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PELERSON PENIDO DALLA VECCHIA,
CEO

BRIDGING TRADITION AND TECHNOLOGY IN FARMING

Grupo Roncador

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Grupo Roncador

The annual listing of 10 companies in Latin America that are at the forefront of providing Agriculture Sustainability services and impacting the marketplace

Grupo Roncador

BRIDGING TRADITION AND TECHNOLOGY IN FARMING

Grupo Roncador is considered one of Brazil's largest agricultural groups, wielding influence that stretches far and wide. Central to its success is its groundbreaking approach that ingeniously merges regenerative livestock practices with avant-garde agricultural methods without compromising profitability or environmental sustainability. However, as with any journey, Roncador's path was not without challenges.

Its genesis traces back to the 1980s, when Pelerson Soares Penido acquired land in Mato Grosso and focused the initial endeavors around cattle breeding, rearing and fattening. Fast forward to 2007, and the farm's landscape had changed dramatically. The once-rich soil was depleted, profits were slipping through their fingers like sand, and a realization had set in—the extensive livestock farming practices that had been the bedrock of prosperity were no longer sustainable.

A pivotal shift was necessary that would steer the farm toward simultaneous profitability and sustainability.

In 2008, a bold step was taken when soy cultivation was introduced to integrate livestock and agriculture. What began as an attempt to rejuvenate pastures soon burgeoned into a highly productive soy operation. The farm's portfolio then expanded to include corn and eucalyptus, supplementing existing operations.

Innovation is not about reinventing the wheel; it is about recognizing that we all share this planet, and we must manage it responsibly

Embracing a crop-livestock integration strategy, Roncador refined its proficiencies in pasture revitalization, catapulting it to the ranks of Brazil's foremost agricultural powerhouses. This dedication prompted a full-scale application across its operations, fortified by a significant infusion of capital. Through this integration of crop-livestock (ICL) paradigm, coupled with the reinvigoration of pastures, Roncador saw remarkable production upticks, while curtailing greenhouse gas outputs.

However, this transformational project's impact lies in Roncador's dedication to crafting a blueprint for sustainable production. Beyond self-interest, it aspires to share this knowledge, promising to shape the future of environmental stewardship and generate a lasting, wider impact.

Year-Round Productivity: A Solution to Seasonality

"The farm is a living organism; our decisions can either nurture its health or harm it. Our goal is to foster a balance where economic, environmental and social sustainability unite, creating a thriving agricultural ecosystem," says Pelerson Penido Dalla Vecchia, CEO of Grupo Roncador.

Roncador's ICL approach is an exemplary model of how modern agriculture can offer a multifaceted array of benefits, spanning ecological, environmental, economic and social dimensions. At the epicenter of this methodology is the potential to increase food production without expanding cultivation areas. Strategically allocating 26,000 hectares for livestock and 30,000 hectares to an innovative soy-ox fusion, Roncador ensures an intricate harmony between crop and cattle. Agricultural operations prevail from October to February, while cattle farming takes center stage from April to September. This judicious allocation accentuates efficient land utilization to curb waste.

When viewed through the lens of ecology and environmental responsibility, the ICL model at Roncador farm brings forth various advantages. It optimally utilizes land by converging livestock and crop dynamics, letting soybeans and corn thrive alongside pastures—a symbiosis of flora and fauna. This interplay rejuvenates soil vitality. Soybeans, being nitrogen-fixers, nourish the soil, while cattle, through their natural processes, enhance soil biodiversity, giving rise to richer grasses. Soybean roots further fortify the soil, facilitating the infusion of organic compounds, particularly carbon dioxide (CO_2), and fortifying its fertility.

Central to Roncador's ethos is its pledge to curb agrochemical reliance. The farm substantially reduces herbicide, fungicide and insecticide use by implementing integrated pest management practices and leveraging the natural balance between crops and livestock, Furthermore, it produces and uses as much biological pesticides as possible instead of chemicals, seeking balance in the production system and a healthier ecosystem (with the forest as its guide) ensuring a healthier ecosystem and decreased chemical contamination.

This narrative extends beyond the fields and into the depths of the Earth itself. Since 1999, the enterprise has mined dolomitic limestone in Cocalinho. It broadened its horizon in 2012, procuring a calcitic limestone venture in Nova Xavantina. These seemingly unassuming rocks, and the rock dust, hold within them the power to rejuvenate and revitalize. They have transformed once-degraded pastures into fertile lands supporting intensive livestock farming and robust crop cultivation.

However, the nutrients contained in rock dust are only accessible to plants if there is life in the soil and that is where the ‘Forest Soup’ produced at the Roncador bio-factory comes in. A small portion of forest substrate is taken and multiplied in on-farm tanks, creating a soup full of colonies of microorganisms. This is the soup from its sprayer that is used to repopulate the productive areas with colonies of microorganisms from native forest, which is almost half of the farm.

With these practices and the constant monitoring of soil health and productivity indicators, they are no longer simply sustainable but have become regenerative. Today they name the way they are working as Roncador Integrated Regenerative System.

Apart from soil health, the ICL approach plays a pivotal role in carbon reduction and mitigation. Roncador's practices actively sequester carbon from the atmosphere, making it a positive carbon farm. In its 2017 to 2018 harvest alone, the farm released 82,499 tons of CO_2 equivalent (tCO_2e) while sequestering 172,329 tCO_2e, akin to removing 51,000 cars from the roads annually. The ICL model also significantly reduces the risk of soil erosion, safeguarding the topsoil for future generations.

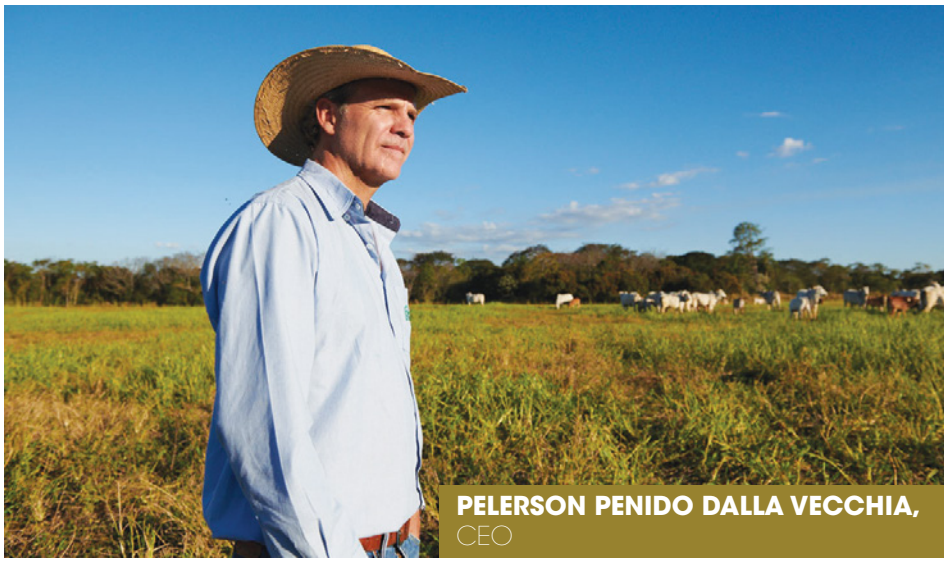
Pivoting to economic and societal facets, the methodology augments yield quality, curtails seasonal production variances, and amplifies market prowess. By interspersing agricultural endeavors year round, Roncador garners elevated food outputs at reduced expenditures, strengthening economic resilience. This diversified blueprint also cushions against market volatilities and burnishes a farmer's reputation, underscoring their allegiance to sustainable and eco-conscious agronomy.

Navigating the Nexus of Innovation and Agronomy

Roncador stands at the crossroads of modernity and tradition, expertly fusing cutting-edge technology with the venerable tenets of agriculture and unveiling a panorama of untapped potential.

Central to this metamorphosis are the towers scattered throughout Roncador's farm. These towers are technological nerve centers, offering instantaneous intelligence of on-ground activities. The Roncador team can use keystrokes to delve into a trove of operational data—from machinery velocities to operational cadence and output. Such granular insights enable swift, data-backed decisions.

A standout aspect of this tech-centric ethos is its ability to develop performance metrics and continuously gauge advancement. However, this technological prowess extends further as Roncador has integrated its multifaceted operations into an advanced enterprise resource planning (ERP) matrix. This digital infrastructure meticulously oversees facets ranging from the stockpile to fuel metrics, delivering an overarching snapshot of the farm's operational excellence.



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In another testament to its tech-forward orientation, Roncador harnesses automated piloting systems for sowing endeavors. In the dry season, manure is precisely distributed in the areas where seeds will be sown later. This meticulous approach, made possible by state-of-the-art machinery and technology, ensures maximum efficiency and resource utilization.

Nevertheless, Roncador remains firmly grounded in its commitment to ethical farming practices and hard work. Technology is a formidable ally, but the timeless wisdom of farming basics always complements it.

Cultivating Knowledge and Progress Together

A 2016 research analysis illuminated a barrier to the broader embrace of the ICL model among Mato Grosso's agrarians—a lack of easily available knowledge and expertise. This deficit inadvertently bolstered a risk-averse stance toward implementing novel agricultural paradigms. Identifying the urgency of this situation, Roncador has pledged to overcome the knowledge gap by proactively sharing its wealth of experience and insights.

Its multifaceted knowledge transmission method includes an array of instruments and channels. The fulcrum of this initiative is its website, which will serve as an archive for invaluable data, multimedia content, and resources that clarify the intricacies of the ICL model and its superlative practices. The group aims to provide pertinent knowledge to agrarians and vested parties eager to assimilate and employ its pioneering methodologies.

Beyond its virtual enclave, Roncador plans to reach a broad population through public domain and strategic social media forays. It intends to motivate others to adopt sustainable agricultural practices and contribute to the wider agricultural community's knowledge base by sharing its successes and lessons learned.

Field days are another crucial aspect of this commitment to knowledge sharing. These sessions provide agrarians with tangential encounters to observe the ICL paradigm firsthand, distilling wisdom from Roncador's journey and interfacing with domain mavens. The group’s active participation in symposiums and colloquia, including engagements with entities such as Embrapa (Brazilian Agricultural Research Company), Federal Colleges and Institutes, accentuates its allegiance to symbiotic enlightenment and expertise interchange.

Further amplifying this endeavor, Roncador emphasizes the immersive engagement of its executives and employees. Their proactive involvement in these pedagogical ventures underscores a resolute commitment to sustainable agro practices and an earnest drive to catalyze industry-wide transformation.

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"Innovation is not about reinventing the wheel; it is about recognizing that we all share this planet, and we must manage it responsibly," says Vecchia.

Grupo Roncador's assiduous journey of aligning productivity with ecological mindfulness has redefined its trajectory and established a benchmark for conscious and economically viable agricultural undertakings.

At its core, the farm's journey is a gentle nudge toward understanding Earth. It beckons us to embrace the simplicity, to be enamored by the intricate dance of nature, and to walk softly upon her generous lands. The tale it spins is not just of growth, but growth with a soul; not just progression, but progression that values yesteryears' sagacity. It's a voyage that whispers hope of a radiant, sustainable tomorrow for both tillers and the world they till.