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FARM TO FORK

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Abstract:

The Farm to Fork (F2F) concept represents a comprehensive and sustainable approach to the entire food supply chain, emphasizing the seamless integration of agricultural practices, food production, distribution, and consumption. This abstract provides an overview of the key principles and benefits associated with the Farm to Fork initiative.

The Farm to Fork model begins at the agricultural stage, promoting environmentally friendly and resource-efficient farming practices. It encourages the use of sustainable farming methods, such as organic farming, agroecology, and precision agriculture, to minimize the environmental impact of food production. By focusing on reducing chemical inputs, optimizing water usage, and promoting biodiversity, F2F aims to create resilient and ecologically balanced farming systems.

Moving along the supply chain, Farm to Fork places a strong emphasis on shortening the distance between producers and consumers. Localized and regional food systems are encouraged to reduce transportation-related carbon emissions, support local economies, and provide consumers with fresher, more nutritious produce. The integration of technology, such as blockchain and traceability systems, ensures transparency and accountability in the food supply chain.

The Farm to Fork initiative also addresses food waste by promoting responsible consumption and production. Efforts are made to minimize post-harvest losses, optimize food processing, and educate consumers on mindful food choices. By reducing waste at every stage, F2F contributes to the overall sustainability of the food system and alleviates pressure on landfills.

INTRODUCTION

Introduction to Farm to Fork:

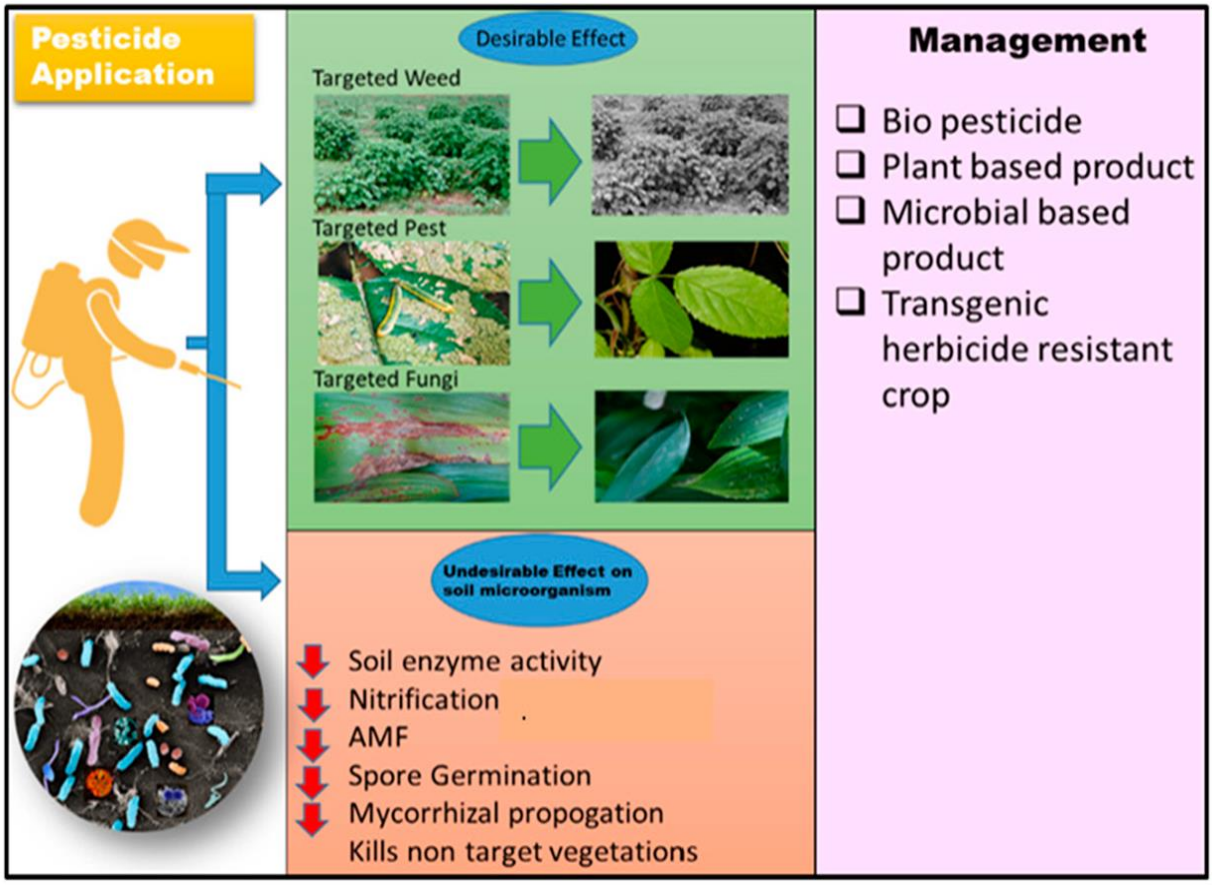
Farm to Fork (F2F), also known as Farm to Table, is a holistic and sustainable approach to the entire food supply chain – from the cultivation of crops and livestock to the consumption of food by end-users. This concept places a strong emphasis on creating a more transparent, environmentally friendly, and socially responsible food system. By promoting responsible practices at every stage of the food supply chain, Farm to Fork seeks to address issues such as environmental sustainability, food security, and public health.

- Today, there is a total lack of information on where our food is coming from, who is growing it and what is being applied to it. A farm to fork traceability system can help eliminate the complete lack of transparency that exists starting with the creation of a farmer id and profile, farm record that will contain what chemicals and fertilizers he has used in addition to location details and sale details of every transaction. This will help diagnose the root cause of farm related problems.At its core, the Farm to Fork model begins with the cultivation of food products. It encourages farmers to adopt sustainable and ecologically sound agricultural practices, such as organic farming, agroecology, and precision farming. The aim is to minimize the environmental impact of agriculture by reducing the use of chemical inputs, optimizing resource utilization, and promoting biodiversity.

One of the critical aspects of Farm to Fork is its commitment to reducing food waste. By optimizing post-harvest processes, improving storage and distribution methods, and educating consumers on mindful consumption, F2F seeks to minimize the amount of food that goes to waste. This not only contributes to environmental sustainability but also addresses global challenges related to food scarcity and resource depletion.

KEY FEATURES

* Farmers' Empowerment
*Transparency and Accountability
*Traceability
*Data for Research and Analysis



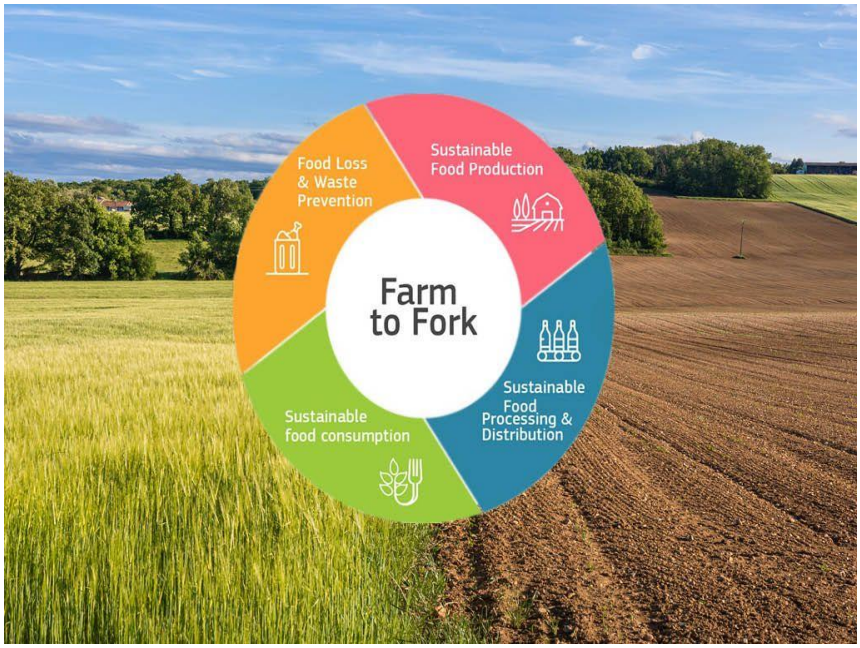
LITERATURE REVIEW

Introduction and Evolution: -Stresses the significance of traceability and transparency in the food chain. Traces the historical and technological evolution of traceability. Existing Systems and Benefits: -Briefs on current traceability systems and key technologies. Highlights benefits and advantages of implementing traceability. Consumer Perception and Regulation: Discusses consumer attitudes and preferences towards traceability. Evaluates existing regulations and policies governing traceability.

- Future Prospects and Recommendations: Explores future directions for traceability technology and research. Recommends policy enhancements and industry best practices to enhance traceability and transparency.

PROPOSED METHOD

- We will like to introduce the **WEBSITE** as proposed method for these type of problem statement.
- The website is all about the techniques and method to reduce the complete lack of transparency that exist starting with the creation of :-
- 1.farmer id/profile
- 2.farm record
- 3.chemical/fertilizer to be use
- 4.Sales and location details
- 5.trascation history
- 6.feedback



OBJECTIVES

The main objective of our project is to make sure that farmers can use traceability system .

Which can help eliminate the lack of transparency that exist ,which include a lot of crop wastage

By this **WEBSITE** farmers not only will get the knowledge of their soil but also they can have their full land details.

Nevertheless, we will able to describe the relationship of each work to others under consideration

Moreover ,we will able to identity new way to interpret, and shed light on any gaps in.

STRATEGY OF FARM TO FORK

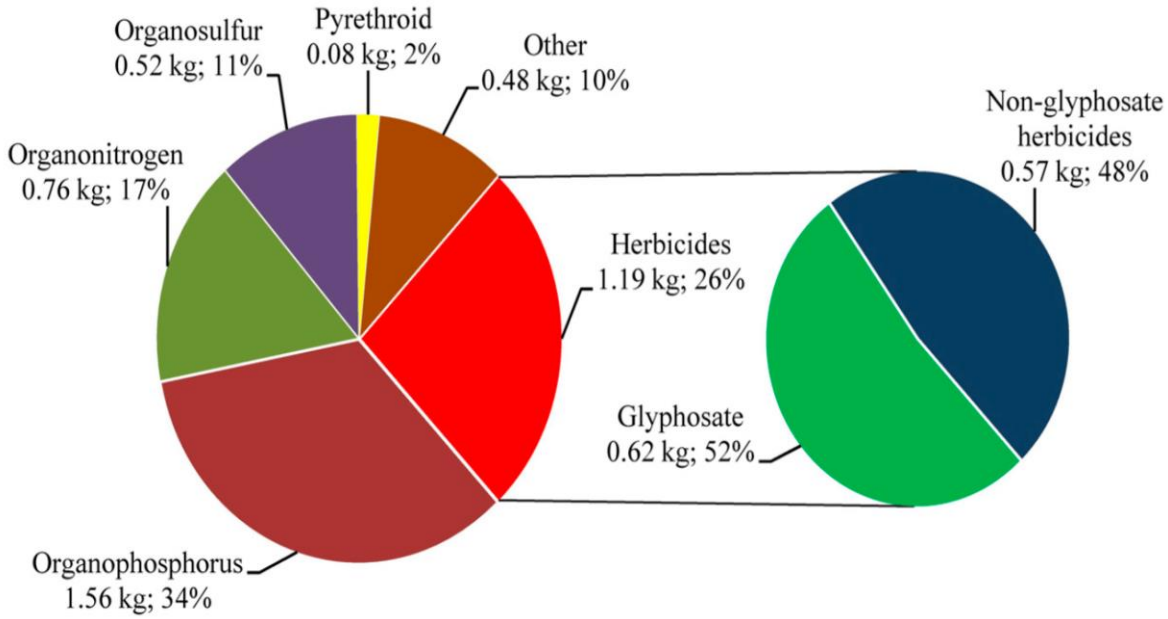
- FARM TO FORK STRATEGY aims to accelerate our transition to a sustainable food system that should be :
- Have a neutral or positive environment impact
- Help to mitigate climate change and adapt to its impacts
- Reverse the loss of biodiversity
- The farm-to-fork journey includes all the stages your produce goes through, from growing the plants to being eaten in your home.
- It is important to maintain freshness of the fruits and vegetables and prevent microbial contamination of produce throughout the farm-to-fork journey.

STORY OF MAHARASTRA

HOW A FARMER'S SON IS FIXING THE FARM-TO-FORK SUPPLY CHAIN WITH HIS AGRITECH STARTUP

It developed an app-based platform that registers orders directly from buyers, analyses category-wise demand, fixes dynamic prices depending on daily demand, and transfers the orders to its network of 1,000+ farmers. Farmpal's price comparison feature ensures that farmers can sell their produce at rates higher by 20 to 30 percent than what they would normally get in the mandis. "This is one of our main promises to the farming community. We are able to offer them premium prices because technology eliminates at least four to seven middlemen from farm to fork," the founder explains.

Pesticide	List	EU	USA	BRA	CHN
2,4-DB		3	3	1	1
Bensulide		1	3	1	0
Chloropicrin		1	3	0	2
Dichlobenil		1	3	1	4
Dicrotophos	W	1	3	1	0
EPTC		1	3	1	0
Norflurazon		1	3	1	0
Oxytetracycline	A	1	3	1	4
Paraquat	R2	1	3	2	1
Phorate	W, R2	1	3	1	2
Streptomycin	A	1	3	1	3
Terbufos	W	1	3	3	1
Tribufos (DEF)		1	3	1	0



METHODOLOGY

- There are main 5 steps from farm to fork
- 1.production
- 2.chemicals/fertilizer used
- 3.Finding the correct way /accurate way to use those fertilizer
- 4.Distribution
- 5.Consumer

OUTCOMES

The Outcome of this project are:

Website will display

Farmer id/profile

Farm record/location

Sale/transaction

Type of chemical/fertilizer

Type of soil

Solution of problem statement asked by farmers

We will try to keep it simple as possible, Which will in turn help the farmer to know about fertilizers and chemical to be use.

CONCLUSION

Farmers established in the F2F/F2T practice are mindful of crop rotation,soil nutrition,zero waste.
Produce coming from these farms is far superior to those found in superstores,which are infused with chemicals to last longer and come from miles away.
We will make sure to keep it easy going for the farmers and will have the few language converter.The implementation of a Farm to Fork traceability system has the potential to address the current lack of transparency in the food supply chain. Such a system could offer numerous benefits:

1. **Transparency and Accountability:** By creating a farmer ID and profile, along with comprehensive farm records, consumers gain access to information about the origin of their food. This transparency fosters accountability, as farmers and other stakeholders can be held responsible for the practices employed in food production.
2. **Traceability:** A traceability system allows for the tracking of food products from the farm to the consumer. This can be instrumental in quickly identifying and containing foodborne illnesses or contamination issues, as authorities can trace the source of the problem with precision.
3. **Quality Assurance:** Detailed records of farming practices, including the use of chemicals and fertilizers, can help establish and enforce quality standards. Consumers can make informed choices about the products they purchase, based on their preferences and concerns regarding factors such as organic farming or minimal pesticide use.
4. **Data for Research and Analysis:** The collected data can be valuable for researchers, policymakers, and agricultural experts. It provides insights into farming practices, environmental impact, and the overall health of the food system. Analyzing this data can help diagnose and address agricultural challenges, such as soil degradation or the overuse of certain agrochemicals.
5. **Farmers' Empowerment:** Farmers themselves can benefit from such a system. Access to accurate and detailed records can help them optimize their farming practices, comply with regulations, and access markets that prioritize transparency and sustainability.
6. **Risk Management:** The ability to trace and monitor farming practices aids in risk management for both farmers and consumers. It allows for timely intervention in case of disease outbreaks, contamination, or other issues that could affect food safety.

While the benefits are significant, the successful implementation of such a system requires collaboration among various stakeholders, including farmers, government agencies, technology providers, and consumers. Overcoming challenges related to data security, standardization, and the integration of

technology into traditional farming practices will be crucial for the widespread adoption and success of Farm to Fork traceability systems.

REFERENCES SITE LINKS

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