Poultry Reality Check Needed

Industry Veteran says the poultry industry faces a major disease crisis if present management practices continue.

The poultry industry in the United States has enjoyed decades of increasing progress and prosperity. Few in our industry have experienced a catastrophic outbreak of disease or endured the pain of seeing tens of thousands of dead birds hauled from houses in front-end loaders.

Those of us who have, as we did during the 1968 outbreak of Newcastle disease in the U.K., carry it with us for a lifetime. The memories can’t fail to serve as a reminder that the bacteria and viruses against which we do battle daily are ancient, opportunistic and crafty.

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For those reasons, and in light of what we are seeing every day across the industry, it seems an appropriate time to step back, assess the evolution of our standards and practices and ask ourselves if we aren’t cracking the door open for just such a disaster in the United States.

If we discover that this is true, and we believe that it is, we’re apt to find that it was done bit-by-bit, procedure-by-procedure and operation-by-operation — driven by economics in the name of cost-cutting. Unfortunately, whether money is saved or not, biological principles do not change.

With the growing sophistication of computers, we as an industry have become increasingly obsessed by numbers. Pitting our scientists and managers against a constantly moving target of lower costs, we have demanded change in every phase of the business. Those who find a more efficient (i.e. cheaper) way to get a job done receive the praise, while those who preach caution, risk being seen as “out of step” or “unwilling to cooperate.”

An examination of virtually all the changes made in the past decade shows that they’ve come in the guise of convenience and efficiency, but they are, in fact, cost-cutting measures. Few, if any, decisions have been made solely for the sake of avian health or the long-term protection of the industry. The balance between the two has been lost; the scale is now weighted almost entirely on the cost-cutting side. And, therefore, on the side of microorganisms — much longer on this earth than humans!

**Putting off paying the price**

Until now, we have paid no great price for this unbalanced approach to management. We have slept well believing that we can vaccinate our problems away. “Haven’t we always?” we ask.

Adding to our lack of fear is the fact that warning signs do not emerge during day-to-day work within our individual areas. Take the grower, for example. He sees no measurable problem because he’s decreased the downtime in his houses. Nor does the hatchery manager feel he’s taking an unacceptable risk by changing the delivery of vaccine from a slow, labor intensive method to something faster and more efficient. Our industry has not always helped — often turning a blind eye to the effect that antibiotics and bag systems may have on vaccine titers.

**Changes are cumulative**

The warning that I’m laying on the table, however, is that we have taken too many small steps in too many areas without examining the situation from an industry-wide perspective. It’s the cumulative effect of what we are doing that may be leading us to disaster. Later in this article, I will enumerate a list of changes, any one of which seems insignificant, but when viewed as a whole demonstrates clearly the dangerous imbalance between cost-cutting and health-support we’ve come to accept.

**Broiler Performance Data (Company)**

<table>
<thead>
<tr>
<th>Live Production Cost</th>
<th>Average Co.</th>
<th>Top 25%</th>
<th>Top 5 Cos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed cost/ton w/o color ($)</td>
<td>126.33</td>
<td>119.26</td>
<td>112.32</td>
</tr>
<tr>
<td>Feed cost/lb meat (¢)</td>
<td>12.29</td>
<td>11.38</td>
<td>10.97</td>
</tr>
<tr>
<td>Days to 4.6 lbs</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Med. cost/ton (¢)</td>
<td>2.81</td>
<td>1.68</td>
<td>1.30</td>
</tr>
<tr>
<td>Chick cost/lb (¢)</td>
<td>3.84</td>
<td>3.47</td>
<td>2.98</td>
</tr>
<tr>
<td>Vac-Med cost/lb (¢)</td>
<td>0.71</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>WB &amp; 1/2 parts condemn. cost/lb</td>
<td>0.32</td>
<td>0.20</td>
<td>0.13</td>
</tr>
<tr>
<td>% mortality</td>
<td>5.37</td>
<td>4.08</td>
<td>4.31</td>
</tr>
<tr>
<td>Sq. Ft. @ placement</td>
<td>0.76</td>
<td>0.75</td>
<td>0.71</td>
</tr>
<tr>
<td>Lbs./Sq. Ft.</td>
<td>6.68</td>
<td>6.78</td>
<td>7.39</td>
</tr>
<tr>
<td>Down time (days)</td>
<td>13</td>
<td>13</td>
<td>11</td>
</tr>
</tbody>
</table>

Data for week ending 4/17/99

**Broiler Whole Bird Condemnation (Region)**

<table>
<thead>
<tr>
<th>SW</th>
<th>Mid-West</th>
<th>S. East</th>
<th>Mid-Atlantic</th>
<th>S. Central</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Septox</td>
<td>0.344</td>
<td>0.427</td>
<td>0.176</td>
<td>0.411</td>
</tr>
<tr>
<td>% Airsac</td>
<td>0.162</td>
<td>0.087</td>
<td>0.455</td>
<td>0.311</td>
</tr>
<tr>
<td>% I.P.</td>
<td>0.062</td>
<td>0.046</td>
<td>0.194</td>
<td>0.175</td>
</tr>
<tr>
<td>% Leukosis</td>
<td>0.008</td>
<td>0.009</td>
<td>0.015</td>
<td>0.058</td>
</tr>
<tr>
<td>% Bruise</td>
<td>0.007</td>
<td>0.009</td>
<td>0.018</td>
<td>0.014</td>
</tr>
<tr>
<td>% Other</td>
<td>0.014</td>
<td>0.016</td>
<td>0.049</td>
<td>0.024</td>
</tr>
<tr>
<td>% Total</td>
<td>0.597</td>
<td>0.597</td>
<td>0.910</td>
<td>1.013</td>
</tr>
<tr>
<td>% 1/2 parts condemnations</td>
<td>0.401</td>
<td>0.364</td>
<td>0.316</td>
<td>0.332</td>
</tr>
</tbody>
</table>

Data for week ending 4/17/99
The larger risk we face because of the smaller risks we take is that our weapons against disease will lose their power. Take a look at the history of Marek’s disease in the U.S. When there was no control in the late ’60s and early ’70s, we were accustomed to condemnation figures in the 10 to 20 percent range. Had that continued, there is little doubt that the industry would not be where it is today. But HVT Type III vaccine was developed and we grew accustomed to much lower figures.

However, HVT started to fail in the U.S. in the ’80s. This loss of control was once again met by technology, with the introduction of type II vaccines. Once again, no wide-spread, catastrophic outbreaks occurred and cost-cutting management practices continued.

In the early ’90s, we began seeing changes in the Marek’s virus. No longer so handily controlled by Type II and III vaccines, we turned to Rispens clones. Results were not encouraging.

Lately, we’ve turned to original Rispens CVI 988, which has been used in combination with Type III vaccines in Europe for many years. In layers and breeders, this combination appears successful due to clean house policies. However, the trend among pullet growers not to clean out houses may overshadow any protection benefits of the Rispens/HVT combination. In broilers where the combination has not been used widely overseas, the hoped-for panacea may fail to materialize under early challenge. Knowing that the vaccine has never been tested under U.S. conditions, few of us in the biologics industry will be surprised.

As I write this, even more disturbing changes are being observed in the Marek’s virus. In the Carolinas and on the Shore, this strain shows the characteristic of early viremia against which the Rispens/HVT combo may not protect under the present management conditions. These Marek’s isolates of the ’90s have much quicker viremia than we have dealt with in the past. If these strains become the norm, there is no guarantee that anything in our arsenal can control them. We are firing all our bullets on Type I, II and III.

It’s comforting to assume that the skilled scientists in the biologics industry will race forth in the nick of time with a vaccine that will once again save the day. With utmost faith in our ability to do whatever we wish without paying a price, we continue to take risks, putting off the day when the bill for our shortsightedness will fall due.

I am not alone in my belief that we may be closer to that day than we want to admit. Some of our best scientists agree that we may be running out of ammunition. Hard as we may try, no one will develop the perfect vaccine. If faced with a true crisis, we probably couldn’t get a perfect vaccine licensed in time to save us even if we had it. That is the reality of the government regulations under which we now operate.

Cost savings or risk taking?

Cost saving/risk taking changes are taking place across the board. Finger pointing is out of the question because they are occurring industry-wide. The biologics industry itself must shoulder some responsibility. For years we have urged producers to “leave disease control to us while you manage your companies for greater profits.”

What are we doing?

This list of practices is by no means complete but is included to illustrate how pervasive risky changes have become.

More to the point, it is included to illustrate the foolhardiness of comparing the industry of 1995 with the industry of 1960, 1970, or 1980. Our practices — dozens of them — have changed significantly and we must factor them in when making any assessment of risk.

We’re getting relaxed about procedures once considered essential

Shorter downtime. The financial advantages of shorter downtime are obvious. From allowing more growout periods/year to eliminating the need for more houses, this new practice saves money. The price: When downtime is less than 14 days, cleaning and disinfectant programs are reduced; the opportunity for contamination is increased.

Biosecurity. We’re getting relaxed about procedures once considered essential. Since it hasn’t caused a problem yet, we think it never will. The price: We face far greater risks now than in the past. We are a world business. A man can be on a foreign farm in the morning and on a U.S. farm that afternoon. It is doubtful many questions would be asked at our farm gates.

Litter quality. Litter is a problem. Litter chips are expensive and it’s hard to dispose of them or even get people to take them when they’re discarded with today’s increased ecological awareness. With the advent of the nipple drinker, litter stays drier, it looks better to the naked eye and we don’t top dress as regularly as in the past. When looked at from a financial point of view, we’ve changed for the better. The price: In actuality, dry litter is a hospitable climate for bacteria and viruses, especially Marek’s disease, allowing dander to circulate. While we’ve escaped consequences so far, the effect on just-vaccinated chicks could be catastrophic allowing for more virulent and rapidly multiplying strains of Marek’s disease to emerge and survive.

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Poultry Reality Check Needed

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**Vaccine delivery.** There has been a number of moves toward more economical routes of vaccine delivery. At the hatchery, Marek’s was formerly administered from individual bottles; stirrers were used to maintain the consistency of titer within each dose. Now the vaccine comes from a common supply, which is both faster and less labor intensive. ILT delivery has moved from eyedrop to water, not because the water route is superior but because the labor cost is less. The price: Titers are less consistent, not all birds are receiving the correct dosage. Hand-in-hand with a biologics industry that wants to keep customers happy, we have changed from what’s best for bird health to what works economically. We have had confidence in herd immunity, which has been enough in the past, but we’re not addressing the reality that we face serious consequences if we fall below the critical mass.

**Summer programs.** It saves money to cut back on vaccines during the summer “when we don’t need it.” The price: Viruses don’t recognize summer. By neglecting immunization, we take the pressure off and provide an opportunity for them to regroup. A number of “summer programs” has backfired this year, especially in areas of high Marek’s and bronchitis challenge. The cost savings of summer programs is surpassed by mortality and performance loss.

**Vaccine dilution.** We’ve been doing it for years; we probably always will. The biologics industry has been complicitous, assuring growers that problems that crop up will vanish if they simply switch to another brand. And, of course, it appears to work for a time (while adequate dosages are reinstated). It is considered “standard” practice to push for a minimum protective dose. The price: How low can we go? How low should we go? We cannot possibly answer these questions accurately if we consider cost alone. It is our duty and responsibility to factor in the risk we assume by taking the pressure off the viruses.

**Time to take stock**

These are only a few examples. It is the responsibility of each of us to look at our own segment of the industry and identify all the places we have sacrificed for the sake of savings. The overall total of how much we’ve changed should shock us into action.

**A change for the better**

It would be impractical to suggest that we ditch every innovation of the last 10 years. No one in the real world expects that to happen or would even recommend it. But here are things WE MUST DO if we are to protect the industry that has brought so much prosperity to so many.

**WE MUST RESTORE** the balance between science and economics. We cannot afford to continue every cost cutting measure now in place and ad new ones the minute they become available. If vaccines are being cut (or even occasionally discarded, as rumor has it), then more attention must be given to management programs and litter quality. If litter quality is compromised, we must be more diligent about proper vaccination. In other words, we must balance one decision against another, admitting that the 100 percent saving route is too dangerous to travel.

**WE MUST LOOK** at our practices from a company-wide perspective. No one thing we are doing spells trouble. Only by examining the totality of our choices can we assess the impact of each individual decision.

**WE MUST RESTORE** the balance of power between our scientists and our accountants. It is my opinion that many of our best scientists harbor the fears expressed here. If their voices have been weakened, they must be strengthened and their scientifically-based concerns respected, as they were before the numbers became such a driving force.

**WE MUST RESPECT** the viruses and bacteria that we fight. With the advent of penicillin, some scholars predicted that bacteria would be a thing of the past by 1990. How wrong they were. Anyone who reads the daily newspaper realizes that in human health, there are some areas in which we are in worse shape than ever. Tuberculosis is more rampant in some of our prisons and inner cities than in the Dark Ages.

There is a lesson here for our industry. The past two or three decades represent a fraction of a moment compared to the millions of years the viruses we are fighting have managed to survive. It would be complacent and arrogant to assume that we can easily prevail against them because, for a brief point in time, We’ve managed to do it.

**WE MUST CONSIDER** the cost of catastrophe. Such words as “I don’t care what it takes, we’ve got to get this stopped,” are heard only after a problem has erupted. It is our responsibility to recognize that our past cost-cutting may have caused some of our most costly setbacks.

**WE MUST PRESERVE** the power of our vaccines and pharmaceuticals. It is better to err on the side of caution than to err on the side of optimism when relying on technology to develop more potent weapons.

**We must decide**

Now is the time to decide. We can go on with business as usual, hoping for the best as we charge headlong toward lower costs. Or we can begin making the prudent moves needed to restore a balance between economics and long-range avian health. We can pay now or we can pay later. But it should be known and it must be said, one way or another we will pay.
About Ken Rudd

Ken Rudd wears several hats in the poultry industry. He was trained as a microbiologist, obtained his first job with Glaxo in the UK and did research with human influenza, small animals and poultry which led to work in the production of avian and human vaccines.

His next job was with Duphar, then part of Phillips Electronics, which needed someone with experience to work in marketing and tech service. Another move carried him to South Africa and Rainbow Chicks, where he was health services manager for Cape Province. Salsbury in South Africa needed technical service and sales help and Ken joined the company, which soon brought him to the U.S. as poultry production manager.

He spent 13 years with Salsbury Laboratories, including working in sales in California. He has been with Merial-Select Laboratories for ten years where he has been director of marketing and vet services. He also is global marketing manager for Rhône-Poulenc’s avian business unit worldwide, which includes Merial-Select Laboratories, Inc., Gainsville, GA.

Ken has been in the poultry business since 1958 and has been in avian service on every continent. With these years of experience in which he has seen both the good and bad in poultry health, it seems appropriate for him to put together the accompanying words about the status of the American poultry industry.

Broiler Whole Bird Condemnation (Company)

<table>
<thead>
<tr>
<th></th>
<th>Average Co.</th>
<th>Top 25%</th>
<th>Top 5 Co.’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Septox</td>
<td>0.347</td>
<td>0.270</td>
<td>0.190</td>
</tr>
<tr>
<td>% Air sac</td>
<td>0.332</td>
<td>0.141</td>
<td>0.095</td>
</tr>
<tr>
<td>% I.P.</td>
<td>0.151</td>
<td>0.070</td>
<td>0.022</td>
</tr>
<tr>
<td>% Leukosis</td>
<td>0.025</td>
<td>0.011</td>
<td>0.003</td>
</tr>
<tr>
<td>% Bruise</td>
<td>0.013</td>
<td>0.011</td>
<td>0.006</td>
</tr>
<tr>
<td>% Other</td>
<td>0.023</td>
<td>0.014</td>
<td>0.024</td>
</tr>
<tr>
<td>% Total</td>
<td>0.891</td>
<td>0.517</td>
<td>0.340</td>
</tr>
<tr>
<td>% 1/2 parts condemnations</td>
<td>0.391</td>
<td>0.289</td>
<td>0.183</td>
</tr>
</tbody>
</table>

Data for week ending 4/17/99
Excerpts from the latest National Agricultural Statistics Service USDA Reports

“Broiler Hatchery and “Chicken and Eggs” (NASS)

Broiler Eggs Set in 15 Selected States Up 5 Percent
Commercial hatcheries in the 15-State weekly program set in incubators 183 million eggs during the week ending April 17, 1999. This was up 5 percent from the eggs set the corresponding week a year earlier. Average hatchability for chicks hatched during the week was 81 percent.

Broiler Chicks Placed Up 4 Percent
Broiler growers in the 15-State program placed 146 million chicks for meat production during the week ending April 17, 1999. Placements were up 4 percent from the comparative week in 1998. Cumulative placements from January 3, 1999 through April 17, 1999 were 2.15 billion, up 3 percent from the same period a year ago.

March Egg Production Up 3 Percent
U.S. egg production totalled 7.05 billion during March 1999, up 3 percent from the 6.87 billion produced in 1998. Production included 5.94 billion table eggs and 1.11 billion hatching eggs, of which 1.04 billion were broiler-type and 70.0 million were egg-type. The total number of layers during March 1999 averaged 323 million, up 3 percent from the total average number of layers during March 1998. March egg production per 100 layers was 2,183 eggs, down slightly from 2,187 eggs in March 1998.

All layers in the U.S. on April 1, 1999, totaled 323 million, up 3 percent from a year ago. The 323 million layers consisted of 262 million layers producing table or commercial type eggs, 57.3 million layers producing broiler-type hatching eggs, and 2.94 million layers producing egg-type hatching eggs. Rate of lay per day on April 1, 1999, averaged 71.1 eggs per 100 layers, down fractionally from the 71.3 a year ago.

Laying flocks in the 30 major egg producing States produced 6.66 billion eggs during March, up 2 percent from March 1998. The average number of layers during March, at 305 million, was up 3 percent from a year earlier.

Egg-Type Chicks Hatched Up 2 Percent
Egg-type chicks hatched during March totaled 41.3 million, up 2 percent from March 1998. Eggs incubators totaled 38.0 million on April 1, 1999, up 12 percent from a year ago.

Domestic placements of egg-type pullet chicks for future hatchery supply flocks by leading breeders totaled 257,000 during March 1999, up 14 percent from March 1998.

Broiler Hatch Up 3 Percent
The March 1999 hatch of broiler-type chicks, at 755 million, was up 3 percent from March of the previous year. There were 626 million eggs in incubators on April 1, 1999, up 3 percent from a year earlier.

Leading breeders placed 7.20 million broiler-type pullet chicks for future domestic hatchery supply flocks during March 1999, up 6 percent from March 1998.
Meetings, Seminars and Conventions

1999
May
May 6-7: National Breeders Roundtable, St. Louis, MO. Contact: USPOULTRY, 1530 Cooleged Road, Tucker, GA 30084-7303. Phone (770) 493-9401; fax (770) 493-9257; e-mail mlyle@poultryegg.org or Internet www.poultryegg.org.
May 12-13: Texas Poultry Federation Board Meeting, Dallas. Details from Texas Poultry Federation, P.O. Box 9589, Austin, TX 78766-9589. Phone (512) 451-6816; fax (512) 452-5142.
May 22: GPF Night of Knights, Cobb Galleria Centre, Atlanta, GA. Contact: Georgia Poultry Federation, P.O. Box 763, Gainsville, Ga. 30503. Ph: (770) 532-0473.

1999
June
June 3-5: Alabama Poultry & Egg Convention, Sheraton Birmingham. Details from Alabama Poultry & Egg Association, P.O. Box 240, Montgomery, AL 36101-0240. Phone (334) 265-2732; Fax (334) 265-0008.
June 4-5: Arkansas Poultry Festival, Arlington Hotel, Hot Springs, Ark. Contact: Judy Kimbrell, Arkansas Poultry Federation, P.O. Box 1446, Little Rock, Ark. 72203. Phone (501) 375-8131.
June 7-11: VII International Poultry Production Seminar, University of Guelph, Guelph Ontario, Canada. Details from International Poultry Consultants (I.P.C.) Inc., Box 1207 Cambridge, Ontario N1R 6C9, Canada; Phone: 519-650-5883; Fax: 519-895-0149; E-mail: IPC seminar@aol.com or open.uoguelph.ca/IPCSeminar.
June 10-12: Poultry Neonatal Health and Disease Workshop, Life Learning Center, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada. Contact: Dr. Bruce Hunter, Dept. of Pathobiology, Ontario Veterinary College, University of Guelph, Guelph, Ontario, N1G 2W1. Phone (519) 824-4120, ext. 4625.
June 18-19: Georgia Veterinary Medicine Association, Jekyll Island, Georgia. Contact: Beth Monte, Georgia Veterinary Medical Assn., 3050 Holcomb Bridge Road, Norcross, GA 30071. Phone: (770) 416-1833.
June 18-19: 51st Delmarva Chicken Festival, Crisfield, Md. Contact: Delmarva Poultry Industry, R.D. 6, Box 47, Georgetown, Del. 19947. Phone (302) 856-9037.
June 22-24: 26th Poultry Science Symposium, Poultry Feedstuffs, Supply, Composition and Nutritive Value, Peebles, Edinburgh, Scotland, UK. Contact: Dr. Jim McNab, Roslin Institute (Edinburgh), Roslin, Midlothian EH25 9PS, Scotland, UK. Fax +44(0) 31-440-0434.

1999
July
July 10-14: American Association of Avian Pathologists (AAAP) Annual Meeting, Hilton Riverside Hotel, New Orleans, LA. Contact: AVMA Housing Bureau, 108 Wilmot Road, Suite 400, Deerfield, IL 60015-0825. Phone: (800) 424-5250, Fax: (800) 521-6017.
July 27-30: International Conference & Exhibition on Veterinary Poultry, Beijing, China. Contact: Mr. Li Wei, Secretariat of ICEVP’99, Room 3011, Yuanliwuye Building, No. 19 Huixindongjie (Xiyuan), Beijing 1000029, P.R. China, Fax: +86 10 64950374.

1999
August

1999
September