

CASE STUDY

Biotifx® Ultra Resolves Odor Issues at Beverage Manufacturer

SUMMARY

A west coast beverage manufacturer with evaporative wastewater holding ponds was experiencing strong odor issues and a persistent sludge cap with their ponds. After a single treatment with Biotifx® Ultra, the odors and sludge cap were eliminated.

BACKGROUND

A west coast beverage manufacturer was operating evaporative wastewater storage ponds. They produced an average of 35,000 gallons of wastewater per day. The site consisted of 18 storage ponds, each roughly 1.1 million gallons in size. Once a given pond was filled, it would be allowed to dry completely before excavating solids and refilling. The typical cycle was one month to fill the pond followed by three months of drying. The issue was that the ponds would form a scum layer on top and then become anaerobic and malodorous. A secondary concern was that the scum layer on the top was inhibiting evaporation of the water.

OBJECTIVE

To demonstrate reduction of odors and removal of scum layer on ponds treated with Biotifx® Ultra compared to untreated ponds.



Image 1: Pond before treatment



Image 2: Pond two weeks after treatment

MATERIALS AND METHODS

Two ponds of similar condition were chosen for the trial. One was treated and one was designated as control. The treated pond received a single 20kg dose (5ppm) of Biotix® Ultra. Product was hydrated and dosed from shore at multiple points.

Base line data for all ponds included pictures of scum layer, basic water chemistry monitoring, as well as an odor survey. Odor surveys were conducted by placing a water sample from each pond into a sealed jar. Sample jars were then allowed to rest for 10 minutes. After resting jars were shaken vigorously for 20 seconds, de-capped and then smelled by each of the three surveyors. Surveyors (including plant personnel) then ranked the odor from 1-10. Ten being the worst and one being least odorous. The procedure was repeated at 2 and 3 weeks after treatment.



✘ = Treatment location

Image 3: Map of treated pond showing treatment locations. Note that the pond was empty during the time the aerial photo was taken.

RESULTS

After two weeks of treatment, the scum layer on the pond was removed and odor reduction was much greater than in the control pond. Three weeks after the initial treatment, the scum layer and odors had been eliminated while both issues still persisted in the control pond.

Average Odor Ranking			
	Start	2 Weeks	3 Weeks
Control	7	6	6
Treated	6	2	1

Table 1: Odor rankings on a scale of 1 to 10, with 10 being the highest and 1 being the lowest