2019 SUSTAINABILITY REPORT

Better Nutrition
Better World
Sustainability and Zinpro in 2019

At Zinpro Corporation, we continually strive to achieve greater sustainability. In 2019 we made significant contributions towards becoming a more sustainable organization, finding new ways to improve nutrition to create a better world. At Zinpro, we place a strong emphasis on our core values, which ultimately help our customers to succeed by providing them with products and business solutions that are research-proven to perform.

Sustainability has been at the heart of our organization since 1971, when our first product was shown to improve hoof health through better trace mineral nutrition. Sustainability has always been an important part of our mission: to improve the wellness and performance of animals and contribute to a healthier, more sustainable world.

Today, we ensure our support for sustainability initiatives by identifying and tracking metrics, as well as recording successes related to our sustainability focus areas. This year, in addition to our focus areas of environmental, technical, economic and social, we’ve now included safety as its own area of focus.

Ensuring Customer Satisfaction
Our company succeeds first by taking care of people – our employees, customers and consumers. Next, our success is measured by how well we take care of animals. As you read the following pages, my hope is that you see the significant progress we’re making towards both while also contributing to a more sustainable world.

Our goal is to improve the wellness and performance of the animals under our customers’ care. By improving the lives of animals, we improve the lives of the people who care for them. By providing better nutrition, we are creating a better world.

Rob Sheffer
President and CEO, Zinpro Corporation
by the NUMBERS

Incorporated: May 18, 1971
Eden Prairie, Minnesota

1 Corporate Headquarters

4 SALES DIVISIONS
Americas, International, North Asia and Southeast Asia

4 LAMENESS Prevention Programs

5 MINERAL PRODUCT LINES:
ProPath® • Availa® • Original • TruCare® • Eco

7 CORE VALUES
PEOPLE INTEGRITY COLLABORATION INNOVATION QUALITY EXCELLENCE CUSTOMER FOCUS

37% of Management Attended Advanced Leadership Training in 2019

70+ COUNTRIES Where Zinpro Products are Sold

5 R’s for Measuring Success
RESPONSE RETURN REPEATABILITY RESEARCH REASSURANCE

504 Patents Across the Globe

250 PEER REVIEW
RESEARCH ARTICLES Published

1,000+ Technical Service & Farm Visits in 47+ Countries in 2019

by the NUMBERS

11 Regional Offices

ZINPRO.COM

5 MINERAL PRODUCT LINES:
ProPath® • Availa® • Original • TruCare® • Eco

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Zinpro Corporation continuously develops and launches new products that provide better nutrition for a better world. In 2019, we launched products for improved sustainability in two different regions. We also found ways to further increase our sustainability by repurposing or reusing byproduct from our dairy colostrum business, adding a new system to improve air emissions and greatly increasing our shipping efficiencies.

2019 Product Innovations

Launched in early 2019 in the United States, our ProPath®LQ product line provides exceptional trace mineral uptake and absorption, biological efficacy, diet flexibility and consistency in applications where solubility is critical. These applications include liquid feeds and supplement tubs, liquid-based premixes, milk replacers and water systems.

Consistent with our ProPath product for dry feed applications, ProPath-LQ is classified as a metal amino acid complex, with a unique molecular structure, resulting in a more efficient and sustainable product to improve animal wellness, genetic potential and performance.

During 2019 we also launched Availa®Se across the European Union, providing regional customers with the world’s first rumen-bypass selenium product that is readily available to the animal, resulting in less mineral waste and greater performance and sustainability.

This year, we obtained an independently audited Good Manufacturing Practices certificate for food grade colostrum production. We now can produce and market colostrum products for human consumption in addition to products for livestock and pets.

The byproducts that result from colostrum production are curds, cream and permeate (a watery solution). Rather than discard the byproducts as waste, we’ve partnered with a specialty feed ingredient supplier who purchases the curds and cream to include in pet foods. The permeate solution is applied as fertilizer to fields where rye or row crops are grown. The nitrogen and other nutrients in the permeate are taken up and utilized to benefit the crop. Soil tests are performed quarterly to ensure that the permeate is applied at the best rate.

Colostrum (Reuse & Repurpose)

This year, we implemented a new program to better monitor, control and prevent the possible release of hazardous materials and oils. We are focusing on successfully creating a safe environment for managing and handling oil, with emergency action steps that ensure no release into the environment.

Air Emissions

We have implemented improved controls and management systems across our production facilities in Garner and Shell Rock, Iowa, and North Branch, Minnesota. Recent upgrades to our computer software allow us to access and collect data to better facilitate greenhouse gas reductions.

Oil Spill Prevention and Containment

This year, we implemented a new program to better monitor, control and prevent the possible release of hazardous materials and oils. We are focusing on successfully creating a safe environment for managing and handling oil, with emergency action steps that ensure no release into the environment.

Mineral Production

All ingredients used in the production of our performance trace minerals are extremely well utilized, resulting in minimal waste or byproduct.

70x MORE RAIL

Shipping large quantities by rail is much more efficient, safe and less costly than by truck, making rail a more sustainable transportation solution. In 2019, we shipped almost 70 times more domestic truckloads of outbound freight via rail than we did in 2018. We now ship 20% of our domestic outbound freight via rail compared to less than 1% by rail last year. This change has made us more sustainable, efficient and safe.

We continually look for opportunities to increase the sustainability of our transportation systems.
Zinpro contributes to creating better nutrition for a better world through science-based products and business solutions, technical expertise, and furthering the science behind trace mineral nutrition. Our animal-science and nutritional knowhow helps our customers to better their on-farm sustainably, animal wellness and performance, and care-giving practices.

This year, we achieved a major research milestone by surpassing 250 peer-reviewed research publications across more than 10 species. Animals don’t lie about trace mineral performance, and our peer-reviewed research proves that our science is sound. More than 250 peer-reviewed research publications overwhelmingly validate better animal wellness and performance when including Zinpro Performance Minerals as part of a balanced diet.

During 2019, researchers at The Ohio State University completed a study that showed mineral retention improves when animals are fed a balanced diet in conjunction with Zinpro Performance Minerals as opposed to inorganic minerals. The research, Determining the Retention and Apparent Digestibility of Supplemental Zinc Sources in Wethers, confirmed, and adds to, results from 10 previous research studies that show similar outcomes. The improved mineral retention is a result of less urinary mineral excretion and, in many cases, less mineral fecal excretion. As a result, feeding our minerals reduces mineral waste, while improving performance and sustainability.

When analyzed in totality, these 11 studies indicate that animals can absorb and metabolize Zinpro Performance Minerals better, particularly when under stress. This is due to the minerals being more effectively transported to tissues for metabolic needs such as immune response, tissue repair, growth and development and reproduction due to their ability to utilize more efficient mineral uptake and transport systems, such as amino acid pathways, that other trace mineral forms can’t access.

Our new lab expansion in 2018 enabled us to add new lab equipment, a new chemist and more analytical capabilities in 2019. The upgrades have given us multiple new ways to conduct quality assurance testing for minerals and colostrum. For example, new liquid chromatography–mass spectrometry equipment provides robust and reliable performance for routine laboratory screening, profiling and quantification analysis. It is ideal for routine food safety analysis, clinical research and cellular-level analysis. Currently we are developing methodology to detect and quantify the amount of Zinpro product in the feed and premix to ensure that it is included at the recommended rate. We have also installed two inductively coupled plasma optical emission spectrometry machines in a newer lab for mineral testing. These improvements have increased our capability to evaluate and cross-check samples and answer questions from customers. This has resulted in improved efficacy, safety, cost-effectiveness and sustainability. Since these enhancements have been implemented, we have seen a 16% improvement in our lab testing speed.

This year, we developed new tools to help our customers improve egg shell quality and to indicate how our minerals have a positive effect on egg shell color and translucency. Our Egg Shell Color Guide, in combination with the Zinpro BlueBox, help customers evaluate egg shell quality and avoid a potential loss in sales from unappealing egg shell colors or weak egg shells that are prone to crack during transport and merchandising.

The BlueBox is a box with a light that illuminates a tray holding 15 eggs. A mobile phone is used to take a photo of the eggs; the photo is then analyzed with software that counts and measures shell membrane windows to generate an average translucency score. In the case of fertile eggs, the color and translucency score of the egg directly correlates with hatching success and chick quality. On average, when production is improved by three to four more chicks per hen, it will greatly increase efficiencies in feed and water use and reduce production costs.

Our Essential Feed blog features science-based posts focused on ways to improve animal wellness and performance and contribute to a more sustainable world. Be sure to visit the blog and sign up for our monthly newsletter.
Throughout the year Zinpro completed research that shows how animals across a variety of species can significantly benefit in wellness and performance when our minerals are included as part of a balanced diet. Increased wellness and performance provide substantial economic improvements for customers through better production or decreased spending on production or veterinary services.

**ECONOMIC**

Up to **$20 Billion** in Possible Savings

Each year 2.2 trillion pounds (one billion metric tons) of feed is produced globally. Recent peer-reviewed research across species, coupled with a conservative calculation, shows that feeding Zinpro Performance Minerals provides an average 2 - 4% increase in feed efficiency*. If Zinpro Performance Minerals were fed to all production animals globally, the feed efficiency improvement could result in annual savings of:

- 20 to 40 million metric tons of feed
- 44 to 88 billion lbs. of feed
- Up to $20 billion dollars!

**Feed Efficiency by Species**

Peer-reviewed research shows the following benefits in feed efficiency improvements by feeding our Performance Minerals rather than inorganic minerals:

- **5%** Aquatic Species
- **3.4%** Dairy Cows
- **5%** Beef Cow/Calf
- **2%** Beef Feedyard
  - Other average benefits include a 3% increase in average daily gain, 10 lb. improvement in hot carcass weight, a 13% increase in quality grade, a 10% decrease in liver abscesses and a 56% decrease in A+ liver abscesses
- **4%** Poultry (Laying Hens)
- **1.8%** Poultry (Broilers)
- **5.5%** Swine (Nursery Pigs)

Regardless of species, Zinpro Performance Minerals reduce the amount of feed required for optimal health, performance and profitability.

**$140,000 Annual Footbath Savings**

In 2019, Successful Farming magazine reported on how Marshland Dairy, which raises 8,000 heifers in Nebraska and 5,000 in Wisconsin, was able to save more than $140,000 annually in footbath costs by feeding dairy heifers Availa®Plus as part of a balanced diet. Prior to adding Availa-Plus to their diet, the operation experienced hoof health issues, such as foot rot and digital dermatitis. After adding Availa-Plus to their diet, the dairy was gradually able to eliminate the need for footbaths and saw improvements in hoof health and integrity, as well as pregnancy rates.

By eliminating footbaths from the farm’s regular workflow, the operation was able to decrease labor requirements, stress on its employees and animals, and potential environmental hazards.

Read more about the success that Marshland Acres experienced.

**BETTER Nutrition – BETTER Footprint**

Supplementing our minerals in feed results in production and reproduction improvements and directly benefits carbon footprint.

- Reducing the feed conversion rate in broilers by three points results in 82 metric tons less feed and 145,000 liters less water required for every one million birds.
- An increase in chick production by four chicks per hen represents 167 metric tons less feed and 334,000 liters less water, per every 100,000 breeders.
- An increase in three eggs per hen represents 387 metric tons less feed and 774,000 liters less water, per one million commercial layers.

Studies show that increased feed efficiency, such as producing the same amount of milk with less feed intake, can decrease the amount of manure produced, resulting in fewer greenhouse gas emissions. Results from a University of California survey of dairy farms showed that improving feed efficiency by just .06 pounds energy corrected milk per pound dry matter intake resulted in nearly one ton less manure produced per cow per year.

*Depending on species, product, length of time on feed, life stage and production environment.

$140,000

Annual Footbath Savings

$20 Billion

in Possible Savings

Up To

10 ZINPRO CORPORATION

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Zinpro continuously monitors the safety of our employees wherever they may be – in our lab, on the production floor, in our warehousing or office facilities, or while they are traveling or transporting materials. Throughout 2019, we have added new safety programs and strengthened others.

**Reduction in Safety Incidences**

This year, our focus was to implement an improved system for identifying and reporting potential hazards and near-miss safety incidences across all our production facilities. As a result, employees at these locations completed 10 times as many preventative near-miss safety reports in 2019 as in 2018, with our mineral production employees achieving a 17% reduction in Occupational Safety and Health Administration (OSHA) reportable safety incidences.

**Standardized Safety Goals and Training**

Our five manufacturing facilities have implemented new, robust safety-specific goals with more explicit, and rigorous benchmarks to standardize safety expectations and procedures and to reduce the potential for injuries. We’ve also implemented expanded safety training programs and documentation procedures for regular safety drills.

**Hazardous-Energy Safety Systems**

Our production facilities made upgrades in 2019 to strengthen and improve our Lockout-Tagout (LOTO) programs related to hazardous energy control. The LOTO program is designed to completely ensure our employee’s safety when dealing with hazardous energy sources, both in work situations and during equipment maintenance and repair. The new program outlines the steps and procedures for removing threats from hazardous energy (electricity/air pressure/pneumatic) in order to work safely on high-powered equipment.
Throughout the year, Zinpro Corporation improved the lives and contributed positively to society with its research funding, charitable contributions, community service and educational activities. Our partnerships with people- and sustainability-focused organizations help to provide for a better world.

Employee Giving
Through the company’s matching gift program, Zinpro and its employees provided gifts to numerous charitable organizations, including:

- A Breath of Hope Lung Foundation
- American Society of Animal Science
- Arm-in-Arm-in Africa
- Garner, Iowa, Chamber of Commerce
- Japan America Society of Minnesota
- Reach and Restore

“Somewhere along the way, we must learn that there is nothing greater than to do something for others.”
- Martin Luther King, Jr.

Corporate Giving
In addition to the Anderson Foundation and its charitable giving activities, as a company, Zinpro contributed to the following non-profit organizations in 2019:

- Heifer International
- Institute for Feed Education and Research (IFEEDER)
- Nebraska Cattlemen Disaster Relief Fund
- People Reaching Out to People (PROP)
- Poultry Science Association
- Special Olympics of Minnesota
- United Hero’s League
- University of Minnesota
- Vested Interest for K9s

Anderson Foundation
The Anderson Foundation helps to alleviate poverty and preventable diseases and to educate and empower young women and girls in impoverished communities around the world. Through its strategic partnerships with Mona Foundation, Center for the Arts, Port-au-Prince and LIDÈ, it serves others with the same humane, giving spirit exhibited by Zinpro’s founders, Dean and Mary Anderson.

Blue Jeans Benefit
Employees, together with Zinpro Corporation’s matching funds, raised more than $100,000 for People Reaching Out to People (PROP), since the benefit’s inception in December 2013, which qualifies participating employees to wear blue jeans on Fridays.

2019 Scholastic Awards and Scholarship Recipients

Caitlin Cadaret, Ph.D.
Doctoral Award Recipient
Completed a doctorate in animal science at the University of Nebraska-Lincoln in 2019.

Dillan Henslee
Master’s Award Recipient
Completed a master’s degree in animal and veterinary sciences at the University of Idaho.

Robert Posont
Master’s Award Recipient
Completed a master’s degree in stress physiology at the University of Nebraska-Lincoln.

Tatum Odland
Zinpro/Schugel Scholarship Recipient
A third-year student at the University of Minnesota, College of Veterinary Medicine.

Robert Posont
Master’s Award Recipient
Completed a master’s degree in animal and veterinary sciences at the University of Idaho.

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Intergan Group operates a 60,000-plus-head beef feedlot in the La Laguna region of Mexico. It is a family-owned business that raises, feeds, processes and sells beef to customers in five different countries. In 2015, it was awarded the national export award, the highest recognition given to international trade companies, institutions and organizations operating in Mexico by the President of the United Mexican States. In September 2019, the company also was awarded the National Agri-food Award for excellence in business operations.

Intergan Group has been supplying performance trace minerals to Intergan’s cattle since 2016 and to their entire herd since 2018. Our performance minerals help their beef cattle maintain immune function and overcome transportation stress, heat stress, and pathogen load, even in a very challenging production environment, and where temperatures are regularly 100°F or more.

We are proud to be a trusted partner in their operation. “Using the products of Zinpro, we have seen good results – more efficiency in cattle production,” says Sebastián Córdoba González, administrative director for Intergan. “That close, person-to-person relationship, product quality and service … [that] is what we like the most.”

Our customers around the world are achieving greater environmental, technical, economic, social and safety benefits because they are feeding their animals Zinpro products. At every step, Zinpro is their sustainability partner for success.