

A GREAT PLACE TO GROW.

# PLANT YOUR ROOTS IN IDAHO'S DIVERSIFIED AGRIBUSINESS SECTOR







- · Ideal climate
- Home to the West's most-inland seaport
- Premier agricultural research
- Affordable energy and labor
- Small, agriculture-friendly government
- Strong food-processing industry





Idaho's agricultural industry is flourishing. In fact, agribusiness is the single largest contributor to Idaho's economy, accounting for 20% of Idaho's gross state product each year. Our production regularly sets and breaks records for cash receipts, and food and beverage processing is the state's second largest manufacturing sector.

Idaho's 25,000 farms and ranches produce more than 185 different commodities, and we're ranked in the top 10 in the U.S. for production of more than 25 crops and livestock. How do we do it? Idaho's perfect climate, cutting edge technology, extensive irrigation systems, transportation networks, and most important—skilled and hard-working people. That's the bounty of Idaho.





# THE IDEAL CONDITIONS Our climate seals in the sweet

The temperature difference between our warm days and cool nights of Idaho's growing season produces sweeter fruit and higher solids in Idaho's famous potatoes. An arid climate and cold winters provide an ideal growing environment with fewer destructive pests and diseases than you'll find in many other parts of the United States.

# Lifeblood of agriculture — water

Northern Idaho typically receives about 25 inches of rain a year, making dry land farming practices viable in this region. Some higher elevations in the southeast also support dry land farming.

Southern Idaho gets approximately 12 inches of rain a year. An extensive system of dams, reservoirs, and canals provides irrigation to 3.2 million acres, or 74% of our harvested cropland.

The Snake River, "the Nile of Idaho" is an invaluable source of water as it winds its way across much of the south. The Snake River Plain sits above a vast aquifer containing 200 million acre feet of water, one of the largest freshwater aquifers in the world.

Irrigation water combined with the rich, volcanic soil creates a fertile environment responsible for most of Idaho's agricultural production.





### **TRANSPORTATION**

Idaho's comprehensive transportation system moves our agricultural commodities and processed goods across the nation and around the world. Located in the Pacific Northwest, Idaho's proximity to the coast provides easy access to global markets.

### River

Four-hundred and sixty-five miles inland, the Port of Lewiston's cranes, warehouses, and grain storage facilities also provide access to river barge transportation—one of the most cost-effective distribution channels to the west coast.



### Road

- 5 interstates
- 20 U.S. highways
- 30 state highways

### Rail

• 1,500 miles of rail, moving 100 million metric tons of freight a year





Food processing is Idaho's second largest manufacturing sector. From fries to cheese to wine, we're making it taste good.

Combine the highest-quality raw ingredients, affordable energy and labor, and an abundance of natural resources, and you get an ideal location for value-added processing. Idaho is home to big-name manufacturers and established brands as well as niche suppliers of specialty foods and beverages.

# What's being processed

- Dairy
- Grains
- Fish
- Livestock
- Onions
- Potatoes
- Sweet corn

### Well-known brands

- Anheuser-Busch InBev
- Chobani
- ConAgra Foods Lamb Weston
- Idahoan Foods
- J.R. Simplot Company
- McCain
- Sorrento Lactalis

And over 200 more companies throughout Idaho

### Other eats & drinks

- Breads
- Confections
- Dressings
- Dry mixes
- Jams and jellies
- Microbrews
- Vodka and brandy
- Wine









Idaho's dairy industry ranks in the top four in the nation for milk production, due in large part to land availability, locally grown feed supplies and efficient transportation systems.

### **DAIRY**

## **Economic impact**

Idaho's annual milk yield—more than 13 billion pounds—is valued at over \$2 billion, making dairy Idaho's top agriculture industry.

## Say cheese

Idaho is the nation's third largest cheese producer, meeting demands for Cheddar, Colby Jack, Mozzarella, and Italian style cheeses, Cream cheese, Cottage cheese, and pasteurized processed cheese. Over 800 million pounds of cheese is produced in Idaho each year.

### Milk and so much more

Other products include dry whey, whey protein, whey protein isolate, whey protein fractions, permeate, lactose, and deproteinized whey. Dry milk products produced in Idaho include non-fat dry milk, skim milk and whole milk powders, milk protein, cheese powders, and dry buttermilk.

Other milk products available in Idaho are butter, dry cream, sour cream, dry milk calcium, ice cream, and ice cream mixes.

Furthermore, Idaho is home to the largest state-of-the-art yogurt plant in the world.









# **BEEF**

# High ranks for our herds

Idaho ranks 13th in the U.S. for cattle and calves inventory, with more than 2.1 million animals raised by 7,500 beef cattle operations. Most operations are family-owned.

# All types for all tastes

Idaho ranchers produce many types of beef, including grain-fed, grass-finished, organic, and natural. We're home to one of the nation's largest producers of American-style Kobe beef, which is distributed to high-end restaurants, hotels, and retail chains around the world.

### Research

Idaho's beef industry is supported by the Nancy M. Cummings Research, Extension and Education Center—Idaho's primary cow-calf and forage research station that provides land and facilities for beef cattle research on a working ranch. The Center also provides continuing education opportunities through animal and environmental studies designed to benefit the livestock industry in the Intermountain West. Current research focuses on reproductive efficiency, feed efficiency, extended grazing seasons, and wintering systems.

### Other Idaho beef facts

- · Idaho is home to three of the top 15 seedstock operations in the United States.
- The 2nd largest United States cow/calf operation is based in Idaho with more than 30,000 mother cows.
- · Idaho has two of the top 10 feeding operations, with combined capacity of more than 180,000 head.
- $\cdot$  The 10th largest beef processing operation is headquartered in Boise, Idaho.







### **SHEEP & LAMBS**

Raising sheep is one of Idaho's oldest agricultural traditions. Our inventory—at 210,000 head—puts Idaho among the top 10 states for sheep and lambs. Our annual wool production totals five million pounds.

The University of Idaho, in partnership with Washington State University, funds a sheep research and teaching center in Dubois, Idaho. The center focuses on grazing ecology and sheep management systems that benefit both the sheep industry and the environment.

### **PORK**

Idaho's pork processing history dates back to 1904. Our processors primarily focus on specialty items like cured meats, fresh sausage, natural pork, and Kurobuta pork, celebrated across the globe for its marbling and rich flavor.

### MINK

Idaho is the third largest mink producer in the U.S., with production on the rise.









Idaho is renowned for its idyllic fly fishing rivers, but we're also a leader in commercial aquaculture. We supply 70% of commercial trout production in the U.S., and we're also producers of sturgeon meat, caviar, tilapia, catfish, and ornamental fish.

Idaho's agriculturalists are leading the way in industries that support fish research and technology, disease control, quality control, and feed manufacturing.

Idaho's aquaculture industry is helping to meet the demand for trout among U.S. consumers.

### Fish food is serious business

Forward-leaning research is taking place at the Hagerman Fish Culture Experiment Station. The University of Idaho's Aquaculture Research Institute works with the U.S. Department of Agriculture's Agriculture Research Service to conduct a range of studies in the Magic Valley—the heart of Idaho's commercial aquaculture operations.

The station studies high-performance alternatives to fishmeal, methods for increasing nutrient retention in farmed fish products, and reducing aquaculture-related impacts on the environment. Through selective breeding, a long-term effort has

also been made to develop strains of rainbow trout that exhibit high growth performance when fed all plant-protein feeds. Much of this research is conducted with USDA Agriculture Research Service partners.

Similar efforts are made to lower the use of fish oil in feeds, yet maintain the healthful benefits of long-chain polyunsaturated omega-3 fatty acids in farmed fish products for human consumption. Increasing nutrient retention, meaning the use of nutrients in feeds to support fish growth, is another research thrust that has both economic and environmental benefits.

The station's close proximity to the Snake River and to aquaculture businesses provides mutually beneficial opportunities for industry partnerships in aquaculture research.









It's no secret that Idaho is the nation's foremost potato-producing state. We grow 30% of all U.S. potatoes.

# **FAMOUS POTATOES**

Anyone who's ever eaten a potato knows about Idaho. Our "Famous Potato" brand is recognized across the U.S. and the world, a reputation stemming from the great taste of our tubers.

# Idaho leads the nation in potato production

Our growers produce more than 100 million hundredweight of potatoes annually on more than 300,000 acres.

# Our growing conditions give farmers an advantage: the world's best potato

Warm days, cool evenings, and fertile volcanic soils are ideal for tuber sets, producing a potato with a high solid count—the secret behind fluffy bakers and firm french fries.

## There's no such thing as too many taters

While the Russet is the most well-known of the Famous Idaho Potatoes, we grow more than 30 varieties, including Yukon Golds, Reds, and Fingerlings.

# Potato processing just makes sense here

More than 50% of Idaho's potato crop is processed into potato flakes, hash browns, french fries, and specialty items. Access to quality raw products has led the world's top processed potato manufacturers to locate in the state. In fact, the commercial frozen french fry was developed in Idaho by the J.R. Simplot Co. in the 1940s.







### WHEAT

Approximately 50% of Idaho wheat is sold to foreign markets, making it one of our top export products.

Idaho is one of a few places in the world that successfully produces all five classes of wheat.

Over half of the total wheat crop in Idaho is soft white wheat.

Idaho wheat farmers have some of the highest vields per acre.

In terms of revenue generated, wheat has consistently ranked as Idaho's second largest crop behind potatoes.

Idaho is the largest grower of hard white wheat in the U.S.

Wheat is grown in 42 of Idaho's 44 counties.

### **BARLEY**

Idaho is a top barley-producing state, growing both malting and feed varieties.

More than 75% of total barley production is malt, with a vast majority being two-row for superior malting and brewing.

Idaho's pearl barley is becoming popular as a value-added food.

A consistent supply of top-quality malting barley has attracted companies such as Anheuser-Busch InBev, InteGrow Malt, and Great Western Malting to locate in Idaho.

## **HAY**

Idaho hay is known for its high-protein content, and is marketable for dairy and horse operations around the world.

Idaho ranks first in the U.S. for production of certified organic hay, and is the second largest U.S. producer of alfalfa hay.

Alfalfa constitutes more than 80% of Idaho's total hay production, with over four million tons harvested annually.

Idaho's high elevations and arid climate create ideal drying conditions.

Major alfalfa seed companies have facilities in Idaho and develop superior genetics tailored to Idaho's climate.







## **SUGAR BEETS**

Idaho ranks second nationally in the production of sugar beets, providing 20% of total U.S. yields.

Sugar beets are traditionally Idaho's fourth most valuable crop.

Our 850+ sugar beet farmers plant about 175,000 acres and harvest more than six million tons each year.

Sugar beets are grown primarily in irrigated areas of the Snake River Valley in southern Idaho and refined at plants in Paul, Twin Falls, and Nampa.

Our plants produce granulated sugar, powdered sugar, liquid sucrose, brown sugar, and betaine.

The Paul, Idaho plant is the largest sugar beet factory in the U.S.

### **SEEDS**

Idaho seeds are ranked the best in the world, and are shipped to more than 120 countries and every continent except Antarctica.

Idaho grows 70% of the hybrid temperate sweet corn seed produced in the world.

We're a leading supplier of seeds for vegetables like carrot, onion, turnip, and lettuce, as well as for alfalfa and Kentucky bluegrass.

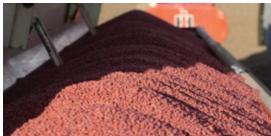
Disease and insects are minimal here due to our high desert plains, cold winter temperatures, and stringent regulations.

World-class seed companies operate in the Treasure Valley.









## **OILSEEDS**

One of Idaho's fastest growing crops is oilseeds.

Principal crops include canola, safflower, mustard, rapeseed, sunflower, and flax.

Idaho ranks fourth in the nation for canola production.

Flax seed and mustard seed are seeing explosive growth in health food sectors for their potential anticarcinogenic properties and omega-3 essential fatty acids.

The University of Idaho's nationally renowned Brassica Breeding and Research Program is providing the oilseed industry with important R&D contributions, including the development of superior cultivars suitable for a wide range of Idaho environments and a wide range of uses including industrial processing and biodiesel.

## **PEAS AND LENTILS**

Northern Idaho is the center of the nation's dry pea and lentil harvest. The area's innovative farming and quality-control methods contribute to these legumes' consistent size and color, making them popular overseas for canning and packing.

Demand is on the rise for Idaho's pulse flours and starches for use in food processing because of their functional and nutritional benefits.

Idaho's 40,000 acres in chickpea production make it one of the nation's top-producing states, helping to meet the demands of manufacturers of hummus and other snack foods.







## **ONIONS**

Idaho's Treasure Valley and Malheur County in Oregon together produce more than 25% of the nation's yellow onions. Specifically, our farmers grow the Spanish Sweet variety; this variety's mild flavor makes them a desirable ingredient for home cooks, food service, and manufacturers alike.

The Idaho-Eastern Oregon production area is the only storage onion region in the U.S. governed by a federal marketing order (#958). The Federal Inspection Service conducts daily inspections to certify the onions meet grade, size, pack, and maturity requirements ensuring superior quality.

In this area, more than 30 packing sheds store, pack, and market the onions. Several regional processors produce whole peeled onions, individually quick frozen dices, and onion rings.

# **BEANS**

Idaho's seeds for dry edible beans and garden beans are considered the world's best and most disease-free. Our success lies largely in our unique climate as well as our strict quality control measures. Idaho also produces dry edible beans that are consistently disease-free thanks to our arid climate and high-tech irrigation. The bright, light color of our edible pintos make them highly sought after in commercial markets.

### **FRUIT**

The apple is Idaho's leading fruit crop, topping 60 million pounds a year. We grow commercial varieties like Red and Golden Delicious, Granny Smith, Gala, and Fuji. Production of new varieties, such as Pink Lady and Honey Crisp have seen tremendous gains as the market expands.

Idaho fruit is primarily grown in our version of a banana belt, a cross section of Southern Idaho that experiences an extended growing season. Cherries, apples, peaches, apricots, plums, pluots, and table grapes thrive here, where warm days and cool nights contribute to high sugar content.

Idaho fruits are prized for their superior color and flavor.







# **MINT**

Idaho is the nation's third largest producer of mint. Idaho farmers have grown it commercially since the 1960s.

The majority of acres planted are peppermint, although spearmint grows equally well in Idaho's arid climate and rich soils.

Our 17,000 acres of mint equate to more than 2 million pounds of mint oil.

Idaho mint oil is sold on national and global markets and is added to a variety of products, including toothpaste, mouthwash, gum, confections, and pharmaceuticals.

# **NURSERY**

Nursery and greenhouse production is a top 10 Idaho crop sector.

Field-grown nursery products account for 75% of nursery sales, with greenhouse receipts rounding out the balance.

Our diverse output ranges from sod and bedding plants to shrubs and trees.









### WINE

The Snake River American Viticultural Area (AVA) earned federal designation in 2007. Climate conditions are similar to AVAs in Washington's Columbia Valley and elevations and latitudes are comparable to those of the high mountain deserts in Spain's famed Rioja region.

Idaho's wine industry has exploded in the past decade, growing from 11 wineries in 2002 to more than 50 today.

The Snake River AVA encompasses 8,000 square miles.

More than 1,600 vineyard acres are producing both wine and table grapes; common varieties include Riesling, Cabernet Sauvignon, Merlot, and Chardonnay. Our long summer days and well-drained soils are key ingredients for growing grapes with exceptional, fruit-forward flavor and good structure.

Idaho's wine country and our growers are gaining national attention from wine enthusiasts, retailers, restaurateurs, and the media—including *Sunset* magazine, which heralded Idaho as "a wine region that has arrived."

## **HOPS**

Idaho ranks third in the U.S. for hop production, growing more than 3,000 acres a year.

Hops are grown in two distinct Idaho regions—the majority in the warm, arid southwest and some in the cool, moist northern Panhandle. Growing conditions and production methods vary between the two regions, leading to a large number of hop varieties.









### INNOVATIVE AGRICULTURE RESEARCH

Idaho makes it a priority to invest in agricultural research that stimulates innovation, productivity gains, and product enhancements so that our growers and industry partners can continue to have a competitive edge in the marketplace. Many of our research programs are nationally recognized, and we're fortunate to have a dynamic and engaged commodity industry, including our commodity commissions, that foster public-private R&D partnerships.

The University of Idaho (U of I) College of Agricultural and Life Sciences, Idaho's land grant university, offers a comprehensive and accessible agricultural education program. U of I's extension offices and research centers are among the industry's greatest assets. The five research centers located throughout the state are dedicated to addressing the needs of the industries they serve.

The University of Idaho Parma Research Center and Pomology Program has earned international praise for its research on apples, peaches, plums, apricots, cherries, and grapes. The program tackles various physiological and environmental issues and challenges that Idaho fruit growers

face, such as successful introduction of the Fuji apple to Idaho, extending the life of fruit, increasing fruit quality in storage, and improving the fruit quality of table and wine grapes.

Agricultural education programs are also offered at a number of other higher education institutions strategically located around the state including Brigham Young University-Idaho in Rexburg, Idaho State University in Pocatello, College of Southern Idaho in Twin Falls, and College of Western Idaho in Nampa.

Significant federal research facilities support Idaho's agriculture industry. The Small Grains and Potato Germplasm Research Unit in Aberdeen has housed the National Small Grains Collection since 1988. As its name suggests, the Unit's research work focuses on potato and small grains germplasm improvement.

The Idaho National Laboratory in Idaho Falls houses a bioenergy program that is developing state-of-the-art technologies for supplying high quality raw biomass, preprocessing raw biomass into advanced bioenergy feedstocks, and delivering bioenergy feedstock commodities.









### **FARM AND BUSINESS FRIENDLY**

While Idaho's weather is ideal for agricultural production, our political and cultural climate help make our growers even more successful. In our state, you'll find support for the agricultural environment and for the industrious farmers and ranchers who work so hard to get food from farm to table. We have more than 50 associations that promote specific Idaho commodities and agriculture in general. They ensure rigorous quality standards, advocate for growers, and help expand opportunities in the marketplace.

The Idaho State Department of Agriculture (ISDA) is also pivotal in regulating and promoting agriculture to ensure industry success and consumer safety. Its six divisions oversee and implement more than 60 sections of the Idaho Code and offer dozens of types of licenses, registrations, and certifications. During harvest season, ISDA nearly triples in size,

adding enough inspectors, graders, and quality assurance staff to help growers guarantee consistent and quality products. The ISDA works cooperatively with the industry, other state agencies, the U.S. Department of Agriculture, and countless local entities to make certain that we're delivering the best Idaho has to offer to consumers and our trading partners.

The Idaho Legislature recognizes the economic significance of an agriculture-friendly environment. Idaho's Right to Farm law limits the circumstances under which agricultural operations may be deemed a nuisance—especially important in urbanizing areas. This legislation helps stem suits that may encourage or force premature removal of lands from agricultural uses and, in some cases, prohibit investments in agricultural improvements. The Legislature has also codified the right to farm as a natural right recognized as a permitted use throughout the state of Idaho.

