



2018 FBS market update

Demand for FBS products has no direct impact on the supply of upstream raw materials, but it does influence the cost. The supply is finite because FBS is a byproduct of harvesting cattle for the meatpacking industry.

Over the last few years, the costs of the raw materials needed to produce FBS have increased significantly due to limited supply in most geographical regions. As a result, FBS suppliers have increased pricing. The FBS market is very dynamic, and changes can happen quickly. We constantly monitor the market to ensure that we can supply our customers with the highest quality FBS they require for their research at prices that fit their budgets.

Why do FBS prices fluctuate constantly?

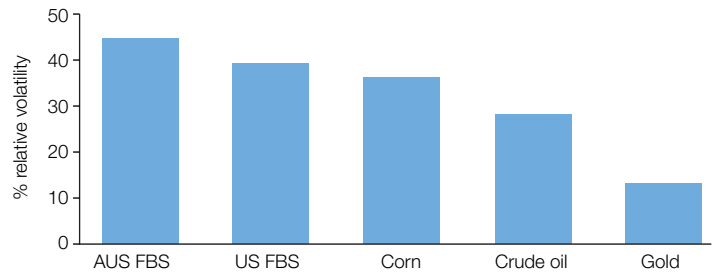


Watch the video at thermofisher.com/fbs

The key supply drivers causing the constant fluctuations in supply are:

Weather patterns	Droughts, floods, poor growing conditions
Beef demand	Determinant of harvesting rates
Dairy market	Dairy product prices
Feed costs	Escalating costs increase harvesting costs
Cattle cycles	Liquidation or rebuilding of herds

FBS market exhibits extreme volatility*



* This graph showcases the standard deviation of change in their respective markets.

As the leading global supplier of FBS, we're committed to maintaining a fully integrated supply chain. This means we'll continue to provide the high quality, availability, and service that our customers have come to expect.

2018 sera market overview for each geographical region.

Price	Cost trends		Market comments	
	Premium:			
	New Zealand	↑	<ul style="list-style-type: none"> • Large liquidation of cow supply in 2015 due to dairy industry weakness • Low cow harvest expected in 2018 • Pressure on costs with removal of China importation ban 	
	Australia	↑	<ul style="list-style-type: none"> • Herd rebuilding after large short-term herd liquidation in 2014 and 2015 • Pressure on costs with removal of China importation ban 	
	US	↗	<ul style="list-style-type: none"> • Continued herd rebuilding with slight improvements in supply • Australia and New Zealand market dynamics impact costs in the US market 	
Value:				
	Mexico	↗	<ul style="list-style-type: none"> • Herd rebuilding continues and trends with US market • High price for US sera is increasing demands on Mexican supply 	
	Canada	→	<ul style="list-style-type: none"> • Similar market conditions as US • Limited sources of supply • Trends with US 	
	South America	↗	<ul style="list-style-type: none"> • Increasing end-user demands are pressuring costs 	

The critical role of FBS quality

FBS provides a robust culture system for the widest range of cell types for both cell lines and primary cells. Gibco™ FBS products are well known for their high quality, which is critical to research success because sera are a rich source of:

- Growth and attachment factors for cells
- Lipids
- Hormones
- Nutrients for growth
- Energy for growth carriers
- Buffering capacity/protection—pH shifts, proteases, toxins
- Binding and transfer proteins

We're dedicated to providing the best possible solutions to meet all your serum needs. If you have questions or would like more information, please contact your Gibco™ FBS account specialist or your sales representative.



Our serum products have been ISIA Traceability Certified since 2014.

To contact your representative, please go to thermofisher.com/fbs

