

**RISK ANALYSIS OF THE BC POULTRY INDUSTRY
SYNOPSIS REPORT
RISK MANAGEMENT STRATEGIES AND RECOMMENDATIONS**

PREPARED FOR
RISK ANALYSIS STEERING COMMITTEE
ON BEHALF OF THE POULTRY INDUSTRY ADVISORY MANAGEMENT COMMITTEE
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EXECUTIVE SUMMARY

PROJECT HISTORY AND BACKGROUND

This study represents the accumulation of an intensive industry and government consultation, analysis and evaluation process between October 2006 to May 2007, for the development of a pro-active risk management strategy for the mitigation of animal disease risk within the BC poultry industry.

The objectives of this project have been four fold: to identify and assess risk factors which predispose the poultry industry to infectious disease outbreaks; to provide opportunities and risk management options to industry and government; to minimize impact of disease outbreaks on public confidence in poultry produced in BC; and to maintain expansion of domestic and international markets for poultry products produced in BC.

This risk management and strategy development was built in four major phases. The first phase, concluding with a first interim report (January, 2007) was focused on identifying and ranking a broad range of risk factors which could impact on the frequency and intensity of future animal disease outbreaks. An extensive consultation process with over 50 industry stakeholders was the primary research tool, leading to the identification of some 34 risk factors facing the industry. Complementing these consultations were secondary research activities of animal disease risk experiences in other jurisdictions. An industry profile and overview of the current industry structure and concentration have been included.

The next phase of the study focused on a process of assessment and evaluation of the gaps that exist with respect to the mitigation of these risks from industry structure, policy, and management practice perspectives. This phase led to the consolidation of the risk analysis into a range of possible options and alternatives by which risk could be mitigated or eliminated. These options were organized under two major categories – options that could be taken to reduce the risks related to the existing infrastructure and structure of the industry, and those options that relate to operational and management practices within the industry. The results of this phase are summarized in a further interim report (Second Interim Report, Part I, April, 2007).

The third phase of the study and process focused on the economic and financial evaluation of a limited number of possible and practical response options. The risk management principle identified by this comprehensive analysis recognizes the reality that no one single risk management action by itself will be effective. An effective risk management response will necessarily involve an integration of a number of related and complementary actions, that collectively will lead to a positive impact on risk reduction. Consequently, potential risk management strategy options were narrowed down into three “risk response options” which have become the basis for further evaluation and consideration by decisions

MAJOR FINDINGS AND RESULTS

makers. These three risk response options (nominal, intermediate, and comprehensive risk response options) were further evaluated using a industry investment economic model. From this analysis, the costs and benefits, and impacts of each response option were formally evaluated, with continued involvement of industry. The results of this phase are provided in the Second Interim Report, Part II, April 2007.

The final phase of this risk management process was the development of a series of strategies, recommendations and actions for consideration by decision makers. A summary of options, their relative costs and benefits, and suggested recommendations were made, based on the results of the previous interim reports and industry input.

Three risk management response strategies were identified and analysed within the scope of the study. These possible strategies are described in the table below. These strategies are a composite of actions both with respect to the management of industry concentration, and operational or management actions and programs. It is critical to recognize that management actions with respect to a universal bio-security, and active surveillance programs are important pillars within all three of the risk response strategies.

Overview of Risk Management Response Options		
Risk Management Option	Infrastructural Changes Proposed	Operating Changes Proposed (equivalent for all response options)
Nominal Response	No significant changes proposed	1) Universal bio-security system 2) Active surveillance program 3) Responsive financial management and compensation system
Intermediate Response	Segregation of high risk/high value flocks and policies and programs in place to arrest further concentration	1) Universal bio-security system 2) Active surveillance program 3) Responsive financial management and compensation system
Comprehensive Response	Industrial compartmentalization and segregation of industry into bio-secure clusters, and policies and programs in place to reduce further concentration.	1) Universal bio-security system 2) Active surveillance program 3) Responsive financial management and compensation system

The following table summarizes the financial and economic results of the benefit cost analysis completed in the supporting interim reports to this risk assessment. The comprehensive option is segregated into two, reflecting different assumptions if newer or older barns are relocated. The depreciated costs of an older barn is estimated at \$300,000 per barn and reflects the comprehensive low cost option. The depreciated cost to relocate a newer barn is estimated at \$600,000, and is the basis of the comprehensive high cost option.

The analysis suggests progressive increases in the benefit cost ratio, but only to a point, for increasing investment in proactive risk management actions. As previously indicated, two alternatives were evaluated for the comprehensive response option, reflecting different assumptions on poultry barn relocation costs.

Summary Analysis of Risk Management Response Options (Inflation Adjusted)¹				
Possible Response Option	Expected Total Long Term Benefit (\$2007,m)	Expected Total Costs (\$2007,m)	Time to Breakeven (years)	Benefit Cost Ratio
Comprehensive (High Cost)	\$288	\$176	11	1.64
Comprehensive (Low Cost)	\$288	\$119	9.0	2.42
Intermediate	\$177	\$63	7.5	2.81
Nominal	\$90	\$47	9.0	1.91

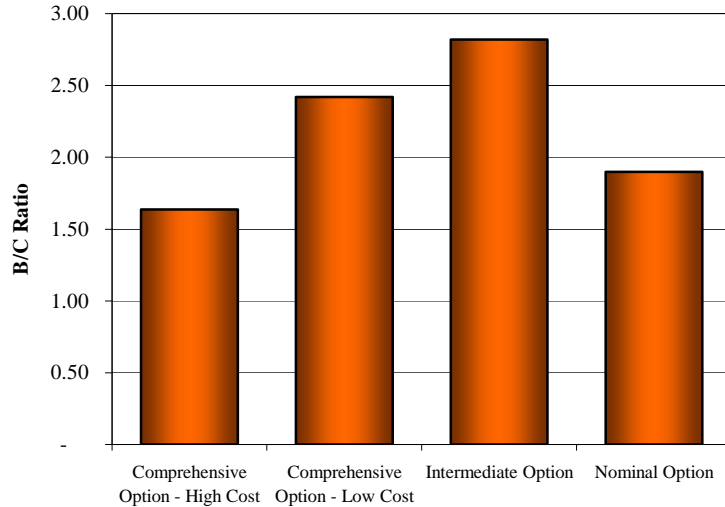
Note: benefits are defined as the incremental net industry profits over the profits that would have been generated if no proactive strategy is introduced. The costs are those industry expenditures that need to be made to implement the management and policy changes proposed in the respective response options.

The benefit cost ratio of each of the possible range of response options are illustrated in the figure below. Both the intermediate response and the low cost comprehensive options have fully acceptable benefit cost ratios that support a focus on their potential.

¹ Unless otherwise noted, the benefits and costs that have been developed in this study have been adjusted to remove the impact of inflation. The approach to this, is to standardized the future estimates of either costs and benefits to values in 2007.



Benefit Cost Ratio of Alternative Risk Response Strategies



RECOMMENDATIONS

Implementation of Intermediate Risk Management Response Option

Develop and Implement Universal Bio-Security System

Implement Active Surveillance Program

Improve Management of Industry Concentration

The primary results of this study and analysis has been the development of six interrelated options. These are listed below.

Recommendation #1: It is recommended that the industry and government consider implementing the intermediate response option as developed in this study.

Recommendation #2: The BC poultry industry develops a “universal bio-security program, which encompasses the full value chain of the sector (inclusive of allied supply and service industries, through the production, and processing sectors), and provides inducements and guidance for the inclusion of the non-regulated and small/speciality flocks to participate in this bio-security program.

Recommendation #3: As a mechanism for early detection and to reduce the intensity of animal disease outbreaks, the industry establish an on-going active surveillance program, inclusive of all production sectors, and supported by a compensation system that compensates industry for their economic losses and recovery costs in the event of detection and business disruption/closure.

Recommendation #4: The BC industry undertakes a series of progressive steps leading to arresting, and to eventually reducing the degree of physical and business intensity and density. This would involve the concurrent steps of finalizing an acceptable long term plan for the compartmentalization and the industrial clustering of the industry into bio-secure zones;

**Development and
Implementation of Shared Risk
Management System (SRMS)**

implementing a plan which leads to the transfer of high risk, high valued poultry enterprises to locations determined to reduce risk and fit with the overall plan; and undertaking the other operational and structural actions as outlined in the intermediate response option.

Recommendation #5: The industry and government develop, and implement an integrated financial management and compensation program, “The Shared Risk Management System”, that provides funding mechanisms for recovery from disaster, self insurance, government supported production insurance, private insurance, and compensation that substantively protects the industry from the significant perils it will face due to disease risks, and which will serve to sustain and grow the industry.

**Development of Regional
Economic Zones**

Recommendation #6: Develop geographical zones that could function independently in the event of a disease outbreak. This would involve regionalization or compartmentalization consistent with OIE guidelines. These results must be recognized by the international trade community to mitigate exposure of the BC poultry industry to potential province wide export bans.