

Plastics in Agricultural Transportation

Kelly P. Nelson
USDA Economic Research Service
Research Agricultural Economist

Organic Confluence Summit May 9, 2023

Where are plastics found in transportation?

- Structural and reusable
- Individual retail containers
- Bulk packaging and transportation materials
- Chemical storage









Structural

- Insulating foams
- Plastic parts of vehicles and facilities
- Reusable, but have lifespans
- Perform checks to identify damaged parts
- Use care when disposing of discarded materials









Retail packaging

- Individual bags, clamshells, bottles, etc.
- Single-use, recyclable in some cases
- Larger sizes or bulk display can reduce use
- For some containers, glass, paper, or metal can be substitutes
- Plant-based plastics present an additional alternative









Transportation packaging

- Bags and nets
- Pallet wrapping







- AMS recommends some commodities be held in bags or nets
- Pallet wrapping protects goods from vibration damage and spills
- Some wraps are airtight and modified atmosphere added to prevent spoilage
- Bags, nets, and straps can be made of materials besides plastics, but wraps may need to be plastic







Chemical storage

- Individual containers
- Containment pallets
- Some chemicals can only be stored in plastic, or they will damage the container
- For safety, chemicals should be shipped and stored using specialized plastic pallets to contain spills
- Pallets can be reused in most cases, as can some containers.

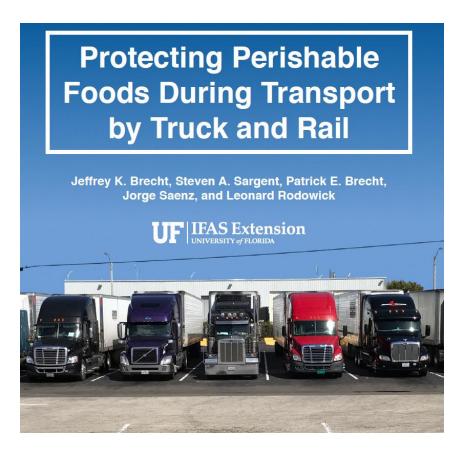








Further reading:



Download the handbook or FoodTransport app

Or contact the USDA Agricultural Marketing Service Transportation Service Division









Like, Share, & Follow ERS



www.ers.usda.gov



@USDA_ERS



linkedin.com/company/usdaeconomic-research-service

Subscribe to Weekly E-mail Notifications: www.ers.usda.gov/subscribe

Learn About Careers at ERS: www.ers.usda.gov/about-ers/careers-at-ers









Kelly P. Nelson USDA Economic Research Service Research Agricultural Economist

kelly.nelson@usda.gov







