

Agriculture

Agronomy



France is the European Union's largest agricultural producer, followed by Germany, Italy, and Spain. With over 500,000 farms, agriculture accounts for more than 1 million jobs in France. Most of these are in the sectors of cereal production and dairy farming, but also in market gardening, viticulture, arboriculture, and horticulture. The arable crop sector is composed primarily of cereals (wheat, barley, corn, etc.), oilseeds (sunflower, colza, soy, etc.), and protein crops (peas, beans, etc.).

The census of agriculture reveals the richness and diversity of French agriculture: cereals, fruits, garden farming, wines, livestock, etc. With regard to medium and large farms, 30% specialize in cattle, 23% in arable crops, and 15% in viticulture.

Organic farming is also growing in France, with more farmers involved in on-farm processing and short food supply chains. Thousands of jobs will need to be filled in agriculture, agribusiness, and forestry. From trees to wood products, the wood-forest sector includes diverse fields such as silviculture, logging, wood furniture, construction, sawing, woodwork, and the paper and cardboard industry.

Programs in agriculture are broken down into 8 subject areas: production, processing, spatial planning and environmental protection, equipment, marketing and sales, services, equestrian activities, and animal husbandry and care.

• **More than 400,000** farms operating in mainland France in 2022
 • **292,800** km² are given over to agricultural activity

• **9,5%** of French agricultural operations are engaged in organic farming (2020)
 • **53,255** farms grow organics (2020)

• **2,55 million** hectares are planted in organics (2020)
 • **200,000** people work in the organic supply chain (2020)

Sources: French Ministry in charge of Agriculture - <http://agriculture.gouv.fr>
 Agence Bio - www.agencebio.org

International

Europe is the world's leading agricultural power in terms of production value and the share of the working population employed in agriculture.

France is the 8th agricultural power in terms of contribution to the total value of global agricultural production.

French agricultural production is valued at €76 billion, far ahead of Germany (56 billion), Italy (49 billion), and Spain (43 billion).

France is also a global leader in exports of wheat, seeds, alcohols, wines, and spirits.



RELATED FIELDS

- Aquaculture • Biology
- Chemistry • Earth and Space Sciences • Ecology
- Economics and Management
- Enology • Geography
- Veterinary Medicine
- Shipping • Viticulture

SUBFIELDS

- Agri-food • Agro-ecological transition
- Agro-ecology • Alternative energies
 - Aquaculture • Aquaponics
- Aquatic sciences • Atmosphere
- Biodiversity • Biotechnologies
- Breeding • Carbon footprint
 - Climate challenges
 - Climate change • Earth
 - Ecological footprint
 - Eco-technologies
- Environmental engineering
- Environmental protection
 - Epidemiology
 - Equestrian activities
- Food • Food safety • Forestry
- Genetics • Global warming
 - Greenhouse gases
- Horticulture • Hydrology
- Land planning and landscaping
 - Natural habitats
- Permaculture • Pisciculture
- Polyculture • Public health
- Silviculture • Sustainable development • Transformation
- Veterinary sciences • Water
 - Water management
 - Water technologies

Useful links

- ABioDoc (national documentation center for research in organic agriculture): www.abiodoc.com
- Agreenium: www.agreenium.org
- Agreste (agricultural statistics, assessments, and outlooks): <http://agreste.agriculture.gouv.fr>
- ANEFA (French national association for agricultural employment and training): www.anefa.org
- APCA (French permanent assembly of chambers of agriculture): www.chambres-agriculture.fr
- APECITA (Association Pour l'Emploi des Cadres, des Ingénieurs et des Techniciens de l'Agriculture, de l'Agro): www.apecita.com
- Brevet de technicien supérieur agricole (B TSA) - short courses: <https://chlorofil.fr/diplomes/seconde/btsa>
- Chlorofil: www.chlorofil.fr
- CIRAD (French Agricultural Research Centre for International Development): www.cirad.fr/en
- FNAB (French National Federation of Organic Farming): www.fnab.org
- France Agro3: www.franceagro3.org
- French Ministry of Agriculture and Food: <http://agriculture.gouv.fr/Enseignementagricole>
- INRAE (National Institute of Research on Agriculture, Food and the Environment): www.inrae.fr/en
- Higher Education courses and diplomas: <https://chlorofil.fr/diplomes-et-ressources-pour-lenseignement/superieur>
- ONF (National Forest Office): www.onf.fr
- Organic agriculture knowledge network: <https://reseau-formabio.educagri.fr>
- Salon de l'agriculture: www.salon-agriculture.com
- Information et promotion des établissements publics agricoles: www.educagri.fr
- UNREP (national rural union for education and promotion): www.maformationagricole.com
- Young farmers: www.jeunes-agriculteurs.fr

LEVEL Licence

BREVET DE TECHNICIEN SUPÉRIEUR AGRICOLE (BTSA)

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

The BTSA is offered in private and public secondary schools. 16 BTSA concentrations (*options*) are available:

- > **Land Use:** Rural land use; Forestry; Water control and management; Natural resource management and conservation.
- > **Business:** Technical and commercial specializations: Forest and wood products (PFFB); Wine, beer, and spirits (VBS); Garden products and companion animals (UJAC); Agricultural goods and services (BSA); Food and beverages (A&B).
- > **Agricultural Machinery and Equipment:** Engineering of agricultural machinery.
- > **Production:** Agronomy–Plant crops; Aquaculture; Analysis, management, and strategy for agricultural enterprises; Agricultural development in hot climates; Animal production; Horticultural production; Viticulture–oenology.
- > **Service:** Development and organization in rural areas.
- > **Processing:** Agricultural, biological, and biotechnological analysis; Food sciences and technologies with specializations in: Food processing, Grain products, Dairy products, Meats and Fish Products.

Brevet de Technicien Supérieur Maritime (BTSM, maritime technician certificate) in fisheries and marine environment management.

www.campusfrance.org Resources center > Panorama of Higher Education and Research in France > Degrees > *Le Brevet de Technicien Supérieur Agricole* (BTSA)

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 agriculture: Agronomy; Rural land use; Commercialization of food products; Management of agricultural and agri-food enterprises; Agri-food industries; Ocean- and sea-related occupations; Health-related occupations (nutrition, diet); Natural resource and forest occupations; Wood-related occupations; Animal production; Plant crops; Exploitation of agricultural resources.

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

BACHELOR OF SCIENCE AND ENGINEERING

BACHELOR LEVEL – 3 YEARS OF HIGHER EDUCATION – L3
180 ECTS credits

Bachelor in Agricultural Ecology and Food Systems:

- Agriculture, Digital and Onboard Technologies: www.unilasalle.fr
- Sustainable Agrobusiness: www.unilasalle.fr
- Agricultural Ecology and Food Systems: www.groupe-esa.com
- Agricultural and Sustainable Agri-Food Industries: www.purpan.fr

LEVEL Master

MASTER

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

Several academic programs offer a Master with concentrations (*mentions et spécialités*) in the environment:

- > **Science, Technology, and Health:** (1) concentration in Agrosociences, Environment, Land Management, and Forestry, with the following tracks: transition, environment, agriculture, natural surroundings; agricultural ecology, awareness, land and society; agrosociences, environment, landscapes, forests; from agronomy to ecology; soil management and ecosystem services; (2) concentration in Nutrition and Food Science, tracks in agricultural sciences and techniques, nutrition, and environment; analysis of food-related sanitary risks; (3) concentration in Water Sciences, track in water and agriculture; (4) concentration in agricultural, alimentary, and environmental sciences and technologies, with the following tracks: agronomic, genetic, and qualitative improvements in crop production; agri-food production and innovation; sciences and techniques of ecosystems; quality management of crop production; engineering applied to fruits and vegetables; agronomic and environmental sciences; climate change, agriculture and development; plant health.
- > **Law, Economics, and Management:** tracks in agricultural law and agri-food industries; economics of sustainable food production.
- > **Sea and Coastal Sciences:** concentration in Applied Economics, track in agriculture, sea, environment.
- > **Humanities and Social Sciences:** concentration in Geography, Land Use, and Development, track in new rural areas, agriculture, and local development; concentration in land management and local development, track in territorial dynamics, agriculture, and rural land use.

www.campusfrance.org > Students > Studying in France > Finding your programme

Programs Taught in English:

70 programs related to agriculture: Agribusiness, Agroecology, Agrifood, Agro-biomedical, Biodiversity, Food Engineering, Forestry, Nutritional, Organic Agriculture, Plants, Seafood, Wood, etc.

www.campusfrance.org > Programs Taught in English
<http://taughttie.campusfrance.org/tiesearch/#/catalog>

TITRE D'INGÉNIEUR DIPLÔMÉ (ENGINEERING DEGREE)

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

Below are French institutions sponsored by the Ministry of Agriculture that offer CTI-accredited engineering degrees (*Commission des Titres d'Ingénieur*):

- AgroParisTech (Institut national des sciences et industries du vivant et de l'environnement - national institute of life sciences and industries): www.agroparistech.fr

Agriculture Agronomy

- Bordeaux Sciences Agro (Bordeaux Institute of Education in Agronomic Sciences): www.agro-bordeaux.fr
- ENSAIA (Ecole nationale supérieure d'agronomie et des industries alimentaires - School of Agronomy and Food Industries): <http://ensaia.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/en/index.html
- Ecole d'Ingénieurs de PURPAN: <https://www.purpan.fr/en/>
- ISA Lille (Higher Institute of Agriculture - Lille): www.isa-lille.fr
- Institut Supérieur d'Agriculture et d'Agroalimentaire Rhône-Alpes (ISARA Lyon): www.isara.fr
- L'Institut Agro (Agrocampus Ouest, Agrosup Dijon, Montpellier SupAgro): www.institut-agro.fr
- Ecole nationale vétérinaire, agroalimentaire et de l'alimentation de Nantes-Atlantique (Oniris): www.oniris-nantes.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

> Labeled by the *Conférence des Grandes Écoles*, the *Mastère Spécialisé* program enables students to earn an institutional credential attesting to dual competence in specialized areas in agriculture: public action for the sustainable development of land and agriculture; international management of forests, nature, and society; vineyard management; equine sciences and management.

www.campusfrance.org > Resource center > Panorama of Higher Education and Research in France > Degrees > The *Mastère spécialisé*® programs

List of MS programs :

www.cge.asso.fr/formations-labellisees/liste-formation-ms/