

Industry Essentials

TABLE OF CONTENTS

Economic Updates	I.
Current Events	II.
Vitamins	III.
Minerals	IV.
Premixes	V.
Microencapsulation	VI.
Granulations	VII.

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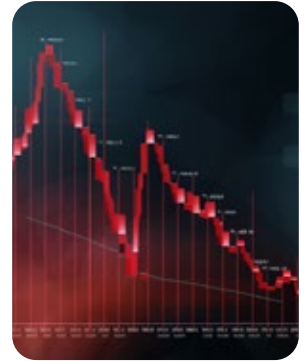
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I. Economic Updates

Oil markets remain inflated with many analysts expecting prices to remain high in the coming months. Prices at the pump are expected to remain inflated as well with US strategic petroleum reserves at a 40-year low, mitigating the influence government can have on current prices. The US Government is also currently facing a potential shut down as of midnight Saturday September 30th if a deal cannot be reached in Congress. Economic impact would depend on the length of the potential shutdown but could include a further downgrade of the US credit rating which could lead to additional increases in borrower interest rates. In financial markets, all three major indices posted their first gains in five sessions (days) on Monday 9/25 after posting steep declines in the previous week as elevated long term interest rates and signaling from the Fed of another rate increase before the end of 2023 continue to dominate headlines and dilute the present value of future corporate earnings, thus driving stock prices lower.



II. Current Events

The Panama Canal is facing an extended water crisis due to severe drought conditions, leading to ongoing limitations on vessel traffic and draft depth. Despite efforts to implement water conservation measures earlier this year, a backlog of ships and doubled waiting times have caused concern across shipping and logistics industries. The canal, a vital waterway connecting the Atlantic and Pacific oceans, plays a crucial role in global trade, with over 800 vessels crossing it beyond expectations this year. As water levels continue to decline, there are growing concerns about potential record-low levels by April. This situation underscores the importance of building supply chain resiliency and flexibility, encouraging shippers to prioritize freight visibility, assess delay-absorbing capacities, explore alternative options, and align internal processes. AlixPartners suggests key considerations and actionable steps to mitigate disruptions, including monitoring shipments closely, assessing the supply chain's capacity to absorb delays, exploring alternative sailing schedules, establishing internal processes for prioritizing goods, and communicating potential cost exposures. This water crisis highlights the need for a resilient supply chain and the importance of diversifying shipping lanes to adapt to the challenges of global trade effectively.



Industry Essentials

III. Vitamins

Vitamin C is an essential micronutrient for humans

which is why it is the top ingredient by percentage in Sports Nutrition & Supplements. It is a key contributor to immune defense. Top five top ingredients as a percentage in sports nutrition supplements supporting immunity.

[Supporting Immunity innovation \(nutritioninsight.com\)](https://www.twgnutrition.com/Supporting-Immunity-innovation)



Vitamin C: Market price is at its lowest of the year. It is selling below cost out of China. Inventory levels are high. Could result in a likely slight increase of prices in Q4 2023.

D3: Pricing for Vitamin D has remained relatively stable.

B6: Pricing for Vitamin B6 increased slightly but should remain stable for the remainder of the year.

Citric Acid: Market price is stable with the possibility to decrease in 2024.

B12: B12 has lowered slightly & should remain stable.

IV. Minerals

Iron is an essential mineral and nutrient for our bodies. Iron is needed to transport oxygen throughout our bodies. A lack of iron can cause the medical condition that is Anemia. [What foods are rich in iron? Here's what foods you can add to your diet for more iron \(msn.com\)](https://www.msn.com/What-foods-are-rich-in-iron-Here-s-what-foods-you-can-add-to-your-diet-for-more-iron)

Iron: Prices have begun to slowly rise again after seeing some pricing stability during the Summer months.

V. Premixes | SuperBlend®

SuperBlend® can help overcome nutrient processing obstacles by delivering performance and stability in a customer's end product. Our premixes respond remarkably well under certain processing conditions. Our SuperBlend® premixes:

- Combine nutrients into a quality-assured ingredient
- Mix coated SuperCoat® ingredients with uncoated nutrients
- Simplify ingredient procurement through one

supplier for cost savings

- Better particle homogeneity by carefully blending ingredients
- Decrease warehousing and inventory costs
- Excellent flow properties for easy dispensing and packaging

VI. Microencapsulation | SuperCoat®

SuperCoat®, uses 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 multifunctional ingredients. Improves products by offering:

- Nutrient integrity, for reduced ingredient overages.
- Enhanced taste, odor masking & improved processing durability
- Sustained and time-release coating technology
- Superior shelf-life stability.

VII. Granulations | SuperTab®

SuperTab® direct compressible granulations and drum-to-hopper blends deliver potency and function that you demand. SuperTab® possesses excellent flowability and compression properties and also:

- Delivers nutrients in uniform, free-flowing powders for fast tableting
- Stringent manufacturing process for consistent particles & high-bulk density
- Supply desired nutritional levels in concentrated dosages
- Add to custom drum-to-hopper tablet blends in one step
- Tested for potency and performance, with full Certificate of Analysis
- Flexible batch/bulk packaging options for homogeneity and productivity