A pharmaceutical company
100% dedicated
to honey bee health.
1. Honey bee health:
A universal concern .......................................................... 6

2. Véto-pharma:
Expertise in honey bee health............................................ 8

3. Our products:
An extensive, high-quality offering .......................... 14

4. Development:
Innovation is the engine of our business .................. 16

5. Our commitments ...................................................... 20
Véto-pharma in brief:

The health and survival of honey bees are key topics in today’s society. Many fear for the future of these pollinators because they help to produce an estimated 30 percent of the food consumed in the world.

In this context, **Véto-pharma, a pharmaceutical company dedicated to honey bee health**, is proud to export its expertise to more than 20 countries worldwide.

Fifteen years of steady growth have made Véto-pharma a leader in developing and producing a host of medicines and nutritional products. Manufactured in France, our products are recognized for their quality and value throughout the world.

Our team of passionate and committed experts focus on sustainability of the apicultural industry, making Véto-pharma a worldwide leader in honey bee health.
1. **Honey Bee Health:**
A universal concern.

The honey bee and its future are at the heart of societal debate. Governments, agro-industrial stakeholders, animal health professionals, and the public at large are concerned by the various issues endangering honey bees and pollination. This concern is not without reason:

- **Honey Bees Play a Key Role in Worldwide Biodiversity and Food Production:**
  - Wild and domestic honey bees contribute to the pollination of 80% of flowering plant species.
  - Through pollination, honey bees are responsible for more than 30% of worldwide food production.

- **Beekeeping Activity Has a Strong Local and Global Economic Impact:**
  - The economic impact of pollination by honey bees represents 153 billion euros, or 9.5% of the value of all food production worldwide.
  - The value of beekeeping activity worldwide is estimated at 7.8 billion dollars.
Despite their importance for global biodiversity and the global agricultural economy, honey bees and beekeeping activity have suffered for several years from difficulties threatening the future of the whole industry.

Imperilled by a host of threats, honey bee populations are facing high mortality rates year after year, forcing beekeepers to invest more and more to maintain the size of their livestock. The situation has become alarming in some countries, which is greatly discouraging for producers. In France, the number of beekeepers dropped from 70,000 in 2004 to 40,000 in 2013. In North America, for example, honey production fell from 120 tons in 2001 to 102 tons in 2013.

The causes of these problems vary, but research teams all over the world are finding that the factors affecting honey bee health are relatively similar, regardless of location. The major health issues for colonies are:

- Varroa;
- Pathogens such as Nosema, foulbrood, and viruses;
- Pests and other parasites: Asian hornet, *Aethina tumida* (small hive beetle), etc.
- Nutritional imbalances.

Supporting beekeepers in fighting diseases and maintaining honey bee health is crucial to ensuring the sustainability of beekeeping, maintaining global biodiversity, and protecting the economic value of apiculture. That is why Véto-pharma has been dedicated to honey bee health since 2012.
2. VÉTO-PHARMA: The honey bee health expert.

THE VÉTO-PHARMA STRATEGY: COMBINING COMMITMENT WITH STRONG AMBITION.

Véto-pharma’s development strategy links our commitment to honey bee health to our ambition to grow and support apiculture.

The results of this strategy give our small, but dynamic, company the power to innovate and serve the needs of beekeepers in 20 countries around the world.
The Véto-pharma team distributes its products to more than 20 countries worldwide, with sales outside France presenting more than 75% of revenue.

Véto-pharma controls the entire manufacturing chain of its products manufactured in France, and its range is recognized worldwide for its quality and high value.

Véto-pharma is now a major global player in honey bee health.
VÉTO-PHARMA
PAST, PRESENT, AND FUTURE...

1978
Creation of Véto-pharma
Its business is the marketing of veterinary pharmaceutical products.

2002
Apivar®, principal product in the Véto-pharma range
Véto-pharma begins distributing Apivar, a medicine that combats Varroa destructor, the principal honey bee parasite, while simultaneously continuing its pharmaceutical product sales business.

2002-2008
Market expansion
Growth in Europe – Spain, Italy, and Portugal.

2004
Introduction of Apivar in New Zealand

2008
Introduction of Apivar in Canada.

2009
Introduction of Apivar in Japan.
Response to the threat of the Asian hornet in Europe
Véto-pharma develops and makes available to French beekeepers one of the first Asian hornet traps. Today, this trap is recognized as the most effective one on the market.

2011
Apivar introduced in the Turkish market.

2012
A new milestone with the arrival of Apivar in the USA and the total reinvention of our strategy
• Arrival in the USA, a key market in the global beekeeping industry
After more than 4 years of development and a large investment, Véto-pharma obtains authorization to market Apivar in the United States, thus opening the doors to one of the largest beekeeping markets in the world.

• A company 100% dedicated to honey bees
This strategic decision is based on the firm convictions of the management team regarding the importance and necessity of creating a global expert in bee health. As a result, we reinvented our way of doing business, and strengthened our ambition to succeed.

Refocusing the company on international growth and innovative apiculture products required that we abandon non-apiculture-related activities that, in 2010, represented more than 50% of our revenue. This fact alone demonstrates our deep commitment to apiculture.

2013
The milestone is reached of having treated 5 million colonies with Apivar worldwide.
Acquisition of Apiten in Japan. Apiten is a medication used in treatment against foulbrood, and a leader in the Japanese market.

Introduction of Apivar in Afghanistan.

2014
Creation of Vétopharma US and a strong local commitment to the development of apiculture in France:
• Introduction of Apivar in Albania and Lebanon: The Véto-pharma range is now distributed in more than 20 countries worldwide.

• Launch of the NutriBee Propolis nutritional product range.

• Installation of a testing apiary with 150 colonies dedicated to Research and Development activities.

• Construction of Éva (Espace de Valorisation de l’Abeille, or honey bee valuation space) begins.

2015
Grand opening and inauguration of Éva
the “Espace de Valorisation de l’Abeille”, or honey bee valuation space.
Our Vision:
To be the leading apiculture player worldwide.

Our ambition is to be the number 1 global player in apiculture within five years. This will require continued expansion of our product portfolio and strengthening of our teams in Eastern Europe and South America.

By remaining loyal to our pharmaceutical heritage and upholding our values, we will grow by offering therapeutic tools to help beekeepers throughout the world combat Varroa, prevent disease, and maintain nutritionally sound colonies.

This goal presents a significant challenge that motivates every member of our team to achieve our mission:

To bring people and science together in the service of honey bees.
**Our Mission:**
To bring people and science together in the service of honey bees.

By combining our skills and values, our scientific expertise, and our technology resources, we create high-value products that support the beekeeping industry worldwide.

**Our Values:**

**Working toward a sustainable future**
The heart of our work in the service of honey bee health is, by nature, oriented toward sustaining development. At Véto-pharma, this value is a key part of our development strategy and our decision-making processes.

**Strong human convictions**
A company’s reputation is built upon the values of its men and women. The cohesion of our team is one of the major strengths of our company, which, despite the small size of its workforce, rises to meet significant challenges every day.

Each member of the team is recognized for his or her skill, personality, and convictions, which must mesh with those of the company. We do everything we can to give each member of our staff the ability to develop his or her full potential.

**Excellence and quality**
All of our activities are driven by our ongoing search for excellence and our unswerving commitment to developing the best products and services for honey bee health. Our status as a pharmaceutical laboratory requires high quality in our work, and we apply these standards of quality not just to our range of products, but to our internal procedures as well.

**Commitment**
Our internal and external relationships are based entirely on the team’s strong commitment to the success of our projects and the service of our clients:

- We are a dedicated team, proud of our values, mission, and the achievement of our objectives.
- We uphold a commitment to our clients and partners and, above all, to the apicultural industry, thus supporting its development and longevity.
3. **Our Products:**
An extensive, high-quality offering.

Initially focused on the market-leading product, Apivar, Véto-pharma’s range is growing every year. Development of additional new products is our core objective for the coming years.

We support beekeepers with comprehensive colony management tools based on three pillars of health:

- **Prevention**
- **Diagnosis**
- **Treatment**

Our efforts to enhance our product offering complement our guarantee of the highest level of quality, ensuring the safety of our products for honey bees, users, and consumers of beehive products.

These efforts include research and development of medicines (which typically require at least a five-year investment before marketing begins), and non-medicinal products (which typically require a three-year investment before marketing begins). We also bring other high value apiary products to market through distribution agreements with our global partners.
**VÉTO-PHARMA PRODUCT LINE**

**Today**

**MEDICINES**

**Apivar®:**
Developed and commercialized by Véto-pharma, Apivar is the current leading product for treatment against *Varroa destructor* in the world.

**Thymovar® and MAQS®:**
Véto-pharma distributes these anti-Varroa products in France, as well as in Spain for MAQS.

**Apiten:**
Apiten is a foulbrood treatment registered in Japan and the leading product on the market.

**NUTRITION**

**NutriBee® Propolis range:**
Feeding products based on propolis and natural plant extracts, created to help strengthen colonies and to support their vitality during the beekeeping season. Nutribee propolis is the fruit of 3 years of research and development.

**HiveAlive™:**
In many countries, Véto-pharma is the exclusive distributor of HiveAlive, an innovative complementary feed with a unique composition based on natural marine extracts, designed to support the intestinal comfort of honey bees and to strengthen colonies.

**PEST CONTROL**

**Asian hornet bait and trap:**
In the face of the threat posed by the Asian hornet in France and across Europe, Véto-pharma has developed a specially-designed device to attract and trap Asian hornets, thus protecting threatened colonies.

**And tomorrow...**

**BROADENING OUR ANTI-VARROA RANGE:**
We hope to offer a wide range to meet beekeepers’ for good apicultural practices, enabling them to put in place an integrated anti-Varroa effort involving both conventional and biological methods.

**BROADENING OUR NUTRITIONAL RANGE:**
In the faces of issues having to do with the lack of natural resources to ensure the nutritional balance of colonies, and with problems related to the pollination of certain cultures, our team believes that nutrition is a key axis for collaborating in the global maintenance of colony health. Thus, enriching our nutritional range is one of our principal objectives for the coming years, beginning with a protein-based product to support colony development.

**TARGETING OTHER DISEASES:**
While varroatosis is the principal disease affecting colonies today, other diseases such as nosemosis and foulbrood are silent dangers that work together each year to reduce the world’s apicultural stock. Ensuring the availability of Apiten in other markets and finding sustainable solutions for these two diseases are among our key objectives in the long-term enlargement of our product range.
4. Development,
Innovation is the engine of our business.

Around **6%** of our revenue is invested in **R&D**, so that we can bring new solutions to the various issues facing the apicultural industry.

Our Research and Development approach is based on the support of both our internal experts and external partners:

- Our technical team brings its expertise to the development of medications for honey bees, and benefits from an R&D laboratory belonging to Véto-pharma and a testing apiary.

- We collaborate with multiple technical and scientific experts who are deeply involved in honey bee health worldwide, via national and international partners working to develop new solutions for the apicultural industry.
Composed of 150 colonies that play a key role in the development of our product range, our testing apiary is located only a few kilometres from the pharmaceutical facility where part of our apicultural range is produced.
An apiculture researcher and technician, who is also a doctor in pathology, toxicology, genetics, and nutrition, has joined our team to care for the colonies and manage testing protocols.

His knowledge of apiculture, together with his scientific expertise, are a major asset in the creation of a dynamic and expert research and development program. He also works in tandem with the Véto-pharma technical department.
5. OUR COMMITMENTS:

At Véto-pharma, we believe a successful business grows on more than the strength of its profits. In our case, it demands on-going investment in, and a commitment to, all aspects of apiculture.

At the heart of Veto-pharma’s strategy are three objectives: protect and empower apiculture to support beekeepers; increase awareness of the importance of honey bees’ survival; and emphasize the role of honey bees in biodiversity. All our efforts, and the partnerships to which we are committed, are designed to help us meet those objectives.

For more information: www.vetopharma.com

VÉTO-PHARMA PROJECTS

- "Espace de Valorisation de l’Abeille Véto-pharma," or Véto-pharma honey bee valuation space,

combines a collective honey extraction plant and an educational space near the facility where Véto-pharma products are manufactured. This vast program is intended to bring new energy to a region surrounded by woods and livestock farming, where apiculture is practiced less and less. Véto-pharma’s investment in EVA helps promote and enhance the value of beekeeping and support its development and sustainability.
Programme Parole d’Apiculteur, or Beekeeper Interaction Programme:

The Beekeeper Interaction Programme is a Véto-pharma initiative to promote the exchange of technical knowledge among beekeepers and honey bee experts on various themes of the apicultural industry, and to involve participants in its research and development activities.

For more information: www.parole-apiculteur.fr

Distribution of melliferous seeds:

With the aim of supporting beekeepers in the face of shrinking plant diversity, Véto-pharma has implemented a long-term programme to distribute packets of melliferous, or nectar-producing, seeds at various events as well as via various partnerships.
Varroa destructor is an acarid present in the vast majority of colonies in the world. Varroa subjects adult honey bees and their broods to attacks, including:

- Physical injuries
- Spoliator (regular taking of hemolymph, the bee’s nutritive liquid)
- Disruption of behavior
- Vector (inoculation with viruses and other infectious agents).

These actions are generally harmful to both individual and collective immunity, all the more so as it is known that Varroa infestation interacts with other agents stressful to the colony.

The presence of Varroa destructor causes a reduction in honey bee lifespan proportional to the rate of infestation, which is particularly problematic in winter since adult honey bees that were parasitized during their development will not be able to survive the cold period successfully and contribute to the growth of the colony in spring.

A study published in 2010¹ (Yves Le Conte, Marion Ellis, and Wolfgang Ritter) shows that an infested, non-treated colony may die in a period of between 6 months and 2 years. This time is determined not only by the capacity of the Varroa to reproduce in the brood, but also by pressure from neighboring hives.
A high density of honey bees combined with a severe Varroa infestation increases the speed of death of the colony (Ritter et al., 1984). As a result, failing to treat certain colonies may endanger one or more populations. Regular Varroa treatments not only to control infestation in the treated colony, but also limits the impact on neighboring apiaries and on the apicultural population in general.

Controlling Varroa is critical for sustainable apiculture, but there are few tools available to beekeepers and many are not well-suited to the task. Experts are convinced that implementing an integrated fight against this parasite is essential. This means giving prescribers and beekeepers the opportunity to adapt treatments and controls to fit each situation. That requires beekeeper training; effective and practical diagnostic tools; and the more authorised, effective, and safe treatments.

**BIBLIOGRAPHICAL SOURCES:**
Varroa mites and honey bee health: can Varroa explain part of the colony losses?, Yves Le Conte, Marion Ellis and Wolfgang Ritter, Apidologie 41 (3) 353-363 (2010) DOI: http://dx.doi.org/10.1051/apido/2010017