SUSTAINABILITY 2024

Contributing to Low-Emission Pathways to 2050









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ZINPRO®

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Welcome to the Zinpro[®] 2024 Sustainability Report! We continue our sustainability journey making progress toward a better future for our people and animals. Globally, there has been a renewed enthusiasm for the animal agriculture benefits brought to supporting communities and animals. In this report, you will see the ways Zinpro continues to generate a positive impact.

In the past year, we completed key milestones identified in our sustainability roadmap. In 2024, we identified and quantified how Zinpro products have improved on-farm sustainability, benefiting our customers and the animals they feed. Zinpro cross-functional teams are prioritizing collecting data on our baseline emissions, water use and waste. In 2025, we will set targets for improvement in each of these key areas.

Our innovation efforts were recognized at the 2024 Eurotier Innovation Awards for our new product Zinpro[®] IsoFerm[®], winning a Silver Award. Our team of scientists continue looking for more technologies to further the sustainability of our customers and the animals in their care.

Zinpro teams strive to support individuals in the communities where we live and work, and around the world. Sustainability is about leaving the world in a better condition than it was before and retaining resources for future generations. Supporting the development of girls, young women, scholars and scientists in key areas are some of the many ways Zinpro looks to Fortify the Future™.

We hope you enjoy the report and look forward to continuing our partnerships.

All the best,



Rob Sheffer President and Chief Executive Officer



Terry Ward Global Director of Sustainability and Strategy



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ENVIRONMENTAL

Quantifying the Impact: Connecting Animal Health, Wellbeing, Efficiency and the Environment

Awareness of resource use and the impact of its use is critical to future generations. We believe that we can help maintain the sustainability of these resources through enhancing animal health, livability and efficiency.



Zinpro[®] Availa[®] Dairy **Improves Feed** Efficiency

Numerous studies show that Zinpro Availa Dairy enhances hoof health, increases milk production, reduces somatic cell count, and improves reproductive success. These benefits collectively boost feed efficiency and lower the carbon footprint for each unit of milk produced.



Improved Efficiency Lowers GHGs per Unit of Milk

√120 kg CO₂eq per 1000 kg Milk Produced





Zinpro Availa Dairy **Improves Feed** Efficiency 9.2%



REDUCTION OF √143 kg CO₂eq per Heifer that Remains in the Milking Herd

Carbon dioxide equivalent intensity (CO₂eq) is the amount of carbon compounds, including methane, carbon dioxide and nitrous oxide, emitted in the production process. This metric helps quantify the environmental impact of different activities, is used to track progress in reducing greenhouse gas emissions and is expressed as grams or kilograms of CO_2 eq per unit of productive output (e.g. meat, milk or eggs).

Zinpro Availa Dairy **Improves Heifer Survivability and** Wellbeing

Feeding Zinpro Availa Dairy results in healthier cattle with better survivability in early lactation reducing the number of animals needed to maintain herd size and productivity, and ultimately lowering the carbon footprint for the same herd size.



Zinpro Zinc Improves Nursery Pig Livability, System Throughput and **Reduces CO₂eq Intensity**

A meta-analysis of multiple studies shows Zinpro zinc improves nursery pig livability by 1%, improving system throughput and overall efficiency. This results in a 3% lower CO₂eq on an intensity basis to produce the same amount of pork.

Increasing Early Lactation Survivability









INCREASE Overall Efficiency

Impact **WITH** Feeding Zinc from Zinpro





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ENVIRONMENTAL

Efficiency and Throughput, Lowering Carbon Intensity

As the FAO, 2023 reported, improvements in productivity are one of the most impactful ways for animal agriculture to positively impact carbon emissions.



Broiler Health and Immunity to Optimize Wellbeing and Performance While Lowering Carbon Intensity

Improved feed efficiency equates to increased broiler meat production with less feed required, and a lower carbon intensity. Healthier birds have better wellbeing with another desirable outcome of improved productivity. Broilers fed Zinpro Zn had improved feed efficiency equating to increased broiler meat production with less feed required, and a lower carbon intensity.



An Increase in Meat Production Means
Less Feed Needed to Produce More Meat



Zinpro[®] Zinc, Manganese and Copper Improve Layer Health and Immunity to Optimize Wellbeing and Overall System Throughput

In laying hens, improved egg production with an increase in efficiency lowers the carbon intensity of egg production. Research studies have shown that Zinpro[®] Availa[®] ZMC improves layer productivity, egg mass and efficiency. The ultimate outcome is a lower carbon intensity per amount of egg production.



Higher Egg Mass Produced with Less Feed Needed, with Less CO2eq Emmissions

ZINPRO®



ENVIRONMENTAL

Responsible Resource Use and Conservation

Aquaculture is especially sensitive to efficient use of natural resources while maintaining a high quality environment.



Zinpro[®] Availa[®] Cr/Zinpro[®] MICROPLEX[®] Improves Feed Efficiency and Reduces Emission Intensity

Improving feed efficiency, using less inputs to produce the same or greater outputs, is one key measure of on-farm sustainability. Meaningful to the farmer is the association with less feed cost, less hauling and more productive output. Zinpro Availa Cr/Zinpro MICROPLEX improves feed efficiency in salmon and marine fish by 7%, also increasing nitrogen and phosphorus retention. The feed efficiency improvement results in a lower carbon dioxide equivalent intensity for the amount of edible fish produced.

Zinpro Availa Cr/Zinpro MICROPLEX can Transform Feed Efficiency in Salmonids and Marine Fish



Feed Inputs

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182 g Less CO₂ equivalent per kg edible meat



Improved Mineral Nutrition Increases Protein and Phosphorus Retention

Bioavailable sources of trivalent chromium are known to have a role in the metabolism of carbohydrates, protein and lipids. Our study with Zinpro chromium methionine complex in Atlantic salmon and gilthead seabream/ marine fish found improved growth and increased protein and phosphorus retention.

More Quality Fish Protein Production by Feeding Zinpro Availa Cr/Zinpro MICROPLEX



6.8% Increased Protein Retention



13.2% Increased Phosphorus Retention



Trace Mineral Source Impacts Digestibility and Decreases Environmental Losses

In a world of limited natural resources, recirculating aquaculture systems provide many benefits for the aqua producer and the environment. Alleviating excreted trace minerals into natural waters reduces the environmental impact of aqua feeds. In a study with rainbow trout, we found that feeding Zinpro Minerals at one-half the rate of inorganic minerals increased nutrient digestibility and decreased mineral losses into the environment.



Zinpro[®] Performance Minerals[®] Improve Digestibility and Decrease Losses of



ZINPRO



ECONOMIC

Healthy Pigs and Birds are Profitable

Improving animal health is essential for producing the best end-products and increasing our customers' profitability.



Improved Pig Production and Profitability

Feeding Zinpro Performance Minerals to highly prolific sows during gestation and lactation resulted in a 3.6% improvement in subsequent pregnant sow. In addition, reduced pre-wean mortality was decreased by 2.3%, resulting in 1.2 more pigs weaned per sow per year. These beneficial changes in performance increased sow farm profitability with an 8:1 ROI.

Improve Return on Investment with Zinpro Performance Minerals









Zinpro[®] Sole Source[™] for Productivity, Sustainability and Economic Return

Zinpro Sole Source is our approach to more productive, sustainable and cost-efficient productions. Proven data shows that by reducing inorganic trace mineral supplementation while utilizing the right trace mineral source, Zinpro Performance Minerals, we can achieve equivalent or improved benefits for producers, animals and their welfare. This approach provides return on investment and aligns with our commitment to sustainability, as it minimizes trace mineral excretion into the environment.

Improve Return on Investment with Zinpro Availa Zn 60 PPM



Improving Meat Quality and Decreasing Carcass Lesions Increases Profitability

The Zinpro[®] Perfect Carcass Tool[®] (PCT) has been used at hundreds of poultry customer locations around the world. The PCT allows us to document the various lesions that result in losses of edible poultry meat. When used in conjunction with Zinpro minerals we can demonstrate improvements in return on investment, animal welfare and profitability through the decrease in processing and meat losses by 33% or more.









ECONOMIC

Improving Pregnancy Rates and Resiliency in Stress Improves Farm Economics

Successful reproduction resiliency during stress improves on-farm sustainability. Improving pregnancy rates, and health and production performance under stress are key factors in improving farm profitability.



Zinpro[®] ProFusion[®] Improves Beef Cow Artificial Insemination **Pregnancy Rates**

Successful pregnancies are key to cow-calf producer profitability. The improvement of genetics is facilitated by a successful pregnancy through artificial insemination (AI). The use of Zinpro ProFusion Drench has demonstrated a 9% increase in AI pregnancy rates, providing producers with a 4:1 return on investment.

Dosing Cows with Zinpro ProFusion Resulted in





Zinpro® IsoFerm® Helps Protect Profitability During High Risk Periods

In addition to the proven benefits it delivers throughout lactation, Zinpro IsoFerm helps cows respond better during the most challenging times, including heat stress conditions and the transition period. By providing rumen bacteria with essential nutrients for fiber digestion, cows improve energy production and utilization, preventing typical losses in dry matter intake, milk volume and components. Maintaining performance in the face of stressors improves income over feed costs and the farm's bottom line.

> Feeding Zinpro IsoFerm Helps Overcome Transition Stress Through Three Primary Benefits



3%

Better Body

Weight Maintenance

Improved Liver Function

*Improved energy status with up to 6% greater glucose availability



4:1 ROI

Fewer Metabolic lssues





10-12% **Higher Peak** Milk Response



Zinpro IsoFerm Fuels the Rumen First[™] for **Better Dairy Cow Performance**

The EuroTier Innovation Awards recognize the most innovative products in the animal livestock and management industry. The Silver Medal is awarded to products that demonstrate significant improvements in functionality, efficiency and sustainability. Zinpro IsoFerm was recognized for its groundbreaking approach to enhancing animal nutrition and performance, leading to better on-farm sustainability



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TECHNICAL

Embrace Technology to Enhance Sustainability

Nutritional technologies improve many aspects of sustainability including animal health and performance.



Feeding **Zinpro[®] ProPath[®] Zn** Resulted in



similar growth performance and health outcomes when fed alongside lower levels of zinc from zinc oxide

Zinpro ProPath Zn Reduces Performance Challenges and Health Losses for Nursery Pigs

Newly weaned pigs undergo many challenges including digestive tract upsets due to diet and environmental changes as well as potential bacterial issues. It is common in many parts of the world to feed high levels of zinc from zinc oxide to overcome these challenges. Feeding 125 ppm Zinpro ProPath Zn in combination with 2,000 ppm zinc oxide resulted in similar performance and health outcomes to pigs fed 3,000 ppm zinc oxide only.



Feeding **Zinpro® Availa® 4** Resulted in

Respiratory Morbidity



Zinpro Availa 4 Decreases Morbidity in Receiving Feedlot Cattle

Newly received feedlot cattle are subject to many types of stress including immune challenges and shipping. Heifers fed Zinpro Availa 4 required fewer antibiotic treatments for respiratory disease and had improved growth performance.



Feeding **Zinpro**[®] **Availa**[®] **ZMC** Resulted in



negative control

Zinpro Availa ZMC Reduces Bacterial Chondronecrosis with Osteomyelitis in Broilers

Bacterial chondronecrosis with osteomyelitis (BCO), or the necrotic degeneration of leg bones, causes major financial losses for poultry producers. A study was conducted to determine the optimal timing for supplemental Zinpro Availa ZMC to strengthen skeletal bones, improve intestinal integrity, enhance immune response and ultimately reduce BCO lameness in broilers.



Zinpro Availa Cr/Zinpro MICROPLEX Promotes Growth of African Catfish

Research shows that high bioavailable chromium supplementation can increase performance and improve immune response and stress sensitivity in numerous fish species. Zinpro Availa Cr/Zinpro MICROPLEX complex supplementation increased growth rate in African catfish.







SOCIAL

Our Commitment to Our People and Communities

Achieving business growth helps us grow the positive impact we make in our communities.



Growing Our Global Impact

At Zinpro, giving back to the global communities where we live and work is central to our core values. We are committed to programs focusing on the United Nations Sustainable Development Goals 1-5. Learn more about our commitments and progress.

We believe that "rising tides lift all boats," and that helping others strengthens the communities where we live and work. A portion of our profits support the good works of Anderson Foundation, named in honor of Zinpro founders Dean and Mary Anderson. These contributions help educate, inspire and create opportunities for girls and young women in communities all around the world. Learn more about Anderson Foundation.



Empowering Women and Girls Through Education and Development

Anderson Foundation believes that people need resources and connections to rise. This year, we brought together 24 organizations from all around the world for our inaugural "Win Together for Women" Leadership Summit and Gala. We convened women nonprofit leaders to forge new connections, share valuable resources and join an empowering community dedicated to closing the gender gap globally.









Building Strong Foundations in Thailand

Zinpro global team members represent many different cultures and countries, bringing a wealth of diverse perspectives and experiences.

In March, Anderson Foundation team and Zinpro president and CEO Rob Sheffer visited our Zinpro colleagues and foundation partners in Thailand, including Pratthanadee Foundation.

Our Zinpro team in Thailand also introduced Anderson Foundation to the Rajvithi Home for Girls, an organization dedicated to providing a safe haven for girls in need.

A highlight of the visit was a diversity, equity and inclusion-themed party hosted by the Thailand Zinpro team, designed to recognize and celebrate our unique cultures and grow appreciation for our differences.

ZINPRO®



SOCIAL

We Put People First, with World-class Resources for Health, Safety and Professional Growth

Our culture of care is strengthened by employee leadership in volunteerism and creating a respectful work environment for all.

A Continued Commitment to **Serving Generously**

In recognition of Global Volunteer Month this April, members of our Eden Prairie-based team helped celebrate 100,000 Zinpro-funded meals for local nonprofit Feed My Starving Children.

We believe in putting people first, supporting each other's efforts and treating all with kindness and respect. In 2024, the Zinpro team volunteered more than 3.334 hours in the communities where we live and work around the world. Four Zinpro colleagues were recognized with the President's Volunteer Service Award, and we celebrated their commitment to serving generously, one of our Zinpro core values, with the global team.





Dr. Dana Tomlinson Species Nutritionist



Dusty Bengston Plant Operator







Manoella Alves Global Senior Marketing Manager

Women of Zinpro

This year, our Women of Zinpro (WOZ) employee resource group led the global team in celebrating International Women's Day, choosing to highlight the work of our partners at Heifer International in Rwanda. WOZ celebrated its third anniversary in 2024 and continued delivering impactful monthly and quarterly programming designed to foster a sense of belonging for women and allies at Zinpro, build gender equity and create personal and professional growth and development opportunities.

Today, nearly one-quarter of our global workforce has opted in as members, and we elected 2025 officers to lead WOZ into the future.





SOCIAL

Employee Health and Safety

At Zinpro, we care deeply about the safety, health and overall wellbeing of our team.

We have made significant strides in our safety performance, increasing our near-miss reporting by 98.7% and reducing lost-time incidents by 100%.

We are committed to providing competitive, world-class benefits that support the physical, mental and financial health of our team members globally. Our extraordinary support for employees' mental health is demonstrated through regular programming and our annual participation in the National Alliance for Mental Illness (NAMI) Minnesota's NAMIWalks event in Minneapolis, Minnesota.

Creating a sense of belonging, respect and community is central to our approach to diversity, equity and inclusion (DEI). Guided by our DEI Advisory Council and Zinpro senior leadership, we maintained a strong focus in 2024 on cross-cultural learning by celebrating various affinity days and holidays. Discover more about our commitment to inclusion.





98.7% Increase

Near-miss

Reporting



100% Fewer Lost-time Incidents



Young Professionals Day

As part of our commitment to fostering a culture of continuous growth and development, in September we hosted Young Professionals Day bringing together and empowering emerging leaders with valuable insights, skills and practical strategies to manage their careers.

Participating team members spent the day exploring themes such as mastering a positive mindset, building personal brands and executive presence, and how to leverage emotional intelligence as a "superpower."

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SOCIAL

Scholarships and Educational Development

At Zinpro, we care about supporting education and developing our future leaders in animal agriculture and science. In 2024, we supported young talent through the Minnesota State Fair, the University of Minnesota Veterinary School and our Poultry Science Diversity Award, American Society of Animal Science Young Scholar Award and the Zinpro Award for Excellence in Dairy Science.

We continued building equity and creating opportunity for underrepresented students in agriculture through our partnership with Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS). We funded scholarships for students attending the and connected scholars with Zinpro leaders for mentorship and career advice.

Dr. Mahmoud M. Abdel-Monem Memorial Fellowship in Medicinal Chemistry at the University of Minnesota



Joshua Legaspi University of Minnesota, College of Pharmacy

Read more about the fellowship.

2024 Minnesota State Fair 4-H Auction **Scholarship Awards**



Andrew Timm Mower County



Ellen Merkouris Freeborn County

ASAS Western Section Ph.D Young Scholar Recognition



Jennifer Hurlbert North Dakota State University





Jana Bruce-Wattier University of Minnesota, College of Veterinary Medicine

Zinpro Poultry Science Scholarship Award



William "Ches" Grisham Mississippi State University

Bernie J. Urich Memorial Music Scholarship



Each year, we proudly honor former Zinpro employee Bernie J. Urich with this scholarship, which supports high school seniors in Garner, Iowa and surrounding communities who wish to pursue music at the collegiate level.

ASAS Equine Science Award



Krishona Martinson University of Minnesota

American Society of Animal Science **Distinguished Service Award**



Dr. Mark Branine Zinpro Corporation

ADSA Zinpro Award for **Excellence in Dairy Science**



Dr. James Drackley University of Illnois

PARTNERSHIP

A An

Industry Collaboration for Greater Impact

We actively participate in industry organizations with common values and sustainability goals. We leverage our partnerships and engagement to improve performance in animal nutrition and the food industry, learning and applying best practices in the industries we serve.



The Innovation Center's Dairy Sustainability Alliance™ is a multi-stakeholder group consisting of companies and organizations from across the dairy community and others who want to contribute to dairy's social responsibility journey.



Global Seafood Alliance (GSA) advances responsible seafood practices worldwide through education, advocacy and demonstration. GSA convenes seafood industry leaders, academia and NGOs to collaborate on crosscutting issues like environmental and social responsibility, animal health and welfare, food safety and more.



Since 2009, the Institute for Feed Education and Research (IFEEDER) has built a reputation as a trusted resource for inquiries about the animal food industry's role in U.S. agriculture. IFEEDER works with diverse partners from across the animal food and broader food and agricultural sector, along with academia and public institutions, to conduct objective research, education and sustainability projects to inform business leaders and decision-makers about the future of the expanding animal feed and pet food industry.



Global Feed LCA Institute (GFLI) is an independent animal nutrition and food industry institute with the purpose of developing a publicly available Animal Nutrition Life Cycle Analysis (LCA) database to support meaningful environmental assessment of animal nutrition products and stimulate continuous improvement of the environmental performance in the animal nutrition and food industry.



Global Roundtable for Sustainable Beef (GRSB) members include organizations, roundtables and individuals from over 24 countries. Combined, they touch nearly two out of three cattle in the global beef chain. Member organizations deploy top leadership to actively participate in the work of bringing stakeholders from across the industry together to identify universal challenges and practical solutions for sustainable beef.



U.S. Roundtable for Sustainable Poultry and Eggs (US-RSPE) is an independent, multi-stakeholder organization that advances, supports and communicates continuous improvement in sustainability for the poultry and egg value chain. International Poultry Welfare Alliance (IPWA) is a diverse and driven group of organizations, companies and individuals committed to continuously advancing poultry welfare around the world.





The CLEAR Center is led by Dr. Frank Mitloehner and is based in the Department of Animal Science, in the College of Agricultural and Environmental Sciences at the University of California, Davis. The CLEAR Center leverages its two cores, research and extension, to help the animal agriculture sector operate more efficiently in order to meet the demands of a growing population while it lessens its impact on the environment and climate. Research topics, among many, include quantifying and mitigating greenhouse gas emissions from livestock.



INNOVATION

Partnering with Customers to Prove Innovative Technology and Tools

The ultimate proof of innovations are in the field with customers in real-world conditions.



Unlocking Potential: How Zinpro IsoFerm Benefits Customers Hallon Farm and Cows 24-7

Nutritionists and dairy producers implementing Zinpro IsoFerm are seeing productivity and financial benefits in their operations.

"It's just nice to come in the parlor in the morning and see our cows full of milk. I love it because it means I'm breeding my cows to the potential that they have now. And by using Zinpro IsoFerm it's really released that potential in them," says Pippa Tudor, Hallon Farm.

Pete Davis, owner and nutritionist at Cows 24-7, is seeing success with numerous clients. "We're just not getting transition disease and we're getting healthy cows coming through. It's increasing our pregnancy rate and built a really robust rumen."





Honoring Our Commitment to Excellence Through Zinpro Innovation Centers

As part of fulfilling our commitment to Fortify the Future, the Zinpro team of chemists and scientists strive every day to discover unique technologies. Our Innovation Centers in Eden Prairie, Minnesota and Santiago, Spain evaluate new compounds and techniques to improve fermentation, digestion, performance and sustainability of ruminant and nonruminant animals, providing for a healthier, more productive and sustainable world for all.



Healthy Birds, Healthy Planet at Avicola y Ganadera Carus Abella

Incorporating Zinpro Performance Minerals into their birds' diets and using the Zinpro[®] BlueBox[™] tool allows customers like Avicola y Ganadera Carus Abella in Mexico to make specific plans for their birds with more predictable outcomes.

"When we started using Zinpro we almost immediately noticed improvement in our breeders resulting in stronger bones, better egg and shell quality and better nutrition for the embryo resulting in healthier chicks and birds." - Production Director and Veterinarian Ramiro DeGasperin

"Because we are responding to data from the Zinpro BlueBox and not guessing what our animals need, we avoid wasted product. And the more data we have over time, we can make smarter and more informed decisions, which is good for the birds and for the environment." - CEO and co-owner Javier Carus









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zinpro.com

contact@zinpro.com 1-800-445-6145 +1-952-983-4000





- X @Zinpro
- O @Zinpro
- @ZinproCorporation



