

## Does Your Flock Lack Synergism?

**BY HERBERT C. JORDAN**  
Penn State  
Associate Professor of  
Poultry Science

During natural growing, mating, nesting, incubation, hatching and following (emulating) mother, we find normal, confident behavioral linkage of young to their mother or parents and their past which may cause superior performance.

For instance, the synergistic effect of the mother hen giving young a pattern of how to seek and find food, water and shelter. This is essential in game birds; commercial poultry lack this and therefore, may grow up more nervous and uncertain of their environment. Example, hysteria in layers occurs only in commercial flocks where I have diagnosed and treated ten cases. Not one case have I seen in backyards flocks (example by author, HCJ). Hysteria is the uncontrolled stampeding of flying of birds on a time sequence rather than as the result of being frightened by an outside stimulus. The animals' fright comes from within the animal.

To prevent damage from this nervous condition from hatching time, give the bird more quality care from humans.

### Breeder Male Presence

The synergism of males and females in a breeder flock as it relates to the normal behavior of the young they produce. Females seem less nervous with males in a breeder flock; if the female is nervous from being without males, does she transmit this to the young through a qualitative change in the egg contents or blastodisc? Look at the fertility or hatchability of vigorous chicks from your breeder flock. If these were substandard, what part of it

can be related to sperm or egg cell quality of naturally mated compared to use of artificial insemination? This is a question, not an answer.

### Sib-Synergism

Pullets learn to know and respond to sister pullets in their growing environment. Why not keep pullets together when entering a laying cage so that the new peck order takes less effort to establish? The synergism of pullet to pullet can be a bond to help performance in the laying house.

Some breeder flock managers say better fertility comes from breeder flocks of males and females that have been raised together, why then should not an all pullet flock do well in the layer house if they were raised and kept together? Try this in a field test and see if it makes a difference.

### Environment

The synergism of bird to environment is important. Check your

synergistic effect of pullets being raised in one familiar environment then being changed to another unfamiliar environment and doing poorly. Let's look at what poultrymen say:

- Pullets raised on the floor then put in layer cages are not the same as if raised in cages.

- Pullets raised on cup type or trough type waterers then placed in a layer house with nipple drinkers may not learn to drink swiftly enough.

- Pullets raised in cages then put on the floor in a breeder house do poorly.

- A change in quality or amount of light from pullet house to layer house may cause problems.

- A change in water quality where pullets may be raised on country water with no intentional additives placed into it then placed on city water and/or a chlorinator in the laying house with chlorine and fluorine in it may cause a shut

down of some normal gut flora.

- Toxic gas change where a pullet is raised where manure dries as it drops and has virtually no odor or toxic gas then placed in a layer house with old wet manure causing layer to breathe ammonia, hydrogen sulfide, and methane. This is present with health problems frequently.

- A reduction in feeder or waterer space per bird from pullet house to layer house may severely reduce performance.

A pullet relates to many things in growing up. The synergistic effect of anything familiar to the bird must be maintained or replaced if it is taken away.

Synergism is defined as a condition where two or more factors combining in any situation can provide more impact or value than the one factor plus the other factor or factors individually.

If a synergistic advantage exists in your poultry system, study it and take advantage of it.

One out of every 17 day-old flock of cockerels for 4-H capons exhibit curled toe paralysis the first three days of age. This may relate directly to breeders not providing enough riboflavin in the egg.

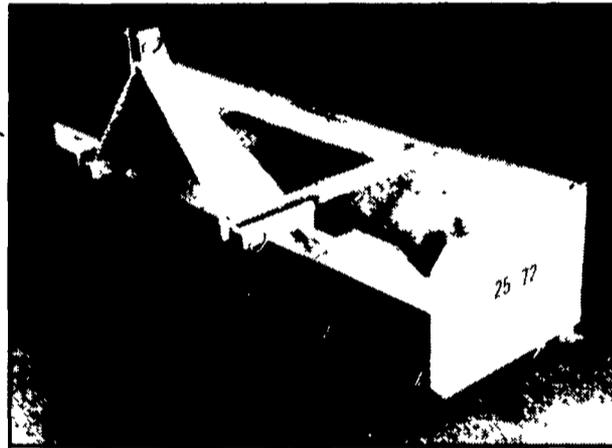
If a problem exists from a damaging synergistic effect of two or more factors — avoid it. Example: two incompatible drugs fed in the same feed at the same time causing bird to become ill.

In summary, we find most farm managers examine or check on 30 or more factors in a flock each day. If these factors have an interaction with each other, it pays to know it, take advantage of it, or avoid it.

# LAND PRIDE

## FIXED BAR

# BOX SCRAPERS



Land Pride Box Scrapers are built rugged for a long dirt-moving life. The heat-treated spring-steel shanks scarify the ground and the 17" high radius-formed moldboard keeps dirt flowing smoothly into the box. With the 4" square tubing main frame and 1/2"x6" heat-treated, reversible cutting edge, these box scrapers are designed with the features you need.

The 25 series features double lug hitches and a plated A-frame. Both models have a welded brace from the A-frame to the rear of the bucket and a choice of rigid or hinged backfill blades.

### Box Scraper Features:

- Radius-formed (rolled) moldboard - 17" high
- 4"x4" square tubing main frame
- Double-strap lower hitches - 25 series
- 3/4"x2 1/2" heat-treated spring steel shanks
- Heat-treated dimpled-on tips
- 1/2"x6" high-carbon, heat-treated, curved cutting edge; reversible
- 1/2" thick formed plate A-frame - 25 series
- 31 1/2" overall depth
- Pin securely holds shank - easy to remove for shank adjustment

### PENNSYLVANIA

Straley Farm Supply, Inc.  
1760 East Canal Road  
Dover, PA 17315  
717-292-2631

Betts Equipment  
3139 Windy Bush & Rt. 232  
New Hope, PA 18938-9303  
215-598-7501

Keller Brothers  
R7 Box 405  
Lebanon, PA 17042  
717-949-6501  
Lancaster, PA 17601  
1950 Fruitville Pike  
717-569-2500

Marshall Machinery, Inc.  
Route 652  
Honesdale, PA 18431  
717-729-7117

Wm. Hobensack's & Sons  
1060 Greeley Avenue  
Ivyland, PA 18974  
215-675-1610

Pikeville Equipment Inc.  
RD 2, Oysterdale Road  
Oley, PA 19547  
215-987-6277

Paul Shovers Inc.  
RD 2  
Loysville, PA 17047  
717-789-3117

Tractor Parts Co.  
335 Central Road  
Bloomsburg, PA 17815  
717-784-0250

Sweigard Bros., Inc.  
RD #3, Box 13  
Hallfax, PA 17032  
717-896-3414

Stouffer Bros. Inc.  
1066 Lincoln Way West  
Chambersburg, PA 17201  
717-263-8424

Stoltzfus Farm Service  
Cochranville, PA  
215-593-2407

### NEW JERSEY

Owen Supply Co.  
East Avenue & Broad St.  
Woodstown, N.J. 08098  
609-769-0308

Caldwell Tractor & Equipment, Inc.  
480 U.S. Route 46  
Fairfield, N.J. 07006  
201-227-6772

Warren County Service Center  
228 Route 94  
Columbia, N.J. 07832  
201-362-6916

Rodlo Tractor Sales  
North White Horse Pike  
Hammonton, N.J. 08037  
609-561-0141

Frank Rymon & Sons, Inc.  
RD 3, Box 355  
Washington, N.J. 07882  
201-689-1464

Underwriters Laboratories  
Approved Master Labeled  
Lightning Rod Systems



## TEATES LIGHTNING PROTECTION

L.P.I. Certified Master Installer  
Farm, Residential and Commercial

TIM SHAFFER  
(717) 374-7090

P.O. Box 234  
Freeburg, PA 17827

## DMJ DROP-CENTER QUIC-CUSH'N BUMPER HITCH



A NEW WORKING BUMPER WITH STYLE AND CLASS!

- Saves time...one trip to hookup! No running back and forth...swinging, extendable towbar for widest hookup range!
- Takes "jerk" out of towing... cushion springs minimize surge... saves your back!
- Reduces stress on complete drivetrain with 4" spring cushion fore and aft!
- No parts to break or wear out...all steel with removable 6 ga. face... no poly parts!
- Versatility...mounts on full size 2WD or 4WD pickups to pull grain wagons, horse trailers, etc.

regular model  
quic-cush'ns

Standard and heavy-duty units for 2-wheel and 4-wheel drive full size pickup trucks and heavy-duty "stubby" units for straight trucks.

For further information see your dealer or call or write.  
DMJ INC. • RT. 105 E. • BOX 65 • GOODFIELD, IL 61742  
PH. 309/968-2233

100 Stover Drive  
Carlisle, PA 17013  
Phone (717) 248-8720



111 Cedar Street  
P.O. Box 928  
Batavia, NY 14020  
Phone (716) 343-5411