

DEVELOPING A BIOSECURITY PROGRAM

Identify the risks. Put prevention into practice.

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START WITH A PRACTICAL PLAN

A biosecurity program brings together the people, procedures and physical controls that reduce the introduction and spread of infectious agents. Build the program around your species, production system and disease risks. The goal is consistent risk reduction, supported by clear responsibilities and workable daily routines.

01 DEFINE THE SCOPE AND RESPONSIBILITIES

Identify the sites, production units and activities covered by the plan. Appoint a person to coordinate implementation, assign staff responsibilities and involve an aquatic animal health professional. Include contractors and service providers where their work affects fish health or site hygiene.

02 MAP HOW PATHOGENS COULD MOVE

Draw a site map showing water supplies and drainage, stock entry points, production areas, access routes and waste handling. Trace movements of fish, eggs, people, vehicles, vessels and equipment. Consider wildlife, feed and other materials where relevant to the species and system.

03 PRIORITIZE THE RISKS

Identify the disease hazards of concern and assess the likelihood and consequences of entry or spread through each pathway. Address the highest risks first. Hazard analysis and critical control point principles can help structure this work, but a biosecurity plan must be tailored to the facility; it does not guarantee disease exclusion.

04 ESTABLISH EXTERNAL BARRIERS

Reduce the chance of introducing infection. Verify the origin and health documentation of incoming stock; use isolation or quarantine where appropriate. Manage visitor access, deliveries and shared equipment. Assess incoming water risks and suitable treatment options. Use lawful, welfare-conscious measures to reduce contact with wildlife.

05 LIMIT SPREAD WITHIN THE SITE

Define hygiene zones and clearly mark transitions between them. Dedicate equipment and protective clothing to units where practical, or apply suitable cleaning and disinfection before transfer. Plan workflows to minimize movement from affected or higher-risk groups to lower-risk groups. Manage mortalities and waste to prevent cross-contamination.

MAKE THE PROGRAM WORK

Write clear procedures. Check daily performance.

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06 TURN CONTROLS INTO CLEAR PROCEDURES

For each control, write a standard operating procedure that states its purpose, location, responsible person and trigger or frequency. Describe the steps, required supplies, safety measures and records. State what acceptable completion looks like, what to do if a check fails and who can authorize a return to normal operations.

CLEANING AND DISINFECTION

Select products for the target pathogen, surface and application. Check supporting efficacy data and current label directions for concentration, contact time, water conditions, compatibility, personnel protection and disposal. Remove organic material and clean before disinfection; rinse between incompatible products as required. Protect fish, water supplies and receiving waters from unintended exposure.

Footbaths require more than a quick step through solution. Remove visible soil from footwear first, maintain the labeled concentration and contact time, and replace solution according to the label and site procedure. Provide suitable boots and a practical station; dedicated footwear may be a better control where effective footbath use cannot be achieved.

07 TRAIN STAFF AND PROVIDE RESOURCES

Demonstrate the procedures and check that staff can perform them correctly. Place instructions and supplies where the work occurs. Explain entry requirements to visitors before arrival and supervise access as needed. Provide refresher training after changes and make it easy for staff to report missing supplies or impractical steps.

08 MONITOR HEALTH AND CHECK COMPLIANCE

Track mortality, appetite, behavior and relevant water quality indicators. Define site-specific triggers for investigation with an aquatic animal health professional. Check that access controls, cleaning stations and other barriers are functioning. Keep records of stock movements, visitors, cleaning, product preparation, training and corrective actions.

09 PREPARE FOR A SUSPECTED OUTBREAK

Document who to contact, how to restrict movements and separate affected groups, and how to obtain diagnostic samples. Include safe mortality handling, communication responsibilities and applicable reporting requirements. Investigate unusual changes promptly; coordinate further actions with the aquatic animal health professional and relevant authorities.

10 REVIEW AND IMPROVE

Set a review schedule and reassess the plan after an outbreak, control failure, new disease threat or operational change. Use observations, records and staff feedback to identify gaps. Assign corrective actions, deadlines and a person responsible, then confirm that the changes work in practice.

IMPORTANT: General educational guidance only. Develop site-specific procedures with an aquatic animal health professional and follow applicable regulations, current product labels and safety data sheets.

REFERENCE: WOAHA Aquatic Animal Health Code, chapters on Biosecurity for aquaculture establishments and Disinfection of aquaculture establishments and equipment. Updated October 2026.