

# WASTE-GO

## GENERAL BIOLOGICAL ENHANCEMENT GUIDELINES

*(Not intended to replace individual site/system analysis)*

### **Primary Anaerobic Digesters/Aerobic Digesters**

One pound of Waste-Go per 10,000 gallons of digester capacity for 5 consecutive days. Then one pound per 10,000 gallons of sludge feed as maintenance. Temperature should approximately 95 degrees F and pH at 6.8 to 7.2. This procedure can be used to **start digesters without having to haul sludge from an operating digester**. Operators report more gas and a higher quality with less hydrogen sulfide. This improvement in gas production results from a greater amount of solids digested and more complete digestion. **The additional pounds that are digested are subtracted from the pounds going to landfill.**

### **Activated Sludge Process**

Apply one pound of Waste-Go for each 50,000 gallons of aeration basin capacity for 5 consecutive days. Then maintain with one pound per 50,000 gallons of influent weekly. Plants which receive above average amounts of FOG would increase the dosage. The same applies to treatment after toxic shocks. The proper maintenance dosages can be best calculated by the operator using a good microscope. The kinds and relative numbers of microorganisms will indicate if the augmentation is over, under or correct. Correct dosages will result in proper settling and avoid pin floc from overdosing. Mix dosage with warm **not hot** water using at least one gallon of water per pound. When the aeration basin water temperature is below 60 degrees F , let mixture set 45 minutes (**no longer than 60 minutes**) before pouring mixture into either the aeration basin or a pump station into the aeration basin.

**Excellent for overloaded systems with detention in the aeration basin for 6 hours or longer. Systems that have received a toxic shock will recover in approximately half the normal time if treated immediately when the influent is free of the toxic material.**

## Sewage Lagoons (Aerated and Non-aerated)

A. New Lagoons that do not have settled accumulations of solids on the bottom or floating surface solids (seeding):

Calculate the amount of waste water going into the lagoon per week. Use one pound per 50,000 gallons. Mix with at least one gallon of warm water per pound. In the cold season, let this mixture stand for 45 minutes (**no longer than 60 minutes**) before pouring it into a manhole or pumping station that pumps directly into the lagoon. **For maintenance**, dose as above on a weekly schedule. This will prevent a cone of solids from building up around the inlet pipe and also will lengthen the usable life of the lagoon by reducing the amount of solids that would otherwise become compacted on the bottom. If the lagoon water temperature is below 60 degrees F, premix with warm water and let stand 45 minutes (**no longer than 60 minutes**) before applying to the influent stream.

## B. Older Lagoons

An assessment should be made to determine:

- a) Thickness and amount of floating solids, if any
  
- b) A core sample of the compacted solids on the lagoon bottom should be analyzed to determine the depth and percentage of volatile solids. **The amount of floating solids and the depth and volatility of the solids on the bottom will determine the initial dosage of Waste-Go and the procedure to treat.** After initial treatments, a maintenance dosage should be applied weekly using one pound of Waste-Go for each 50,000 gallons of waste water sent to the lagoon during the week.
  - If the core sample shows the bottom solids to be 60% or more volatile, treatment will reduce the accumulated solids.
  - If there are some floating solids and 1/3 meter or less of bottom solids, use one pound for each 25,000 gallons US.
  - If there is a thick crust and also a meter of bottom solids, triple the dosage to one pound for each 16,000 to 18,000 gallons US.

Apply **daily** for 3 days, or 5 days if there is a large amount of accumulation.

**Lagoon Maintenance - (*Apply Weekly*) \***

- Influent BOD under 300 - use one pound per 50,000 gallons US
- Influent BOD 300 - 700 - use two pounds per 50,000 gallons US
- Influent BOD 700 - 1000 - use three pounds per 50,000 gallons US

\* Water temperature, DO, pH, toxicity and speed of desired results will alter the treatment.

**Trickling Filters and other types of systems:**

The operations of practically any biological systems can be enhanced by the addition of Waste-Go or a customized biological formula if required. Filling out and submitting our Waste-Go Questionnaire will help us determine what your requirements will be for Waste-Go.

**Distributed by:**