

THE NATURE AND IMPACT OF LAYER INDUSTRY CHANGES

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The layer industry has change greatly over the past twenty years. The number of individual flock owners has dropped from nearly 10,000 to just a few hundred today. At the same time, the number of layers has increased. The net result is a great consolidation of ownership. Accordingly, there has been a great increase in average flock size. Previously, flocks in the 10,000 bird range were common. Today flocks of 100,000 and greater are the rule. In the future it is certain that flock size will continue to increase.

Just as flock ownership has been consolidated, so has geographic distribution. As the difference between cost of egg production and price realized for product has decreased, many local producers have left the industry. Egg production has been focused into fewer locations. The density of producers in these areas of egg production has increased. Not only have production complexes of over 4 million birds capacity been built but they are increasingly closer together.

The significance of the consolidation of ownership and geographic distribution of egg producing flocks on the control of Avian Influenza cannot be overstated. The industry has had great difficulty controlling the spread of AI through the use of Biosecurity measures during recent outbreaks. These recent outbreaks have, for the most part, not involved the huge multiple age complexes that exist and will continue to be built. In order to use biosecurity as an effective control measure, considerably more information about the Epidemiology of AI must be acquired.

We must face the reality that the Egg Industry will not change its direction because of the threat of AI. Industries, in general

change because of economic considerations. The proportion of the industry which has been effected by AI is small. The attitude that "It won't happen to me" is pervasive. Most decision makers in the Egg Industry do not believe that management decisions which may help control AI will have a positive financial return.

Management practices will continue. Transportation of birds, products and byproducts will continue much as it exists today. The management of service crews will change only slightly. since individual companies will be very large, they will employ these crews on a full time basis. There will be less movement of crews between companies. There will be movement within the company facilities. The potential for good control will be present.

The future consolidation of the Egg Industry will have considerable impact on the regulatory aspects of AI control. There will be many fewer individuals with whom regulatory officials will deal. This smaller group of owners will have much better communications than exist in today's industry. Individual owners will control operations in multiple states. The Industry will become a much more cohesive group.

Regulatory officials can usually deal with small groups more effectively than large ones. This new group of owners however, because of its dollar volume and interstate/international complexion will have substantial political power. This power can be used positively or negatively to influence the nature of legislation which controls the industry and those officials who regulate it.

What will the Egg Industry want in the future to control AI?

The Industry will be looking at three areas for the effective control of AI. The first will be Regulatory aspects. The second will be improved diagnostic techniques. The third will be preventive vehicles.

Regulation of the Egg Industry will not be easy. Because of its future nature and power it will be involved deeply throughout the formation of regulatory policy. Regulation will work well only when it is based in sound economics, is fair and fairly enforced, and when programs are thoroughly understood by all involved. Specific provision must be made for the protection of valuable breeding stock.

For example, surveillance programs will work and be effective only when all individuals understand the consequences of discovering AI. There must be sound scientific basis for actions taken. Qualified individuals from industry must be involved in establishing appropriate action plans. Once a plan is established there should be no wavering from it. Changes should be made only through the adoption of a new plan.

Much improvement is needed in our ability to diagnose AI Virus and its pathotypes. Because of the large dollar amounts at stake in this highly concentrated industry there is very little room for error. Increased speed of diagnosis is imperative if we are going to be able to interrupt AI transmission. Obviously we will not be treating every diagnosis of AI similarly. Improved objective methods of determining pathogenicity must be developed.

Improved methods of preventing AI infection and transmission must be explored. Advances in Genetic Engineering may present great opportunities. Changes in the genome of commercial stock may be able to present the Industry with birds that are no longer susceptible to AI. As knowledge of immunology increases new types of preventive agents may be developed. Would it not be wonderful if a viral fraction or small genetic fragment which would prevent AI infection could be administered on a mass application basis to flocks. We should look to the development of vaccines which provide great protection against AI but which do not elicit a serologically detectable immune response thus preserving the use

of serology for surveillance. Great strides can and will occur.

The Egg Industry will be changing but mostly in size and geographic distribution. It will work with both the scientific community and regulatory officials but not without strong industry participation. The Industry wants to maintain its ability to operate in an economically advantageous manner. It wants protection from AI infection and its effects. It wants its flow of product to the national and international marketplace to be uninterrupted. It wants protection of its valuable genetic stock. Through governmental cooperation and intense basic research in Immunology, Epidemiology and Virology these goals will be attained.