

Agri-Food



France's leading industrial sector, agri-food, deals with the design, production, and marketing of food products deriving from agriculture, such as dairy products. Non-food crops are agricultural resources with other purposes, such as pharmaceutical, chemical, textile, or energy. These crops fall under specific branches of agro-industry.

France produces a wide variety of food products: gourmet foods, fruits and vegetables, sweets, prepared foods, cereals, dairy, meat and meat products, seafood, wines, beers, spirits, soft drinks, spring water, etc. The agri-food industry is composed of 9 product families: meat, fish, fruits and vegetables, dairy products, grain and starch products, baked goods and pastas, other food industries (chocolate, sweets), animal feed, beverages and alcohols.

The agri-food industry absorbs 70% of French agricultural production. Processing, conserving, and packaging food requires highly sophisticated technologies. Automated processes regulate output depending on the needs of the production chain. These require in-depth technical knowledge. Food safety is a critical component of all activities in the agri-food industry. Technological innovation and the growth of retail distribution have created a need for increasingly qualified personnel.

Academic programs in agri-food specialties require from two to six years of study leading to a technical certificate in agriculture (**B TSA**), a vocational Bachelor's-equivalent (**Licence professionnelle**), a Master's degree, or the professional title of Graduate Engineer. Programs are available in both French and English.

- **2nd** largest European food industry, after Germany, in terms of turnover
- **9.5%** of the French agricultural area is used for organic farming with the AB label

- **197,5 billion** euros in sales for the French agri-food industry
- **41.5 billion** euros in sales for the French agri-food industry

- **16,431** French agri-food companies
- **436,547** full-time equivalents in the French agri-food industry

Sources: French Ministry in charge of Agriculture
<https://agriculture.gouv.fr>

International

France is Europe's leading agricultural power. Its production exceeds that of its closest competitors (Germany and Italy) by €15 billion.

It ranks first in crop production (18% of all European production) and animal production (15%). It is the top producer, by value, of grains, forage crops, wine, apples, and livestock.

Organic agriculture in Europe occupies 13 million hectares, about 8% of all agricultural land. Spain has the largest share (17.3%), followed by Italy (15.7%), France (15.1%) and Germany (9.4%). Together, the four countries account for more than half of the land used for organic agricultural.

IGP, *AOP*, and *the Label Rouge* identify products and production conditions that vouch for quality. *IGP* signifies a protected geographic designation. *AOP* signifies a controlled designation of origin.

Held every autumn in Paris, *SIAL* (Global Forum for Food and Agriculture) is the world's largest event devoted to agri-food innovation with over 6,500 presenters from more than 100 different countries.

RELATED FIELDS

- Agriculture • Agronomy
- Aquaculture • Biology • Chemistry
- Earth and Space Sciences
- Ecology • Economics and Management • Enology
- Food Studies • Geography
- Health • Shipping • Veterinary Medicine • Viticulture

SUBFIELDS

- Agro-ecology • Animals
- Aquatic sciences • Biotechnologies
- Climate • Climate challenges
- Climate change • Earth • Ecological footprint • Eco-technologies
- Environmental engineering
- Environmental protection • Food
- Genetics • Global warming
- Horticulture • Hydrology
- Livestock husbandry • Natural habitats • Quality control • Sanitation
- Silviculture • Sustainable development • Veterinary sciences
- Water • Water management

Useful links

- Agreenium: www.agreenium.org
- Agreste (agricultural statistics, assessments, and outlooks): <http://agreste.agriculture.gouv.fr>
- APECITA (French association for managers, engineers, and technicians in the agricultural and agrifood industries): www.apecita.com
- Brevet de technicien supérieur agricole (BTSA) - short courses: <https://chlorofil.fr/diplomes/secondaire/btsa>
- Chlorofil: www.chlorofil.fr
- CIRAD (French Agricultural Research Centre for International Development): www.cirad.fr
- Educagri (Information et promotion des établissements publics agricoles): www.educagri.fr
- FNAB (French National Federation of Organic Farming): www.fnab.org
- FRANCE, Ministry of Agriculture and Food - Agri-food enterprises: <https://agriculture.gouv.fr/entreprises-agroalimentaires>
- FRANCE, Ministry of Agriculture and Food - Higher Education programs: <http://agriculture.gouv.fr/Enseignementagricole>
- France Agro3: www.franceagro3.org
- GLEN European program: <http://glen-europe.org>
- INRAE (National Institute of Research on Agriculture, Food, and the Environment): www.inrae.fr
- ONF (National Forest Office): www.onf.fr
- SIAL (Global Forum for Food and Agriculture): www.sialparis.fr
- UNREP (national rural union for education and promotion): www.maformationagricole.com

LEVEL Licence

BREVET DE TECHNICIEN SUPÉRIEUR (BTS)

NATIONAL DIPLOMA – 2 YEARS OF HIGHER EDUCATION – L2
120 ECTS credits

> The **BTS in Agriculture** offers several options that prepare students for specific jobs in the agri-food industry:

- **Food Sciences and Technologies;**
- **Agricultural, Biological, and Biotechnical Analysis;**
- **Technical-Commercial diplomas.**

Higher education programs in agriculture and a list of BTS programs in areas related to agriculture available here: <https://chlorofil.fr/diplomes/secondaire/btsa>

Options in agricultural production are offered by numerous *Lycées Agricoles* in specific areas: Viticulture-Enology, Livestock, Agronomy; Plant products, Aquaculture.

LICENCE PROFESSIONNELLE

NATIONAL DIPLOMA – 3 YEARS OF HIGHER EDUCATION – L3
180 ECTS credits

The **Licence Professionnelle** is a vocational Bachelor's degree, and may be earned in the following concentrations related to the agri-food industry:

- **Law, Economics, and Management** Agricultural and agri-food companies and trade: agrifood and agro-supply; international agri-food business; international marketing of agricultural and agri-food products (fruits and vegetables); agrifood logistics and marketing; consulting for livestock co-ops), **agri-food industry**: promotion of certified local products, **logistics**: international supply chain management for agri-food products.
- **Sciences, Technology, and Health in Agronomy** Management of rural agricultural companies and sustainable rural development; livestock production (consulting, technical-commercial in animal nutrition); agri-food industry (industrial development of food products, additives and health foods, biotechnology and engineering of beverage procedures, food design and production, agri-food controls, research and development in industrialized culinary arts, cheese, culinary engineering, sanitation and safety, applied nutrition).
- **Biological Engineering**, track in **agri-food and organic industries** (offered in about 20 university-based institutes of technology - IUTs).

www.campusfrance.org > Students > Studying > Find your program

LEVEL Master

MASTER

NATIONAL DIPLOMA – 5 YEARS OF HIGHER EDUCATION – M2
120 ECTS credits

Two programs offer a Master with the following concentrations:

Sciences, technologies, health:

- **Agronomy/Agri-Food:** Environmental management of ecosystems and tropical forests; Environmental engineering; Tropical agricultural systems and development management; Innovative systems and techniques for sustainable agricultural development.
- **Chemical and Biological Engineering:** Process engineering: Agri-food environment.
- **Chemical Engineering and Agri-Food:** Bio-processes and marine biotechnologies; Design and production of innovative food products.
- **Ecosystems, Agro-systems, and Sustainable Development:** Crop production and agri-food industries.
- **Environmental and Natural Resource Management:** Engineering of agri-food systems in the Mediterranean region.
- **Integrative Biology and Agro-Sciences:** Sense perceptions and innovation in agri-food, food sciences and human nutrition.
- **Nutrition, Food Sciences and Agri-food:** Quality and risk control in the agri-food sector; Quality control in agri-food and fisheries procedures; food safety; Advanced food technologies, fermenting processes in agri-food (wine, beer, cheese); Statistics, Nutritional quality management, Food products marketing, processing; Industrial applications of agro-resources.

Law, Economics and Management with concentrations available in:

- Law and management of agricultural and agri-food companies,
- European law and agri-food sectors,
- Marketing and sales in agri-food industries,
- Rural economics and strategy for agri-food companies.

Programs Taught in English : Agri-Business & Food Engineering, Food Identity, Food Innovation Product Design, Food Politics, Food Science, Global Food and Agribusiness, International Sustainable, Management (agribusiness, agrifood system, chain, food data, food factories of the future, health and food risks, international food and beverage), Nutritional Sciences, Physiological and Psychological Food Choice Determinants, Organic Agriculture, Sustainable Food Systems, etc.

Man-Animal-Food: Transdisciplinary Management of Global Health and Nutritional Safety: <https://www.oniris-nantes.fr/etudier-a-oniris/les-masters/man-imal>

Programs Taught in English: <https://taughtie.campusfrance.org>

EUROPEAN MASTER

NATIONAL DIPLOMA – 5 YEARS OF HIGHER EDUCATION – M2
120 ECTS credits

Food Innovation and Product Design (FIPDES) AgroParisTech:
www.fipdes.eu

Agri-Food

TITRE D'INGÉNIEUR DIPLÔMÉ (ENGINEERING DEGREE)

MASTER LEVEL – 5 YEARS OF HIGHER EDUCATION – M2
120 ECTS credits

Schools of Engineering accredited by the French government grant the professional title of Graduate Engineer. These schools are evaluated by the French commission on engineering degrees (CTI): www.cti-commission.fr

- AgroParisTech Institut national des sciences et industries du vivant (national institute of life sciences and industries): www.agroparistech.fr
- Bordeaux Sciences Agro (Bordeaux Institute of Education in Agronomic Sciences): www.agro-bordeaux.fr
- Ecole nationale vétérinaire, agroalimentaire et de l'alimentation de Nantes-Atlantique (Oniris): www.oniris-nantes.fr
- ENSAIA (Ecole nationale supérieure d'agronomie et des industries alimentaires - School of Agronomy and Food Industries): <http://ensaiia.univ-lorraine.fr>
- ESA (National Institute of Higher Education for Agriculture, Food and the Environment): www.groupe-esa.com
- ESIAB (Université de Bretagne Occidentale - Higher Education College for Agri-food Engineers in Atlantic Brittany): www.univ-brest.fr/esiab
- Toulouse INP-ENSAT: www.ensat.fr
- Ecole d'ingénieurs de Purpan: www.purpan.fr
- ISA Lille (higher agricultural institute of Lille): www.isa-lille.fr
- ISARA-Lyon (Institut Supérieur d'Agriculture et d'Agroalimentaire Rhônes-Alpes): www.isara.fr
- L'Institut Agro (Agrocampus Ouest, Agrosup Dijon, Montpellier SupAgro): www.institut-agro.fr
- UniLaSalle: www.unilasalle.fr
- VetAgro Sup (Institute of Higher Education and Research for Food, Animal Health, Agronomic and Environmental Science): www.vetagro-sup.fr

LEVEL

Beyond the Master level

MASTÈRE SPÉCIALISÉ® (MS)

INSTITUTION DIPLOMA – 1 YEAR OF HIGHER EDUCATION

Institution diploma accredited by the *Conférence des Grandes Écoles*:

- Innovation and Policies for Sustainable Food:
www.montpellier-supagro.fr/ipad
- Management of Agri-food and Life Sciences Enterprises:
www.montpellier-supagro.fr
- Management of Technological Innovation in Agro-activities and Bio-industries: www2.agroparistech.fr
- Management of Sanitary, Alimentary, and Environmental Risks:
www2.agroparistech.fr