



## THE ANSWER THAT COULD (SHOULD) BE IN YOUR KITCHEN SINK

As communities look for solutions to manage food waste and divert organics from landfills, most municipal officials default to “green bin programs.” This requires additional trucks beyond those already used to collect rubbish. These programs are not only expensive, but in many cases actual participation is also less than desirable - not everyone sees a difference in placing food waste in either the rubbish bin or a green bin. Even when many citizens participate, actual diversion amounts vary widely from resident to resident.

So why not think outside the box to keep food waste out of the rubbish? Is there a solution that is simple to use, convenient, and hygienic, and turns wastes into resources? There absolutely is a solution, and it could be right in your kitchen sink - the food waste disposer. If it's not in your kitchen sink, it should be, and here's why.

Food waste is 75-90% water, so why not treat it as a liquid waste instead of managing it as a solid waste? Why have a separate collect system that requires additional bins and trucks? Sure, composting source separated organics returns nutrients and carbon to the soil but sending food scraps to modern sewage treatment plants can also generate useful byproducts - biosolids. These residuals are often land applied by farmers to provide an excellent source of nutrients. They also enrich soil tilth and improve its ability to retain water. And, using the sewer to transport the waste avoids any need for additional bins and trucks, potentially a cost savings for cities looking for alternatives to landfilling of organics.

Almost certainly, the next argument people raise is that this “solid” food waste will clog plumbing and sewers, and eventually overload the wastewater treatment infrastructure. These perceived issues have been studied all around the world for over three decades, with research completed from Australia to the UK. Dozens of research papers on food waste disposers mitigate the concerns that disposers cause issues in sewers or will overload treatment plants. Not only have the concerns about issues in sewers been disproven, but the economic and environmental benefits have become more palpable because food waste can be a significant source of carbon for energy production through anaerobic digestion and biologic nutrient removal. This means lower costs for purchasing power and less need for supplemental carbon to remove nitrogen and phosphorus, equating to overall reduction in treatment costs - as much as 60-70% according to recent research. If the municipal treatment plant in your area does not utilise anaerobic digestion or biologic nutrient removal, know that sending food waste to any one of eight types of wastewater treatment plants still results in less greenhouse gas emissions than landfilling.

Because the overall goal is to divert organics from landfills to reduce costs and greenhouse gas emissions, all options should be considered and even used in tandem with other schemes. No single option should be pursued or avoided. Source separated organics is a great option, but disposers can also help reduce the amount of food waste sent to landfills, and they can also help treatment plants become energy independent, and even reduce the impacts of discharging nutrients to our waterways. Instead of discouraging the use of disposers, many cities are encouraging and even mandating their use. Community leaders around the globe are bringing an open-minded approach to organics management and starting to consider the food waste disposal as an important tool for sustainability.

