

CASE STUDY: BANANA FARM IRRIGATION

Self-Cleaning Irrigation Filters Bring Maintenance and Labor Costs to Zero



Mesa Agro-Industrial needed a maintenance-free, automatic, self-cleaning filtration system for a 1000+ acre banana and green plantain farm in Puerto Rico.

Mesa needed to help their client protect the drip irrigation system that supplies water to the banana and plantain groves. The farm pulls water from an irrigation canal that has suspended particles comprised of various sediments. Left unfiltered, over a short amount of time, the canal water was quickly plugging the T-tapes of the irrigation lines.

Mesa Agro-Industrial came to Forsta Filters for the solution. Based on the 8" line, a flow rate ranging from 1300-2000gpm, an available pressure over 40psi, and an 8" line, Forsta proposed its D8-180 model filter with a 100 micron screen. This filter model provided the customer with 9.25 sq ft of screen area.

Installation of the D8-180 was simple. The parallel flange configuration allowed the filter to be integrated easily with the existing straight pipeline (see photo above). After almost a full year in operation, the T-tapes of the irrigation lines have not become plugged. With the help of Forsta Filters, Mesa Agro-Industrial eliminated the maintenance costs for the banana/plantain farm. Maintenance and labor costs resulting from plugged equipment dropped from \$50-70,000 a year, to \$0.

The farm's D8-180 filter performs a short backwash sequence (20 seconds) 2-3 times during its 12 hours of continuous operation, with an average total of only 225 total gallons used per day for backwash. This is in comparison to sand or disc filters which can require thousands of gallons of water, over long periods of time, to backwash at the same flow rates.

Mesa-Agro Industrial now recommends Forsta self-cleaning irrigation filters to all customers with sediment removal applications.

Forsta self-cleaning filters for irrigation are the ideal solution for protection of all irrigation equipment including: drip irrigation, spray nozzles, sprinkler heads, emitters and more. Depending on the irrigation application, Forsta offers self-cleaning filters in a variety of configurations.

Forsta recommends screens for irrigation filtration from 50-4000 micron. Single units handle up to 7350gpm, with screen area up to 24.5 sq ft

