

DID YOU KNOW ?

Enhance Flavor

Improve Mouthfeel

Clean Label

DISCOVER UNIQUE AND
INTERESTING WAYS TO USE
NIKKEN INGREDIENTS



NIKKEN FOODS USA, INC.

SODIUM ENHANCEMENT



CHALLENGE:

Reduce sodium content without sacrificing taste.

SOLUTION:

Nikken's natural umami ingredients enhance the flavor perception of salt .

RESULT:

Nikken's natural umami ingredients enhance perceived salinity, allowing significant salt reduction without sacrificing taste. Reduce salt by 25% using Nikken ingredients.

5320 ROASTED SOY SAUCE POWDER

Enhances salinity due to the abundance of umami that develops during the fermentation process. The salty and savory profile of soy sauce synergize, allowing soy sauce to significantly reduce the overall sodium level.

0.10-0.20%
Recommended
starting usage
rate

1917 KOMBU EXTRACT POWDER

Naturally high in glutamate, the amino acid responsible for umami, kombu is excellent at bringing out saltiness without imparting its natural seaweed taste.

0.20-0.50%
Recommended
starting usage
rate

2170/2115 SHIITAKE EXTRACT POWDER

Naturally low in sodium and full of savoriness! The deep and meaty notes of shiitake make it great for boosting flavor profiles allowing for drastic sodium reduction.

0.20-0.50%
Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com





MEAT ENHANCEMENT

CHALLENGE:

Boost meaty notes without the addition of meat products.

SOLUTION:

Nikken's savory ingredients synergize with other naturally occurring amino acids, adding meatiness and more mouthfeel.

RESULT:

Nikken ingredients are naturally full of umami, one of the main tastes used to describe animal protein products. Enhance meaty notes through the synergy of Nikken ingredients to reduce meat levels or create better-tasting vegetarian/vegan products by adding savory, umami notes.

2170/2115 SHIITAKE EXTRACT POWDER

Provides a meat-like profile by contributing an intense savory layer, reminiscent of beef drippings.

0.10-0.20%
Recommended
starting usage
rate

6109 RED MISO POWDER

Has a deep, rich taste similar to red meat. Red Miso is an excellent product that complements red meats boosting the overall meat profile.

0.20-0.50%
Recommended
starting usage
rate

6100 RED MISO POWDER

Contributes complexity and meatiness due to the intense savory notes that develop during the extended fermentation process.

0.20-0.50%
Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com



ACID ENHANCEMENT



CHALLENGE:

Enhance perceived acidity without significantly changing pH.

SOLUTION:

Nikken's natural umami ingredients increase perceived acidity, creating a brighter experience for the taste buds!

RESULT:

Nikken's umami-based ingredients interact with many tastes in products, even acidity to enhance the perception of those tastes.

5390 FERMENTED RICE EXTRACT POWDER

This tangy, fermented, flavor boosting product is excellent at acid enhancement.

0.20-0.50%
Recommended
starting usage
rate

7503 UMAMI MEDLEY ®

Is a blend of three superior umami-based products (fermented rice, kombu, and shiitake) that drives tastes and boosts perceived acidity.

0.20-0.50%
Recommended
starting usage
rate

7400 KOMI POWDER ™

This kokumi-based product reacts with calcium receptors to drive and enhance the acidic profile. It also boosts mouthfeel and craveability of foods.

0.50-0.75%
Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com



CHEESE ENHANCEMENT



CHALLENGE:

Heighten the perception of cheesiness and cheese quality.

SOLUTION:

Nikken's natural umami ingredients enhance cheesiness, creating a complex aged cheese taste.

RESULT:

Nikken's savory ingredients harmonize with other naturally occurring salts and amino acids, enhancing the overall perception of cheese and creating a deep, rich profile.

6107 WHITE MISO POWDER

The fermented notes in White Miso enhance the sharpness in cheddar while delivering a creamier mouthfeel.

0.20-0.50%

Recommended
starting usage
rate

7503 UMAMI MEDLEY [®]

Is a blend of Fermented Rice, Kombu, and Shiitake. The unity of these products creates an umami synergy that drives bold tastes and intensifies perceived cheesiness.

0.20-0.50%

Recommended
starting usage
rate

5315 ORGANIC SOY SAUCE POWDER

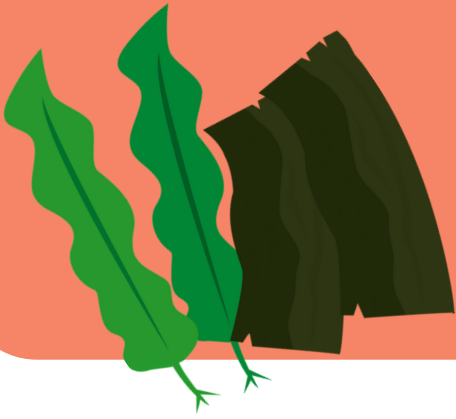
Soy Sauce is excellent at bringing out the tangy, aged notes of cheese because of the abundance of umami that develops during fermentation.

0.30-0.40%

Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com





MONOSODIUM GLUTAMATE (MSG) REPLACEMENT

CHALLENGE:

Find a clean label alternative to MSG.

SOLUTION:

Nikken's ingredients are naturally high in glutamate, the amino acid responsible for umami and MSG.

RESULT:

Nikken's ingredients amplify flavor profiles like MSG with no sacrifice in taste.

1917 KOMBU EXTRACT POWDER

Glutamate extract from Kombu was the original source of MSG. Nikken's Kombu Powder is naturally high in glutamate, which drives flavor enhancement.

0.20-0.50%

Recommended
starting usage
rate

5390 FERMENTED RICE EXTRACT POWDER

During the fermentation process, protein molecules break down and amino acids such as glutamate are surface. The glutamates developed in Nikken's Fermented Rice Extract Powder activate taste receptors, triggering umami.

0.20-0.50%

Recommended
starting usage
rate

7503 UMAMI MEDLEY [®]

Maximize taste through the umami synergy of Fermented Rice, Kombu and Shiitake in Nikken's 7503 Umami Medley [®].

0.50-0.75%

Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com



BLACK PEPPER

CHALLENGE:

Enhance the taste perception of black pepper without excessive pungency and heat.

SOLUTION:

Nikken's umami ingredients are excellent at enhancing the many different tastes of black pepper.

RESULT:

Nikken's Soy Sauce Powder, Shiitake Extract Powder, and Fermented Rice Extract Powder are excellent at enhancing the woody, piney, earthy, and umami tastes of black pepper.

5301SH LIGHTLY ROASTED SOY SAUCE POWDER

Soy Sauce Powder is an excellent choice for boosting and intensifying the flavors of black pepper. The savory and aged notes complement the woody, piney and pungent profiles of black pepper.

0.20-0.50%
Recommended
starting usage
rate

5390 FERMENTED RICE EXTRACT POWDER

Nikken's Fermented Rice Extract Powder is allergen free and enhances the umami, woody, and piney notes of black pepper, similarly to Soy Sauce Powder.

0.20-0.50%
Recommended
starting usage
rate

2170 SHIITAKE EXTRACT POWDER

Shiitake's naturally full of the same tastes as black pepper: woody, smoky, earthy, and umami. Nikken's Shiitake Powders are allergen free and great for driving taste and linger.

0.20-0.50%
Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com





BITTER MASKING

CHALLENGE:

Commonly used functional ingredients including sweeteners and plant proteins can produce a bitter taste.

SOLUTION:

Mushrooms are capable of masking bitterness allowing the preferred tastes to come through.

RESULT:

Nikken's umami-rich mushroom extract products mask the perception of bitterness allowing other tastes to be more dominate.

2115 SHIITAKE EXTRACT POWDER

Use Nikken's 2115 Shiitake Extract Powder to mask bitterness from plant proteins, sweeteners and potassium chloride in savory meat-like applications and reduced sodium products.

0.25-0.50%

Recommended
starting usage
rate

2170 SHIITAKE EXTRACT POWDER

Use Nikken's 2170 Shiitake Extract Powder to mask bitterness in a wide variety of applications including sweet and savory sauces like BBQ and Teriyaki .

0.25-0.50%

Recommended
starting usage
rate

SEAFOOD COST-SAVINGS



CHALLENGE:

Reduce the amount of fresh seafood for cost-savings.

SOLUTION:

Nikken's natural seafood powders will reduce the amount of fresh or canned seafood to provide cost-savings.

RESULT:

Nikken's clean label seafood powders are concentrated in taste and embody fresh seafood notes. Nikken's seafood powders offer cost-savings by reducing the amount of fresh or canned seafood without sacrificing taste.

1300 CRAB EXTRACT POWDER

Replace up to 25.0% of fresh or canned Crab with Nikken's 1300 Crab Extract Powder. Additionally, use Nikken's Crab to brighten Crab taste and reduce the overly fishy notes of canned Crab.

1501 SHRIMP POWDER

Replace up to 25.0% of fresh or canned Shrimp with Nikken's 1501 Shrimp Powder while matching the oceanic notes of canned shrimp.

1903 LOBSTER EXTRACT POWDER

Replace up to 15.0% of fresh or canned Lobster with Nikken's 1903 Lobster Extract Powder. Additionally, boost the delicate aquatic notes and butteriness using Nikken's Lobster.

1.50~ 2.00%

Recommended
starting usage
rate

0.05-0.08%

Recommended
starting usage
rate

1.50~ 2.00%

Recommended
starting usage
rate

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FREEZE/THAW STABILITY

CHALLENGE:

Slow thaw rate of frozen sauce pucks to maximize product yield.

SOLUTION:

Incorporating Nikken’s natural umami ingredients will reduce the level of added salt and sugar slowing the thaw rate of frozen sauce pucks.

RESULT:

Nikken’s savory ingredients enhance the taste perception of salinity and sweetness allowing a combined 30% reduction in salt and sugar content, slowing the thaw rate while keeping the original taste. By reducing the salt and sugar, the melting rate is slowed up to 50% in a 20 minute time period.

1917 KOMBU EXTRACT POWDER

&

2170 SHIITAKE EXTRACT POWDER

KOMBU
0.50-0.75%

+

SHIITAKE
0.10-0.30%

Nikken’s Kombu and Shiitake create a natural umami synergy allowing for the reduction of solids from sugar and salt without sacrificing taste. Retains upwards 50% more sauce when pucks are exposed to room temperature for 20 minutes.

UMAMI SYNERGY

POWDER TO LIQUID CONVERSIONS

CHALLENGE:

Replace shorter shelf life liquid ingredients with Nikken's shelf stable powders.

SOLUTION:

Nikken's natural umami powders dissolve readily allowing for flexibility with dry and liquid product development.

RESULT:

Nikken's ingredients are packed with taste and can be used for both wet and dry applications. Nikken's extracts are water-soluble and easily hydrate.

5305 TRADITIONAL SOY SAUCE POWDER

To make liquid soy sauce from our shelf stable 5305 Traditional Soy Sauce Powder, combine with water using a 1:4 soy sauce to water ratio.

**1:4 RATIO
5305: WATER**

1620 FISH SAUCE POWDER

To make liquid fish sauce from our shelf stable 1620 Fish Sauce Powder, combine with water using a 1:4 fish sauce to water ratio.

**1:4 RATIO
1620: WATER**

7021 TERIYAKI SAUCE POWDER

To make liquid teriyaki sauce from our shelf stable 7021 Teriyaki Sauce Powder, combine with water using a 1:3 teriyaki to water ratio.

**1:3 RATIO
7021: WATER**

MISO PASTE VERSUS POWDERS



CHALLENGE:

Turn Nikken's Red and White Miso Powders into paste for greater convenience and development options.

SOLUTION:

Nikken's natural Miso Powders can easily be hydrated to be used in dry or paste form reminiscent to traditional miso paste.

RESULT:

Nikken's Red and White Miso Powders are concentrated in taste that when added to water form paste-like products that taste like traditional red and white miso pastes. Miso powders provide conveniences such as a long stable shelf life, no oxidation, no refrigeration and they allow for formulation versatility from dry to wet applications.

6100 RED MISO POWDER

To make red miso paste from our shelf stable 6100 Red Miso Powder, combine 45% Miso Powder with 55% water.

45% MISO POWDER
&
55% WATER

6109 RED MISO POWDER

To make red miso paste from our shelf stable 6109 Red Miso Powder, combine 55% Miso Powder with 45% water.

55% MISO POWDER
&
45% WATER

6107/6115 WHITE MISO POWDER

To make white miso paste from our shelf stable 6107 and 6115 White Miso Powders, combine 55% Miso Powder with 45% water.

55% MISO POWDER
&
45% WATER



ALTERNATIVE PROTEINS: PEA PROTEIN

CHALLENGE:

Pea proteins are commonly used in plant-based products because of the functional flexibility and high protein content. Pea protein can produce undesirable tastes when added. The goal of this project was to use reduce the off-notes of pea protein in dairy and meat applications.

SOLUTION:

Nikken's natural umami ingredients mask the earthy, grassy and bitter off notes from pea protein.

RESULT:

Nikken's savory products mask the undesirable earthy, grassy and bitter tastes from pea protein while enhancing the more desirable notes of a product.

TOP NIKKEN RECOMMENDATIONS FOR DAIRY APPLICATIONS

6109 RED MISO POWDER

The fermented notes in Red Miso mask the grassiness of the pea protein and enhance the brightness and acidity in dairy products.

0.10-0.15%

Recommended
starting usage
rate

5390 FERMENTED RICE EXTRACT POWDER

This tangy, fermented, flavor boosting product is excellent at increasing the perception of acidity and adding savoriness to dairy applications.

0.10-0.15%

Recommended
starting usage
rate

TOP NIKKEN RECOMMENDATIONS FOR MEAT AND POULTRY

7400 KOMI POWDER TM

This kokumi-based product reacts with calcium receptors to increase the taste, linger and mouthfeel of the proteins. It's an excellent taste-boosting and pea-masking option.

0.10-0.15%

Recommended
starting usage
rate

1917 KOMBU EXTRACT POWDER

Nikken's Kombu Powder is naturally high in glutamate, which drives the cooked meaty flavors of beef and turkey while minimizing the off notes from pea protein.

0.50-0.75%

Recommended
starting usage
rate



ALTERNATIVE PROTEINS: SOY PROTEIN

CHALLENGE:

Soy proteins are commonly used in plant-based products because of the functional flexibility and high protein content. Soy protein can produce undesirable tastes when added. The goal of this project was to use reduce the off-notes of soy protein in dairy and meat applications.

SOLUTION:

Nikken's natural umami ingredients mask the chalky, bitter, and beany off notes from soy protein.

RESULT:

Nikken's savory products mask the undesirable chalky, bitter and beany tastes from soy protein while enhancing the more desirable notes of a product.

TOP NIKKEN RECOMMENDATIONS FOR DAIRY APPLICATIONS

7501 UMAMI MEDLEY ®

Excellent for masking the chalk off notes of soy protein and maximizing taste through the umami synergy of Kombu, Shiitake and yeast extract in Nikken's 7501 Umami

0.25-0.50%
Recommended
starting usage
rate

TOP NIKKEN RECOMMENDATIONS FOR MEAT AND POULTRY

7501 UMAMI MEDLEY ®

Is a blend of Kombu, Shiitake and yeast extract. The unity of these products creates an umami synergy that drives bold tastes and intensifies perceived meatiness while minimizing the off notes from soy protein.

0.25-0.50%
Recommended
starting usage
rate

1917 KOMBU EXTRACT POWDER

Nikken's Kombu Powder is naturally high in glutamate, which boosts the rich fatty tastes in beef and turkey while minimizing the off notes from soy protein.

0.20-0.50%
Recommended
starting usage
rate

ALTERNATIVE PROTEINS: CHICKPEAS



CHALLENGE:

Plant-based proteins such as chickpeas are often incorporated into meat products to reduce the overall amount of meat for a healthy living platform. Chickpeas can produce undesirable tastes when added. The goal of this project was to replace 25% of ground chicken with chickpeas without significantly changing the taste.

SOLUTION:

Nikken's natural umami ingredients mask the grainy, vegetal and beany off notes from chickpeas.

RESULT:

Nikken's savory products mask the undesirable grainy, vegetal and beany tastes from chickpeas while enhancing the more desirable notes of a product.

6115 ORGANIC WHITE MISO POWDER

The fermented notes in the Organic White Miso add complexity to the chicken and contribute an intense savory layer to the chickpeas. White Miso is an excellent product that complements white meats boosting the overall meat profile.

0.50%-0.75%
Recommended
starting usage
rate

7400 KOMI POWDER™

This kokumi-based product reacts with calcium receptors to drive and enhance the meatiness of the chicken. It also boosts mouthfeel and craveability of the entire mixture.

0.20-0.50%
Recommended
starting usage
rate

2170 SHIITAKE EXTRACT POWDER

Naturally low in sodium and full of savoriness! The deep and meaty notes of shiitake provide a dark meat chicken type taste and linger.

0.10-0.20%
Recommended
starting usage
rate

For more information on this project, contact sales@nikkenfoods.com

