



## Marketing U.S. Grain and Oilseeds by Container (Summary)

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This is a summary of *Marketing U.S. Grain and Oilseeds by Container*, by Kimberly Vachal, Upper Great Plains Transportation Institute, North Dakota State University, Fargo, ND, September 2014, produced under an Agricultural Marketing Service (AMS) cooperative agreement. The full paper is available at <http://www.ugpti.org/resources/reports/details.php?id=773>.

Over the past decade, U.S. exporters have increasingly used containers to ship grain. However, the dynamic market, heavily influenced by global demand and by ocean carriers, poses challenges in optimizing operations and making the best investment decisions. Access to more and better market information helps exporters navigate the ever-changing environment. *Marketing U.S. Grain and Oilseeds by Container* report describes the growth of the containerized grain industry and highlights some of the investments that help stimulate the market.

U.S. agriculture continues to adapt to changes in the world food market. Some of these changes include increased demand for food security, rising costs of energy, and increasing sophistication of international buyers. Amidst these changes, the marketing of grain and feed products in containers, which have traditionally been moved in bulk vessels, has become a more popular option. Grain movements in containers comprise around 10 percent of the total grain export market, and provide an opportunity to access new international niche markets.

This paper reports on an analysis of rail and port container traffic that offers insight into market activities, trends, and opportunities for the marketing of grain internationally via container. The ability of the U.S. grain industry to understand and successfully respond to market signals is key to continued growth for container transportation as a marketing alternative to traditional bulk shipment.

While some specialized grain products have been marketed in containers for decades, a more general commercialization of the grain container market has occurred over the past several years. The U.S. grain industry has for decades offered the container option to fulfill orders such as food-grade soybeans to Japan. A wider use of containers for traditional bulk shipments such as feed-grade corn is a more recent phenomenon. The increase in containerized grain shipments has resulted from market changes, as well as industry investments that increase the visibility and viability of this option. For example, the grain industry near Chicago, IL—America's largest inland intermodal hub—has converted several small, local grain facilities from bulk to container to take advantage of its proximity to a readily available supply of empty containers.

Transloading grain from bulk railcars to containers has also become a viable option for containerized grain exporters. For example, the Union Pacific has recently invested in a new transload facility in Yermo, CA. Transloading takes advantage of the economies of size associated with moving trainload units of grain from inland production regions to a near-port facility, allowing minimal drayage costs because of the proximity to the larger supplies of empty containers at port terminals. While several transload facilities in the region have been operating in a smaller capacity for many years, the Yermo facility is a major investment dedicated to large-scale transload of agricultural products.

Competitive and reliable transportation services are fundamental to U.S. agriculture's success in a global market. Recent statistics show an increasing trend in world grain traded via container. Although bulk shipping remains dominant in the world grain export market, niche container marketing is increasingly being used by U.S. grain companies and by competitors, such as Canada and Australia. Analysis shows that, although it is a relatively small part of the U.S. grain market, container exports of grain have begun to attract more attention from investors and shipping lines as a viable mode of international grain trade. However, the distance of major grain production areas to the largest container inland terminals and ports remains the largest challenge for the industry. The ability of the U.S. grain industry to adapt to a dynamic market through terminal investments, expanded transload facilities and increased "match-back" traffic will prove challenging, but potentially advantageous in long-term benefits associated with market diversification and an expanded customer base.

As industry experience is gained and investment decisions related to grain container shipping are made, the nature and activity levels for U.S. agriculture in this market will change. This report offers context for decisions related to this market, both from a general perspective and a more granular viewpoint.

The goal of the *Marketing of U.S. Grain and Oilseeds in Containers* report is to give insight into grain container shipments based on activity levels and trends, considering commodity, origin and destination. An initial step in understanding the grain container supply chain is recognizing inland terminals, ports, and international port networks. Unlike the bulk supply chain market, grain is a minor commodity in the spectrum of products shipped by container, so a brief discussion of the overall use of containers is included for the purposes of context. The report provides an in-depth discussion on major grains (such as corn, wheat, and soybeans) and has a section on distillers grains, a relatively new but important by-product of corn ethanol production used as an animal feed supplement.

A descriptive analysis was used to compile facts about trends and recent activities in marketing farm (and specifically grain) products via container. Statistical measures were used to test relationships in the market. In creating the profile, the U.S. Department of Transportation's U.S. Public Use Waybill (Public Waybill) and the JOC Group, Inc.'s Port Import Export Reporting Services (PIERS) data were the principal data sources. The methodology mirrors that presented in the industry profile published in 2001: [\*U.S. Containerized Grain and Oilseed Export: Industry Profile Phase I.\*](#)

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