



Farmgate to Taste Great

We bring sustainability, safety
and integrity to the table.

Olam Spices responsibly grows and processes healthy ingredients to enhance and flavor the world’s food supply.

We offer a comprehensive range of sustainable, full-flavored spices and provide our customers with innovative solutions worldwide. We work directly with growers, process our products close to where they’re grown and have built a sophisticated worldwide distribution network over the years.

Olam Spices is committed to long-term investment in the sustainability of our supply chain. With ownership or active engagement at every stage of our global supply chain, we offer unparalleled traceability and product security. We believe that our approach to supply chain management can assure our customers the highest possible product quality, integrity and value while also reducing our consumption of natural resources and enriching the communities in which we operate.

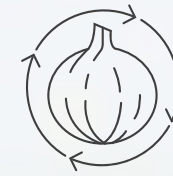
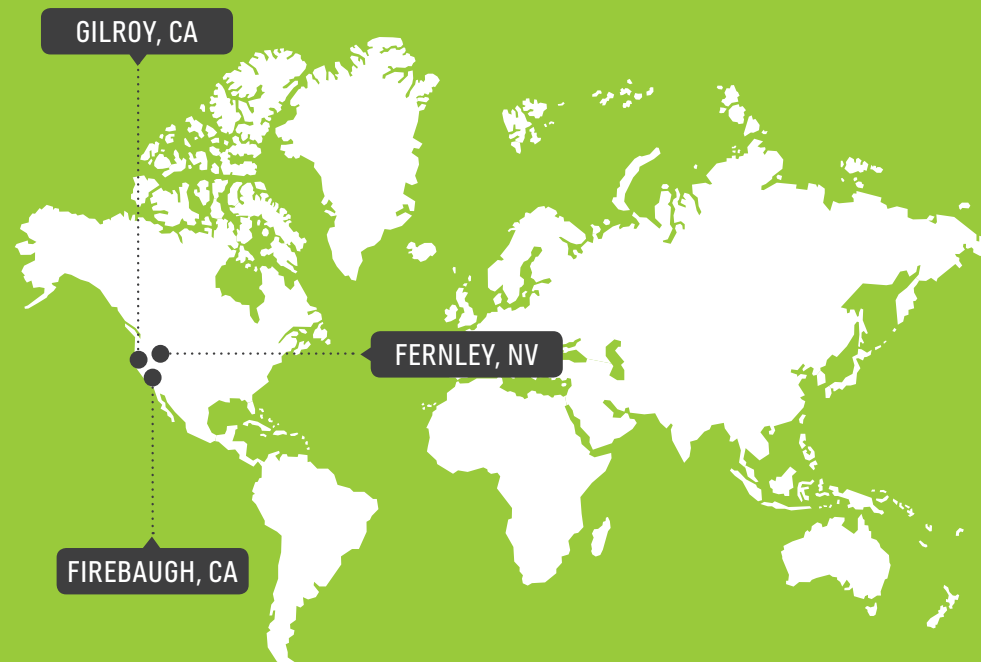
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U.S. ONION

Olam Spices' onions are grown and processed in-house in the U.S., with over 75 years of proprietary seed development, decades of consistent true-to-taste quality and seed to factory traceability.

We are the world's largest provider of dried onion, offering a comprehensive product line with the widest range of fractions, treatments and packaging available. As the industry leader in quality, our onions deliver uniform piece distribution and integrity. Need a custom specification? Our **Innovation and Quality Center** will provide you with the right dried onion product to match your application.



PRODUCING THE MOST SUSTAINABLE ONION IN THE WORLD

Olam Spices' dried onion program has been in operation since 1943. Our agricultural team has unparalleled expertise in the industry, boasting a combined 470 years of experience overseeing all aspects of seed breeding, planting, cultivation and harvest.

The team has developed proprietary seed to produce onions with more dry matter to boost yield and reduce the amount of land, water, fertilizer and pesticides needed per acre. We have also developed our own custom planting and harvesting equipment, which has significantly reduced our carbon footprint. This combination of superior seed, expertise and reduced inputs provides our farmers with a high yielding and virtually risk-free crop.

The sustainability impacts of our efficient onion extend beyond the farmgate. Both shipping and processing are more efficient, reducing our environmental footprint. Our onions are dried down in the field, requiring fewer trucks for transportation and less energy and water for processing.

IMPACT

Over the past 10 years we have seen an estimated reduction of:



7,982 Acres of Production
(3,214 hectares)



7.2 Billion Gallons of Water
(26.9 million cubic meters or 21,842-acre feet of water)



54,847 Metric Tons of CO2





NO TEARS FOR ONION FARMERS AS YIELDS INCREASE BY 20%

Olam Spices is working with a group of large-scale farmers in Egypt to reduce the environmental footprint and increase productivity of the onion crop through improved farming practices.

The farmers have received training on Good Agricultural Practices (GAP), covering everything from crop rotation and correct land preparation, to Integrated Pest Management (IPM) and irrigation. They are then issued with an individual 'Grower's Guide' to reference as they put their learnings into practice.

Through Olam's sustainable sourcing program, AtSource, customers can track the environmental and social impact of their onion products - from fertiliser use, water and carbon footprint, to labour practices and financial support - from the field to their door.

IMPACT



**20% increase in
average yield**
(over the past two seasons)



**22% decrease
in water used**
(over the past two seasons)



AtSource

EGYPT ONION

From the U.S., Olam Spices seed breeding and agricultural expertise has been transferred to the deserts of Egypt.

We work closely with our farmer partners, providing them with our high-solid onion seed and manage all aspects of cultivation, from planting to harvesting, in order to guarantee a good crop.

Our two BRC A-rated industry-leading, in-origin processing facilities can meet the most demanding product form and packaging requirements while delivering the best in blending, toasting and customized micro-specification capabilities.





ONION FRACTIONS



SLICED

These large easily-identifiable pieces look like fresh onion slices when rehydrated. Great when used in place of fresh onions as toppings for pizzas and sandwiches.*



DICED

Works well in place of fresh onions in dips and condiments, where you want to see pieces of onion, but also want the product to flow smoothly.*



LARGE CHOPPED

Great when used in place of fresh onions, in salsas and on top of burgers and other sandwiches.*



KIBBLED

Slightly smaller than sliced onion, with large identifiable pieces that make them ideal for soups and sauces.**



CHOPPED

Great for any application that calls for noticeable piece identity including broths, soups, stews, vegetable dishes and marinades.



MINCED

Gives dishes a slight texture with smaller chopped pieces. Great for sauces, vinaigrettes and marinades.



GROUND/GRANULATED

The consistency of table salt, granulated onion is ideal to use in broths, marinades, dressings and sauces where you aren't looking for noticeable piece identity.



POWDERED

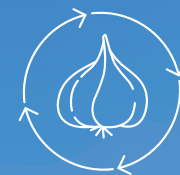
Perfect for adding fresh onion flavor to coatings, breadings or as a topical flavoring for crackers, chips and other snack foods.

*Only available from our U.S. line. **Only available from our Egypt line.

CALIFORNIA GARLIC

Olam Spices is proud to be the leading supplier of California-grown dried garlic—the safest, most flavorful and sustainably produced garlic in the world.

Grown in the heart of the San Joaquin Valley by local, multi-generational farmers—this is garlic you can trust, managed by our experts from seed to factory, so you can always count on unrivaled food safety and total traceability. California garlic has always set the gold-standard for quality worldwide and we are leading the way in sustaining that cherished heritage.



CALIFORNIA FARMERS: A CLOVE ABOVE THE REST

Olam believes that California farming is world class. We have long-standing relationships with farms that have invested heavily in ag tech start-ups and new technologies to shape the future of the industry and partner with leading environmental organizations* to incorporate regenerative practices on farm.

Impacts in 2019, from 4 of our 28 partner farms include:

Biodiversity: 1,544 acres of managed wetlands and 284 acres of native habitat, including 18 acres of milkweed grown providing habitat for the endangered monarch butterfly

Soil Health: 2,310 acres of cover crops

Renewable Energy: 6 megawatts of solar

Water Stewardship: The ability to recharge over 1,000 acre-feet of floodwater per day and an average of 80% drip irrigation used across all crops resulting in 15-30% water savings

* Including but not limited to: World Wildlife Fund (WWF), Xerces, Audubon Society, US Fish & Wildlife Service, The Nature Conservancy (TNC) and the Environmental Defense Fund (EDF).



Cannon Michael
Bowles Farming Co
6th generation farmer



Lauren Coelho
Solo Mio Farms
4th generation farmer



Tony Azevedo
Stone Land Co
3rd generation farmer



Don Cameron
Terranova Ranch
Farming for over 36 years



CHINA GARLIC

Olam Spices offers a comprehensive line of garlic ingredients that have been dehydrated and milled in our state-of-the-art processing facility.

High-quality raw materials are secured and brought directly to our plant in Ji'ning, China. Our vertically integrated drying and processing operations manage the complete supply chain, from washing, sorting, gentle air-drying and milling. Olam's on-site quality control lab performs routine microbiological, chemical, physical and allergen testing, ensuring product safety and quality at every point.



GARLIC FRACTIONS



FLAKE

Grown and processed in China, these large easily identifiable pieces work well in stir fry, vegetable dishes and entrees. *



CHOPPED

Great for any application that calls for noticeable piece identity including broths, soups, stews, vegetable dishes and marinades.



MINCED

Works well in applications where you want to replace smashed or minced fresh garlic, such as dressings, marinades and condiments.



MINCED IN WATER

A simple way to add fresh garlic flavor to your applications. Delicious in sauces, marinades, condiments and dressings. **



GROUND/GRANULATED

Dried and ground to the consistency of table salt. Great for building fresh garlic flavor in applications like dressings, marinades and sauces.



POWDER

Perfect for adding a fresh garlic taste without texture or piece identity to coatings, broths or as a topical flavoring for snack foods.

*Only available from our China line.

**Only available from our U.S. line.

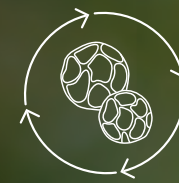


PEPPER

Olam Spices is the world's largest fully integrated pepper provider from estate to processed ingredients.

Our estates in Gia Lai, Vietnam and Bahia, Brazil are the first of their kind, providing traceability back to each block of pepper planted. Olam Spices' single estate black pepper is produced utilizing best-in-class agricultural practices such as cover crops, compost and digital crop monitoring systems. Unique to the industry, we can provide single varietal offerings that support consistency and dynamic flavor profiles.

With a farm level sourcing network managed in-origin by Olam personnel and two estates, we can ensure supply quality and product security from field to factory. Our world-class processing facility in Vietnam uses inline steam sterilization with extended grinding equipment to match all customer specifications.



CLEAN PEPPER PROJECT REDUCES INPUTS AND LABOUR COSTS

In the Chu Puh district of Gia Lai province of Vietnam, Olam Spices has established the Olam Clean Pepper Project. To date, 275 farmers have been onboarded with plans to expand to 1,000 farmers in 2020.

This project provides comprehensive training including Good Agricultural Practices (GAP) and Integrated Pest Management (IPM) to enhance farmer livelihoods, reduce environmental impacts and improve the quality of black pepper.

IMPACT



62% reduction
in inputs



38% reduction
in labour costs



8% reduction
in water use



Production of a
fully traceable
black pepper





PEPPER GRINDS



BLACK PEPPER WHOLE

These peppercorns work perfectly when you want to showcase the entire spice and looks great in pickle brines, marinades and vinaigrettes.



BLACK PEPPER CRACKED 16#

This black pepper is piquant and excellent when used where you would like to see large chunks of pepper such as meat coatings and marinades.



CRACKED 20#

Coarsely ground black pepper with a sharp taste and mild heat. Great for breadings, dressings and sauces, where you want to see larger flecks of black pepper.



BLACK PEPPER GROUND 60#

This classic spice is the little black dress of the culinary world, where it adds heat and intrigue to sauces, dips, breadings, snacks and entrees that hail from any place in the world.



WHITE PEPPER WHOLE

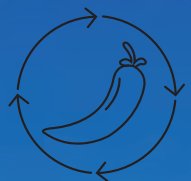
A milder form of pepper, with a lightly fermented aroma and taste, white peppercorns are picked ripe and processed in Vietnam to remove the outer coating. White pepper tastes earthy and is often used in white or lightly colored foods.



WHITE PEPPER GROUND 60#

Light tan to stark white powder, used in preparations where you don't want to see pepper flakes, but would like a peppery flavor. Also delicious where you would like a slightly fermented taste, such as southeast Asian preparations.

These are only a few examples of our capabilities. Any grade and customer specification can be met.



SUSTAINABLY SOARING TO NEW HEIGHTS

Olam Spices is using drone technology in our paprika supply chain to support the sustainable cultivation of chili peppers by improving input efficiency and yields.

For the past three years, Olam has flown drones at 400 ft above our U.S. chili fields to capture aerial photos of the plants at multiple times throughout the growing season. This technology has proven to be a powerful tool in comparing temporal changes and has enabled our partner farmers to identify problems in the field to find solutions faster. Some specific examples include:

Early identification of diseases such as bacterial leaf spot and phytophthora to ensure pesticides are applied only in areas where it is needed most and during the most effective time window

Proactively identifying irrigation leaks and water stress, ensuring plant health

Avoiding damage to the crop by offering farmers and crop managers another way to oversee the operation, without walking through fields

By leveraging drone technology and our internal agricultural expertise, Olam helps our partner farms reduce inputs and improve yields - ultimately saving growers time and money.

IMPACT



10-15% estimated yield increase



Reduced inputs and costs for farmers

U.S. CHILIES

Olam Spices' U.S. chilies are grown and processed in the southwest region of the United States. With total control of the supply chain, from seed to factory, we're able to ensure the highest quality and most reliable supply on the market.

Our comprehensive product portfolio includes specialty varieties of chilies to add an authentic flavor to any application. From sweet to fiery hot, Olam Spices' chilies not only add flavor but brilliant color to food and beverage products.

Olam Spices' internal research and development team can create custom blends, incorporating chilies of different flavor, color and heat, to produce a final product matching customer expectations.



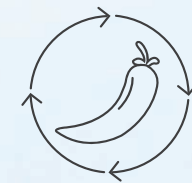
LAS CRUCES, NM

INDIA CHILLIS

Olam Spices' farmgate relationships and programs with growers in India ensures a superior quality for all of our products.

As we've worked directly with growers and farmer partners for over two decades, we enjoy full oversight of growing practices, excellent access to raw materials and control over the standards of storage and transportation.

At our world-class processing facility in Kochi, India we utilize natural steam sterilization and proprietary processes to reduce pathogens.



OLAM SPICES TAKES REGENERATIVE AGRICULTURE TO INDIA

In India, Olam Spices has trained nearly 1,000 smallholder farmers on a wide array of soil health practices to promote regenerative agriculture, resulting in a high quality red chilli that is free of pesticide residue, aflatoxin and meets all global food safety standards.

Some key regenerative practices and highlights of the training include:

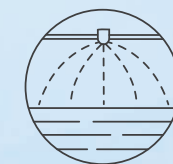
Conserving Inputs: After collecting 408 soil samples, we conducted farmer trainings on nutrient management based on the results

Cover Crops: 138 farmers applied maize and jowar as a border crop and marigold as a trap crop on more than 1,000 acres

Compost: 200 farmers applied organic manure on more than 1,000 acres

Crop Residue: 12 farmers incorporated crop residue into soil on more than 45 acres

IMPACT



30% reduction in pesticide inputs



15% cost reduction for farmers



10% increase in average crop yields





CHILI VARIETIES



CHILI PEPPER

A single ingredient that meets ASTA, Scan and SHU specs. Great in spicy Chinese or Korean sauces or to make snack foods flaming hot.*



PAPRIKA

A low-heat pepper that is a great vehicle for adding red color to sauces, soups, stews and salad dressings.*



CHILI POWDER

One or more chili pepper types combined with salt and spices. Great in chilis, stews and breadings.*



ANCHO

Made from ripe poblano peppers, ancho chili powder has a deep, rich, smoky flavor with mild to medium heat. Often used in authentic Mexican cooking.*



JALAPENO

The peppers are picked green, then dried and powdered, giving the powder a lovely green color. Excellent with vegetables, grains and lighter meats like fish and poultry.*



CHIPOTLE

This delicious pepper starts off as a jalapeno that ripens from green to red. Perfect for tacos, fajitas or on foods like grilled chicken or barbecued ribs, where the smokiness of the pepper brings out the flavor of your dish.*



GROUND RED CHILLI

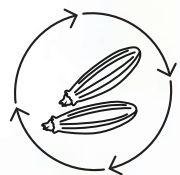
High heat with a touch of fruitiness. Use this pepper to bring bold spice to Southern, Caribbean, Mexican, South American and Indian Cuisines or mix with vinegar to create a liquid hot sauce.**



CRUSHED RED CHILLI

Large, flake crushed chilli peppers and seeds that are high heat. These vibrant flakes add punch to your applications both visually and from a flavor standpoint.**

*Only available from our U.S. line. **Only available from our India line.



IMPROVING FARMER LIVELIHOODS, COMMUNITY HEALTH AND WELL-BEING

Olam Spices is working with 1,200 smallholder farmers including 100 turmeric and more than 1,020 cumin growers in India.

We have conducted Integrated Pest Management (IPM) trainings including land preparation, use of certified seed, pest and disease control, weed management and post-harvest trainings that have resulted in reduced inputs and minimum residue standards compliance.

In addition, Olam has undertaken several community needs assessments to identify opportunities to improve overall health and well-being of our farmers and their families.

Some key highlights include:

More than 50 turmeric farmers attended two child labour awareness training sessions organised in partnership with Global March

Conducted gender equity training for 25 female employees

Identified the need to provide Personal Protective Equipment (PPE) to farmers

IMPACT



Over 350 cumin farmers received a 5% premium

TROPICAL SPICES

Olam Spices offers a full line of spices sourced by our teams who are on the ground in all key producing origins ensuring supply security to reduce risk and increase reliability.

Our sophisticated processing facilities in India and Vietnam offer the highest finished product quality, safety and security with comprehensive customization capabilities. Our technologically-advanced roller and pin mills are able to generate less powder and heat in an efficient, gentler milling process that also helps preserve the essential oils responsible for ensuring maximum flavor.

Our unique cryogenic milling techniques add to the enhancement process, using "artificial ice" to grind these spices at approximately -20 degrees C, further preserving their essential flavor oils.



KOCHI, INDIA

BIEN HOA, VIETNAM

SPICE VARIETIES



TURMERIC

An earthy flavor that works nicely for spice mixtures of Indian or Malaysian origin. Embraced by the wellness community where it is used as an ingredient in beverages and protein bars. Grown and processed in India.*



CORIANDER

Grown and processed in India, this subtle, earthy seed spice works well in Indian, Latin American and Middle Eastern cuisines. Coriander's mild, versatile flavor is excellent in rubs for chicken and lamb and is great in chillies, soups and stews.*



GINGER

The bright flavor of citrus with a gentle heat, ginger is a great addition to dessert and beverage preparations as well as a variety of ethnic cuisines.



NUTMEG

Grown in Indonesia and processed in Vietnam, our nutmeg rounds out the flavor of desserts and savory cream sauces, as well as Dutch, Italian and Caribbean cuisines.**

*Only available from our India line.



CUMIN

Used in Indian, Middle Eastern and Mexican cuisines, cumin provides a savory pungency that is essential to curries. Olam's cumin seeds come from the flowers of plants grown in India which we clean, dry, grind and pack.*



CURRY BLENDS

A vibrant mix of ginger, garlic, cumin, turmeric and a touch of chilli. Adds the right flavor to lentil and bean dishes. It's also great with chicken or fish.*



CINNAMON

Also called "cassia," this spice is the backbone of sweet baked goods and an essential accent to savory dishes. Olam secures cinnamon bark from trees grown in Vietnam and Indonesia, then processes the bark into powder in Vietnam.**

**Only available from our Vietnam line.



ORGANIC

From the field to the factory, we are committed to ensuring that our organic spices are grown and processed in an ethical and sustainable manner.

We have developed direct relationships with onion, garlic and chillies farmers in the U.S. and an extensive sourcing network in India and Vietnam. Our line of organic ingredients are processed in our state-of-the-art facilities with full organic, BRC, Kosher and Halal certifications.

ORGANIC VARIETIES

ONION

Egyptian Onion Powder

U.S. Onion Powder

U.S. Onion Granulated

U.S. Onion Minced

U.S. Onion Chopped

GARLIC

California Garlic Powder

California Garlic Granulated

California Garlic Minced

CHILLIES

U.S. Paprika

U.S. Chilli Powder

U.S. Chilli Pepper

Indian Red Chilli *

SPICES

India Turmeric*

India Cumin*

Cinnamon*

Black Pepper*

* Whole & Ground



PURÉES

Olam Spices' purées are the highest quality and ultimate convenience. Harvested at the peak of freshness, our purées provide natural flavor and color. We offer GardenFrost™ and frozen purées in a variety of on-trend flavors.

GardenFrost™, our proprietary purée line, is the most operationally efficient, clean label purée on the market — providing a de-seasonalized supply of vegetable and spice flavors in a quick thaw format. Over the past year, the product has been reformulated to eliminate added sugar, while delivering on flavor and convenience.

Our purées can be incorporated into a variety of manufactured products (e.g., frozen entrées, salad dressings and sauces) adding high-quality, concentrated taste and flavor with outstanding functionality.

PRODUCT FLAVORS

GARDENFROST™

Basil
Garlic*
Roasted Garlic*
Ginger
Jalapeno**
Onion*
Roasted Onion*
Roasted Red Bell Pepper

FROZEN

Garlic
Chunky Roasted Garlic
Organic Garlic
Roasted Garlic
Ginger
Roasted Red Bell Pepper

* No Added Sugar option available

** Only available in No Added Sugar



PARSLEY

Grown and processed in California's Central Valley, Olam Spices' parsley is directly managed by our agricultural operations team—guaranteeing healthy, consistent crops.

We have direct relationships with our growers and process the product within 60-miles of where it is grown. Our strategically placed Halal, Kosher and BRC certified facility in Firebaugh, California helps us reduce GHG emissions while ensuring field to processed ingredient within 16-hours.

When it comes to food safety, we are able to mitigate risk thanks to our exceptional control over the supply chain. As the world's largest producer of dried parsley, we offer customers full traceability and security of supply.

Our parsley is the perfect partner to our wide array of complementary dried vegetable ingredients. We offer custom blends upon request to meet customer specifications.



WHERE SUSTAINABLE FOOD STARTS

AtSource is a comprehensive sustainable sourcing solution for agricultural raw materials and food ingredients.

This program builds across 3 tiers with progressively enhanced levels of impact:

AtSource

- Suppliers signed and engaged on Olam Supplier Code
- Country level environmental footprint

AtSource +

- Farmer group level environmental footprint and social data
- Third party verification
- Continuous improvement plans

AtSource ∞

- Programs that will regenerate landscapes and deliver net positive impact at scale co-created with customers, communities and other stakeholders

From field to factory gate, AtSource helps customers shape real change on the ground and meet multiple social and environmental targets, thereby increasing resilience in supply chains.

AtSource Plus and AtSource Infinity report on metrics across 9 key sustainability topics at the farmer group or Olam-owned farm level.

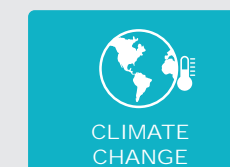
PROSPEROUS FARMERS & FARMING SYSTEMS



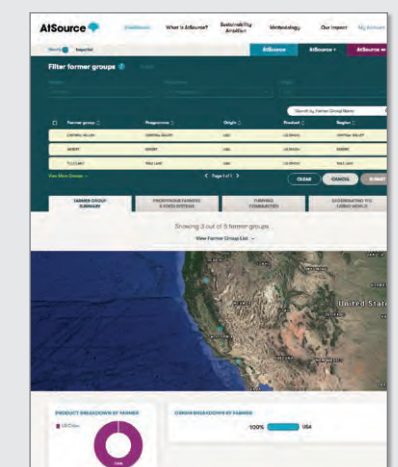
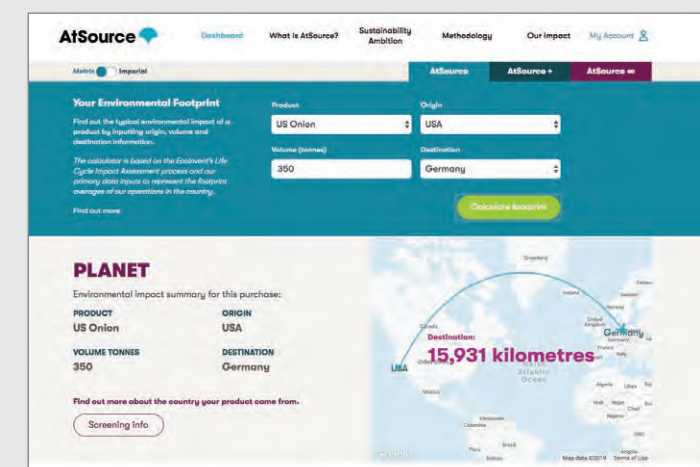
THRIVING COMMUNITIES



REGENERATING THE LIVING WORLD



A digital dashboard provides customers with instant access to rich data at each stage of the product's journey including advanced environmental footprinting, social metrics and impact narratives.



INNOVATION & QUALITY

Driving first-to-market ideas with science and expertise.

Olam Spices' Innovation and Quality Centre (IQ Centre) is the hub of our commitment to driving innovation for our customers and is where we collaborate with clients to prototype and optimize ingredients and finished product applications. The state-of-the-art IQ centre is available to all Olam Spices customers. Based in Olam Spices' headquarters in Fresno, California, the IQ Centre is supported by more than 15 scientists and quality assurance professionals.

The Olam Spices IQ team supports the R&D and prototyping needs of our customers with the combination of ideation and measurement through our product development kitchen and microbiology and food chemistry laboratories.



PRODUCT DEVELOPMENT KITCHEN

The product development kitchen facilitates ingredient applications in products through blending, baking, cooking, freezing and thermal processing.

Our food technologists and culinary experts partner with our customers to create customized ingredients and blends which can be tested on end product applications.



MICROBIOLOGY LAB

The microbiology laboratory is our central resource to analyse, identify and troubleshoot potential microbiological hazards in our products and processes.

Highly skilled microbiologists collaborate with customers, fellow scientists and partner labs to ensure food safety and quality.



FOOD CHEMISTRY LAB

The food chemistry laboratory features the analytical equipment and scientific knowledge to precisely measure key functional parameters of color, flavor, texture, pungency, viscosity and particle size in our products.

Our advanced capabilities include chromatographic separations for measurement of flavor, pungency components and link the same to the sensory profile of products. We can also undertake troubleshooting through analysis of contaminants from raw materials through finished products.





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www.olamspices.com | www.olamgroup.com

