STRATEGIC RECOMMENDATIONS

for Advancing Oat-Based Ingredient Development

1 PRIORITIZE DRY FRACTIONATION AS NEAR-TERM PATHWAY

Raw Oats → Dry Milling → Air Classification → Protein Concentrate / Starch-Rich Fraction / Hulls

- Lower capital investment
- Minimal water usage
- Simple, scalable process
- Preserves native functionality

2 DEVELOP OAT PROTEIN CONCENTRATE AND STARCH-RICH FRACTIONS

Protein Concentrate | Starch-Rich Fraction

Target Applications: Bakery, Snacks, Beverages, Functional Foods, Pet Foods, Nutritional Products

- Supply high-value ingredients to multiple high-growth markets

3 OAT MILK OKARA VALORIZATION TO RECOVER HIGH-VALUE STREAMS

Oat Milk Production → Wet Okara → Protein, Fiber, Carbohydrates, Water Recovery

- Convert okara into valuable ingredients and promote circular economy

VALUE MAXIMIZATION OF OATS

4 ALIGN OAT VARIETY SELECTION WITH INGREDIENT MANUFACTURING OBJECTIVE

- High-Protein Varieties → Protein Ingredients
- High-Beta-Glucan Varieties → Functional Fiber Ingredients
- High-Starch Varieties → Starch & Carbohydrate Ingredients

- Match the right varieties to the right processing pathways and market needs

5 DEVELOP FULL-CROP UTILIZATION STRATEGIES

Hulls, Okara, Carbohydrate Streams → Food Ingredients, Animal Feed, Fermentation (Substrates), Industrial & Biotech

- Maximize value from every component; minimize waste and enhance resource efficiency

6 COMPLETE DETAILED TECHNO-ECONOMIC AND MARKET ASSESSMENTS

Product Specifications, Customer Requirements, Capital Investment, Operating Costs, Market Assessment, Commercialization Pathways

- Ensure economic viability, market fit, and successful commercialization

These interconnected recommendations will maximize ingredient value, profitability, and long-term sustainability of the oat industry.