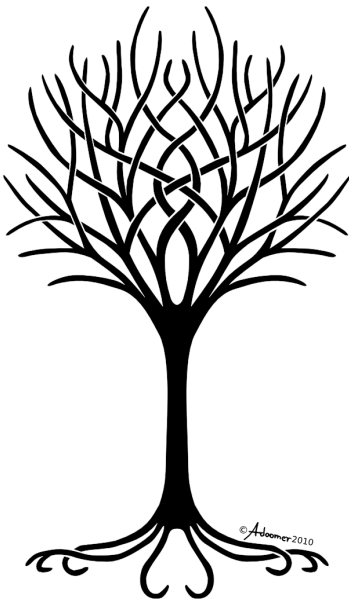


# RAD TIMES

## RecycleMania!



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With increasing sustainability awareness, the cry for compost has been echoing off the walls of Evergreen buildings. But you may wonder why compost is so important. I mean, this stuff is going to break down anyway, Right? So what difference does it make if it breaks down in a compost pile or a landfill?

There are two prime benefits to composting; the first being that the final product of composting is a nutrient rich soil amendment that is used for vegetation growing and helps increase the water holding capacity of soil while reducing weed growth, and the second being that the breaking down of compost is done through an aerobic, rather than anaerobic process.

While in a landfill, waste just hangs around and, due to a lack of oxygen, anaerobic bacteria take on the task of breaking it down. During this anaerobic digestion process methane is produced, while aerobic digestion produces the dreaded carbon dioxide byproduct.

Wait? So they both produce greenhouse gasses?

Yes, but methane is about 72 times more powerful, making carbon dioxide the lesser of the two evils in this case.

Starting on February 5<sup>th</sup> and stretching through March 31<sup>st</sup>, Evergreen is participating in the Benchmark Division of RecycleMania, focusing

entirely on increasing campus wide composting. RecycleMania is a friendly competition and tool for higher education institutions to promote waste reduction on their campuses and in their communities. By participating in the Benchmark Division, Evergreen is forgoing the opportunity to compete with other schools in favor of focusing on one sustainability factor, compost, while maintaining the ability to report and track compost data.

When asked why we are focusing strictly on compost this year, the Waste Coordinator, Patrick Suther, said, "Logistically it is more feasible and we can get a more accurate picture of what's going on when we narrow our focus." Data will be gathered by weighing compost before it is sent to Silver Springs Organics, which will not only allow the quantification of waste we are keeping out of the landfills, but an increase in compost during this period will indicate that RecycleMania outreach is successfully increasing campus awareness.

There are weights posted above the composting area in the Greenery that represent compost gathered from that location throughout the week, and campus-wide weights will be posted on the RecycleMania website <http://recyclemaniacs.org/scoreboard/current-results/benchmark-division>.

There will also be an

area in the Greenery where students can make a commitment to using less food waste.

Compost is an essential part of sustainable living and increasing the act of composting will bring Evergreen much closer to achieving the goal of carbon neutrality and improve the health of our beautiful planet.

### Weights So Far

- Jan. 23-29: 1381 lbs
- Jan. 30 - Feb. 5: 1509 lbs
- Feb. 6-12: 1425 lbs
- Feb. 13-19: 1225 lbs



Will you be  
my Friend?



Follow RAD Times on  
facebook

Why Should I Donate  
The Clothes I Don't Wear?  
Because!

Donating one item of used clothing can reduce your carbon emissions by 27.1 POUNDS<sup>5</sup>! This is a wonderful form of Reuse!

Also, when someone buys a used piece of clothing they are reducing all the resources needed to produce and transport the new treasure they would be buying otherwise!

So, by donating to places like The Free Store (ad on page 6), Value Village, or The Goodwill, you are reducing your carbon and helping someone else reduce theirs!

Wow! That's Awesome!  
Sign Me Up!

# Aquaponics! An Awesome Alternative!

With advancing environmental consciousness, individuals all over the world strive relentlessly to find and improve on ways to increase sustainability and decrease human impact as much as possible. The need to grow food, both for people and livestock, has taken a toll, leaving soils bleached of nutrients and in need of a long break before they can be used for further growing purposes. In the search for sustainable growing practices, aquaponics systems have been gaining attention.

Aquaponics is a method in which aquatic animals, such as fish, are raised in a tank and plants are cultivated using this water as their growth medium. According to Evergreen student and RAD Aquaponics Greenhouse pro-

ject designer Zach Wentzel, this process "directly injects the plants with the nutrients they need from the fish" while the plants, in turn, clean the water for the fish. This symbiotic relationship provides fresh, organic produce and fish as a food source. As if that weren't reason enough to explore this option, other green benefits are conservation through water reuse, reducing soil corruption, reducing pathogens and providing a local food source, thus reducing the transport carbon need<sup>4</sup>.

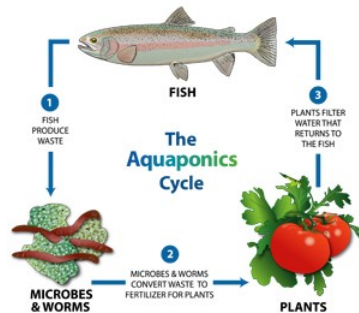
After volunteering to assist in the design and building of a greenhouse for RAD Services, Zach, who was already employed as a maintenance worker, began researching aquaponics as a "controlled environment in which we do what nature's always done", resulting in a more sustainable alternative to the traditional greenhouse.

While many of the details surrounding the design and construction of the greenhouse are still in the planning stage great progress is being made. The green-



house will be located on the side of N building and it will be made with as many recycled material as possible. Zach is also planning on using the air from N building to heat it in the winter and using an in-ground tank for the fish.

The greenhouse will be run by RAD Facilities and interested volunteers, but will be available for use by Evergreen residents. Zach is hoping to begin building within the next couple of months and is looking forward to sharing this with the rest of Evergreen. He is also eager for others to get involved and welcomes any assistance by volunteers who are interested in gardening and natural food products. If you're interested in being a part of this awesome project, fire off an email to: RADsustainability@evergreen.edu.



Creating a sustainable community that values,  
cultivates, and maintains its human, natural,  
and physical resources.



# Try, Try Again

*A positive attitude  
may not solve all  
your problems but it  
will annoy enough  
people to make it  
worth the effort.*

*-Herm Albright*

RAD Facilities has been experimenting with many sustainability projects in order to test their success, efficiency and reasonability. As with any experiment, hiccups happen and you're left with the decision of whether to scrap the whole thing or roll up your sleeves and fix it.

In 2011, RAD built the Experimental Compost

Heat Recovery System, but due to an error in planning, which resulted in the use of mulch that did not break down quickly enough to generate sufficient heat, the system has not been functioning at peak performance. In the second week of February, RAD rolled up their sleeves and began the repairing process, which will involve the removal of mulch, barrels and

pipings.

These will be replaced with new barrels, PVC piping and mulch that will be chipped on campus using mostly Alder branches that fell during the recent storm. Ideally, the mulch will decompose at a high enough rate to heat the water circulating through the barrels which will be used as domestic hot water by Mod 302.



## ResTechs are RAD

Many of us have experienced that sinking feeling that accompanies the "Blue Screen of Death" and the panic that sets in when you realize that your computer just took a dive. Did you save your work? When is that paper due again? Will you be able to bring your machine back to life before class starts? If you are a resident on the Evergreen Campus, you can breathe easier knowing that there is a ResTech nearby who can speak your computer's language.

There are five student Tech Whisperers, lead by professional staff member Noel McHugh, at your disposal. They lay in wait, Monday, Tuesday and Fri-

day from 1 PM to 7 PM, Wednesdays from 2 PM to 7 PM, and Thursdays from 1 PM to 5 PM, ready to caress your computer back to life and help you relocate your work.

These programming wizards spend much of their time in their binary fortress on the third floor of "A" building, tirelessly working to keep the residential network running. When they're not sweating over your computer or keeping the network in line, they are writing web applications for housing such as the booking applications, IR Tracking and the housing application. These applications are one of their methods of practicing sustainability, as they limit the need for printing. They also

accept your unwanted electronics, which they will safely dispose of.

On Wednesdays, they routinely celebrate "International ResTech Hat Day" and feel that this should be an essential part of every person's life. So put on your quirkiest hat, boot up your computer and cross your fingers, maybe today will be the day you meet one of these terrific techies.



**RAD Work Orders  
Completed in February**

Plumbing	51
Electrical	18
Replacement	11
General Maint.	37
Technical	4
Special Custodial	6

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
						P		R		N															

G L I  
 M T Y P Y G X L G K L P N M Y J R K W M L  
 I I L I G I I I G  
 R W W G I G Y C X R N R W P A T L R W Y R K R W P  
 I I L I L  
 T Q G I G Y J L R S G V G C X R N Y X N Q B  
 L  
 V X N F M G S G Y K M W

Solution to issue 2 cryptogram:

There is no telling how many miles you will have to run while chasing a dream. -Author Unknown



## JANUARY WATER USAGE

Total use	
Soup	Gallons
E	18,175
F	14,030
G	19,941
H	28,644
I	21,227
J	39,133
K	16,344
N	16,930
P	15,866
Q	17,308
R	20,888
S	13,083
T	13,658
U	35,300

Average individual Use		
Soup	Gal	\$
E	497	100
F	382	77
G	543	109
H	785	157
I	582	116
J	1,076	216
K	446	89
N	463	92
P	435	88
Q	474	95
R	574	115
S	358	71
T	374	76
U	972	195

# Time To Wake Up!

For many of us caffeine is an essential part of life, turning us from groggy, griping zombies in the morning into fully functioning humans after just one cup of coffee, tea, chocolate bar or bottle of soda. Whatever the method of choice, more than 80% of Americans use caffeine to get them up and moving every morning<sup>1</sup>.

Caffeine is referred to as a drug by many, and the juice of life by many more, but a chemical by any other name is still a chemical. The consumption of caffeine



(C<sub>8</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>) results in two biological responses in your brain that result in the "Ah, that's better" feeling that is often associated with it. Adenosine, one of many chemicals bouncing around in your brain, binds to nerve cell receptors and leads to a feeling of drowsiness or sleepiness. Caffeine is an adenosine blocker, which keeps this chemical from binding, which results in an increase in alertness and wakefulness<sup>2</sup>.

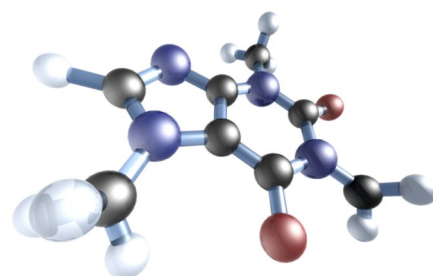
Caffeine also increases the signaling of the neurotransmitter dopamine, which affects mood regulation. So an increase in dopamine results in elevated

mood. In addition to putting you in a better mood, increased dopamine signaling also allows caffeine to act as a mild pain-killer, which is one reason why a cup of coffee helps you through a headache<sup>2</sup>.

The pros and cons of caffeine intake are highly controversial, but according to WebMD, as long as you don't use it in excess you have little to worry about. About 300 milligrams, or 3 cups of coffee, is considered safe. While caffeine is addictive, it is very mild and less expensive compared to other addictive drugs and quitting typically results in a day or two of headaches, fatigue, anxiety, irritability, depression or difficulty concentrating, which is nothing compared to withdrawal symptoms associated with other addictive drugs or alcohol<sup>3</sup>.

While it's true that caffeine can cause insomnia, for most people this is only if you use it within six hours of trying to fall asleep, so a few cups of tea in the morning and you're golden.

It is believed, however, that the use of caffeine in excess of 744 milligrams per day may result in Osteoporosis, but moderate use does not pose a threat. While it has been suggested that caffeine causes high blood pressure or an irregular heartbeat, several large studies suggest that this is not so. If you already suffer from blood pressure or cardiovascular issues you should still tread carefully and consult your doctor about caffeine use.



While it is a mild diuretic, it has not been proven to actually result in dehydration and it is safe for pregnant women when less than 200 milligrams are used per day.

On the down side, it doesn't ACTUALLY help you sober up. Your reaction time and judgment are still pretty messed up even after you slam that Red Bull. Health issues, including mutations, can also pop up if you use too much caffeine. The mutations are caused by the similarities in chemical structure of caffeine and specific nucleotides that are used to make up your DNA, excessive caffeine intake can result in these molecules being incorporated in the DNA sequence instead of the chemicals that belong there.

In general, only large amounts of caffeine are harmful to you, so pour yourself some coffee, crack open that chocolate bar and enjoy a little boost. Life is so much better when you're aware of it!



## FEBRUARY WATER USAGE

Total use	
Soup	Gallons
E	17,041
F	13,408
G	20,613
H	28,238
I	18,300
J	27,036
K	16,008
N	16,833
P	15,886
Q	18,433
R	22,608
S	14,805
T	17,077
U	30,050

Average individual Use		
Soup	Gal	\$
E	466	94
F	366	72
G	563	113
H	774	156
I	502	101
J	741	149
K	438	88
N	460	92
P	436	88
Q	505	101
R	621	125
S	405	82
T	468	94
U	827	166

For more water meter data  
Check out the website!!!

# Life and Death of the Cob Oven



Cob is a sustainable material consisting of clay, subsoil, sand and straw can be found locally to make something pretty cool. Then, when you're done with this cool thing that you've made, you can dispose of the materials in your local area without concern because they are all part of the natural environment, which makes cob a highly sustainable building

material.

In 2011, RAD Sustainability built a Cob Oven near the Housing Community Center for the public to use as a sustainable baking option. The Cob Oven is intended to allow you to bake things like bread and pizza over a wood fire, and while burning wood does release carbon into the air it is significantly less than the amount of fossil fuels required to build and heat the oven in the kitchen.

RAD used materials found around the Evergreen Campus to build the Cob Oven and included a cement pad with an in-ground, grate covered grill. A bench and canvas covering was also placed there, providing a social area and the option for Evergreen residents to hang out around a small campfire.

Unfortunately, this option was not appre-

ciated by all and during the period of time that Evergreen was closed after the snow storm in January this social area was vandalized and the Cob Oven was irreparably damaged. The decision regarding what to do with this area is still being determined. RAD is considering new entertainment possibilities, but there remains a looming concern regarding further vandalism.



## GETTING YOUR PLATE IN SHAPE

By: Logan Cheyne  
Aramark Marketing Coordinator

The Evergreen State College Campus Dining Services is proud to join the Academy of Nutrition and Dietetics (formerly the American Dietetic Association) during March in celebrating National Nutrition Month®. This year's National Nutrition Month theme is "Get Your Plate in Shape" and encourages consumers to remember to include a variety of fruits, vegetables, whole grains, lean proteins and dairy on their plates every day.

"National Nutrition Month is a wonderful opportunity to build awareness of the healthy meal options available on campus and encourage students to balance their

plate with a variety of fruit, vegetable, protein, dairy and grain choices," said Executive Chef, Andrew Foss.

This month Evergreen State College Dining Services will celebrate National Nutrition Month with highlighted healthy menu options in the Greenery and information on how to increase your intake of nutritional food.

For more info about healthy meal choices, please visit:

[www.4evergreendining.com](http://www.4evergreendining.com).

For more info about Aramark, please visit:

[www.aramarkhighered.com](http://www.aramarkhighered.com).

For more info about The Academy of Nutrition and Dietetics, please visit:

[www.eatright.org](http://www.eatright.org)

### How to get your plate in shape:

- Make half of your plate fruits and vegetables.
- Make at least half your grains whole.
- Switch to fat-free or low-fat milk.
- Vary your protein choices.
- Cut back on sodium and empty calories from solid fats and added sugars.
- Enjoy your foods but eat less.
- Be physically active your way.

### Solutions for issue 2

#### Word Jumble:

- ✓ Renewable
- ✓ Research
- ✓ Clean Energy
- ✓ Catchment
- ✓ Community
- ✓ Growing
- ✓ Gardens
- ✓ Electricity
- ✓ Final Word: Sustainable



## THE FREE STORE

IN THE HCC  
(HOURS VARY)

Bring your old  
treasures to be  
recycled and browse  
for new ones!

Please, no trash,  
underwear or items in poor  
condition.

Volunteers Wanted!  
If interested, please  
email G0@evergreen.edu

GEZREENI  
RAECOB I  
SODEMCEPO  
SILME  
CLNIHTAEC  
QAANOPCIU  
FECAINEF  
DUOCEKG  
MARGNGOMRIP

\_\_\_\_\_

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# MAKE YOUR OWN NATURAL CLEANING AGENTS!



### All Purpose Cleaner

- ✓ 1 2/3 cups baking soda
- ✓ 1/2 cup liquid castile soap
- ✓ 1/2 cup water
- ✓ 2 Tbsp vinegar
- ✓ 16-oz bottle with flip-top cap
- ✓ Mix baking soda and liquid soap in a bowl. Add water then add vinegar. Pour into squeeze bottle, Shake well. Add more water if needed. Use for bathtub, sink, toilet, counter, etc. Scrub and rinse.

### Glass Cleaner

- ✓ Put club soda into a spray bottle. Spray on surface and rub with lint-free cloth or squeegee.

### Scouring Powder

- ✓ Baking soda
- ✓ Liquid castile soap
- ✓ Wet area and sprinkle baking soda over it. Rub with a wet rag. Add soap to the rag if you need more cleaning power. For toilets, sprinkle baking soda into the bowl, add a few drops of soap and scrub!

### Oven Cleaner

- ✓ 1/4 cup baking soda
- ✓ 2 Tbsp salt
- ✓ Hot water
- ✓ Remove large chunks from metallic surfaces with a clean sponge. Combine baking soda, salt, and enough hot water to make a paste. Apply to oven surfaces, avoiding oven racks and heating elements, and let stand for a few minutes or overnight. Scrub with scouring pad and water. Keeping your stove lined with aluminum foil will reduce the mess in the first place.

- 1: <http://www.cbsnews.com/stories/2002/11/14/sunday/main529388.shtml>
- 2: <http://www.livestrong.com/article/320035-the-chemical-effects-of-caffeine/>
- 3: <http://www.webmd.com/balance/caffeine-myths-and-facts>
- 4: <http://en.wikipedia.org/wiki/Aquaponics>
- 5: <http://practicallygreen.com/donate-clothes-to-a-charity>