

FOOD AND NUTRITIONAL

Supply Chain Outlook 2024

APRIL - ISSUE 34



ECONOMY

- US MANUFACTURING EXPANDS IN MARCH
- CHINA'S ECONOMY BEATS EXPECTATIONS

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Pricing Trends Key

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

Economic Outlook

In the US, manufacturing expanded in March for the first time in 17 months. The ISM Manufacturing index jumped from 47.8 in February to 50.3 in March (anything over 50 indicates expansion). The Federal Funds rate remained flat for March, marking the 5th consecutive session without any changes. Economic slowdown is still expected by many experts, leading to projections that larger rate cuts aren't expected until the 2nd half of 2025. Spot oil prices remain in the mid \$80/barrel range supported by increased global demand, planned OPEC production cuts, and persistent transportation issues in the Red Sea. Stock markets in the US have posted strong gains YTD though there are some concerns regarding a potential equity bubble

Market movement YTD as of 04/01/24:

- DJIA: +3.34%
- S&P 500: +6.29%
- NASDAQ: +6.24%

China

Optimism is growing in China as encouraging economic data shows the world's second largest economy beating analyst expectations across the board. PMI data saw both manufacturing and services in expansion territory for the first time in over a year. Caixin/S&P Global China manufacturing PMI came in at 51.1 for March while China's National Bureau of Labor Statistics data showed the country's official PMI for March at 50.8, the strongest reading since March 2023. While manufacturing and technological upgrades remain the focus for Beijing, domestic real estate continues to be in a period of "adjustment" with insufficient demand leading to a 9% drop in real estate investment and an almost 50% decline in total sales by value.



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CURRENT EVENTS

- CONTINUING VITAMIN VOLATILITY
- MAJOR PHONE COMPANY DATA BREACH

Tragedy Strikes Baltimore

- On March 26th tragedy hit the Port of Baltimore as a cargo ship struck the Francis Scott Key Bridge in the early morning hours causing the bridge to collapse. Traffic has been suspended at the country's 9th largest port until further notice with cargo ships being re-routed to New York, New Jersey, and Norfolk, VA.
- **Major Imports:** Paper/Paperboard, Sugar, Salt, Cars/Light Trucks
Major Exports: Liquefied Natural Gas, Waste Paper, Cars/Light Trucks, Coal

AT&T Breach

- Over the easter weekend millions of Americans learned of a significant data breach at AT&T. Approximately 73 million customers (7.6 million current and 65.4 million former) were impacted with their personal information being found on the dark web. The company confirmed that social security numbers and passcodes were among the compromised data, and that it's possible full names, email, mailing address, date of birth, and AT&T account numbers may have also been compromised. The breach is the second major issue of 2024 for the telecom giant after a major outage in February left tens of thousands of customers without service. The company has launched an investigation into what caused the incident

Vitamin Supply

- Events affecting the transportation of material from overseas are the drought in the Panama Canal that is causing a rerouting of ships, and the conflicts going on in the Middle East affecting the passage of vessels through the Suez Canal.
- These add to the transportation times of these materials to the United States ports. We are seeing the increases in transportation costs come through in cost of goods now. Vessels have doubled the cost
- The prices of many vitamins ended weak in 2023. As 2024 continues we have begun to see some firming especially with Vitamin C.

The collapse of the Francis Scott Key Bridge in Baltimore cut off access to much of the city's port & will disrupt a key trade lane & further tangle already-stressed supply chains.



FAT SOLUBLE

VITAMINS

Trending Vitamins:

- VITAMIN K
- VITAMIN D

Vitamin A: Prices for Vitamin A are projected to increase due to an unfortunate accident at the Kingdomway manufacturing facility in China. Most other manufacturers have stopped producing also, which will mean a tighter supply in the near future. 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.



Vitamin D: Vitamin D3 pricing is now flat.




Vitamin E: 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 at the beginning of 2024, we are seeing those costs rise, & they are expected to continue to increase throughout 2024. Chinese manufacturers will manage pricing through adjusting their production of material. Some of the prices 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):**

Raw material pricing has softened even more due to weak demand and new producers that have entered the market. Prices remain at historical lows.



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.



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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 but because of a major zinc manufacturer shutting down, prices may strengthen as supply tightens.



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 on the rise with longer lead times continuing.



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MINERALS CONT.

- SOME MINERALS HAVE SEEN PRICE INCREASES
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Chelates

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



Zinc Bisglycinate Chelate: Prices for zinc bisglycinate have begun to increase and lead times have remained longer than average.



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.



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.



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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[®], 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.





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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