Organization Action Plan

SSW 2022 and Cohcran followership 2022
Agenda

Supplier seeking
Target product
Potential Product
Trend 2022
Summary
Introduction

Thank you, the grate opportunity, to be one of follower of Cochran followership. Product Innovation and new technology which are more concern about sustainability of product cycle and environment. Combination of tradition and an advance technology are efficiency. GMO analysis understanding based on scientific knowledge and fact. Update next generation trend 2022 and future more.
Supplier seeking
Business opportunities are like buses. There's always another one coming.

Richard Branson
Alternative of Sweetness

• D-Allulose
• Dextrin
• Monk fruit
• Stevia RAP B
• Sucralose
• Tapioca Polydextrose
• Erythritol
• Sweet Block Berry Leaf Extract
• Inulin
**Introduction**

- D-Allulose is a rare sugar existing in small amounts in nature, and is found in foods such as kiwi and pineapple.
- It has a similar taste to sucrose but is not metabolized by the body.
- It reacts with proteins in a Maillard reaction that provides color and aroma.
- Good tolerance, no adverse symptoms of digestive system.

**Applications**
EXEMPT FROM DECLARATION ON "ADDED SUGAR" & "TOTAL SUGAR" LABELS!

- KETO friendly!
- 0.4 kcal/g
- Clean label
- Negligible glycemic response
THE ALLULOSE ADVANTAGE

Allulose is a nutritive sweetener known for its capacity to mimic the taste and mouthfeel of sucrose, with only a fraction of the calories. AdvantAllulose™ is approximately 60% as sweet as sucrose, and makes an exceptional sugar substitute as it aids not only in maintaining texture and flavor, but boasts a Maillard reaction during baking, and is stable in frozen applications.

AdvantAllulose™

Developed for applications that require added sweetness, without the added calories!

- Confectionary
- Cereals
- Dairy Alternatives

- Frozen Desserts
- Beverages
- Baked Goods

27% of consumers say that low/no sugar claims most influence their purchasing decisions.
Sugar Replacement Systems
Sweeteners do not behave like sugar, yet provide a clean-label, reduced-calorie option. IFPC’s R&D experts have developed proprietary blends that are sweet alternatives.

Legacy™SWEET SP 9704
Legacy™SWEET SP 9706
Legacy™SWEET SP 9708
Sucralose
Zero calorie product that is flexible, and its flavor profile is similar to sugar. Available in liquid and dry blends.

Legacy™SWEET Sucralose 9908
Legacy™SWEET Sucralose 9975
AquOat® Instant Oat Powder

Sugar-free Edition
- OAT001  Conventional
- OAT011  Organic
- OAT021  Gluten-free
- OAT031  Organic & Gluten-free

Low-sugar Edition
- OAT002  Conventional
- OAT012  Organic
- OAT022  Gluten-free
- OAT032  Organic & Gluten-free

Sugar-free label
Excellent dispersibility and stability
Smooth taste
Rich aroma
Alternative of Protein

- Pea Protein 80
- Barley Rice 85 Protein
- Brown Rice Protein 80
- Fenugreek Protein 25-32%
- Brazil nut Protein 50%
- Soy Protein 90%
- Insect Protein 55%
- Fava Protein 90%
- Hemp Protein 50%
- Mung Bean Protein 80, 85
- Chickpea 60-85%
## Top Quality Plant-Based Proteins

<table>
<thead>
<tr>
<th>Products</th>
<th>Type</th>
<th>Protein Content</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pea Protein</td>
<td>Conventional</td>
<td>80%</td>
<td>Food &amp; Beverages</td>
</tr>
<tr>
<td></td>
<td>Organic</td>
<td></td>
<td>Functional Beverages</td>
</tr>
<tr>
<td>Brown Rice Protein</td>
<td>Conventional</td>
<td>25 - 32%</td>
<td>Dietary Supplements</td>
</tr>
<tr>
<td></td>
<td>Organic</td>
<td></td>
<td>Sports Nutrition</td>
</tr>
<tr>
<td>Fenugreek Protein</td>
<td>Conventional</td>
<td>50%</td>
<td>Vegan Food &amp; Beverages</td>
</tr>
<tr>
<td>Brazil Nut Protein</td>
<td>Conventional</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Soy Protein</td>
<td>Conventional</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Soy Bean Protein 90%

Hydrolyzed Protein

We are able to provide various types of hydrolyzed protein to satisfy your formulation.

Advantage / 产品优势
- Smooth texture, easily digest
- Easily masked flavor
- Lighter color
- Ultra soluble, more suspendible
- Lower viscosity
- More options on geling performance

Application / 应用
- Sports drinks industry
- No dairy milk industry
- Functional beverage industry
- Healthy food industry
- Snack food industry (e.g. Candy; Baked food; Nutrition bar)
- Vegan meat industry

运动饮品产业
植物奶产业
功能性饮品产业
健康食品产业
零食产业 (糖果；烘焙食品；营养棒)
植物肉产业
Pea Protein 80% 85%

Type B / B型
High gelling capacity 凝胶性高
Good emulsibility 乳化性好
High WRC & OAC 高保水、高保油
Good solubility 溶解性高
Clean taste 味道清洁

Type C / C型
Excellent dispersibility 分散性好
Good solubility 溶解性好
Clean taste 味道清洁

Advantage / 产品优势
Rich lysine 富含赖氨酸
Non GMO verified 非转基因
Allergen free 无致敏原

Application / 应用
Vegan meat 植物肉
Vegan cheese 素芝士
Plant based yogurt 植物基酸奶
Powder drink 固体饮料
RTD beverage 液体饮料
Bakery 烘焙食品
Coatings 食品裹料
Health care products 保健品
Fava Bean Protein

蚕豆蛋白 90%

Type B / B型
Good solubility 溶解性好
Good emulsibility 乳化性好
High WRC & OAC 高保水、高保油
Smooth mouth feel 口感顺滑

Application / 应用
Vegan yogurt 植物酸奶
Soup 汤类
No dairy milk 植物奶
Vegan cheese 植物奶酪
Vegan Meat 植物肉
Powder drink 固体饮料
Bakery 烘焙食品
Coatings 食品裹料
Health care products 保健品

Type C / C型
Good solubility 溶解性好
Good dispersibility 分散性好
Clean taste 味道清洁

Advantage / 产品优势
High protein content 蛋白含量高
High & Stable foaming capacity 高起泡性、起泡稳定
Excellent amino acid profile 优质氨基酸
Higher Arginine, Glutamic acid & BCAA 精氨酸、谷氨酸和支链氨基酸含量高
Low fat 脂肪含量低
Non-GMO 非转基因
Allergen-free 无致敏原

Fava Protein 90%
Chickpea Protein 60%-85%
Proeon Mung 80 is a highly functional for a wide variety of applications.

- Excellent Solubility
- Superior Emulsification
- Great Gelation
- Superior foaming capacity & stability

Applications:
- Beverages
- Sauces, dressings, dips
- Plant-based eggs (omelettes/scrambled eggs)
- Baking

- Plant-based Milk
- Plant-based Cheese

It’s clean taste, neutral color and rich mouthfeel make it easier to create great products.
OUR UNIQUE MODEL

Along with leading technology suppliers, Divaks develops fully automated vertically integrated technology from mealworms' breeding to individually crafted products for human consumption.

*Adjustable processes according to clients’ requirements
WHOLE INSECT POWDER (WIP) BENEFITS

RICH IN HIGH-QUALITY PROTEIN
COMPLETE PROTEIN SOURCE – CONTAINS ALL ESSENTIAL AMINO ACIDS
RICH IN HIGH-QUALITY FATS
LOW IN SATURATED FATS
NATURALLY CONTAINS OMEGA 3, 6 AND 9 FATTY ACIDS
NATURALLY HIGH IN VITAMINS AND MINERALS
NATURALLY HIGH IN FIBER
NON-GMO
SOY-, DAIRY-, AND EGG-FREE

SUSTAINABLE AND NUTRITIOUS

Mealworm protein matches the quality of beef and the sustainability of many plant-based alternatives.

MEALWORMS VS BEEF VS PEAS:

1.9 185.6
Land (m²) required to produce 100 g of protein
2.7 46.89
Greenhouse gases (kg CO2-e) produced for 100 g of protein
2300 11200
Water (l) needed to produce 100 g of protein

Estimated protein concentration in raw material (based on dry weight), %

Mealworms 15.2 55
Peas 6.4 0.9
Completeness of essential amino acids in protein composition (PDCAAS)

NUTRITIONAL BENEFITS:

COMPLETE PROTEINS
VITAMINS AND MINERALS
UNSATURATED FATTY ACIDS
PREBIOTICS
COMPLETE PROTEIN PROFILE

Dried mealworm larvae powder is a high-quality product with a complete protein profile. It is packed with all essential amino acids with a content of 38%. Additionally, the proteins of whole mealworm powder consist of 19% branched-chain amino acids (BCAAs). The excellent profile of amino acids makes whole mealworm powder a competitive choice among other plant-based or animal-based protein sources.

AMINO ACID PROFILE

<table>
<thead>
<tr>
<th>Amino Acid</th>
<th>% of Total Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alanine</td>
<td>8.02</td>
</tr>
<tr>
<td>Arginine</td>
<td>6.00</td>
</tr>
<tr>
<td>Aspartic Acid</td>
<td>8.10</td>
</tr>
<tr>
<td>Glutamic Acid</td>
<td>11.21</td>
</tr>
<tr>
<td>Glycine</td>
<td>6.31</td>
</tr>
<tr>
<td>Histidine</td>
<td>4.61</td>
</tr>
<tr>
<td>Isoleucine*</td>
<td>9.61</td>
</tr>
<tr>
<td>Lysine</td>
<td>8.40</td>
</tr>
<tr>
<td>Methionine + Cystine</td>
<td>2.23</td>
</tr>
<tr>
<td>Methionine + Tyrosine</td>
<td>3.52</td>
</tr>
<tr>
<td>Proline</td>
<td>10.26</td>
</tr>
<tr>
<td>Serine</td>
<td>1.05</td>
</tr>
<tr>
<td>Threonine*</td>
<td>4.03</td>
</tr>
<tr>
<td>Tryptophan*</td>
<td>4.10</td>
</tr>
<tr>
<td>Valine*</td>
<td>6.20</td>
</tr>
</tbody>
</table>

*Essential amino acids
**ESSENTIAL AMINO ACIDS**

<table>
<thead>
<tr>
<th></th>
<th>T. MOLTOR</th>
<th>MICROALGAE</th>
<th>WHEAT</th>
<th>HEMP</th>
<th>SOY</th>
<th>PEA</th>
<th>WHEY</th>
<th>MILK</th>
<th>EGG</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAAs %</td>
<td>43</td>
<td>39</td>
<td>38</td>
<td>36</td>
<td>33</td>
<td>30</td>
<td>27</td>
<td>22</td>
<td>23</td>
</tr>
</tbody>
</table>

**BRANCHED-CHAIN AMINO ACIDS (BCAAs)**

<table>
<thead>
<tr>
<th></th>
<th>T. MOLTOR</th>
<th>MICROALGAE</th>
<th>WHEAT</th>
<th>HEMP</th>
<th>SOY</th>
<th>PEA</th>
<th>WHEY</th>
<th>MILK</th>
<th>EGG</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCAAs %</td>
<td>19</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>18</td>
</tr>
</tbody>
</table>

**NUTRITIONAL CONTENT**

per 100 g of product

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>2121 kJ/ 508 kcal</td>
</tr>
<tr>
<td>Protein</td>
<td>59.6 g</td>
</tr>
<tr>
<td>Fat</td>
<td>26.7 g</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>8.1 g</td>
</tr>
<tr>
<td>Monounsaturated fat</td>
<td>11.8 g</td>
</tr>
<tr>
<td>Polyunsaturated fat</td>
<td>8.8 g</td>
</tr>
<tr>
<td>Carbohydrates</td>
<td>2.7 g</td>
</tr>
<tr>
<td>Fiber</td>
<td>3.7 g</td>
</tr>
<tr>
<td>Salt</td>
<td>0.9 g</td>
</tr>
</tbody>
</table>

**DESCRIPTION**

Our whole mealworm (*Tenebrio molitor*) powder is a nutrient-rich product, offering complete amino acids, prebiotic fibre, healthy fats and a range of essential minerals and vitamins. The excellent composition of whole mealworm powder can add value to a wide variety of applications. The form of fine powder with a subtle, nutty flavour is an ideal choice for protein bars, savoury snacks and bakery products.

**VITAMINS**

<table>
<thead>
<tr>
<th>Vitamin</th>
<th>per 100 g dry basis</th>
<th>% of DRI*</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4.66 mg</td>
<td>6</td>
</tr>
<tr>
<td>B1</td>
<td>0.47 mg</td>
<td>34</td>
</tr>
<tr>
<td>B2</td>
<td>1.27 mg</td>
<td>80</td>
</tr>
<tr>
<td>B3</td>
<td>10.64 mg</td>
<td>56</td>
</tr>
<tr>
<td>B5</td>
<td>5.30 mg</td>
<td>88</td>
</tr>
<tr>
<td>B9</td>
<td>0.36 mg</td>
<td>89</td>
</tr>
<tr>
<td>B12</td>
<td>0.67 μg</td>
<td>19</td>
</tr>
</tbody>
</table>

*Daily Recommended Intake, average for male adults (≥ 19 yrs)

**MINERALS**

<table>
<thead>
<tr>
<th>Mineral</th>
<th>per 100 g dry basis</th>
<th>% of DRI*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>45.8 mg</td>
<td>5</td>
</tr>
<tr>
<td>Magnesium</td>
<td>215.9 mg</td>
<td>62</td>
</tr>
<tr>
<td>Copper</td>
<td>1.6 mg</td>
<td>162</td>
</tr>
<tr>
<td>Iron</td>
<td>5.5 mg</td>
<td>65</td>
</tr>
<tr>
<td>Manganese</td>
<td>1.1 mg</td>
<td>38</td>
</tr>
<tr>
<td>Zinc</td>
<td>12.5 mg</td>
<td>114</td>
</tr>
<tr>
<td>Potassium</td>
<td>828.3 mg</td>
<td>24</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>722.7 mg</td>
<td>103</td>
</tr>
</tbody>
</table>
Probiotic x Postbiotic x Prebiotic
OUR PARTNERS' CREATIVITY

UNIQUE 'Biotics' by LALLEMAND

SPECIFIC CUSTOMIZED BLENDS
Custom & complex formulations using scientifically substantiated Rosell®, LAFTI® or Harmonium Probiotic strains. Let us guide you through our strains offer and funnel down for you the best strains and combinations with complementary effects to meet your needs.

Lactobacilli
- L. acidophilus Rosell®-11
- L. acidophilus GG®
- L. acidophilus NA-121®
- L. acidophilus HA-114
- L. helveticus Rosell®-52
- L. helveticus LAFTI®-L12
- L. helveticus HA-128
- L. acidophilus Rosell®-418®
- L. acidophilus HA-122
- L. plantarum Rosell®-001®
- L. plantarum KO11®
- L. plantarum HA-119
- L. paracasei LAFTI® L12®
- L. paracasei HA-196
- L. casei Rosell®-215
- L. casei HA-108
- L. johnsonii HA-112
- L. salivarius HA-118
- L. fermentum HA-179
- L. rhamnosus HA-108
- L. rhamnosus Rosell®-442®
- L. gasseri HA-270

Bifidobacteria
- B. bifidum Rosell®-731
- B. bifidum HA-122®
- B. longum Rosell®-875
- B. infantis HA-135®
- B. infantis LAFTI®-204
- B. infantis HA-104®
- B. infantis Rosell®-83
- B. infantis HA-148®
- B. breve Rosell®-370
- B. breve HA-120

Others
- Bifidobacterium infantis Rosell®-139
- Bifidobacterium infantis HA-124
- Bifidobacterium infantis Rosell®-499
- Lactobacillus acidophilus Rosell®-350M
- Lactobacillus acidophilus HA-123
- Enterococcus faecium Rosell®-36
- Enterococcus faecalis HA-127
- Pediococcus acidilactici HA-524
- Streptococcus thermophilus Rosell®-83
- Streptococcus thermophilus HA-120

CHOOSE YOUR DOSAGE FORM
- Powder
- Orosoluble powder
- Caps
- Enteric-coated caps
- Acid-resistant caps
- Sprinkle caps
- Chewable tablets
- ComboCaps/Biotics

CHOOSE YOUR PACKAGING OPTIONS
- ACLAR/Alocet blisters
- HOPE/CSP bottles
- Sachets / Sticks

WITH ADDED-VALUE
OUR VALUES SHINE THROUGH
OUR COMPLETE PROBIOTIC SOLUTIONS

BEST-IN-CLASS DOCUMENTED FORMULAS supported by:
- IHS integrated R&D platform from in vitro and in vivo models to clinical studies
- Regulatory Affairs: complete registration dossier and claims available
- Marketing: product training and communication tools
  Exist in several dosage forms with stability data, can be used as ingredients

<table>
<thead>
<tr>
<th>LACIDOFIL®</th>
<th>Probiotic Solutions for Women, Men, and Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 26 clinical studies: 13 in children / 13 in adults</td>
<td></td>
</tr>
<tr>
<td>• Commercially available since 1995 with a pharmacovigilance program showing safe use</td>
<td></td>
</tr>
<tr>
<td>• Several gut applications from occasional diarrhea to IBS, lactose intolerance and H. pylori</td>
<td></td>
</tr>
<tr>
<td>• 2 clinical studies in pregnant women</td>
<td></td>
</tr>
<tr>
<td>• 2 clinical studies on atopic dermatitis in children</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROBIOKID®</th>
<th>Probiotic Solutions for Women, Men, and Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 28 clinical studies: gut health, natural defenses, iron deficiency anemia, jaundice, oral candidiasis, infant eczema, NEC</td>
<td></td>
</tr>
<tr>
<td>• GRAS status for infant formula on both Probiokid® combination and single strains from birth</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oralis SB</th>
<th>Probiotic Solutions for Oral Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The most documented psychobiotic in the world with 5 clinical studies and 9 mechanistic studies</td>
<td></td>
</tr>
<tr>
<td>• Clinical breakthrough towards psychobiotics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>lBacilluS+</th>
<th>Probiotic Solutions for Oral Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>• One of the most documented formulas in oral health: 7 clinical studies: 2 on S. mutans count for health and 5 on gingivitis with similar or better results than standard mouthwash</td>
<td></td>
</tr>
<tr>
<td>• Several dosage forms adapted to Oral Health (chewable tablets, oralids, porous powder...)</td>
<td></td>
</tr>
<tr>
<td>• 140+ clinical studies: acute diarrhea, AAD, ulcerative colitis, IBS, SIBO and reflux esophagitis</td>
<td></td>
</tr>
</tbody>
</table>

*The information contained herein is for business information and is not intended for the final consumer. It is based on our knowledge and development work and to the best of our knowledge, valid. Lallemand Health Solutions does not accept any liability for factual and/or typographical errors or omissions. The information presented should not be used as a substitute for any form of advice. In all promotional products and materials should check local regulatory requirements before use. Please consult the latest regulations applicable in each country.*
| **B. lactis** LAFTI® B94 | Studied on over 800 women: 6 clinical studies including 2 with oral treatment  
Helps promote vaginal health in recurrent VVC alone or as an adjunctive treatment (anti-fungal)  
Demonstrated vaginal colonisation and persistence following oral intake  
Selected from among 40 bifidobacteria strains for its good synergy with FOS & Inulin  
6 clinical studies in infants & children, self-Affirmed GRAS for infant formula from birth  
Activates bile acids metabolism in healthy overweight adults |
| **L. helveticus** LAFTI® L10 | 6 clinical publications in athletes and healthy adults with IBS-like symptoms  
Shows antioxidant potential in healthy athletes  
Promising preliminary clinical results in the support of healthy cholesterol levels |
| **B. bifidum** ROSELL®-71 | 1 clinical and safety study showing support of a baby-specific microflora, GRAS status for infant formula  
1 large clinical study showing greater proportion of healthy days in healthy adults and a positive effect on self-reported occasional stress scores |
| **L. rhamnosus** GG | One of the most documented probiotic strains in the world with 50+ studies mainly in gut health and natural defenses (common infections, AAD, acute gastroenteritis as an adjunct to the oral rehydration therapy)  
1 clinical study on the support of weight management efforts in overweight but healthy adults undertaking a weight loss program  
Patent pending |
| **L. rhamnosus** HA-114 | The most documented probiotic yeast in the world with 50+ clinical studies  
A time-tested yeast culture, mastered and perfected from lab to shelf  
Synergistic effect with bacteria |
Combination
Sweet
x
Fiber
MoisturLOK® SF
Sugar Free Humectant
- Cassava Root Syrup
- 50% Dietary Fiber
- Non-GMO Project Verified
- Extend Shelf Life
- Extend Eating Quality

OligoSMART® SFP
Sugar Free Polydextrose
- 80% Dietary Fiber
- <0.3% Reducing Sugars
- Non-GMO Project Verified
- One Calorie Per Gram
- Muted Maillard Reaction

allSWEET® OAS
Organic Allulose Syrup
- Organic Certified
- No Glycemic Response
- Non-GMO Project Verified
- Human Clinical Studies
- Established 2015

FiberSMART® TS90
Soluble Tapioca Fiber Syrup
- 90% Dietary Fiber
- Certified Organic Tapioca
- Exceptional Tolerability
- Unparalleled Low “w” Binding
- Human Clinical Studies
**Quick Facts**

**Sweetness Profile** allSWEET® was perceived by our consumer panels in parity with sugar.

**Clean Label** allSWEET® is the only certified non-GMO allulose source.

**Wide Application Range** allSWEET® is the ideal diabetic-friendly sugar for your beverage, bakery, frozen, confectionary and dairy applications.

**Temperature Stable** allSWEET® browns like sugar when baking and lowers the freezing point of frozen products.

**Add Texture & Bulk** unlike other natural high intensity sweetener such as stevia, allSWEET® improves mouth feel while reducing total calories.

**Create the Perfect Sweetener System** allSWEET® works in harmony with other sweeteners and sugars to round out the perfect formulation.

**Diabetic Friendly** allSWEET® elicits no glycemic response and preliminary studies indicate the potential inhibition of fat synthesis.

**Weight Management** studies indicate that allSWEET® containing food & beverages, when paired with an overall healthy diet, may help normalize metabolic status.
Labeling

Per the draft guidance by the U.S. Food and Drug Administration (FDA) titled “The Declaration of Allulose and Calories from Allulose on Nutrition and Supplement Facts Labels,” AllSWEET® should be declared as a carbohydrate within the Nutrition Facts but can be excluded from the total and added sugar declarations. Counted as 0.4 kcal/g, AllSWEET® should be listed as “allulose” within the listing of ingredients.
MoisturLok
NATURAL HUMECTANT

MoisturLok® is an all natural, allergen free ingredient made of a proprietary blend of concentrated fruit juices and rice syrup. Perfect for binding water and adding moisture without increasing water activity (a). MoisturLok® will actually lower a by immobilizing water by binding with free hydroxyl groups from the proprietary saccharide complex. Available as a syrup or powder, MoisturLok® has been keeping food moist and fresh-tasting longer for decades as it has been proven to extend the shelf life of food products by as much as three times.

Features and Benefits
- Applications span sweet and savory confectionary, bakery and meat
- Improves texture, softness and mouthfeel
- Shown to extend shelf life by as much as 300%
- Increases yield due to increased moisture retention
- Available in a powder or syrup form to suit your needs

Case Study: Noodles
- Increased yield by 0.8% in the finished product
- Reduced moisture purge by 13.0% in packaged wet product

Case Study: Pita
- Increased dough yields
- Increased moisture retention during storage
- Superior sensory attributes: appearance, flavor quality and moisture
- Doubled shelf life

Case Study: Roast Beef
- Soy free label
- Increased processing yield by 5.3%
- Improved slicing yield by over 20%
- Reduced purge by 9.1%

Case Study: Gluten-Free Cookies
- Reduced moisture loss by 20.8%
- Reduced water activity by 2.3% after 15 days
- Superior sensory attributes: mouthfeel, taste and sweetness
Potential Product & Trend 2022

Planning
Marketing
Design
Strategy
Launch
Potential Product & Trend 2022

Metabolic System

Processing

Sustainable Protein

Pet Nutrition

CBD on Pet Nutrition
VALIDATION PROCESS FOR NEW INGREDIENTS

1. Marketing and regulatory assessment of claims
2. Review of the supporting scientific evidence
3. Sourcing of ingredients following specific quality and technical requirements
4. Compatibility testing with specific strains
5. Complete quality documentation review
6. Real-time stability study (ICH guidelines)
7. Laboratory prototype evaluation
8. Industrial scale-up

VITAMINS
- Vitamin B1
- Vitamin B2
- Vitamin B6
- Vitamin B9
- Vitamin B12
- Vitamin C
- Vitamin D3
- Lalmin® VistaD

MINERALS
- Calcium
- Magnesium
- Zinc
- Lalmin® Se
- Lalmin® Zn
- Cooper
- Lalmin® Cr

PREBIOTICS
- Inulin
- FOS
- GOS
- HMO
- IMO
- XOS
- Organic acacia fiber
- Bioids GOS
- MOS YE

OILS
- Borage oil
- Cranberry oil
- Flax seed oil
- Grape seed oil
- Pumpkin seed oil

PREMIUM
- Ashwagandha KSM66®
- Melatonin
- Sah"Inside™
- Cranberry
- GASTRO AD®
- M-GARD®
- CoQ10

FLAVORS
- Apple
- Plum
- Raspberry
- Banana
- Grape
- Strawberry
- Mint
- Tropical
- Orange
- Vanilla
Thank you

SSW 2022
SASIORN
NOPPARATANAZATE