

FOOD AND NUTRITIONAL

Supply Chain Outlook 2025

APRIL - ISSUE 41



ECONOMY

- NEW TARIFFS ARE RAISING THE COST OF FOREIGN GOODS
- CHINA JOB MARKET FACES GROWING INSTABILITY

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Pricing Trends Key

- Price Increase 
- Price Increase Due to Current Events 
- Price Stable 
- Price Decrease 

Economic Outlook

United States - The U.S. faces rising inflation and potential recession as

President Trump adjusts economic policies and foreign tariffs. Current risks are seen as short-term costs for long-term gains. Recent market data shows slight declines in growth, but it's too early to expect a downturn. New tariffs are raising the cost of foreign goods, while boosting demand for domestic products. U.S. production costs will rise temporarily as accessibility and demand grow.

The Trump administration emphasizes tariffs as part of building a more secure, structured, and fair global trade system.

Various price shifts are expected as tariffs roll out. Foreign goods will cost more, and domestic prices may rise short term, but American products will become more valuable and accessible, helping circulate wealth within the U.S.

The Fed has kept interest rates at 4.5% as the economy adjusts and announced plans to cut the U.S. monthly Treasuries cap from \$25B to \$5B in April as part of quantitative tightening.

The job market remains tight, with 151K new jobs in February but a higher unemployment rate. Labor participation declined, and part-time work increased. Job growth is strong in manufacturing, transportation, construction, and warehousing, but slowing in retail, leisure, and hospitality. Equity prices and tech stocks fell last month, while service prices rose and remain a key driver of inflation. Consumer confidence is low as the public adjusts to shifting economic policies.

Market movement YTD as of 2/18/25

- DJIA: + 0.09%
- S&P 500: - 1.94%
- NASDAQ: - 5.81%

India

India's economy continues to show strong

growth, benefiting from the U.S.-China trade war. Growth is largely driven by high consumption and strategic government spending. Inflation is mostly stable - CPI inflation hit a record low in February 2025, though core inflation has inched up due to pricing pressures.

The main risks to growth are global uncertainty and rupee depreciation. Domestic investor confidence remains high, reflected in increased market participation. Government spending is heavily focused on infrastructure and continued investment to sustain momentum despite trade concerns.

China

China appears confident in its new economic growth strategy, shifting focus from tech investment to consumer-driven growth.

A sizable fiscal stimulus was introduced to boost consumer confidence and cushion the impact of the ongoing U.S. trade war. Officials describe this as a more balanced alternative to past unsynchronized monetary policy. China's 2025 growth target has been raised to 5%, with economists also revising GDP forecasts upward to 4.5% in 2025 and 4.2% in 2026.

However, analysts note foundational issues in China's approach.

The government is prioritizing large-scale economic initiatives - such as higher treasury bonds, special debt allowances, and funding for major state banks - while consumer support is largely absent. No major aid plans have been proposed for households or tariff-affected producers. Welfare support remains minimal, with only marginal pension increases.

Economists are urging China to adopt a more sustainable policy focused on consumer relief, producer aid, and tax reform. Premier Li Qiang has not addressed the ongoing supply-demand crisis, pointing instead to fiscal stimulus as a temporary fix. The job market faces growing instability, with rising prices and business costs. The housing market also remains fragile, despite a slight price rebound.

CURRENT EVENTS

- CHINA THREATENS RETALIATORY TRADE SANCTIONS
- TARIFFS DRIVE RAW MATERIAL COSTS

US-China Trade War Update:

- **As the US-China trade war persists**, China has announced its preparedness for any further moves the US makes moving forward. Additional tariffs are expected to be applied on Chinese imports from the US on April 2nd. Global inflation has spiked in response to the tariffs and output rates have also been affected. China is expressing serious retaliatory measures, including reciprocal tariffs and sanctions.
- One of the impending pressures China is threatening involves key minerals and resources commonly used in American supply chains. **Many analysts are calling for China to address its internally weakened economy** instead of using full force to fight the US. Several Chinese producers fear the trade war will cause price squeezing in their alternative export markets. Other countries have growing worries about similar tariffs, specifically Canada, South Korea, the EU, India, and Japan. The US dollar has lost value because of the trade uncertainty.

Russia-Ukraine War:

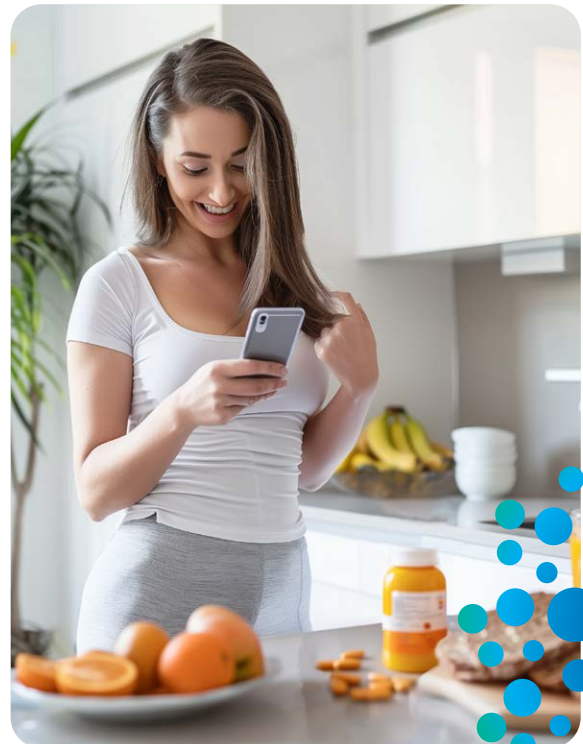
- Ukraine officials have made statements against Russia's continued empty promises about peace and conflict resolution. Recent Russian attacks have hindered any compromise success, including efforts from America and other allied countries.
- Russian officials have been in conversation with the American government regarding plans to stop regular strikes in Ukraine and the beginning of a ceasefire agreement in the Black Sea. While negotiations with the United States have been described as productive, information will be delivered to the public more formally as change becomes possible.

Turkey Fighting Anti-Democracy:

- The opposition of political parties has caused mass protests and jailed opposition leader and presidential candidate Ekrem Imamoglu. The current president of Turkey has made protests and public gatherings illegal in many areas to avoid criticism for anti-democratic decisions in the government. This week, thousands of people still gathered to protest the government decisions while officials try to keep civil unrest from affecting Turkish markets. The Turkish Central Bank has reportedly spent nearly \$26B this week trying to manage the unrest.

Vitamins:

- Factory shutdowns are expected to be longer than usual this year in an effort to decrease market supply and increase pricing. More to be seen as to the effect this will have on the market.
- **New tariffs implemented in February** and another that followed close after, had an immediate impact on the prices of raw materials that are imported from China. With the concern over more tariff increases coming, the impact will remain to be seen.



Tariffs, conflicts, and protests disrupt **global markets**

FAT SOLUBLE

VITAMINS

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin A: Vitamin A pricing has stabilized, but remains strong, even though market demands have been weak.



Vitamin D: Vitamin D has stabilized, but prices remain high. There have been indications that prices may strengthen even more in the coming months.



Vitamin E: Pricing for Vitamin E has stabilized but remains high.



Vitamin K: Current pricing for vitamin K1 has stabilized.



Pricing Trends Key

Price Increase

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Price Stable

Price Decrease

Price Stable to Rising

New tariffs introduced in February, followed by another soon after, quickly drove up the cost of raw materials imported from China.



WATER SOLUBLE

VITAMINS CONT.

Trending Vitamins:

- VITAMIN K
- VITAMIN D
- VITAMIN B
- VITAMIN C

Vitamin C: Vitamin C prices were seeing increases towards the end of 2024 during bid season. The pricing has now stabilized. Manufacturers began quoting at lower costs, but with the new tariff situation, those lower costs are not being seen. The tariff offset those decreases. With the coming extended summer maintenance shutdowns, more to be seen as to how this will affect the pricing in the market.



Vitamin B1 (Thiamine):

Pricing has been stable lately, but more recently there have been increases in the market. Some of this has been because of supply availability. Producers will try to keep prices higher by reducing capacity for the first part of the year.



Vitamin B2 (Riboflavin):

Riboflavin USP and food grade pricing have stabilized. Supplies are adequate. Several new entrants have begun manufacturing and potential capacity increases can be expected by the majors.



Vitamin B3 (Niacin/

Niacinamide): Pricing is currently stable.



Vitamin B5 (Calcium Pantothenate): B5 pricing has stabilized but remains low. There have been new producers entering the market, creating an oversupply of material.



Vitamin B6 (Pyridoxine):

B6 pricing has stabilized but remains on the high end. New producers have entered the market which will create more supply and possible softening of prices.



Vitamin B7 (Biotin):

Production of B7 has stabilized and pricing has followed. Because pricing is on the lower level, there may be some increase in pricing coming.



Vitamin B9 (Folic Acid):

The B9 market is seeing an increase. Prices have more than doubled since the beginning of 2025. The increase is expected to continue for the foreseeable future and supply is very tight. Factories have begun quoting again.



Vitamin B12 (Cyanocobalamin)

The B12 market will see increases.



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Price Stable to Rising

Price Decrease to Stable



MINERALS

- SOME MINERALS HAVE SEEN PRICE INCREASES
- PRODUCTION AND TRANSIT ISSUES ARE PART OF ESCALATION

Trending Minerals

- Chelates
- Magnesium Citrate
- Zinc Gluconate
- Zinc Citrate

Calcium Carbonate: Visit the Granulations section on page 10 for more information about our directly compressible version of SuperTab® oyster shell calcium carbonate.

- SuperTab® Oyster Shell Granulation (OSG) 2000 AM
- SuperTab® Oyster Shell Granulation 2100 Malto
- SuperTab® Oyster Shell Granulation 2300 Acacia

Copper: Prices have stabilized but demand remains high.



Iron: Iron prices have stabilized, and supply is available.



Electrolytes

Calcium: Calcium prices have stabilized.



Magnesium: Magnesium market price and supply are stable.



Potassium: Potassium prices and availability are stable.



Phosphorus: Pricing has become relatively stable.



Sodium: Sodium prices have stabilized.



Zinc

Zinc prices and availability have stabilized. There have been new manufacturers that have entered the market which will keep the pricing stable.



Zinc Gluconate: The price of Zinc Gluconate is stable however, lead times are increasing.



Zinc Oxide: Prices for Zinc Oxide had started to see some strengthening but have now stabilized.



Zinc Sulfate: Zinc Sulfate prices remain stable however, lead times are increasing.



Zinc Ascorbate: The price of Zinc Ascorbate is stable; however, lead times are longer than average.



Zinc Citrate: Prices are showing an increase with longer lead times continuing.



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MINERALS CONT.

- SOME MINERALS HAVE SEEN PRICE INCREASES
- PRODUCTION AND TRANSIT ISSUES ARE PART OF ESCALATION

Chelates

Zinc Amino Acid Chelate: Prices and lead times for zinc amino acid are increasing.



Zinc Bisglycinate Chelate: Prices have stabilized. There have been additional manufacturers that have entered the market which should keep pricing from increasing as well.



Zinc Glycinate Chelate: Zinc Glycinate is experiencing longer than average lead times, but prices remain stable.



Copper Glycinate Chelate: Prices are stable and expected to remain so. There have been additional manufacturers that have entered the market which should keep pricing from increasing as well.



Manganese Amino Acid Chelate: Manganese Amino Acid has stabilized.



Trace Minerals

Chromium: Chromium prices remain stable but can be difficult to source due to long lead times.



Molybdenum: The Molybdenum market is experiencing longer than normal lead times, but prices are remaining stable.



Selenium: The selenium lead times have increased; however, prices are stable.



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PREMIXES

- MANUFACTURERS ARE SWITCHING TO PREMIXES
- CUSTOM PREMIXES SIMPLIFY NUTRIENT PROCUREMENT



Custom Nutrient Premixes

More and more manufacturers are switching to vitamin and mineral premixes. Premixes consolidate multiple nutrients into a quality-assured, single-step ingredient and deliver economies of scale by simplifying ingredient procurement from a single source.



TWG SuperBlend®

Our value-added SuperBlend® custom nutrient premixes deliver performance and stability in high temperature and shear processes in a variety of food and beverage products, including:

- Extruded bars
- Gummy supplements
- Breakfast cereals
- Ready to drink beverages
- Beverage mixes



MICROENCAPSULATION

- AN EFFECTIVE METHOD OF MASKING UNWANTED FEATURES
- DELIVER A WIDE-RANGE OF FUNCTIONAL INGREDIENTS



Microencapsulation Technology

Vitamins, minerals, and other nutrients possess unique characteristics that can affect the appearance, color, and odor of the final product. Microencapsulation is an effective method of masking unwanted sensory characteristics while maximizing nutrient function.

SuperCoat[®], our most recent innovation using our proprietary SMART[™] process, envelops particles at the microscopic level in a protective shell. This value-added coating technology delivers superior performance and stability of essential nutrients for a wide range of multi-functional ingredients.

Trending Microencapsulated Nutrients:

- Vitamin C
- Vitamin B5 (Calcium Pantothenate)
- Vitamin B9 (Folic Acid)

With a diverse portfolio of products, **TWG Health + Nutrition** is one of only a select group of manufacturers with the technology and resources to deliver independent manufacturing of custom premixes, microencapsulated nutrients, and granulations.

Our comprehensive supply chain and extensive list of pre-qualified ingredients allows us to react quickly to changing market trends and help you keep up with consumer demand. We also understand that superior service is just as important as technology and expertise. That's why we provide you with prompt quotations, technical assistance, and support documentation to help you efficiently deliver your products on time. Contact us today to talk to one of our experts about your project needs or ask about any ingredients not listed here.



GRANULATIONS

- DELIVER ESSENTIAL NUTRIENTS IN GRANULAR POWDERS IDEAL FOR HIGH SPEED TABLETING
- CAN BE INCORPORATED INTO DRUM-TO-HOPPER TABLET BLENDS



Granulations

Rather than outsource granulations from a third-party manufacturer, TWG Health + Nutrition has committed to developing technologies and processes in-house to effectively and efficiently manufacture **SuperTab® direct compressible granulations**.

SuperTab® granulations deliver essential nutrients in uniform, free-flowing, granular powders ideal for high speed tableting processes. As usual TWG Health + Nutrition combines quality, innovation and superior knowledge to make sure your product is the best it can be. Ask about our granulation capabilities today!

Trending Granulations:

- Glucosamine
- Chondroitin
- Vitamin C

Oyster Shell Granulation

SuperTab® Oyster Shell calcium carbonate is sourced from an above sea level deposit, characterized as fossilized oyster shell beds. These oyster shell beds have been thoroughly vetted over the past ten years with testing of the material both analytically and physically to insure consistency and purity. TWG Health + Nutrition sources the high purity genuine shells exclusively from a domestic supplier.

Contact us today to get started on your next dietary supplement product containing calcium carbonate granulations. Insist on SuperTab® Oyster Shell authenticity in your formulation.



**SUPER
TAB®**
Direct Compressible Granulations



Quality Without Compromise

Dedicated to the health and nutrition market, we are the custom premix, granulation, microencapsulation & beverage products partner you can trust to help deliver high-caliber products to market faster.



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