

FOOD AND NUTRITIONAL

# Supply Chain Outlook 2024

MAY - ISSUE 35



# ECONOMY

- INFLATION RATES RISING
- SLOW ECONOMIC GROWTH FOR CHINA

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## Pricing Trends Key

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

## Economic Outlook

**United States** - Inflation rates in March were higher than predicted and have halted the possibility of an ease in the monetary policy. Employment is rising rapidly, with a spike in immigrant labor participation preventing a sharp rise in service prices. The labor market will remain tight until labor participation stabilizes and relieves wage pressure. Food and energy prices continue to rise as consumer spending increases. The US is adapting to a strong economy and high interest rates. The main identified problems with continued inflation are labor services, reflecting the tight labor market. Investors originally predicted only two rate cuts during 2024, with a slim chance of a third for this year. Recent Fed meetings have expressed the probability of only one rate cut, likely at the beginning of September. The Federal Reserve is committed to untouched rates until target inflation is received. The global projection suggests the US is the last country to cut rates.

Market movement YTD as of 05/09/24:

- DJIA: +4.51%
- S&P 500: +9.31 %
- NASDAQ: +8.89 %

## East Asian Nations

**Japan** - Following the release of the US economic inflation data, the yen's value decreased compared to the US dollar. In response, Japan created a strong monetary policy and continues to tighten as inflation rises.

**China** - China continues to see almost zero inflation but is still experiencing slow economic growth. The monetary policy will remain tight to avoid pressure on currency. Consumer prices are falling as supply grows in excess and demand weakens further.

China risks deflation if consumer demand does not increase. Interestingly, China is investing in new technologies with no export value rather than appealing to consumer needs. China may be seeing economic improvements as prices of copper continue to rise along with the country's increased industrial production rate.

## Eurozone

The European banks have kept the monetary policy tight for longer than expected. If changes are made to the policy now, the euro will further depreciate. Inflation is decelerating significantly through the first quarter of 2024 as demand weakens. Members of the ECB are split on the decision to immediately cut rates versus pushing the decision to the June meeting. Germany is struggling with worsening credit conditions for businesses and households, putting pressure on the ECB to loosen the monetary policy. Germany is expressing concerns about trade risks; as China's primary export target and amidst recent tensions in their trading relationship, Germany is urged to diversify their supply chains.

**Global economies exhibit diverging trends: US faces inflation, Japan tightens policy, China sees slow growth, and Eurozone tackles inflation & trade risks.**

# CURRENT EVENTS

- NEW TARIFFS ON CHINA
- CERTAIN VITAMINS PRICE TRENDING UPWARD

## Increased China Tariffs

- **Biden has suggested new tariffs on trade with China.** President Biden maintained the trade policy established by former President Trump and has recently proposed significantly higher tariffs on trade with China for steel and aluminum. The new restrictions are set to ease economic investments with China and allow US manufacturers a level market for exports.
- **Many experts see Biden's efforts as last-minute appeals for reelection,** as it is his second attempt to support Pennsylvania workers specifically. Biden has yet to reaffirm the issue that the tariffs are always paid for by the consumers in the country in which they were established. If put in place, the tariffs would raise import prices for consumers and businesses. However, higher import prices would allow in-state manufacturers to raise prices subsequently.

## Mexico - China Trade Tensions

- **Mexico is facing strong trade tensions with China,** mainly over US trade tariffs against China. Globally, economies have accepted the growing trade risks with China and have steadily diversified their supply chains, leaving China with weak demand and excess supply. Mexico is attractive to China as a low-cost means of labor, transportation, and reliable access to US trade without direct relations.
- China is importing goods to Mexico to be manufactured and then exporting them to the US under the free trade agreement with Mexico. The US is now pressuring Mexico about the increase in trade relations with China. **Mexico is looking to impose new tariffs on countries without free trade agreements,** seeing through China's effort to unburden its demand and take advantage of Mexico's manufacturing environment.

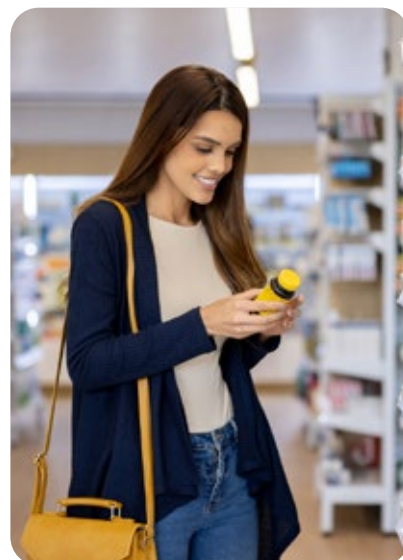
## Middle East

- President Biden has threatened to withhold military aid from Israel if they were to attack Rafah, a southern region of Gaza. Israeli militia is concerned over the US' recent political message that suggests the refusal of weaponry supplies during a critical point in the war against Hamas.

- If the US threats reach fruition, the countries could be facing a massive crisis in Israeli-American relations. Israeli officials are condemning Biden for a lack of support by trying to direct Israel's plan of action. However, US foreign defense advisors have explained the risk of a full-scale war with Lebanon breaking out if Israel pursues its attack on Rafah.

## Vitamin Supply

- **We are still seeing higher than usual transportation costs** because of extended travel times for ocean vessels coming to US ports. Also adding to this increase is rising fuel costs.
- Zhejiang Medicine Co. had a flash fire at the end of April. Although it is reported that they are still operational, it is unclear how this will affect pricing on vitamins A and E.
- With the flash fire at the ZMC manufacturing facility, vitamin A prices may see an increase. Currently, most manufacturers have stopped giving quotations.
- Kingdomway stopped production of vitamin A because of the accident at their plant. As a result, the price trend is headed upward.
- BASF has announced that they are planning to build a new citral plant at their Chinese "Verbund" facility. They will continue to dominate the market with 118,000 mt of capacity once it is completed in 2025-6.





FAT SOLUBLE

# VITAMINS

Trending Vitamins:

- VITAMIN K
- VITAMIN D

**Vitamin A:** Due to a fire at ZMC manufacturing facility, vitamin A prices may rise as many manufacturers halt quotations. Kingdomway ceased vitamin A production post-accident, leading to upward price trends. BASF plans new citral plant in China, set to dominate market post-2025 with 118,000 mt capacity.



**Vitamin D:** Vitamin D3 pricing is now flat. Prices have decreased this year over last year but are remaining stable.



**Vitamin E:** With the flash fire at the ZMC manufacturing facility, vitamin E prices may see an increase. Currently, most manufacturers have stopped giving quotations. Pricing for Vitamin E is on the rise due to shortages that is directly related to BASF production.



**Vitamin K:** Current pricing for vitamin K1 has stabilized.



## Pricing Trends Key

Price Increase

Price Increase Due to Current Events

Price Stable

Price Decrease

**Vitamin prices have remained weak this year due to oversupply and new entrants in the B-vitamin market. Weak demand, particularly in feed, has also limited price increases.**



WATER SOLUBLE

# VITAMINS CONT.

Trending Vitamins:

- VITAMIN K
- VITAMIN D

**Vitamin C:** Vitamin C prices were at their lowest due to a large supply and decreased demand in 2023. Now in Q2 of 2024, we are seeing those costs continue to rise, and are expected to continue to increase throughout 2024. Chinese manufacturers will manage pricing through adjusting their production of material. Some of the price increases are being implemented to absorb added transportation costs.



**Vitamin B1 (Thiamine):**

The B1 market pricing has begun to strengthen since 2024 contracts have been established. Look for this increase to continue through 2024.



**Vitamin B2 (Riboflavin):**

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



**Vitamin B3 (Niacin/  
Niacinamide):**

Pricing has stabilized in recent months as there is no longer a raw material shortage. Longer term, oversupply is developing. Prices may strengthen in the short term.



**Vitamin B5 (Calcium**

**Pantothenate):** B5 pricing has stabilized.



**Vitamin B6 (Pyridoxine):**

B6 pricing has begun to strengthen. The top 3 manufacturers have lost money due to oversupply and are increasing to thwart any more financial losses.



**Vitamin B7 (Biotin):**

B7 pricing has been at historical lows due to weak demand. Pricing at this point remains stable as there is no more room to go any lower.



**Vitamin B9 (Folic Acid):**

The B9 market has stabilized after seeing historical lows at the end of 2023.



**Vitamin B12  
(Cyanocobalamin)**

The B12 market is on the rise due to manufacturing shutdowns and plant maintenance. Manufacturers are losing money and are looking for opportunities to increase pricing.



Pricing Trends Key

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Price Stable

Price Decrease

Price Stable to Rising





# 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. We are seeing some cost increases strictly due to the rise in transportation costs.



## Electrolytes

**Calcium:** Calcium prices have stabilized.



**Magnesium:** Magnesium market price and supply are stable.



**Potassium:** Potassium prices and availability are stable.



**Phosphorus:** Global demand and pricing continue to increase.



**Sodium:** Sodium prices have stabilized.



## Zinc

Zinc prices and availability have stabilized.



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



**Zinc Oxide:** Prices for Zinc Oxide are on the rise and lead times can be longer than average.



**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.



### Pricing Trends Key

Price Increase

Price Increase Due to Current Events

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Price Stable to Rising

# 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 for zinc bisglycinate have stabilized.



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



**Copper Glycinate Chelate:** Copper Glycinate prices are stable and expected to remain so.



**Manganese Amino Acid Chelate:** Manganese Amino Acid shows an increase due to raw material availability and longer than average lead times.



### Pricing Trends Key

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Price Stable to Rising

## 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:** Lead times have increased; however, prices are stable.





# PREMIXES

- MANUFACTURERS ARE SWITCHING TO PREMIXES
- PANDEMIC HAS CHANGED THE WAY PROVIDERS OFFER SERVICES

## 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<sup>®</sup>, our most recent innovation using our proprietary SMART<sup>™</sup> 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.







# 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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Learn More



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