AGRICULTURAL-FOOD EXCELLENCE

BY CIRAD

From the North to the South, our research nurtures your Performance

Companies, if you want to :

Improve your technical performance in connection with the sensory quality of your products

Optimise the functional properties of products during processes

Control the fermentation of food products

Manage microbial flows

Limit your post-harvest losses before marketing

We offer you our expertise

- Process implementation at the pilot scale
- Knowledge of food matrices in tropical and Mediterranean sectors
- Multidisciplinary approaches : food science and technology, processes, microbiology, etc.
- Specific or bespoke training courses
- Hosting your R&D department in our technical units

From the field to the consumer

we help you to overcome your technical and scientific obstacles

Sourcing and specifications ▶ Post-harvest technical process ▶ First processing of ingredients. Process improvement ▶ Understanding quality development ▶ Managing food quality and safety

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Our activities with companies

Product innovation

R&D assistance and state-of-the-art materials : Functional ingredients / new products / recipes / formulation / packaging / sensory and acceptability tests.

Process design

Analysis of the impact of processing stages (cooking, drying, dehydration, smoking, etc.) on the physical and nutritional qualities of food products; equipment design.

Quality and safety of food products

Identification of mycotoxin contamination mechanisms, microbiological analyses, reduction of health risks.

Environment

Reduction of environmental impact through process improvement, especially in contexts of the global South.

Qualisud Research unit, your dedicated contact

cirad LA RECHERCHE AGRONOMIQUE POUR LE DÉVELOPPEMENT — Montpellier SupAgro — Université Montpellier — Avignon Université — UR Université de La Réunion

Research laboratories in mainland France and french overseas departments

- **Cirad** / Montpellier
- **UM-Faculty of Science** / Montpellier
- **UM-Faculty of Pharmaceutical Sciences** / Montpellier
- **University of Avignon**
- **University of Guyana**
- **University of Reunion island**
- **Cirad** / Saint Pierre - Reunion Island
- **Cirad** / Guadeloupe

Modular unit International researchers around the world

- **Benin**
- **Ivory Coast**
- **Colombia**
- **Senegal**

+120 researchers and technical staff members

+15 collaborative projects per year

20 laboratories and technical units

UMR QualiSud

CUTTING-EDGE technologies to **REMOVE** technical obstacles

Agrifood technology platform

6 technical units

- Post-harvest technology
- Membrane separation
- Dehydration
- Clean room
- Cooking-smoking
- Modular unit

Micronutrients pharmacology laboratory

In vitro and *in vivo* models to **identify** the "health effects" of food products.

Aromatic compound analysis laboratory

Characterising aromatic profiles.

Biochemical analysis laboratory

Characterising nutritional compounds: vitamins, polyphenols, carotenoids.

Sensorial analysis laboratory

Appreciating the organoleptic specificities of food products and specifying consumer acceptability.

Molecular biology laboratory

Characterising the surface microbial ecology of food products.

X-ray microtomography laboratory

Exploring *in situ* changes to food products under the effect of heat and mechanical treatments during processing (cooking, crushing, etc.).

Other laboratories and equipment

- Analysis of nutritional compounds and contaminants
- Analysis aromatic compound
- Textural measurement of food products
- Spectral methods
- Microbiology
- Fermentation

A PARTNER FOR TROPICAL CROPS

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AGRICULTURAL RESEARCH FOR DEVELOPMENT

The French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions.

To take full advantage of the cross-cutting expertise of our research units, tell us about your problem.

AGRICULTURAL-FOOD EXCELLENCE BY CIRAD

A well-established approach

Express your needs → We identify the obstacles → We propose an R&D pathway → We study funding possibilities → We conduct R&D activities → We share results → We transfer solutions

A range of services and funding solutions adapted to each project

Research collaboration
Example > **Characterisation and understanding of a food product to validate the feasibility of your R&D project**
€ Cifre, CIR, UE-H2020

Knowledge integration
Example > **Developing the appropriate methodology for solving the company's problem**
€ FUI, Région, Feder, BPI

Transfer and training courses
Example > **Transfer of final research results (licensing) for industrialisation**
€ Licences

Our partners

BIOVAL OCÉAN INDIEN · CALISTER · CÉMOI CHOCOLATIER FRANÇAIS · Il était un fruit · LALLEMAND · Le Pain Autrement · les pruneaux d'Agen · NATUREX FROM NATURE TO YOU · Racines bio · SEB · VALRHONA

CONTACT

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UMR QualiSud

We support companies of all sizes in their R&D projects, from needs analysis to the development of integrated solutions

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Cirad is founding member of MUSE MONTPELLIER UNIVERSITÉ D'EXCELLENCE

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