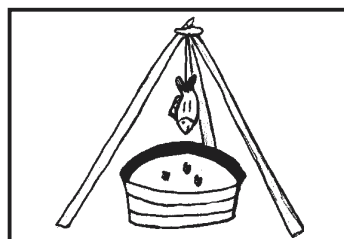
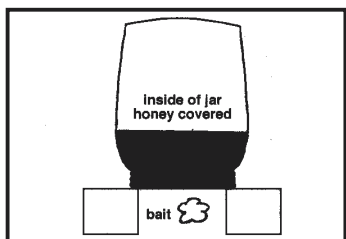
## Asphalt: Cheap Alternative To Concrete In Bunk Silos

Pouring an asphalt floor instead of concrete in a bunker silo costs 30 to 40 percent less and it wears better than concrete, according to tests by researchers at an ag institute in New York state.

Two asphalt bunkers built 5 years ago at the Miner Institute in Chazy, New York, show no sign of deterioration while a concrete floor of an adjoining bunker that’s just one year older is rapidly deteriorating, says Ev Thomas, vice president of the Institute’s ag pro-

gram.

Thomas tried the asphalt floor after hearing about three dairymen with asphalt bunkers still in tip-top shape after 15 to 30 years of use. The only problem to watch out for, he notes, is that the asphalt tends to crumble along the edges under heavy traffic. They solved the problem by adding an apron of concrete that supports the daily tractor traffic to fill a TMR mixer. (Ian Cumming in *Ontario Farmer*)



## Do-It-Yourself Pest Control

Here are two do-it-yourself pest traps for controlling flying insects that were recently featured in *Countryside* magazine.

The first is a fish trap for controlling yellow jacket wasps. Hang fish or a piece of liver on a string 1 to 2 in. over a tub of water

## “Poor Man’s” Deer Scarer

Here’s a simple yet effective deer scarer Michael Thornhill came up with last summer to stop damage in his pea field.

“You can’t raise peas around here without using something,” says Thornhill of Hoschton, Ga. “Once I started using this set-up I didn’t see any more damage but I did find some really deep tracks leading back out of the field.”

Thornhill’s deer scarer consists of a motion detector floodlight, a box fan and a garbage bag.

He mounted the motion detector on a post 7 ft. off the ground in the middle of the 1/2 acre pea patch. He wired it to a receptacle on the top of the post. He then plugged a box-

type fan into the receptacle and positioned it on the wooded side of the patch where deer entered. The final step was to duct-tape a big black plastic garbage bag over the fan.

When a deer triggers the motion detector, the receptacle becomes “hot”, turning on the fan. When the fan comes on, it quickly inflates the garbage bag, scaring the deer away.

“It worked so well last year, I’m going to use it again this year,” Thornhill says.

Out-of-pocket expense was less than \$20, including floodlight and 8-ft. post.

Contact: FARM SHOW Followup, Michael Thornhill, 832 Old Hog Mountain Rd., Hoschton, Ga. 30548 (ph 770 867-9033).

## Getting A Cow To Take An Orphan Calf

A reader recently passed along some tips on how cow-calf producers in his part of the country coax cows into accepting orphan calves.

“Before putting a cow and calf together, we milk enough from the cow to bathe the calf in it,” says Alfred V. Wilson. “When the cow smells her milk on the calf, she thinks it’s hers and she accepts it right away. A little feed and a gentle cow help, of course.

“Usually, a calf won’t nurse from a strange cow until it’s licked by the cow. So when we take a strange calf to a cow’s udder, we rub the calf on the back like the cow

is licking it. That way the calf begins to hunt for teats. When the cow begins to lick the calf on her own, she’s accepted it.

“We push the cow up against a wall. Then we put the top of our head in the cow’s flank between the hind leg and belly and hold her against the wall with our head. That way our legs are back far enough so the cow can’t kick us. This leaves both hands free to help the calf find the ‘dinner table.’ Having another person to rub the calf on the back makes the job that much quicker.”

Contact: FARM SHOW Followup, Alfred V. Wilson, P.O. Box 19, Peoples, Ky. 40467.

## Low-Cost “Livestock-Proof” Fence

“It should last a lifetime,” says FARM SHOW reader Melvin G. Miller about the low-cost corral fence he built using railroad ties and highway guard rails.

“I picked up some used guard rail at a junk yard fairly cheaply and you can generally buy railroad ties for \$2 or less apiece. I also bought some 7/16 by 12-in. galvanized bolts at an auction to bolt the rails to the ties.

“We dug the ties in about 36 in. and left

about 22 in. between the ground and the first rail. Rails are 12 in. wide and we left 12 in. between all the other rails, making a fence approximately 5 ft. high.

“This is the strongest fence I’ve ever seen. It’ll stand up to whatever abuse our cattle and horses can dish out,” says Miller.

Contact: FARM SHOW Followup, Melvin G. Miller, R.R. 1, Box 1204, Norwalk, Wis. 54648-9737.

to which detergent has been added. Yellowjackets will try to fly away with pieces of fish or liver that are too heavy for them and will drown after falling into the water. It’s not unusual to fill a dishpan with drowned yellowjackets in one afternoon during peak season.

To catch flies and other flying insects, take a large-mouthed plastic or glass jar. Paint the top one-third black or cover with

black paper. Coat the inside of the jar with a sticky liquid such as diluted honey or vegetable oil. Then invert the jar over a bait such as a crushed banana or raw meat. Rest the jar upside down on two blocks of wood to allow flies enough space to feed on the bait. After leaving the bait, they fly upward towards the light portion of the jar and get stuck.

(*Countryside Magazine*)