The Cooperative Working Group on Bird Trade

FINDINGS AND RECOMMENDATIONS

MARCH 1990

The Cooperative Working Group on Bird Trade is an independent committee. It was convened by World Wildlife Fund, and has been chaired by Curtis Bohlen, WWF Senior Vice President. Staff support, including extensive analysis of avian trade, is provided by TRAFFIC(USA), the wildlife trade program of WWF.

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TRAFFIC(USA)
and
World Wildlife Fund

AS PARTICIPATING MEMBERS OF

The Cooperative Working Group on Bird Trade

HAVE MADE THE FOLLOWING FINDINGS AND RECOMMENDATIONS REGARDING THE UNITED STATES TRADE IN EXOTIC AVIAN SPECIES

MARCH 1990

INTRODUCTION

The Cooperative Working Group on Bird Trade was convened by World Wildlife Fund in August 1988 to conduct a comprehensive analysis of live imports of exotic avian species into the United States. On the basis of its findings, the Group developed the detailed recommendations presented in this document. These recommendations do not necessarily reflect the stated policies of any one participating organization. Acting alone, each organization would have developed recommendations specific to its own areas of concern and expertise.

But by working together in a process of frank discussion, hard negotiation and compromise the participating organizations have been able, despite their disparate philosophies, to jointly develop and individually accept these recommendations as the most practical and feasible way to reduce mortality, and to control and curtail trade in wild-caught birds for the pet trade.

If adopted in full by the federal government, these recommendations will produce constructive changes in policies and procedures to the benefit of exotic avian wildlife. The members of the Working Group accept the need to continue their cooperation and to participate actively in necessary legislative and regulatory processes in order to ensure effective implementation of all their recommendations.

The analysis conducted by the Working Group concluded that current federal regulations and procedures implementing the trade control requirements of the Endangered Species Act (ESA), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Lacey Act, and Animal Welfare Act do not adequately meet the requirements or intent of these mandates.

Wildlife consumer countries, including the United States, continue importing large numbers of wild-caught birds for use as pets. Exporting nations, especially those with an interest in increasing or maintaining the flow of foreign exchange into their countries, currently have little incentive to reduce their volume of trade in wild birds. Furthermore, many countries lack the resources and/or expertise necessary to perform comprehensive population analyses of their indigenous avifauna. These countries are therefore unable to determine whether existing trade volumes are detrimental to the survival of wild avian populations.

Average mortality during transport and quarantine has declined in the past three years. Nevertheless, mortality remains unacceptably high for many species in trade and is still of serious concern. Additional research is required to determine which conditions contribute to mortality and which species seem most sensitive to those conditions. Based on this information, methods to reduce transport-associated mortality can be developed.

The Working Group recognizes that habitat loss and local use threaten the survival of both individual avian populations and entire species. The Working Group is additionally aware that the international trade of wild-caught birds for use as pets is contributing to the decline of some species in the wild. Available information indicates that some wild populations of the more common species in trade, once considered abundant in their countries of origin, have been substantially reduced due to capture for sale in international markets. The Group therefore recommends that the United States, as one of the principal consumers of wild-caught birds for the pet trade, reduce its reliance on wild avian populations and, within an agreed time frame, replace wild-caught birds with captive-bred birds for the purposes of the pet trade. Domestic and foreign captive breeding programs for species in commercial trade will be critical to the success of this effort.

The Group is not opposed to limited imports of wild-caught birds for legitimate captive breeding, approved zoological exhibition, or necessary scientific research.

Working Group members realize that avian imports, whether of wild-caught or captive-bred birds, are likely to remain significant. Therefore, the Group recommends that federal departments and agencies responsible for controlling and monitoring these imports seek immediate solutions to problems associated with transport, quarantine, inspection, and unsustainable use of wild populations.

GENERAL RECOMMENDATIONS

RECOGNIZING that the United States Congress established this country's commitment to the preservation of international wildlife through passage of the Lacey Act and Endangered Species Act;

RECOGNIZING FURTHER that, by incorporating into law the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Endangered Species Act requires that United States trade in domestic and foreign wildlife and wildlife products of species included in the CITES Appendices not cause decline in affected species or populations in the wild;

NOTING that resolutions adopted by CITES Parties at biennial meetings of the Conference of the Parties are intended to clarify and further the purposes of the Convention, as established in its Articles;

RECALLING that the first Meeting of the Conference of the Parties in 1976 adopted Conf. 1.6, Resolution 10, stating that:

> "Many species of animals which are popular in the pet trade are becoming rare or even endangered due both to over-exploitation and diminishing habitats. Mortality in trade and captivity is high. This Conference urges exporting countries to endeavour to restrict gradually the collection of wild animals for the pet trade and that all contracting Parties encourage the breeding of animals for this purpose, with the objective of eventually limiting the keeping of pets to those species which can be bred in captivity." (underlining added);

AWARE that while many nations have partially or totally restricted their exports of live indigenous avifauna, others continue to supply wild-caught birds for international trade;

ACKNOWLEDGING that CITES requires exporting Parties to determine that the export of wildlife included in the CITES Appendices will not be detrimental to the survival of those species;

REALIZING that many exporting nations lack sufficient resources to adequately assess the effects of trade on their wild avian populations, and are therefore unable to demonstrate that their exports are not detrimental to the species in the wild;

REALIZING FURTHER that in addition to habitat loss and local use, the international trade of wild-caught birds for use as pets is contributing to the decline of species' wild populations;

RECOGNIZING that although some efforts have been successful in reducing mortality during transport to and quarantine in the United States, import-associated mortality remains an area of serious concern;

REALIZING that current domestic and foreign captive breeding programs are capable of increasing the availability of captive-bred birds and thereby reducing the demand for wild-caught birds;

CONCERNED, however, that the United States remains one of the principal consumers of wild-caught birds for the pet trade;

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that the United States take prompt legislative action to:

1. Reduce the demand for wild-caught exotic birds for the pet trade by facilitating domestic and international captive breeding of exotic avian species, encouraging the purchase of captive-bred birds in lieu of wild-caught birds, promoting avian conservation in the wild, and educating the public about this issue;

2. Institute new regulations and procedures related to the avian import process, including, but not limited to, those concerning transportation, quarantine, humane care, disease control, inspection, and enforcement; and

3. Institute a new system of federal regulatory controls for live exotic avian imports that will:

    a. Provide for import quotas on a gradually declining scale in order to reduce and ultimately end within five years the import of wild-caught birds for sale specifically as pets;

    b. Continue to allow the import of wild-caught birds for approved use in scientific research, zoological display, education, private and commercial captive breeding to produce offspring for aviculture and the pet trade, or captive breeding programs specifically designed to prevent the extinction of species or subspecies, all pursuant to approval procedures developed in cooperation with affected parties;

    c. Suspend imports for the pet trade of wild-caught birds of species for which captive-bred specimens are or become available in commercial quantities for the pet trade;

d. Suspend imports for the pet trade of wild-caught specimens of species whenever it is determined that such trade is contributing to the long-term decline of those species' wild populations;

e. Suspend imports of avian species which experience excessive mortality during the import process until the causes of such mortality have been identified and mortality can be reduced to acceptable levels;

f. Facilitate the expeditious processing of import and export documentation for shipments of captive-bred birds; and

g. Notwithstanding subparagraph a., in special circumstances, pursuant to a finding of the Office of Scientific Authority and a permit application process, allow the import for the pet trade of wild-caught specimens of certain common or abundant species when such imports can be demonstrated to benefit the conservation of that species or the ecosystem it inhabits[1];

URGES United States government agencies with statutory authority over avian imports to review the Working Group's report and findings and to incorporate its recommendations, by legislation or regulation, into federal government policies that affect trade and use of exotic avian wildlife; and

ENCOURAGES the United States government to support and assist source countries' efforts to breed indigenous species, and to monitor and control their exports of wild-caught birds to ensure that such exports are legal and non-detrimental to wild populations.

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[1] This subparagraph was accepted by a majority but not all of the participating members.

SPECIFIC RECOMMENDATIONS REGARDING INTER-AGENCY COORDINATION

Inter-Agency Cooperation

The regulation of exotic avian wildlife trade and use is the shared responsibility of several federal departments and agencies. The U.S. Fish and Wildlife Service (FWS), through authority granted the Department of the Interior by Congress, is responsible for ensuring the conservation of endangered and threatened species; the humane and healthful transport of wildlife in international trade; and the control of wildlife imports to ensure that they are not in contravention of the laws of the countries of origin or CITES. FWS has developed a complex set of regulations to achieve these goals, combining a permit system with declaration and inspection requirements.

All federal agencies share with FWS responsibility to protect endangered species and adhere to the requirements of CITES, as directed by Congress in the ESA. The Secretary of the Interior is required to work with the Secretaries of other federal departments to coordinate activities in this regard.

Responsibility for preventing the introduction of "injurious" species to the United States, those which are potentially harmful to domestic ecosystems or agriculture, is similarly shared. The Departments of the Interior, Agriculture and Commerce each have jurisdiction in this area, by authority of the Lacey Act as amended. This Act further authorizes the Department of the Interior's responsibilities with respect to ensuring the humane and healthful international transport of wildlife.

The Department of Agriculture (USDA) was similarly given responsibility for ensuring that certain wildlife is transported in a humane manner. The Animal Welfare Act requires the Department of Agriculture to ensure the humane treatment, including during international transport, of warm blooded animals in domestic and/or international commerce. This Department has not promulgated regulations regarding exotic birds, however.

A primary responsibility of the Department of Agriculture, that of "protecting American agriculture," is administered by the Animal and Plant Health Inspection Service (APHIS). As a part of APHIS efforts to protect domestic poultry, this agency requires that exotic birds imported into the United States be quarantined upon arrival for a minimum of 30 consecutive days.

Rather than improving the efficiency of the federal government in accomplishing the mandates set forth by Congress,

the current division of responsibilities has created a matrix of potentially confusing and often ineffective regulations and procedures.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That the U.S. Congress assess the effectiveness of current legislation and divided agency responsibilities in achieving the combined objectives of species conservation, protection of American agricultural interests, and humane treatment of captive wildlife;

2. That the Secretaries of the Departments of Agriculture and Interior and the Directors of the federal agencies they supervise acknowledge their responsibilities under ESA, Lacey Act, CITES, and other relevant laws, treaties, and regulations, and reiterate their commitment to effectively control exotic avian imports;

3. That the Secretary of Agriculture work with the Secretary of the Interior to coordinate the development, implementation and enforcement of regulations related to exotic avian imports; and

4. That the Secretary of Agriculture, the APHIS Administrator, and the Deputy Administrator for Veterinary Services recognize the importance of their Department and Agencies in fulfilling the mandates of ESA, CITES, and Lacey Act with respect to avian imports.

Combined FWS and APHIS Permit Application and Issuance

Individuals or organizations wishing to import specimens of exotic avian species included under ESA or CITES Appendix I must first obtain a FWS import permit. FWS import permits are not similarly required to import specimens of CITES Appendix II, Appendix III or non-CITES species. Importers are required to complete a FWS import declaration upon a shipment's arrival at a port of entry whether or not an import permit has been issued previously.

APHIS requires all avian importers to obtain an import permit in advance of all incoming shipments of exotic birds. The permit serves as APHIS confirmation that adequate arrangements for quarantine have been made. In addition to an import permit, importers or their representatives are required to provide a

completed veterinary health certificate to APHIS personnel when an avian shipment arrives at a port of entry.

Both APHIS and FWS require very similar information with respect to avian imports, either as part of the permit application or import declaration. The efficiency of the import approval process would be greatly enhanced if these agencies cooperated more closely with respect to permits and inspection. Use of a single import permit application and issuance of a single import permit which met the needs of both agencies would reduce the current paperwork burden placed on federal personnel and importers. Furthermore, advance approval of the species and number of birds to be imported would reduce the potential for illegal shipments or shipments lacking proper documentation to arrive at U.S. ports of entry. In addition, a standardized avian import permit requirement would enable FWS to effectively regulate any future import restrictions and/or quotas.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That the federal government establish a joint FWS - APHIS import permit requirement for exotic birds;

2. That a new import/export permit system be designed to facilitate and expedite the application and approval process and enhance information management by:

   a. Designing a single permit application to be reviewed and approved by both agencies as appropriate;

   b. Assigning primary responsibility for permit review to FWS, with this agency ensuring expeditious processing of all permit applications, and forwarding of all approved applications to APHIS for review and approval;

   c. Allowing import and export permits to be issued directly by FWS and APHIS port offices for species not included under ESA or CITES Appendix I;

   d. Ensuring that permits for species not included under the ESA or CITES Appendix I be issued within 30 days of the receipt of the application by FWS;

   e. Ensuring that:

      (1) Applicants are notified in writing if the processing of their permit application will require more than 30 days;

(2) Such notification includes an explanation for the delay; and

(3) Such notification be made as quickly as possible, but no later than 30 days following receipt of the application by FWS;

f. Ensuring that federal offices are adequately staffed and funded to perform additional permitting responsibilities and to assist importers with preparation of permit applications;

g. Ensuring that information regarding all import and/or export quotas or restrictions is readily available to importers, exporters, other interested parties and FWS and APHIS staff; and

h. Ensuring that permit validity dates are flexible enough to facilitate importers' and exporters' abilities to make necessary transport and quarantine arrangements.

Establishment of a Centralized Exotic Bird Information Management System

Both FWS and APHIS independently maintain centralized files to monitor avian imports. FWS records, compiled from FWS Form 3-177, "FWS Declaration for Importation or Exportation of Fish or Wildlife," are included as part of that agency's computerized Law Enforcement Management Information System (LEMIS). This information is used by FWS to monitor international wildlife trade in conjunction with the requirements of ESA, CITES, and other legislation. APHIS records are maintained in their original form: individual VS Form 17-13, "Summary of Quarantine Birds," forms completed upon termination of quarantine for all imported commercial bird shipments. These forms contain information enabling APHIS to track imports subsequent to their release from quarantine and monitor import trends.

Certain information, such as the country of export, port of entry, and quantity and species composition of birds imported is collected by both agencies. FWS and APHIS also collect more specific additional information, such as the source of imported birds (wild-caught vs. captive-bred) in the case of the former, and mortality data in the case of the latter.

Comparison of data available from FWS and APHIS revealed major discrepancies in the agencies' records regarding both the total number and species composition of birds imported during calendar years 1986 through 1988. Further analysis of these agencies' import data highlighted certain limitations inherent

in each dataset. These limitations greatly restrict the data's usefulness for fulfilling the purposes of the agencies involved and for meeting the legislative goals established by Congress with respect to exotic avian wildlife trade.

Development of an interagency database to monitor trade in exotic avian species would greatly increase both the efficiency of data management and the ability of both agencies to achieve their Congressional mandates. A cooperatively managed FWS - APHIS database would not only eliminate current duplications of information, but, if designed and maintained properly, would also expedite the import and export permitting process.

An interagency database would greatly expand FWS personnel's access to inspection, disease and mortality information, thereby enhancing that agency's ability to detect import violations and assess the effectiveness of current regulations. APHIS personnel would gain access to source information regarding wildlife imports, enabling that agency to better determine probable origins of avian disease agents.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That FWS and APHIS cooperate in the establishment and maintenance of an interagency database to monitor trade in exotic birds;

2. That the FWS Office of Management Authority oversee database development and maintenance, in cooperation with other federal agencies and offices;

3. That this database be designed--and sufficient hardware, software and training be provided--to allow federal personnel to:

    a. Simultaneously access permit, species, legislative and other information from port, regional and national offices as needed to perform their responsibilities with respect to trade in exotic birds;

    b. Update information within the database as needed;

    c. Confirm information contained within and facilitate rapid processing of permit applications; and

    d. Compile and analyze data to determine and assess import trends, factors influencing avian mortality, avian disease incidence, and/or other subjects as necessary to monitor the trade and use of exotic birds;

4. That this database further be designed to:

a. On a timely basis, issue alerts to all relevant f offices regarding changes in the status of indivi species, policies of export countries, potential violations of regulations, and other information needed, and automatically produce a hard copy of alerts for intra-office distribution;

b. Incorporate the following information regarding individual species: range; current population estimates; relevant import or export quotas or ot trade restrictions, both domestic and foreign; an CITES approved captive-breeding facilities;

c. Incorporate the following information regarding t in exotic birds:

(1) All permit information;

(2) Actual number of birds of each species impor exported;

(3) Approximate age of individuals (chicks, fledglings, etc.);

(4) General health status of the birds on arriva during quarantine, including incidence of di and/or injury and subsequent treatment, and mortality and cause of the same;

(5) Band numbers (or other) individual identifica assigned to quarantined birds;

(6) Shipping information (container sizes, numbe birds and mortality per container, food and w provided, if applicable); and

(7) Other information as relevant;

d. When processing permit applications, automatically notify federal personnel of potential trade violat i.e., requests to import species prohibited from t or originating from a country that is not a range country of that species; and

e. Notify port staff of shipments warranting physical inspection by FWS personnel for reasons such as th species or range country involved;

4. That public information terminals be established in FWS and APHIS port and regional offices to provide public access to accurate information regarding trade laws, species status, procedures required to obtain a permit, etc.;

5. That special consideration be given to making the entire data management system efficient and user-friendly; and

6. That information and experience gained from FWS LEMIS be applied during the development and maintenance of the cooperative database, and that special attention be paid to the following:

   a. Accuracy of species information;

   b. Accuracy of importer and exporter information (for FWS and APHIS records); and

   c. Ease and accuracy of data entry.

Inspection of Exotic Avian Imports

All incoming exotic avian shipments are met at the airport by an APHIS port veterinarian and animal health technician. They confirm that the shipment is accompanied by a valid health certificate and an APHIS import permit, then escort the imported birds to a quarantine station. Upon arrival at quarantine, the animal health technician supervises uncrating, identification, and counting of all birds, noting those that are dead on arrival.

FWS port personnel generally do not meet incoming shipments or observe imported birds during quarantine. FWS inspectors "inspect" avian shipments by confirming that information contained in a FWS import declaration form, prepared by the importer or his/representative, corresponds to other documentation, such as export permits and invoices. FWS personnel additionally determine whether the import appears to be in compliance with wildlife trade regulations.

FWS staff may receive information from APHIS personnel regarding the species, number, and mortality of individual shipments, and can compare this information with the import declaration. In some instances, APHIS personnel will voluntarily contact the FWS port office if they suspect that a shipment is in violation of FWS regulations.

In comparing FWS and APHIS import data, the Working Group found discrepancies indicating that both agencies lack complete and accurate information regarding avian imports. It is probable that certain import violations have gone undetected as a result.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That in order to increase the accuracy and efficiency of exotic avian import inspections, the federal government establish a formalized system of cooperation between FWS ar APHIS personnel, whereby:

   a. APHIS personnel:

      (1) Confirm the validity of veterinary certificates accompanying each shipment;

      (2) Correctly identify and record the number and species of birds contained within each shipment, noting the number dead on arrival;

      (3) Determine the cause of death of birds dead on arrival and perform other functions in conjunction with agency responsibilities related to humane transport and quarantine;

      (4) Individually identify and mark birds in quarantir as appropriate;

      (5) Provide detailed information to FWS port personne regarding the species, number, mortality, identification, and other shipment information relevant to that FWS enforcement of avian import regulations; and

      (6) Assume primary responsibility for determining anc taking necessary action with respect to violatior of avian quarantine regulations;

   b. FWS personnel:

      (1) Confirm the validity of import and export permits and investigate any apparent discrepancies betwee permit information and the birds imported;

      (2) Inspect shipments containing species potentially imported in violation of the Lacey Act or other legislation;

      (3) Investigate possible violations of the humane transport regulations; and

(4) Assume primary responsibility for determining and taking necessary actions with respect to regulatory violations not related to avian quarantine requirements; and

c. All government personnel responsible for ensuring importer compliance with federal legislation receive the training necessary to do so, such training to be tailored to the needs of the agencies and personnel involved and include, but not be limited to:

(1) Import regulations and requirements;

(2) Species identification; and

(3) Avian health.

Permanent Marking Requirements

The federal government estimates that as many as 100,000 birds are illegally imported into the United States each year. The uncontrolled removal of these birds from the wild threatens wild populations already subject to stress from habitat destruction, local use, and legal trade. In addition, smuggled birds bypass the APHIS quarantine system, thereby posing a serious disease threat to domestic poultry populations and captive populations of exotic birds.

The difficulty of controlling the flow of illegal birds into the United States is compounded by the inability to distinguish smuggled birds from those legally imported. A mechanism to identify legal exotic avian imports would increase the ability of government agencies to enforce existing trade legislation.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That during quarantine, specimens of imported exotic avian species be permanently marked as necessary and appropriate;

2. That the federal government collaborate with importers, avian veterinarians, aviculturists, and animal welfare specialists to determine appropriate marking requirements and mechanisms;

3. That all marking devices or techniques be applied by or under the supervision of APHIS personnel;

4. That the FWS/APHIS database contain a permanent record of all birds so marked; and

5. That the federal government consider additional marking requirements for captive specimens of species included under the ESA and/or CITES Appendix I.

Disposition of Seized Birds

Each year, several hundred to several thousand birds are abandoned or forfeited to the federal government. Most of these birds have been smuggled from their countries of origin; others arrive with inadequate export and/or import documentation. The countries of origin of seized shipments are notified regarding the same, but often do not choose to re-import the birds from the United States. A memorandum of understanding between FWS, APHIS, Customs, and the Department of Justice regarding the subsequent disposition of forfeited or abandoned birds states that these birds will be offered to members of the American Association of Zoological Parks and Aquariums (AAZPA). In return, AAZPA members are required to pay any costs associated with the birds, such as quarantine fees and transportation.

While AAZPA members are eager to acquire many avian species, they often do not have the facilities for or an interest in the more common species, including many of the psittacines. Birds that are not placed with AAZPA members are generally sold, often at auction, by the federal government in order to recoup costs associated with their care. Surplus funds are turned over to the U.S. Treasury.

This system, while providing an opportunity for zoos to acquire certain specimens, does little to protect the status of the species in the wild. Rather than using forfeited or abandoned birds as a source of revenue, the federal government should place them with organizations or individuals that will use them for the purposes of species survival and/or propagation.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that FWS, APHIS, Customs, and the Department of Justice revise the current memorandum of understanding regarding the disposition of seized birds, and consider, regardless of the seizing agency that:

1. All birds abandoned or forfeited to the U.S. government be treated in a humane and healthful manner;

2. When feasible and in the best interests of either the species or the individual birds concerned, abandoned or forfeited birds be returned to the country of origin or re-export as appropriate;

3. A mechanism be established such that all birds not re-exported are offered to public and/or private organizations or individuals, including AAZPA members and aviculturists, to be used for the purposes of species survival and/or captive breeding;

4. Individuals or organizations receiving abandoned or forfeited birds not be responsible for quarantine or transport costs which exceed those birds' wholesale value;

5. Birds held as evidence during criminal proceedings be given the best possible care and treatment, and expenses incurred for such treatment be reimbursed by the appropriate agency; and

6. Birds be sold at auction only if all other alternatives as outlined above are not possible.

SPECIFIC RECOMMENDATIONS REGARDING THE QUARANTINE SYSTEM

Welfare of Birds While in Quarantine

The United States Congress, through the Animal Welfare Act, determined that interstate or foreign commerce in animals must be regulated "in order--(1) to insure that animals intended for use in research facilities or for exhibition purposes or for use as pets are provided humane care and treatment..."[2] To date, APHIS has excluded birds from the definition of "animal" as used in the Act and accordingly has not promulgated avian welfare requirements. According to a March, 1989 Federal Register notice, however APHIS "...in response to the comments we [APHIS] received..." APHIS is "...considering developing regulations and standards for them [birds]."[3]

It has been reported that the care and treatment of birds during quarantine is in some cases unhealthful or inhumane. Morbidity and mortality experienced during quarantine could be reduced through adherence to minimum standards for housing, handling and preventive veterinary care. Improving the health and condition of birds in quarantine would not only benefit the animals themselves, but also the importers, purchasers, and other birds that they are brought into subsequent contact with.

Ensuring the welfare of imported birds during quarantine should be a Department of Agriculture and APHIS priority. APHIS could significantly improve the health and welfare of imported birds by revising and expanding regulations regarding quarantine facility, husbandry, and disease control requirements.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS

1. As an agency of the Department of Agriculture, recognize that the humane care and treatment of birds during quarantine is equal in importance to protecting American poultry from disease; and

2. Promulgate regulations addressing the special health and welfare needs of quarantined exotic birds.

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[2] 7 U.S.C. 2131-2157

[3] F.R. Vol. 54, No. 49, March 15, 1989, p. 10823

Minimum Competency Standards for Quarantine Operators

Adherence to APHIS quarantine regulations[4] and Cooperative Trust and Bond agreements is central to the responsibilities of employees of federally licensed, privately-operated quarantine facilities. It is imperative that individuals responsible for quarantine facility operations are aware of and comprehend these requirements.

It is similarly important to ensure that the individual(s) responsible for supervising the daily care of birds in quarantine have at least a basic knowledge of avian husbandry and health care. The early detection of disease and other problems depends on their ability to recognize and respond to warning signs that might go unnoticed by untrained individuals.

The Working Group recommends that APHIS devise a system to adequately assess an individual's ability to responsibly operate a quarantine facility. This system could take the form of an examination written and administered by APHIS. Successful completion of the examination could be required before a facility operator received a license.

Recognizing the complex nature of quarantine regulations, it would be helpful if a "layperson's" guide to quarantine requirements was available to quarantine operators to assist in the training of their staff. The Working Group encourages APHIS to develop such a document in the interest of further improving employee adherence to quarantine regulations.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS

1. Require quarantine operators to demonstrate satisfactory comprehension of quarantine regulations and avian care and handling prior to receiving and in order to maintain a quarantine operator's license;

2. Require that quarantine operators' designated representatives also demonstrate their comprehension of quarantine regulations and avian care and handling;

3. Require that a quarantine operator or his/her designated representative be present within a quarantine facility whenever a lot of birds is contained therein and the

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[4] 9 CFR 92

facility is not sealed; and

4. Prepare procedural guidelines and educational materials regarding APHIS quarantine requirements for use by quarantine operators in the instruction of their staff.

Ventilation Standards for Quarantine Holding Areas

While APHIS regulations require that ventilation capacity within quarantine facilities be sufficient to protect the health of quarantined birds, there are no quantifiable methods in use to determine whether that requirement is met. Inadequate ventilation can lead to increased concentrations of ammonia, other noxious gasses and pathogens. In addition, inadequate ventilation can result in extreme temperatures within quarantine facilities.

Ventilation in many quarantine facilities depends on exhaust fans and double-screened openings to the exterior of the facility. These often become clogged with dust and other particulate matter, greatly decreasing their efficiency. Security procedures require that facility entrances such as the "garage" doors common to many quarantines remain closed, limiting the flow of fresh air into the holding areas.

It appears that in some instances, quarantine ventilation is insufficient to ensure the health and comfort of both birds and quarantine staff. Regulations establishing minimum acceptable levels of air exchange per hour, combined with a requirement to eliminate dead air spaces within quarantine facilities, would help ensure maintenance of a more healthful environment for birds and employees.

Maintenance of healthful environment for quarantined birds includes keeping the ambient air temperature within a range healthful to the species and age of the quarantined specimens. This can be accomplished through a combination of improved ventilation and the provision of heating and cooling devices as necessary and appropriate.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS

1. Promulgate regulations that:

   a. Establish and identify methods to enforce quantifiable ventilation standards; and

b. Require screens, fans and other ventilation surfaces or devices to be thoroughly cleaned of particulate matter upon completion of quarantine;

2. Examine potential methods of increasing ventilation using current quarantine design and equipment while maintaining quarantine security, including increasing air exchange through existing openings such as quarantine entrances;

3. Develop alternatives to the current double-screening requirement for external openings into holding areas; and

4. Develop temperature guidelines for quarantine holding areas, with temperature ranges established in consideration of both the species and age of birds in quarantine.

Density Standards for Avian Enclosures Used in Quarantine

Federal regulations require that maximum holding capacities for private quarantine facilities be established and adhered to. However, APHIS Veterinary Services personnel, charged with administering these regulations, are without an established method to determine quarantine capacity. According to Veterinary Services staff contacted by Working Group members, they are generally aware of the size of different quarantine facilities and can therefore determine whether a lot of birds itemized in a permit request will exceed the capacity of a given facility. Veterinary Services personnel further commented that, due to variations in species size, it would be impossible to assign rigid facility capacities based strictly on a total number of birds. Recognizing the validity of this statement, it nevertheless appears that the method now used to determine quarantine capacity does not adequately address the issue of "overcrowding" as required by APHIS regulations.

Perhaps more significant to avian health than the number of birds per quarantine facility is the number of birds per unit area in individual cages or other enclosures. As an example, overcrowding can lead to increased pathogen transmission among quarantined birds. Furthermore, certain species exhibit aggressive tendencies in confinement, and therefore experience lower injury rates when caged in relatively low densities.

By establishing caging density standards rather than facility capacity standards, Veterinary Services could ensure that birds were housed in a manner that accommodated both size and behavioral differences. Caging standards developed for each individual species and/or groups of similar species, such as

those recently suggested by Clubb and Thomsen (1989)[5], could be applied to enclosures of any size to determine the capacity of that enclosure for any species. Facility capacity for an entire lot of birds could be calculated by applying the caging density standards to the enclosures to be used during quarantine. This would allow importers greater flexibility in determining their shipment size and make-up, and provide Veterinary Services staff with a method to confirm that facility capacity was adequate to hold birds itemized in a permit request.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That APHIS develop caging density standards for commonly imported avian species and/or groups of similar species specifying minimum cage height, floor space and perch area required per bird per cage or other enclosure; and

2. That these standards form the basis of determinations regarding quarantine facility capacity.

Minimum Food and Water Requirements for Birds in Quarantine

Adequate nutrition and water are essential to the health of avian species in quarantine. Imported birds require a sufficient volume and variety of foods to ensure their dietary needs are met. A change in feeding behavior may be an indication of or lead to avian health problems. These changes could be better identified through daily replacement of food and water.

Water and food containers can quickly become reservoirs of avian pathogens through contamination by fecal material or other body fluids. Contamination of this type can contribute to the spread of pathogens among birds in quarantine. Proper cleaning and disinfection of food and water containers are crucial to reducing or eliminating pathogen transmission.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS promulgate regulations establishing minimum food and water requirements for birds in quarantine, including but not limited to the following:

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[5] Clubb, S. & Thomsen, J. (1989). A Proposal for Improvement of the Avian Importation Process. Proceedings of the Association of Avian Veterinarians 1989:338-349.

1. That all food and water containers be emptied, cleaned and disinfected at least once every 24 hours, and more often if needed; and further, that containers not be interchanged between cages unless sanitized;

2. That all food and water be replaced at least once every 24 hours, and supplemented more often if necessary; and

3. That all food and water containers be placed and/or fastened in a manner minimizing the possibility for fecal contamination and overturning.

Daily Cleaning of Avian Enclosures in Quarantine

Accumulated avian fecal material and food waste is a potential source of noxious odors and gases. Ammonia, a common byproduct of decomposing fecal material, is reportedly present in unpleasant if not unhealthful concentrations in many quarantine stations. Fecal material can also be a reservoir of avian pathogens. If not adequately confined and removed from individual enclosures on a regular basis, it can potentially lead to the spread of diseases among birds in quarantine.

Changes in avian enclosure design and sanitation procedures would significantly reduce the accumulation of fecal material and other wastes. Recognizing the variety of enclosures now in use in quarantine facilities, the Working Group recommends that sanitation requirements initially emphasize procedural standards for waste removal.

The Working Group recognizes that this recommendation may not be applicable to isolettes used to quarantine individual birds at Department of Agriculture animal importation centers. However, the Working Group encourages APHIS to develop methods of incorporating daily removal of fecal material and other sanitation measures in the quarantine of individual birds.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS require that

1. Cages used in avian quarantine stations be constructed with wire bottoms, allowing feces to fall through the cage floor; and that flights and other enclosures are designed in such a manner that floors are easily cleaned; and

2. Fecal material be removed from all cages, cage trays, cage floors and/or any other surfaces immediately accessible to

birds in quarantine at least once every 24 hours, either by washing, scraping, or sweeping, or by removal of soiled papers if they are used to collect fecal material.

Treatment of Disease and Injuries During Quarantine

The failure to treat infectious avian diseases in quarantine can result in unacceptable morbidity and mortality. Therefore it is incumbent upon both quarantine facility operators and APHIS personnel to ensure that infectious diseases are accurately diagnosed and effective treatment regimens followed.

The identification of other potential or actual avian health threats is similarly important to reducing injury, morbidity and mortality during quarantine. Facility operators should take preventative action to reduce, and when possible eliminate, injuries resulting from aggression; increased susceptibility to disease brought on by inadequate diet; and other potential threats to avian health. APHIS personnel should have a responsibility to work with facility operators in this regard in addition to ensuring their compliance with quarantine regulations. In addition, the services of consulting veterinarians should be used to help with diagnosis and treatment of disease and injury.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That port and consulting veterinarians take an active role in ensuring the health of birds in quarantine, including:

   a. Performing comprehensive examinations of avian shipments upon arrival at a quarantine facility to assist quarantine facility operators in the identification of and prescription of treatment for health problems associated with disease agents, inadequate diet, aggression or other factors;

   b. Ensuring that quarantined birds are vaccinated as appropriate against diseases for which safe, efficacious USDA-approved vaccines are available, including administration of booster shots as necessary for birds vaccinated prior to import;

   c. Ensuring that quarantined birds are tested and treated for common bacterial, fungal and parasitic infections; and

d. Inspecting quarantined birds (entering the quarantine holding area) on at least a weekly basis to further identify any health problems, ensure the separation of aggressive individuals, and confirm that birds are otherwise receiving adequate care and veterinary treatment; and

2. That the National Veterinary Services Laboratory provide a fee-based diagnostic service to aide in identification of viral and bacterial infections.

Alternatives to the "Three-Day Rule"

APHIS regulations prohibit individuals entering quarantine facilities from coming into contact with any birds outside of the facility for the following three days. The purpose of this "three-day rule" is to reduce the possibility that individuals exposed to birds in quarantine will transmit Viscerotropic Velogenic Newcastle Disease (VVND), a poultry-lethal virus, to birds outside of quarantine. Individuals entering quarantine holding areas are further required to "shower in and shower out" to eliminate the potential for mechanical transmission of this virus to other birds.

Enforcement of the three-day rule and showering requirements by APHIS port personnel is inconsistent. A number of incidents of individuals entering one or more quarantine facilities or coming in contact with other birds within a 72-hour period have been reported. Furthermore, quarantine personnel (including APHIS staff) often do not adhere to the showering requirement.

Unlike individuals entering the actual quarantine holding area of an occupied quarantine facility, individuals who come in contact with imported birds prior to the birds' physical entry into quarantine are not required to abide by the three-day rule. Customs brokers, who meet all incoming shipments; unload all birds from airline cargo holds; transport them to the quarantine facility; and subsequently carry those birds to the quarantine holding area, are not required to adhere to the three-day rule. In fact, a Miami customs broker handling shipments for a number of different importers noted that he had never been told that a three-day rule even existed. FWS inspectors and APHIS port veterinarians are similarly exempt from the three-day rule when they come in contact with avian shipments before they are placed within quarantine.

Humans are known to have contracted VVND from infected birds, although such infection is highly uncommon. As the virus can become airborne, human infection is possible without actual physical contact with an infected bird. VVND generally incubates

in humans for one to two days before expressing itself as transient conjunctivitis. The virus is typically shed for one to two days following infection, with the optimum time for virus isolation being 24 to 48 hours after the onset of symptoms. It therefore appears that humans infected with VVND are likely to be contagious on the fourth day following contact, at which time they are no longer restricted from coming into contact with the birds outside of quarantine.[6] There is no evidence of a carrier state in humans.

It is interesting to note that there are no documented cases of people infected with VVND transmitting this virus to birds or to other people. It would seem likely that there would have been at least isolated outbreaks of VVND due to the spread of the virus by infected humans if this method of transmission was possible. It therefore appears that mechanical transmission of VVND remains the only potential source of human contamination of avian flocks.

Although the three-day rule does not appear to be necessary for the protection of U.S. poultry flocks, it does prevent veterinarians and other professional personnel from viewing and treating birds in quarantine. Avian veterinarians are restricted from diagnosing and treating quarantined birds, as to do so prevents them from returning to their avian veterinary practice for three consecutive days. FWS inspectors are similarly restricted from inspecting birds in quarantine as such inspection prevents them from inspecting other avian shipments.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS consider alternatives to the current three-day rule requirement, including, but not limited to:

1. Elimination of the current three-day rule in conjunction with rigid enforcement of regulations requiring showering in and out of quarantine, and wearing a complete change of clothes while in quarantine;

2. Allowing the use of protective garments and/or gear such as physicians' (or other) masks and goggles to prevent the spread of VVND infection to human carriers in conjunction

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[6] Chang, P.W., "Newcastle Disease, CRC, Handbook Series in Zoonoses, Viral Zoonoses;"

Lancaster, J.E., "Newcastle Disease, a Review, 1926 - 1964;" Canada Department of Agriculture, 1966.

with a requirement that all personnel wishing to be exempt from the three-day rule wear such gear while in quarantine; and

3. Requiring all individuals contracting conjunctivitis within three days of coming in contact with imported birds to report such infection to APHIS immediately; that such individuals be prohibited from coming into contact with any birds until such time as they are determined to be free of VVND.

Alternatives to Current Treatment Regimens for Chlamydiosis in Quarantine

Chlamydiosis, an infection caused by the bacteria Chlamydia psittaci, can be transmitted from birds to humans. Although infection in humans is uncommon and usually controllable, deaths attributed to chlamydiosis have been reported. In an effort to prevent the spread of psittacosis between birds in quarantine and to humans during and after the quarantine period, the USDA requires that all psittacines be fed a "balanced, medicated feed ration treatment containing not less than 1% CTC with not more than 0.7% calcium for the entire quarantine period."[7] It is widely believed that this treatment regimen, while effective at controlling the spread of chlamydiosis, does not eradicate the disease in either the active or carrier state unless maintained for a minimum of 45 consecutive days. Moreover, universal treatment of imported psittacines for chlamydiosis could lead to increased bacterial resistance to antibiotics. This would have severe implications for the future treatment of bacterial infections.

Recent advances in Chlamydia trachomatis diagnostics have provided new alternatives enabling the rapid determination of Chlamydia psittaci presence in birds. Enzyme-linked immunoabsorbant assays (ELISA) are widely used in the Federal Republic of Germany to detect chlamydiosis and have been recommended as an alternative to mandatory antibiotic therapy for birds in quarantine in that country. Such a program, using ELISA technology or other rapid diagnostic procedures, might be implemented during quarantine to test birds for chlamydiosis utilizing the same specimens now tested for VVND. Mandatory treatment could be waived for birds determined free of Chlamydia psittaci.

Drug therapies now used in Europe could provide other alternative strategies to eradicate chlamydiosis. An injectable

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[7] 92.11(f)(iii)(2)(B)

doxycycline product with proven efficacy for chlamydiosis is currently used to treat this disease in German quarantine facilities. This product, administered via intramuscular injection approximately every five days, might be a more effective means of eradicating chlamydiosis than the current feeding regimen using chlortetracycline.

APHIS should investigate alternatives to current strategies to eradicate chlamydiosis in quarantine, including the use of doxycycline and other drug therapies to eradicate this bacteria. Identification of effective treatment regimens would benefit aviculture, the poultry industry, and people potentially exposed to Chlamydia psittaci.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS

1. Investigate alternatives to the currently approved, mandatory prophylactic therapy for chlamydiosis, including substitution of a chlamydiosis screening program in conjunction with selective treatment for infected birds;

2. Investigate the potential use of alternative drug therapies for treatment and prevention of chlamydiosis for birds in quarantine; and

3. Expedite the approval of any foreign drugs determined safe and therapeutically effective in the treatment of avian chlamydiosis.

Alternative Disinfectants for Use in Quarantine

Proper disinfection of cages, food and water containers, and other surfaces is critical to reducing the spread of contagious diseases. Currently only one disinfectant is approved for use in quarantine facilities, a phenolic disinfectant known by the commercial name "One Stroke Environ."

There is concern among members of the avian veterinary community that certain viruses, such as psittacine Reovirus, are resistant to One Stroke Environ. It is possible that other avian pathogens are similarly resistant.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That APHIS re-evaluate the effectiveness of One Stroke Environ with respect to psittacine Reovirus and other known pathogens common to exotic avian species; and

2. That APHIS investigate possible alternatives to One Stroke Environ, including the potential for using additional commercial disinfectants and/or disinfection protocols within quarantine.

Alternatives to Current Waste Storage Practices in Avian Quarantine Facilities

Accumulated solid waste in quarantine is a reservoir of avian disease agents and a source of gaseous byproducts including ammonia. Quarantine facilities can lack adequate storage capacity for solid wastes generated during quarantine. This is especially true when quarantine is extended beyond 30 days.

The use of disposals to process waste for release into municipal wastewater treatment systems is declining, due to their tendency to clog and thereby create unhealthful conditions within quarantine. Waste incineration is costly, and the process of transferring wastes to an incinerator increases the potential for release of disease agents to the environment.

A separate area or container for waste storage, either within or attached to a quarantine facility, could provide an alternative to waste storage within the holding area. Such an area or container could be adequately secured to isolate wastes from the exterior and interior environment. An independent ventilation system could direct fumes to the exterior of the facility, preventing contamination of the quarantine holding area. Access could be limited to a single sealed door or other opening leading directly from the quarantine holding area to the waste area or container.

Upon release of a lot of birds from quarantine, wastes could be removed from storage areas for disposal at an approved facility. If the waste were stored in a waste container, the container could be taken to an approved disposal site for emptying.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that APHIS consider alternatives to the current waste storage system used by licensed quarantine facilities.

Disposal of Solid Waste Accumulated During Avian Quarantine

There is no evidence to indicate that poultry-lethal pathogens are present in waste produced by birds determined to be free from communicable diseases of poultry. Therefore, it does not appear that waste accumulated during avian quarantine poses a threat to American poultry, unless communicable diseases of poultry are discovered during quarantine.

Current regulations require APHIS personnel to accompany all solid waste to an approved disposal facility upon release of a lot of birds. Although it is possible that without such supervision, quarantine facility personnel could dispose of quarantine wastes in an unapproved manner, such improper disposal, while violating municipal waste disposal statutes, would not pose a threat to the U.S. poultry industry.

Veterinary Services' staff are required to perform a great number and variety of responsibilities to protect American agriculture. At the same time they must work within certain budgetary and personnel constraints. As waste disposal as described above does not threaten agriculture, APHIS might more effectively allocate staff time to responsibilities other than escorting quarantine waste to a landfill or other disposal facility.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That upon determination that a lot of birds is free from communicable diseases of poultry, transfer of wastes accumulated during that quarantine to a disposal facility be allowed without the supervision of APHIS personnel; and

2. That solid waste, excepting avian carcasses, may be disposed of as soon as approval has been received for a shipment's release from quarantine, independent of the actual date or time of the birds' release.

Disposal of Avian Carcasses Upon Release From Quarantine

A lot of birds is released from quarantine once it has been determined that the lot is free of VVND and other communicable diseases of poultry. Tests performed on samples taken from birds that died prior to arrival to or while in quarantine are used in part to make such a determination. If VVND or other communicable diseases of poultry are discovered in the tissues of dead birds then the entire avian shipment is refused.

If a lot of birds is determined free of communicable diseases of poultry, then it is clear that the carcasses of birds that die during quarantine do not pose a threat to the U.S. poultry industry. Necropsy and study of birds dead on arrival or dying during quarantine would provide information of tremendous benefit to future avian health care, and therefore importers and subsequent consumers. Rather than being a source of contagious disease, avian carcasses could facilitate research leading to future control and perhaps eradication of certain avian diseases in quarantine.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That upon release of a lot of birds from quarantine, carcasses of birds not required by APHIS be made available to the importer for necropsy and further study; and

2. That specific guidelines be established for the release of these carcasses.

SPECIFIC RECOMMENDATIONS REGARDING AVIAN TRANSPORT REQUIREMENTS

Inspection of Avian Imports

While FWS is responsible for ensuring compliance with humane-transport regulations, FWS port staff generally do not meet incoming avian shipments. Furthermore, FWS staff receive little if any training in avian health or care, and are therefore presumably unqualified to determine the causes of mortality of birds dead on arrival.

APHIS personnel, while having no jurisdiction with respect to the FWS humane transport regulations, meet and supervise the uncrating of all incoming shipments. Avian imports are generally met by both a port veterinarian and animal health technician who escort each lot of birds to a quarantine facility. The animal health technician is subsequently responsible for monitoring the uncrating, identification and counting of all birds (noting those dead on arrival) and preparing a written record of this information.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that FWS and APHIS share responsibility for implementation and enforcement of avian humane transport regulations, specifically that:

1. APHIS personnel:

   a. Inspect all incoming avian shipments to verify compliance with humane transport regulations and identify cases of transport-induced injury or mortality;

   b. Perform necropsies on a representative sample of all specimens dead on arrival to determine cause of death;

   c. Maintain accurate records of the species and number of all specimens dead on arrival, along with the suspected cause of death, and forward copies of all such records to FWS Law Enforcement port staff;

   d. Immediately notify FWS personnel in the event of suspected humane transport violations;

   e. Cooperate with FWS Law Enforcement and the Justice Department in the event that humane transport violations result in court action; and

f. Complete CITES "health and welfare checklists" accompanying imported shipments and return them to the country of export within 48 hours of a shipment's arrival, and provide a copy of all such checklists to FWS Law Enforcement; and

2. That FWS personnel:

a. Confer with APHIS officials regarding any cases of suspected transport violations;

b. Physically inspect all shipments if transport violations are suspected;

c. Assume primary responsibility for follow-up of suspected transport violations;

d. Investigate the feasibility of establishing civil penalties for minor transport violations;

e. Inspect all U.S. avian exports prior to shipment to ensure compliance with U.S. humane transport regulations, CITES requirements, and known foreign requirements;

f. Complete a CITES health and welfare checklist to accompany all shipments exported;

g. Maintain a permanent record of all CITES crating checklists received from importing countries and use information contained therein to assess and improve the effectiveness of humane transport regulations and the checklist itself; and

h. Make information derived from the checklists available to the public.

Species-Specific Shipping Container Requirements and Density Standards

Shipping container requirements as specified by both FWS and the International Air Transport Association (IATA) address the need to minimize crowding within containers and for all birds to receive adequate ventilation. The former issue could be more effectively addressed by establishing minimum and maximum container density standards for species of similar size and behavior patterns. Density, expressed in unit area required per bird, could be combined with a minimum height requirement to determine the sizes and number of containers needed for each avian shipment. Combined with a maximum number of birds allowed

per shipping container (again, species-specific), density guidelines would greatly reduce the potential for suffocation now associated with certain shipments.

Additional requirements, such as perch dimensions and feeding container design should also be determined on a species-specific basis. Requirements tailored to individual or similar species should take into account the size, behavior, and relative age of birds to be shipped.

In addition to improving transport conditions for the species in trade, standards of this type would simplify exporters' ability to comply with transport regulations, allowing them to use a variety of container sizes while limiting the number of birds that they could place within any one container.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that avian container standards be implemented expeditiously and designed in a manner:

1. Incorporating shipping density standards for species of similar size and behavior patterns into current FWS regulations and IATA guidelines;

2. Combining maximum allowable density, expressed in unit area required per bird, with a minimum height requirement for species or similar species;

3. Determining the maximum number of birds allowed per individual shipping container or compartment (independent of container size or density requirements) based on species' morphology and behavior;

4. Establishing requirements for the provision of perches that:

    a. Are based on species size and behavior requirements and expressed in unit length required per bird;

    b. Require perch space to be sufficient to allow all birds to perch simultaneously;

    c. Require perches to be placed at similar heights throughout the container, and located in a manner reducing aggression and minimizing contamination of food and water containers; and

    d. Provide exemptions in cases where perches would be unnecessary or detrimental;

5. Establishing food and water container design standards which:

   a. Minimize aggression by maximizing food accessibility;

   b. Minimize the potential for injury; and

   c. Allow food and water to be replenished as needed without opening the actual shipping container; and

6. That regulations for such standards be developed in consideration of existing FWS regulations and IATA guidelines, in addition to the following:

   a. Inter-specific aggression;

   b. Intra-specific aggression;

   c. Additional behavioral patterns, such as tendency to crowd together or to attempt flight or escape;

   d. Food and water requirements; and

   e. Other physiological needs.

Temperature, Ventilation, and Atmospheric Pressure During Transport

Extreme temperatures and limited air availability are perhaps the most significant sources of transport-induced mortality. Although proper shipping container design can reduce the potential for overheating and suffocation, maintenance of birds in a healthful ambient environment during transport is critical to ensuring their health.

The environment surrounding shipping containers should be maintained whenever possible within a specified temperature range. The species and age of specimens to be transported should be considered when determining these temperature ranges. During air transport, the maintenance of atmospheric pressure within cargo holds at levels acceptable for the species in transport is similarly important to minimizing transport induced stress and mortality.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That regulations be developed specifying acceptable temperature ranges for the ambient environment surrounding birds in transport;

2. That these regulations consider both the species and age of the specimens transported;

3. That avian shipping containers be stowed in a manner ensuring sufficient ventilation and protecting birds from extreme temperatures during transport;

4. That cargo holds be maintained at an atmospheric pressure of not less than that found at 8,000 ft. above sea level; and

5. That airline cargo holds be equipped with temperature recording devices to record the minimum and maximum ambient air temperatures present within the hold during transit.

Reduction of Potential for Disease Transmission by Isolating Shipments from Different Countries of Origin

Species indigenous to a certain region develop an increased resistance to contagious diseases and infections prevalent in that area. Individual birds can be relatively unaffected by certain diseases common to their region, and can even act as permanent carriers of disease agents common to their location without ever expressing symptoms.

Birds exposed to foreign viruses or other disease agents are often far more susceptible to them than are birds from the region where the disease is common. Lacking the necessary immune response, birds can suffer greatly increased morbidity and mortality rates as a result of infection by foreign diseases.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That the transport of more than one shipment of birds in a single cargo hold be prohibited when such shipments are not being quarantined in the same facility; and

2. That whenever possible, birds from different countries of origin or export be quarantined separately, either through use of separate quarantine facilities or through compartmentalization of individual quarantines.

Emergency Food Supply

The willingness and necessity of animals to drink or feed during international transport is dependent upon a number of factors including morphology, metabolism, behavior, age, pre-transport conditioning and length and conditions of transport. While certain species benefit from the provision of food and water within their shipping containers, others may either not benefit or be harmed by the presence of these materials. This is not to imply that animals can live indefinitely without adequate sustenance. Rather it is to note that for shipments of limited duration, inclusion of food and water within shipping containers may not be in the best interest of the birds involved.

Perhaps the clearest example is that of non-self feeding chicks. Prior to weaning, juvenile birds can neither eat nor drink on their own. Inclusion of a filled water container in a shipment of chicks, rather than providing needed moisture, could result in wetting of the birds, potentially leading to hypothermia and death. As another example, many wild-caught birds, unaccustomed to the stress of captivity or transport, will refuse to feed in transit. Furthermore, birds shipped in darkness or semi-darkness (which tends to calm diurnal avian species) will often be unable or unwilling to feed.

It must not be ignored, however, that certain species may require not only that food be available but that food be administered by hand during the normal course of transport. Species which experience significant mortality during transport due to an inability to feed should not be imported for the purposes of the pet trade.

As currently written, the humane transport regulations generally do not require that birds be supplied with food during shipment nor that surplus food accompany shipments to the United States. The requirement that food be supplied by the shipper unless otherwise contracted for and that feeding and shipping instructions be attached to all shipping containers does not obligate either the shipper or the carrier to feed the animals during shipment or to maintain a surplus supply of food. However, the requirement that the shipping instructions be in conformance with accepted standards of humane care implies that food be available if necessary.

IATA guidelines, which state that birds should not require food for a period of 24 hours during transport, do however provide a list of suggested foods that can be offered to birds in the event of an emergency. It is unreasonable to expect that these foods would be readily available in or near an airport facility, or that airline staff would be able or willing to acquire necessary supplies. This is especially true if delays are due to inclement weather, and/or if an airplane is forced to land in a relatively small airfield. To ensure the health of birds in the event of a delayed arrival at the port of entry, it is therefore necessary to ensure that adequate food accompany avian shipments.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That all shipping containers incorporate food and water containers appropriate to the species in transit;

2. That food and water within shipping containers be provided as needed to ensure that moisture and caloric requirements of birds are met during transport; and

3. That a prepackaged "emergency" food supply accompany all avian shipments for use in the event of unexpected layovers or delays, and that the food supply:

   a. Be sufficient to meet the caloric and moisture needs of all birds in transit for a minimum period of 48 hours;

   b. Contain foodstuffs familiar to the birds in transit; and

   c. Be accompanied by written instructions (provided in English) regarding the care and feeding of the birds in transit.

Responsibility and Liability

There is confusion regarding the assignment of responsibility and liability for ensuring that exotic birds are shipped in a humane and healthful manner. Current regulations specify that the importer is ultimately responsible for the transport conditions of birds entering this country. This responsibility is shared, however, with the carrier and exporter.

FWS port inspectors indicated to the Working Group that they were unsure who was responsible for violations of transport regulations. One supervisory inspector commented that the FWS could not take action against foreign entities, and therefore the importer, not the carrier, would be found at fault in most instances of transport violations. An inspector at a second port stated that humane transport was the responsibility of the carrier until imported birds were turned over to a shipping broker upon arrival. The implementation and enforcement of humane transport regulations would be improved, and the rights of the parties involved better protected, if individual and shared responsibilities were clarified.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that the responsibilities and liabilities of exporters, importers, carriers, and brokers regarding adherence to and potential violations of import and export regulations are clarified, including determination of:

1. Parties responsible for ensuring that container requirements conform to FWS specifications;

2. Parties responsible for mortality caused by failure of a carrier to maintain adequate temperatures or ventilation;

3. Parties responsible for care of birds in the event of unexpected delays or layovers, and parties liable for mortalities induced by the same; and

4. Parties responsible for lost or otherwise missing documents, including the CITES checklist.[8]

Use of CITES Transport Checklist

At the seventh meeting of the Conference of the Parties to CITES, the United States renewed its commitment to requiring that all live animal shipments be accompanied by a health and welfare crating checklist, to be completed prior to departure from the country of export and upon arrival in the country of import. Recognizing the strength of the U.S. delegation's support for the checklist, it seems incumbent upon FWS to implement the checklist requirement for all U.S. avian exports.

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[8] CITES Resolution Conf. 7.13

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that FWS promulgate regulations and otherwise implement CITES Resolution Conf. 7.13, such implementation to include:

1. Preparation of a checklist in accordance with the CITES Resolution to accompany all avian exports;

2. Provision of adequate personnel at ports of exit to physically inspect all outgoing shipments and to complete the checklist as required; and

3. Continued examination of methods to improve the checklist, including assisting in identification of alternative formats and/or procedures for determining that birds are being exported in a humane and healthful manner, and communication with foreign CITES authorities regarding the transport conditions of avian shipments; and

URGES the United States government to prepare a Resolution for introduction at the eighth meeting of the Conference of the Parties to CITES recommending that guidelines be established for including transport data and information regarding checklist utilization as part of each parties' CITES annual report.

SPECIFIC RECOMMENDATIONS REGARDING CAPTIVE BREEDING

Promotion of Captive Breeding

Aviculturists are making increasing contributions to avian conservation. In addition to establishing breeding techniques for the captive propagation of several endangered species, they are supplying increasing numbers of birds for the U.S. pet market. These captive-bred birds provide an alternative to the wild-caught birds presently imported and sold in large numbers.

With the demand for avian pets increasing in the United States, it is important that opportunities and incentives to encourage captive breeding programs are developed. In time, captive breeding can replace the import of wild-caught birds for use as pets, thereby contributing to species conservation in the wild.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that FWS:

1. Encourage captive breeding programs as an alternative to the import of wild-caught birds through expansion of government research programs and supporting other research efforts;

2. Develop increased opportunities for information exchange with respect to captive propagation, including sponsorship of seminars, publications, and other forums for communication; and

3. Develop a public information campaign regarding exotic avian pets, discussing, within the allowable limits of commerce regulations, the importance of avian conservation in the wild and the benefits of purchasing captive-bred birds in lieu of wild-caught birds.

Eligibility To Import Wild-Caught Birds For Captive Breeding

A procedure must be adopted to allow federal agencies to identify individuals and private or public organizations eligible to import wild-caught birds to use or sell for captive breeding purposes and those eligible to buy such imported birds for captive breeding. This procedure must be structured in such a manner that the import opportunities afforded those individuals or organizations breeding exotic avian species in captivity are

not taken advantage of by non-breeders who wish to obtain wild-caught birds. At the same time, it must be flexible enough to ensure that the rights and confidentiality of aviculturists, whether individuals, public organizations, private commercial facilities, or other entities, are protected.

The success of any procedure to identify aviculturists and/or breeding programs will depend to a large extent on the participation of those individuals most affected by this issue--the aviculturists themselves. The procedure should not be so expensive or complex that it excludes participation by legitimate aviculturists or importers. But it must be stringent enough to ensure that wild-caught birds are sold only to breeders whose aviaries meet acceptable standards for caging, care and cleanliness and who have proven capability, or realistic potential, to produce captive-bred offspring in sufficient numbers to contribute to a successful breeding program. It is therefore important that federal agencies charged with implementing any new import control system work directly with representatives of the avicultural community to develop and implement eligibility standards. This could be accomplished as part of a larger cooperative effort to enhance aviary management and captive breeding programs through a voluntary aviary improvement program.

Prior to the establishment of a comprehensive aviary improvement plan, it may be necessary to adopt a simple, interim system whereby USDA-accredited veterinarians inspect private and commercial aviary facilities to ensure that they meet standards agreed upon by APHIS, FWS, aviculturists and other affected groups. This inspection report would then be forwarded to APHIS/FWS for registration of the aviculturist as eligible to purchase wild-caught birds for captive breeding. Sales of such birds by licensed importers to registered aviculturists should require that the licence and registry numbers appear on each invoice and that each wild-caught bird imported for captive breeding be identified and accounted for by the importer. Records of such sales as well as mortality records should be subject to inspection by APHIS/FWS.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That federal agencies collaborate with the avicultural community, avian veterinarians, and other involved groups in developing agreed standards and procedures for registering legitimate breeders who wish to import, buy or sell wild-caught birds for captive breeding;

2. That minimum standards for aviaries be adopted as part of a national aviary improvement plan, and that such a plan include periodic inspection by USDA-accredited veterinarians to determine whether aviaries meet these standards;

3. That those aviculturists who meet the agreed standards be registered by the appropriate federal agency as eligible to import, buy or resell wild-caught birds for captive breeding; and

4. That wild-caught birds imported for captive breeding purposes by any licensed importer be held in a USDA-approved facility until sold and transferred to a registered aviculturist, and that bills of sale record the licence and registry numbers of both seller and buyer and remain available for inspection by the appropriate federal agency.

SPECIFIC RECOMMENDATIONS REGARDING PRE-EXPORT MORTALITY, HOLDING AND VACCINATION

Pre-Export Holding Guidelines

Little formal research has been done on the subject of pre-export disease and mortality of wild-caught birds intended for export. Information available from scientists and veterinarians visiting wildlife trappers and exporters indicates that changes in current holding procedures would significantly improve the health of birds taken from the wild for export.

Controlling the spread of infectious disease is of primary importance to limiting pre-export disease and mortality. Birds taken from the wild may be exposed to a variety of avian disease agents during the transport and holding process. Stress resulting from an unfamiliar or inadequate diet, dehydration, overheating, or a combination of these factors further increases avian susceptibility to infection. Often lacking access to veterinary treatment, exporters are currently unable to reduce avian mortalities or disfigurement resulting from infection.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That the United States initiate the preparation of a Resolution for introduction at the eighth meeting of the Conference of the Parties to CITES recommending the establishment of guidelines for the care of wild-caught birds prior to export; and

2. That this Resolution incorporate suggested guidelines including, but not limited to those for:

   a. "All in and all out" management of foreign holding facilities;

   b. Provision of a fourteen day pre-export conditioning period;

   c. Disinfection of cages;

   d. Sanitization of water supply;

   e. Preparation and sanitation of food supplies; and

f. Establishment of disease control mechanisms, including:

(1) Internal and external parasite control; and

(2) Use of appropriate antibiotics, antifungal compounds, and vaccines.

Pre-Export Vaccination

Infectious diseases can result in significant mortality in imported birds. USDA-licensed vaccines have recently become available for a number of viral diseases, and are being administered to exotic birds in the United States by avian veterinarians.

Veterinary research indicates that vaccination schemes for major avian infectious diseases can reduce the spread of these diseases when initiated prior to export.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS

1. That the federal government support the development of safe and efficacious vaccines for major avian diseases and determine indications for their use;

2. That upon development of such vaccines, pre-export vaccination be required as appropriate for exotic birds intended for import into the United States;

3. That the administration of these vaccines be verified on the health certificate accompanying each shipment of birds imported into the United States; and

4. That vaccination programs be developed in consideration of the country of origin and export, species, and age of specimens to be exported.

Pre-Export Mortality of Wild-Caught Birds in International Trade

Little quantitative information is available regarding the pre-export mortality, injury or disease rates of exotic birds captured for international export. Information obtained during several informal studies indicates that a significant percentage of birds removed from the wild for the purposes of international

trade can die prior to export. Careful scientific study of this issue is therefore necessary if exporting and importing nations are to determine the effects of sustained take on wild populations.

THE COOPERATIVE WORKING GROUP ON BIRD TRADE

RECOMMENDS that the U.S. Departments of Interior and Agriculture:

1. Support the development of research programs to:

   a. Identify the levels of and those factors contributing to the injury, morbidity and mortality of birds intended for export;

   a. Survey the incidence and severity of disease prior to export;

   b. Identify husbandry factors contributing to injury and mortality of birds intended for export; and

2. Work with exporting nations to develop and implement procedures that will reduce pre-export injury, disease and mortality.

CONCLUSION

The Cooperative Working Group on Bird Trade's analysis of U.S. exotic avian imports, exports and use benefitted from the shared expertise of all Group members. Without the cooperation of individuals representing diverse constituencies - the pet industry, animal welfare and conservation organizations, aviculturists, zoos and avian veterinarians - the preparation of a truly comprehensive report and recommendations regarding these issues would have been impossible.

Working Group members recognize that their report and recommendations represent a small part of the much larger effort required to enhance the conservation of exotic avian species while also responding to the needs of aviculture and the avian companionship industry. Recommendations alone will not benefit either exotic avian species in the wild or those individuals and organizations concerned with their use. Rather, it will be the development and implementation of new federal policies and procedures based on these recommendations that will protect both wild avian populations and the interests of research, education, aviculture and the pet trade. In addition, the effectiveness of federal and international actions will rely on the federal government's access and response to new information as it becomes available.

With this in mind, Working Group members will continue their cooperative analysis of the trade and use of exotic avifauna, including monitoring the implementation of these and subsequent recommendations as more is learned about these issues. The Working Group invites and encourages representatives from relevant federal agencies and Congressional committees to participate in future meetings.