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# TRAINING KIT

"An innovative model of SMART Farm adjacent to VET institution for students work-based learning towards better employability of graduates" (CB4WBL) project  
ERASMUS + KA2 CBVET Project# 101129071

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# THE FRENCH EDUCATION SYSTEM

## Work Sheet n°1

*The French education system is relatively complex. The presentation below is not intended to be exhaustive, but simply to provide an understanding of the main organizational principles. It may contain approximations and not deal with specific cases.*

### 1/PRESENTATION

#### 1.1/School organization

In France, education is compulsory from the age of 3 (nursery school), followed by primary schools up to the age of 11, then secondary school up to the age of 15 (compulsory schooling ends at 16, but education is compulsory up to the age of 18).

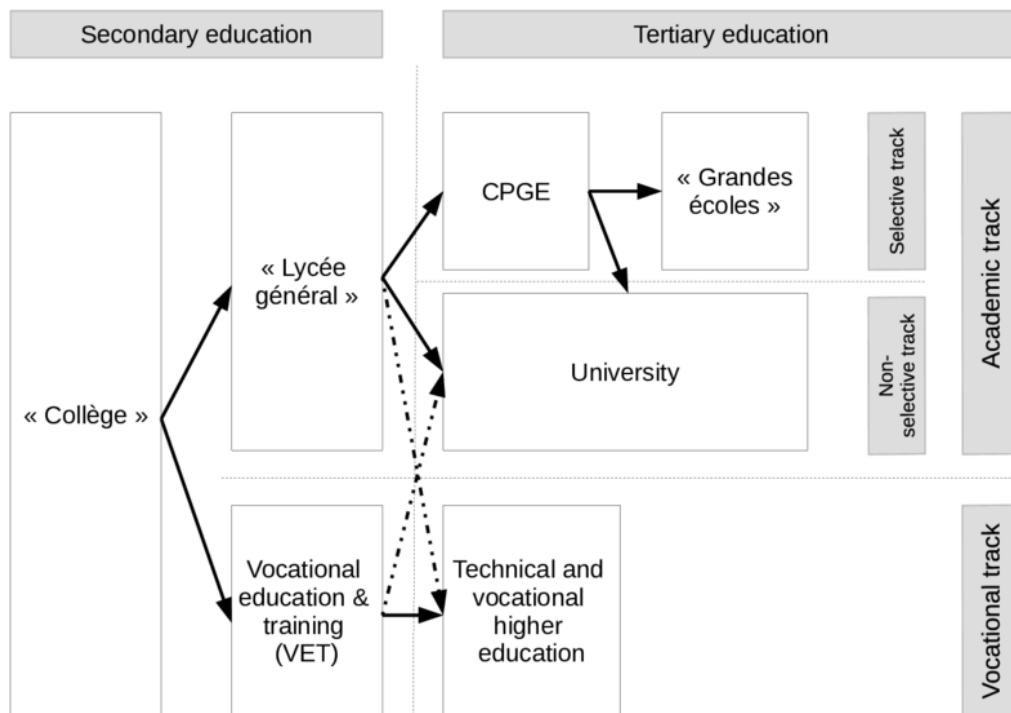
| Age                 | 3 .....6       | 6.....11          | 11....15            | 15.....18   | 18..... 21   | 21.....25  |
|---------------------|----------------|-------------------|---------------------|---|--|--|
| <b>Organisation</b> | Nursery school | Elementary school | College             | High School<br>Apprentice training center (vocational diplomas only)                      | Short higher education studies<br>High Schools (higher technician's certificate)                   | Long-term higher education   |
| <b>Diplomas</b>     |                |                   | College Certificate | General, technological and vocational baccalaureate.<br>Professional aptitude certificate | University Institutes of Technology (university bachelor of technology)<br>Universities (licences) | University (Masters, Doctorate)<br>Engineering school<br>Business school |

Guidance begins at the end of lower secondary school: pupils then have the choice (depending on their results) of going on to:

- A Certificate of Professional Aptitude (CAP), aimed more at young people who will quickly move into the world of work
- A Professional baccalaureate (Bac pro), which is more likely to lead to a higher technician diploma (BTS)
- A technological baccalaureate which is more likely to lead to a technological university bachelor's degree (BUT)

A general baccalaureate, which gives them priority access to higher education (university, engineering schools, etc.).

## Simplified scheme of studies in France:



However, there are several gateways between the different routes for changing courses (for example: from a BTS or a BUT to an engineering school, from a CAP to a Bac Pro).

### 1.2/ Organization of the education system

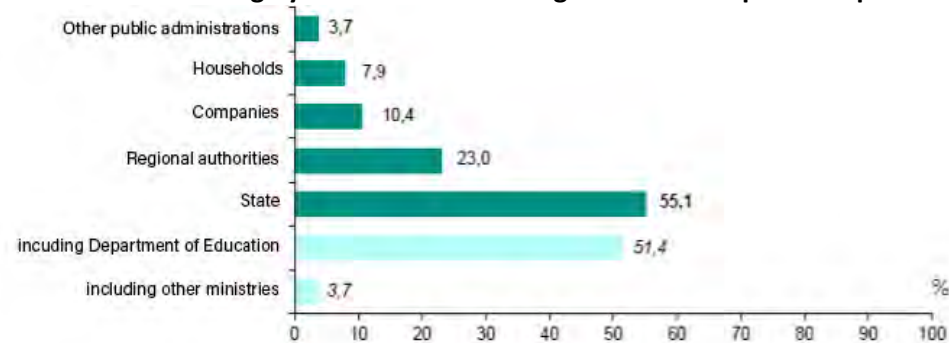
The State defines the content of diploma programs (in consultation with professional sectors for vocational diplomas). It provides funding for teachers, social assistance for families, ....

Local authorities (municipalities for nursery and elementary schools, departments for colleges, regional council for high schools, exemption from social security contributions and aid to employers for apprenticeships, etc.). The professional branches (companies) are mainly involved in financing apprentice training centers.

At government level, virtually all funding and academic authority is devolved to the Ministry of Education.

Only the Ministry of Agriculture has retained responsibility in this area (the other ministries involved - Youth and Sport, Health - have more limited remits).

### % of education funding by funder and share of gross domestic product spent on education:



### 1.3/ Professional training

The Ministry of Education awards most diplomas. Agricultural education establishments also provide training, some of which leads to national education diplomas (e.g. at Les Sardières, general baccalaureate, technological baccalaureate in 'production, industrial pharmaceuticals, agri-food and cosmetics').

There are also certifications issued by training bodies (titles for by professional branches (certificate of professional qualification)).

For example, for a qualification of the same type, we can find:

- A diploma from the Ministry of Agriculture available through school-based training and apprenticeships: vocational baccalaureate in 'running and managing an agricultural business': <https://www.francecompetences.fr/recherche/rncp/38316/>
- A title belonging to a federation of private training establishments, breeder: <https://www.francecompetences.fr/recherche/rncp/38482/>
- A 'dairy farming agent' vocational qualification certificate issued by the national federation of farmers' unions; <https://www.francecompetences.fr/recherche/rncp/37256/>

All recognised qualifications listed in the National Register of Qualifications (RNCP) are eligible for public funding, but only diplomas issued by government ministries are offered through the school system and may be funded directly by the State.

The National Directory of Certifications (<https://www.francecompetences.fr/recherche-resultats/?types=certification&search=&pageType=certification&active=1>) lists more than 700 qualifications in the agricultural sector, but courses leading to a diploma are clearly the most widely used, while the others are aimed more at specialisations for adults.

Diploma reference documents are made up of several parts (Cf. example, professional baccalaureate reference document for 'running and managing an agricultural business'). <https://chlorofil.fr/diplomes/secondaire/bac-pro/1re-term/cgea>

|                                       |   |   |
|---------------------------------------|---|---|
| <p><b>Training Framework</b></p>      | <p>It describes the occupations for which the diploma in question prepares and provides information on its professional aims. It therefore describes the jobs at the target level.</p> <p>It is used as a basis for drawing up the certification and training reference frameworks.</p> <p>It is generally common to diplomas at the same level (e.g. level IV: Bac Pro and BP).</p> <p>This professional reference framework is made up of three parts:</p> <ul style="list-style-type: none"> <li>- Part 1 provides information about the context of the job concerned,</li> <li>- Part 2 presents the targeted jobs,</li> <li>- Part 3 consists of the activity description sheet. It therefore lists all the activities performed.</li> </ul> <p>Part 4 presents the significant work situations (SPS). The SPS are the key situations which reflect all the skills used in the job. The SPS constitute a reference for determining the capabilities of the certification reference framework and for constructing the job evaluations targeted by the diploma.</p> | <p>Drawn up on the basis of a study of the labour market by the Ministry of Agriculture and in consultation with professional organisations, the agricultural education inspectorate (educational experts) and teacher representatives.</p> |
| <p><b>Certification standards</b></p> | <p>Firstly, it sets out all the skills attested by the award of the diploma. It describes the assessment procedures for obtaining the diploma. It presents the assessment methods which will enable the overall ability attested by the qualification to be achieved. The assessment situations must cover the field of all the intermediate skills.</p>  |   |
| <p><b>The training Framework</b></p>  | <p>It defines the training objectives for the skills to be certified, as presented in the certification reference framework, and the training expectations for achieving these objectives.</p>  |   |

|  |  |  |
|--|--|--|
|  | According to the DGER, it is a contractual document for use by management teams, teachers and trainers in organizing and implementing training in schools. |  |
|--|--|--|

Almost all diplomas can be obtained through the school system and apprenticeships (except for Doctor of Medicine, veterinary surgeons, etc.).

#### **1.4/ The different training paths**

##### **Initial school training**

Initial school-based training can be integrated after secondary school and offers three training routes:

- General route
- Technological route
- Vocational route

This type of education provides access to all levels of qualifications.

The general pathway and the technological pathway allow students to pursue longer higher education studies (BTSA, BTS, University studies and Engineering schools).

The vocational route leads to a vocational diploma for entry into working life or the pursuit of short higher education studies (BTSA, BTS, etc.).

Public and private secondary schools under contract cater for 5,656,700 pupils (including lower secondary schools). More specifically, in the case of high schools, 1,618,800 are in general or technological education and 633,000 in vocational training.

##### **Initial training by apprenticeships**

Initial apprenticeship training is aimed at young people aged 16 to 29. It enables them to take advantage of a one- to three-year work-based training contract between a training center and a company.

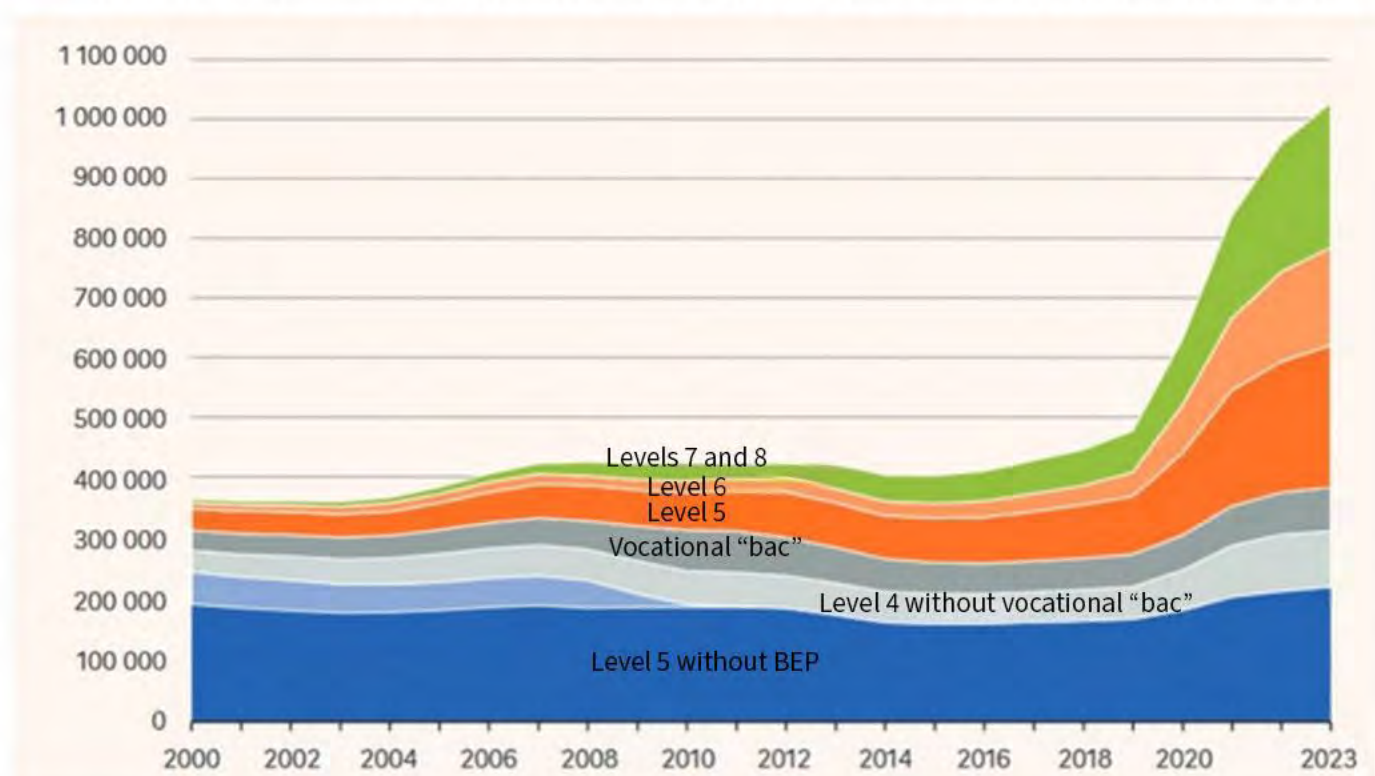
The company apprenticeship supervisor is fully involved in achieving the educational objectives, in liaison with the apprentice training center.

The status of young apprentices is that of employees in training: it is precisely regulated by the Labor Code. As such, young people are paid a salary that depends on their age (25% to 75% of the minimum wage).

Employers are entitled to assistance (exemption from social security contributions, recruitment bonuses).

A new law (LCAP law choosing your professional future, 2016) has considerably increased the number of apprentices, particularly in higher education.

➤ 1 Evolution of the number of apprentices according to the level of training between 2000 and 2023



In most professional fields, apprentices are mainly trained in centers run by private organizations, but since 2021 (LCAP law), establishments under the supervision of the French Ministry of Education have been developing this type of training.

For the agricultural and related sectors (forestry, landscaping, agri-food, ...), the opposite is true, as agricultural education establishments (particularly public) have been providing this type of training for a long time.

**Apprentices' distribution by managing organisation, education level and number of schools in 2021-2022:**

|                                   | Secondary education | Higher education | Total   | Number of schools |
|-----------------------------------|---------------------|------------------|---------|-------------------|
| <b>Private organisations</b>      | 177 913             | 255 413          | 433 326 | 1 694             |
| <b>Professional organisations</b> | 86 763              | 33 207           | 119 970 | 139               |
| <b>Schools</b>                    | 54 123              | 168 848          | 222 971 | 877               |
| <b>Other</b>                      | 35 635              | 22 161           | 57 796  | 81                |
| <b>Total</b>                      | 354 434             | 479 629          | 834 063 | 2 791             |

**Continuing vocational training**

Continuing vocational training enables you to improve your level of qualification, acquire a recognized professional qualification, specialize in or improve your skills.

These courses are open to anyone aged 18 or over who can show proof of an initial level of training or a minimum period of professional experience: requirements vary according to the diploma envisaged and the level of training. The duration of the course varies according to the course and the initial level of training.

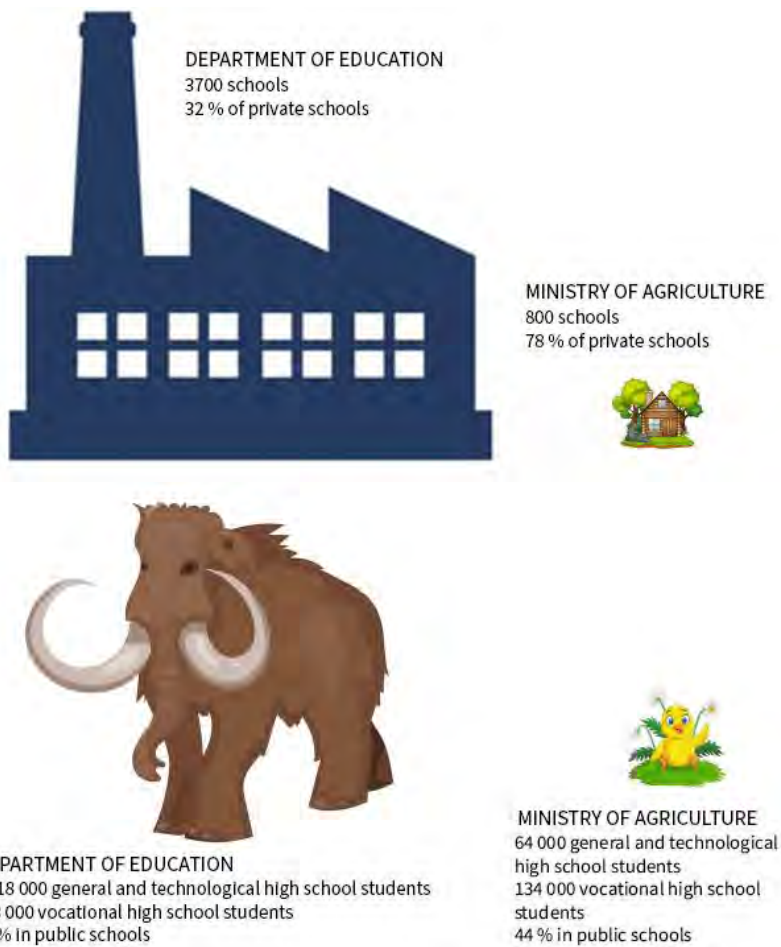
## THE DIFFERENT TYPES OF ESTABLISHMENTS

There are three types of establishments:

- Public schools
- Public schools under contract (which receive state aid)
- Non-contracted public schools, which are still very much in the minority

In France, only two ministries are responsible for high schools: the Ministry of National Education and the Ministry of Agriculture (and, on a 'secondary' basis, the Ministry of Defence: 6 high schools).

Agricultural education represents only a small number of pupils and establishments (see below).



\*Long-term higher education students not counted

The main principles and general organization of agricultural education are very similar to those of national education. The specific features of its operation (including the presence of farms and technology workshops) will be presented in the following chapters:

The much greater weight of public schools: 56% of enrolments and 78% of schools.

Their often-modest size: an average of 300 pupils compared with almost 1,000 in the French national education system.

The proportion of boarders: 56% in agriculture compared with 3% in national education.



# THE FRENCH EDUCATION SYSTEM

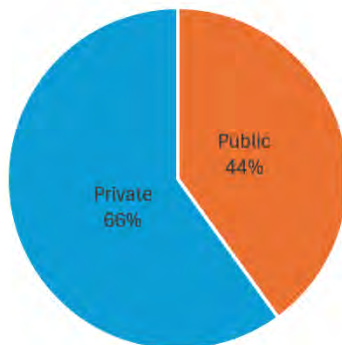
## Work Sheet n°2

### 1/PRESENTATION

Agricultural education prepares students for a wide range of careers and offers a wide range of courses with a common denominator: life, in contact with nature or people. These courses, from 4th year to doctorate level, lead to careers in the agricultural and agri-food sectors, the forestry and timber industries, the preservation and enhancement of natural environments, veterinary medicine, the maintenance and creation of landscaping, services for the elderly and young children in rural areas, local services: tourism, entertainment, communication, commerce and sales, etc.

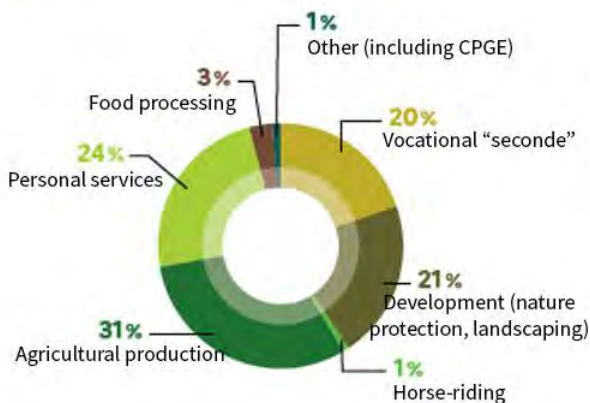
From the outset, agricultural education has offered all types of training (which is different from national education establishments).

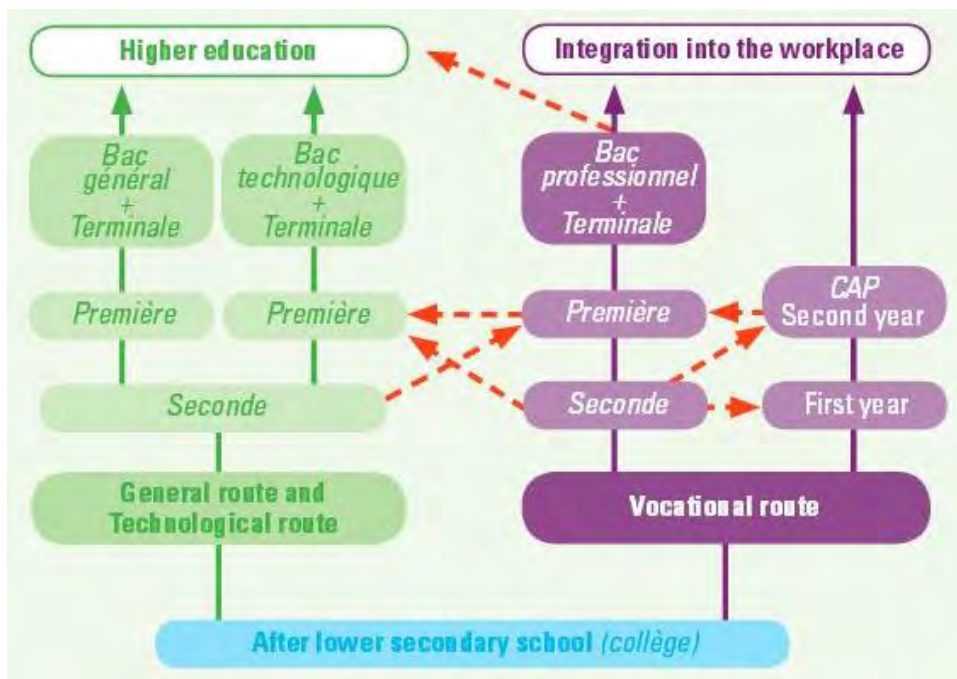
#### Distribution of schools of technical agricultural education



Agricultural education establishments can be found throughout France. Agricultural education provides training from the CAP to engineering qualifications in a number of sectors:

#### Distribution of the numbers in vocational courses of technical





## 2/MISSIONS

The missions of public agricultural education are defined in article L89111-1 of the Rural Code

### [Article L811-1](#)

The aim of public education and vocational training in agriculture, forestry, nature and the countryside is to provide, by combining them, general education and technological and vocational training in agriculture, forestry, aquaculture, the processing and marketing of agricultural products and in other occupations contributing to the development of these occupations, particularly in the fields of services and the development of agricultural, rural and forestry areas, water management and the environment. They contribute to education for sustainable development, health promotion and the implementation of their principles, as well as promoting the diversity of agricultural production systems and raising awareness of animal welfare. They contribute to the personal development of pupils, students, apprentices and trainees, to the upgrading and adaptation of their qualifications and to their professional and social integration.

They carry out the following tasks:

- 1° They provide initial and continuing general, technological and vocational education.
- 2° They take part in animation and development of territories.
- 3° They contribute to the educational, social and professional integration of young people and the social and professional integration of adults.
- 4° They contribute to agricultural and agri-food development, experimentation and innovation activities.
- 5° They participate in international cooperation activities, in particular by promoting exchanges and hosting pupils, apprentices, students, trainees and teachers.

Public education and vocational training for jobs in agriculture, forestry, nature and the countryside are organised as part of lifelong learning, through initial and continuing training. They are part of the public education and training

service. They participate in the public digital education and distance learning service provided for [in the second paragraph of article L. 131-2 of the Education Code](#). They come under the authority of the Minister of Agriculture. They are provided in compliance with the principles of secularism, freedom of conscience and equal access for all to the public service. They also contribute to the fight against gender stereotypes and to the mission of promoting health at school mentioned [in article L. 121-4-1 of the Education Code](#). The regions are involved in the implementation of the missions set out in 2° to 5°.

Its remit is the same as that of the education system as a whole, with a few specific features (paragraphs 2 and 4 in particular).

### 3/OPERATION

Government departments (ministries, regional departments):

- Define priorities for action in line with the government's policies
- Allocate resources to the tasks for which the State is responsible (teaching, etc.), in particular determine the number of administrative, educational and supervisory staff at the high schools, appoint staff and manage their careers.
- Check that the system is working properly
- Issue diplomas

The regional councils are responsible for funding investments (buildings, equipment).

These may be partly co-financed by other partners and by the school itself.

For public establishments, they also manage catering, cleaning and maintenance.

At local level, the Director is responsible for:

- Ensuring compliance with regulatory provisions and the proper performance of the tasks assigned to the school
- Applying the decisions of government departments and the Board of Directors

The school has a certain amount of autonomy, for example:

- In terms of teaching: locally-initiated or regionally-adapted training modules
- Financial: autonomous management in compliance with public accounting rules (creation of posts, remuneration of staff from the budget)

### 4/EXAMPLE: THE SARDIÈRES ESTABLISHMENT

#### 4.1/ Governance

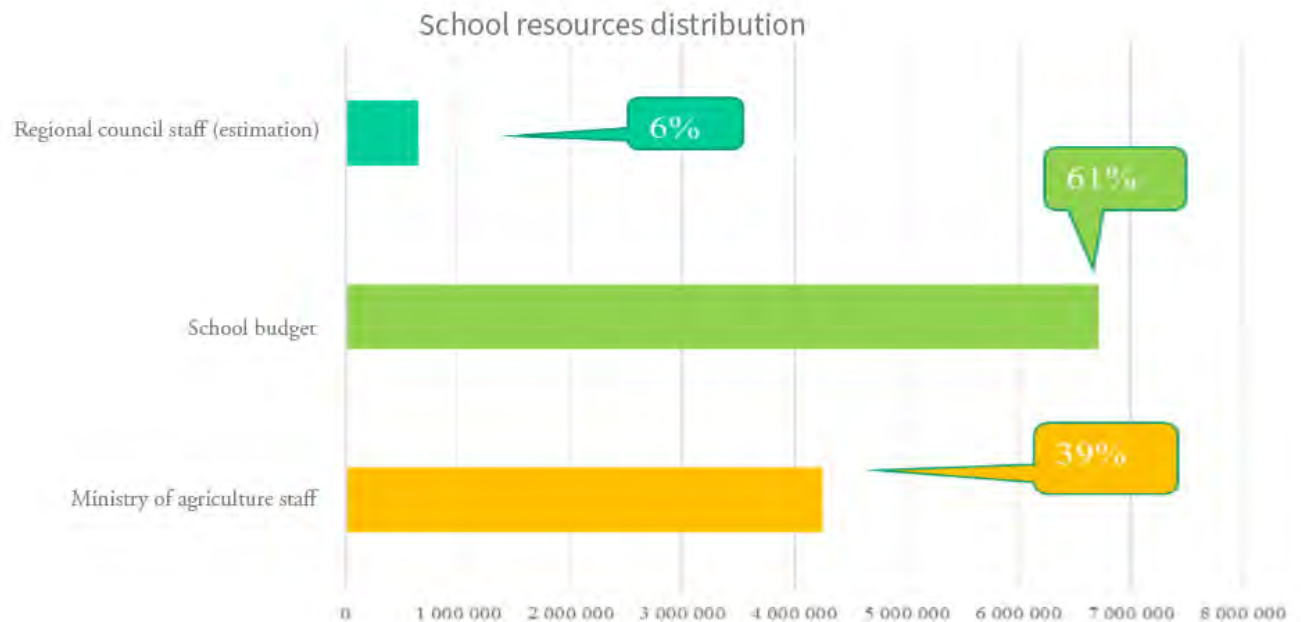
| Structure                                  | Manager  | Consultation and/or decision making body   | Areas of expertise  |
|--|--|--|---|
| School                                     | Headmaster (also head of the high school)            | Board of Directors   | Deliberates on all strategic and financial decisions  |
| High School                                | Deputy headmistress (also deputy head of the school) | Internal council   | Gives its opinion on the organization of school training activities                         |
| Agricultural training and promotion center | Director of the CFPPA                                | Centre Council (adult continuing education)<br>Development Council (apprenticeships) | Gives its opinion on the organization of continuing education and apprenticeship activities |
| Farm council                               | Farm manager   | Board of Directors   |   |
| Workshop council                           |  | Workshop council   |   |

The various councils include representatives of staff, parents, students, professionals and public authorities.

## 4.2/ Financing

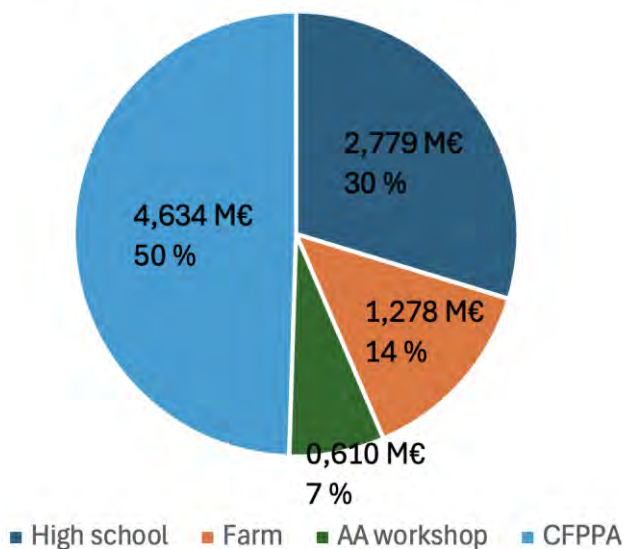
140 people work throughout the establishment

The operating budget managed by the management team and the board of directors is 6 million euros, but to get a true idea of the volume of activity, you would have to add the costs of civil servants paid directly by the state or regional councils.



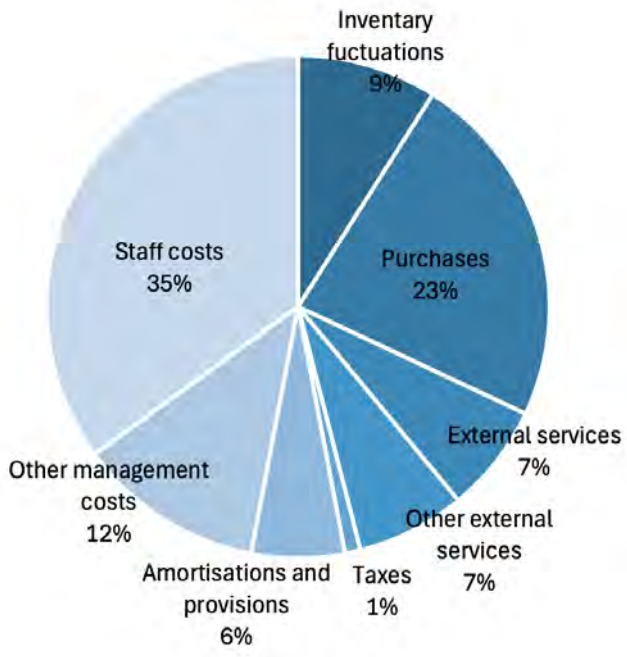
For the part that goes through the establishment's budget, this is more than 9 million euros (operating and investment).

Budget distribution 2023 = 9,247 M€



The graph below concerns only the operating part:

# Costs EPI 2023





# Farms and technology workshops in agricultural education institutions

## Work Sheet n°3

### 1/PRESENTATION

There are approximately 200 farms, and 50 technology workshops attached to agricultural educational institutions at the national level.

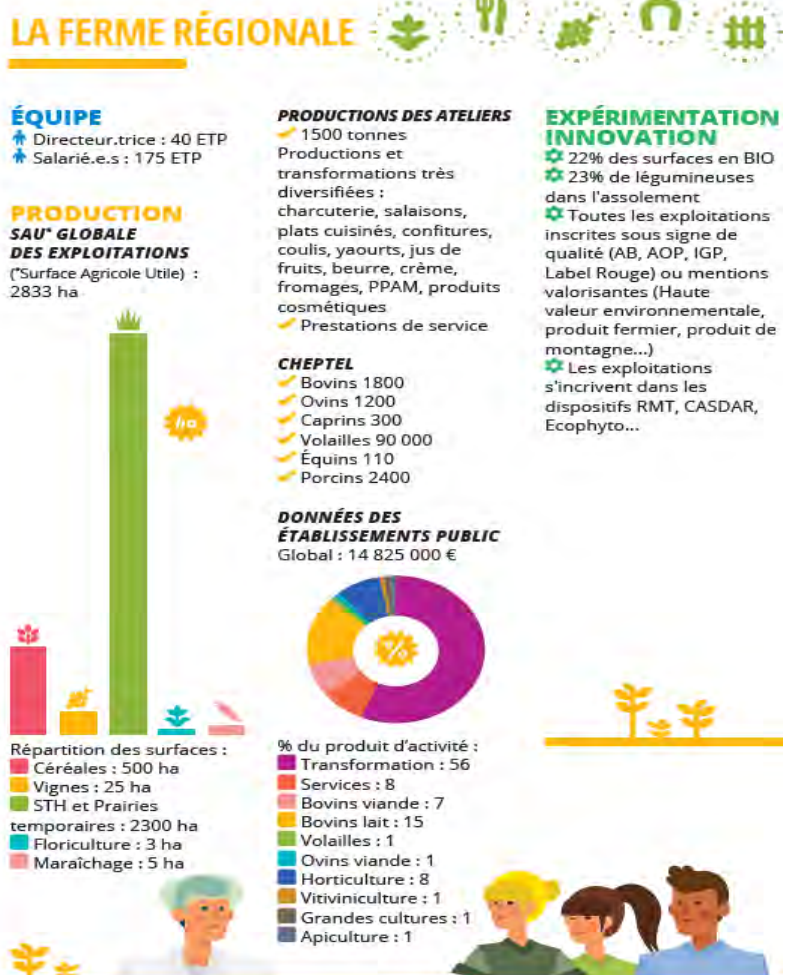
The majority of them are found in public agricultural education institutions, where they are a part of the constituent centers (see circular annex DGER/FOPDAC/2001-2007).

- Agricultural holdings are units of production of raw materials sold as such or after processing. The production of raw materials in agricultural holdings is highly varied in regions (including arable crops, livestock, horticultural products, etc.).
- Technology workshops are units for treatment, processing and selling products obtained from agricultural raw materials (from farms, for example), or a service unit (equestrian centers, for example) entering the field of training offered by agricultural schools and sold to individuals or communities.

In the Auvergne Rhône Alpes region, there are 49 farms (42 in public establishments, 6 in private establishments).

These farms (see the document in the appendix on farms and technological workshops for agricultural education in Auvergne-Rhône-Alpes)

1. Employ more than 200 people (215 full-time equivalents)
2. Farm more than 2800 ha
3. Represent a total turnover of around 15,000,000 euros)



## 2/TASKS

The farms have three main tasks:

- Constitute a full economic unit, producing and marketing processed goods or not, by being credible for professionals and financially balanced.
- To assist in technical and general training using observation, technical and economic analysis, diagnostic and project approaches, and the acquisition of knowledge and skills for both young and adult trainees.
- To initiate experiments, to generate technical and economic references, to facilitate innovation initiatives through partnerships with professionals, to research organizations and contribute to the animation of territories.

The main feature of farms and technology workshops in agricultural education is that they operate under real conditions. They are real economic units operating in full size, subject to climatic, economic... and are continuously running (even when students are not present).

In this their functions differ markedly from the technical levels of national education institutions (occupational sectors other than agriculture) which:

- Do not rely on production tools in real conditions for the acquisition of practical knowledge;
- To operate only when the students are present and do not require staff for production action.
- Are financed from the educational budget of the institution.

This is linked to both the specific nature of learning related to agricultural production (need for a living support) and the willingness of the ministry responsible for agriculture to keep establishments in touch with realities (technical, economic,)

## 3/FONCTIONING

Balancing the different functions can be difficult and the need to finance “technical platforms” in agricultural educational establishments, while they are also tools of production is differently appreciated by the regional councils which have the competence to finance investments in educational institutions. Some are very willing and others are much more reluctant.

Despite the initial objective being to approach a traditional farm as closely as possible, several differences exist.

|  |   |  |
|--|---|--|
| Status                                   | Centre of the public institution  | Individual company or company (including joint farming group)  |
| Direction – Governance                   | Operations manager under the authority of the institution's director.<br><br>Important decisions taken by the Board of Directors  | Chief Operating Officer and Associates<br><br>More responsive decision-making system that can be an asset (land acquisition, investment, etc.) |
| Workforce                                | Director on budget line item<br><br>Employees on operating budget (compliance with the work code/ working hours, remuneration/ safety, etc.)<br><br>The activities carried out by the students have in general little impact and can generate a surcharge (coaching time, ...)  | Operator and associates mainly   |
| Ownership of real estate and investment. | Buildings owned by the Regional Council and often part of the land.<br><br>Equipment generally owned by the holding<br><br>Aide des conseils régionaux sur les investissements ( plus importantes que pour les exploitations agricoles « classiques » mais variables suivant les régions.                                   | Ownership of the business but presence of state or community support on certain investments  |
| Production system                        | Must be representative of local productions but often more diversified system to meet educational needs   | Often more specialized and can be more focused on labour-intensive productions.  |
| Financial functioning                    | No income tax<br><br>Grants from certain local authorities on the additional educational cost<br>Common treasury with other constituent centres of establishment but separate budget and search for a balance of the budget<br>No access to certain aid for «conventional» farms (GAEC parties, agricultural disasters....) |  |

|             |   |   |
|-------------|---|---|
| Régulations | Opportunities for additional measures related to the reception of the public<br>Need for “exemplary” compliance with health, environmental rules,.... |   |
| Security    | Special vigilance related to the presence of students.  |   |
| Size        | Often higher than average because working with a workforce (mainly salaried) requires a larger “mass” (hard work respect, leave, ... )                | Conventional farm size growth has often been faster in the last 20 years than high school farms (measures favouring young farmers, responsiveness for decision-making, position of professional organisations...) |

## 4/ AGRICULTURAL HOLDING OF SARDIERES

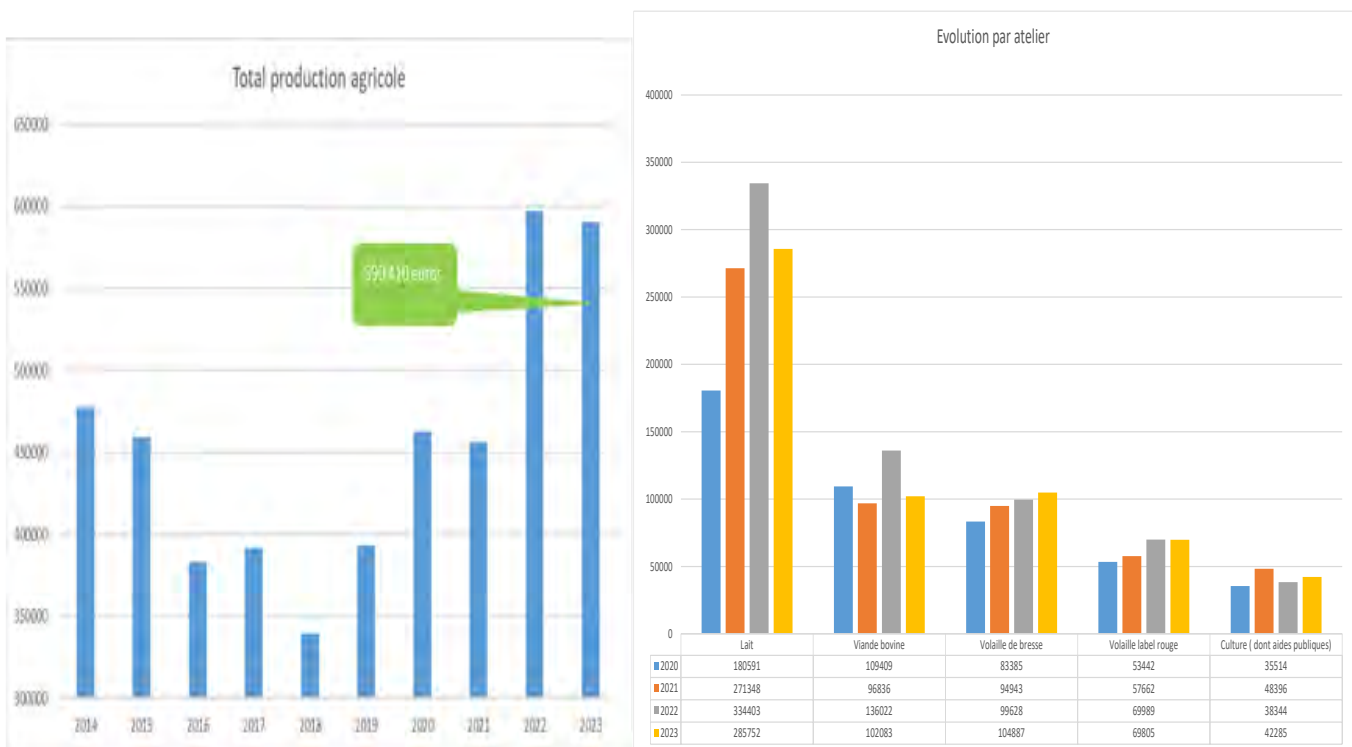
### 41/ General presentation

|                        | Données – Data  | Observations – Remarks   |
|------------------------|---|--|
| Surface area           | 155 hectares  | The property is located in a suburban area. It is under heavy land pressure (loss of agricultural land due to urbanization) and must be cautious about nuisances that may affect local residents.  |
| Buldings               | The farm has two sites. One of them is located 2 km from the high school and is particularly old. It is intended to be deleted.<br><br>The main buildings on the Sardières site are in a generally correct condition. | The last major investments date back to 2016 and were supported by the Regional Council.<br>A reflection is underway to replace the fattening workshop (Belfin site) and reinvest on the site of Les Sardières (project to be co-financed by the Regional Council) |
| Use agricultural area  | 50% Surface in grass<br>25% Straw cereals<br>25% Maize  | The soil is of good quality when it has been drained.  |
| Operating income       | 520,000 euros on average over 5 years   |  |
| Main d'œuvre Workforce | 1 manager (Ministry position)<br>4 employees and one apprentice (private law)   |  |
| Ateliers Workshops     | Milk:80 Dairy cows<br>Farm poultry : 20 000/year<br>Bresse poultry (protected designation of origin): 8000/year<br>Fattening: 50 cattle/year  | The field crop workshop is used almost exclusively for livestock feed  |
| Educational activities | One-week internship on the farm;<br>Practical work with teachers  |  |

|                                 |   |   |
|---------------------------------|---|---|
|                                 | Reinforced practical work<br>Activity support for different classes<br>(including non-agricultural)   |   |
| Experimentation and development | Reducing the use of plant protection products<br>Use of legumes<br>Variety trials (maize)<br>Upgrading hedgerows and using wood shreds as bedding   |   |
| Territory animation             | Glorious Bresse" participation<br>Schoolchildren and the general public welcome.<br>Participation in the activities of professional organizations, reflection on community projects concerning agriculture, ... | The glorious competitions for the presentation of Bresse poultry (highly publicised in the media) |

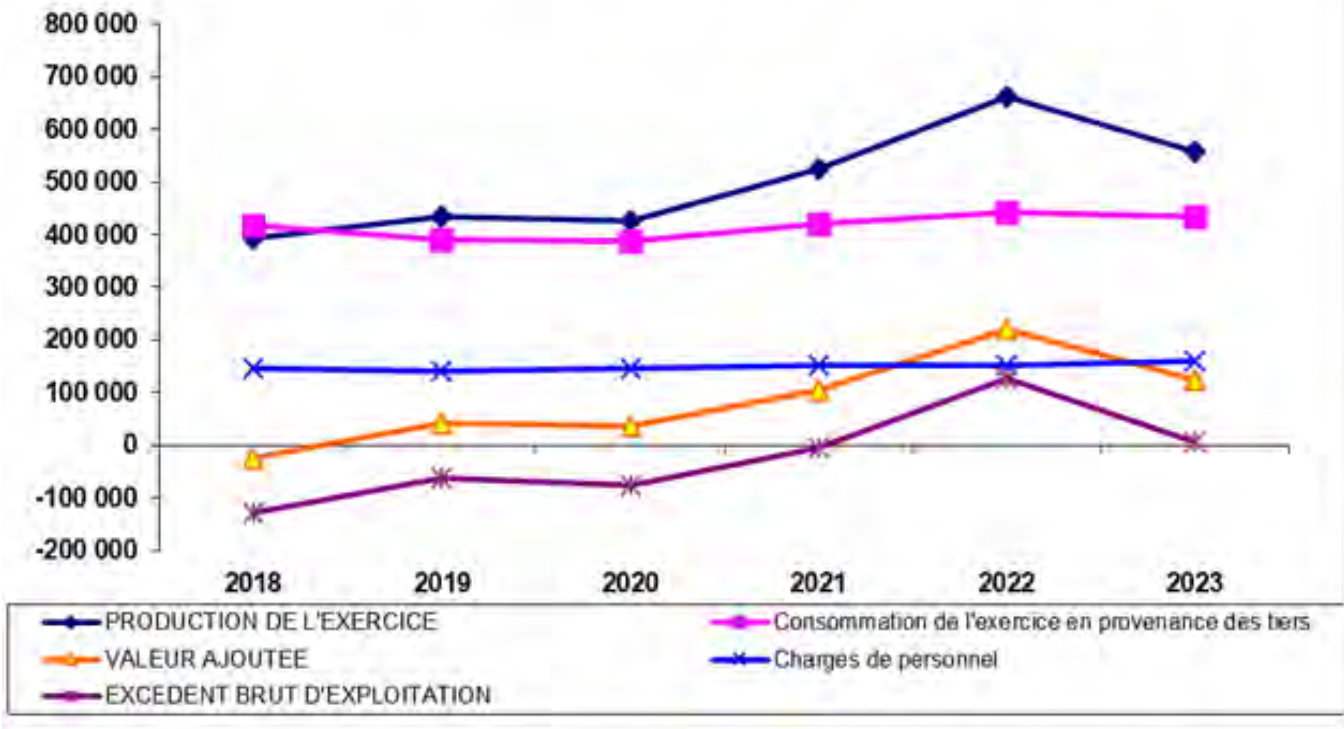
## 42/ Financial operation

Production at the Sardieres operation is up, driven by improvements in technical performance and inflation.



However, the vagaries of the weather, high inflation in energy and food prices, and a lack of land are all weighing on profitability.

## Evolution Composantes EBE EXPLOITATION



| EXERCICE                                   | 2019      | 2020      | 2021      | 2022      | 2023      | Moyenne Depuis 2013 | Moyenne 5 ans |
|--|-----------|-----------|-----------|-----------|-----------|---------------------|---------------|
| <b>FONCTIONNEMENT</b>                      |           |           |           |           |           |                     |               |
| <b>PRODUCTION DE L'EXERCICE</b>            | 433 024 € | 425 437 € | 523 814 € | 661 600 € | 558 780 € | 487 999 €           | 520 531 €     |
| <b>VALEUR AJOUTÉE</b>                      | 41 547 €  | 37 302 €  | 104 002 € | 219 443 € | 124 042 € | 74 549 €            | 105 267 €     |
| <b>EXCÉDENT BRUT D'EXPLOITATION</b>        | -61 272 € | -74 813 € | -6 108 €  | 128 263 € | 6 050 €   | -27 379 €           | -1 576 €      |
| Autres produits                            | 63 332 €  | 46 074 €  | 46 924 €  | 45 678 €  | 46 400 €  | 31 088 €            | 49 682 €      |
| Dotations aux amortissements et provisions | 64 591 €  | 65 439 €  | 69 665 €  | 75 897 €  | 71 410 €  | 61 818 €            | 69 400 €      |
| Autres charges                             | 23 543 €  | 28 680 €  | 23 696 €  | 20 818 €  | 33 856 €  | 13 929 €            | 26 119 €      |
| Reprises sur amort. et provision           | 28 323 €  | 31 659 €  | 33 777 €  | 36 063 €  | 38 034 €  | 25 890 €            | 33 571 €      |
| <b>RÉSULTAT D'EXPLOITATION</b>             | -57 751 € | -91 199 € | -18 768 € | 113 289 € | -14 781 € | -46 148 €           | -13 842 €     |

Pour le tableau ci-dessus :

Production de l'Exercice → Fiscal year production

Valeur ajoutée → Added Value

Excédent Brut d'Exploitation → Gross operating surplus

Autres produits → other products

Dotations aux amortissement et provisions → Amortization and provisions

Autres charges → Other charges

Reprises sur amortissement et provisions → depreciation and provisions

Résultat d'exploitation : Farm operating results

Moyenne depuis 2013 Average since 2013

The table below shows the 'adjusted' the gross operating surplus (gross operating surplus - payroll costs).

It shows that in 2023, the farm would have paid around 4 partners a salary of around 2 times the minimum wage in France.

|  |                 |                 |                  |                  |                  |
|--|-----------------|-----------------|------------------|------------------|------------------|
| <b>EBE « corrigé »</b>                                   | <b>79 667 €</b> | <b>71 817 €</b> | <b>144 557 €</b> | <b>281 017 €</b> | <b>167 159 €</b> |
| Annuités   | 17 813 €        | 17 813 €        | 8 588 €          | 8 588 €          | 4 294 €          |
| SMIC annuel brut   | 18 255 €        | 18 473 €        | 19 074 €         | 20 511 €         | 20 815 €         |
| <b>Capacité rémunération<br/>UMO à 2 SMIC (hors CAF)</b> | <b>1,69</b>     | <b>1,46</b>     | <b>3,56</b>      | <b>6,64</b>      | <b>3,91</b>      |

1. Corrected Gross operating surplus – EBE corrigé
2. Annuities
3. Annual minimum gross salary
4. Ability to pay
5. The labor unit at 2 minimum wage (Exclusive of CAF)

### 43/ Summary analysis of the various workshops

| Workshops         | Profitability<br>Average net margin<br>/3 years   | Representativeness<br>territorial specificity | Pedagogical interest | Labour<br>requirements                               |
|-------------------|---|---|----------------------|--|
| Milk              | ***<br>Average net margin<br>over 3 years: 62864<br>euros<br>(exceptional year<br>2022) | ****  | ****                 | ****<br><br>2 Full-time<br>equivalent<br>workforce   |
| Bresse poultry    | *<br>Average net<br>margin over 3<br>years: -34240<br>euros                             | ****  | **                   | ****<br><br>1.3 full-time<br>equivalent<br>employees |
| Red label poultry | **<br>Average net<br>margin over 3<br>years: €1,548                                     | **  | **                   | *<br><br>0.2 full-time<br>equivalent<br>workforce    |
| Fattening         | **<br>Average net<br>margin over 3<br>years: -14829<br>euros                            | **  | *                    | **<br><br>0.5 full-time<br>equivalent<br>manpower    |

Legend: \*\*\*\* Very good or not very complex, \* difficult or complex

Forces

Links between EPL (Public educational establishment) centers; presence of a processing workshop and a store

Teams invested at all levels

Attractive store

Strong educational activity

Financial solidarity EPL

### Weaknesses

Obsolescence of Belfin site, building VI

Renovations and improvements to be made

Bresse poultry sector's fragility

Opportunities

Geographical location

Strong image of the protected designation of origin (Bresse poultry)

Potential for territory development (Educational farm, Sardelices Store etc.. )

The willingness of local stakeholders to work with us

Land

Threats

Profitability of the sectors, what level of proficiency

Land pressure

Health risks

Climate changes

## **5/ THE SARDIERES AGRI-FOOD WORKSHOP**

### **51/ Overview:**

The agri-food workshop provides four types of services (outside its educational function):

- Provision of premises for producers who are processing their production (18% of turnover)
- Manufacturing outsourcing for producers who entrust us with the processing of their product (10% of turnover). This service and the previous one allow us to work with about 80 producers.
- Sales of products from other producers, mainly other agricultural lycées (20% of turnover)
- Sales of workshop products, partly from our own operation (32% of our turnover)
- 

The premises are separated into two separate parts

- The technology hall, which is used almost exclusively for educational activities.
- The workshop which is mainly dedicated to production activities

1.

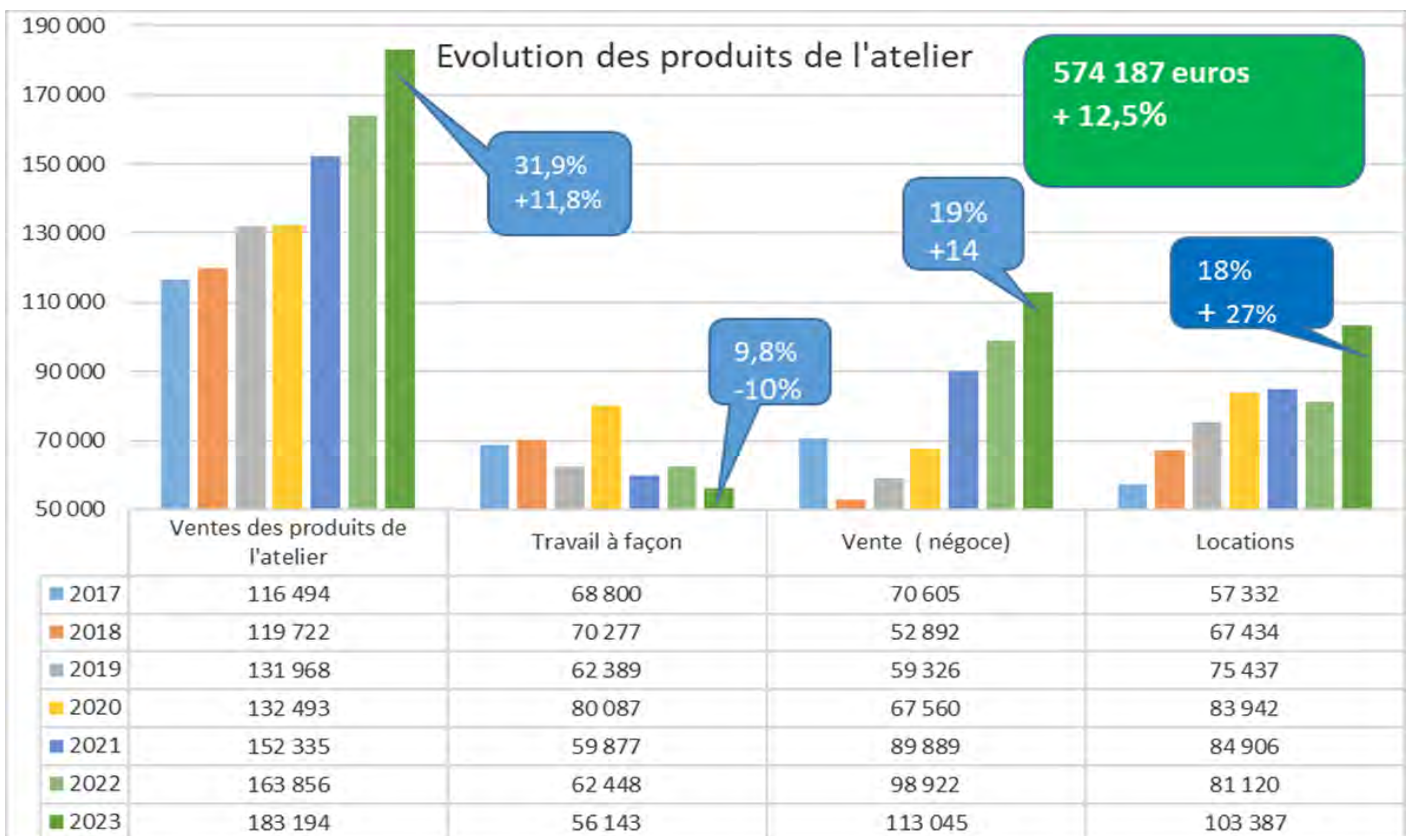


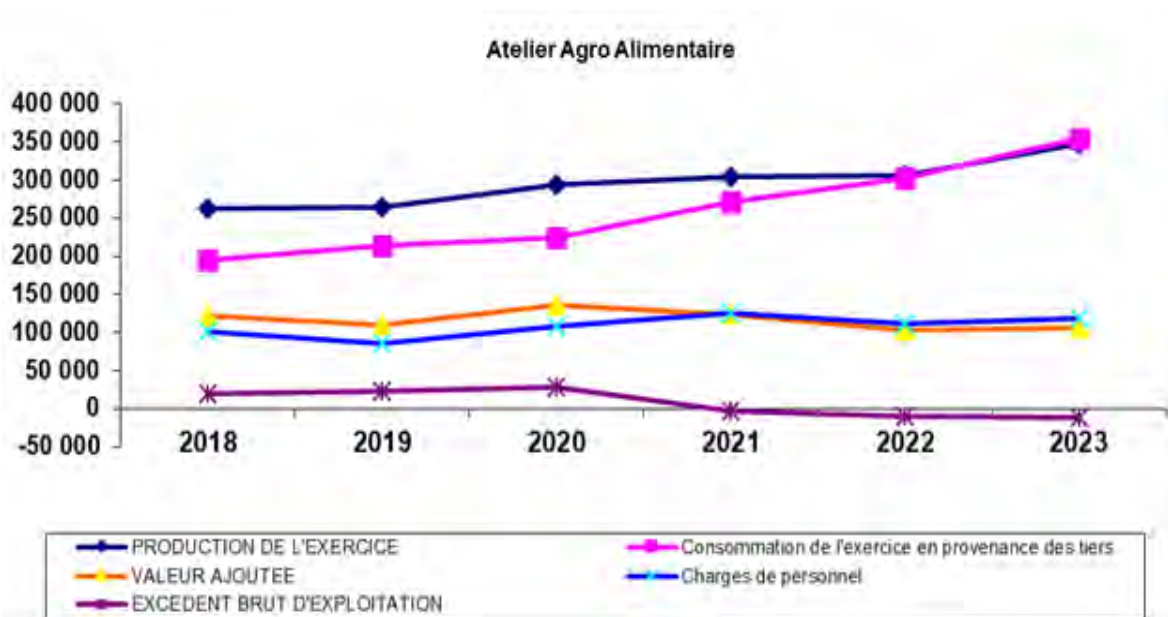
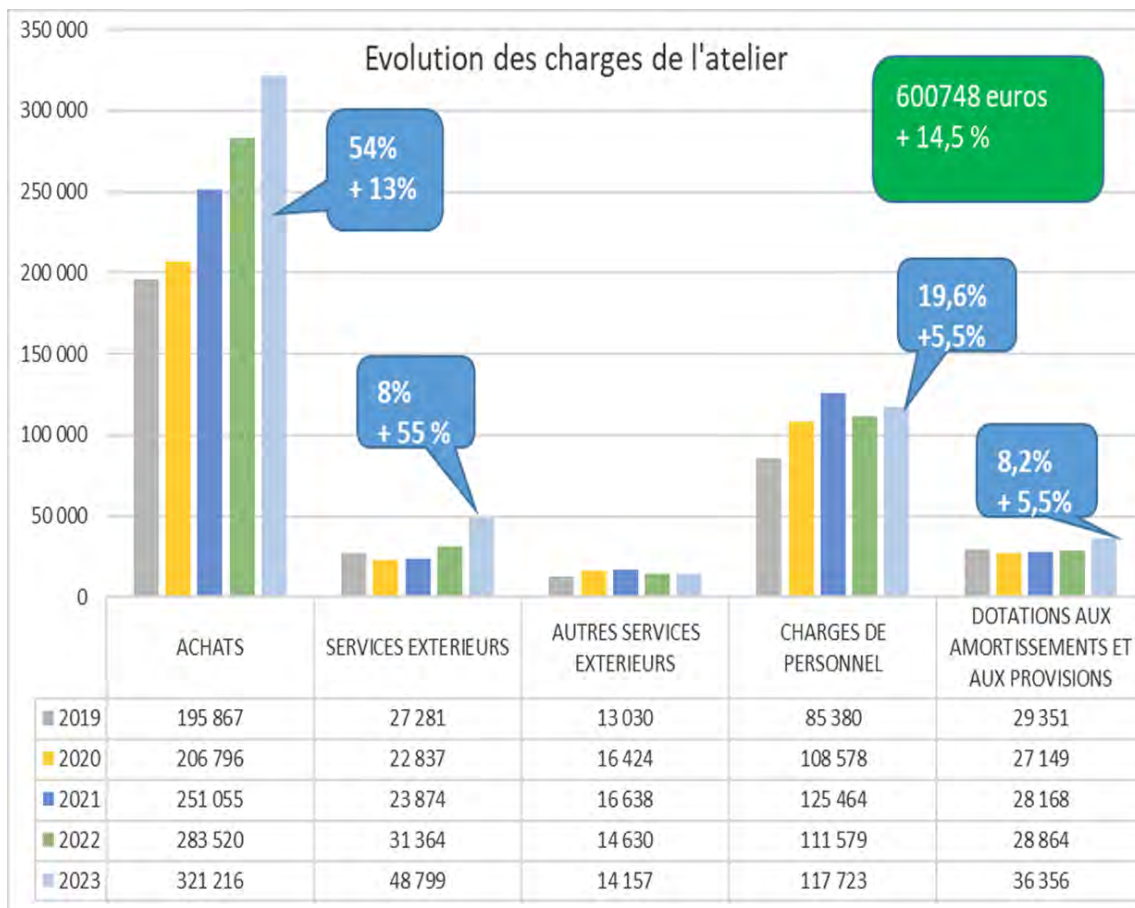
2.

1. Distribution of the place of development of educational uses
2. Annual evolution of the pedagogical use of the Sardélices technological workshop

## 52/ Financial functioning

Total revenues are constantly increasing in 2016 (+50% over 8 years) and now reach 570,000 euros. However, since 2021 it has been struggling to balance its results due to high inflation and the ageing of its facilities (cf. external services costs +55% in 2023);





In addition to the manager of the workshop paid by the state 4 employees work on the structure ((3 technicians and a saleswoman-store manager).

## 53/ Summary analysis of the different activities

| Activités<br>Activities                     | Profitability | Complexity<br>Tehcnicality | Control of health<br>risks | Labour requirement |
|---|---------------|----------------------------|----------------------------|--------------------|
| <b>Sale of workshop<br/>products</b>        | ***           | **                         | ***                        | **                 |
| Trading                                     | **            | ***                        | ***                        | ***                |
| <b>Rental of premises<br/>and equipment</b> | ***           | **                         | *                          | ***                |
| Manufacturing<br>outsourcing                | **            | ***                        | **                         | **                 |

Caption: \*\*\*\* Very Good or Not Complex, \*Difficult or Complex

#### Forces

Links between EPL (Public educational establishment) centers; presence of a holding

Teams invested at all levels

Attractive store

Strong educational activity

Financial solidarity EPL

#### Weaknesses

##### Dilapidated buildings

Investment and maintenance costs

Health risks

No analytical accounting

Not very diversified production

Weak commercial dynamics

#### Opportunities

Geographical location

Strong image of the protected designation of origin (Bresse poultry)

Development potential

Willingness of local stakeholders to work with us

#### Threats

Market extremely attentive to changes in purchasing power

Health risks

Changing regulations

Objectives and unforeseeable

Development of the organization

Educational activity, experimentation, link to the territory

Exemplarity

Maintain the wage labor force and the viability of the system



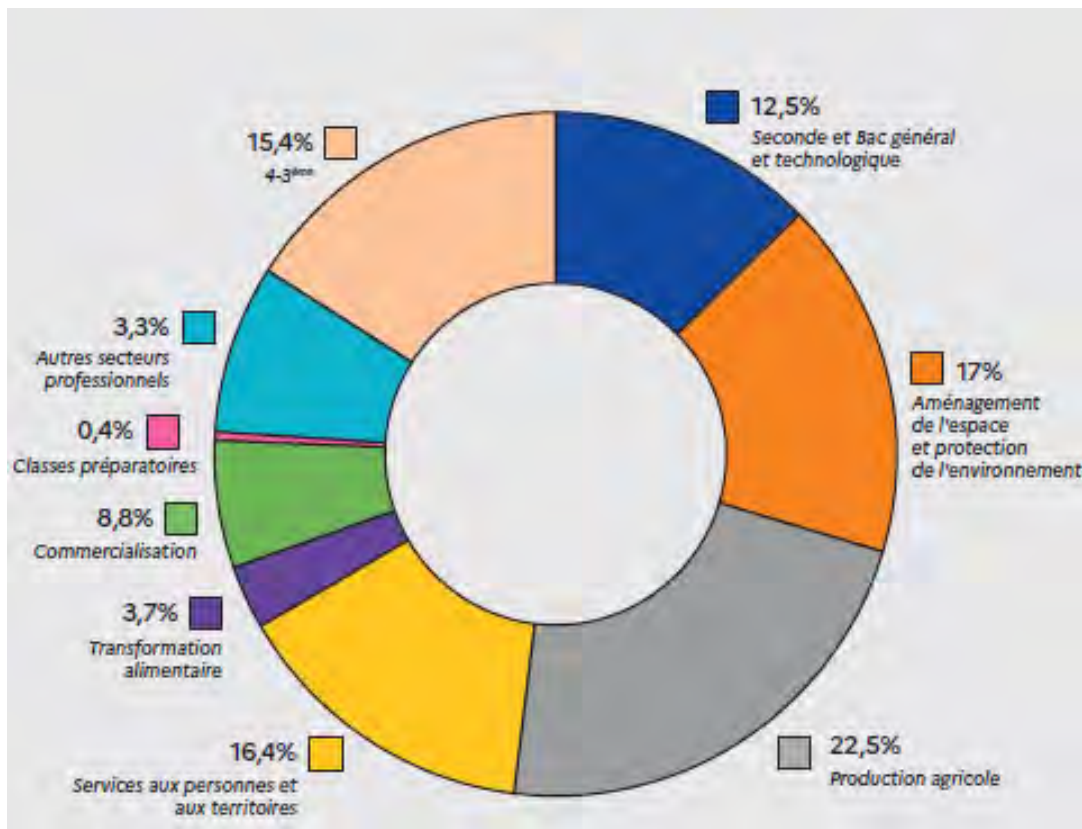
# AGRICULTURAL EDUCATION QUALIFICATIONS

## Work Sheet n°4

### 1/PRESENTATION

Agricultural education provides training in all life-related occupations: working with the land, nature, plants, forests, wood, etc. It is available in both general and technological streams and also enables students to continue their studies in higher education: BTS, veterinary, engineering or landscaping professions.

#### Diplomas in various fields:

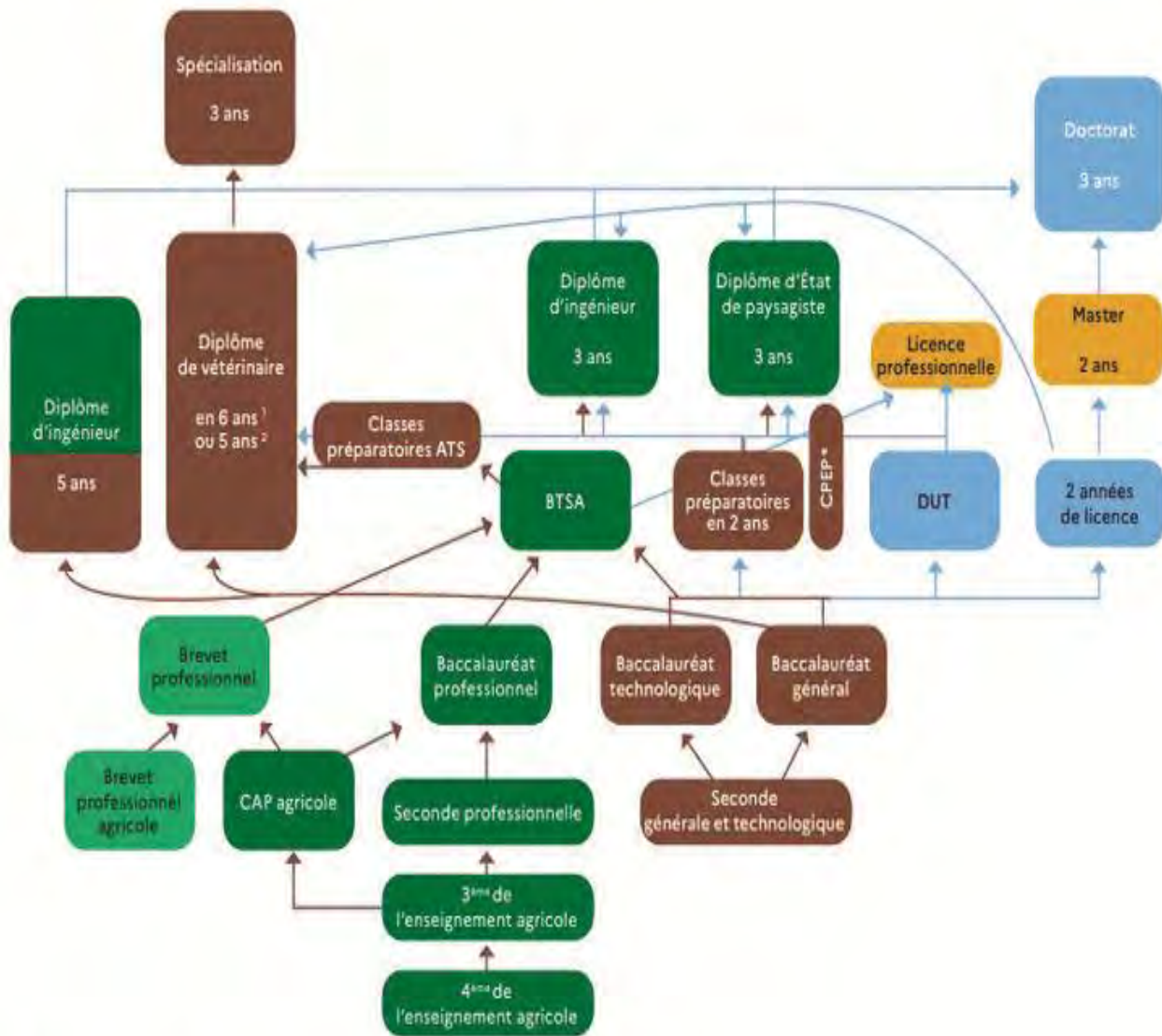


Source DRAAF Aura: key figures for agricultural education in the Auvergne-Rhône-Alpes Region

Only 22.8% of students in agricultural education are preparing for a diploma specializing in agricultural production, and 3.7% for careers in the agri-food industry.

The courses offered range from 4th year (13 years) to engineering degrees or doctorates (26 years).

## DES FORMATIONS POUR TOUS, DE LA 4<sup>ème</sup> AU DOCTORAT



- Formations de l'enseignement agricole par voie scolaire
- Formations de l'enseignement agricole par apprentissage
- Formations de l'enseignement agricole par voie scolaire et/ou par apprentissage
- Formations universitaires et de l'enseignement agricole par voie scolaire
- Formations universitaires et de l'enseignement agricole par voie scolaire et par apprentissage
- Formations universitaires
- ➔ Principaux parcours de formation au sein de l'enseignement agricole
- ➔ Passerelles avec les formations de l'éducation nationale

1 6 ans : pour les recrutements en concours post-bac via Parcoursup

2 5 ans : autres voies de concours

\* Cycle préparatoire aux études de paysage

Source : <https://www.union-agricole.fr/portrait-de-lenseignement-agricole-en-france-en-2022>

## 2/ QUALIFICATIONS RELATED TO FOOD PROCESSING OR AGRICULTURAL PRODUCTION

### 21/The objectives and characteristics of the various diplomas

- The CAP (certificat d'aptitude professionnelle = certificate of professional competence) provides training in the basic skills and techniques of trade.
- The BP (brevet professionnel= Professional certificate) enables you to prepare for an installation with individualized programming and progressive assessment.
- Specialization Certificates with 6 months in a company allow you to specialize in a specific field (dairy processing, mechanics, poultry farming, etc.).
- The vocational baccalaureate provides in-depth technical knowledge to support decision-making and trains candidates in business management.
- The BTS trains candidates to provide technical support and advice in a defined sector.
- The engineering course trains candidates in versatility, expertise and project management.
- The engineering course trains candidates in versatility, expertise and project management.

|   | Sector                    | Title  | Entry procedures   | Duration | School suite  | Professional suite             |
|---|---------------------------|--|--|----------|---------------|--------------------------------|
| CAP :<br>Certificate of professional competence | Agricultural              | Agricultural professions                           | After 3ème or in reintegration   | 2 years  | BP or bac pro | Salaried employees             |
|   | Agri-food                 | Food industry operator                             |  |          |               |                                |
| Bac pro :<br>Professional Baccalaureat          | Agricultural              | Farm business management                           | After 3rd year   | 2 years  | BTS           | Setting up, salaried employees |
|   | Agri-food                 | Industrial production of pharmaceuticals and food. |  |          | BTS           | Salaried employees             |
| Technological baccalaureate                     | Agriculture and agri-food | Agricultural and life sciences and technology      | 2 <sup>nd</sup> year and General Class Council notice                  | 2 years  | BTS           |                                |
|   |                           |  |  |          |               |                                |
| Professional certificate                        | Agricultural              | Farm manager                                       | Vocational retraining or after a vocational training certificate (CAP) | 2 years  |               | Setting up, salaried employees |
|   | Agri-food                 | Food industry                                      | Vocational retraining or after a vocational training certificate (CAP) | 2 years  |               | Salaried employees             |
| Certificate of specialisation                   | Agricultural              | Dairy, poultry, processing, tractors               | After vocational baccalaureate or vocational                           | 1 year   |               | Setting up, salaried employees |

|  |                           |  |   |                 |   |                                |
|--|---------------------------|--|---|-----------------|---|--------------------------------|
|  |                           |  | training certificate  |                 |   |                                |
|  | Agri-food                 | Dairy processing,  | After vocational baccalaureate or vocational training certificate                                 | 1 year          |   | Setting up, salaried employees |
| BTSA<br>Advanced Agricultural Technician Certificate | Agricultural              | Farm business analysis and management, animal production, plant production, .... | After vocational, technological or general baccalaureate<br>2 years                               |                 | Preparatory class for the grandes écoles (except vocational baccalaureat) | Salaried employee (executive)  |
|  | Agri-food                 | Bioqualim  |   |                 | Professional degree   |                                |
| Professional degree                                  | Agricultural              | A wide range of specialities   | After BTSA in 1 year  |                 | Engineering school<br>University (master)                                 | Salaried employee (executive)  |
|  | Agri-food                 | A wide range of specialities   |   |                 |   |                                |
| Preparatory classes                                  |                           |  | After general or technological baccalaureate  | 2 years         | Engineering school<br>Master's degree                                     | Salaried employee (executive)  |
| Post-BTS preparatory classes                         |                           |  | After BTS   | 1 year          | Engineering school<br>Master's degree                                     |                                |
| Engineering school                                   | Agricultural<br>Agri-food |  | After preparatory classes by competitive examination or after university course based on a record | 3 years         |   | Salaried employee (executive)  |
| Veterinary schools                                   |                           |  | After competitive preparatory classes   | 3 years or more |   | Veterinary                     |

## **22/The qualifications required to qualify for start-up aid for agriculture**

The standard courses that prepare you for setting up a farm (you need to have a vocational baccalaureate or equivalent (see below) to be eligible for state aid for setting up a farm):

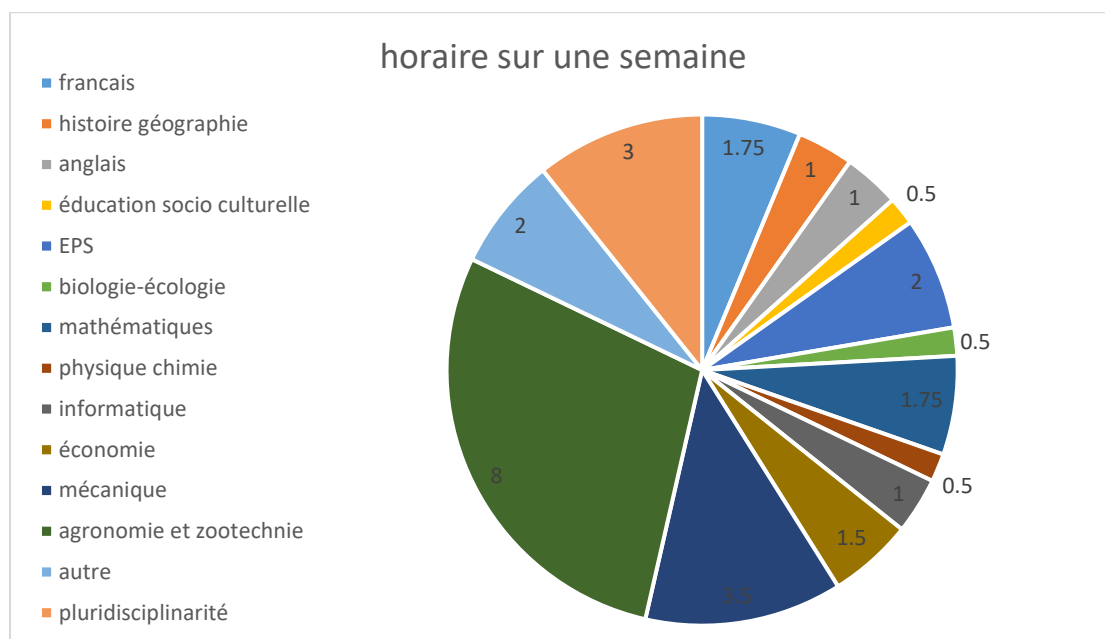
- 1 year Seconde professionnelle + 2 years Baccalauréat professionnel CGEA (farm management): assisted installation possible.
- Vocational, technological or general baccalaureate + 2 years Agricultural BTS (agricultural business analysis, management and strategy): assisted installation possible.
- 2 years Certificat d'aptitude professionnelle (vocational aptitude certificate) + 2 years Brevet professionnel (vocational diploma) (apprenticeship route only): assisted installation possible.

- 10-month BPREA (Brevet Professionnel Responsable d'Entreprise Agricole) course for adults : assisted installation possible.

Today, many young people graduating from agricultural education enter the world of work as employees after a CAP (Certificate of Vocational Aptitude), a BAC PRO (Vocational Baccalaureate) or even a BTS (Higher Technician's Certificate).

### 3/ MAIN CHARACTERISTICS OF THE AGRICULTURAL EDUCATION DIPLOMAS PREPARED IN SECONDARY SCHOOLS

#### 31/ Certificate of vocational aptitude in agriculture (CAP)



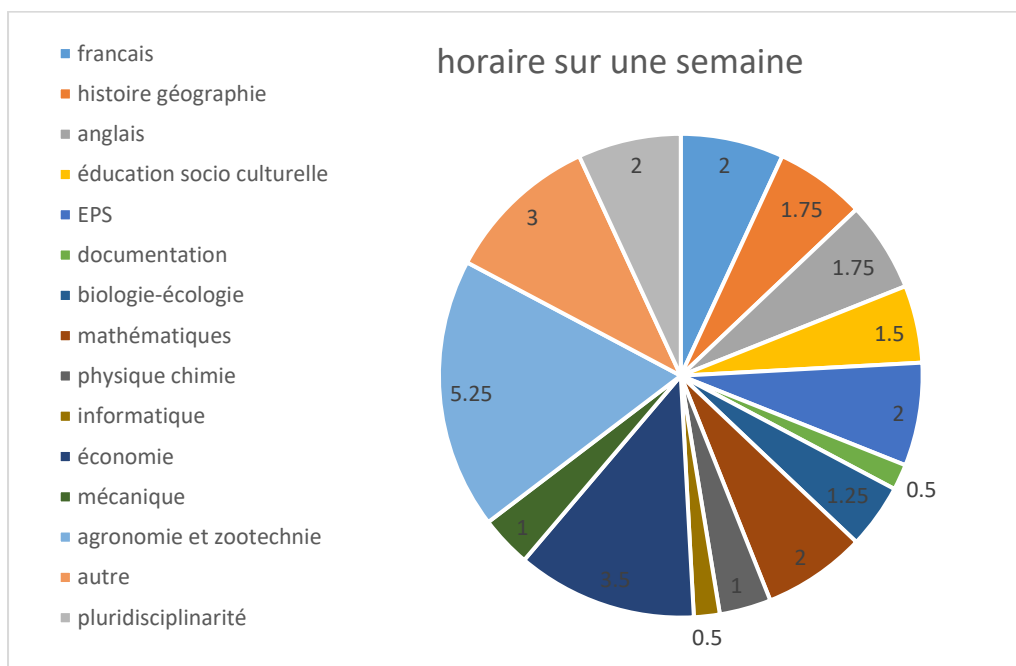
11-week work placement on a farm + 1 week group work placement

#### The learner in a professional situation (internship and practical work) :

- Respects the essential principles of the human-animal relationship
- Applies ergonomic principles to operations and handling
- Takes part in assessing the animal's body condition
- Mastery of simple approach and restraint techniques : knots, halter, calming (gesture, voice, posture, clothing, etc.), animal handling and restraint materials and equipment.
- Takes part in loading and unloading animals for transport in compliance with current regulations.
- Identifies, collects and transmits registration information from the farm to update registers (breeding register, health booklet, reproduction monitoring schedule, etc.).
- Identifies the feed given to the animals and assesses its quality and quantity, distinguishing between fodder (fermented, dry, etc.), concentrates (cereals, oilcake, etc.) and minerals in the ration.
- Manages the distribution of rations, distributes feed, removes rejects and cleans troughs and drinking troughs
- Manages the herd's water supply, considering its quality and accessibility, and develops and maintains water points.
- Identifies and reports signs of heat waves.
- Participates in the implementation of techniques to control reproduction: deseasoning, sponge fitting, implants, synchronisation, etc.
- Preparing for calving (restraint, feed, calving stalls, etc.) ...)

- Identifies and reports on early signs of parturition (temperature, flow, isolation, etc.)
- Together with the breeder, helps the animal to give birth in hygienic conditions and with respect for animal welfare.
- Carries out routine care of the young: taking colostrum, disinfecting the umbilical cord, clearing the airways, etc.
- Locates, identifies and reports signs suggesting that the animal is suffering from health problems: isolation, head down, lack of appetite, locomotion, shortness of breath, state of excrement, etc.
- Isolate the identified animal from the rest of the batch, respecting safety rules and animal welfare.
- Takes part with the farmer in health prophylaxis operations
- Ensures and monitors good housing conditions: mulching, density, space at the trough, cleanliness of the feeding table, watering, etc.
- Participates in the implementation of prophylaxis plans or prescribed treatments
- Applies the treatment dosage: method of administration, quantity, waiting time
- Report on its activities
- Carries out operations on the animal: dehorning, trimming, shearing, etc.
- Prepares and distributes milk feed appropriate to the animal's age (quality, quantity, temperature)
- Ensures that feeding goes smoothly
- Prepares and supplies milk supplements (fodder, concentrations, water, etc.)
- Takes part in the allocation of animals according to the criteria adopted: sex, weight, commercial destination.
- Prepares the milking parlour and milk room
- Group animals
- Carry out routine hygiene operations during milking (before, during and after)
- Vérifie et signale à l'éleveur la présence de mammites ou autres problèmes de la mamelle
- Installs and removes the milking cluster, ensuring that milking runs smoothly
- Carries out cleaning operations on the facility and in the milking parlour
- Checks that the temperature of the refrigeration systems is optimal.
- Using instructions, carries out work during cultivation in compliance with health and safety rules
- Takes part in the harvesting of crops associated with livestock farming and, if necessary, in transporting them for storage on the farm.

### **32/ Professional Bacculaureate in Farm Management (Bac pro)**

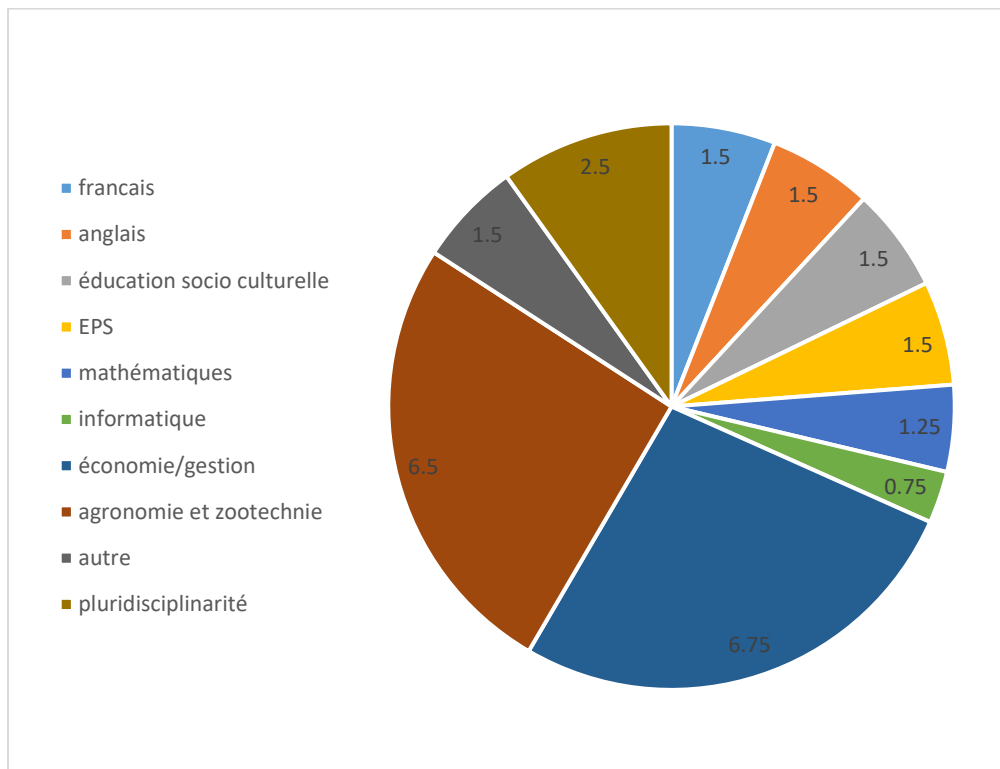


14 to 16 weeks of work experience.

**The learner in a professional situation (work placements and practical work) :**

- Observing and assessing the state of the agroecosystem
- Managing animal and plant health
- Managing a forage system
- Improving the welfare of farm animals
- Diagnose the condition of the soil
- Designing a crop rotation
- Recycling livestock effluent and plant waste
- Analyse production costs and gross and net margins
- Analysing the company's technical, economic, financial, environmental and social performance

**BTSA - Agricultural Business Analysis, Management and Strategy (BTSA)**



14 to 16 weeks of work experience.

**The learner in a professional situation (work placements and practical work) :**

Diagnoses or assess a situation or a project

Designing and setting up a project

Manage the production system to achieve economic and environmental performance

Analysing internal and external risks to the operating system or project

Implement the necessary changes and innovations relating to the company's direction, production methods, investments, financing, workforce, etc.

Checking compliance with environmental regulations, standards and quality standards



# LEARNING-BY-DOING SITUATIONS

## Work Sheet n°5

### 1/PRESENTATION

The situations presented here are not intended to present all existing situations but rather those that are the most representative or of particular interest.

| SITUATION  | OBJECTIFS  | ORGANISATION  | DURATION  | EVALUATION  | EXAMPLE   |
|--|--|---|---|---|---|
| <b>PRACTICAL WORK IN AGRICULTURAL TRAINING</b>     | Acquisition of practical skills, reinforcement of theoretical knowledge, development of autonomy, simulation of professional situations, teamwork. | Follow-up of the reference system, sessions in the timetable<br>Pedagogical preparation of the teacher (preparation according to the work on the farm, climatic conditions, production rhythms and seasons).<br>Field activity.<br>Integration of worksheets in the course or reports (sometimes evaluated).<br>Supervision by the teacher of the discipline. | <b>Second</b><br>Agricultural Equipment<br>2 hours per week.<br><b>Second</b><br>Zootechnics<br>2 hours every 2 weeks.<br><b>First and final year</b><br>Agricultural equipment, zootechnics and agronomy<br>1.5h every 2 weeks.<br><b>Second</b> | An integral part of formative and certifying assessments. | TP agricultural equipment welding.<br><br>Public works zootechnics animal drugging.<br><br>Agronomy and yield evaluation.                               |
| <b>ENHANCED PRACTICAL WORK</b>                     | Acquisition of practical skills, reinforcement of theoretical knowledge, development of autonomy, simulation of professional situations, teamwork. | Preparation (equipment reservation, purchase of supplies, etc.) upstream with the operation according to needs and opportunities.<br>One half group over 2 days, the other half group is in class with the "usual" timetable<br>Use of equipment, supplies and farm animals.<br>Support by 2 teachers and, if necessary, employees of the farm.               | <b>Second and First</b><br>2 days for the students, i.e. 4 days for the whole class and for the supervisors.  |   | <b>TPR Second</b> Tractor Driving & Animal Handling<br><br><b>TPR first</b> sowing of meslin and grassland  |
| <b>PRACTICAL WORK IN NON-AGRICULTURAL TRAINING</b> | Use the farm as a support for scientific study.<br>Enabling young people to be in a real situation   | Consultation on possible subjects and organizational modalities between the teaching team and the director of operations.<br>Carrying out the work<br>Return to the operations team   | Variable according to project   | Variable according to project                             | Microbiological analysis of milking parlour surfaces<br>Milk quality control<br>Drinking trough water quality control<br><br>Soil biodiversity analysis |

|                                |   |  |                  |  |  |
|--------------------------------|---|--|------------------|--|--|
|                                |   |  |                  |  | Trial of processing of legumes (faba beans)  |
| <b>PROFES SIONAL PRACTI CE</b> | Acquisition of practical skills, reinforcement of theoretical knowledge, development of autonomy, living professional situations, teamwork. | Participation optional but commitment for the year. Formation of 3 groups Screening on Thursday from 3:30 p.m. to 6 p.m. Practice in connection with projects and needs of the farm, external projects | 2.5 hrs per week | <b>Oral</b> (description of a situation experienced then interview) 10 min evaluation. Optional certification test | <b>Zootechnics:</b> preparation for the events for the agricultural show.<br><b>Agricultural equipment:</b> construction of a trolley for the calf workshop<br><b>Agronomy:</b> counts for a rapeseed trial by the Chamber of Agriculture. |

## 2/EXAMPLES

### 21/ Calf milking and feeding courses at the Sardières high school

**Audience:** Students of Bac Pro CGEA1 (second year of the training which lasts 3 years, average age 17 years).

#### **Pre-acquired assets:**

In the second year (1st year in the school), several sessions to prepare students for the acquisition of fundamental practical know-how (calf feeding, milking for example). During the zootechnics classes of the second year, anatomy and the production and reproduction cycles are the main objectives. The practical work of the second class allows everyone to develop their ability to identify, approach, contain animals in complete safety (making halters, tying knots, restraining calves, pointing animals).

Sequences of multidisciplinary, agricultural equipment and zootechnics, allow students to identify the different milking and feed distribution systems.

Two PFMP situations (period of training in a professional environment, internship) are offered to them:

1. 1 week on the operation of the high school with the objective of discovering the functioning of the EA by going through all the workshops.
2. 6 weeks on another farm chosen by the student, ideally combining related animal and plant production.

Before the first week of PFMP, the class spends 4 days in reinforced practice on the farm, supervised by the teachers with the support of the employees. They are thus initiated and evaluated on the aspects of tractor driving and restraint/handling of animals (heifers).

Finally, for volunteer students, a professional practical option is offered at a rate of 2.5 hours per week. The 24 participants are separated into 3 groups and divided into animal, plant and agricultural equipment activities.

#### **The process:**

Every week, a pair of CGEA1 students are on an internship on the farm. One student on the milking activity, another on calf feeding.

|                            | <b>Internship treated</b>   | <b>Calf training</b>  |
|----------------------------|---|---|
| <b>Frame</b>               | Employee  | Employee  |
| <b>Schedules/durations</b> | 5 milkings:<br>1 evening 4pm-6.30pm<br>4 a.m. 6am-8:30am  | 4 mornings 8am-10am and 5 evenings 4pm-6pm                                  |
| <b>Tasks performed</b>     | Grouping of animals<br>Milking installation<br>Getting Started<br>Carrying out milking<br>Cleaning  | Understanding a Diet Plan<br>Feeding weaned and unweaned calves<br>Mulching |
| <b>Targeted skills</b>     | <ol style="list-style-type: none"> <li>1. Gradually acquire autonomy over the course of the week over the activity</li> <li>2. Detect problems</li> <li>3. Alert</li> </ol>   |   |
| <b>Skills assessment</b>   | <ol style="list-style-type: none"> <li>1. Evaluation grid completed by the operations team <ul style="list-style-type: none"> <li>- These practical skills and understanding of technical documents are evaluated during a final year certificate test</li> </ul> </li> </ol> |   |

Remobilization afterwards (school and in the context of the profession)

| Remobilization in the context of schooling   | Remobilization in the professional context   |
|--|--|
| <ol style="list-style-type: none"> <li>1. Link with the zootechnics courses "Feeding and digestion of farm animals", "Functioning of the udder and milk secretion"</li> <li>2. More safety during practical sessions thanks to a better knowledge of the animals.</li> <li>3. Animation of the safety day on the farm in January</li> <li>4. Discovery of the different milking systems</li> <li>5. Understanding and analyzing eating plans</li> <li>- Hygiene and safety at milking</li> </ol> | <ol style="list-style-type: none"> <li>1. Distribution of animal feed.</li> <li>2. Carrying out the milking.</li> <li>3. Detection of problems on the animal.</li> <li>4. Cleaning of the milking parlour.</li> <li>5. Mulching.</li> <li>6. Restraining and moving animals</li> </ol> |

## **22/ Reinforced Practical Work implementation of a meslin trial at the Sardières high school**

### **Public:**

Students of Bac Pro CGEA1 (second year of the training which lasts 3 years, average age 17 years).

### **Preparation:**

Meeting of teachers, operations manager, employees of the operation, external consulting technicians, with the aim of:

1. Identify production issues (e.g. improve the protein autonomy of cattle feed).
2. Find solutions and techniques to test.
3. Propose pedagogical situations to meet the needs (e.g. bibliographic research, making seed mixtures, adjusting the seeder, working the soil, sowing, monitoring)
4. Organisation of the timetable (teaching team and management).
5. Ordering of supplies and reservation and equipment (operations manager, employees and technicians).

## Pre-acquired assets:

In the class of 2 CHP, bibliography work to discover the generalities and aspects of the production of species to be integrated into a meslin.

2 agricultural equipment practical exercises in September to learn how to adjust the tillage tools and the seeder used during the establishment planned for October.

2 multidisciplinary sessions to present the trial, propose the implementation in a situation, calculate the seed needs and constitute the mixtures.

| Variétés de pois           | Orge « -30% »          |                          | Orge « normal »        |                          | Orge « +30% »          |                          |
|----------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|
|                            | ORGE                   | POIS                     | ORGE                   | POIS                     | ORGE                   | POIS                     |
| Pois Fourrager<br>PMG =    | Bande A                |                          | Bande B                |                          | Bande C                |                          |
|                            | grains/m <sup>2</sup>  | 17 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 17 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 17 grains/m <sup>2</sup> |
|                            | 60kg/ha                | kg/ha                    | 90 kg/ha               | kg/ha                    | 120 kg/ha              | kg/ha                    |
|                            | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   |
| Pois Protéagineux<br>PMG = | Bande D                |                          | Bande E                |                          | Bande F                |                          |
|                            | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> |
|                            | 60kg/ha                | kg/ha                    | 90 kg/ha               | kg/ha                    | 120 kg/ha              | kg/ha                    |
|                            | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   |
| Pois Protéagineux<br>PMG = | Bande G                |                          | Bande H                |                          | Bande I                |                          |
|                            | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> | grains/m <sup>2</sup>  | 50 grains/m <sup>2</sup> |
|                            | 60kg/ha                | kg/ha                    | 90 kg/ha               | kg/ha                    | 120 kg/ha              | kg/ha                    |
|                            | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   | Kg pour m <sup>2</sup> | Kg pour m <sup>2</sup>   |

## The process:

The TPR takes place over 2 days.

The first day with group 1 of the class while the second is in class with a "normal" timetable, the next day, we reverse.

For about 2 hours, the teachers present the organization of the 2 days. The equipment is prepared with special attention to safety. The necessary supplies are checked or even completed. The tractors' working hours are recorded, the fuel fill-ups are made.

On the plot, at least 2 students are at the controls of 2 tractors + equipment (tillage, sowing, etc.) accompanied by 2 trainers (often 1 teacher + 1 employee of the farm). A regular turnover is set up to allow the students to all switch to driving 1 or even several times.

During this time of work in action, the other teacher spends time making observations in the fields (verification of sowing quality, observation of biodiversity, soil, etc.) and preparing the following methods of the trial.

At the end of the 2 days, the tanks are refuelled and the tractors' hours are noted.

Time is spent in groups to evaluate the work, the working conditions and an inventory of time and consumption is made. There is a presentation of the work still to be done to make a communication on the trial set up.

All the equipment is cleaned and refurbished in the workshop so that the farm or, if necessary, a co-owner can reuse it immediately.

## **Evaluation :**

Driving evaluation (safe work, autonomy, evolution, responsiveness, etc.)

All the equipment adjustment part will be evaluated the following year during an in-course inspection counting for the exam according to the drawing of lots of subject (other theme: fertilizer spreader, manure spreader, slurry spreader, soil work tool, other seeder...)

## **Plot monitoring:**

Species count (meslin + weeds) after emergence.

Species count (meslin + weeds) out of winter.

Soil life (earthworms, degradation of the slip, spade structure test, etc.)

## **23/ Practical work or projects carried out for non-agricultural training at the Lycée des Sardières**

### **Projects implemented within the framework of the Professional Adaptation Module (MAP): Quality control within the farm.**

The various projects are carried out over a year, up to a 2-hour session every 15 days.

#### **Educational objectives:**

Conduct a team study independently on a particular concrete case; Carry out sampling protocols; Carry out analyses; Perform the interpretation; Report on the entire project in a professional manner.

#### **Practice 1:**

Objective: To control the microbiological quality of the milking parlour surfaces.

Check/validate products and cleaning sequences

Method: take surface samples with cloths, agar slides, swabs, etc. Analyze the presence of faecal, total and pathogenic milk germs (*Listeria*, *Staphylococcus*, etc.)

#### **Practice 2:**

Objective: To control the quality of milking milk

Method: take samples of milk from milking machine, manual milking, milk tank and analyze the samples from a microbiological point of view.

#### **Practice 3:**

Objective: To control the water quality of the drinking troughs

Method: take samples from several drinking troughs and analyse the microbiological quality of the water (search for Enterococci, faecal germs, etc.)

#### **Practice 4:**

Objective: To control the cleaning products / disinfectant of the cows' magpies.

Methods: take product samples and perform inhibition tests for pathogens and faeces.

**WHO:** The projects are carried out in collaboration with the director of operations, the microbiology teacher and the students of the professional baccalaureate.

**Evaluation:** oral presentation of the projects, the results obtained, their interpretations and the proposals for solutions envisaged by the students in front of a jury composed of the director of operations and the teacher counting as CCF.

### **Biology-ecology sequence set up over a semester at a rate of 1h30 / week**

#### **Soil Biodiversity Analysis on the Farm**

Objective: To study the impact of agriculture on soil biodiversity

Method: sampling of different soils (meadows, plots, forest, etc.), texture analysis (blood sausage test), soil characteristics (pH, acidity, etc.), microfauna analysis (Berlèse test), microorganism analysis (fresh, etc.)

**WHO:** the projects are carried out in collaboration with the director of operations, the biology teacher and the students of the professional baccalaureate.

**Evaluation:** restitution in the form of a report and assessment allowing the construction of the course.

### **Projects with the BTS BIOQUALIM (Quality, Innovation and Health Control) course**

Valuation of agricultural products supplied by the farm:

#### **Educational objectives:**

To carry out innovative or non-innovative manufacturing, with the agricultural raw material provided by the farm.

Ex: Faba bean biscuit...

**WHO:** Projects are conducted in collaboration with the COO, Food Engineering teacher, and students.

**Evaluation:** oral restitution of projects, participation in food innovation competitions.