HORIZON ORGANIC

Horizon Organic Standards of Care

THE HORIZON ORGANIC® STANDARDS OF CARE

Introduction

More than 15 years ago, our company helped pioneer organic production practices and standards. To this day our passion for identifying and adopting the latest and best organic methods continues to be fueled by our fundamental belief that organic farming is the only truly sustainable agricultural production system in the world...a natural, holistic system capable of producing pure, safe dairy products while improving the health of consumers, the health of animals, and the health of our planet's precious soil and water resources.

As the first and largest national organic dairy brand, we feel a responsibility not only to continue improving the way we run our own farms but also to continue advancing our industry, especially as it relates to organic production practices.

For quite some time, we have been advocating, along with others, for clear and tough standards that go beyond what is currently required by the U.S. Department of Agriculture (USDA). At the same time, through the experiences of our farms and farmer-partners, and collaborations with organic innovators like Dr. Hue Karreman, DVM; Shannon Horst, Holistic Management International®(HMI), and others, we have developed our own standards of care to guide how we will manage our own farms, now and in the future.

We will always support efforts to raise the minimum organic standards and will continue to wholeheartedly support the spirit and intent of the organic regulations. In addition, as an industry leader we believe it is important to define and communicate our point of view about the art and science of organic milk production.

This document lays out a comprehensive set of beliefs, as well as specific management practices that we are following on our own farms. In developing these standards, we've applied what we have learned over the past 15 years to determine how we can do things even better in the years ahead.

We take great pride in the fact that Horizon Organic® has been the pioneer in the organic dairy industry. We have always led by example and, with these standards; we will continue to do so. That is our Organic Pledge.

OUR SUMMARY OF BELIEFS

Horizon Organic's livestock and farm management standards are guided by nine belief statements. Collectively, these beliefs and standards ensure that we provide the purest, safest and highest-quality organic milk and dairy products to consumers, and that we uphold the highest standards in caring for our animals and the land.

We believe *in raising our own calves from certified organic mothers to ensure the organic integrity of our herds from generation to generation.*

We believe *animal care and welfare should be holistic, preventive, and natural. We feel a moral obligation to care for our animals and to treat them humanely and with respect.*

We believe *good nutrition starts with the soil. Building and maintaining healthy soil is the basis for animal nutrition and successful organic farming.*

We believe *grazing is about managing the complex interaction between the grass, the land, and the cows. Grazing processes should emulate natural herd behaviors.*

We believe *pasture management should be sustainable while regenerating soil, land, and water resources and, also, enhancing the growth and nutritional value of the grass.*

We believe *organic dairy cattle should be outside as often as possible, year-round, to graze, exercise, socialize, and interact with the land.*

We believe *in sustainable farming practices that protect and enhance our natural resources for the good of our animals, our communities, and our planet.*

We believe *in limiting off-farm inputs on our dairy farms to better control organic quality.*

We believe *in maintaining detailed annual plans for our farms and evaluating our performance against those plans.*

RAISING CALVES

Our Belief

We believe in raising our own calves from certified organic mothers to ensure the organic integrity of our herds from generation to generation.

Our Standards

Raising calves organically. The best way to know exactly how each of our organic cows has been raised and treated is to raise them ourselves. On our farms, we raise all of our own calves organically from certified organic mothers. Our goal is that all of the organic calves born on our farms will come from certified organic cows also born on our farms.

Maternity care. We do everything possible to create a healthy environment for our expectant cows. This includes special maternity and birthing areas that allow them to give birth in a safe, secure, stress-free environment.

Birth records. We keep detailed records on all breeding and birthing activity on our farms. These records include health records for both mothers and offspring.

Sexed Semen. Although not directly prohibited by the USDA National Organic Program, we are opposed to using sexed semen on organic dairy farms. Sexed semen is used to guarantee the gender of calves, an unnatural practice that limits biodiversity.

ANIMAL CARE AND WELFARE

Our Belief

We believe animal care and welfare should be holistic, preventive, and natural. We feel a moral obligation to care for our animals and to treat them humanely and with respect.

Our Standards

Preventive health. The best way to raise healthy cows is to provide them with quality pasture, high-forage diets, low-stress birthing, freedom of movement, and comfortable and clean living conditions—all of which contribute to preventive health care. We also focus on preventing illness through regular veterinary check-ups, vaccinations (when needed), and close monitoring of vital signs. Our standards prohibit the use of antibiotics, bovine growth hormones, cloned livestock, or genetically modified feed crops.

Treating illness. The first and best defense against illness is prevention. But when a calf or cow does become ill, we rely on natural and alternative veterinary methods as our preferred treatment. The use of antibiotics is strictly prohibited in organic dairy animals at all stages of their life, including calves.

We may use approved synthetic treatments which appear on the National Organic Program (NOP) National List. Substances on the list have been approved by the National Organic Standards Board (NOSB) as having no adverse impact on animal, human, or environmental health.

If a sick animal cannot be restored to full health with organic approved treatments, we administer antibiotics or other prescribed synthetic medicines to return a calf or cow to good health. We always consider the well-being of our animals first, and never allow an animal to suffer. If antibiotics or prohibited materials are administered, however, the animal is no longer considered “organic” and must be permanently removed from the herd.

- Livestock treated with a non-approved substance are clearly identified by specially colored ear tags, and then removed from the herd.
- All treatments are documented as part of the dairy record-keeping process and consistent with the individual management plans for each of our farms.
- Antibiotic-treated dairy animals cannot be sold, labeled, or represented as organic.

ANIMAL CARE AND WELFARE (continued)

Calf management. Remembering that calves are more fragile than adult animals, our farms focus on individual attention, nutrition, fresh air, and housing as cornerstones of holistic calf care. Throughout their growing period, our calves are fed 100 percent organic pasture, forage, and feedstuffs. It's important to note that our feedstuffs contain absolutely no meat- or blood-based byproducts.

- Calves receive a gallon of high-quality colostrum within the first hour of life to encourage a strong immune system. Their entire immune system depends on this until they begin making their own antibodies.
- Clean, fresh water is constantly available.
- Our calves receive organic whole milk until they are weaned (at approximately three months of age).
- For the first three months, calf nutrition includes whole milk and free choice organic feed. Between three to six months, calves receive organic feed and forage. Pasture is introduced into the diet no later than six months of age.
- Until the first three months, young calves are particularly vulnerable to disease. To keep them healthy, calves are housed in individual hutches with "private" outdoor space for the first three or four months of life.
- From three to six months, calves move to larger group hutches to socialize with their peers in the herd.
- By six months of age, calves are ready to spend their time on pasture during the growing season.
- When cleaning out pens or hutches, we use natural sunlight and lime to dry and to sanitize the ground surface and alter the pH before re-bedding and stocking. This prevents parasites and bacteria.
- After calves are transferred from hutches to new housing, the hutches are power washed and disinfected, and then relocated with a new layer of sand.

Milk replacers. Our farms do not use milk replacers, but feed whole, organic milk.

Other treatments. Vaccinations are approved for organic dairy cattle and are regarded as effective and important prevention tools in protecting livestock of all ages from illness and disease.

Nutrition. Dairy cattle are herbivores and ruminants; their natural behavior is to graze. On our farms, fresh grass and other forages (pasture grasses, hay, etc.) are the primary feed sources during the growing season. Because fresh grass is a vital part of a healthy diet, during the growing season, dairy cattle on our farms graze on organic pasture by six months of age. We do not believe that lactating cows should be exempt from grazing. In addition:

- Forage is supplemented with an organic, balanced ration.
- Fiber, which is found in pasture grasses and other forage, is essential to good rumen health, correct pH balance, and prevention of illness.
- Calves are grazed on "clean" pasture, where adult animals are not grazing. This practice prevents parasites and the transmission of other diseases to young stock.

Housing. Our farms provide dairy cattle with appropriate housing that protects them from the elements and helps to maintain optimum health throughout the year. When not on pasture, our facilities provide shade, dry bedding, ample feed and forage, and clean water.

Water. Water is a critically important nutrient to cows, especially during the hot summer months. Whether in the pasture or the barn, our dairy cattle drink up to 30 gallons of fresh water per day and always have access to fresh water.

Freedom of movement. Our cattle move about freely unless they are being milked or receiving individual care. We believe an important part of raising healthy cows is making sure they are outside as much as possible, year-round, to graze, get fresh air, exercise, and interact with the land.

ANIMAL CARE AND WELFARE (continued)

Fly control. Because moisture and manure breed flies, we keep our cattle barns dry and well-ventilated. We use farm management practices that naturally reduce fly populations that include: harrowing, cleaning barns regularly, mowing weeds, and utilizing a comprehensive manure composting program. We also employ approved organic methods of fly control including: fly zappers and sticky lines, botanical fly sprays (i.e. pyrethrums if used infrequently and with other management corrections), rock phosphate added to manure, fresh and dry bedding for young stock, the use of parasitic wasps, and dusting pulverized limestone on the backs and sides of cows.

Daily record-keeping. Our organic dairy farms keep daily, written records of treatment activities. At a minimum, these records include the date and type of treatment provided to each animal. These records are audited annually by our farms' designated USDA certifying agent and are periodically reviewed by internal quality assurance teams. All medicines and natural treatments require legal labels including the name of the remedy; its use, dosage, and expiration date; any milk or meat withholding time; the written signature of the veterinarian; and the date of the veterinarian's signature.

NUTRITION

Our Belief

We believe good nutrition starts with the soil. Building and maintaining healthy soil is the basis for animal nutrition and successful organic farming.

Our Standards

Balanced diet. Our farms provide our dairy cattle with a balanced mixture of grass, feed, forage (i.e., hay), minerals, and fiber sources. Available grass, feed, and forage differ across geographic regions, but our goal is the same: to provide cows a healthy, balanced organic diet.

Nutrition from grass. A wholesome, organic diet is one of the most critical steps to ensure cow health, reduce the incidence of disease, extend milk production, improve calving, and maintain the overall health of our dairy cows. That's why our farms begin by focusing on soil health as the cornerstone of animal nutrition.

Soil health directly affects the quality of grass and harvested feed, which in turn affects the nutritional value a dairy cow, receives. Soil management for grasslands and crops, as well as forage testing and analysis, play an important role in proper dairy cow nutrition.

Our farms maximize the herd's daily nutritional intake from organic pasture during the active grazing season. Pasture is a required and calculated portion of the feed ration, and forage samples are taken and recorded throughout the growing season. We carefully manage the interaction of the grass, the soil, and the cows to make sure that cows are getting as much nutritional value as possible from pasture grass; plants have appropriate recovery time; soil is covered; and the management of the cows results in healthier pastures. We work with grazing experts at HMI to ensure that our farm management practices optimize the inextricable link between nutrition and plant recovery, soil health, and pasture management.

Nutrition from feed. When our cows are not grazing on pasture, they eat organic hay and feed. Our feed and forage are produced without the use of animal byproducts, genetically modified feed grains (GMOs), or prohibited herbicides, pesticides, or fertilizers.

Soil health. Our farms recognize the inextricable link between the health of the dairy cattle and the health of the land. Soil health is the foundation of a plant's nutritive value to cattle, so our farms maintain extensive soil management plans.

We think ecologically and view the farm as a whole, cooperating with the environment build soil health. When soil is biologically active and fertile, it will exhibit certain characteristics such as proper aeration, water-holding capacity, and excellent drainage. These are prime conditions for plant health.

The incredible importance of soil health seems neglected in today's agricultural practices. Many soils are mineral-deficient and lack proper earthworm populations which are critical to healthy soils. Earthworms help to build an aerated soil structure that prevents puddling, erosion, and excessive run-off. These issues are symptomatic of today's failure to think of the farm as a part of an entire ecosystem. Our farms save resources and reduce the amount of cattle feed supplements by ensuring that our soils are properly nurtured, thus allowing plants to provide nutritive value in a natural way.

Daily record-keeping. Our organic dairy farms keep daily, written records of nutritional activity. Records must document that all forage, feed grains, fiber, and protein sources are 100 percent organic. Records are audited annually by a designated certifying agent of the USDA.

GRAZING

Our Belief

We believe grazing is about managing the complex interaction between the grass, the land, and the cows. Grazing processes should emulate natural herd behaviors.

Our Standards

On our farms, dairy cows graze on organic pasture during the growing season. Based on an expanding body of scientific evidence that suggests cows should have access to the pasture during the dormant season so they get fresh air, exercise and some added nutritional benefit, we are exploring grazing during the dormant or closed season. The land also benefits from the carefully planned movement of the animals, which aerate and fertilize the soil, breaking the soil surface and encouraging moisture penetration, seed generation and carbon sequestration.

Below are the days of grazing we accomplished on our company-owned farms during the growing season in 2006:

- Maryland farm: 230 days
- Idaho farm: 175 days

Minimum standards. In addition to the grazing standards established by the USDA, we have higher grazing goals for our farms based on the growing season calendar for each farm location.

- Maryland: Active grazing April through October; dormant days, November through March, as weather, soil, and grass conditions allow
- Idaho: Active grazing May through September; dormant days, October through April, as weather, soil, and grass conditions allow

We support the NOSB's recommendation for guidance in the regulation that would call for an average of 30 percent dry matter intake from grazing for 120 days. However, we strongly believe all dairy farms should maximize their dairy herd's feed from grazing during the growing season.

With the help of HMI, our farms will continue to implement cutting-edge, pioneering grazing practices. In any environment, overgrazing and damage from trampling bear little relationship to the number of animals, but rather to the amount of time plants and soils are exposed to the animals. Much of the land deterioration that has occurred in brittle environments around the world began when humans severed the vital relationship between grazing animals and grass. Through the cow-to-grass relationship on our farms, we can more accurately predict how the land is responding to our management practices.

Year-round grazing is managed and timed carefully to ensure the health of the animals and the micro-environment of the soil's surface. Obviously, all of our grazing goals depend upon the cooperation of Mother Nature.

Grazing density. We focus on managing the complex interaction of the growth and vitality of the grass, the state of the soil, the number of cows grazing, and the duration of grazing. Our managed grazing approach follows the natural grazing behaviors of herds as they graze, urinate, fertilize the land, and move on, satisfying their nutritional needs while leaving the pastures and soil in a healthy state. We also continually invest in the grazing infrastructure on our farms to facilitate grazing "traffic patterns" that make sense for our cows and pasture health.

Record-keeping. Our organic dairy farms keep daily written records of all grazing activity. We have standardized systems across farms so that we can make better decisions on current and future pasture management, analyze trends, and generate reports on grazing. These records include the number of cows on pasture, their time on pasture, how much and where they grazed, the effect that grazing had on the pasture, and whether our management is producing the health for the animal and land we are seeking. Our daily pasture logs are audited by our farms' designated USDA certifying agent.

PASTURE MANAGEMENT

Our Belief

We believe pasture management should be sustainable while regenerating soil, land, and water resources and, also, enhancing the growth and nutritional value of the grass.

Our Standards

Pasture principles. On our farms, pastures represent more than grass. This is evident from our pasture management goal: healthier soils, animals, and humans while profitably renewing our life-supporting environment. Done right, organic agricultural practices positively affect our environment by rejuvenating plant growth, reducing resource degradation, and nurturing animals.

Livestock and pasture management go hand-in-hand on our farms because our certified organic pastures play an integral role in our livestock feeding program. Consistent with NOP regulations, we do not use harmful chemicals or pesticides that can pollute the air, water, and food. Our farms use sustainable and holistic pasture management practices, work to eliminate outside inputs, and use planned grazing to improve soil fertility, plant growth, and herd health.

Holistic Management International practices. We believe the natural complexity of land, livestock, and plants are part of one natural interdependent system and, as such, must be managed together as one. Our farms incorporate the farm and pasture management practices developed originally by Allan Savory of HMI. The holistic approach focuses on producing a healthy product while regenerating the resource base from which it comes, which requires managing all aspects of our dairy farms not individually but rather as part of an entire ecosystem.

This holistic goal empowers each of our farms with an overall vision which in turn guides our approach to managing the land. The goal operates as magnetic north would on a compass – that is, all objectives, anticipated outcomes, policies, and actions are tested against the farm's holistic goal before final decisions are made. Our farm management decisions consider the environmental, social (animals and people), and economic implications. Because this is so important, our Idaho and Maryland farms produce milk and also serve as learning centers for organic practices.

We believe the pasture's health is crucial to the cow's health and ultimately to the quality of our milk. This holistic method of farming is a continuous process of planning, implementing, monitoring, controlling, and re-planning. Sustainable agriculture cannot be an event, a prescription, or a standard. It must be an ongoing process of producing while actually regenerating and even enhancing natural resources. This process must sustain life for the communities that surround our farms – now and in the future.

Soil. On our farms, the most important aspect of pasture management is soil and soil cover. Soil is a living organism that develops from the top down, so our farms aim to build soil from the surface. Whether it is a rain-fed or irrigated pasture, we encourage practices that keep pastures covered year-round with plant material. Plant matter feeds the soil, promotes plant health and pasture productivity, and boosts the available nutrient value to cattle. Soil cover also ensures better water retention so that pastures can thrive on less water and erosion is minimized.

Grass. Our farms are restoring permanent pastures with perennial grasses that thrive in the region and extending the grazing season by establishing and nurturing a combination of native cool- and warm-season grasses. One of our goals is to foster biodiversity on our pastures – that is, to perpetuate as many native grass species as possible for future generations.

Plant health. To maximize pasture and ecosystem health, our farms carefully plan the "graze, trample, recovery" ratio of the relationship between the cows, soils, and plants; and monitor pastures to ensure that plants have time to recover and cattle can feed on pastures while benefiting the plants and the land.

- Good grass management requires daily monitoring to avoid both pasture stress and over-rested pastures. Those who manage the grazing program become experts at "reading" grass. The tops of grass plants indicate the health of the root system. This relationship is the basis of monitoring the status of our pastures and grasslands.

PASTURE MANAGEMENT (continued)

- Our farms move cattle to new paddocks or pastures while pastures left behind are given recovery periods for plants. The recovery period for plants varies due to a variety of factors such as the season, precipitation, climate, soils, type of plant, and other factors.

- Cattle on our farms do not return to a particular paddock of pasture until grass leaves and roots have fully recovered. Daily, we monitor pastures for plant (grass blade) health before allowing cattle to graze.

- Just like over-grazing, over-resting and under-grazing can destroy the grass.

Grazing and pasture management. Grazing practices on our farms are focused on accomplishing key objectives:

- Stimulating grasses to grow vigorously and develop healthy root systems.

- Nourishing our cows.

- Rebuilding the soil by replacing nutrients, keeping soil cover at all times, rekindling natural soil-forming processes, and providing adequate rest from grazing without over-resting.

Managed grazing replenishes pasture and nourishes animals. Our fields are divided in flexible "paddocks" according to pasture conditions and livestock needs. This allows us to manage grazing in a way that is good for the cows and good for the grass/soil.

Animal-soil interaction. Our farms carefully monitor and regulate animal movement to imitate natural grazing patterns. In natural conditions, grazing animals stay tightly bunched to protect themselves from predators. They intensively graze, trample, and fertilize on a small area for a short period of time, then move on, not returning until their waste has been fully decomposed into the soil. This also provides time for grass to recover.

Our cattle benefit the pastures through these natural behaviors. The trampling action of their hooves breaks the crust of the soil allowing moisture and seed to enter, creates seed-to-soil contact, and helps dormant seeds to germinate and establish. Cows also mulch the soil surface with trampled vegetation (protecting it from erosion and reducing soil surface evaporation), and fertilize the soil with their waste. And, grazing allows sunlight to reach the growth points of perennial, bunch grasses. In fact, the goal is to mimic the behavior that occurred on the open range hundreds of years ago.

Monitoring and record-keeping. We maintain detailed, written records of all activities and inputs relative to pasture management. Monitoring serves the key role of providing our management team with information with which it can make better decisions (day to day and when annual planning for the grazing takes place). Our management staff visually inspects pastures and pasture grasses daily and samples forage at least monthly during the growing season. Forage samples are taken to third party labs for testing for relative feed value, protein, minerals, and digestible fiber. Soil tests are also taken. The records on our farms capture all monitoring and surveying observations of the pastures, allowing us to make better decisions, to create a historical record, and to analyze and predict future trends. In keeping with holistic practices, our farms annually survey pastures and measure for soil and crop quality, biodiversity, ecological effects, livestock impact, and overall sustainability.

FREEDOM OF MOVEMENT

Our Belief

We believe organic dairy cattle should be outside as often as possible, year-round, to graze, exercise, socialize, and interact with the land.

Our Standards

Freedom of movement. Cows are social beings. They have herding and bunching instincts and exhibit certain group behaviors which provide important health benefits for them. For that reason, we make sure our cows are free to move about whenever they are not being milked or receiving individual care. Our cattle are free to graze, exercise, and interact with the outdoors. Even when they are indoors, we make sure our animals have plenty of room to turn around, lie down, or move about.

Exceptions. We understand there are times when it is not in the best interest of the animals to be on pastures or to go outside, including:

- During adverse weather conditions;

- When calves are young (before six months of age);

- When cows are in the latter stages of pregnancy, require close monitoring and are unable to move easily;

- When cows are ill and receiving treatment;
- When cows could cause damage to pastures (compaction, ripping of sod, etc.); or
- When predators are present.

These exceptions are fully documented as part of our daily record-keeping process and consistent with the individual management plans developed for each of our farms.

Daily record-keeping. We keep daily written records of the comings and goings of all of our cows. These records include the number of cows outside, when they went outside, where they were grazed, how much time they spent outside grazing, etc.

ENVIRONMENTAL STEWARDSHIP

Our Belief

We believe in sustainable farming practices that protect and enhance our natural resources for the good of our animals, our communities, and our planet.

Our Standards

Biodiversity. We provide high quality milk through farming practices that conserve and replenish our biological resources. Our farms are committed to regenerative farm management practices, which recognize that we are part of a broader ecosystem. As such, we must respect and protect the natural world — soil, water, air, plants, and wildlife — as well as our livestock and land.

As environmental stewards, our farms are focused on natural resource conservation. We are committed to:

- Constantly improving soil and water quality to benefit all creatures.
- Reducing erosion and building organic matter.
- Maintaining or improving wetlands and woodlands.
- Eliminating the use of toxic and persistent chemical pesticides and fertilizers which can harm wildlife.
- Regular monitoring and testing for methane gas.
- Monitoring and managing water quality and efficiency.
- Focusing on animal health and productivity, which reflects the health of the land.
- Creating sustainable plant communities through careful attention to plant diversity, age, and class structure.
- Reducing overall energy use in farm operations.

Soil and plant health. Our dairy farms use earth-friendly methods to feed the soil, control weeds and pests, and keep cows healthy. This holistic approach is applied through pasture management, grazing, composting, buffer zones, biodiversity, and other conservation practices which prevent ground water contamination, soil erosion, and nutrient run-off; increase soil's water absorption; and foster healthy plant and animal habitats.

Our farms create and implement comprehensive management plans, which include but are not limited to manure storage, composting, and timely application of compost, manure liquids, and minerals to pastures and crop lands to feed the incredible diversity of living creatures in the soil.

From the tiniest bacteria and fungi to earthworms and other invertebrates, these organisms, as they live and thrive, move through the soil decomposing manure, and plant residues. They are integral to the soil food web. If nurtured, they will contribute to the improvement of soil quality, nitrogen-enhancing structures, porosity for water flow and retention, and carbon sequestration which result in cleaner air and water.

Waste management and fertilizer use. Our farms use compost and waste water as the primary source of fertilizer and maintain a strict program of monitoring both processes. Manure and straw are regularly collected from the livestock housing areas (including winter exercise yards). These materials are kept in concrete bunkers or stacked in piles until transported to the composting site. Liquid waste and water from our livestock housing areas and milk parlors are collected in settling ponds or lagoons, where natural microbiological activity helps to digest solids and break down other waste materials. Periodically, this nutrient-rich liquid waste is pumped from our lagoons and applied to the fields. After settling, solids from the lagoons are taken to the composting site where they are mixed with manure and straw.

ENVIRONMENTAL STEWARDSHIP (continued)

Organic manure and animal bedding are placed in windrows and turned at least five times during an established period of time; temperatures in the compost pile are monitored and sustained between 131˚F and 170˚F. The heat destroys harmful bacteria and weed seed, so that when the compost is applied to fields, it enriches the soil and protects ground water and area watersheds.

Microbial products or inoculants may be applied to the windrows to promote composting. Compost use will improve the soil's structure and texture. This also aerates the soil and increases the compost's water-holding capacity. Compost loosens clay soils and helps sandy soils retain water. Adding compost improves soil fertility and stimulates healthy root development in plants. Compost also provides food for microorganisms, which keeps the soil in a healthy, balanced condition. The straw bedding and hay placed in windrows is an excellent carbon base for the compost pile. The manure we add contains large amounts of nitrogen and beneficial microbes.

Land application. The compost and liquid generated by our dairy farms provide natural, nutrient-rich soil inputs that promote plant growth and improve soil health. Though exact application methods vary with geographical location, season, and type of crop, our farms test soil before applying compost and liquid manure to protect crops, soil, or water.

Pasture management. Pasture vitality is not only important to our livestock's feeding program, it also helps to sustain and encourage plant growth, rejuvenate the soil, control soil run-off, increase drainage, and benefit the natural environment with minimal inputs. Our farms take a natural and holistic approach to managed livestock grazing, pasture management, and pasture rotation practices for irrigated and non-irrigated pastures. Our holistic principles, established by Allan Savory of HMI, recognize a pasture's relationship to the broader ecosystem and biodiversity.

Fertilizers and chemicals. Our farms are prohibited from using harmful pesticides, herbicides, synthetic fertilizers, and other chemicals on pasture and crops used to feed organic dairy cows. Through our composting and dairy waste management programs, our farms produce the majority of their own fertilizer needs. Manure applications to our crops are carefully monitored and recorded.

Pest control. Our primary defense against pests is to keep facilities dry and clean at all times. If needed, we use traps, lures, and natural repellant materials that are approved on the National List of Allowed Substances for Livestock Production established by USDA's National Organic Standards.

Weed control. Although composting helps to discourage weed seed in pastures and field/forage crops, our farms use the practices of mowing, livestock grazing, mechanical cultivation, and other means to control weeds.

Conservation. Our farms use buffer zones, conservation strips, and other methods to prevent soil and nutrient run-off and contamination from neighboring non-organic fields.

Buffer zones. In areas where properties border non-organic land, our farms implement buffer zones, some of which are native ground while others are crop land, for a minimum of 25-feet to prevent potential contamination. Where it is possible, we manage public roads surrounding our properties to ensure unapproved chemicals and fertilizers are not applied. Organic signs are also posted to prohibit spraying for weed control.

Crop production. Our farms grow a variety of feed and forage crops that are rotated in a way that improves soil organic matter, controls weeds, fosters plant growth and biodiversity, and supplements our cows with a healthy, organic diet. All feed and crop commodities produced on our farms are used for livestock feed. Generally, our crops are harvested with our own farm equipment; however, if custom operators are used, an equipment clean-out affidavit is required.

ENVIRONMENTAL STEWARDSHIP (continued)

Notification program. Our farms communicate widely with neighbors, community leaders, and state and local agencies to make them aware of our farms' organic status and our unique system of farming. This allows us to build valued local relationships and to maintain our organic integrity by preventing accidental contamination from roadside spraying, crop dusting, pest or disease eradication, and other public or neighborhood practices.

Record-keeping. Our dairy farms maintain detailed, written records of liquid waste and compost application rates, dates, and locations. Horizon Organic's compost program keeps records on compost windrows by date received and location. Composting records include: compost pile identification number/letter, date received, dates turned and temperature checks. When compost is land-applied, disposition records must include the date, location, and volume of the compost application.

SOURCING INPUTS

Our Belief

We believe in limiting off-farm inputs on our dairy farms to better control organic quality.

Our Standards

All farm inputs – including feedstuffs, natural minerals, and crop and forage seed, bedding materials, as well as animal health care and pest control products – have the potential to affect the integrity of organic milk. Therefore, these inputs must be certified organic or approved for organic use, in compliance with the NOP standards as established by the USDA, and carefully controlled, researched, verified, and recorded.

Forage. Because forage is the main portion of our cattle's diet, it is crucial that we ensure its quality, feed value, and organic integrity. In addition to pasture grass, our farms maximize the production of their own forages (for example: our Idaho farm produces nearly 75 percent of its own organic forage needs). The balance of our forage requirements is supplied by certified organic contract growers. We prefer to use local growers, who we know, to the extent available. We rely on relationships with growers and their organic certifiers to ensure product integrity.

For forage to be certified organic, the land must be managed according to organic practices for at least three years before the crops can be considered "organic." Organic hayfields must have buffer zones and well-defined boundaries. Growers are required to provide detailed records of how products are grown and stored.

Feed. Feed is either grown on the farm or sourced from a list of approved USDA certified organic growers. Each load that is not produced on the farm requires documentation certifying that the feed was organically produced and handled. Harvest records are maintained for all crops produced by our farms.

Crops produced in buffer zones are used for conservation practices and offer protection from neighboring non-organic crops. These crops are isolated from organic feed or are plowed under as "green manure." For our buffer zones we use both native ground and crop land. Equipment that is used for a non-organic harvest is cleaned prior to organic use. All cleaning equipment and materials must be approved for organic use.

Vitamins, minerals, and feed additives. Additional feed additives such as vitamins and minerals are provided to our livestock. All ingredients used by our farms are approved for organic use. Source and supplier verifications are included in farm records.

Seed stock. Our farms use certified organic seeds; unfortunately, supplies are often limited. During times when organic seed stock is not available, our farms use an equivalent non-GMO or untreated variety, which may be purchased according to NOP standards. We are strong advocates for increased varieties and volumes of certified organic seed and are working with industry groups to improve availability.

Record-keeping. In keeping with the Organic Food Production Act of 1990 (OFPA), our farms maintain detailed records that verify and document that our farm inputs are in keeping with NOP standards and that product sources are either certified organic or are on the USDA's approved list. Like all other organic records, this information is audited annually by our farms' designated third-party certifying agent.

MANAGEMENT AND ACCOUNTABILITY

Our Belief

We believe in developing detailed annual plans for our farms and evaluating our performance against those plans.

Our Standards

Farm plans. As a company that pioneered organic practices, we feel a responsibility to manage our farm in a way that meets or exceeds the USDA standards and earns the ongoing respect of our peers in organic production and organic enthusiasts who expect us not only to meet the letter of the law but also the spirit of organic production.

Day-to-day operations on our farms are guided by two plans. The first is an Organic Systems Plan (OSP), which is very detailed and developed prior to the start of each year. The OSP is designed to ensure compliance with the USDA regulations and facilitate the audit done on our farms each year in order to receive our organic certification. In addition to the OSP, we also develop a plan that includes new initiatives that we deem necessary for our farms.

Our plans contain the following components:

- A description of the practices and procedures we will follow for calving, health care, nutrition, grazing, pasture management and other organic dairy activities.
- A list of each substance used as a production or handling input, including its origin.
- A list of techniques we will use to measure and monitor our performance against the plan.
- A record-keeping system that is used to preserve the identity of organic products from the point of certification through delivery to the customer who assumes legal title to the goods.
- A description of the management practices and physical barriers established to prevent co-mingling of organic and non-organic products and practices.
- A plan describing practices used to manage water, biodiversity, and soil.
- A commitment to water quality monitoring for nitrogen and phosphorous to ensure that farms are not contributing to pollution of neighboring water bodies.
- A pasture plan that stipulates that pastures that are not yet certified organic are not grazed by production animals

Our farm plans also outline the objectives of bio monitoring. They include:

- Increasing average feed from pastures – This includes increasing feed quantity, quality of feed, and variety of feed; and extending the grazing season longer into colder months.
- Improving carbon sequestration – The soil holds significant carbon. As we build organic matter, we sequester increased carbon in the soil. A healthy perennial pasture stores 350 tons of carbon per hectare in its soil.
- Increasing water retention – As soil and plant life become healthier and soil is covered, the amount of water needed from irrigation decreases.
- Reducing energy use – In all operations our goal is to minimize the use of energy from non-renewable sources.

Our OSP, plus other required documents, form the basis of our re-certification request each year. It's important to note that our internal record-keeping process goes beyond what is required by the USDA and is consistent with our desire to protect the integrity of our farms and their organic status. Throughout the year, we monitor and collect data on birthing, soil, plants, grazing, feeding, water usage and trends, animal health, employee satisfaction, farm productivity, profitability, and more. This "holistic" evaluation ensures triple bottom line results – people, planet, and profit – that go far beyond organic standards. By regularly monitoring all farm management processes, we can pinpoint the trends that most affect our pastures, our herds, and our production of high-quality organic milk and other dairy products.

Between our own internal quality control systems and extensive record-keeping, and the oversight and enforcement of the USDA, our farms are held closely accountable to meeting the highest standards for milk quality, animal welfare, and environmental stewardship.