

Auburn University and USDA/Natural Resources Conservation Service

Alabama Aquaculture Best Management Practice (BMP)

General Operations and Worker Safety

BMP No. 14



Definition

In aquaculture, like in other kinds of agriculture, worker safety and prevention of adverse environmental impacts should be major concerns in all operations. Moreover, farm infrastructure and equipment, which are properly maintained, and a neat appearance of the grounds convey a positive image of environmental stewardship and responsibility.

Explanation

Best management practices (BMPs) for preventing environmental impacts of specific aspects of pond management are presented in other guide sheets. In preparation for conducting pond operations, aquaculturists must store and handle fuels, lubricants, and agrichemicals. They must operate tractors, trucks, aerators, and other equipment. Moreover, this equipment and the farm infrastructure should be provided proper maintenance. These general operations necessary to support specific pond management tasks should be done safely and in an environmentally responsible manner. The purpose of this guide sheet is to provide BMPs for general farm operations and worker safety.

Responsible operations

Practices

- *Secondary containment should be provided for fuel storage, and the storage area should have a sign warning of flammable material.*

- *Chemicals should be stored in a well-ventilated, water-tight building. The concrete floor should slope to a center basin for containing spills. A warning sign should be posted and doors kept locked.*
- *Used oil and out-of-date chemicals should be disposed of in a responsible manner according to applicable state and federal regulations.*
- *Solid wastes should be collected on a regular basis and disposed of in a responsible way according to applicable state and federal regulations.*
- *Workers should be provided adequate instructions and training on safety in all farm operations, including regular refresher training.*
- *Storage and staging areas should be designed to prevent erosion.*
- *Vegetative cover should be encouraged on farm grounds, fences and buildings should be maintained well, and junk piles should not be allowed.*

Implementation notes

Secondary containment for fuel storage should be provided for individual tanks over 660 gallons or a combination of tanks over 1,320 gallons. The containment volume should be 110% of the largest tank. Additional details on spill prevention control and countermeasures can be found in Alabama NRCS Guide Sheet No. AL 701.

Oil leaks from tractors, trucks, and other equipment should be prevented through good maintenance. Oil changes should be done in a way to avoid spills. Used oil should be sent to a recycling center. Out-of-date chemicals and wastes collected after chemical spills should be confined in sturdy plastic containers, labeled, and sent to a hazardous waste disposal site. Solid waste containers should be installed at appropriate locations on the farm. These containers should be emptied on a regular basis, and the refuse disposed of at a permitted landfill or put in a county-operated dumpster. Refuse should not be allowed to accumulate on the grounds.

Workers should be given proper instructions on farm safety such as those found in "Safety for Fish Farm Workers" published by USDA/Cooperative State Research, Education and Extension Service. Material Safety Data Sheets (MSDS) provided with chemical products should be available to workers. Pesticides should be stored and used according to instructions provided on labels.

The appearance of a farm is important, for a well-organized and properly maintained farm

conveys the message that operations are being conducted in a responsible manner. The visitor or passerby is much less likely to question the environmental status of a farm with a good appearance than of one that is not properly maintained. It is especially important to prevent erosion, provide vegetative cover, and maintain roads, fences, and building in good condition. Junk piles and abandoned, worn-out equipment on the grounds are especially detractive.

References

Alabama Soil and Water Conservation Committee. 1995. Protecting water quality on Alabama's farms. Alabama Soil and Water Conservation Committee, Montgomery, Alabama, 124 pages.

Minchew, D.C. 1999. Safety for fish farm workers. USDA/Cooperative State Research, Education and Extension Service, 16 pages.

USDA NRCS AL Guide Sheet Nos.

AL 701 – Spill prevention control and countermeasures.

AL 561 – Heavy use area protection.



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