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Settling Ponds:

In an article in the August 2000 issue of the Global Aquaculture Advocate, Dr. Claude Boyd, water quality expert at Auburn University, concluded that settling ponds were the best technology for treating the effluent from shrimp ponds:

Shrimp farmers may think settling basins have to be huge, but they're wrong. Consider a 500-hectare shrimp farm with 1-meter-deep ponds operated with an average daily water exchange of 2%. The daily water exchange volume would be 100,000 m³, and on a day when 20 hectares of ponds are completely drained, the effluent volume would increase to only 300,000 m³ per day. To provide a detention time of eight hours, a 100,000-m³ settling basin would be necessary. This would require a 1-meter-deep settling basin of 10 hectares or a 1.5-meter-deep settling basin of 6.67 hectares, representing only 2% and 1.3% of the farm area.

Even if settling basins are constructed in duplicate and with reserve capacity, they still would not require more than 4 to 6% of the area of a large farm. Of course, on a small farm, the proportion of farm area devoted to settling would have to be much larger, often 10 to 20% of farm area. Nevertheless, settling basins seem to be the only practical means of treating effluents from small or large shrimp farms. Information: Claude Boyd, Auburn University, Department of Fisheries and Allied Aquacultures, Alabama Agricultural Experiment Station, Auburn University, AL 36849 USA (phone 205-826-4786, email ceboyd@acesag.auburn.edu).