

# **Microbial Protein for Feed Market Forecast to 2028 - COVID-19 Impact and Global Analysis By Source (Bacteria, Yeast, and Others) and Application (Poultry, Ruminants, Aquaculture, and Others)**

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## **Abstracts**

The microbial protein for feed market size is expected to grow from US\$ 141,095.88 thousand in 2022 to US\$ 308,055.17 thousand by 2028; it is estimated to register a CAGR of 13.9% from 2022 to 2028.

Microbial protein, also known as single-cell protein, is mainly produced from a fermentation process. Selected strains of microorganisms are allowed to multiply on suitable raw materials in controlled cultivation processes directed to the growth of the culture; this is followed by the separation of cell mass. Different fermentation technologies are used to produce microbial protein, such as submerged fermentation and semisolid fermentation. The governments of various countries, especially the UK, France, and China, are taking several initiatives to promote sustainability and reduce their overall environmental footprints. They are encouraging animal feed manufacturers and livestock breeders to use sustainable feed ingredients to reduce the overall environmental impacts of the animal feed industry. This factor is significantly driving the microbial protein for feed market.

Based on application, the global microbial protein for feed market is segmented into poultry, ruminants, aquaculture, and others. The aquaculture segment held the largest share of the global microbial protein for feed market in 2021. The global aquaculture industry is heavily dependent on fish meal for its protein intake. Fish meal is not a sustainable source of feed protein, as the process of sourcing these ingredients is associated with a reduction in global fish stocks, causing significant harm to the marine ecosystem. Moreover, due to the volatile prices of fishmeal and overfishing, it is not a

sustainable feed ingredient. Therefore, aquafeed manufacturers are looking for sustainable feed protein sources, which signifies strong growth potential for microbial protein manufacturers catering to the aquaculture industry.

Asia Pacific is expected to register the highest CAGR in the global microbial protein for feed market over the forecast period. Asia Pacific raises the second largest aquafeed demand, after North America, which results in high animal feed production in the region. According to the Alltech Global Feed Survey 2021, China ranks first in world feed production, with ~240 million tons of feed produced annually. Thus, with the increasing feed production, Asia Pacific is a lucrative market for feed ingredient providers, especially microbial protein, which contributes to the sustainability of animal feed. However, the microbial protein market in Asia Pacific is in a nascent phase as manufacturers are still working on various aspects, such as production scale-up and product stability.

Developing countries such as China and India have a significant livestock population. According to a report by Dairy India, the Indian cattle feed industry grew at a rate of ~6% per annum during 2010–2020, making India one of the world's most significant and fastest-growing cattle feed markets. Despite this growth, there is a massive gap between requirement and production. Thus, cattle feed formulators have a huge opportunity to reposition themselves in India to enhance the outcomes of livestock farming. Thus, although the microbial protein for feed market is in a nascent stage in Asia Pacific, the region provides lucrative growth opportunities to the market players.

The key players operating in the global microbial protein for feed market include Calysta, Inc.; Avecom; Arbiom; KnipBio; ICC; and Alltech. These companies are highly involved in research and development activities to launch microbial protein for animal feed at competitive prices. Moreover, these companies are adopting new technologies to scale up their production to meet the rising demand for microbial feed protein across the globe. These companies are also receiving government grants, approvals, and financial assistance to develop microbial protein that can commercially substitute conventional sources of feed proteins such as soybean meal and fish meal.

The overall global microbial protein for feed market size has been derived using both primary and secondary sources. To begin the research process, exhaustive secondary research has been conducted using internal and external sources to obtain qualitative and quantitative information related to the market. Also, multiple primary interviews have been conducted with industry participants to validate the data and gain more analytical insights into the topic. The participants of this process include industry experts

such as VPs, business development managers, market intelligence managers, and national sales managers—along with external consultants such as valuation experts, research analysts, and key opinion leaders—specializing in the microbial protein for feed market.

## Contents

### 1. INTRODUCTION

- 1.1 Study Scope
- 1.2 The Insight Partners Research Report Guidance
- 1.3 Market Segmentation
  - 1.3.1 Microbial Protein for Feed Market, by Source
  - 1.3.2 Microbial Protein for Feed Market, by Application
  - 1.3.3 Microbial Protein for Feed Market, by Geography

### 2. KEY TAKEAWAYS

### 3. RESEARCH METHODOLOGY

- 3.1 Scope of the Study
- 3.2 Research Methodology
  - 3.2.1 Data Collection:
  - 3.2.2 Primary Interviews:
  - 3.2.3 Hypothesis formulation:
  - 3.2.4 Macro-economic factor analysis:
  - 3.2.5 Developing base number:
  - 3.2.6 Data Triangulation:
  - 3.2.7 Country level data:
  - 3.2.8 Limitations and Assumptions:

### 4. MICROBIAL PROTEIN FOR FEED MARKET LANDSCAPE

- 4.1 Market Overview
- 4.2 Porter's Five Forces Analysis
  - 4.2.1 Bargaining Power of Suppliers
  - 4.2.2 Bargaining Power of Buyers
  - 4.2.3 Threat of New Entrants
  - 4.2.4 Competitive Rivalry
  - 4.2.5 Threat of Substitutes
- 4.3 Ecosystem Analysis
  - 4.3.1 Substrates
  - 4.3.2 Production Process

- 4.3.3 Animal Feed Manufacturers
- 4.4 Expert Opinion

## **5. MICROBIAL PROTEIN FOR FEED MARKET – KEY MARKET DYNAMICS**

- 5.1 Market Drivers
  - 5.1.1 Rising Demand for Sustainable Feed Protein
  - 5.1.2 Nutritional Benefits of Microbial Protein over Conventional Feed Protein Sources
- 5.1 Market Restraints
  - 5.1.1 Lack of Awareness and Scale-Up Challenges
- 5.2 Market Opportunities
  - 5.2.1 Strategic Market Initiatives by Key Players
- 5.3 Future Trends
  - 5.3.1 Government and Private Sector Investments
- 5.4 Impact Analysis of Drivers and Restraints

## **6. MICROBIAL PROTEIN FOR FEED – GLOBAL MARKET ANALYSIS**

- 6.1 Microbial Protein for Feed Market Overview
- 6.2 Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)
- 6.3 Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)
- 6.4 Market Positioning – Microbial Protein for Feed Market Players

## **7. MICROBIAL PROTEIN FOR FEED MARKET ANALYSIS – BY SOURCE**

- 7.1 Overview
- 7.2 Microbial Protein for Feed Market, By Source (2021 and 2028)
- 7.3 Bacteria
  - 7.3.1 Overview
  - 7.3.2 Bacteria: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)
  - 7.3.3 Bacteria: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)
- 7.4 Yeast
  - 7.4.1 Overview
  - 7.4.2 Yeast: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)
  - 7.4.3 Yeast: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)
- 7.5 Others

7.5.1 Overview

7.5.2 Others: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

7.5.3 Others: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

## **8. MICROBIAL PROTEIN FOR FEED MARKET ANALYSIS – BY APPLICATION**

8.1 Overview

8.2 Microbial Protein for Feed Market, By Application (2021 and 2028)

8.3 Poultry

8.3.1 Overview

8.3.2 Poultry: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

8.3.3 Poultry: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

8.4 Ruminants

8.4.1 Overview

8.4.2 Ruminants: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

8.4.3 Ruminants: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

8.5 Aquaculture

8.5.1 Overview

8.5.2 Aquaculture: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

8.5.3 Aquaculture: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

8.6 Others

8.6.1 Overview

8.6.2 Others: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

8.6.3 Others: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

## **9. MICROBIAL PROTEIN FOR FEED MARKET – GEOGRAPHIC ANALYSIS**

9.1 Overview

9.2 North America: Microbial Protein for Feed Market

- 9.2.1 North America: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)
- 9.2.2 North America: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)
- 9.2.3 North America: Microbial Protein for Feed Market, by Source
- 9.2.4 North America: Microbial Protein for Feed Market, by Application
- 9.2.5 North America: Microbial Protein for Feed Market, by Key Country
  - 9.2.5.1 US: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)
  - 9.2.5.2 US: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)
    - 9.2.5.2.1 US: Microbial Protein for Feed Market, by Source
    - 9.2.5.2.2 US: Microbial Protein for Feed Market, by Source
    - 9.2.5.2.3 US: Microbial Protein for Feed Market, by Application
    - 9.2.5.2.4 US: Microbial Protein for Feed Market, by Application
  - 9.2.5.3 Canada: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)
    - 9.2.5.4 Canada: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)
      - 9.2.5.4.1 Canada: Microbial Protein for Feed Market, by Source
      - 9.2.5.4.2 Canada: Microbial Protein for Feed Market, by Source
      - 9.2.5.4.3 Canada: Microbial Protein for Feed Market, by Application
      - 9.2.5.4.4 Canada: Microbial Protein for Feed Market, by Application
    - 9.2.5.5 Mexico: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)
      - 9.2.5.6 Mexico: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)
        - 9.2.5.6.1 Mexico: Microbial Protein for Feed Market, by Source
        - 9.2.5.6.2 Mexico: Microbial Protein for Feed Market, by Source
        - 9.2.5.6.3 Mexico: Microbial Protein for Feed Market, by Application
        - 9.2.5.6.4 Mexico: Microbial Protein for Feed Market, by Application- 9.3 Europe: Microbial Protein for Feed Market
  - 9.3.1 Europe: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)
  - 9.3.2 Europe: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)
  - 9.3.3 Europe: Microbial Protein for Feed Market, by Source
  - 9.3.4 Europe: Microbial Protein for Feed Market, by Application
  - 9.3.5 Europe: Microbial Protein for Feed Market, by Key Country
    - 9.3.5.1 Germany: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)



9.3.5.2 Germany: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)

9.3.5.2.1 Germany: Microbial Protein for Feed Market, by Source

9.3.5.2.2 Germany: Microbial Protein for Feed Market, by Source

9.3.5.2.3 Germany: Microbial Protein for Feed Market, by Application

9.3.5.2.4 Germany: Microbial Protein for Feed Market, by Application

9.3.5.3 France: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)

9.3.5.4 France: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)

9.3.5.4.1 France: Microbial Protein for Feed Market, by Source

9.3.5.4.2 France: Microbial Protein for Feed Market, by Source

9.3.5.4.3 France: Microbial Protein for Feed Market, by Application

9.3.5.4.4 France: Microbial Protein for Feed Market, by Application

9.3.5.5 Italy: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)

9.3.5.6 Italy: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)

9.3.5.6.1 Italy: Microbial Protein for Feed Market, by Source

9.3.5.6.2 Italy: Microbial Protein for Feed Market, by Source

9.3.5.6.3 Italy: Microbial Protein for Feed Market, by Application

9.3.5.6.4 Italy: Microbial Protein for Feed Market, by Application

9.3.5.7 United Kingdom: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)

9.3.5.8 United Kingdom: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)

9.3.5.8.1 United Kingdom: Microbial Protein for Feed Market, by Source

9.3.5.8.2 United Kingdom: Microbial Protein for Feed Market, by Source

9.3.5.8.3 United Kingdom: Microbial Protein for Feed Market, by Application

9.3.5.8.4 United Kingdom: Microbial Protein for Feed Market, by Application

9.3.5.9 Rest of Europe: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

9.3.5.10 Rest of Europe: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.3.5.10.1 Rest of Europe: Microbial Protein for Feed Market, by Source

9.3.5.10.2 Rest of Europe: Microbial Protein for Feed Market, by Source

9.3.5.10.3 Rest of Europe: Microbial Protein for Feed Market, by Application

9.3.5.10.4 Rest of Europe: Microbial Protein for Feed Market, by Application

9.4 Asia Pacific: Microbial Protein for Feed Market

9.4.1 Asia Pacific: Microbial Protein for Feed Market –Volume and Forecast to 2028



(Tonnes)

9.4.2 Asia Pacific: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.3 Asia Pacific: Microbial Protein for Feed Market, by Source

9.4.4 Asia Pacific: Microbial Protein for Feed Market, by Application

9.4.5 Asia Pacific: Microbial Protein for Feed Market, by Key Country

9.4.5.1 Australia: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

9.4.5.2 Australia: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.5.2.1 Australia: Microbial Protein for Feed Market, by Source

9.4.5.2.2 Australia: Microbial Protein for Feed Market, by Source

9.4.5.2.3 Australia: Microbial Protein for Feed Market, by Application

9.4.5.2.4 Australia: Microbial Protein for Feed Market, by Application

9.4.5.3 China: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

9.4.5.4 China: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.5.4.1 China: Microbial Protein for Feed Market, by Source

9.4.5.4.2 China: Microbial Protein for Feed Market, by Source

9.4.5.4.3 China: Microbial Protein for Feed Market, by Application

9.4.5.4.4 China: Microbial Protein for Feed Market, by Application

9.4.5.5 India: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

9.4.5.6 India: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.5.6.1 India: Microbial Protein for Feed Market, by Source

9.4.5.6.2 India: Microbial Protein for Feed Market, by Source

9.4.5.6.3 India: Microbial Protein for Feed Market, by Application

9.4.5.6.4 India: Microbial Protein for Feed Market, by Application

9.4.5.7 Japan: Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)

9.4.5.8 Japan: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.5.8.1 Japan: Microbial Protein for Feed Market, by Source

9.4.5.8.2 Japan: Microbial Protein for Feed Market, by Source

9.4.5.8.3 Japan: Microbial Protein for Feed Market, by Application

9.4.5.8.4 Japan: Microbial Protein for Feed Market, by Application

9.4.5.9 Rest of Asia Pacific: Microbial Protein for Feed Market – Volume and Forecast to

2028 (Tonnes)

9.4.5.10 Rest of Asia Pacific: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.4.5.10.1 Rest of Asia Pacific: Microbial Protein for Feed Market, by Source

9.4.5.10.2 Rest of Asia Pacific: Microbial Protein for Feed Market, by Source

9.4.5.10.3 Rest of Asia Pacific: Microbial Protein for Feed Market, by Application

9.4.5.10.4 Rest of Asia Pacific: Microbial Protein for Feed Market, by Application

9.5 Middle East and Africa: Microbial Protein for Feed Market

9.5.1 Middle East and Africa: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.5.2 Middle East and Africa: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.5.3 Middle East and Africa: Microbial Protein for Feed Market, by Source

9.5.4 Middle East and Africa: Microbial Protein for Feed Market, by Application

9.6 South & Central America: Microbial Protein for Feed Market

9.6.1 South & Central America: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.6.2 South & Central America: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.6.3 South & Central America: Microbial Protein for Feed Market, by Source

9.6.4 South & Central America: Microbial Protein for Feed Market, by Application

9.6.5 South & Central America: Microbial Protein for Feed Market, by Key Country

9.6.5.1 Brazil: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.6.5.2 Brazil: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.6.5.2.1 Brazil: Microbial Protein for Feed Market, by Source

9.6.5.2.2 Brazil: Microbial Protein for Feed Market, by Source

9.6.5.2.3 Brazil: Microbial Protein for Feed Market, by Application

9.6.5.2.4 Brazil: Microbial Protein for Feed Market, by Application

9.6.5.3 Rest of South & Central America: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.6.5.4 Rest of South & Central America: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.6.5.4.1 Rest of South & Central America: Microbial Protein for Feed Market, by Source

9.6.5.4.2 Rest of South & Central America: Microbial Protein for Feed Market, by Source

9.6.5.4.3 Rest of South & Central America: Microbial Protein for Feed Market, by

## Application

9.6.5.4.4 Rest of South & Central America: Microbial Protein for Feed Market, by Application

9.7 Central Asia: Microbial Protein for Feed Market

9.7.1 Central Asia: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.7.2 Central Asia: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.7.3 Central Asia: Microbial Protein for Feed Market, by Source

9.7.4 Central Asia: Microbial Protein for Feed Market, by Application

9.7.5 Central Asia: Microbial Protein for Feed Market, by Key Country

9.7.5.1 Uzbekistan: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.7.5.2 Uzbekistan: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.7.5.2.1 Uzbekistan: Microbial Protein for Feed Market, by Source

9.7.5.2.2 Uzbekistan: Microbial Protein for Feed Market, by Source

9.7.5.2.3 Uzbekistan Microbial Protein for Feed Market, by Application

9.7.5.2.4 Uzbekistan: Microbial Protein for Feed Market, by Application

9.7.5.3 Kazakhstan: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.7.5.4 Kazakhstan: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.7.5.4.1 Kazakhstan: Microbial Protein for Feed Market, by Source

9.7.5.4.2 Kazakhstan: Microbial Protein for Feed Market, by Source

9.7.5.4.3 Kazakhstan: Microbial Protein for Feed Market, by Application

9.7.5.4.4 Kazakhstan: Microbial Protein for Feed Market, by Application

9.7.5.5 Rest of Central Asia: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

9.7.5.6 Rest of Central Asia: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

9.7.5.6.1 Rest of Central Asia: Microbial Protein for Feed Market, by Source

9.7.5.6.2 Rest of Central Asia: Microbial Protein for Feed Market, by Source

9.7.5.6.3 Rest of Central Asia: Microbial Protein for Feed Market, by Application

9.7.5.6.4 Rest of Central Asia: Microbial Protein for Feed Market, by Application

## **10. IMPACT OF COVID-19 PANDEMIC ON MICROBIAL PROTEIN FOR FEED MARKET**

- 10.1 Impact of COVID-19 on Microbial Protein for Feed Market
- 10.2 North America: Impact Assessment of COVID-19 Pandemic
- 10.3 Europe Impact Assessment of COVID-19 Pandemic
- 10.4 Asia Pacific: Impact Assessment of COVID-19 Pandemic
- 10.5 Middle East & Africa: Impact Assessment of COVID-19 Pandemic
- 10.6 South & Central America: Impact Assessment of COVID-19 Pandemic
- 10.7 Central Asia: Impact Assessment of COVID-19 Pandemic

## **11. INDUSTRY LANDSCAPE**

- 11.1 Overview
- 11.2 Partnership
- 11.3 Expansion

## **12. COMPANY PROFILES**

- 12.1 CALYSTA INC.
  - 12.1.1 Key Facts
  - 12.1.2 Business Description
  - 12.1.3 Products and Services
  - 12.1.4 Financial Overview
  - 12.1.5 SWOT Analysis
  - 12.1.6 Key Developments
- 12.2 Avecom
  - 12.2.1 Key Facts
  - 12.2.2 Business Description
  - 12.2.3 Products and Services
  - 12.2.4 Financial Overview
  - 12.2.5 SWOT Analysis
  - 12.2.6 Key Developments
- 12.3 Arbiom
  - 12.3.1 Key Facts
  - 12.3.2 Business Description
  - 12.3.3 Products and Services
  - 12.3.4 Financial Overview
  - 12.3.5 SWOT Analysis
  - 12.3.6 Key Developments
- 12.4 KnipBio
  - 12.4.1 Key Facts

- 12.4.2 Business Description
- 12.4.3 Products and Services
- 12.4.4 Financial Overview
- 12.4.5 SWOT Analysis
- 12.4.6 Key Developments
- 12.5 ICC
- 12.5.1 Key Facts
- 12.5.2 Business Description
- 12.5.3 Products and Services
- 12.5.4 Financial Overview
- 12.5.5 SWOT Analysis
- 12.5.6 Key Developments
- 12.6 Alltech
- 12.6.1 Key Facts
- 12.6.2 Business Description
- 12.6.3 Products and Services
- 12.6.4 Financial Overview
- 12.6.5 SWOT Analysis
- 12.6.6 Key Developments

## **13. APPENDIX**

- 13.1 About The Insight Partners
- 13.2 Glossary of Terms

## List Of Tables

### LIST OF TABLES

Table 1. Average Selling Price (US\$/kg) of Microbial Protein for Animal Feed, by Region, 2021. Error! Bookmark not defined.

Table 2. Animal Protein for Feed Market Revenue and Forecast to 2030 (US\$ Million) Error! Bookmark not defined.

Table 3. Nutritional Comparison of FeedKind Aqua Protein with Peruvian Super Prime Fishmeal

Table 4. Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

Table 5. Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

Table 6. Global Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 7. Global Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 8. Comparison of Protein Production Efficiency of Selected Sources in 24 Hours

Table 9. Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 10. Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 11. North America Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 12. North America Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 13. North America Microbial Protein for Feed Market, by Application– Volume and Forecast to 2028 (Tonnes)

Table 14. North America Microbial Protein for Feed Market, by Application– Revenue and Forecast to 2028 (US\$ Thousand)

Table 15. US Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 16. US Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 17. US Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 18. US Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 19. Canada: Microbial Protein for Feed Market, by Source – Volume and Forecast



to 2028 (Tonnes)

Table 20. Canada: Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 21. Canada Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 22. Canada Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 23. Mexico Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 24. Mexico Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 25. Mexico Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 26. Mexico Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 27. Europe Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 28. Europe Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 29. Europe Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 30. Europe Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 31. Germany Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 32. Germany Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 33. Germany Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 34. Germany Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 35. France Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 36. France Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 37. France Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 38. France Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)



Table 39. Italy Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 40. Italy Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 41. Italy Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 42. Italy Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 43. United Kingdom Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 44. United Kingdom Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 45. United Kingdom Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 46. United Kingdom Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 47. Rest of Europe Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 48. Rest of Europe Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 49. Rest of Europe Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 50. Rest of Europe Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 51. Asia Pacific Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 52. Asia Pacific Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 53. Asia Pacific Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 54. Asia Pacific Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 55. Australia Microbial Protein for Feed Market, by Source– Volume and Forecast to 2028 (Tonnes)

Table 56. Australia Microbial Protein for Feed Market, by Source– Revenue and Forecast to 2028 (US\$ Thousand)

Table 57. Australia Microbial Protein for Feed Market, by Application –Volume and Forecast to 2028 (Tonnes)

Table 58. Australia Microbial Protein for Feed Market, by Application – Revenue and

Forecast to 2028 (US\$ Thousand)

Table 59. China Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 60. China Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 61. China Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 62. China Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 63. India Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 64. India Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 65. India Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 66. India Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 67. Japan Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 68. Japan Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 69. Japan Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 70. Japan Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 71. Rest of Asia Pacific Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 72. Rest of Asia Pacific Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 73. Rest of Asia Pacific Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 74. Rest of Asia Pacific Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 75. Middle East and Africa Microbial Protein for Feed Market, by Source– Volume and Forecast to 2028 (Tonnes)

Table 76. Middle East and Africa Microbial Protein for Feed Market, by Source– Revenue and Forecast to 2028 (US\$ Thousand)

Table 77. Middle East and Africa Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 78. Middle East and Africa Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 79. South & Central America Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 80. South & Central America Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 81. South & Central America Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 82. South & Central America Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 83. Brazil Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 84. Brazil Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 85. Brazil Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 86. Brazil Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 87. Rest of South & Central America Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 88. Rest of South & Central America Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 89. Rest of South & Central America Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 90. Rest of South & Central America Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 91. Central Asia: Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 92. Central Asia: Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 93. Central Asia: Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 94. Central Asia: Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 95. Uzbekistan: Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 96. Uzbekistan: Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 97. Uzbekistan: Microbial Protein for Feed Market, by Application - Volume and

Forecast to 2028 (Tonnes)

Table 98. Uzbekistan: Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (Tonnes)

Table 99. Kazakhstan Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 100. Kazakhstan Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 101. Kazakhstan Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 102. Kazakhstan Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 103. Rest of Central Asia: Microbial Protein for Feed Market, by Source – Volume and Forecast to 2028 (Tonnes)

Table 104. Rest of Central Asia: Microbial Protein for Feed Market, by Source – Revenue and Forecast to 2028 (US\$ Thousand)

Table 105. Rest of Central Asia: Microbial Protein for Feed Market, by Application – Volume and Forecast to 2028 (Tonnes)

Table 106. Rest of Central Asia: Microbial Protein for Feed Market, by Application – Revenue and Forecast to 2028 (US\$ Thousand)

Table 107. Glossary of Terms, Global Microbial Protein for Feed Market

## List Of Figures

### LIST OF FIGURES

- Figure 1. Microbial Protein for Feed Market Segmentation
- Figure 2. Microbial Protein for Feed Market Segmentation: By Geography
- Figure 3. Global Microbial Protein for Feed Market Overview
- Figure 4. Global Microbial Protein for Feed Market, By Source
- Figure 5. Global Microbial Protein for Feed Market, by Geography
- Figure 6. Global Microbial Protein for Feed Market, Key Players
- Figure 7. Porter's Five Forces Analysis: Microbial Protein for Feed Market
- Figure 8. Ecosystem Analysis: Microbial Protein for Feed Market
- Figure 9. Expert Opinion
- Figure 10. The Impact of Increased Inclusion of UniProtein on Broiler Performance when Replacing Soybean Meal (SBM)
- Figure 11. Microbial Protein for Feed Market Impact Analysis of Drivers and Restraints
- Figure 12. Geographic Overview of Microbial Protein for Feed Market
- Figure 13. Microbial Protein for Feed Market – Volume and Forecast to 2028 (Tonnes)
- Figure 14. Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)
- Figure 15. Microbial Protein for Feed Market – Competitive Positioning of Key Market Players
- Figure 16. Microbial Protein for Feed Market Revenue Share, By Source (2021 and 2028)
- Figure 17. Bacteria: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)
- Figure 18. Bacteria: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)
- Figure 19. Yeast: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)
- Figure 20. Yeast: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)
- Figure 21. Others: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)
- Figure 22. Others: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)
- Figure 23. Microbial Protein for Feed Market Revenue Share, By Application (2021 and 2028)
- Figure 24. Poultry: Microbial Protein for Feed Market – Volume and Forecast To 2028

(Tonnes)

Figure 25. Poultry: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)

Figure 26. Ruminants: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)

Figure 27. Ruminants: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)

Figure 28. Aquaculture: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)

Figure 29. Aquaculture: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)

Figure 30. Others: Microbial Protein for Feed Market – Volume and Forecast To 2028 (Tonnes)

Figure 31. Others: Microbial Protein for Feed Market – Revenue and Forecast To 2028 (US\$ Thousand)

Figure 32. Global Microbial Protein for Feed Market Revenue Share, By Region (2021 and 2028)

Figure 33. North America: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

Figure 34. North America: Microbial Protein for Feed Market – Revenue and Forecast to 2028 (US\$ Thousand)

Figure 35. North America: Microbial Protein for Feed Market Revenue Share, by Source (2021 and 2028)

Figure 36. North America: Microbial Protein for Feed Market Revenue Share, by Application (2021 and 2028)

Figure 37. North America: Microbial Protein for Feed Market Revenue Share, by Key Country (2021 and 2028)

Figure 38. US: Microbial Protein for Feed Market –Volume and Forecast to 2028 (Tonnes)

Figure 39. US: Microbial Protein for Feed Market –Revenue and Forecast to 2028 (US\$ Thousand)

Figure 40. Canada: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)

Figure 41. Canada: Microbial Protein for Feed Market–Revenue and Forecast to 2028 (US\$ Thousand)

Figure 42. Mexico: Microbial Protein for Feed Market–Volume and Forecast to 2028 (Tonnes)

Figure 43. Mexico: Microbial Protein for Feed Market–Revenue and Forecast to



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