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President's Message

Another year has passed and the Fund continues its work. Many positive developments in 2024 reinforce our motivation for 2025.

Sustainability is an important issue. It is clear that ambitious projects require long-term implementation. Today, we see great value in a multi-year commitment that better matches our work cycles.

Our donors remain loyal and interested, supporting us beyond their donations through their active participation and interest in our Provençal lavender. This support allows us to plan for the long term and implement our actions.

Above all, it is through their vision that their participation enriches our thinking and, at times, even challenges it significantly.

The market situation remains difficult for producers, and we understand that this is not a favourable time for disruptive innovation.

However, do we really have a choice?

It is through a better understanding of all stakeholders and issues, and by combining our skills, that solutions will emerge.

Collaboration with the lavender industry, which comprises a whole host of organisations, has been strengthened. In 2024, we have begun supporting research into a pest, the cecidomyie, at the explicit request of the Comité Interprofessionnel des Huiles Essentielles Françaises (CIHEF) and producers. We will be stepping up this support significantly in 2025.

I would like to end by expressing my sincere thanks to all our donors and technical partners. We are therefore entering 2025 full of ideas and partnerships...



Who Are We?

INTRODUCTION AND MISSION

Created in 2012, the Safeguarding Lavender Heritage Endowment Fund in Provence (SPLP) is intended to finance research and experimentation programs in ordeer to find ecological solutions for the preservation of lavender.

Our mission: raising funds to adapt production methods to current climate, environmental and societal challenges.



The Fund's actions are structured around three main areas of focus:

- Environment: improving environmental impact and developing agroecological practices;
- Fundamental research to address societal issues, such as regulatory requirements;
- · Combating diseases and pests.

GOVERNANCE

The Endowment Fund is administered by a Board of Directors comprising representatives from all stakeholders in the sector: **producers**, **manufacturers** and **indirect beneficiaries** (beekeeping and tourism).

In 2024, the SPLP Endowment Fund Board of Directors met 3 times: on 20 February 2024, 18 June 2024 and 14 October 2024. The composition of the Board of Directors as at 18 June 2024 is available in Appendix 1.



Key Highlights 2024



TOTAL DONATIONS : 146 378€



3 CURRENT PROGRAMS

ENVIRONMENT

GREEN & LAVANDES PROGRAM

Reduction in carbon footprint

Continued investigation into possible distillation processes → report available on request



Agroforestry

Support for the **CANOPPAM project**, led by ITEIPMAI*, which studies the impact of shade and agroforestry on lavandin cultivation.

Plant covers

Provision of seeds for **220 hectares and more than 30 producers**, and professionalisation of the scheme → *report available online*

Support for the **COUVIVER program**, led by CRIEPPAM**, which aims to **increase** winter plant cover in lavender fields.



FUNDAMENTAL RESEARCH

ANTIGONE PROGRAM

Assessment of organic compound emissions from lavender

First year of PhD and first field measurements in summer 2024.

Setting up the scientific committee

PEST & DISEASE MANAGEMENT

RESEARCH ON "CECIDOMYIE"

Support for the AT CECIDO research project led
by CRIEPPAM* and ITEIMAI**





OBJECTIVES

GREEN & LAVANDES, launched in 2019, aims at improving the environmental impact throughout the entire life cycle of lavender and lavandin, right up to the production of essential oil.

The program promotes agroecological practices, such as cover crops and agroforestry, and seeks solutions to reduce fossil fuel consumption during harvesting and distillation.

The first phase was carried out over three years from 2020 to 2022. The second phase of the program, covering 2023 to 2026, is currently underway.





GOVERNANCE

The program is overseen by a steering committee, which brings together donors and volunteer board members (CHANEL, L'Occitane, Territoires de Provence, the Givaudan Foundation and producers).

The steering committee met on 12 March 2024 and 12 September 2024. In addition to monitoring the projects, the committee has established indicators for monitoring and steering the program



Distillation



Quality product

CULTIVATION: DEVELOPMENT OF PLANT COVERS

One of the flagship initiatives of Green & Lavandes is to adapt agricultural practices by promoting the development of cover crops in lavender fields.

Cover crops offer multiple benefits: improved soil fertility and structure, erosion control, reduced impact of decline disease, mitigation of the effects of climate change, etc.

Despite these benefits, winter cover crops are still not widely used in lavender cultivation.

"Seeds Project": Improving and sustaining the supply of seeds for plant covers for lavender growers

Since 2020, the Endowment Fund has been providing lavender and lavandin growers with a diverse mix of seeds suitable for cover crops at very competitive prices.

Objective of the initiative: to remove financial barriers and facilitate the rollout of the practice

Until 2023, this approach was based on the voluntary participation of a few farmers and only allowed seeds to be supplied for small areas and a small group of insiders.

In 2024, the Fund established a new, more sustainable organisation to improve the availability of seeds for cover crops:

- Definition of the composition of the diversified seeds mixture with technical support from CRIEPPAM and the Chambers of Agriculture of departments 04, 26, 83, AGRIBIO04 and the Verdon Regional Nature Park.
- Establishment of a partnership with the Perret-Prodia group.
- **Strong promotion of the operation** by partners in the sector.
- Distribution of bags of seeds upon order in Perret/Prodia shops throughout Provence from June/July 2024.
- First bag free, second bag €20 excluding VAT (compared to around €76 for conventional seeds and €102.50 for organic seeds).



CULTIVATION: DEVELOPMENT OF PLANT COVERS

37 producers and partners

220 hectares of lavenders with plant covers



Report on the operation available online



The initiative was generally very well received by producers.

According to the satisfaction survey conducted,

- producers were generally satisfied to very satisfied with the scheme;
- the cost of €20 per bag excluding VAT was considered acceptable by the majority of them;
- however, some difficulties were encountered in certain shops that were not properly informed about the scheme.



CULTIVATION: DEVELOPMENT OF PLANT COVERS

Support to COUVIVER program "Deploying winter cover crops in lavender cultivation systems"

Objective: **to increase winter cover crops** among lavender growers

This program, led by CRIEPPAM, began in 2023 and will run for 3.5 years.

Other technical partners: Chambers of Agriculture of departments 04, 26 and 84, Agribio04 and the Verdon Regional Nature Park, GIEE essensol

The project is approximately 80% funded by public grants. The Endowment Fund thus supports part of the costs not covered by these grants.



The project is divided into 3 actions:

Action 1 : Optimise technical itineraries including winter plant cover (choice of species and date of destruction) in order to remove technical obstacles.

Trials conducted in 2024 on five plots belonging to producers.

- Cover crop sowing: preferably in late August/early September, ideally before rainfall.
- Yield: no significant difference between mid-March destruction and no cover crop.
- Density: sparse sowing encourages weeds to be avoided.
- Species: grasses (e.g. rye): productive but must be destroyed early to avoid negative impact.
- White mustard, Narbonne vetch, fodder radish: very good results.
- Diverse mix (such as that from the SPLP Endowment Fund) recommended for effective coverage throughout the season.

Action 2: Demonstrate the agronomic benefits of winter cover crops to producers through experience sharing and demonstrations. s

Achievements in 2024

- Four demonstration plots in the Alpesde-Haute-Provence, Vaucluse and Drôme departments, with 3 methods: bare soil, SPLP cover, cover chosen by the producer.
- 10 multiplication plots established on the farms of volunteer producers, mainly with the SPLP mixture.
- Results varied depending on practices; sowing was generally successful, with little competition from crops except in one case of decline.

Action 3: Expand this practice by capitalising on and disseminating technical and economic data, and study the possibilities for supplying seeds for winter cover crops.

In 2024, awareness-raising through four technical presentations (full-day or half-day) and several articles in L'Essentiel, a technical newsletter for lavender growers.

CULTIVATION: SUPPORTING THE DEVELOPMENT OF KNOWLEDGE AND PRACTICES ASSOCIATED WITH AGROFORESTRY

Support for the CANOPPAM research project
'Physiological and metabolic responses of PPAMs produced under agroforestry shade in a
context of climate change'



Context

Climate change will force producers in all agricultural sectors, particularly the aromatic, medicinal and perfume plant (AMPP) sector, to adapt their production methods and cultivation practices.

Providing shade for crops could limit these stresses and make crops more resilient to climate change.

However, most cultivated AMFPs are not undergrowth plants, and their behaviour under shade and the associated technical and economic impacts remain unknown.

This program, led by Iteipmai, began in 2024 for a period of 3.5 years and is studying 3 plants, including lavandin.

Objectives

- Characterise physiological and metabolic responses to AMPP shading in drought conditions
- Assess the agronomic performance of PPAM under agroforestry shade and select the most suitable agroforestry systems
- Promote the adoption of agroforestry among producers

Achievements in 2024

- Commencement of a PhD (doctoral thesis) studying controlled shading using shade structures at the experimental station.
- Selection of agroforestry plots, including a lavandin cultivation plot.
- Establishment of the steering committee.

The project is approximately 80% funded by public grants. The Endowment Fund thus supports part of the costs not covered by these grants.

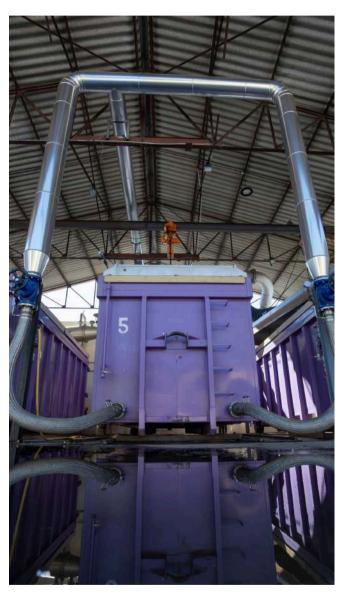
HARVESTING: DEVELOPMENT OF THE ESPIEUR, A TECHNOLOGY THAT ALLOWS ONLY LAVENDER AND LAVANDIN FLOWERS TO BE HARVESTED.

- Continued monitoring of the development of a new prototype designed by a lavender producer, offering a higher forward speed than current technologies. As the tests carried out in summer 2024 were inconclusive (incomplete flower harvest), the prototype will be modified again during winter 2024/2025 and new field tests are scheduled for summer 2025.
- Contact has been made with Clier, the company that put the first single-row Espieur into production (currently around 20 machines in operation), to assess the feasibility of a 3-row Espieur without changing the technology.





DISTILLATION: INVESTIGATIONS INTO TECHNOLOGIES THAT REDUCE CARBON IMPACT



Two types of solutions were investigated:

- **Ecovaporisers**, which reduce gas consumption by recovering energy from the process.
- Replacing fossil fuels with energies such as biomass, concentrated solar thermal or photovoltaic energy.

Ecovaporisers

Two types of processes are available:

- Mechanical Vapor Recompression (MVR): an ambitious process that saves 90% of the energy used in distillation (COP (coefficient of performance) between 10 and 15), but there is no equipment available on the scale of essential oil distilleries.
- Thermal Vapour Recompression (TVR), Venturi ejector: initiated around ten years ago by CRIEPPAM, this technology only achieves 50% energy savings, but the system is proven, simpler and less costly in terms of investment.

Despite the appeal of the significant energy consumption reduction (90%) offered by MVR technology the technical obstacles cannot be easily overcome and the investment, estimated at a minimum of €350,000, remains substantial.

It therefore seems necessary to re-examine TVR technology, which would enable a 50% reduction in energy consumption.

An estimate of the investment and the sizing of a TVR eco-evaporator for a pilot project with a 6m3 tank and an average distillery would be a good start.

DISTILLATION: INVESTIGATIONS INTO TECHNOLOGIES THAT REDUCE CARBON IMPACT



Other technologies

Concentrated solar thermal and photovoltaic energy have also been investigated as alternatives to natural gas for powering the steam boiler, using renewable energy instead.

In both cases, technical obstacles and significant investment (around $\in 3$ million) have been identified.

Nevertheless, other technologies (such as biomass boilers) are worth exploring further.

A summary of this work is available on request from the Endowment Fund.



ANTIGONE

CONTEXT & OBJECTIVES

Essential oils, particularly lavender and lavandin oils, are subject to increasingly stringent European regulations, which were initially designed for synthetic substances.

These rules generally do not take into account the complexity of essential oils, which are rich in Volatile Organic Compounds (VOCs) naturally produced by plants. As part of the European Green Deal, these regulations are on the process of being revised.

It is therefore essential to take into account specific adaptations for natural products..



ANTIGONE (Assessing volaTile orGanic cOmpound from lavEnders) aims to generate new and robust scientific data that will enable the characteristics of natural products to be better taken into account in current and future regulations.

ANTIGONE aims to qualify and, above all, **quantify the emissions of volatile organic compounds** emitted by lavender and lavandin fields.



ANTIGONE

GOVERNANCE

The Nice Institute of Chemistry (Nice Côte D'Azur University) has been hosting a PhD since December 2023, co-financed by the South Region and the Endowment Fund.

The project is coordinated by:

- A monthly steering committee, which brings together representatives from the Nice Institute of Chemistry, the Endowment Fund and the MANE company.
- A scientific committee, which meets twice a year and brings together members of the monthly steering committee, representatives of CHANEL and the Mediterranean Institute of Marine and Terrestrial Biodiversity and Ecology (IMBE).
- An **annual follow-up committee**, which presents all the project's progress and prospects and brings together all the project partners.

ACHIEVEMENTS 2024

The first year of the PhD enabled us to:

- Work on developing a method for sampling and analysing volatile organic compounds;
- Take samples over a five-week period from four lavandin producers in Provence;
- Qualitatively identify several compounds of interest:
- Highlight changes in volatile organic compound emissions throughout the day.

<u>A summary of the work carried out in 2024 is</u> available <u>on line</u>



Research on "Cecidomyie"

CONTEXT & OBJECTIVES

In recent years, the lavender industry has been facing massive attacks from a pest known as the cecidomyie.

The damage caused by cecidomyie exploded in 2021 and increased exponentially in 2022 and 2023. This damage is cumulative from year to year and leads to early harvesting (reducing the crop's lifespan by 1 to 3 years).

The loss of harvest combined with the reduction in lifespan results in production losses of over 50% across the entire crop.



The current technical impasse in managing this pest poses a serious threat to the iconic lavender and lavandin crops, as well as to the economy of the sectors concerned.

Faced with this critical situation, the industry has mobilised to develop a new damage management strategy, requiring in-depth research into the biology of the pest.

The aim of the research projects is to improve knowledge of the gall midge throughout its life cycle in order to identify alternative and effective control solutions for farmers.



Research on "Cecidomyie"

GOVERNANCE

ITEIPMAI* is responsible for overall coordination, while CRIEPPAM** is the main technical partner for the two research projects, AT CECIDO and CECILAV.

INRAE*** Sophia Antipolis and CIRAD**** are technical partners on the CECILAV project.

The projects are approximately 85% funded by public grants. The Endowment Fund thus supports part of the costs not covered by these grants.

ACHIEVEMENTS IN 2024

The research work is conducted in two stages:

An initial phase of collective reflection: the 'AT CECIDO' project, launched in mid-2023 and scheduled to last one year, is studying the various possible avenues for research and experimentation.

RESULTS OF THE AT CECIDO PROJECT

- Compilation of French and international scientific literature on the issue of cecidomyie, freely available online on the ITEIPMAI website: www.iteipmai.fr
- Preparation of a survey framework for producers to obtain the most informed feedback possible from the field. The survey will be implemented as part of the second CECILAV project.
- Identification of a group of national and international experts and professionals working on the issue of cecidomyie in different crops.

https://iteipmai.my.canva.site/symposium-cecidomyies.



Second phase: setting up and implementing the CECILAV research project based on the lessons learned in the first phase.

CECILAV, launched in October 2024 for a period of 3.5 years, is structured around five actions:

- Action 1: Study of the biology of the cecidomyie
- Action 2: Role of varietal factors and agricultural practices in the degree of cecidomyie infestation
- Action 3: Study of natural enemies in relation to agricultural practices, via a panel of monitored plots
- Action 4: Evaluation of control solutions through laboratory and field trials
- Action 5: Management, coordination and promotion.

[&]quot;Institut technique interprofessionnel des plantes à parfum, médicinales, aromatiques et industrielles

[&]quot;Centre régionalisé interprofessionnel d'expérimentation en Plantes Aromatiques et Médicinales

[&]quot;Institut national de recherche pour l'agriculture, l'alimentation et l'environnement

^{····} Centre de coopération internationale en recherche agronomique pour le développement

Other Actions

COMMUNICATION

Various measures have been implemented to improve communication about the Fund's missions and the actions it supports:

- · Update of the fund presentation film, available in French and English
- Two photo reports, one on lavender in general, the other focusing on plant covers
- Creation of the English version of the website: https://www.sauvegarde-lavandes-provence.org/en/
- Improvement of all the Fund's visuals (activity report, greeting cards, etc.)
- Updating the Fund's presentation brochure in French and English
- Organising an extended Board of Directors meeting on 18 June 2024, bringing together all
 patrons and partners, at the premises of a patron company, BONTOUX SA.



2024 Presentation Leaflet



Annual meeting of the Fund 2024

Other Actions

APPLICATION UNESCO



The Provençal lavender and lavandin sector wishes to have the 'Cultural Landscapes of Lavender' included on UNESCO's World Heritage List.

As a first step, the association responsible for this project, the Maison du Patrimoine Culturel Lavandicole de Provence (Provence Lavender Cultural Heritage Centre), is seeking to have the cultural landscapes of lavender included on the Tentative List of French properties. This national recognition is essential before any proposal for inclusion on the UNESCO World Heritage List can be made.

The application for inclusion on the Tentative List of French properties is expected to be submitted in 2026 for approval by the Ministry of Culture.

The Endowment Fund is monitoring the progress of this application as administrator of the association and participated in the Board of Directors meetings on 22 March and 7 October 2024 and the General Assembly on 13 June 2024.



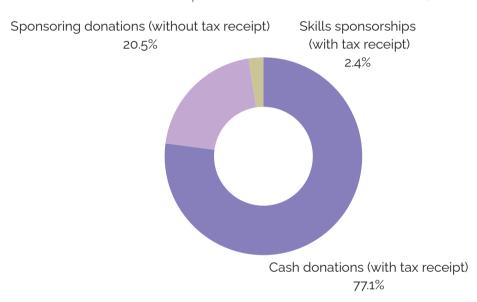
Financial Data

Total donations received (tax-deductible donations and sponsorship donations) amounted to €146,378 in 2024.

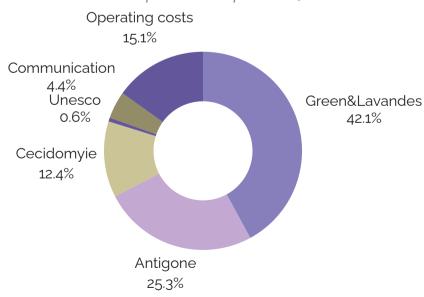
The activities financed by the Endowment Fund required expenditure amounting to €112,458 and contributions in kind corresponding to €3,546.

The surplus of donations received in 2024 will be used in 2025 to provide more substantial support for research work to combat the pest, cecidomyie.

Nature of donations received in 2024



Expenditure for 2024



Outlook for 2025

ENVIRONMENT PDOGDAM CDEEN&LAVANDES

Continued development of plant cover:

Provision of seeds, support for the COUVIVER program. Management of a training course to identify obstacles to the development of the practice.



Improving knowledge of agroforestry with continued support for the CANOPPAM project



ACADEMIC RESEARCH

Second year of PhD (doctoral thesis):

final development of sampling
and analysis methods
quantification of
volatile organic compounds of interest

Preparation of a poster and a scientific publication

PEST CONTROL
RESEARCH AGAINST CECIDOMYIE

Significant support for the CECILAV project led by CRIEPPAM and ITEIPMAI



To identify alternative control solutions to the pest "cecidomyie"

Our Donors

Patronage is defined as 'material support provided, without direct compensation from the beneficiary, to a work or person for the pursuit of activities of general interest'.

The Endowment Fund warmly thanks each of its donors, who support the Endowment Fund's actions in 2024 either financially or with skills sponsorships.

CHANEL

























Support Us

WHY BECOME A SPONSOR?

- Support initiatives related to sustainable development to preserve cultural heritage and iconic landscapes.
- Actively participate in governance by joining a program steering committee.
- Propose innovative ideas that drive action programs forward.



HOW CAN YOU SUPPORT US?

- Make a cash donation
- Make a donation in kind
- Set up skills-based sponsorship
- Set up a **solidarity product**: a product where a small portion of the price is donated to the Endowment Fund
- Set up a salary rounding scheme

Companies based in France, like individuals, can make donations: the amount donated will be eligible for a tax receipt allowing 60% of this amount to be deducted from corporation tax for companies and 66% for individuals.



Annex 1:

Composition of the Board of Directors

Board of Directors in 2024



Producers

AUBANEL Alain (Trésorier)
BOREL Bernard (Secrétaire)
CASSAN Benoît (Vice-président)
USSEGLIO Rudy
VERNET Denis

Industry

BAUSSAN Olivier GARRY Pierre-Philippe (Président) LHOMMET Jean-Charles LAVENU Yannick



Indirect beneficiaries

HASLETT Philip JOURDAN Pascal BERTUCAT Alexis



CONTACT

For any questions or if you would like to make a donation:

contact@sauvegarde-lavandesprovence.org www.sauvegarde-lavandesprovence.org



