

Advancing Performance Together[®] for a More Sustainable World for All

2022 Sustainability Report

ZINPRO[®]



Table of Contents

Message from CEO/President	3	Technical Pillar.....	10
Message from Global Director, Strategy and Sustainability.....	4	Social Pillar.....	11
Introduction to the 2022 Sustainability Report	5	Organizational and Industry Engagement	14
Environmental Pillar.....	6	Our Path Forward	15
Economic Pillar.....	8	New Innovation to Drive Operational Efficiency.....	16



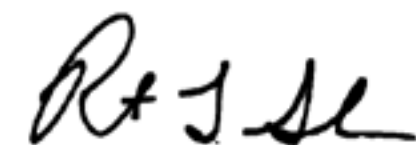
Rob Sheffer
President and
Chief Executive Officer

A Sustainable Vision

The world population surpassed 8 billion in November of 2022, putting us on track to reach 10 billion people on the planet - well ahead of what was previously predicted. A growing population and consumer demands require us to use resources more efficiently. There is no better time than the present for Zinpro® to work together with our employees, customers and industry partners to help transform animal performance, health, operational efficiency, environmental footprints and profitability.

Over the last fifty-one years we have transformed into a global business with a core focus on our unrivaled trace mineral technology and proven nutrition solutions. Zinpro recently launched our 2030 strategy, with sustainability built in as a critical pillar. As we continue to grow towards our future vision, we understand that it is our responsibility to listen to the needs of our customers and our planet, continuously innovating to support the future of both.

Over the next fifty years, we are committed to bringing forward solutions that directly impact the efficiency and sustainability of our customers' businesses and animals. As a company founded on innovation, we have an active R&D pipeline with new technologies to help move our customers' businesses forward and to produce animal protein more efficiently, lessening the impact on our planet. That's Advancing Performance Together® for a more sustainable world for all.





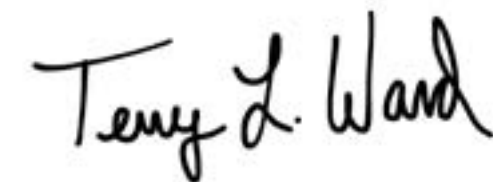
Terry Ward
Global Director of
Sustainability and Strategy

Sustainability — It's What We Do

Animal agriculture has been advancing sustainability for thousands of years. It is the very nature of what we do in this industry. However, animal agriculture industries are faced with new challenges, increasing customer demands, quantity and quality of nutritional needs and climate expectations.

In 2022, Zinpro continued to develop research-proven solutions and tools to support our customers. We have new products, data, technology and tools that will help improve productivity, economics and the environmental impacts of animal protein production. Our engagement with industry organizations advocating for sustainability continues to strengthen as we support the customers we serve.

It is also our responsibility to support the communities where we live and do business and the universities that are developing the next generation of leaders. Additionally, we continue to invest resources to grow, support and foster the talent within our organization. These initiatives put Zinpro in a position to fulfill our vision of Advancing Performance Together for a more sustainable world for all.

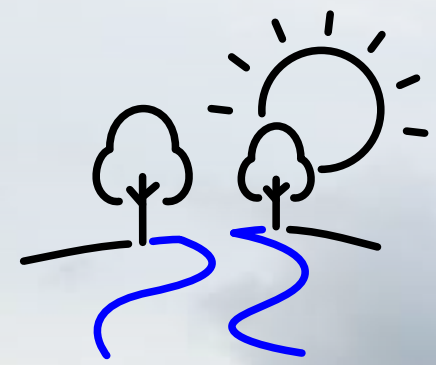


Founded on Four Pillars of Success

At Zinpro we continue to evaluate the ways we can support the animal agriculture industry around the world. Safety remains fundamental to everything we do and is the foundation for our four sustainability pillars. Finding ways to improve the economics of animal protein production while minimizing the environmental impact is key to success. Technology and proven nutrition solutions are core to who Zinpro is. Finally, supporting people within Zinpro and in the communities in which we live and serve is essential to the future of us all.

Our Sustainability Pillars

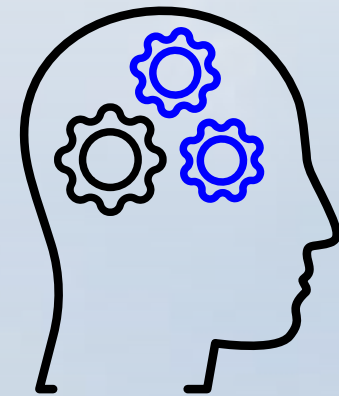
Environmental



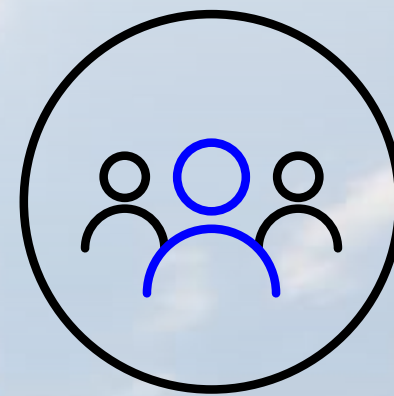
Economic



Technical



Social



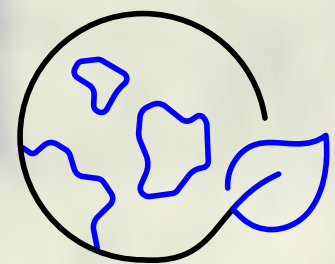
Safety is at the core of all our activities.



Improving Beef Production Efficiency Decreases Environmental Impact

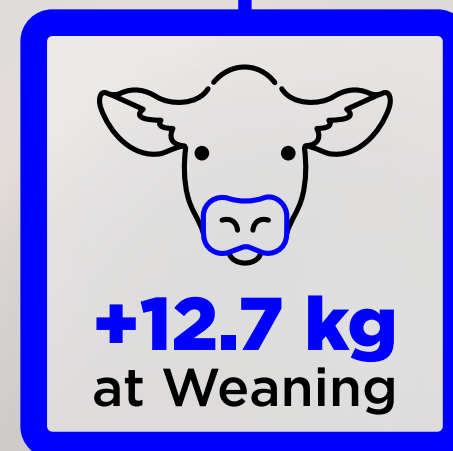
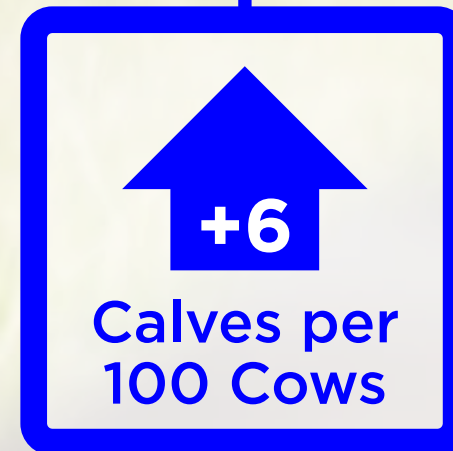
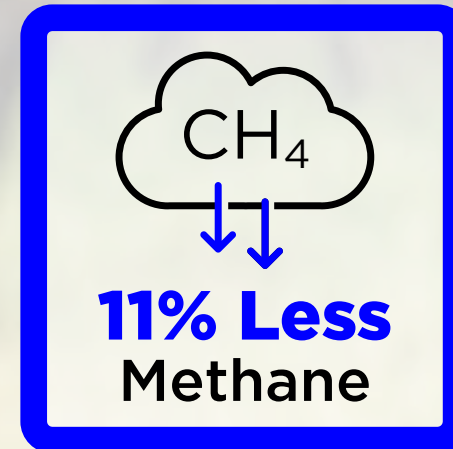
Optimizing our operations and reducing our impact on the environment are goals that drive our continual investments in new production processes and equipment. And, by reducing our footprint, we are not only helping our customers, but we are also helping the world.

Reproductive Efficiency Impacts Emissions

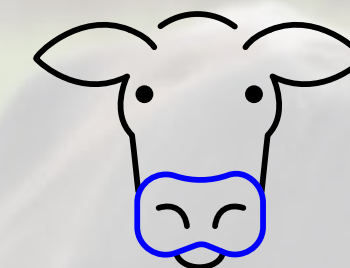


Cows are excellent upcyclers, utilizing forages and human inedible byproducts. The unique digestion capabilities of cattle allow us to continue to find ways to manage and mitigate cattle methane emissions, a critical and popular conversation in our industry.

Feeding Zinpro® Availa® 4 to beef cows in a year-round program improves reproduction and weaning weights. Ultimately, including Zinpro Availa 4 in a cow-calf nutrition program decreases methane by 11% per kilogram of weaning weight.

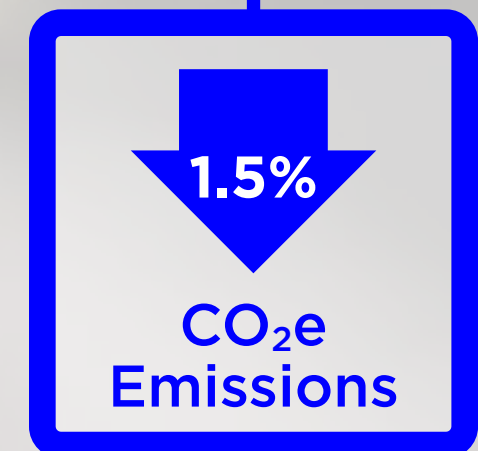


More Beef, Less Emissions



We believe it is important to help our customers raise healthier animals more efficiently. Feeding Zinpro® Performance Minerals® in finishing cattle diets improves carcass weights by 4.5 kilograms while decreasing morbidities and mortalities by 20%.

Additionally, having to treat fewer cattle with antibiotics and having fewer mortalities improves employee morale, reduces labor challenges, improves animal wellbeing and gets animals to market with fewer inputs. The result is equivalent to 15 more head produced per 1,000 head entering the feed yard with 1.5% less emissions per kilogram of carcass weight.



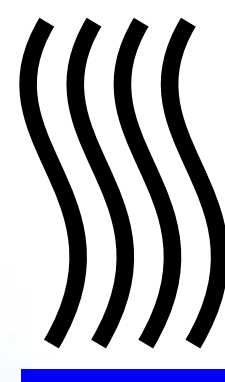


Feeding Zinpro® Availa® Cu to Broilers Lowers Environmental Impact

Many Zinpro poultry customers have adopted no antibiotic ever (NAE) programs. In some cases, alternative therapies are used in place of medication. For example, producers may feed higher levels of inorganic copper sources, which increases the amount of copper in the excreta and ultimately in the environment. It is possible to feed a lower rate of Zinpro Availa Cu while still maintaining the desired growth and health of the birds, dramatically decreasing the copper excreted into the environment.



↓ 70%



Decrease in copper excretion into the environment by Feeding Zinpro Availa Cu

More Sustainable Formulation

The feed used in animal agriculture is the largest contributor to the carbon footprint and associated negative impacts on the environment. The feed formulation (ingredient choices and inclusion rates) has a tremendous effect on the sustainability outcome of the farm or enterprise. Our innovative team of poultry experts developed the Zinpro Global Poultry Mineral Guide to address the various goals of the producer, including improved sustainability with less environmental impact. Using the most bioavailable and effective trace minerals from Zinpro as the sole source of supplemental trace minerals results in less excretion of minerals into the environment.

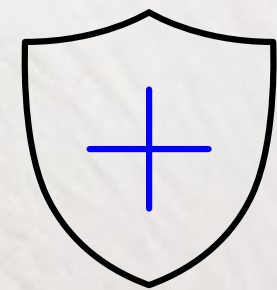
[Learn more about the Zinpro Global Poultry Mineral Guide.](#)



Improving the Economics of Pork Production

Including proven animal nutrition as part of animal diets leads to economic savings in feed efficiency and increased production, as well as improved animal health and wellbeing.

Lower Antibiotic Use, Improved Profitability



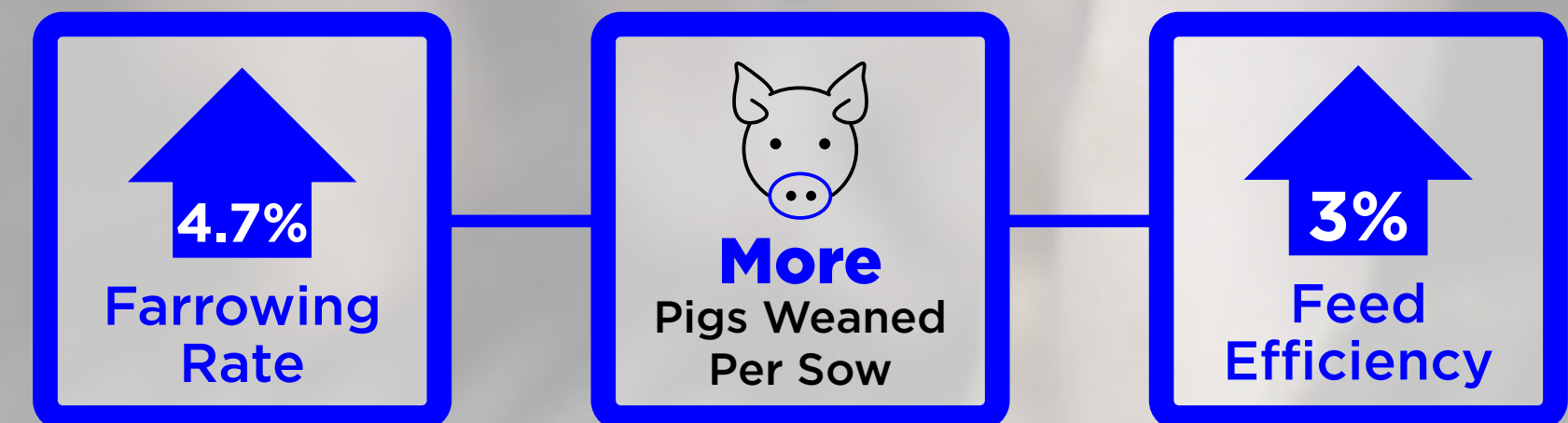
Getting newly weaned pigs off to a good start in the nursery is critical to support better performance in all production phases and the economic success of the enterprise. Feeding Zinpro® Availa® Zn to nursery pigs decreased medication intervention needs, and improved survival and profitability compared with pigs fed glycinates.



Improving Reproductive Success



Every stage in swine production is crucial to raising a robust, profitable pig. Feeding Zinpro® Availa® Sow and Zinpro® Availa® Se to sows during gestation and lactation increased farrowing rates by 4.7%, resulting in 1.2 more pigs weaned per bred sow. Sows were better able to maintain body condition through lactation, with 5.1 fewer non-productive days and increased subsequent pregnancy rate by 7.9%. This improvement in the reproductive phase helps drive success of swine operations and the productivity of animals.

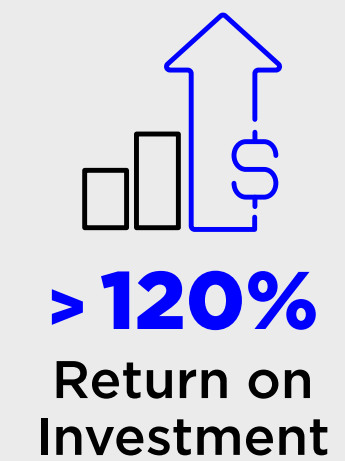
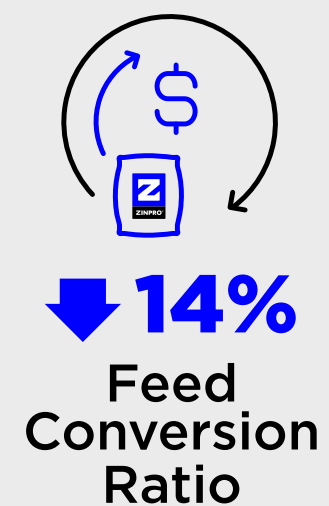
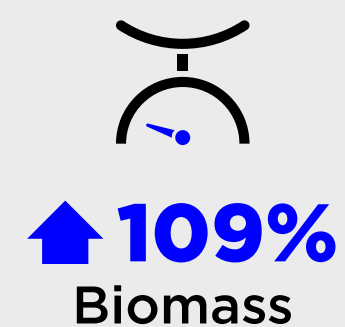


Improved Performance Leads to Higher Return on Investment



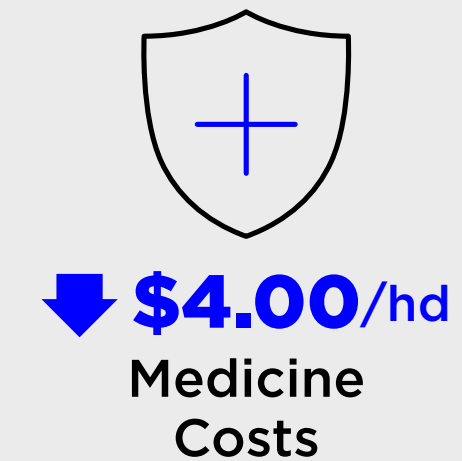
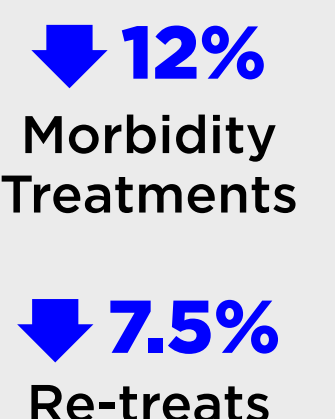
Improved Shrimp Performance and Return on Investment

A high-quality diet packed with essential nutrients gives shrimp the boost needed for health and achieving higher performance. Providing proven aquaculture nutrition through each production phase improves animal productivity while helping operations remain profitable and sustainable. In a commercial setting, replacing an inorganic trace mineral premix with equal levels of trace minerals from Zinpro Performance Minerals in shrimp feed improved performance.



Decrease Costs: Better ROI for Your Beef Operations

Getting newly arrived stocker calves off to a good start is one of the biggest challenges in beef cattle production. A university study showed calves fed Zinpro Availa 4 were 4.1 kg heavier, required 12% fewer morbidity treatments and required 7.5% less re-treats. Feeding Zinpro Availa 4 also decreased medicine costs by \$4.00/calf and resulted in a 10:1 ROI, which positively impacts the sustainability and longevity of beef operations.



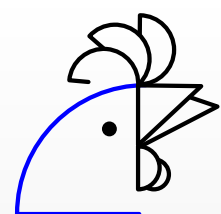
Nutritional Technologies and Tools Improve Outcomes for Animals and Customers

Through deep research, technical expertise and new innovations we are creating science-based solutions to increase your on-farm performance and sustainability.

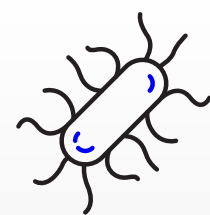


Fighting for Better Food Safety

One of the ways we can improve human health is by improving the health of the animals at the farm. In a university study, broilers challenged with *Salmonella Typhimurium* and fed Zinpro Availa Zn had lower fecal loads and prevalence of *Salmonella*, contributing to a safer, healthier and more cost-effective food source for consumers.



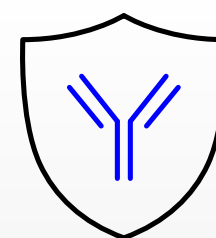
↓ >2 Log₁₀
Salmonella
Recovery



↓ 48%
Salmonella
Prevalence

Improved Immune Response

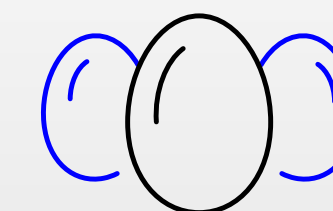
Broilers challenged with *Salmonella* and fed Zinpro Availa Zn had increased gene expression of Cecal β -Defensins, critical components of an immune response to *Salmonella*. This improvement helped decrease pathogen shedding.



↑ 300%
Immunity Response

Stronger Eggshells, More Quality Chicks

It is important to listen to customer needs and provide innovative tools and solutions that help producers drive their business forward. Implementing the Zinpro® BlueBox™ innovative tool helps poultry producers determine the quality of their eggs and also identify the benefits of using Zinpro Performance Minerals. We have measured the translucency scores of over ninety thousand eggs in commercial poultry operations. Eggs from hens fed Zinpro Performance Minerals had lower average translucency score by 8.7% and decreased the amount of score #3 eggs by 23%, contributing to lower incidence of cracked eggs and improved hatchability.

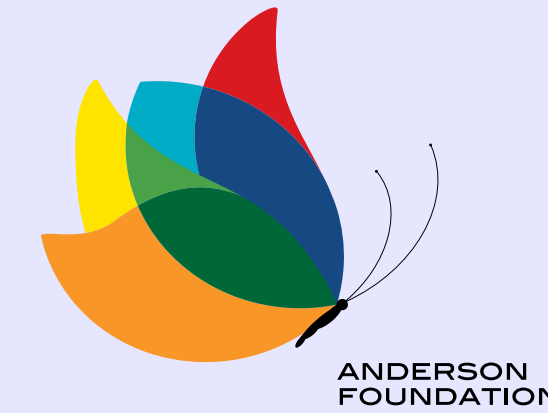


Measured
+ 90,000
Translucency Scores

Serving Generously in Our Communities

At Zinpro, we are committed to charitable giving, volunteerism and community service programs in our global communities, focusing on the first five United Nations Sustainable Development Goals.

[Learn more about our approach to philanthropy.](#)



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 supports 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 agriculture worldwide.

[Learn more: andersonfound.org](https://andersonfound.org)

Empowering Women Farmers in Africa

On International Women’s Day 2022, Zinpro and Anderson Foundation announced a new, three-year commitment in support of agricultural nonprofits [Heifer International](#) and [Bountifield International](#).

Through Bountifield International’s “She Feeds Africa” partnership, Zinpro is helping to empower rural women in Kenya with access to small-scale technology and business support so they can process and save more food in their communities. By investing in women as food entrepreneurs, we are helping to achieve equitable, resilient food systems.

The Partnership for Resilient and Inclusive Small Livestock Markets (PRISM) project through Heifer International benefits more than 23,000 families in Rwanda. The project focuses on increasing competitiveness and profitability of the small livestock sector by connecting small-scale producers with domestic and regional consumers.



Achieving More by Working Together

Health & Safety, DEI and Talent Development

As a people-first company, Zinpro focuses strongly on safety performance; health and wellbeing; diversity, equity and inclusion (DEI); and developing both our current and future talent.



124% More
Near-Miss
Reporting

To reinforce our strong safety culture, we published a resource hub on the company intranet, trained our global workforce on near-miss reporting, and performed 166 Job Safety Analyses (JSAs) to proactively identify and mitigate risks.



At Zinpro, our mission is centered on better health and wellbeing for animals and people – and that extends to the mental and emotional health of our employees. In partnership with the National Alliance on Mental Illness (NAMI Minnesota), we provide ongoing education and support resources for our team. Fostering a sense of belonging and community for all of our employees is key to our ongoing commitment to diversity, equity and inclusion. In addition to our public commitment to the CEO Action Pledge for Diversity & Inclusion, we set goals and hold ourselves accountable through our Diversity, Equity & Inclusion Advisory Council. [Learn more about our DEI commitments and progress.](#)



Committed
to Our Global
Employees

We are committed to maintaining competitive, world-class benefits supporting the physical, mental and financial health of our employees around the world, and we provide both formal and informal professional development, mentoring and on-the-job training programs. [Learn more about how we support our global team.](#)



Supporting Future Leaders



Zinpro has a long history of supporting education and development of future leaders in animal agriculture and science. In 2022 we supported young talent at the Minnesota State Fair, the University of Minnesota Veterinary School and with the Poultry Science Diversity Award.

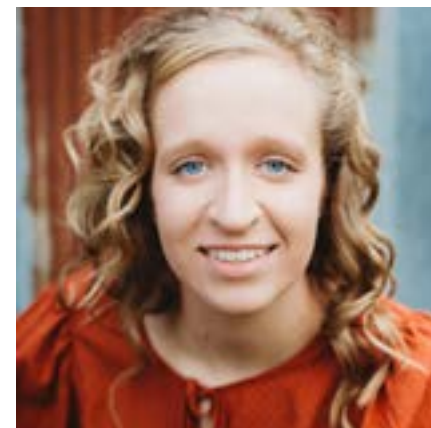
Additionally, we support Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) with scholarships for students. [Read more about our Scholarships.](#)



2022 MN State Fair Scholarship Awards



Catie Erickson
Polk County, MN



Aly Dieball
Sibley County, MN

Zinpro/Schugel Award



Rylee Black
DVM Candidate, Class of 2024
University of Minnesota,
College of Veterinary Medicine

University of Minnesota, College of Veterinary Medicine Diversity Award



Tanzania Menn
University of Minnesota,
College of Veterinary Medicine

Poultry Science Association Diversity Award



Tanisha Diggs
Kansas State
University

American Society of Animal Science Young Scholar Recognition



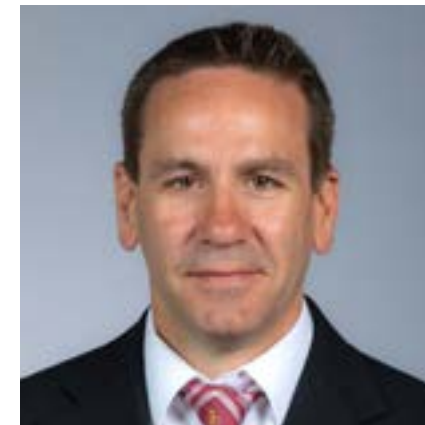
Ph.D.: Victor V. Flores
New Mexico State
University



Ph.D.: Jesus Joaquin Figueroa-Zamudio
New Mexico State
University



Ph.D.: Ryan M. Knuth
University of
Wyoming



Lance Baumgard
Iowa State University

American Dairy Science Association – Zinpro Award for Excellence in Dairy Science

Partnering for Industry Sustainability

Zinpro participates in many key livestock and poultry organizations that advocate for sustainability. 2022 saw the launch of the framework for poultry and egg sustainability by the US-RSPE and the ten-year anniversary of the Global Roundtable for Sustainable Beef. In addition, the American Feed Industry Association through IFEEDER made progress toward developing a sustainability roadmap for the feed industry.



Our Path Forward

To effectively chart a sustainability path forward, developing the Zinpro materiality matrix was a critical milestone.

A materiality matrix contributes to our sustainability journey by:

1. Discovering opportunities for bringing our values to life, risk mitigation and value creation
2. Creating opportunities for internal and external stakeholder engagement
3. Enabling meaningful reporting and disclosures

A third-party firm with extensive sustainability expertise helped us conduct interviews and surveys of internal and external stakeholders to establish a materiality matrix determining Environmental, Social and Governance (ESG) issues of critical importance to our stakeholders and to our business.

Of the fifteen issues that were of high importance to Zinpro stakeholders and our business, the top three were:

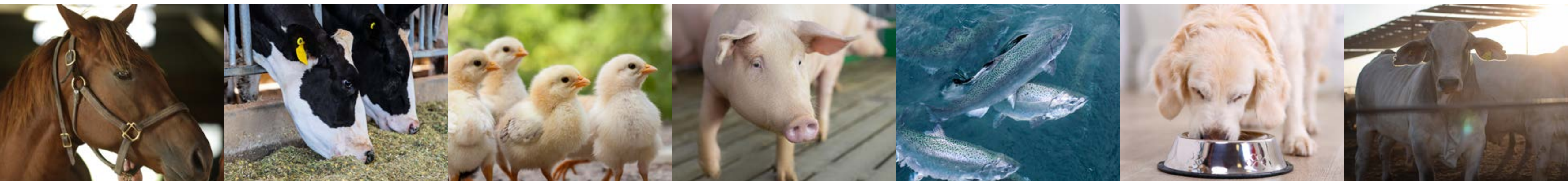
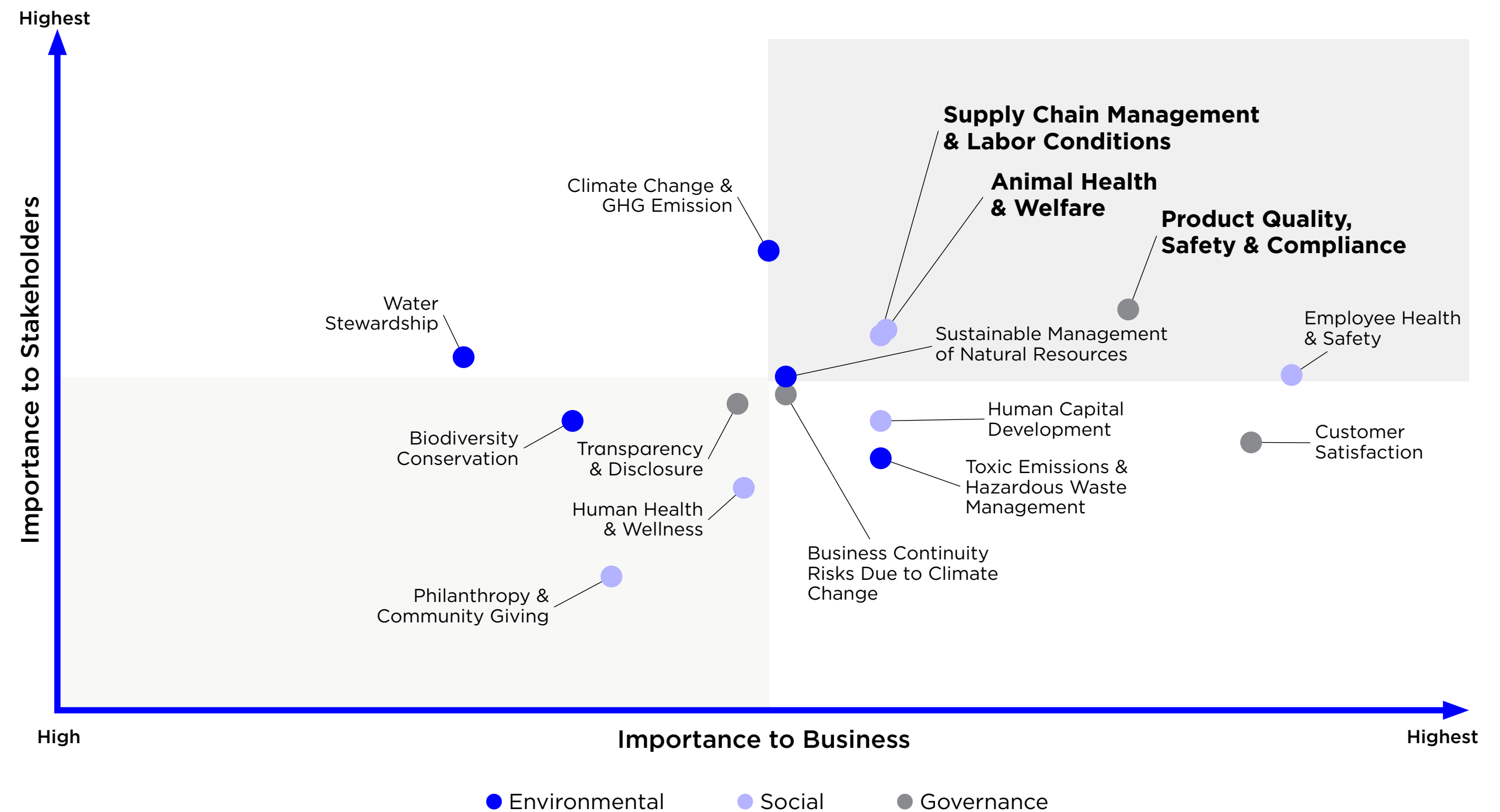
- 1. Product quality, safety and compliance**
- 2. Animal health and welfare**
- 3. Supply chain management and labor conditions**

As we continue to progress, this matrix provides focus for our sustainability and strategic business efforts and allows Zinpro to chart a course for a successful and sustainable future.

This work resulted in an ESG Ambition for Zinpro: We make products that improve the health and wellbeing of animals and people, support reductions in agriculture emissions, improve usage of raw materials and create a safer and more abundant value chain for food consumption.

What Matters Most

Topics in the top right of the matrix were assessed to be the most material and most important to Zinpro



2022 Innovation Spotlight

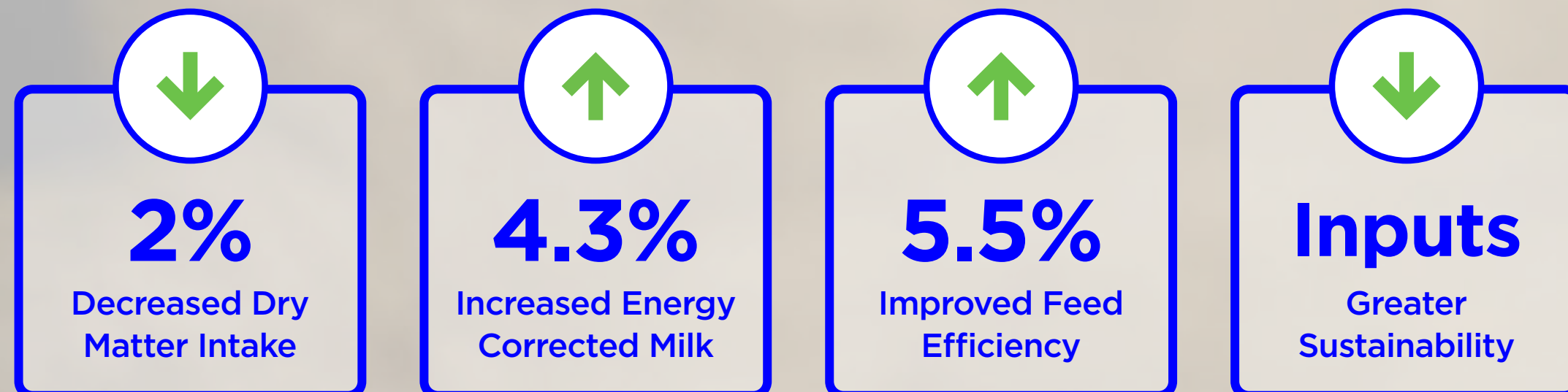


Zinpro Launches a Breakthrough Innovation in Dairy Nutrition

As we look to drive efficiency, profitability and sustainability on dairy farms, partnership is key. With this new solution, we are empowering dairy nutritionists to elevate how they formulate diets, unlocking new levels of feed efficiency and operational sustainability.

How can you advance nature, improve sustainability and drive profitability, all while enabling dairy cows to become better cows? In 2022, Zinpro launched Zinpro[®] IsoFerm[®] as the breakthrough that makes this possible. Zinpro IsoFerm provides game-changing production

efficiency that reduces dry matter intake and improves milk production. This promotes on-farm sustainability, allowing fewer inputs and greater stewardship of resources — improving overall operational sustainability for all.





**ADVANCING
PERFORMANCE
TOGETHER**


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