

Heartbeats race in stressed feeder pig

COLUMBIA, Mo. — The stress that often accompanies the routine handling and transportation of feeder pigs may directly affect their ability to retain weight.

By using radio telemetry and strip chart recorders, Science and Education Administration agricultural engineer Herman F. Mayes is able to document the relationships between stress and heart rates of pigs during marketing.

Miniature radio transmitters taped to the backs of the pigs pick

up the heart beats under closely monitored conditions. This provides information about the stress that feeder pigs undergo during each step of the marketing process.

"We're trying to gain insights on changes in market facility design and handling procedures that could minimize such stress," says Mayes.

Mayes' work is part of a larger research project at the University of Missouri's Animal Husbandry Department. The project includes

a follow-up study on effects of diet and medication on pigs under stress.

"We're studying weight losses associated with handling and transport and subsequent weight gaining performance of the pigs," Mayes says.

Mayes obtained heart rate data on pigs in about a dozen activities. The heart rate of sleeping pigs usually ranges between 100 and 160 beats per minute, Mayes says. But when the porkers are forced to climb a loading chute to begin their trip to a feeder pig auction, he

found that heart rates may range from 250 to 260.

Pigs experience reduced blood flow when their hearts beat more than 210 times per minute.

"This results in something similar to heart attack in humans," says Mayes, "slowing blood flow to extremities and raising body temperature."

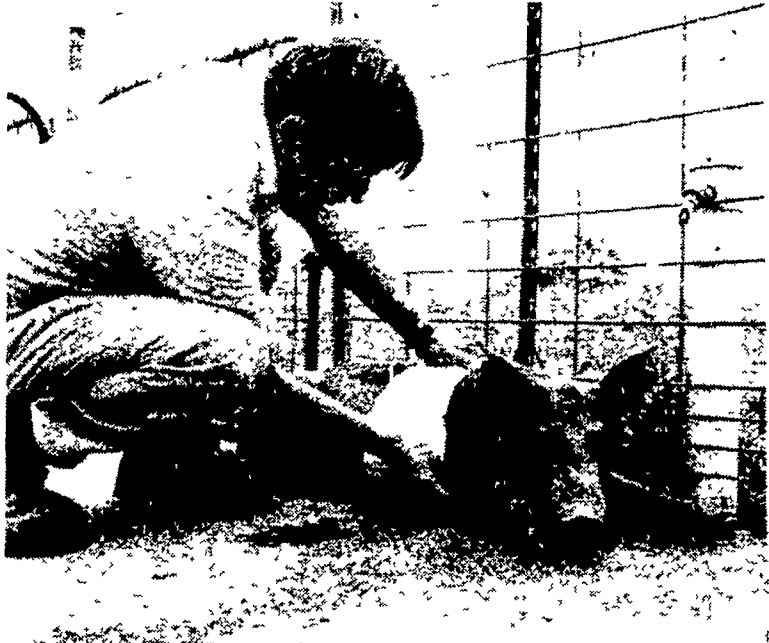
Pigs that are pressured into prolonged physical exertion could collapse. But the 35- to 85-pound pigs that Mayes studies instinctively adjusted their activities to reduce their heart rates.

When pigs stopped after running,

they would stand still or lie down until their heart rates dropped to about 200 beats per minute. While lying down, some pigs ignored and stimulus to make them move.

Mayes observed no statistically significant differences in average heart rates when pigs stood, ate, drank, or walked. However, pigs that were running, lying down and alert, and lying down asleep had significantly different heart rates.

Marketing practices put pigs in many stressful situations, which Mayes will observe as the study continues.



Herman F. Mayes, SEA agricultural engineer, inspects electrodes taped on pig's back to monitor heartbeat and other stress indicators.

Eastern Limousin breeders to hold show

COLUMBUS, Ohio — The Eastern Limousin Breeders Association will hold their annual sale on Saturday, May 2, at the Ohio State Fairground, Columbus, OH.

This year a show will be held in conjunction with the sale. The show will be held at 10 a.m. Saturday. The sale will start at 7 p.m.

Approximately 50 to 60 head will be selected to sell. There will be full bloods, purebreds and percentage bulls, cows, bred heifers and open heifers.

At 1 p.m., will be the Eastern Limousin Breeders Association annual meeting and dinner. At this time there will be the election of directors and officers.

Other items to be discussed will be the summer field day and the shows at the Ohio State Fair, Eastern National and Highland County Fair, Hillsboro, OH.

Guest speaker at the meeting will be Rendell Shira, Mt. Vernon, OH. Rendell is a director of the North American Limousin Junior Association.

There has been some interest in establishing an Eastern Limousin Junior Association. Any Juniors wishing to start such a group should contact Rendell Shira or this association.

Those wishing to attend the annual meeting and dinner should contact Jim Fawley for reservations.

The association territory in-

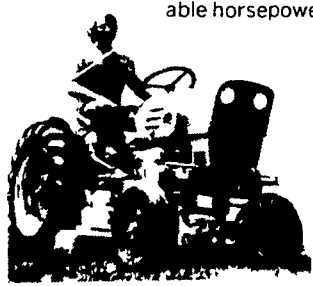
cludes Delaware, Maryland, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia, and New England.

For more information on the above events contact Jim Fawley, Secretary-Treasurer, 3540 Anderson Road, Lynchburg, OH 45142, 513/364-2077.



POWER KING one tough tractor!

Big work-power for every job on your place. All gear drive delivers more usable horsepower. Saves gas. Mow lawn, plow, till, bulldoze, clear snow, split logs and more. 12, 14, 16, 18 hp. Free catalog. American built, top dollar value. Come in see for yourself.



OBERHOLTZER'S

RD #4, Box 260, Fairview Road
Lititz, PA 17543 Phone: 717-733-8506
HOURS
Mon., Thurs. Fri. 9:00 to 2:00 and 4:00 to 9:00
Tues., Sat. 9:00 to 12:00

- BARN PAINTING
- ROOF PAINTING
- BIN PAINTING
- MASONRY & EPOXY COATING



• Sandblast preparation
Special Winter Prices On Barn Painting In Lanc., York, Adams, Harford, Baltimore, Carroll & Frederick Counties. All work is guaranteed satisfactory. "Call the Country Boys with the Country Prices"



Agriculture - Industrial - Commercial
Box 145A, R.D. 4
Hanover, PA 17331
Ph: 717-637-0222

THINK AHEAD...
Read Futures Markets on Page 3.

**New & Used Silos
New & Used Extensions
Tear down & Rebuilt
Gunite silo relining
& repairs**

**Replastering, roofs,
permanent pipe &
distributors**

**Oxygen Limiting Silos
above and below ground
manure storage**

**Jamesway Unloaders
Barn Equipment**

Write or Call
DETWEILER SILOS
Rd 2 Box 267-D
Newville, PA 17241
Phone:
717-532-3039
717-776-7533
717-776-3288

FINALLY!
A NO MESS - NO DUST
AUTOMATIC COAL STOKER
FOR HOME OR INDUSTRY!

ESHLAND

Coal Gun™
Coal Gun™ is SO Automatic and Advanced...
the only Control you touch is your Thermostat.

The Cleaner, Safer, and Simple Trouble-Free design of COAL GUN makes it one of the best buys in residential and commercial heating systems today. Conservatively rated from 130,000 - 500,000 BTU/hr, the three COAL GUN models boast the following features:

- CONVENIENCE
Units operate unattended up to 7 days
- CLEAN OPERATION
Vacuum inside unit & Cyclone Separator eliminate dust and grime
- ENERGY EFFICIENT
COAL GUN is smaller than most conventional coal furnaces, and costs far less to operate than most conventional coal heating systems

WRITE OR PHONE TODAY FOR COMPLETE DETAILS!

ESHLAND ENTERPRISES INC.
P.O. Box 23 Greencastle, Pa. 17225 [717] 762-0521
Manufacturers Of
Coal-Wood Boilers, Stoves, Furnaces, & Fireplace Inserts