



**CHASING PERFECTION**









# Approach to Sustainability

- Focus on Zero Waste
  - Close All Loops
- Auditing/benchmarking/Tracking
- Process/behavior change



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# Potential Wastes

- Energy
  - Compressed Air
  - Employee time/productivity
  - Miscellaneous solid waste
  - Water
  - Packaging Materials
  - Food
  - Parts/Service
  - Money
- And most importantly... BEER



# Largest Organic Material Leaving is Spent Brewer's Grain







# Wastewater Treatment – Mills River



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# Capstone Microturbines – Mills River



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# What was left in the trash?

## Food Scraps!

- Edible food is donated to local shelter
- No regional food scraps composting – but tried to get it!
- Decided to do our own thing...
  - Urban area
  - Can not batch feed
  - Must be in-vessel
- Purchased a HotRot 1811
  - Simple design
  - Fully automated
  - Technical support
  - Built to site needs



# Compost Collections



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# Feeding the Beast



# HotRot Composter



# Fully Automated

11/08/10 14:38:01      MAIN      HotRot

Static 2    19 m    13 s

Ambient °C    22

Exhaust °C    36

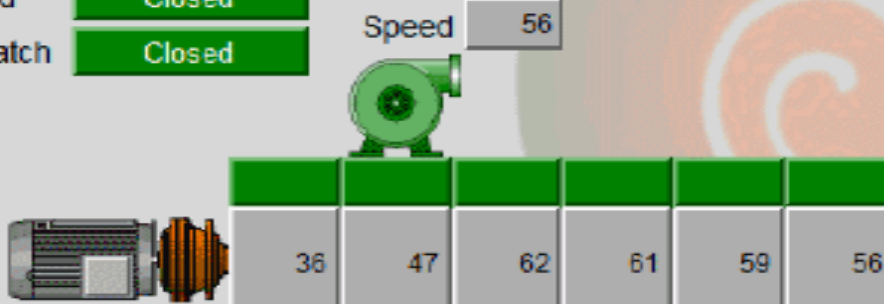
Feed System    Stopped      Discharge Auger    Stopped

Feed Time    0 m    0 s

Hopper Lid    Closed

Inspect Hatch    Closed

Speed    56



36	47	62	61	59	56
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Load %    0

Max Fwd Load %    65

Max Rev Load %    63

Air Injector 1    Air Injector 2

12 kPa    11 kPa



Main    On    Auto    Trends    Manual Control    Setpoints    Feed System    Security    Alarms    Reset

# Finished Compost



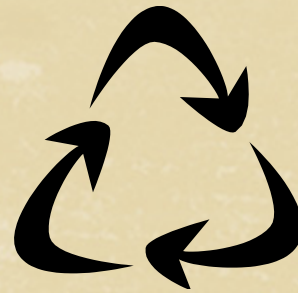


# Uses for Finished Compost



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# Closed Loop Composting System



# Engaging Employees

## LEADING A SUSTAINABLE LIVES

A TOOLKIT FOR SIERRA NEVADA



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## COMPOSTING

Food waste, composting is the next best method of reusing nutrients from food. Compost promotes a healthy garden and diverts food scraps from landfills where they will produce methane, a potent greenhouse gas.



Food... Love it, but don't waste it! in Sustainability

Posted by Cheri Chastain Oct 9, 2015

I love food. I love cooking with my husband, eating a nice restaurant and generally enjoying good food. However, as the [Food Day Employee Cook-Off \(Oct. 23\)](#) approaches, it got me thinking about food waste and what a huge problem it is globally. Did you know that up to 1/2 of the food grown in the United States is not consumed? There is a tremendous amount of resources (water, pesticides, fertilizers, labor...) that went into growing that food and even more (electricity, water, packaging, transportation fuel...) that goes into processing it before you purchase that food at a restaurant or bring it home to cook with.

Every time we discard that food, we are not only wasting those resources, but if it all ends up in a landfill, we are contributing to one of the largest sources of greenhouse gas emissions in the country. When organic materials like your old banana peel, a moldy sandwich, or the bones from a plate of ribs end up in a landfill, they tend to decompose anaerobically (without oxygen) which releases methane gas. Methane is 23x more potent as a greenhouse gas than CO2!!

On top of all of this, I think about all of the hungry people in the world. I tutored at a low income elementary school in Sacramento when I was in college and it broke my heart that elementary kids in the Capitol of California, which produces more food for our country than any other state, were wondering where their next meal was going to come from. According to the US Environmental Protection Agency, nearly 35 MILLION tons of food is thrown away every year which could feed most of the hungry people in the world.

So... what can you do about it? During the 2014 Sustainable Lifestyle Series, food waste was one of the topics we covered. We solicited feedback from all of you on how you work to reduce food waste in your lives. We received some amazing feedback and included it as part of the [Sustainable Lifestyle Booklet - Readable.pdf](#) that you can download in our space. There are also some [grocery stores globally](#) that are embracing what we would consider to be "ugly"

ed or frozen, compost it with your just pile is easy to start in the spring time and you'll have nice soil for your garden by fall. See the composting section on the next page to learn how to build your own compost station!

## FOOD WASTE

Wasted food is simply unsustainable – when you think about how many hungry people there are in the world, it affects our wallets, too. When you think about the resources that go into producing food, it's not just water, energy, packaging material they add up to \$165 billion thrown away in a landfill each year. When sent to the landfill, food waste also produces the powerful greenhouse gas methane, a major contributor to climate change. So what can you do?



need a change of pace during the week. Veggies get a second chance in smoothies.

With your stomach! We tend to order food that is so large, we can't finish it all. So take home leftovers to have for yourself (or your own to-go container!).

# CHEERS!

