

## Amino Acids

The amino acid category currently is being driven by several factors; supply/demand, animal and human virus conditions along with the continued port challenges. A combination of these factors is causing market price variability basis supplier inventory and price position. In the swine and poultry markets, demand has softened as PRRS, PEDV and AI are having an impact with decreased numbers thus causing lower customer demand for amino acids.

Market conditions from Asian producers have varied based upon input costs for production along with continued high transportation costs. In addition, Covid-19 cases have increased forcing key trade and port areas to close in order to control the spread. Long term impacts could tighten supplies.

Projecting price conditions have become as challenging as ever for some products. Best predictions are stable prices for lysine and threonine and stable for methionine, tryptophan, valine and Isolucene. Having adequate coverage remains important in the event lead times are extended.

INGREDIENT	PRICE TREND: 1 MONTH	PRICE TREND: 3 MONTHS	SUPPLY AVAILABILITY
LYSINE	→	→	INCREASING
THREONINE	→ ↓	→	GOOD
METHIONINE	→	→ ↑	GOOD
TRYPTOPHAN	→	→	GOOD
VALINE	→	→	GOOD

## Dairy Powders

For most dairy powder markets conditions remain unchanged overall. With good supply and production prices have been reflective with stable conditions. Although export demand has increased some, producers are challenged with port congestion and high freight costs limiting buying opportunities in Asia. Until there's significant improvement, experts predict little movement in market prices.

Whey powder pricing have softened as additional production supply had eased the price tension.

INGREDIENT	PRICE TREND: 1 MONTH	PRICE TREND: 3 MONTHS	SUPPLY AVAILABILITY
WHEY PERMEATE	→	→	GOOD
LACTOSE	→	→	GOOD
WHEY	↓	→	INCREASING



## Vitamins

The price trend with vitamins is stable to weaker as buyers are sourcing small quantities as they work down purchase positions. With limited buying activity, sellers look to be satisfied with current prices. Producers in Asia continue to be challenged with high logistics costs and increases in Covid-19 cases keeping prices at current levels. The trend looks to continue with weaker price conditions through the spring months when demand softens.

BASF is now offering supply of vitamin A to the US market for the first time in several years. The market has reacted with lower pricing overall. As they increase supply over time experts predict market prices will remain soft.

INGREDIENT	PRICE TREND: 1 MONTH	PRICE TREND: 3 MONTHS	SUPPLY AVAILABILITY
VITAMIN E	→	→	GOOD
VITAMIN A	↓	→ ↓	GOOD
CAL PAN	↑	→	GOOD
NIACIN	→	→	GOOD
D3 500	↓	→ ↓	GOOD

## Minerals

The minerals markets are the most volatile of the micro ingredient categories in both price and supply. The main factors contributing to the market dynamics are decreased available supply from international markets especially from Russia stemming from trade restrictions along with continued logistics challenges of Asian imports. In addition, metal stocks remain low with increased demand from the consumer sector essential for battery and solar powered products.

Monocalcium phosphate supplies are expected to remain tight through the planting season and possibly beyond. A key factor will be the length of the Russian/Ukrainian war as Russia is a major supplier of monocal to global markets including the US.

Overall mineral market trends are predicted to be continued tight supply with supply allocations.

INGREDIENT	PRICE TREND: 1 MONTH	PRICE TREND: 3 MONTHS	SUPPLY AVAILABILITY
MONOCALCIUM PHOSPHATE	↑	↑	TIGHT – ALLOCATION
COPPER SULFATE	↑	→ ↑	GOOD
ZINC SULFATE/OXIDE	↑	→ ↑	TIGHT