BOTANICAL
EXPERTISE
Pierre Fabre

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A certified* approach
for the responsible development
of innovative, safe and effective,
plant-based active ingredients

*EFQM European Label

BOTANICAL
EXPERTISE
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BOTANICAL EXPERTISE PIERRE FABRE: A CERTIFIED APPROACH* FOR THE RESPONSIBLE DEVELOPMENT OF INNOVATIVE, SAFE AND EFFECTIVE, PLANT-BASED ACTIVE INGREDIENTS

Our Group, Pierre Fabre, has always explored and used plants as we are convinced of their potential for health and beauty. We have implemented a unique approach to contribute to the conservation of plant resources and to meet our innovation, safety, supply and quality objectives for plant-based active ingredients.

This approach, called Botanical Expertise Pierre Fabre, is about the development of plant-based active ingredients from the research on plants and their key components to their culture, their extraction and the use of their extracts in our product formulas. Part of a virtuous circle, development is organized around four key principles: innovate, guarantee, preserve and respect. This process has been recognized by the EFQM* European label granted by AFNOR. This certification assesses both quality and sustainability.

*EFQM (European Foundation for Quality Management) European certification

Preserve

Sustainable preservation of botanical heritage and biodiversity, both sources of benefits – whether known or yet to be discovered – for the health and beauty of all.

Respect

An approach that respects our partner farmers, growers and suppliers, contributing to the sustainable development of our sourcing regions and their communities.

Guarantee

Scientifically proven effectiveness of our plant-based active ingredients, combined with high standards of quality and safety resulting from our pharmaceutical culture.

Innovate

Cutting-edge research on plants, bringing together the complementary expertise of botanists, agronomists, biologists and pharmacists who are passionate about the benefits of the plant world.

Innovate
Guarantee
Preserve
Respect

Cutting-edge research on plants, bringing together the complementary expertise of botanists, agronomists, biologists and pharmacists who are passionate about the benefits of the plant world.

Plant-based active ingredients are discovered primarily through in-depth knowledge of the plant. Our botanists either already possess or develop this knowledge. Once the plant has been identified, our researchers conduct tests on its biological activity. If activity is proven, they isolate the molecules responsible for the activity. They then define an extraction process that ensures consistent content of active molecules. Our agronomists then select the most suitable variety, characterize its agronomic behavior and define the optimal conditions for cultivation.

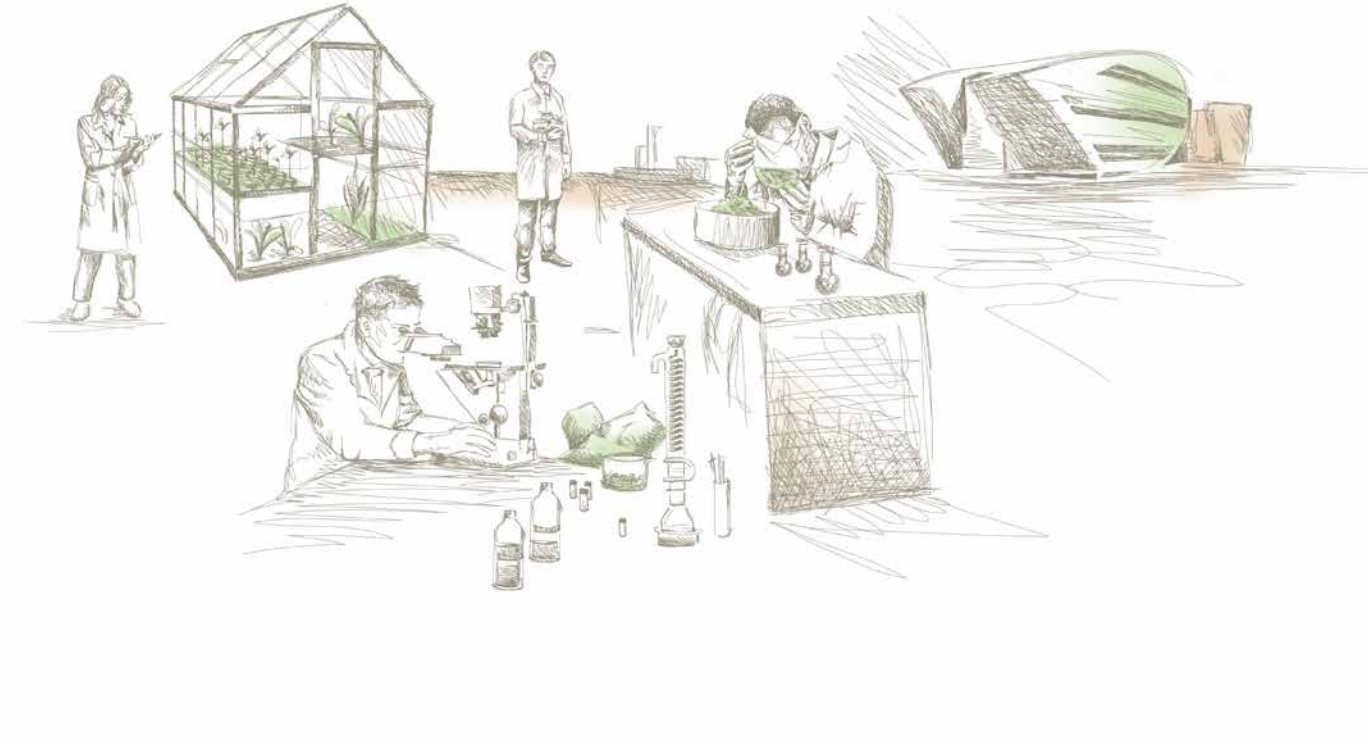
BRUNO AND ANTONIO, RESEARCHERS, IN OUR COLLECTION OF PLANT SAMPLES

JEAN-GABRIEL, BOTANIST, EXPERTISE OF AN HERBARIUM

MATHIEU, RESEARCHER, OPERATION TO CONCENTRATE AN ACTIVE INGREDIENT

Photos: © Damien Cabrol

Innovate



Innovate
Guarantee
Preserve
Respect

Scientifically proven effectiveness of our plant-based active ingredients, combined with high standards of quality and safety resulting from our pharmaceutical culture.

Every crop is meticulously monitored to ensure the traceability of the plant batches and the safety of our supplies. Our partner farmers and suppliers are audited at least every 4 years.
Our production facility for active ingredients is located in Gaillac, in the Tarn region. It is ISO-14001 certified and its quality system is evaluated by the FDA (Food and Drug Administration).
Numerous tests are conducted to validate an active ingredient's activity. In the pharmaceutical industry, this information is essential for obtaining a marketing authorization (MA).
Each plant and each active ingredient are checked at every stage in the manufacturing process. At the Gaillac facility, an average of 6 checks are conducted on a plant used in dermo-cosmetics, and 21 on a plant used in pharmaceuticals. An average of 9 checks are conducted on an active ingredient used in dermo-cosmetics, and 11 on an active ingredient used in pharmaceuticals.

© Sipa/Florence Durand

EFFICACY TESTING ON SELECTED PLANTS

© Arnaud Späni

CHECKING DEVICE DEVELOPED BY OUR RESEARCH TEAMS TO MEASURE THE CONTENT OF ACTIVE INGREDIENTS IN OAT PLANTLETS

© Damien Cabrol

GAËL, PRODUCTION AREA SUPERVISOR, INSPECTS THE PARAMETERS OF A PLANT EXTRACTION

Guarantee

Indica

Almost
18,000
plant samples
are used in our research programs, the largest private collection in the world

3 to 5
new plant-based active ingredients
are developed each year

Innovate

Our plant-based active ingredients come from over
230 different plants

100%
of our supply chains are controlled, including over
90%
of these by supplier audits

Guarantee

11 checks
are carried out on the *Serenoa repens* and 19 on its extract forming part of the composition of our product Permixon®

We cultivate crops on our own land on
200 hectares
in France

Photo: © Arnaud Späni

ators

The CITES-approved Botanical Garden contains **700 species, 30% of which** are protected species according to the international lists in force

350 species are preserved at the Ranopiso Arboretum in Madagascar

Preserve

85% of our plant-based active ingredients are produced using **green solvents,** i.e. solvents of natural or renewable origin

In Madagascar, collecting of tropical Periwinkle has a significant impact on local employment: More than **1,000** jobs supported (Socio-economic impact study, Utopies in 2014)

Respect

100% of our suppliers are evaluated according to the principles of corporate social responsibility

4 of our supply chains are fair trade certified

Innovate
Guarantee
Preserve
Respect

Sustainable preservation of botanical heritage and biodiversity, both sources of benefits – whether known or yet to be discovered – for the health and beauty of all.

We focus on cultivating rather than collecting. When it is not possible to cultivate the plants we use, we define collection management plans to ensure the plant's sustainability and respect its life cycle. When cultivating crops, we strive to avoid the use of phytosanitary treatments, and have adopted organic farming as a solution for many of the plants used in the Group. On our farm in Madagascar, we created an arboretum and botanical garden open to schools and to the public. A forest area of 138 hectares was made into a voluntary protected reserve. This biotope, the only one of its kind in the world, is accessible to the local populations. An inventory of the flora in the reserve was conducted with the assistance of botanists from the French Museum of Natural History. To date, over 230 species have been recorded, including two previously unidentified species. This natural reserve was recognized in January 2018 as the leading voluntary private protected area by the government of Madagascar. In 2001, we created the Pierre Fabre Botanical Garden in the Tarn region, dedicated to research, protection and conservation.

© Arnaud Späni

RANOPISO ARBORETUM IN MADAGASCAR – OPEN TO THE PUBLIC

© Go Production/Xavier Cailhol

NATHALIE, A GARDENER AT THE BOTANICAL GARDEN, IN ONE OF THE THREE GREENHOUSES

© Arnaud Späni

RHEALBA® OAT FIELDS IN PUYLAURENS (TARN), GROWN IN ACCORDANCE WITH THE ORGANIC FARMING ("AB") FRAMEWORK

Preserve

Innovate
Guarantee
Preserve
Respect

An approach that respects our partner farmers, growers and suppliers, contributing to the sustainable development of our sourcing regions and their communities.

We aim to participate in the development of local economic activity, while controlling supplies in accordance with our quality requirements.
We work with farmers and growers at the actual price of production, not the market price. This system guarantees an income to farmers regardless of the hazards and risks associated with all agricultural production.
We are developing fair trade and organic farming networks under the official banner of quality.
In Burkina Faso, we have supported the development of our local partner by providing technical support and through the donation of a mechanical press, which eliminates the time-consuming manual churning step.
In Madagascar, our agronomists support the farmers involved in the cultivation and collection of tropical Periwinkle to optimize the quality and quantity of their production.
In the Tarn region (France), we work with our partner farmers on our own lands which are certified for Organic Farming ("AB").

SORTING OF SHEA NUTS – FAIR TRADE NETWORK – BURKINA FASO

ALEXANDRIE, AN EMPLOYEE AT THE SOCIAL ENTERPRISE REBOND, GATHERS CALENDULA CALYCES

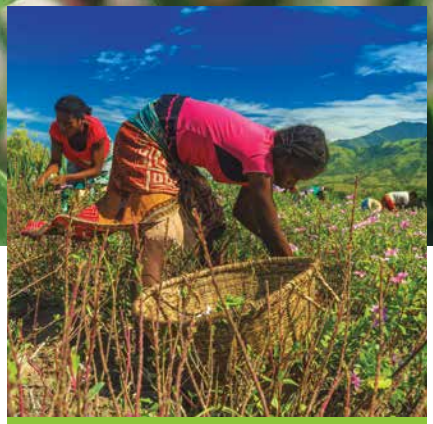
TROPICAL PERIWINKLE COLLECTION IN MADAGASCAR

Photos: © Arnaud Späni

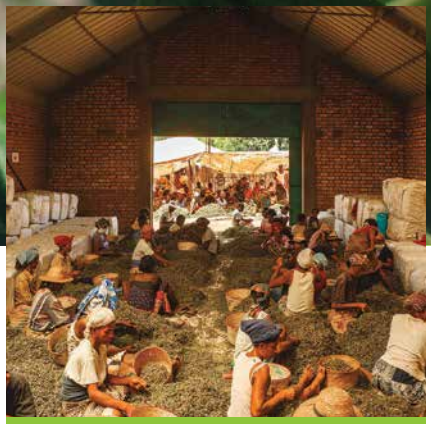
Respect

Tropical periwinkle

Tropical Periwinkle from Madagascar is used to produce the hemisynthetic alkaloids, vinorelbine and vinflunine, used in the treatment of a number of cancerous tumors and key ingredients in our cancer drugs, Navelbine® and Javlor®.



Our supply of Periwinkle leaves comes from the crops of about 100 partner farmers and from a group of pickers. This provides extra income for more than 2,000 families.



Our local farming company (SEAR) in Ranopiso received Ecocert's "Responsible For Life Company" certification for its economic, social and environmental actions.

Photos: © Arnaud Späni

Rhealba® Oat

Rhealba® Oat has anti-irritant and soothing properties and is the unique and exclusive plant-based active ingredient for A-Derma, the brand pioneer in plant dermatology.

© Pierre Fabre Laboratories – Laurent Galaup

Our researchers are interested in the Rhealba® Oat plantlet. The dermatological active ingredient content of this young plant peaks at twelve weeks of growth. These active ingredients have exceptional biological properties.

Rhealba® Oat is mainly grown on our own land in the Tarn region according to the organic farming framework. Once grown, it is processed at our extraction plant before being sent to our end product manufacturing facility. Both plants are located near our growing fields in the Tarn region (France).

Argan tree

Native to the Souss Plain, the Argan tree is an important resource for the southern Moroccan region. The Argan oil used by the brand Galénic in their Confort Suprême range and by René Furterer in their Karinga range, is produced from its nuts.

We obtain our supply of argan oil through Moroccan women's cooperatives as part of a certified organic farming and fair trade network.

Shea

The fruits of the Shea tree, which grows in Africa, are used to produce shea butter and oil. These active ingredients are at the heart of the René Furterer brand's Shea hair care range.

The René Furterer brand sources most of its Shea butter from Burkina-Faso as part of a certified organic farming and fair trade network.

Photos: © Arnaud Späni

Dwarf palm

The Dwarf palm, botanically known as *Serenoa repens*, is endemic to Florida. It is used in Permixon®, a drug prescribed in urology.

Plant waste generated during Serenoa repens extraction is used as a renewable energy source in a biomass boiler which supplies the Group's main dermocosmetic industrial site.

Moringa

Adapted to the climate of south Madagascar, *Moringa oleifera* is a legendary tree, with the nickname "tree of eternity". Able to survive in a hostile environment, it also has numerous nutritional and medicinal properties. The oil from its seed is used as an active ingredient in the Karinga range by René Furterer.

Moringa seeds are cultivated in Madagascar using organic farming methods by a supplier who has received "For Life" certification from Ecocert for its contribution to the challenges of sustainable development. Moreover Moringa farming is promoted in the south of the island to encourage farmers to use *Moringa* leaves as a vegetable with exceptional nutritional properties. This helps to fight against malnutrition.

Helichrysum

"*Helios*" the sun, "*Khrusos*" gold...
As its Greek name suggests, Helichrysum owes its name to its bright and warm yellow color. Emblematic of the island of Corsica, it is highly sought after for its soothing and regenerative properties. Italian Helichrysum is now marketed by Naturactive in the form of an organic essential oil.

In 2014, in accordance with our Botanical Expertise Pierre Fabre approach and to secure the supply chain for the Naturactive brand, we decided to start cultivating Italian Helichrysum on our lands, in Lavaur, in the Tarn region (France).

Helichrysum is grown according to organic farming standards on a High Environmental Value certified farm. In 2018, more than 10 hectares were dedicated to this crop in the Tarn.

Photos: © Arnaud Späni

Flax

We have selected Flax, a light and delicate plant rich in mucilage, a substance that gives hair natural support and volume. Used by the Klorane brand in a hair care range, we grow it in the Tarn region according to organic farming standards on a High Environmental Value certified farm.

Klorane flax helps to preserve the balance of ecosystems because it respects nature's rhythms and has minimal growing requirements. Flax seeds grown for Klorane are integrated into the brand “Bio Sud-Ouest France” to highlight its short distribution channel.

Flax production enters the virtuous circle of the circular economy. 100% of the plant is used. The seeds are extracted in our Gaillac (Tarn) facility according to the principles of green chemistry, which only uses water as a solvent. Flax straw being assessed in a development project by a local firm for use as a sustainable insulation material.

Butcher's broom

Butcher's broom or *Ruscus aculeatus*, is a common regional evergreen subshrub. It is used in the Group's first drug, Cyclo 3®, marketed by Naturactive. It is also used in consumer health care by Pierre Fabre Health Care and in dermo-cosmetics by Eau Thermale Avène.

The plant, which cannot be cultivated, is derived from collections on diversified and identified areas. A rotation of the collections is organized every 3 to 5 years on each zone, limiting the impact of the harvest and securing the supply chain. 100% of collectors are regularly audited according to Good Agricultural and Collection Practices (GACP).

Myrtle

Known since ancient times for its medicinal qualities, myrtle is used in cosmetics for its astringent, refreshing, anti-inflammatory and cleansing properties. Originally from the Mediterranean basin, myrtle is incorporated into many products from the Ducray, Eau Thermale Avène, Klorane and Elgydium brands.

To meet the needs of these brands, a specific supply chain has been established in Morocco with a supplier that has diversified its activities and 40 associated pickers. A period of two years between each collection on the same zone is respected in order to perpetuate the species.

Photos: © Arnaud Späni

Desert Date

The desert date is a small thorny tree which is common throughout the Sahel region. Its dates are used to extract an active ingredient used by the Klorane brand in a hair care range for dry hair. This extract is produced in our Gaillac facility in the Tarn region (France).

© Great Green Wall – Klorane Botanical Foundation - Arnaud Späni

© Great Green Wall – Klorane Botanical Foundation - Arnaud Späni

About 170 women pick the dates over an area of almost 100 hectares, which is certified organic, thus creating an additional source of revenues. This supply chain is fair trade certified in accordance with the Fair For Life Ecocert standard.

Pfaffia

Pfaffia or Brazilian Ginseng, which is part of the Amaranthaceae family, is an herbaceous perennial plant native to Brazil, used to combat fatigue, sleep disorders and stress. The René Furterer brand extracts an active ingredient from the roots for use in the hair care ranges to prevent hair loss.

The cultivation of Pfaffia is certified as organic farming. The local ginseng producers' association commits to only working with small-scale growers to improve their standard of living. The upper part of the plant is used as livestock feed. This supply chain is fair trade certified in accordance with the Fair For Life Ecocert standard.

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A certified approach for the responsible development of plant-based active ingredients to benefit Pierre Fabre Laboratories' brands and products

Pierre Fabre

A-DERMA AVOINE RHEALBA® · EAU THERMALE Avène soothing by nature · DUCRAY · SPA RENÉ FURTERER PARIS · GALÉNIC PARIS · LABORATOIRES KLORANE L'ÂME BOTANIQUE · naturactive LABORATOIRES PIERRE FABRE · Pierre Fabre ORAL CARE

Cyclo3Fort · Permixon · Javlor vinflunine · NAVELBINE® Oral vinorelbine

To find out more about the approach: ***www.botanical-expertise.com***

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