

Poultry Science Capital Region Veterinary Science


Entomology

Penn State

Poultry Pointers

Food Science

Agricultural & Biological Engineering Agricultural Economics



COMPARISON BETWEEN DIFFERENT METHODS OF INDUCED MOLTING AND THEIR INFLUENCE ON THE IMMUNE RESPONSES

Dr. Magdi M. Mashaly
Associate Professor

Mohammed Alodan*
Poultry Science Dept.

Dr. Abdulrahman Atta**
*M.S. Candidate
**Visiting Research Associate

We previously reported in *Lancaster Farming* (39 15 :C8, Feb. 19, 1994) the results of the different methods of induced molting on second cycle performance:

- Conventional method: withhold feed and water for two days, followed by water AD LIB, limited feed for 60 days, and 8 hours

of light per day.

- California method, which has a longer fasting period.

- Zinc added to the ration at 20,000 ppm for five days, followed by normal feed, water and light.

Performance was best in the second cycle of hens in the conventional group.

One of the concerns of induced molting to obtain a second cycle from laying hens is possible impaired immunity, which could result in a decrease in disease resistance. The immune response is the first defense mechanism against invasion of microorganisms. Therefore, we decided to study the immune response of hens that were exposed to the three different methods of induced molting.

In order to measure the immune response, the total circulating white blood cells (WBC), antibody production against sheep red blood cells (SRBC), and activities of lymphocytes (a type of white blood cell) were measured at 0, two, five, 10 and 30 days after beginning the molting procedure.

In addition, the same parameters were measured at 50-60 percent egg production as well as at peak egg production.

The activity of B- and T-lymphocytes was also studied. (B-lymphocytes are involved in antibody or humoral immunity and T-lymphocytes are involved in cell-mediated immunity.)

Overall average of circulating WBC was higher in the conventional group than in the other groups, which included a control group (no molting was induced). Furthermore, it was found that antibody production against SRBC was not inhibited in any of the hens that received different methods of induced molting when compared to hens from the control

group. As a matter of fact, hens in the conventional group had slightly higher antibody production than the control hens. The activity of T-lymphocytes was similar in all groups, including the control hens.

Therefore, it is very clear from our results that there is no adverse effect on immunity from any of the three methods used to induce force molting. In particular, using the conventional method could result in some enhancement in the immune response.

In conclusion, based on the production data as well as the data on the immune response, we recommend the use of the conventional method whenever there is a need for induced molting to obtain a second cycle from laying hens.

CLASSIFIED ADS PAY OFF!

In the Year 2043, this Morton Building will still be Warranted Against Snow-Load Damage!



Security & Peace of Mind

Check these warranty Features:

- 50-Year Protection**
Against snow-load damage to the structure with no weight limit.
 - 50-Year Protection**
Against decay or insect attack on preservative treated columns and preservative treated lumber.
 - 20-Year Protection**
Against red rust including damage caused by atmospheric pollutants.
 - 10-Year Protection**
Against wind load damage to our optional AkumaSteel® sliding doors with no wind velocity limit.
 - 5-Year Protection**
Against wind load damage to the structure with no wind velocity limit.
- All warranties include materials and labor and are not prorated.

Every Morton Building is backed by the strongest written warranties in the industry. When you build with Morton Buildings, you have direct involvement with us, every step of the way.

All of our sales people, office personnel, plant workers, engineers, estimators, architects and construction crews are employed directly by Morton Buildings, Inc.

This teamwork concept eliminates the uncertainties of working with a dealership and lets you take advantage of our pride and commitment to service and workmanship.

Morton Buildings, Inc. enjoys an enviable position in the financial community. We have a 5A1 rating from Dun & Bradstreet . . . its their highest rating, for both credit appraisal and financial strength.

You can be assured of our performance and support during construction and throughout your warranty period.

Call today for the location of a sales office nearest you!

800-447-7436

MORTON BUILDINGS

P. O. Box 399, Morton, IL 61550
© 1994 Morton Buildings, Inc.

CONTACT: 717/624-3331
3368 York Rd.
Gettysburg, PA 17325

908/454-7900
P.O. Box 126,
Phillipsburg, NJ 08865

NEW! COW MATTRESSES
The Answer To Cow Comfort!

- Fits Any Stall
- Polyester Bag Filled With Rubber
- Bag Sewn Every 4" To Prevent Shifting
- Heavy Nylon Fabric Top Cover With 3 Year Warranty
- Easier for cows to get up & down
- Reduces Bedding costs
- Installation available 215-593-6959

CALL FOR DETAILS

SAMUEL S. PETERSHEIM
117 Christiana Pike, Christiana, PA 17509
Answering Service 215-593-2242

HERNIA?

No hernia is unrepairable, even after several previous failed attempts. We specialize in outpatient hernia repairs, and most patients are able to return to full work with-in several days.

PLEASE CALL COLLECT OR WRITE FOR MORE INFORMATION
MID ATLANTIC SURGICAL SERVICES

217 Harrisburg Ave., Suite 201
Lancaster, PA 17603
(800) HERNIA 8
MOST INSURANCE ACCEPTED

NEED YOUR FARM BUILDINGS PAINTED?

Let us give you a price!

Write:
Daniel's Painting
637-A Georgetown Rd.
Ronks, PA 17572
(or leave message)

(717) 687-8262

Spray on and Brush in Painting