



Machine Work
Welding &
Farm Supplies
Hardware



D.S. MACHINE SHOP

3816 E. NEWPORT RD., RD 1 GORDONVILLE, PA 17529
1 Mile East of Intercourse on Rt. 772
Write or Try and Call: 717-768-8569 (Outside Phone)

- Victor or Mecc Cutting Torches
- Lincoln Welders • Hog & Cattle Gates
- Custom Built High Pressure Washers
- Coal Fired Bucket-A-Day Stoves
- New & Used Structural Pipe

Comfort Glow Kerosene Heaters

★ 2 Sizes In Stock ★

Receives poultry research grant

UNIVERSITY PARK — Roland M. Leach, professor of poultry science at Penn State, has received the American Feed Manufacturers' Association Award of \$1000 for achievements in research into poultry nutrition.

A top national award for poultry research, the selection was announced at the 69th annual meeting of the Poultry Science Association held recently at Purdue University, Lafayette, Ind.

The thrust of Leach's research has centered on three areas - mechanisms of egg shell formation, trace elements and the food chain,

and leg weakness in turkeys and broiler chickens.

"Research by Leach has contributed in a major fashion to an increased understanding of leg weakness in broilers and thin egg shells among laying hens—both major problems of the poultry industry," stated Kenneth Goodwin, head of the Department of Poultry Science in Penn State.

Under Leach's direction, studies of egg shell formation have examined early events in shell formation and properties of shell gland fluid. A major contribution of his laboratory was to define the role of copper in shell membrane formation. This led to a better un-

derstanding of the chemistry of shell membrane protein.

Leach and his students have studied the relationship between cadmium and nickel content of the diet and the mineral content of meat and eggs.

They also have investigated copper metabolism in sheep, since these animals are extremely sensitive to increases in the copper content of plant materials and thus serve as indicators of toxic levels. The research analyzed the toxic metal content of animal tissues used as human food.

Extensive studies by Leach and associates have contributed to an understanding of leg weaknesses in broiler chickens and turkeys. Research focused on the biochemical changes associated with leg abnormalities known as perosis and tibial dyschondroplasia. The latter malady was first observed

and described by Leach.

Throughout his career, his primary research interest has been in the role of trace elements in bone and cartilage metabolism. He is the author or co-author of 55 scientific articles.

Well recognized among his peers, he has been invited to participate in several symposia dealing with research in trace elements and mineral metabolism.

In addition to his scientific papers, Dr. Leach has presented a number of papers to industry groups, summarizing the state of knowledge in his areas of interest. He also serves as a consultant to poultry industry leaders.

Leach is a graduate of the University of Maine. He received a master's degree in nutrition from Purdue University and the doctor of philosophy degree in nutrition from Cornell University. He has been a faculty member at Penn State since 1968.

Delmarva poultry meeting sets record

DELMAR, Md. — The 15th National Meeting on Poultry Health and Condemnations, held at the Del-Mar-Va

Convention Hall in Delmar, Md. last week, was attended by a record number of 451 people who came from 29 states, the District of Columbia and three foreign countries.

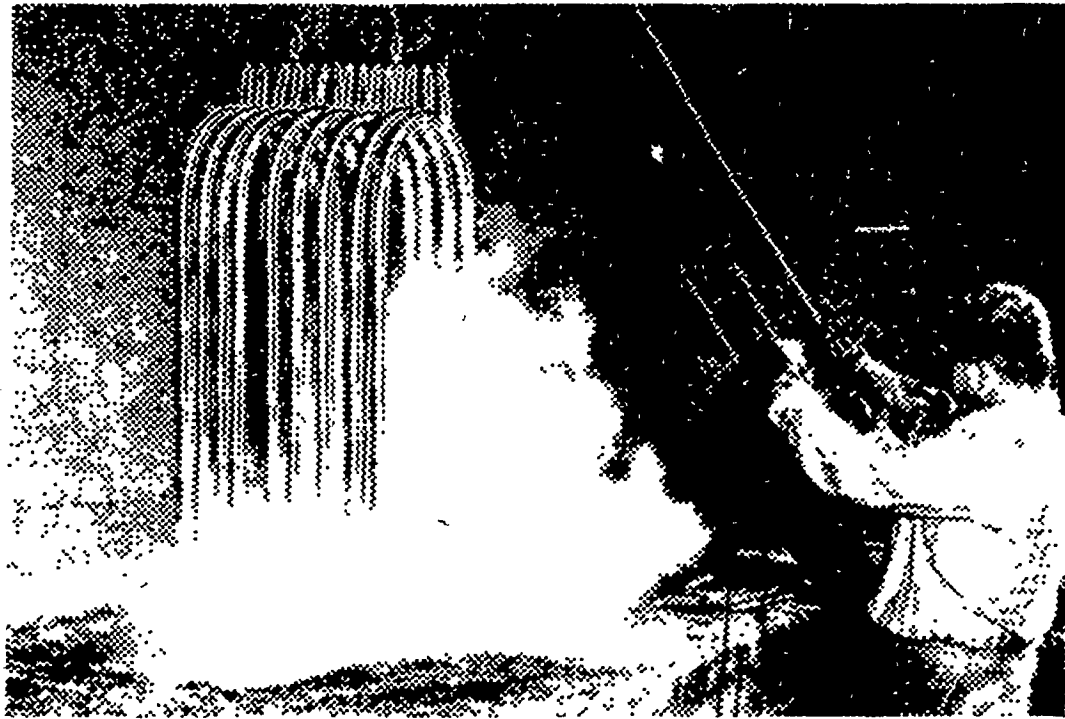
This was 21 more than the previous high record attendance which was posted last year.

This national meeting was sponsored by Delmarva Poultry Industry, Inc., the regional trade association which is the voice of the area's huge broiler industry, in cooperation with the Universities of Delaware and Maryland.

The program featured 37 participants who covered numerous topics concerned with disease and condemnation problems in the grow-out and processing phases of the poultry industry.

Paul V. Twining, Jr., DPI president, and G. Thomas Holder, chairman of the DPI Poultry Health Committee and general chairman of the conference, both commented that this event is considered the leading meeting of its kind, which is borne out by the increasing attendance each year.

JAMESWAY® Hot-Dip galvanized barn equipment



Fights rust

Jamesway stalls, pens, stanchions, water cups and accessories are totally immersed in molten zinc. Bonds long-lasting rust protection over every square inch of surface, inside and out. Can't chip away, like paint. Means longer working life; longer good looks too.

See us for systems and service that help make the good life better.

AGRI EQUIPMENT INC.
2754 Creek Hill Rd. Leola, PA 17540
717-656-4151

DEPENDABLE MOTORS
Honey Brook, PA
215-273-3131
215-273-3737

ROVENDALE SUPPLY
RD 2, Watsontown, PA 17777
717-538-5521

I. G. SALES
Rt. 113, Box 200
Silverdale, PA
215-257-5135

HENRY S. LAPP
RD1, Cains, Gap, PA 17527
717-442-8134

SOLLENBERGER SILOS
RFD 2, Chambersburg, PA
717-264-9588

G. HIRAM BUCHMAN, INC.
Rte. 519 - N. off Rte. 46
P.O. Box 185
Belvidere, NJ 07823

HARRY L. TROOP
Rt 1 Cochranville, PA 19330
215-593-6731

J. A. SWOPE
Box 121, RD1
Myerstown, PA
717-933-4758

ERB & HENRY EQUIP., INC.
22-26 Henry Avenue
New Berlinville, PA
215-367-2169

DETWILER SILO REPAIR ED LIPSCOMB EQUIPMENT
Rt. 2, Newville, PA
717-776-7533

Rt. 1, Box 321
Eglen, WV
304-735-6286

**STAY
WARM
FOR
MUCH
LESS!**

The New Heatmate
Kerosene Heater



\$164.95
(suggested retail price)

- 10 000 BTU thermal output
- 1 gallon of kerosene lasts 18 hours with cartridge tank
- Electronic ignition for easy startup

This attractive money saving appliance is for today's energy conscious person. Ideal for heating cold spots. Long life unit requires virtually no maintenance. Completely portable.

Come in and be warm with us at

CHAMBERSBURG

ALLEMAN'S
1912 Phila Ave
US Rt 11 North
717 263 2675

COLUMBIA

R P WILLIAMS & SONS INC
Route 462 East of Columbia
717-684-2019

KINZER

HOUSTON RUN
SALES & SERVICE
Box 67, Hensel Road

LEOLA

LEOLA FIREPLACE STOVE SHOP
93 W Main St
717-656-6408

LITITZ

LONG S MOWER
SERVICE & SALES
Clay Road
717 626-8180

MANHEIM

DIETRICH'S STOVE SHOP
626 Pennyn Rd
717-665-5732

MARTINDALE

LAWN CARE OF PENNA
Box 25
215-445-4541

SMOKETOWN

196 Eastbrook Rd

the
ENERTECH
1500

a beautiful way
to save electricity

The Enertech 1500 plugs into your renewable wind energy into your household electric system.

Send \$1 for our 16-page brochure with details on sites, endurance tests, tax credits and more.

the
stoveman
energy resource centers

458-8011
p.o. box 24, uwchland, pa 19480