

University of Florida Student Vermicomposting Awareness and Implementation

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Abstract

Landfills have been named the third largest contributor to U.S. methane emissions. It is believed vermicomposting, a form of composting utilizing the aid of worms, can help mitigate greenhouse emissions while producing valuable organic fertilizer. This project's purpose was to quantify, if present, the relationship between awareness of vermicomposting and action taken to ensure food waste is vermicomposted. This project's goal was to provide insight towards development of methodology to implement vermicomposting at a wide-scale.

Approach

Quantification of the relationship between awareness of vermicomposting and action taken to ensure food waste is vermicomposted was obtained using a Qualtrics survey which employed skip logic. Once a participant demonstrated previous knowledge regarding vermicomposting, further survey questions were administered containing higher-level questions in order to determine level of awareness and action taken to ensure vermicomposting of food waste. Questions delivered in the survey were broken up into four categories: personal background, previous knowledge, perception of vermicomposting and demographics.

Methods

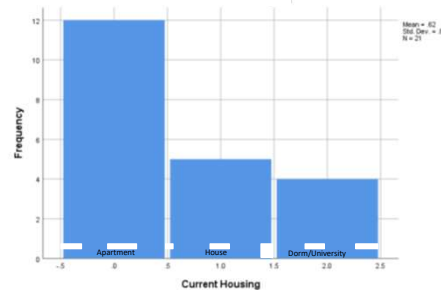
- Data collected utilizing Qualtrics Surveying Software
- Anonymous survey distributed through UF class of 2020, 2021, and 2022 Facebook groups
- Survey remained open for forty-eight hours
- Survey link posted during mid-evening with request for fellow student's help
- Survey link posted once during each surveying period to avoid recurring responses
- Survey distributed on two separate occasions
- Distributed once with no demographic questions and again with demographic questions
- Data analyzed with assistance of IBM SPSS application



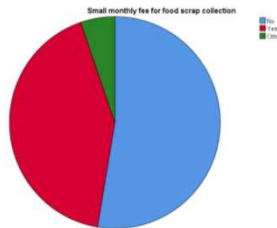
Results

There were twenty-one responses to the vermicomposting survey with demographic questions. Data from these twenty-one respondents tabulated the following results. The majority of the respondents were young adult females, between the ages of 18 and 24, and lived in apartments. Of the respondents, 86% were unacquainted with vermicomposting upon questioning. One hundred percent of survey respondents reported willingness to sort food scraps into a separate container for collection by a municipality employed agency. Currently, 85% of respondents reported sorting out recyclables for municipality agency collection. Support for a low-cost private food waste collection agency decreased dramatically from the support for municipality provided collection. Less than half of respondents reported a willingness to buy into a private vermicomposting agency.

Housing Distribution



Private Agency Support



Sample Question

Q) Does compostable and biodegradable refer to the same property?

- Yes
- Not sure
- No

Conclusion

What started out as an endeavor to facilitate a more efficient symbiotic relationship between *Homo sapiens* and *Eisenia fetida*, slowly diverged to become a study determined to grasp why this relationship has been ignored in recent history. Pinpointing the lack of knowledge regarding vermicomposting was easy, but understanding why there was this lack of knowledge was much more complicated. Several factors were examined that were believed could correlate one's previous vermicomposting knowledge and action taken toward food waste diversion. Understanding the rationale behind inaction dealing with food scraps proved to be complex and deceptive. Data from this latest survey lacked to yield evidence of correlation. Future work is needed to develop understanding of this relationship. Based upon the results of the survey, individuals comprehend issues that current waste streams exhibit, yet are apathetic towards taking action. Decreasing this level of environmental apathy amongst the populace will be a major hurdle towards creating a more efficient relationship between *Homo sapiens* and *Eisenia fetida*.

Future Work

Psychology behind sustainability and waste reduction is intricate. Quantifying psychology and inherently unquantifiable qualities is a daunting challenge. Many factors compound to complicate attempts to adjust learned behavior or thought and action processes. Future endeavors in this field may find success pinpointing the most effective means of municipality food waste collection, or devising means of educating the general public regarding organic waste streams.

References

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