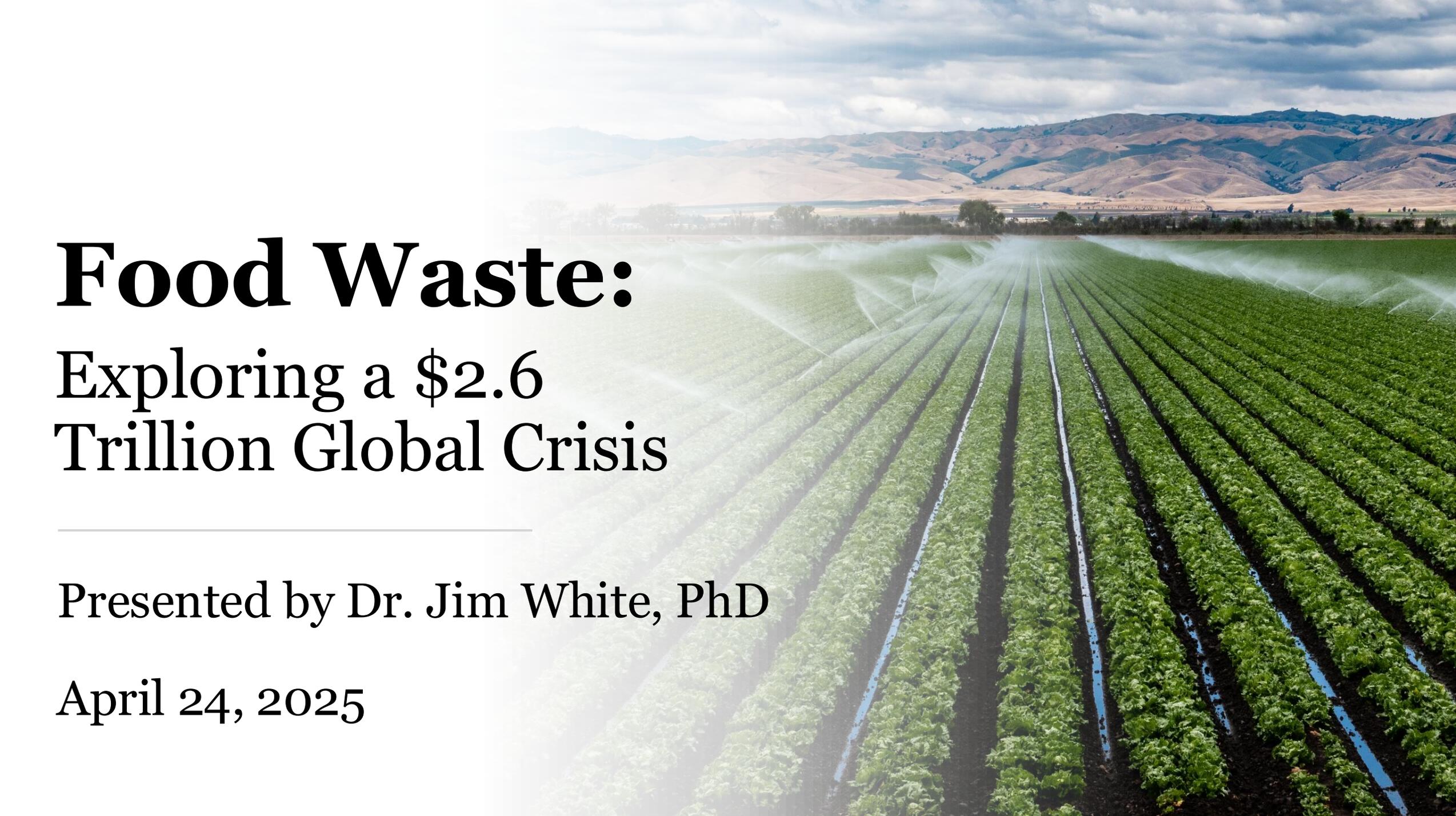


Food Waste: Exploring a \$2.6 Trillion Global Crisis



JIM WHITE
Founder & CEO
PHT Investment Group





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Exploring a \$2.6 Trillion Global Crisis

Presented by Dr. Jim White, PhD

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Who is Jim White, PhD?



Dr. Jim White is an industrialist, philanthropist, and Vietnam Army combat veteran.

He is Chairman and CEO of Post Harvest Technologies, Inc. and Founder and CEO of JL White International, LLC, and JL White Investments, LLC. He is also the Founder and CEO of PHT Investment Group LLC and PHT Growth Fund LP, which are impact-focused private equity platforms.

Each of these companies are part of his larger group of companies operating within the critical fresh produce post-harvest infrastructure sector, with a mission to ensure fresh produce and other perishable food items get from field to table through a safe, secure and efficient supply chain.

Jim is the author of several acclaimed books, including [Broken America: Ten Guiding Principles to Restore America](#) and [Opportunity Investing: How to Revitalize Urban and Rural Communities with Opportunity Funds](#). He also authored the best-selling [What's My Purpose? A Journey of Personal and Professional Growth](#), which has been lauded by industry leaders such as Steven M.R. Covey and Jack Canfield.

Who is Jim White, PhD?

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At age five, Jim found his entrepreneurial spirit when he launched his first business: collecting and selling Coke bottles to help support his impoverished family. From these humble beginnings, Jim volunteered to serve his country in the Vietnam War, where he completed two tours of active combat duty. He was injured, yet he went on to enter academia and the corporate world. He went from high school dropout to academic triumph, eventually earning a B.S. in Civil Engineering, an MBA, and a PhD in Psychology and Organizational Behavior.

Jim's leadership and business acumen have earned him international recognition. He served as the CEO of Blount World Trade Corporation, owned and managed ACEC Centrifugal Pumps NV in Belgium, and was Vice President and Division Manager at Ingersoll Rand Equipment Corporation. As part of his vision for leadership and mentorship, Jim founded the customized yearlong management and leadership transformation process, [The Circle of Success](#); Jim White's Classic Movie Series; and The Red Carpet Tour. These innovative events have attracted over 100,000 participants worldwide, including Fortune 500 CEOs, management teams, entrepreneurs, governments, and trade associations.

He has bought, expanded, and sold 23 companies operating in 44 countries throughout his career. Jim acquired failing businesses to revive and develop them into profitable enterprises using his proprietary business turnaround strategy. To date, he has generated more than \$3 billion in revenue.

Jim believes in democracy, decency, and the values upon which our nation was founded. He works tirelessly to fix what is broken in America.



The Food Waste Crisis

- **One-third of all food** produced for human consumption is **lost due to waste**
- This equates to **1.3 billion metric tons of food wasted annually** – a financial loss of **over \$1 trillion per year**
- And, without significant changes, this problem is **expected to grow to 2.1 billion metric tons and \$1.5 trillion by 2030**
- In the U.S. alone, **post-harvest food waste costs \$120 billion per year** – highlighting the urgent need for investment in fresh produce cold chain infrastructure.



Scale of the Problem

- 7.6 billion people → 10 billion by 2050. We cannot afford to lose such large quantities of the world's food supply
- This crisis not only has significant financial implications, but also environmental and social ramifications
 - \$1 trillion in direct economic costs
 - \$700 billion in environmental costs
 - \$900 billion in social costs
- Total Global Economic Impact = **\$2.6 Trillion**

Environmental Impact



Food isn't just a social or humanitarian concern – it's an **environmental one.**

- **Landfills:** Wasted food makes up 21% of landfill volume, releasing methane (25x stronger than CO₂)
- **Emissions:** Responsible for 8-10% of annual global GHG emissions – 5x the aviation sector
- **Water Waste:** 45 trillion gallons of water are wasted annually
- **Carbon Footprint:** Produces emissions equivalent to 32.6 million cars annually
- **Global Impact:** If food waste were a country, it would be 3rd largest CO₂ emitter after U.S. & China



Social Impact

- Alongside poverty, conflict, & natural disasters, food loss and waste (FLW) is one of the **leading causes of global food insecurity**
- Widespread hunger is **not caused by food scarcity**, but rather from **failure of distribution**
- FLW **could feed up to 2 billion people per year** and help end the global hunger crisis, impacting **828 million**

Food Waste Summary



It's clear that **food waste and loss is pervasive** throughout the entire food value chain – from field to table



However, I want to focus on one food category disproportionately affected by the food waste crisis...



Fresh Produce is *especially prone* to loss and waste

- **45%** of all lost or wasted food globally is **fresh produce**
- In the US, **52%** of all fruits and vegetables is lost or wasted
- This is the **highest rate of waste** for any food category

What is Post-Harvest?

- Post-harvest refers to the **stage of crop production immediately after harvest and before retail and consumption.**
- It includes Packing, Sorting, Cooling, Handling, Storing, Processing and Transporting perishable food products.
- **25-30% of all produce loss and waste occurs post-harvest**



What is the Cold Chain?

The cold chain refers to the temperature-controlled supply chain used to maintain the quality and safety of fresh produce from field to table.

Maintaining an in-tact cold chain is considered **the most important aspect** in delivering fresh, high-quality produce to retailers and consumers.

Key aspects of the cold chain include:

- 1. Pre-Cooling:** Produce is rapidly cooled after harvest to remove field heat
- 2. Cold Storage:** Produce is stored in temp-controlled environments to maintain freshness
- 3. Processing:** Any cutting, washing, and packaging occurs in temp-controlled facilities
- 4. Transportation:** Refrigerated vehicles used to transport produce through cold chain
- 5. Distribution Centers:** Storing, consolidating and distributing perishable goods

Pre-Cooling

- Pre-Cooling is the first step in the post-harvest cold chain. **It is the critical process of rapidly lowering produce temperature after harvest to reduce spoilage and extend shelf life**
- For most produce, a **one-hour delay at field conditions of 95°F leads to a loss in shelf life of about 1 day** — even at optimal storage conditions



Post-Harvest Investment Case

- A world free of hunger and poverty **cannot be achieved without a substantial increase in capital flows** into agriculture and food systems.
- **Over \$140 billion must be invested** in the global food supply chain to end hunger and poverty by 2030.



Strategies to Tackle Post-Harvest Food Waste

With 85 years of experience in the post-harvest supply chain, we've identified key solutions to combat food waste and increase supply chain resilience.

These strategies focus on eliminating food waste, maximizing shelf life, and building a stronger, more efficient food system:

- Design and Build state-of-the-art **Pre-Cooling and Cold Storage Facilities**
- Engineer and Manufacture **Specialized Pre-Cooling Equipment**
- Build out integrated **First and Last-Mile Distribution Network**
- Incorporate next-generation **Automation, Robotics, Racking**
- Streamline 3PL through **Consolidation, Distribution & Cross-Docking**
- Prioritize Food Safety using **AI, Temperature Sensors & Internet of Things**
- Implement industry-leading **Warehouse Management Systems**
- Leverage **Fresh and Wastewater Reclamation and Recycling**

Conclusion

Post-harvest food waste remains one of the most pressing challenges in the global food supply chain. Improving infrastructure—from pre-cooling and cold storage to logistics, automation, and food safety technology—is critical to extending shelf life and reducing loss.

By implementing proven cold chain solutions, stakeholders across the agricultural sector can minimize food waste, improve sustainability, and strengthen food security for communities worldwide.

Thank you!
- Jim White, PhD

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