

An Overview on Utilization of Food Waste

Shirley D¹, Durga Dharshini D¹

¹Student, Department of food technology, Jct college of engineering and technology, Coimbatore, India.

Abstract: - Now here we start with what food utilization meant for and how it had been done to process food waste. Converting the wastes from food into consumable products and also into industrialized products is called food waste utilization. The possibility of utilization of a waste depends on characteristics, such as Chemical composition of the waste, Mineralogical content, Presence of valuable trace material, Presence of any Bio resource, Volume and availability of waste.

Food utilization is defined by USAID as: “food is properly used; proper food processing and storage techniques are employed; adequate knowledge of nutrition and child care techniques exists and is applied; and adequate health and sanitation services exist.” Utilization is often used interchangeably with nutrition, yet while utilization focuses on nutrition; it also includes also food storage, processing, health and sanitation as they relate to nutrition. Improvements in caloric intake than dietary diversity.

Malnutrition is a serious global challenge: almost a third of children in the developing world are underweight or stunted and poor nutrition is responsible for nearly 60% of child deaths worldwide. The overall economic costs of undernutrition are estimated at \$20-30 billion per year, caused primarily by lowered productivity and cognitive capacity and increased health care costs. There is ample evidence that although economic and agricultural growth are necessary to achieve sustained reductions in malnutrition, they do not fully address malnutrition. There is more evidence that they can generate.

Key Words— *Mineralogical content, chemical composition, waste utilization, trace material, food diversity.*

I. INTRODUCTION

The aim of this presentation is to focus on processing of food waste to simpler and usable products. Several waste products like eggshells which can produce hydroxyapatite helpful for bone repair and tissue regeneration are discarded in huge amounts. Disposal of treated seed is a critical step in stewardship of seed treatment products and protecting people, animals and the environment. Fruit and vegetable waste constitute a source of nuisance in municipal landfills because of their degradability.

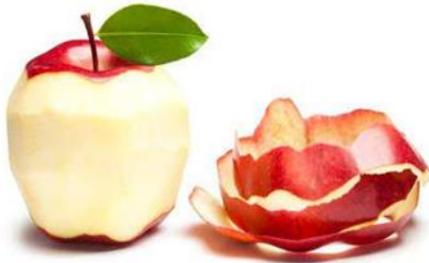


Fig.1. Fruit and vegetable waste.

Some value chain programs have attempted to improve food utilization and achieve nutritional gains, mostly by targeting agriculture value chains. However, results have been mixed, and it is generally considered that much more could be accomplished. Based on an evaluation of Food for Peace Multi-Year Assistance Programs, Feed the Future, the U.S. government's global hunger and food security initiative, estimates that integrating a package of nutrition interventions into projects that are targeting agricultural value chains can reduce chronic undernutrition by up to 57%. A recent review of experiences in applying the value chain approach to addressing nutrition identified a serious lack of documented experience and case studies.⁸ A lot still remains to be learned. Understanding the causes of malnutrition is an important starting point that will allow practitioners to identify the most appropriate intervention strategies.

II. MATERIALS AND METHODS

A. Processing of food waste:

- Food waste can be categorized into two:
- Fruits and vegetable waste
- Non veg

B. Process able foods:

- Meat, fish, poultry, bones.
- Tea bags, ground coffee.
- Grains, bread, pasta.
- Egg shell.
- Paper plates and cups.
- Garden waste, bio gas sludge.

C. Fruits and Vegetables:

Potato Peels:



Fig.2. Potato chip making flow chart

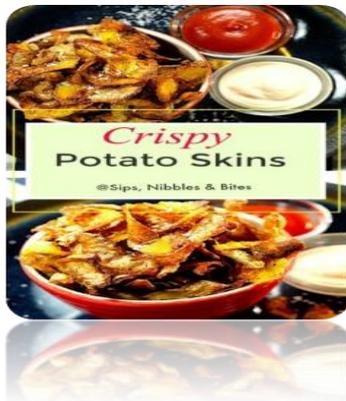


Fig.3. Crispy Potato skins

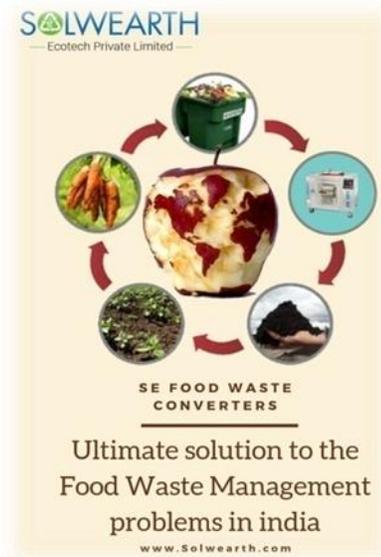


Fig.4. Food waste to composite material

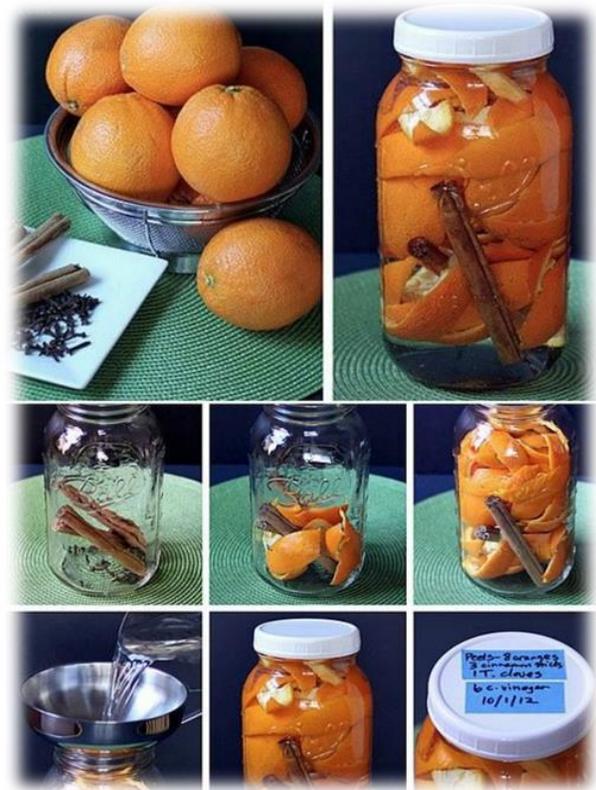


Fig.5. Vinegar from orange Peels

Apple Peels Jam:

Procedure:

- 1 Cup Water and Boil the Peels
- 1 Cup Sugar
- Store It in Air Tight Container
- Refrigerate It

After Certain Refrigeration It Will Get a Jam Consistency



Fig.6. Apple Peel Jam

Apple Tea:

Procedure:

- Boil Apple Peels
- Put Cinnamon and Boil
- Strain The Residue
- Apple Tea Can Be Prepared



Fig.7. Apple Tea

Lime Olive Oil:

Procedure:

- Olive oil
- Lemon peels
- Simmer on low heat for 15 minutes

- Strain or filter it
- Oil you got is lemon olive oil. That peel can be used in dishes.



Fig.8. Lime olive oil

Carrot Peel Chips:

Procedure:

Olive oil



Salt



pepper



garlic powder



paprika



bake at 400°F for 20 minutes



carrot peel

Fig.9. Carrot chips Peeling flow chart



Fig.10. Carrot Peeling



Fig.11. Peeled Carrot Chips

Broccoli and Cauliflower Stalks:

Preparation methodology:

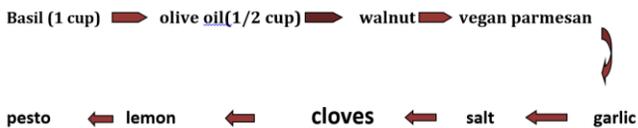


Fig.11. Preparation Process of Broccoli Stalks.



Fig.12. Broccoli noodles soup

Kiwi and strawberry skin processing:

The skin of the respective fruits should be grinded with half a cup of oat milk and a healthy leafy vegetable spinach. The mix of these ingredient gives a nutritious breakfast. henceforth the peels can be benefitted.



Fig.13. Healthy leafy vegetable spinach

*Too Much Riped Bananas
Banana Peel Compost:*

It will be one of delicious and easiest ice cream ever. All that we have to do is grind the bananas with quarter cup of peanut butter and add some vanilla extract for flavor. freeze for required time and u will have the banana ice cream.



Fig.14. Banana ice cream



Fig.15. Banana peel benefits

Onion Peel, Mushroom Stem, Carrot, Asparagus Tops and Bottom:

Take onion peel and stem of mushroom, carrot and asparagus tops and bottom. Boil and simmer them for 30 minutes drain the excess water add some sugar extract or jiggery as a sweetener. freeze it and vegetable jam will be ready.



Fig.16. Raw Vegetable jam composition

Egg shell utilization:

Generally, we know that egg shells are great source of calcium. Take out the shells and clean them properly. Grind it well, it can be mixed with water and use it as an energy drink.



Fig.17. Egg cell utilization

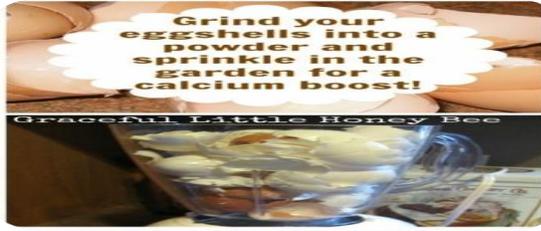


Fig.18. Egg cell as a calcium



Fig.19. Waste management system



Fig.20. Composting tips

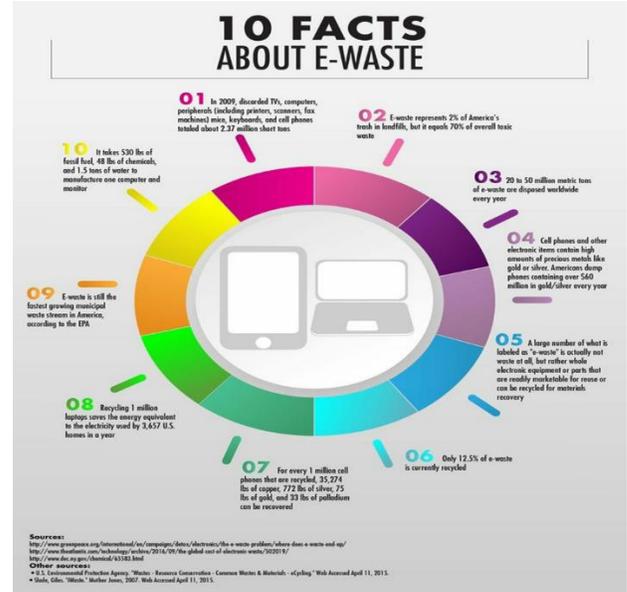


Fig.21. Ten facts about waste

III. ADVANTAGES OF WASTE UTILIZATION

1. We Can Save the Food Waste and Provide More Profit with That
2. Cost Is Low
3. We Can Create New Vistas in Food Processing By Processing The Wastes



Fig.22. Zero waste kitchen

IV. DISADVANTAGES

Though it serves the best but not all will like it, because it was taken from waste. Time consumption is the main demerit in processing of food waste. Some dishes may not taste good.

V. CONCLUSION

Thus We Can Produce Zero Hunger in Our Country by Utilizing This Food Waste. Utilization of Food Waste Helps the Economy of Our Country. Managing Food Waste in A Productive Manner Not Only Reduces the Soiling but Also Ameliorates The NDP.

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