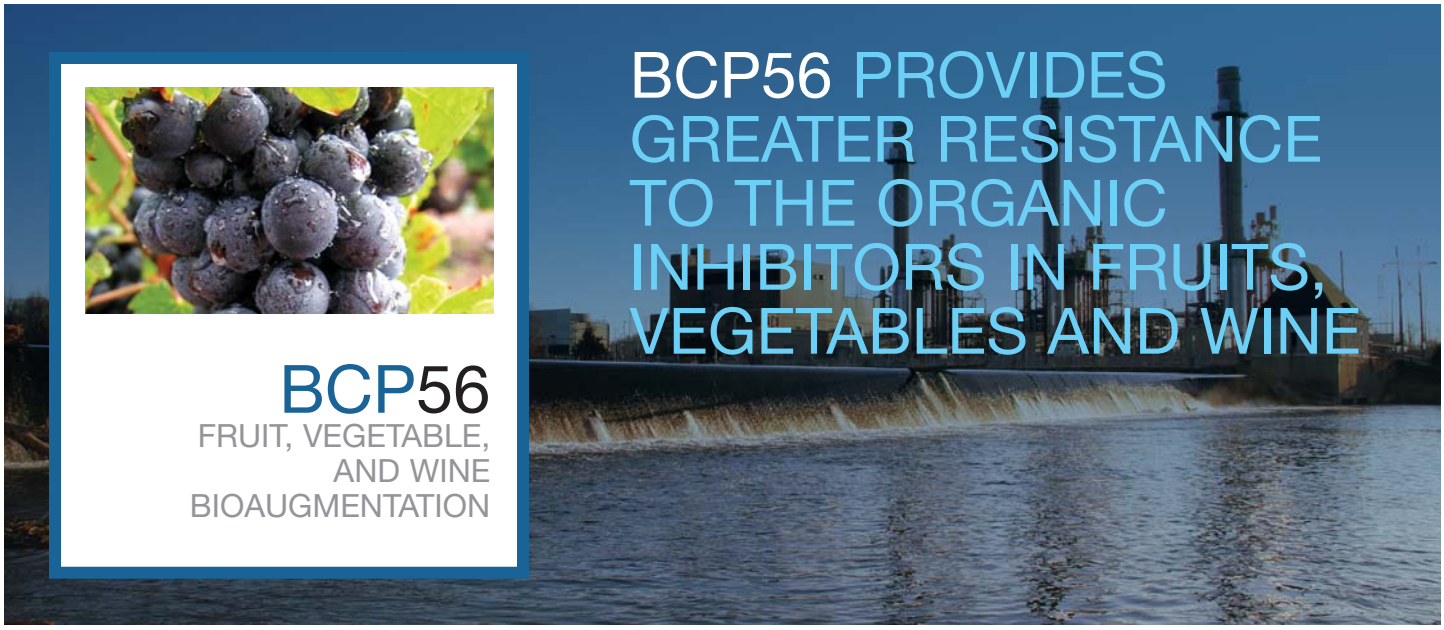

BCP56 PROVIDES GREATER RESISTANCE TO THE ORGANIC INHIBITORS IN FRUITS, VEGETABLES AND WINE

BCP56

FRUIT, VEGETABLE, AND WINE BIOAUGMENTATION

Use in fruit, vegetable and wine processing applications.

BIOAUGMENTATION WITH BCP56 CAN:

- Help start-ups in new plants;
- Improve effluent quality;
- Increase wastewater treatment efficiency;
- Reduce grease build-up;
- Control filaments;
- Lower odours and foam.

CLEANER PRODUCTION IN THE WINE INDUSTRY

Environmental issues associated with wine making are diverse. Wine making is strongly seasonal, with ongoing activity through most of the year, peaking in late summer and through autumn during vintage.

One of the major problems in the operation of wineries is disposing of large quantities of comparatively low solids wastewater containing a high content of BOD. Problems with winery wastewater include acidity (pH levels from about 3.5 to 6.5), compared to pH levels of 5-7 in municipal waste waters, high levels of organic materials and nutrients (at least 17,000 PPM BOD5 compared to 900 PPM BOD for municipal wastes), and the flows being seasonal (75% of the annual volume generated during 6-10 weeks), which create problems for treatment. Therefore, product losses could lead to municipal sewer damage (due to low pH) and sewer surcharges due to BOD5 concentrations that are higher than domestic sewage.

Direct discharge of untreated wastewater to irrigation systems or natural waters is usually prohibited. Many wineries collect their wastewater in primary aeration ponds and then pump to a secondary settling pond to remove solids. It is estimated about 2-3 kL wastewater is produced per tonne of grapes crushed. Thus the wastewater contains a medium to high-content of BOD. Still wash from distillation has the highest BOD level. The wastewater may not biodegrade easily and may quickly generate offensive odors if left to stand in ponds.

SPECIFICATIONS

Description	Tan color, free-flowing granular powder
Packaging	250g water-soluble packages; 10kg plastic pail
Stability	Max. loss of 1 log/yr
pH	6.0 – 8.5
Bulk Density	0.5 – 0.61g/cm^3
Moisture Content	15%
Nutrient Content	Biological nutrients and stimulants
Bacteria Count	5 billion per gram
Storage and Handling	DO NOT FREEZE! Store in a cool dry location. Do not inhale dust. Avoid excessive skin contact. See MSDS.

PREVENT ODORS AND NUTRIENT RUNOFF WITH BCP56

Bionetix INTERNATIONAL *We work for nature*

Bionetix International
21 040 rue Daoust, Ste-Anne-de-Bellevue, Quebec, Canada H9X 4C7
T 514 457.2914 F 514 457.3589 www.bionetix-international.com

BCP56

FRUIT, VEGETABLE, AND WINE BIOAUGMENTATION

APPLICATION INSTRUCTIONS

Treatment Plants –

Flow Rate	Initial Dosage	Maintenance**
Up to 0.1 L/sec	0.5kg/day for 3 days	0.5 kg/week
Up to 0.5 L/sec	0.5kg/day for 3 days	1.0 kg/week
Up to 2 L/sec	5 kg*	1.5 kg/week
Up to 5 L/sec	8 kg*	2.0 kg/week
Up to 25 L/sec	15 kg*	0.25 kg/day
Up to 50 L/sec	25 kg*	0.5 kg/day
Up to 100 L/sec	50 kg*	1.0 kg/day
Up to 500 L/sec	50 kg/100 L/sec*	1 kg/100 L/sec/day
Up to 1,200 L/sec	50 kg/100 L/sec*	0.75 kg/100 L/sec/day
Up to 10,000 L/sec	30 kg/100 L/sec*	0.5 kg/100 L/sec/day

*Spread this initial dosage out over the course of 10 days.
** Add as regularly as possible. If one day is missed, double the daily dosage the next day.

Dosage rates will vary with flow rates, retention times and system variations. The rates above are for a typical, well-maintained system.

Activated Sludge Systems – Activated Sludge Systems include various process flow sheets: e.g. extended aeration, contact stabilization, step aeration, oxygen activated sludge.

The application rate for all products is based on the average daily flow rate to the aeration basin, excluding the return sludge stream.

Trickling Filter and Rotating Biological Contactors – The application rate for all products is based on the average daily flow rate to the filter or contactor, excluding any recirculating process stream.

Lagoon Systems –

- ***Aerated systems –*** application rate is based on the average flow rate to the lagoon.
- ***Facultative systems –*** application rate is based on the lagoon surface area:

Day 1-5	20 kg/10,000m^2/day
Day 6+	2 kg/10,000m^2/week

- ***Anaerobic systems –*** Application rate is based on the total volume of the anaerobic lagoon:

<200,000 L	1 kg – 2x/week/10,000L
>200,000 L	0.5 kg – 1x/day/10,000L

- ***Lagoons in cold climates –*** commence program when the water temperature is at least 11°C (50°F).

For seasonal or widely fluctuating flows, contact your BIONETIX technical representative.