



CONTENTS

- p. 2
Spring Challenges
- p. 4
Jefo Cycle
- p. 6
E. coli prevention in Poultry
- p. 8
Salmonella prevention
in Swine
- p. 10
Heat Stress
- p. 11
Liquid Solutions
- p. 12
Your Jefo Contacts

Spring: A Time of New Beginnings and Opportunities

As spring comes, it brings a fresh start not only for nature but also for our farms and communities. This season, though filled with its unique challenges, offers many chances to improve and do well. The warm weather and longer days tell us it is time to plant the seeds and implement strategies that will help us feed our families and support our lives.

At Jefo, we understand your needs and goals, and our philosophy *Life, made easier*, is our promise to support your farm and community to become stronger. Our

approach includes focusing on animal precision intestinal nutrition, a practice that ensures that your chickens, turkeys, pigs, and cows get the most from their feed. Our team of committed experts are by your side to provide you with counseling and exchange information that will ensure animal health and performance, leading to more profitable and sustainable farming practices.

With optimal products and people, we are prepared to tackle the season's challenges together.



Sincerely,

Jean Fontaine
Founder and President
of Jefo Nutrition Inc.

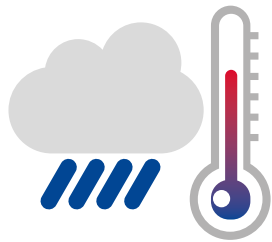
A handwritten signature in black ink that reads "Jean Fontaine".



Navigating **Spring Challenges** in Livestock Farming with **Jefo Solutions**

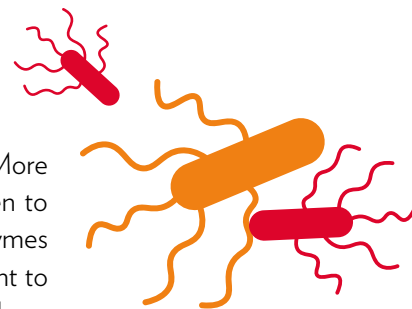
Changing from the cold, often harsh conditions of winter to the warmer, more variable climate of spring brings with it a unique set of challenges for livestock farmers. At Jefo, we want to help you navigate through this transition time with information and **precision intestinal nutrition**.

Weather Fluctuations:



Spring weather is often unpredictable, with rapid temperature shifts that can stress livestock. Animals are vulnerable to cold snaps and can struggle with atmospheric changes that often accompany spring rains. Whether your farm focuses on ruminant, poultry or swine, stress should be managed closely, providing the nutritional supplements they may require such as protected B vitamins, liquid supplements and enzymes to ensure better feed digestibility.

Parasite and Disease Management:



The mild, moist conditions of spring are conducive to the proliferation of parasites. More than ever, animal health should be monitored, and preventive actions should be taken to avoid losses in productivity and high veterinary expenses. The combined use of enzymes and specific blends of organic acids and essential oils have proven to be highly efficient to prevent and mitigate pathogenic challenges related to *E. coli* and *Salmonella*, among others.



Nutritional Adjustments:

As pastures revive, cows transition from winter feed to fresh spring grass. This shift requires careful nutritional management to avoid digestive issues and ensure that animals receive a balanced diet. Supplements are often necessary to meet the nutritional demands, particularly of lactating cows and their calves.



Breeding and Birthing:

For many livestock species, spring signals the start of the breeding and birthing season. This period demands increased attention and labor from farmers to assist with births, manage the health of newborns, and oversee breeding programs to ensure the continuation of health genetics within the herd. Learn more about the Jefo Cycle Program in the article on page 4.



Facing the challenges of spring in livestock farming requires a blend of traditional wisdom and modern management practices, including innovative feed strategies. By preparing for weather fluctuations, managing health risks proactively, and ensuring optimal nutrition, farmers can navigate the complexities of the season ensuring the welfare of their animals and the productivity of their operations.

Life, made easier.

You can rely on Jefo experts and Jefo Solutions to make your life easier, and spring even more enjoyable.



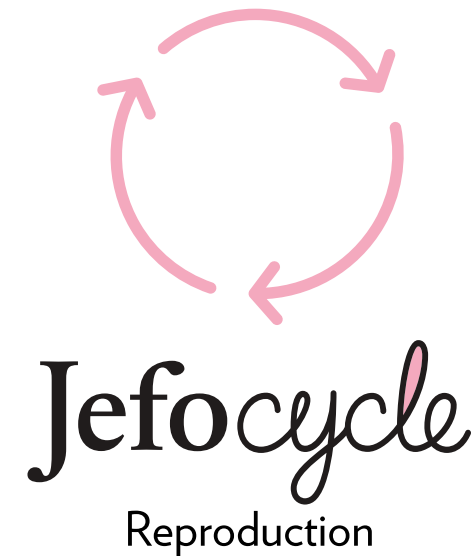
Jefo Cycle Springing into Improved Animal Reproduction

Following the articles about Jefo Programs in the previous editions, we are pleased to present Jefo solutions aimed at improving animal reproductive performance.

Swine Reproduction Revolution

In the swine industry, breeding and farrowing are pivotal stages that directly influence farm profitability. While the number of hyper-prolific sows has increased, more stillborn and/or small, weak piglets were reported.

Genetics, stress, management, mycotoxin, nutrition, and urogenital health are the main factors that affect swine reproductive performance. In addition to strict management to reduce stress, a successful feeding strategy should consider feed quality including mycotoxins, fat and fatty acids, phase feeding and nutritional additives such as acidifiers and protease.



Jefo Protected Organic Acids + Essential Oils, modulates sow microflora, reduces the presence of pH sensitive bacteria, and promotes better urogenital health. On the other hand, Jefo Protease enhances digestion, provides extra nutrients and, ensures metabolic savings by reducing oxidative stress. Finally, Jefo Protected Omega-3 Fatty Acids is a source of concentrated energy that has proven its numerous benefits in sows such as improving ovulation and conception rates, and piglets, decreasing inflammatory and immune cells, and improving the number of piglets born alive and post-weaning survival.

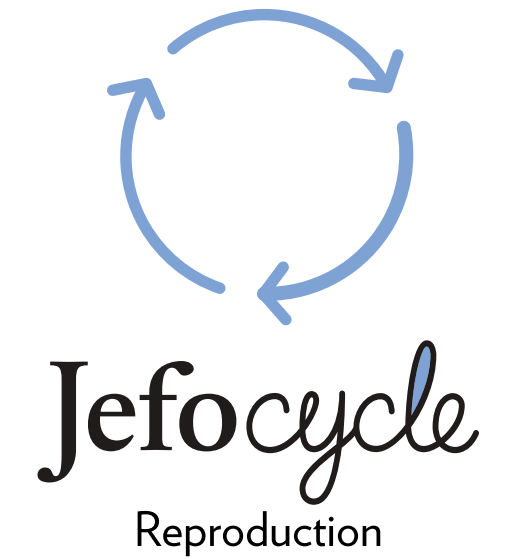
This strategic combination of solutions improves milk yield, piglet survival, litter weight, animal health and cycles.

Dairy Cow Fertility Boost

The dairy industry, despite increased milk production, struggles with reproductive issues. Jefo has targeted the underlying problems, such as excessive body tissue use and diseases affecting reproduction. The Jefo Cycle program improves energy balance, health and calving intervals, ultimately enhancing fertility.

Early lactation health issues reduce pregnancy rates and increase the chance of pregnancy loss. Factors like low feed intake and negative energy balance post-calving delay return to normal reproductive cycles and affect reproduction.

Jefo's strategy focuses on prompt return to estrus post-calving, health management and pre- and post-calving nutrition. Including Jefo Protected B Vitamins is key to promote glucose synthesis, immune function and better oocyte and embryo health, leading to healthier cows with less weight loss and faster return to breeding readiness.



Enhance **postpartum health**



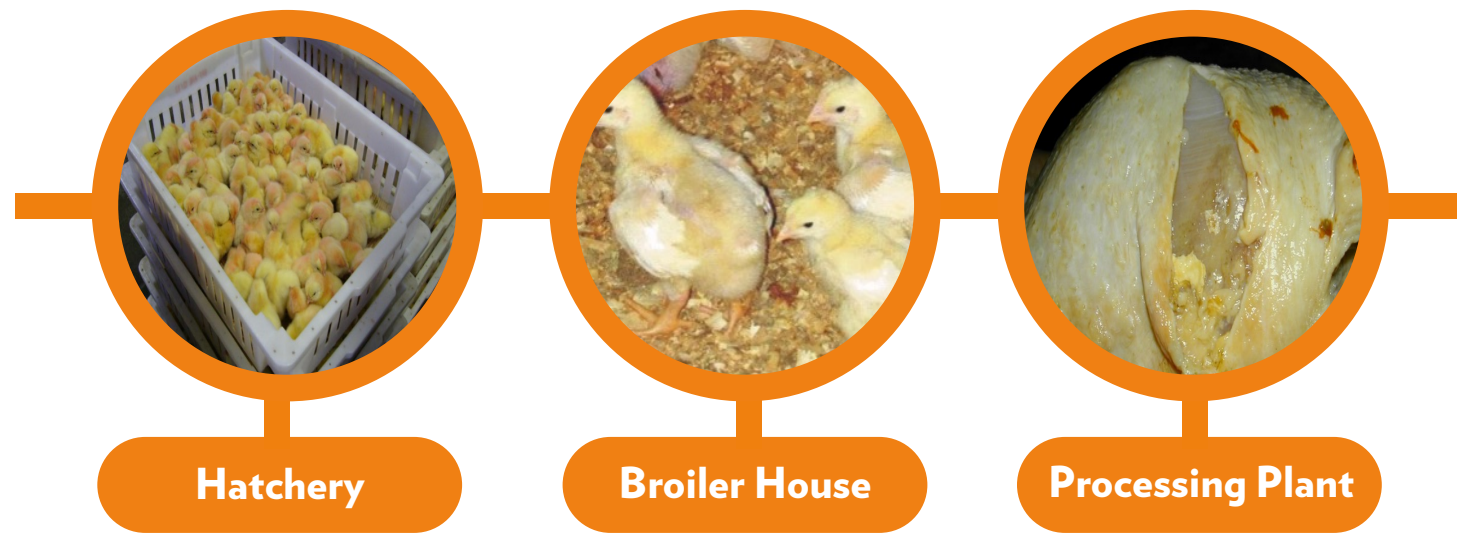
Improve **pregnancy rate**



Reduce calving **interval**

Synergistic Feed Strategy to Prevent *E. coli* Infections in Poultry

The poultry industry faces a significant threat from *Escherichia coli*, a pathogen capable of inducing an infection called colibacillosis, which results in significant economic and performance losses. Addressing this problem requires a multi-layered approach, combining rigorous management practices with innovative nutritional strategies. The key is to reduce and eliminate the risks that contribute to the infection and growth of *E. coli*.



Contaminated eggs

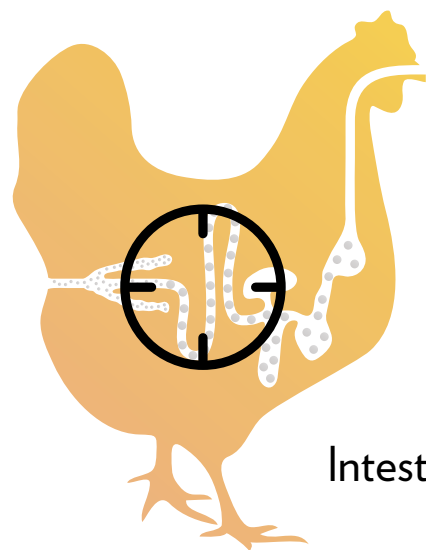
- Lower hatchability
- Egg explosion
- Early chick contamination

Higher mortality and reduced growth performance

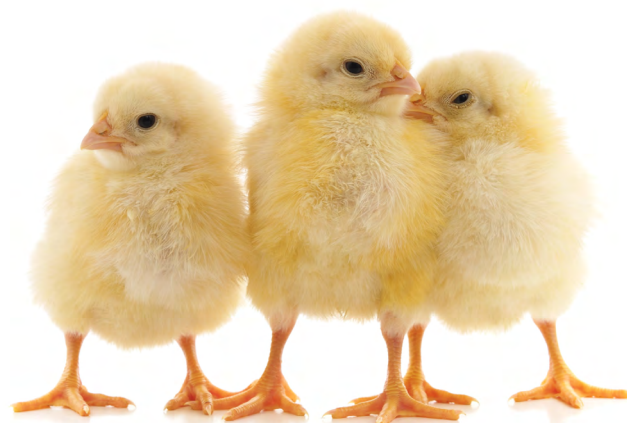
- Diarrhea
- Dehydration
- Loss of appetite
- Septicemia

Carcass condemnation

- Airsacculitis
- Cellulitis
- Septicemia

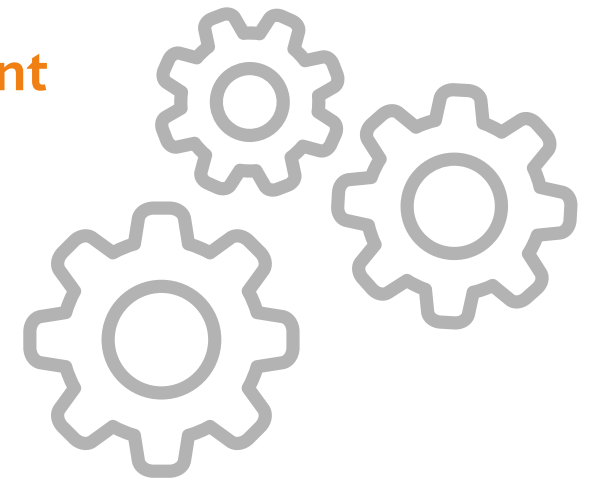


Intestinal health



Biosecurity and Management Measures:

Stringent biosecurity measures are fundamental and include thorough cleaning and disinfection protocols, optimal water quality, and good chick quality from the outset. It is essential to ensure proper brooding, optimal barn temperatures and air quality, as well as minimize stressors such as overcrowding, out of feed events, and heat stress. While antibiotics were a common practice, they can lead to antimicrobial resistance. Nowadays, there are very effective alternatives to the use of antibiotics.



Nutritional Strategy:

Early feeding practices and the use of high-quality feed ingredients are part of the foundation for a healthy flock. Low-protein diets and the inclusion of nutrients that improve gut health are essential. Additives such as organic acids, essential oils, enzymes, biofactors, antioxidants, minerals, and probiotics offer many benefits that will enhance the bird's natural defenses.



Among the promising solutions is the combined use of protease and xylanase enzymes with a blend of organic acids and essential oils.

Jefo Protease is a multicomponent protease that enhances protein digestion, improving gut health by ensuring the integrity of the villi structure, reducing undigested proteins available for pathogens and minimizing toxic metabolites. This mitigates intestinal inflammation.

Jefo Xylanase, on the other hand, produces arabinoxylan-oligosaccharides (AXOS), which beneficially modulates the poultry microbiota. These prebiotic components are used by beneficial bacteria for growth, thereby exerting a prebiotic effect and reducing the pressure from pathogens such as *E. coli*, *Campylobacter*, *Salmonella* and *Clostridium perfringens*.

Jefo Protected Organic Acids & Essential Oils acts directly against *E. coli* to reduce its proliferation, modulates the intestinal microbiota more effectively, reduces intestinal permeability, and prevents the spread of *E. coli*. Furthermore, it reduces intestinal inflammation and improves immune response, resulting in improved gut health.

Conclusion:

In conclusion, the battle against *E. coli* in poultry is best fought with an integrative strategy that combines optimal farm management and biosecurity with advanced nutritional interventions to ensure the health and productivity of poultry operations.

Fighting *Salmonella* in Pig Farms: Jefo P(OA+EO) Help Keeping Your Animals Healthy

Salmonella is a major problem worldwide, causing over 80 million people to get sick from contaminated food each year. Even though chicken products are a major source of this issue, pig farming also plays a significant role, responding to about 12% of *Salmonella* cases.

The impact of *Salmonella* outbreaks extends beyond health issues. They can lead to legal problems, customer boycotts, and negative press. Furthermore, to prevent sanitary problems, governments have put in place strict rules, including exportation restrictions, stopping production and monitoring farms more closely.

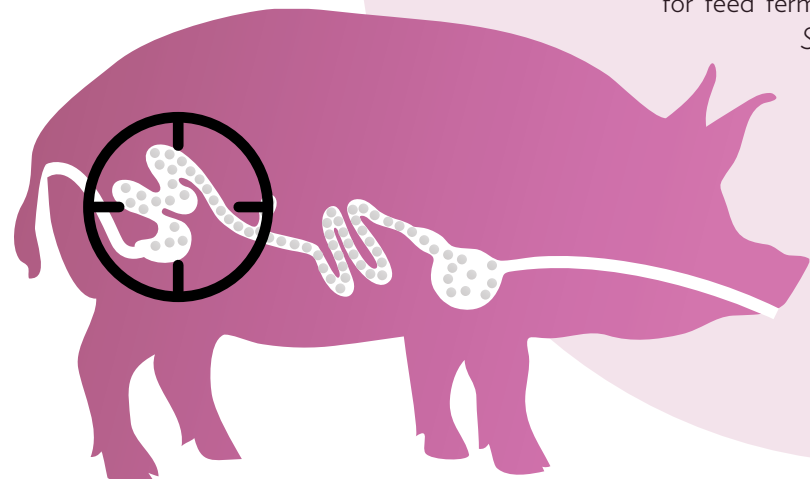


WORLDWIDE CHALLENGE
DEVELOPED & DEVELOPING COUNTRIES

The solution

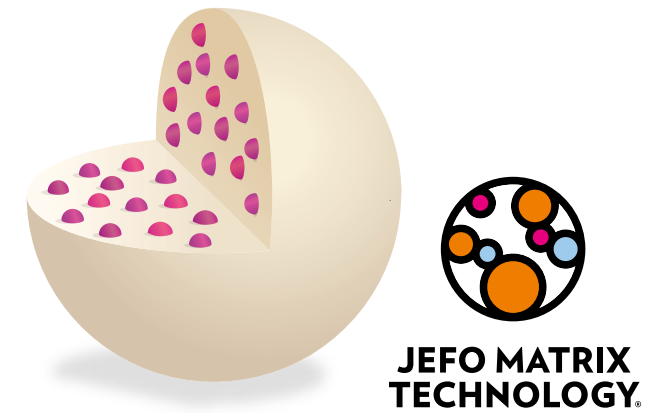
To tackle this issue, pig farmers need to use a mix of good farm management and smart feeding strategies. This includes keeping the farm clean, vaccinating animals, choosing the right breeds, and using special feed additives such as probiotics, prebiotics, organic acids, and essential oils.

Understanding that pig's gut is a hotspot for harmful bacteria is crucial. The large intestine, which is responsible for feed fermentation, is a major hiding spot for *Salmonella*. While essential oils break the bacterial membrane, making important components to leak, organic acids can easily enter in the bacteria, which will spend energy to regulate its internal pH. The bacteria will eventually die from using up all their energy.



Protected vs Unprotected

While unprotected solutions will lose most of their active ingredients throughout the gastrointestinal tract, **Jefo Protected Organic Acids and Essential Oils** feature the Jefo Matrix Technology. This protection was perfected over the years to ensure targeted delivery of these important ingredients directly in the intestine, where they are most needed. Additionally, the Jefo Matrix Technology does not affect palatability and is safe for equipment and for people who work with it.



Different Challenges, Unique Programs

Jefo offers **two programs** for *Salmonella* prevention. The regular method involves using **Jefo Protected Organic Acids and Essential Oils** all the time to keep infections away. During times when *Salmonella* challenge is higher, it is recommended a stronger, temporary dose (pulse) to reduce and keep infections under control. To get the best results, it is also possible to add enzymes like **protease** and **xylanase** to the feed to improve even more your animal's health and growth.

Fighting *Salmonella* in pig farming needs a well-rounded program. Jefo's solutions and strategies offer advanced perspectives to protect pigs from *Salmonella* and your farm from the negative consequences of a disease outbreak.



For more advice and tailored solutions, please talk to your Jefo representative.

Heat Stress Is Not Cool – The Role of Feed Additives in this Situation

Heat stress is a major concern for farmers, affecting both broilers and layers. Heat waves can affect animal health and production, and with weather getting hotter around the world, finding ways to help chickens to stay cool and healthy is more important than ever. In the hot days, animals tend to eat less, drink more and reduce their activity, which can jeopardize their performance and represent health danger. One of the best ways to help your flock to deal with the heat is by adding special additives to their feed. This supplementation includes nutrients such as vitamins, minerals, enzymes, organic acids, and essential oils.

To compensate for lower feed intake, liquid blends of vitamins can boost their health and, consequently, maintain their performance despite the high temperatures. Another excellent strategy is using enzymes like xylanase and protease that enable better energy and protein digestibility, respectively. Finally, protected organic acids and essential oils help to modulate gut microbiota, ensuring optimal response during stressful situations.

Stay tuned for our upcoming exclusive offers.



Although Summer is a few months away, it is essential to prepare your animals for the season in advance. Make sure that fans and coolers in your facilities are functioning correctly and that you have all the necessary additives in stock, such as liquid supplements, to meet the needs of your birds in regular temperatures and during heat waves.

Boosting Livestock Health and Productivity: The Advantages of Liquid Supplements

Producers and researchers are increasingly recognizing the benefits of liquid supplements as an essential part of animal nutrition and health management. Liquid supplements, which can include vitamins, minerals, and other nutritional additives, are easy to use and offer high bioavailability.

Liquid supplements allow precise dosage control and uniform distribution among animals. This ease of use reduces labor efforts, minimizes waste, and optimizes nutritional intake. The flexibility of

liquid supplements also allows for quick adjustments to the animal's diets based on their changing nutritional needs, health status, or production phases.

On the bioavailability aspect, animals can absorb these nutrients more efficiently, ensuring that they get the maximum benefit from the supplements they consume. This enhanced absorption leads to better health, growth rates, and productivity, which are crucial for the economic success of livestock operations.

Ensuring the quality of water is crucial and requires vigilant monitoring and stringent control at all times, not just during liquid supplementation. To address this need, Jefo has designed the Water Smart program:

campaign.jefo.ca/watersmart

Liquid solutions can be used to avoid:

- Losses due to heat and other types of stress
- Fatty liver
- Cage layer fatigue

Benefits:

- Improve bone and muscle development
- Stimulate the digestive and immune system
- Enhance eggshell quality
- Promote more persistent laying performance

Jefo offers the following liquid supplements for poultry and swine:

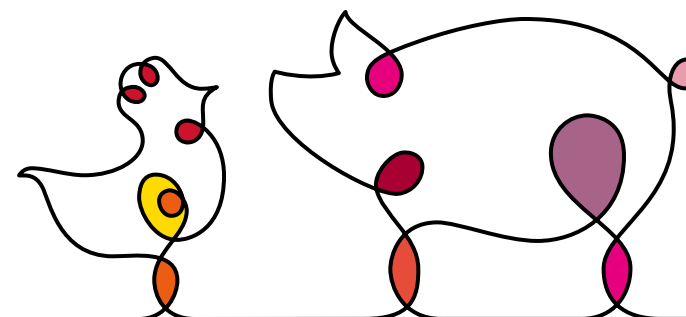
Vitamin C and D₃ supplement

Vitamins A, D₃, E, K, and B-complex supplement

Vitamin D₃ supplement

Vitamins A, B1, D3, and E, Betaine, Methionine, and Choline supplement

Vitamin E and Selenium supplement



Discover Jefo's liquid solution for watering system:

Liquid Acidifier

Designed to remove mineral build up and lower the pH level of the drinking water for livestock

TO ORDER:

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1-800-465-2247

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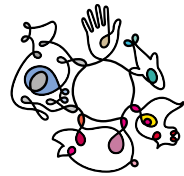
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