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Composting: Nature's Recycling

Research shows that “the average American produces around 1,600 pounds of garbage every year, and it is estimated that 50 percent of that waste is material that could be composted” (Buelin-Biesecker 1). Composting is the process of quickening the time of decomposition for materials such as food and paper to make compost or soil for planting (Composting 1). Louisiana Tech should implement a campus wide composter and garden because of the environmental benefits that it provides, the money it saves the school, and the educational opportunities it creates.

When it comes to environmental benefits, composting has a smorgasbord of benefits. One of the benefits to composting is improving the structure of the soil. Soil structure is how well inorganic particles combine with decayed organic particles, thus the better the soil structure, the more nutrients the soil will hold (Mazzoni). This allows for different types of plants to grow in the soil due to the bountiful amount of nutrients present. One of the main environmental struggles that mankind faces is the amount of water used every day. Employing compost instead of regular soil allows for a greater water retention, which reduces the amount of water used on plants. The EPA found that “soil can retain 16,000 more gallons of water per acre for every one percent of organic material” (Mazzoni). The more people compost the less likely city aquifers will run out, which solves a major issue. The final environmental benefit of composting is that it

helps remove any pests or plant diseases in the soil. This is especially true when a specific type of composting is used. This method, called hot composting, is where all of the diseases are removed by burning the compost (Composting 1). This method also speeds the process of acquiring compost, but requires more maintenance. The removing of these diseases prevents them from entering the water and becoming pollutants (Mazzoni). This, in turn, allows for the surrounding environment to benefit as well as the plants growing in the compost. Along with helping the environment, composting can also benefit Louisiana Tech with the money that will be saved.

Colleges are always looking to cut costs to conserve money in their yearly budget, and this composter and garden would do just that for Louisiana Tech University. Using a composter reduces water bills because the soil's structure allows it to retain more water for longer periods of time. The compost can provide a free source of food for the cafeteria. Every day, the cafeteria discards food scraps that could otherwise be implemented in a composter and be made into compost. This food waste produces methane gas because it does not have the oxygen required to decompose. The methane gas produced impacts climate change, in terms of creating greenhouse gases, twenty times more than carbon dioxide (Buelin-Biesecker 1). This compost could, in turn, be used to plant new foods which will supply the cafeteria with fresh groceries. This provides more healthy choices in the cafeteria while simultaneously cutting the cost of ingredients for the food they serve. All of the additional compost that will not be utilized for the campus garden can be donated to places around campus, such as Lomax hall's greenery and the farm sales greenhouse; this saves money on soil and fertilizer for these places. Along with saving money on supplies for the university, it does not require much money to initiate the project. Most of the expenses from the composter can be supplied by federal grants, which eliminates the startup cost

(Paul Jackson). The only major cost for this would be people's time and energy as explained by Dr. Jackson, an agricultural professor at Louisiana Tech when he states "It's more about labor... than the expense" (Personal Interview). Along with all the economic benefits composting brings, a great educational opportunity comes with it as well.

Composting is a great tool to teach people about the environment and spread awareness on being green. The valuable skill of farming is extremely important to pass down, considering that thirty eight percent of the land on earth is farm land (Kolbert 2). Dr. Jackson states his belief that there is a lot of opportunity in composting when he says "obviously in an academic setting, the garden and greenhouse has educational values as far as teaching practices in growing plants" (Jackson, 1). The composter allows students to also learn about the processes involved in growing plants in a garden such as fertilization and irrigation (Jackson 1). Eating foods students plant in the garden consequently provides them with a learning experience and a sense of accomplishment. The hard work and determination demanded for gardening and composting leads students to better appreciate the value of food. Composting is a great way to get students active in their own environment while learning more about it in the process.

Composting is a fantastic green project to implement on a college campus. It not only benefits the environment but Louisiana Tech as well with the positive monetary consequences in terms of cafeteria food and greenhouse soil. The educational benefits bring attention to the idea of going green. A composter on campus produces tons of benefits with no drawbacks, making it the best green project for a college setting. This plan is only the planting of a seed for a green college campus.

Works Cited

- Buelin-Biesecker, Jennifer. "Urban Composting In The Technology And Engineering Classroom." *Technology & Engineering Teacher* 73.6 (2014): 27-31. *Academic Search Complete*. Web. 2 Feb. 2015.
- Composting. [Electronic Resource]: Composting Turns Household Wastes Into Valuable Fertilizer And Soil Organic Matter*. n.p.: [Washington D.C.] : USDA Natural Resources Conservation Service : National Association of Conservation Districts : Wildlife Habitat Council, [1998], 1998. Louisiana Tech University. Web. 14 Jan. 2015.
- Kolbert, Elizabeth. "Age of Man." *National Geographic*. National Geographic, Mar. 2011. Web. 2 Feb. 2015.
- Mazzoni, Mary. "The Benefits of Using Compost in Your Garden." *Earth911*. Earth911, 13 Mar. 2013. Web. 20 Jan. 2015.
- Paul Jackson. Personal interview. 25 Jan 2015.

Annotated Bibliography

Buelin-Biesecker, Jennifer. "Urban Composting In The Technology And Engineering Classroom." *Technology & Engineering Teacher* 73.6 (2014): 27-31. *Academic Search Complete*. Web. 2 Feb. 2015.

This article is about what composting is and why it is important. The article then talks about a project implemented in an engineering class with homemade bioreactors.

Composting Turns Household Wastes Into Valuable Fertilizer and Soil Organic Matter. n.p.: [Washington D.C.] : USDA Natural Resources Conservation Service : National Association of Conservation Districts : Wildlife Habitat Council, [1998], 1998. Louisiana Tech University. Web. 14 Jan. 2015.

This article is about the different ways to compost and what the most efficient way of composting is. The three types of composting covered in the article were hot, cold and vermin.

This article will give insight on which type of composting should be used for our college environment.

Kolbert, Elizabeth. "Age of Man." *National Geographic*. National Geographic, Mar. 2011. Web. 2 Feb. 2015.

This article talks about the creation of a new name for our time on earth. We are in a time period where humans are drastically affecting the geological makeup of the earth. This era is called Anthropocene.

Mazzoni, Mary. "The Benefits of Using Compost in Your Garden." *Earth911*. Earth911, 13 Mar. 2013. Web. 20 Jan. 2015.

This article also highlights the benefits of composting soil for your garden. The use of compost in your garden will reduce the amount of water needed, kill plant diseases and improve the

structure of the garden's soil. This article provides more evidence into why composting is good for the environment.

Dr. Jackson. Personal interview. 25 Jan 2015.

This source is an interview made by our group with Dr. Jackson, one of the agriculture professors at Louisiana Tech University. It includes topics about green projects for the school and what is already being implemented on our campus.

Outline

I. Introduction

- A. Hook sentence: Research shows that “the average American produces around 1,600 pounds of garbage every year, and it is estimated that 50 percent of that waste is material that could be composted” (Jennifer Buelin-Biesecker, 1).
- B. Leading sentence: Composting is the process of quickening the time of decomposition for materials such as food and paper to make compost or soil for planting (Composting, 1).
- C. Thesis: Louisiana Tech should implement a campus wide composter and garden because of the environmental benefits it provides, the money it saves the school, and the educational opportunities it creates.

II. Body Paragraph

- Topic Sentence: When it comes to environmental benefits, composting has a smorgasbord of benefits.
- Soil structure is how well inorganic particles combine with decayed organic particles, thusly the better the soil structure the more nutrients the soil will hold (Mary Mazzoni).
- The EPA found that “soil can retain 16,000 more gallons of water per acre for every one percent of organic material” (Mazzoni).
- The removing of these diseases prevents them from entering the water and becoming pollutants (Mazzoni).

III. Body Paragraph

- Topic Sentence: Colleges are always looking to cut costs to save money in their yearly budget, and this composter and garden would do just that for Louisiana Tech University.
- The methane gas produced is said to impact climate change, in terms of creating greenhouse gases, twenty times more than carbon dioxide (Buelin-Biesecker, 1).
- Along with saving money on supplies for the university, it does not require much money to initiate the project. Most of the expenses from the composter can be supplied by federal grants, which eliminates the startup cost (Paul Jackson).
- “It’s more about labor... than it is expense and you know if you use fertilizers or such and such” (Paul Jackson, 2).

IV. Body Paragraph

- Topic Sentence: Composting is a great tool to teach people about the environment and spread awareness on being green.

- The valuable skill of farming is extremely important to pass down, considering that thirty eight percent of the land on earth is farm land (Kolbert, 2).
- “Obviously in an academic setting, the garden and greenhouse has educational values as far as teaching practices in growing plants” (Paul Jackson, 1).
- The composter allows students to also learn about the processes involved in growing plants in a garden such as fertilization and irrigation (Paul Jackson, 1).

V. Conclusion

- Recap Thesis
- Closing Remarks
- Finish Essay