



**HAL**  
open science

## Participation in the development and the influence of the certification "Haute Valeur Environnementale"

Pierre Decap

► **To cite this version:**

Pierre Decap. Participation in the development and the influence of the certification "Haute Valeur Environnementale". Life Sciences [q-bio]. 2020. dumas-03053380

**HAL Id: dumas-03053380**

**<https://dumas.ccsd.cnrs.fr/dumas-03053380>**

Submitted on 11 Dec 2020

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**AGROCAMPUS OUEST**

CFR Angers  CFR Rennes

Année universitaire : 2019.- 2020

Spécialité :

Ingénieur Agronome

Spécialisation (et option éventuelle) :

Agroécologie

### Mémoire de fin d'études

d'ingénieur de l'École nationale supérieure des sciences agronomiques, agroalimentaires, horticoles et du paysage (AGROCAMPUS OUEST), école interne de l'institut national d'enseignement supérieur pour l'agriculture, l'alimentation et l'environnement

de master de l'École nationale supérieure des sciences agronomiques, agroalimentaires, horticoles et du paysage (AGROCAMPUS OUEST), école interne de l'institut national d'enseignement supérieur pour l'agriculture, l'alimentation et l'environnement

d'un autre établissement (étudiant arrivé en M2)

## Participation in the development and the influence of the certification « Haute Valeur Environnementale »

Par : Pierre DECAP



**Soutenu à Rennes le 09 Septembre 2020**

#### **Devant le jury composé de :**

Président : Guénola PERES

Maître de stage : Laurent BRAULT

Enseignant référent : Anne-Lise JACQUOT

Autres membres du jury : Jocelyne FLAMENT,  
Examinatrice

*Les analyses et les conclusions de ce travail d'étudiant n'engagent que la responsabilité de son auteur et non celle d'AGROCAMPUS OUEST*

Ce document est soumis aux conditions d'utilisation

« Paternité-Pas d'Utilisation Commerciale-Pas de Modification 4.0 France »

disponible en ligne <http://creativecommons.org/licenses/by-nc-nd/4.0/deed.fr>





## Table of contents

Acknowledgement

Abbreviations Table

Introduction .....	1
1. Presentation of the Certification HVE and the Association HVE .....	3
1.1 Context and genesis of the “Certification Environnementale des Exploitations” .....	3
1.2 Three levels of certification toward the “Haute Valeur Environnementale” .....	4
1.2.1 The level 1 .....	4
1.2.2 The level 2 .....	4
1.2.3 The level 3 – “Haute Valeur Environnementale” .....	5
1.3 The process of certification for the HVE .....	7
1.3.1 Prerequisites .....	7
1.3.2 The role of Support Organisms and Certificate Organisms .....	7
1.4 The « Association Nationale pour le Développement de la Certification Haute Valeur Environnementale » .....	8
1.5 Work objectives .....	9
2 Materials and methods .....	10
2.1 Set up of the survey about the “Nitrogen Balance” indicator .....	10
2.1.1 Presentation of the indicator .....	10
2.1.2 Survey methodology .....	12
2.2 Conception of the Reader’s Guide .....	13
2.2.1 Collect of the questions .....	14
2.2.2 Sorting methodology .....	14
2.2.3 Issue’s answering and redaction .....	17
3 Results and Discussion .....	18
3.1 Results of the survey .....	18
3.2 Discussion about the Survey .....	19
3.3 Results and Discussion about the Reader’s Guide and the Question Fair .....	20
Discussion and Conclusion .....	20



Bibliography.....	23
Annex I: Report n°16079 of the CGAAER, Page 55/93.....	26
Annex II: List of the members of the HVE association in 2020 .....	27
Annex III: Picture of the HVE logo metal plate.....	29
Annex IV: Guide Sheet used for the interviews.....	30
Annex V: Summary table of the 19 interviews done for the “Nitrogen Balance” indicator’s survey.....	31
Annex VI: Template of the Excel Sheet where questions have been compiled .....	32



## Acknowledgement

All the work done during the last six months have possible thanks to the support of several people that I would like to warmly thank.

First of all I would like to thank all the people involved in the “Association Nationale pour le Développement de la Certification HVE” and her President for having welcomed me, explained and transmitted their desire to see this certification evolve for the benefit of all the French agriculture.

I also wanted to thank the “Confédération des Vignerons Indépendants de France” (VIF Confederation) and his Executive Chief Jean-Jacques Jarjanette for accepting to welcome me as an intern. The HVE asso is only managed by volunteers, so it was legally impossible to hire an intern, so thanks to mister Jarjanette, the agreement was done with the VIF Confederation, but I was fully dedicated to work with the HVE association.

I have learned a lot beside of Laurent Brault, my supervisor, who is a technical referent at the VIF Confederation and member of the HVE association. He explained to me all the history, genesis and technical points of the “Certification Environnementale des Exploitations” and particularly the level 3, the HVE. He also presented to me a global vision of the French agriculture, from the producer, to the different sectors, to the distribution and until the consumer. I really appreciated his explanations and his experience.

Thank you for having trusted and guided me all along the work we have done together.

I would like to thanks also all the members of the association that I had the chance to meet and work with: Josselin Saint-Raymond and Régis Chevalier, and all the other people committed in the association that I didn't meet.

All the work done on the Reader's Guide part have been done in collaboration with the Quality Department of the Ministry of agriculture. So I would also thank Juliette Robert and Loïc Schio for all that they have brought me and for all the work we did all together and with Laurent.

I also want to thank Anne-Lise Jacquot, as a school supervisor, for the support, the help and advices she gave to me during my internship.

I want also to thank Guenola Peres, the director of the Agroecology specialisation for the support and the help.

I would also thank all the people that I've work with during the last six months, Alix, Florence, Laurence, Natacha, Madisson, Marion, Pauline, Severine, Victoria, Christophe, Christian and Raphaël for their help, advices and good humour.





## Abbreviations Table

**CEE:** Environmental Certification for farms

**CNCE:** National Commission for Environmental Certification

**HVE:** High Environmental Value

**UAA:** Utilized Agricultural Area (*Surface Agricole Utile*)

**SIQO:** Official Sign of Quality and Origin

**CGAAER:** General Council for Food, Agriculture and Rural Areas

**HVE Association:** National Association for the Development of the certification HVE

**BA:** Bilan Apparent de l'Azote

**BGA:** Nitrogen Global Balance (*Balance Globale Azotée*)

**CORPEN:** Steering Committee for the Reduction of Water Pollution by Nitrates (*Comité d'Orientation pour la Réduction de la Pollution des Eaux par les Nitrates*)



## Introduction

The challenges that the agriculture has to face for the future, in France and Worldwide, are really huge. It will be necessary to feed with a safety and high quality production an ever-growing world population and in a same time reducing its impact on the environment (OCDE, 2019).

Concerning the first issue, in France, food safety has been a major concern for some years now, with problems such as the Mad Cow disease, the Listeriosis or GMOs (Bonny, 2000). These problems tend to be reduced by numerous standards at the international level.

Focusing on the last challenge of the OCDE, at the global level, greenhouse gas emissions from agriculture have almost doubled over the last 50 years. By 2014, it accounts for 24% of global emissions (FAO, 2015). In addition, intensive agriculture profoundly modifies ecosystems by impacting soils and biodiversity.

And even if certain technical choices show beneficial effects that should be more developed, some other methods have such negative impacts that citizens no longer accept, either locally or more generally. The demands made on farmers by the French society are clearly oriented towards notions of terroir, quality, health safety, diversity, and sanitary respect for the environment and for the consumer (Pujol and Dron, 1999). Consumer demand for products from environmentally friendly agriculture is growing and the distribution sector is positioning itself to meet this demand. A strong overall economic movement is leading to the development of numerous public and private certification and labels. The same trend can be observed internationally (Meybeck et al., 2011).

From an economic point of view, consumer goods can be classified into three categories according to the information available to consumers at the time of purchase: research goods, experience goods and trust goods (Nelson, 1970; Darby and Karni, 1973).

A research good is a good whose quality can be assessed before purchase. Whereas the quality of an experience good is revealed after consumption. For a trust good, the consumer can never discover its quality alone, even after consumption. This is the case, for example, with the ecological qualities of a product, which cannot be verified by consumption alone without additional information (Bonroy and Constantatos, 2004).

Markets for trust goods cannot effectively function without an element of external credibility. A label as a distinctive sign affixed to a product to certify its conformity with a norm or standard, makes it possible. It transforms a trust goods into a research goods (Hobeika et al., 2013). This is why a lot of new label or certification system has been created, in order to give confidence to the public opinion and meet the consumer demand.

Following Hobeika et al in 2013, four elements are necessary to establish and maintain confidence in a credible labelling and certification system:



- i) the elaboration and criteria of the label,
- ii) the implementation modalities,
- iii) the control protocol,
- iv) the qualification of the controller

In this report, a system of a public environmental certification for the farms, the “Certification Environnementale des Exploitations” (CEE) will be presented but the focus will be put on the level 3 of the CEE, the “Haute Valeur Environnementale” (HVE). I have only worked on this last level but to have a better understanding of the HVE, a presentation of the complete system of the CEE is necessary.

The aim of the work I did for with the “Association Nationale pour le Développement de la Certification HVE” (Association HVE) presented in this report is to answer the following problematic: How to ensure the homogeneity of the certification methods to guarantee the credibility of a public environmental certification such as the HVE?

This problematic has a huge importance, because with the current deployment of the HVE and the multiplicity of the stakeholders involved in the certification process, an increase of heterogeneous approaches could be induced and create some divergent approaches on some points of the Control Plan.

Indeed, in addition to the interest of new stakeholders to the certification, some new questions and issues appeared, especially on some parts of the Control Plan that are crucial for the result of the assessment to be certified or not. It's the case for the result of the calculi of the Nitrogen Balance, which could be determinant. In the objective of homogenize the methods of assessment, I did a survey of different organisms involved in the HVE to know how they calculate the Nitrogen Balance and how they deal with all the constraints that they can face. The objective was to better understand the difficulties faced and how they process. This work illustrates perfectly the issues that could exist on some points of the Control Plan.

Therefore, to continue to guarantee the homogeneity and the equity of all the assessments to be certified, the French Ministry of agriculture and the Association HVE are currently working on a document to answer the questions of the organisms involved in the certification process. This document is the “Reader’s Guide” of the official Control Plan of the HVE certification and has for final objective to continue to ensure the high credibility of the device. The survey on the Nitrogen Balance realized will help for the redaction this “Reader’s Guide”.

In the first part of the report, the four elements specified above for insuring confidence into a certification system will be discussed concerning the HVE, and then the Association HVE will be presented. How the French State and the Association HVE work together to create the Reader’s Guide will be presented then and discussed in the following parts. The second part is a presentation of the methods that I used during the Nitrogen Balance survey and the ones used to work on the Reader’s Guide. The third part will present all the results of these two works and discuss them.



Then I will conclude and discuss the strategy of the French Ministry and the Association to guarantee the credibility of the HVE certification.

## 1. Presentation of the Certification HVE and the Association HVE

### 1.1 Context and genesis of the “Certification Environnementale des Exploitations”

In order to examining the main environmental challenges and ways to deal with them through commitments shared by all the society’s actors, the « Grenelle de l’Environnement » has been launched in 2007 by the French State. A new mode of governance has been initiated by the gathering of five different colleges: The State, the local and regional authorities, employers, employees and non-governmental organisations (NGOs). In this way, all the stakeholders have been involved in each Grenelle’s decisions.

Concerning the agriculture, a necessity appeared to create an integrative and ambitious system of certification that meets the expectations of the various stakeholders. The commitment was made to build an environmental certification system for farms, the “Certification Environnementale des Exploitations”, “*Environmental certification for farms*” (CEE). This system had to consider existing labels, to be voluntary, progressive and directed toward a level of excellence qualified as “Haute Valeur Environnementale”. The CEE is written in the law “Grenelle 2” of July 2010 in the “Code rural et de la pêche maritime”.

The Ministry of Agriculture and the Ministry of the Environment created an Operational Committee responsible for the conception of this certification system which has brought together all the stakeholders concerned: Agricultural unions, Environmental NGOs, Consumer movements, Food industry and Distribution companies. Therefore, we can talk about a “participatory conception”.

The mission was to elaborate an easy to manage and control system, which can be understandable to both farmers and the public.

The final device had to:

- ❖ Take into account existing private labels
- ❖ Be applicable to all farms in all territories and all sectors
- ❖ Concern all the production systems of the farm
- ❖ Consider the four priority environmental issues, which reflecting the specific impact of agricultural activities on the environment: Biodiversity, Phytosanitary product strategy, Fertilisation management, Irrigation.

These points are really important, they are the philosophy of the CEE. It must be available for every farm, promote biodiversity and the non-dependency at external inputs.





The “Commission Nationale de Certification Environnementale” (CNCE), was created by the Ministry of agriculture in 2011 to monitor the implementation of the system. It is composed of representatives of the State, Agricultural unions, approved Associations for environmental protection, the Food industry and distribution and Consumer organisations. The CNCE is the referee for all the issues concerning the “Certification Environnementale des Exploitations”.

## 1.2 Three levels of certification toward the “Haute Valeur Environnementale”.

As a public device, the CEE must be an example of transparency. That’s why the procedure guide of the level 1 and the control plans of the level 2 and 3 are available on the website of the French Ministry of agriculture (<https://agriculture.gouv.fr/>). Each level is attested (level 1) or certified (levels 2 and 3) by an independent organism accredited by the Ministry in order to ensure the credibility of the system.

### 1.2.1 The level 1

The first level of the CEE aims to ensure the respect of the regulatory bases related to the environment and those related to CAP aid. It also aims to integrate the farmer in a process of environmental progress, as the CEE. Indeed, the certification of the level 1 is necessary to access the higher levels.

The assessment is validated by an organism authorised by the Agricultural Advisory System (SCA) and the certificate is valid for a limited period of 12 months.

Concerning the number of farms certified by the level 1, there are no figures available, any national network is organised to report these statistics. Indeed, it is intended to be only a transitional step towards levels 2 and 3. We can have partially number of farms certified thanks to the CAP declaration. Since 2015, the application form proposes to mention it, but there are too much bias to use these figures alone.

### 1.2.2 The level 2

The second level is based on the respect of a reference of 16 good practices covering the four environmental themes, so it’s a best-effort obligation. It’s through this level that the CEE can federate around its existing labels and procedures by giving them a public recognition.

Farmers' commitment to level 2 of the environmental certification is mostly made thanks to the recognition of existing environmental approaches. To take an example in 2016, 134 farms have been directly certified and 9 527 have been certified through the 39 collective approaches recognized by the Ministry (CGAAER, 2017).

ITEM	INDICATOR	Note maximale possible
BIO-DIVERSITE	% de la SAU en IAE	10
	Poids de la culture principale	6
	Nombre d'espèces végétales cultivées	7
	Nombre d'espèce animale élevée	3
	Présence de ruches	1
	Nombre de variétés, races ou espèces menacées	6
STRATEGIE PHYTOSANITAIRE	% de la SAU non traitée	10
	IFT	10
	Quantité de produits phytosanitaire appliquée	3
	Utilisation de méthodes alternatives à la lutte chimique	3
	Utilisation de méthodes alternatives à la lutte chimique	6
	% de la SAU engagé dans des MAE	2
	Diversité spécifique et variétale	2
	Conditions d'application des traitements visant à limiter les fuites dans le milieu	2
	Enherbement inter-rang	3
	En hors-sol, surfaces équipées de recyclage ou de traitement des eaux d'irrigation	10
	En hors-sol, surfaces équipées de recyclage ou de traitement des eaux d'irrigation	9
FERTILIZATION MANAGEMENT	Bilan Azoté	10
	Quantité d'azote apportée	5
	Utilisation d'OAD incluant les analyses de reliquats	7
	% de la SAU non fertilisé	10
	Part des surfaces en légumineuses seules dans la SAU	2
	Part de la SAU des surfaces en mélange de cultures ou en mélange prairial comportant des légumineuses au moment du semis	2
	Couverture des sols	3
	Utilisation de matériel optimisant les apports de fertilisants	6
	En hors sol, surfaces équipées de recyclage ou traitement total	6
	En hors sol, surfaces équipées de recyclage ou traitement partiel	3
IRRIGATION STRATEGY	Enregistrement des pratiques d'irrigation	6
	Utilisation d'OAD	2
	Utilisation de matériel optimisant les apports d'eau	6
	Adhésion à une démarche collective	2
	Pratiques agronomiques mises en œuvre pour économiser l'eau	6
	Part des prélèvements en période d'étiage	5
	En hors sol, surfaces équipées de recyclage ou traitement total	6
	En hors sol, surfaces équipées de recyclage ou traitement partiel	3
	Récupération des eaux de pluie	1

*Figure 1: List of the indicators by items and their potential number of points.*

An environmental procedure or label can be for recognized at level 2 of the CEE if:

- ❖ On the one hand, it correctly covers each of these 16 requirements
- ❖ On the other hand, it has an equivalent quality of control.

This recognition is done by the CNCE, and following figures from the Ministry of agriculture at the 1st July of 2019, 59 procedures and labels are recognized, and 17,500 farms throughout France in many sectors (viticulture, arboriculture, market gardening, field crops, horticulture, etc ...) are certified at level 2 (Ministère de l’Agriculture et de l’Alimentation, 2020c).

### 1.2.3 The level 3 – “Haute Valeur Environnementale”

#### 1.2.3.1 Presentation

The level 3 is the only one which deliver the valorising mention “HVE”. It’s presented in the form of two options reflecting an equivalent level of requirements, the choice of the option is left to the farmer.

This third level is based on performance items which provide a quantifiable result objective for all farms involved in the process. The targeted values for achieving level 3 characterise what all stakeholders which created the device considered to be "high environmental value". The choice of an absolute scale, not relative to the farm or to an initial situation, is essential to ensure the credibility of the system. The farmer will have to respect all the criteria of the chosen option during the three years period of validity of the certification.

The option A, the Thematic approach, consists in validating a set of items corresponding to the following four themes (Ministère de l’Agriculture, de l’Agroalimentaire et de la Forêt, 2015):

- ❖ Biodiversity,
- ❖ Phytosanitary strategy,
- ❖ Fertilization management,
- ❖ Irrigation management.

Each item is composed of a set of indicators. Farmer starts from a score of 0 as the “reference situation” and can obtain points for each indicator following a rating scale. The higher number of points that could be gained for each indicator is different, it can go from 1 point to 10 points. The score value the farm which go beyond the level of the reference situation. The list of these indicators and the potential number of points that could be obtained are specified in the figure 1.

The sum of the scores of the different indicators gives an overall score for the item. An item is validated when the final score is higher than or equal to 10 points. To be certified at level 3, the farm must have validated the four themes.

Farms which don’t irrigate, have automatically 10 points for the “Irrigation management” item.

This option is also called as the “thematic approach” because items are strictly about the four recurrent themes of the CEE.

The Option B, the comprehensive approach, is about validating two items (Ministère de l’Agriculture, de l’Agroalimentaire et de la Forêt, 2016b) :

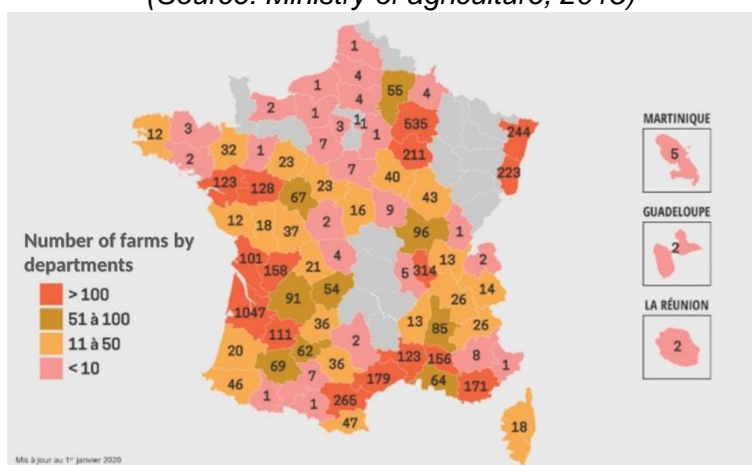
- ❖ A percentage of Utilized Agricultural Area (UAA) in agro-ecological infrastructure higher than or equal to 10%
- Or



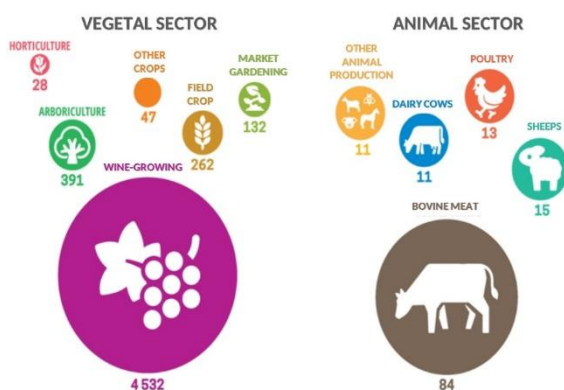
**Figure 2:** Logo « Haute Valeur Environnementale »  
(Source: Ministry of agriculture, 2011)



**Figure 3:** Logo « Issue d'une exploitation Haute Valeur Environnementale »  
(Source: Ministry of agriculture, 2015)



**Figure 4:** Map of the repartition of certified farm at level 3 of the CEE in 2020.  
(Source: Ministry of agriculture and food, 2020. Translated by Pierre Decap).



**Figure 5:** The number of farms certified at the level 3 of the CEE by agricultural sectors.  
(Source: Ministry of agriculture and food, 2020. Translated by Pierre Decap)

A percentage of UAA in permanent grassland of more than five years old higher than or equal to 50%.

- ❖ Weight of external inputs in the revenue less than or equal to 30%.

This second option is also called as “the comprehensive approach” because it’s all about the philosophy of the CEE: promote biodiversity and reduce the dependency of inputs.

### *1.2.3.2 Two mentions and logos for a public identification*

Certified farms at the level 3 of the CEE benefit from the use of two valorising mentions and two logos.

The first ones are reserved to the farm, it’s the mention « Haute Valeur Environnementale » and the corresponding logo. The logo can be used on all the communication elements of the farm as website, email, flyers, posters, etc but not on products from the farm. The rules of use of the farm mention and the logo are respectively specified in the article 109 of the law « Grenelle 2 » of 2010 and in the « Règlement d’usage de la marque collective HVE » of 2011 from the Ministry of Agriculture (Ministère de l’Agriculture, de l’Agroalimentaire et de le Forêt, 2015). The figure 2 presents the farm logo.

The other mention and logo are for the products from certified farm, it’s « Issu d’une exploitation de Haute Valeur Environnementale ». The rules of use of the product mention and the logo are respectively specified in the Articles R641-57 to R641-57-5 of the French Rural Code by decree of 2011 (République Française, 2011) and in on the « Note d’utilisation de la marque collective (logo) Issue d’une exploitation de Haute Valeur Environnementale » (Ministère de l’Agriculture et de l’Alimentation, 2019). The figure 3 presents the product logo.

The use of the product mention and logo is only authorized for:

- ❖ Unprocessed raw agricultural product and an unprocessed foodstuff when they are exclusively from farms of high environmental value (e.g. wheat, apples, tomatoes, etc.),
- ❖ Processed foodstuff in which at least 95% of the ingredients of agricultural origin come from farms of high environmental value (e.g. wines, cheeses, etc.)

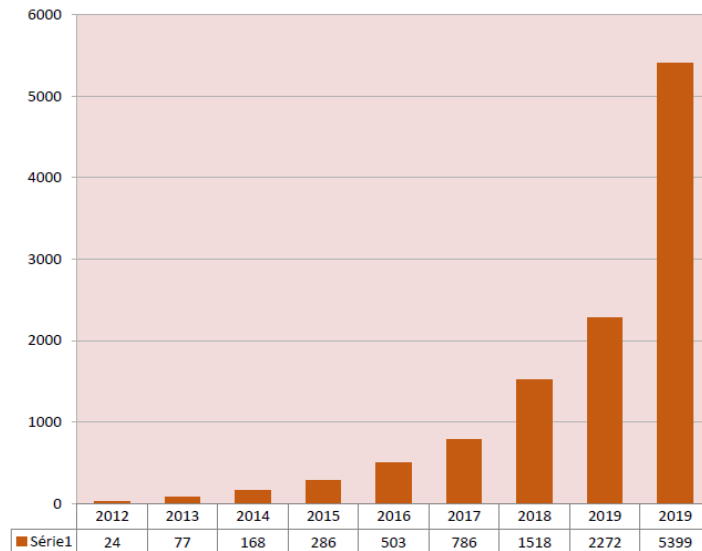
The two mentions and logos aim above all to enhance the value of farms and products from HVE farms to consumers.

### *1.2.3.3 Figures of the HVE*

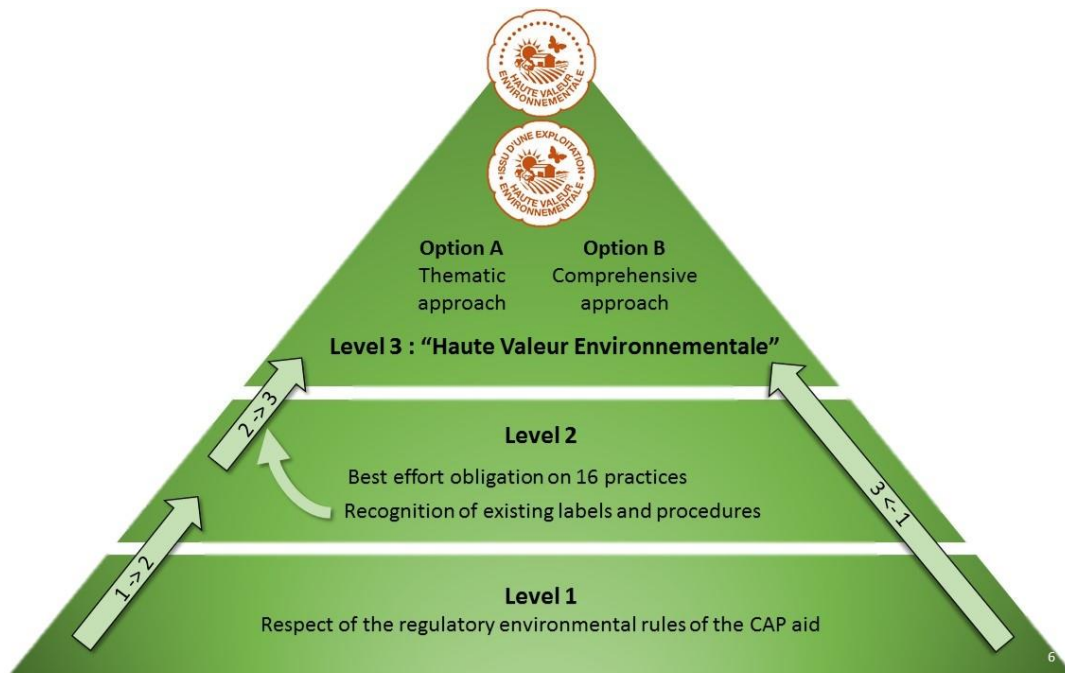
Following the latest figures of the Ministry of agriculture, at the 1<sup>st</sup> January of 2020, there was 5,399 farms certified in France (Ministère de l’Agriculture et de l’Alimentation, 2020b). Figures 4 and 5 show the repartition of certified farms on the French territory and the weight of each agricultural sector in the total of farms.

The figure 6 is a graph which shows the evolution of the number of farms certified since the beginning of the device in 2012. We can see an exponential trend. In the second semester of 2019, there was a rise of 300%.

The Ministry do not publish the ratio of farms certified with the option A or B, because the two options have the same level of requirements, so there is no place for a comparison between them.



*Figure 6: Number of farms certified at the level 3 of CEE (all agricultural sectors) from 2012 to 2019. (Source: Association Nationale pour le Développement de la Certification HVE, 2020)*



*Figure 7: Scheme of the three levels of the Certification Environnementale des Exploitations, and the different ways to be certified HVE*

## 1.3 The process of certification for the HVE

### 1.3.1 Prerequisites

As the figure 7 presents, the “Certification Environnementale des Exploitations” system is progressive and directed toward the level “Haute Valeur Environnementale”. There are various ways to be certified HVE.

The first way is the one presented by the arrows at the left of the scheme. Farms are assessed and certified at the level 1, then at the level 2 and at the end at the level 3. This is the progressive way imagined by the Ministry of agriculture during the conception of the system. As an evidence of respect of the regulatory environmental rules of the CAP, the level 1 is necessary. It's the basis of the CEE system. However, the certification at the level 2 is not necessary, farms can be certified from the level 1 to the level 3. It's the way specified by the right arrow on the scheme.

Another way of getting into the CEE for farms is through their previous involvement in labels recognised at level 2. Indeed, recognition by the Ministry of Agriculture takes into account several criteria, including the need to comply with level 1 conditions. Once certified at level 2, farms can therefore apply for level 3.

### 1.3.2 The role of Support Organisms and Certificate Organisms

In order to accompany farms that want to be certified HVE, organisms can advise them. They can be several types of structures like chambers of agriculture, consultants, cooperatives or other. The role of these support organisms is to advise farmers on their practices in order to comply with the control plan, to carry out preparation audits and to be the link between farmers and the certificate organisms. Since 2017, the Ministry allowed the collective support and management of the certification for farms. Thanks to this, a mutualisation of the costs of all the process is possible for farmers and support organisms. On the website of the Association HVE, there is a directory of most of these organisms.

In order to be certified HVE, an independent organism must validate that the farm system complies with the certification specifications during an audit. This is the role of the certification organisms. They are accredited by the Ministry of Agriculture, a list is published on the ministry of agriculture's website, as of 27 July 2020 there are 15 accredited ones.

The farmer will have to respect all the criteria of the chosen option during the three years period of validity of the certification. There are three assessments during the certification time, one at the beginning, an intermediary one ten months before the end of the valid period, and one at the end to re-certificate, that are conducted the certification organism.





## 1.4 The « Association Nationale pour le Développement de la Certification Haute Valeur Environnementale »

The Ministry of agriculture, by letter dated of May 25th of 2016 asked to the CGAAER to make a global assessment of the CEE in order to “analysing the first certified farms and the dynamics in progress” (Directeur du Cabinet du Ministère de l’agriculture, de l’agroalimentaire et de la forêt, 2016). The report n°16079 from the CGAAER delivered in 2017 (CGAAER, 2017) deals with a global overview of the situation and presents some proposals. The last one, the recommendation n°21, is about the long-term future of the system and wish that the “certification becomes more autonomous in its management, supported by the agricultural supply chains, under the joined action of producers and distributors”. The proposition is about giving the management and the coordination of the CEE to an external organism, which already existed or not. The State could be less involved in the management but must still have its role of steering and controlling the system, as a guarantor. The complete recommendation is in the Annex I (in French).

As a result of this report, in 2017 the organisation of the “Vignerons Indépendants de France” (VIF) which is a professional syndicate gathering independent winegrowers and well engaged in the HVE since the beginning, proposed to some responsible of other agricultural sectors, also already involved in the HVE, to create an association to promote and develop this certification.

The “Association Nationale pour le Développement de la Certification Haute Valeur Environnementale” was officially created in July 2018 by the gathering of six structures in the area of the market gardening, the arboriculture and winery.

These original members form the current board of the association and the President of the association is Jean-Jacques JARJANETTE, who is also the Executive Chief of the VIF.

The association aims to bring together institutional and economic actors who want to voluntarily co-work for the development and promotion of the French agriculture with high environmental value.

It is addressed to:

- ❖ Farmers certified or in the process of HVE certification.
- ❖ Economic and institutional stakeholder, all sectors combined, who support the development and the promotion of the CEE.

The main purpose of the HVE association, according to its statutes, are:

- ❖ To act in favour of the development and promotion of the HVE with public authorities, the general public and professionals agricultural.
- ❖ Represent, coordinate and reinforce the actions of its members and to defend their collective interests.
- ❖ Act in favour of the structuring of sectors resulting from the HVE, provide information and advice, act in justice and provide a technical, administrative and financial management of public subsidies.

Therefore, the Association may also provide services such as training for the benefits of professional supporting organisations, giving advices and sell promotional products as logo’s button and logo’s plate.



Currently, there are 51 members from all agricultural sectors and private or public institutions. The list of the members for the year 2020 is available in the Annex II.

All the people involved in the association are volunteers, funding comes from membership fees and revenues from formations delivered and the sale of logo's buttons and metal plates (picture of plates in Annex III).

In her objective of promoting and developing the HVE, the association has carried out many actions since 2017 such as representing the interests of the HVE, negotiation with the public authorities to a tax-credit for certified farms, working on communication plan to develop the notoriety of the HVE among consumers or coworking with the Ministry on the conception of the Reader's Guide of the Control plan of the HVE.

## 1.5 Work objectives

Following Hobeika et al in 2013 and the four elements to establish and maintain confidence in a credible certification system specified, I will question through them the overall HVE certification.

Concerning the first element about the elaboration and criteria of the label, we could say that the HVE certification and the CEE system come from the "Grenelle de l'Environnement" and all the elaboration has been done in a participatory way. Therefore, the participatory conception is important, the commission which design it was composed of representant of the all agricultural world and they agreed to these criteria. Moreover, the criteria of the HVE level correspond to the representation of a high environmental value agriculture of the people who have created it. And the fact that it's a public device is also crucial, all the documents and decisions related to the certification are free and public. In my opinion, regarding the first element, the certification has a high level of credibility.

The second element is about the implementation modalities of the certification. About them, we can mention the Support Organisms and the decision in 2017 by the Ministry to allow the collective management of the certification. The Association HVE also has a major role by the trainings and formations that they deliver and the permanence by email and telephone to answer questions from farmers, organisms, professionals, individuals, etc... But on the other side we can point to the lack of precision or information about the modalities of implementation or certification of some points of the Control Plan. As long as there were not many organisms dealing with these modalities, the homogeneity could be controlled by the HVE association, which advised the method to be followed. And even if there was a potential bias, it was reproduced on everyone. But now, with the increasing number of stakeholders involved, it's not possible anymore. So, there is a currently a need of some clarification concerning some implementation modalities.

We can take the example of the "Nitrogen Balance" indicator. The Association HVE, thanks to their experience, knows that some organisms have some troubles to use the methods of calculation. But this indicator could have a crucial impact on the result of the certification



assessment, because every farm can calculate it and it has a maximal potential of 10 points. This important indicator will be the subject of a survey carried out with both certification and support organisms in order to find out more about the issues they encounter and how they deal with them. The survey will be presented in the following parts.

Otherwise we could mention the low promotion of the system by the Ministry itself that may have existed in the past, even if it's currently better. Now, we could mention the Egalim Law, n° 2018-938 of the 30th October of 2018, for balanced trade relations in the agriculture and food sector and healthy, sustainable and accessible food for all, that mention the CEE and HVE twice in the articles n°42 and n°48. The first article specifies that products from farms certified at level 2 of the CEE (until 2029) or HVE are part of the obligation of 50% of products in collective restauration by 2022, in the same way as products organic or under Official Sign of Quality and Origin (SIQO). The second is about the environmental quality of SIQOs that have to rely on the level 2 of the CEE or on the HVE. Moreover, we could add the lack of communication toward the consumer. The Association HVE have been entrusted in 2020 by the Ministry to start to build a communication plan for the main public. These two last points are important for the HVE growth, because it gives credibility and a new attractiveness to the system. These points are part of the end of the chain of the implementation modalities, they are crucial and currently they tend to be improved.

The third point is about the control protocol, about it we could say that it's well specified in the Control Plan. Three assessments are planned during the three-years period of validity of the certification. So, as the assessment is done on a complete agricole cycle, the number of controls seems adapted. During the audits, the controller must go on site and attest by visual the conformity of some points, like the agroecological infrastructures. This control in person and on site add some more credibility in the system. Concerning the good use of the mentions and logos, it is the role of the Fraud Repression, so there should not be too much abuse.

The last point concerns the qualification of the controller. All the Certification Organisms must be accredited by the Ministry of agriculture. But there is nothing concerning the validation of their methods, and it contributes to an increase in the heterogeneity of approaches and methods of some indicators of the certification. Maybe in the process of accreditation, a training on some points could be provided to reinforce the homogeneity in the methods of certification.

Finally, after discussion of the four elements of Hobeika et al in relation to HVE certification, we can say that the general public can rather have confidence in the credibility of the certification. However, there are still points on which the Ministry and the HVE Association must continue to work to ensure this high level of credibility, such as the homogeneity of the evaluation and certification methods for certain indicators. This is the observation that was made and that justified the creation of the Reader's Guide of the official Control Plan. The conception of this document will be detailed and discussed in the following parts of this report. A focus on an indicator, the Nitrogen Balance, will be firstly presented which illustrates the previous points mentioned.

<i>Method</i>	<i>B: Balance result in kg N/ha</i>	<i>Points</i>
<i>CORPEN Balance And Global Nitrogen Balance</i>	$B > 60$	<i>0</i>
	$60 \geq B > 40$	<i>5</i>
	$40 \geq B$	<i>10</i>
<i>Apparent Balance</i>	$B > 80$	<i>0</i>
	$80 \geq B > 60$	<i>5</i>
	$60 \geq B$	<i>10</i>

*Figure 8: Thresholds and points gained for the indicator “Nitrogen Balance” depending on the method used and on the result of the balance*

## 2 Materials and methods

### 2.1 Set up of the survey about the “Nitrogen Balance” indicator

#### 2.1.1 Presentation of the indicator

The Nitrogen Balance indicator is part of the item “Fertilization Management” and aims to evaluate the quantity of residual nitrogen at the end of a production cycle, the scale of the system could be different depending on the method used. The Control Plan of the HVE specifies that three methods are available, and the choice is left to the farmer:

- ❖ The CORPEN balance
- ❖ The “Balance Globale Azotée” (BGA)
- ❖ The “Bilan Apparent” (BA)

The principle of a balance is to deduct the quantity of nitrogen removed from the system to the quantity added. The final residual quantity must be under a certain threshold to obtain 5 or 10 points. The figure 8 presents the different thresholds and the number of points associated.

Thresholds are different between the method chosen, because systems studied are different between the BA method and the two others. In the BA, the all farm is considered as the system while for the CORPEN Balance and the BGA it's only the agricultural plots which are considered. A deepest explanation is given, after in the presentation of each methods.

In order to estimate these quantities of nitrogen import and export, the Control Plan specifies that the Nitrogen references of importation and exportation has to be the ones provided by the “Comité d'Orientation pour la Réduction de la Pollution des Eaux par les Nitrates” (CORPEN). In the case of the CORPEN doesn't provide nitrogen export references for some crops, the crop must be classified as “Minor Crop” and is out of the balance calculi. If the percentage of UAA concerned by minor crops is higher than 5% of the total UAA, then the number of points obtained is weighting by the surface of “Major Crops” on which the balance has been done.

#### The CORPEN Balance:

The CORPEN balance method considers nitrogen inputs and outputs on the "plot" system, studied at farm level (the farm is assimilated to a single homogeneous surface on which all fertilizers are applied and from which all crops are exported).

**Nitrogen inputs** are considered as the overall quantity of nitrogen (mineral and organic) used on the farm or in the region under consideration. However, nitrogen from symbiotic fixation is not counted (CORPEN Groupe Azote Indicateurs, 2006a).

**Nitrogen outputs** are the global quantity of nitrogen exported by the total production. To calculate the nitrogen export of a crop, the formula is to multiply the crop yield by her nitrogen export coefficient and by the area occupied by the crop.





### The Global Nitrogen Balance:

The BGA presents a calculation similar to the CORPEN balance but with references revised since 1988 and clarifications made regarding the evaluation of exports by grazed grass (CORPEN Groupe Azote Indicateurs, 2006b).

**Nitrogen inputs** correspond to the total nitrogen discharges by farm animals, the imports of farm manure minus the exports of it and the purchases of commercial fertilizers.

Nitrogen inputs through symbiotic fixation of legumes associated with grasses, both for permanent and temporary grassland, are not taken in account.

For legume crops, nitrogen output is considering as corresponding to nitrogen inputs through fixation, so the balance is zero.

The two main nitrogen inputs are therefore from livestock manure and from farm fertilizers or commercial fertilizers.

**Nitrogen outputs** are considered as the total plant exports.

Exports of crops correspond to the quantities of grains, straw and fodder produced, weighted by their nitrogen content. Nitrogen content coefficients are different depending on whether the straw is harvested or not.

Straw used on the farm and recycled through manure is considered as an export.

The production of grass valued on pasture is calculated using the fodder balance method, which takes into account the needs of the herd.

This method is one which is advised to use by the Control Plan. The method is well explained in the 6.1 part of the Control Plan of the Option A.

### The Apparent Balance:

The BA method developed at the INRAE Station of Quimper allows the estimation of an "apparent nitrogen polluting potential" on the scale of a given farm, for a given year. The farm could be seen as a "black box" and the balance considers the annual nitrogen inputs and outputs related to all the farmer's activity (purchases, sales, exchanges, donations) in order to make a diagnosis of the "farm's polluting potential" (Simon and Le Corre, 1992). It does not include inputs through atmospheric deposition, or outputs through volatilization, denitrification and leaching, that's why it's called "apparent" balance (Jean-Claude Simon et al., 2000).

**Nitrogen inputs** therefore correspond to purchases or donations received by the farm. They can be classified into five types: i) input by chemical fertilizers, ii) by organic fertilizers, iii) the atmospheric nitrogen input by legumes, iv) entry through livestock feed and v) by animals.

**Nitrogen outputs** correspond to sales or donations from the farm. They can also be classified into five types: i) output by organic fertilizers, ii) through crop export, iii) through fruits and vegetables, iv) through milk or eggs and v) exit by animals.

#### 2.1.2 Survey methodology

Context: The objective of the survey is to figure out major issues that organisms encounter on practice, and to understand how they face them. The purpose is to have a feedback from both supporting and certification organisms on this indicator, from diverse sectors and in different contexts.



Set up: In order to be sure to ask the same questions to all the organisms that will be interviewed, I build an interview Guide Sheet. To elaborate it, I searched in the training documents of the Association HVE and discussed with Laurent Brault about the issues that could be encountered during the calculation of a Nitrogen Balance depending on the method used. I also tried to calculate some balance with the different methods. We found 3 major issues on which I did some research to be able to ask precise questions on these points to the people I will talk.

These issues are: the method used, the use of a specific tool (computing, ...), the nitrogen export references and the gestion of minor crops. The Guide Sheet that I used is presented in the Annex IV.

To plan the interviews, I asked firstly for the organisms which are member of the HVE association and in a second time to other ones. The choice of organisms has been done by trying to interview people from different contexts. Organisms from all over the French territory and specialized in each sector have been contacted thanks to the directory of Support Organisms available on the Association HVE's website and the official list of accredited Certification Organisms. The objective was to multiply the different cases in order to have a better representation of what the organisms have to deal with in practice.

Finally, 19 organisms were interviewed by call or by email for a 3 weeks period. During each interview the Guide sheet was completed, and the Annex V presents a summary table of the organisms interviewed and their answer to the principal questions. A report has been written for the Association HVE, and it will be useful for the "Reader's Guide" work groups about the "Nitrogen Balance" indicator.

## 2.2 Conception of the Reader's Guide

The deployment of the certification HVE and the multiplicity of stakeholders involved in the certification process could induce an increase of heterogeneous approaches and issues of some points of the Control Plans. The Ministry of agriculture, as a Guarantor of the system must control the homogeneity of the methods of certification to guarantee the global credibility of their device.

Therefore, the Ministry of agriculture in collaboration with the Association HVE, wants to create a "Reader's Guide" of the official Control Plan of the certification HVE. This document is intended for the professionals of the agricultural world and more particularly for the Support and Certification Organisms. It aims to answer the questions of these organisms on some indicators, in order to homogenize their methods and practices, and explain better some parts of the Control Plan. Because of the fact that the third level of CEE is based on indicators, there are not normative and precise specifications of practices that farmers have to follow. Moreover, it's addressed to all kind of farms, so there can be a lot of different agricultural systems that can be certified. It's a different work of supporting and certification for all the organisms from what they regularly have to do. This is one of the reasons why the methods can be different between two organisms because of a diverse interpretation of indicators.



The answers of the “Reader’s Guide” will come from a collective expertise and then a collective thought. The working groups which will deliver an answer must be composed of people from all agricultural sectors, in order to respect the participatory requirements of the CEE.

The conception of the “Reader’s Guide” is a collaboration between the Ministry of agriculture and the National Association for the Development of the HVE. Four people were involved in the first steps of this project described in this report. These are Juliette Robert and Loïc Schio from the “Quality Department” of the Ministry of agriculture and Laurent Brault and Pierre Decap from the HVE association.

### 2.2.1 Collect of the questions

The first step of the work was to collect questions and issues on indicators requiring clarification, from people committed in the level 3. A campaign has been launched by the Association HVE in November of 2019 out of both Support and Certification Organisms. The collecting campaign has been done via an internet form, thanks to the tool “Google form”. People who asked questions had to be the more precise as possible. They had to give details about the agricultural sector, about which indicator on which item they had an issue with. They were invited to quote the Control Plan, to ask their question and if they had a suggestion for the answer, they could add it.

The choice of using Google form has been taken because it’s easy to manage for both the Association and the people who will fill it. The form can be sent just with a link, so it’s easy to spread. Moreover, all the results are compiled in an online Google sheet, which is easy to handle and accessible by several people in the same time. This last point is important because at least 4 people from both the ministry and the association worked on it in the same time. The template of the Google sheet where were compiled final questions is available in the Annex V.

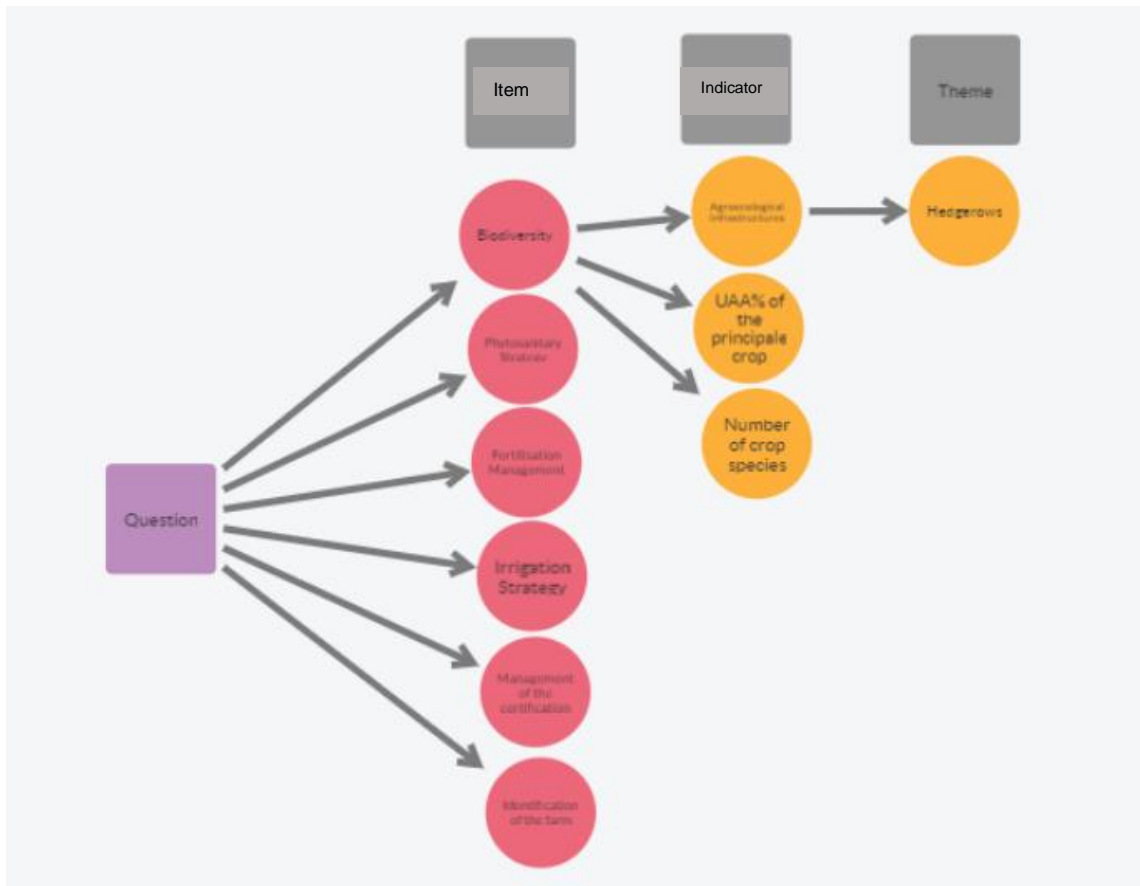
The Reader’s Guide and this collecting campaign was expected and was very well received. Initially it has to be until the end of the year 2019, but some organisms asked for an extra delay. So, from November to February 2020, over a thousand questions were submitted from more than fifty organizations.

These high number of questions wasn’t expected, the Ministry and the Association weren't really prepared for so many questions. They have thought that they will receive less questions and this low estimation will have some impacts that will be detailed and explained after.

I arrived in the Association HVE on the February 17<sup>th</sup> of 2020, so the collecting campaign just finished. I didn’t participate in the choice of the tools of collecting and in the creation of the Google form.

### 2.2.2 Sorting methodology

Once we have collected the questions, the second step was to sort all these questions. The Association HVE was responsible of this task and I did it, all the sorting choice have been



*Figure 9: Question's indicator sorting method frame.*

discussed and validated with Laurent Brault. We have chosen to make a sorting with three axes. The first was made by item and by indicator, the second by the relevance of the questions and the third by the weight of the indicator related to the question in his item. The two first sort will be explained in the part 2.2.2.1 and the part 2.2.2.2 will be dedicated to the last one.

#### *2.2.2.1 Indicator and relevance sorting methodology*

The indicator sorting: A new sheet have been created for each of the four item “Biodiversity”, “Phytosanitary strategy”, “Fertilization Management” and “Irrigation strategy” and two more for what have been called “Management of the Certification” and “Identification of the farm”. These two new sections have been created because a lot of questions are about farm’s information that must be provided and about the management of the certification, especially when it’s done collectively.

The sorting was based on the indicator of the question, and most of the time, it wasn’t enough. In these cases, I have sorted by the theme of the question. This sorting is finer and give the possibility to gather the questions with same theme. To take an example, in the item “Biodiversity”, in the indicator “Agroecological infrastructures” the sort has been done at the level of each infrastructures (like hedgerows, Buffer strips, Permanents meadows, etc....). The figure 9 shows an example of the sorting methodology frame.

The relevance sorting: The aim was to eliminate duplicate questions and sort questions by importance with these four criteria:

- ❖ To be answered by the Reader’s Guide
- ❖ Asking for a modification of the Control Plan
- ❖ Not about the HVE
- ❖ Not understandable question

The questions that will be answered by the Reader’s Guide are the ones that are pertinent, and which deserve to be answered. The ones that are asking for a modification of the Control Plan were putted together away because they’re not in the objective of the project. They are interesting but changing the Control Plan is a bigger task and firstly the aim was to focus all the efforts on the creation of the Reader’s Guide. The questions in the two last categories aren’t also in the frame of the project or not understandable.

Once all the irrelevant questions have been removed, 850 of the original 1000 questions remained, which is still too much to treat each question individually quickly.

#### *2.2.2.2 Indicator’s weight analysis methodology*

In order to answer the 850 retained questions as quickly and effectively as possible, a risk analysis of each indicator in the Control Plan was carried out. The aim was to prioritize the indicators with the greatest weight by item in the certification process in order to answer the questions concerning these indicators first. The notion of item is kept, because 10 points per item are required to be certified. Indeed, the final objective is to homogenize the certification methods and the certified farm, so the indicators that are the most decisive in the certification process and that affect the most farms must be answered first.

To do this, we have based the method on three criteria:

- 1) The potential number of points of the indicator.
- 2) The weighting of the points acquired according to the UAA of the farm.





3) The number of farms in France concerned by this indicator.

These three coefficients are multiplied, and the indicators are ranked by item. A detailed frame of the construction of the coefficient is presented in the Annex VI.

Coefficient 1: Number of potential points of the indicator.

To calculate this coefficient, the maximum number of points that can be obtained for the indicator is divided by the score of 10 needed to validate an item.

Coefficient 2: Weighting of points by UAA

The points obtained in certain indicators have to be weighted by the useful agricultural area of the farm concerned by the crop. The indicators concerned are part of the "Phytosanitary strategy" item and are the following one: "Treatment frequency index", "Specific and Varietal Diversity", "Inter-crop grassing" and "Recycling and treatment of irrigation water".

Indicators not weighted by UAA have a default coefficient of 1.

The coefficients for the indicators concerned were calculated using data from the 2010 Agricultural Census (Ministère de l'Alimentation, de l'Agriculture et de la Pêche and AGRESTE, 2010).

More recent data have been published later, but specific data of the Census of 2010 will also be used for the coefficient 3 and we wanted a better coherence. Moreover, the next Agricultural Census conduct by the Ministry of Agriculture is planned for 2020.

To construct the coefficient 2, we have made the hypothesis that the UAA for each agricultural sector repartition of the total UAA of the French territory is representative of the sector's share in the UAA of an average French farm. This is how we obtain a percentage of the UAA of the "French Farm" of 2.7% for viticulture for example.

Coefficient 3: Number of French farms concerned

Some indicators are sector's production specific. The last coefficient deals with the number of French farms concerned by these specific indicators. The data from the Agricultural Census give us the number of farms per sector according to the technical-economic orientation of the farm. Thus, we can classify which indicators concern the most farms in France.

The three coefficients will be then multiplied and a ranking of the 3 most important indicators per item will be done.

To prioritize the question, an option could be to use the number of appearances for each indicator. This would have enabled us to identify the question the most expected by the people who send us the questions. But with the collecting methodology that we used, it was impossible to make statistics about the questions collected. Indeed, this criterion of appearance is only representative of the questions that we collected, but not necessarily representative of the reality. The Google form used was open to everybody who has the link and the registration was recommended but not obligatory. So, it didn't allow us to regulate the number of connections per organism and some organism could ask several times the same questions. But in order to prioritize the questions by organism, we could ask them when they filled the form to precise if the importance of the question asked. Because some questions could be sent just because they needed a precision, but the importance is not high.

All the work of indicator weight's analysis has been done with Laurent Brault, who has a long experience in the HVE certification, and it was presented to Juliette Robert and Loïc Schio from the "Quality Department", who approved it. But they are not decision-makers concerning the HVE certification, so in order to be validated, it has been presented in front of the CNCE



meeting of the July 7<sup>th</sup> of 2020. The commission will examine it to know if it is validated to be used as a Priority Guide for the Working groups of the Reader's Guide.

An idea for approving the work could be to ask to some Support and Certification Organisms if they agree with this prioritization of indicators. It will be done indirectly because the CNCE is composed by some certification organisms.

### 2.2.3 Issue's answering and redaction

After these processes of sorting and ranking done, the next step is to answer all the questions, but there was still a lot of questions to answer, even if we now know by the which ones we have to start. The initial idea was to create a Reader's Guide, and to do that several working groups have to be gathered to expertise and think collectively about answers. The indicator's weight analysis will help to prioritize the work.

Unfortunately, the sanitary crisis caused by the Covid-19 make impossible the meeting of the working groups but there was an urgent need of the publication of a first document to answer some questions. After a collective reflection with Juliette Robert, Loïc Schio and Laurent Brault, we realized that some question doesn't need a real expertise, because their answers are already given in the bibliography. It could be directly in the Control Plan of the HVE or in some documents that the Control Plan mentioned. This is why the choice of publishing firstly a document with a simplest form of a "Question Fair" has been taken. The form of this document has been validated by the head of the Quality Department of the Ministry of agriculture and the decision of writing the answers and creating this "Question Fair" ourselves has been also taken. Indeed, the involvement of working groups is not necessary, we just had to answer by quoting the bibliography.

So, the work has been divided into four part, everyone had to select the questions that will be in the Question Fair and to produce a first version of the answer. The criteria were only the fact that the answer is already in the bibliography of the Control Plan or in documents mentioned in the Control Plan.

Juliette Robert was in charge of the "Irrigation Strategy" item, Loic Schio of the "Management of the Certification" and "Identification of the farm" parts, Laurent Brault of the "Biodiversity" and "Phytosanitary Strategy" items and I was in charge of the "Fertilization Management" item.

To classify all the question of my part, I had to study the Control Plan and all the document mentioned for the "Fertilization Management" item. I have found 37 questions that could be included in the "Question Fair" I have written the answers by quoting all the bibliographic elements. Everyone did the same work for their parts and all the questions and their first answer version have been compiled in the same document. In total, 256 questions have been selected and answered.

After several collective work sessions on the answers, a final version of the Question Fair has been written and all the answers are well justified by the bibliography.

The final version of the Question Fair has been presented to the CNCE meeting of the July 7<sup>th</sup> of 2020. The commission will now read it, propose modifications and the final decision of validation could be taken during the next CNCE meeting, in September of 2020. It's only after this validation, that the Question Faire could be published.

Concerning the other questions not answered yet and which need the expertise of a working group, the CNCE started the composition of the groups to produce answers. The HVE association has also a role in the composition of the working groups, by proposing to her members to work on these groups.

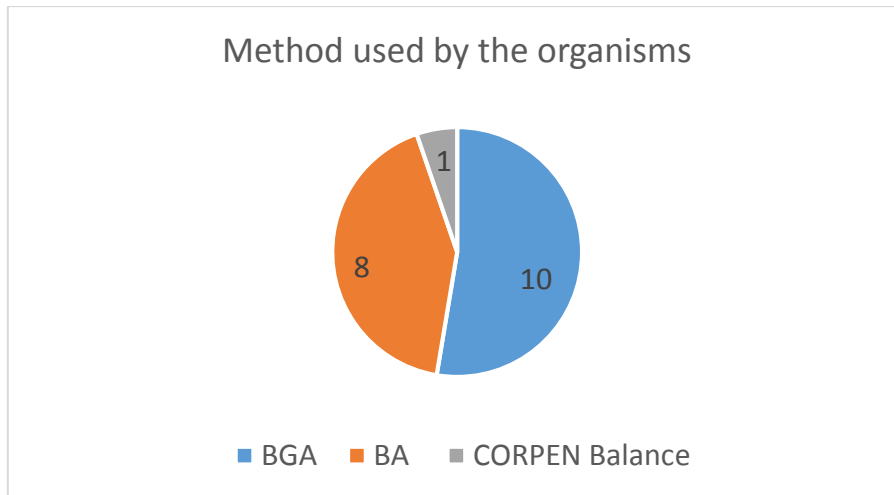


Figure 10: Chart pie of the method used by the organisms to calculate the Nitrogen Balance

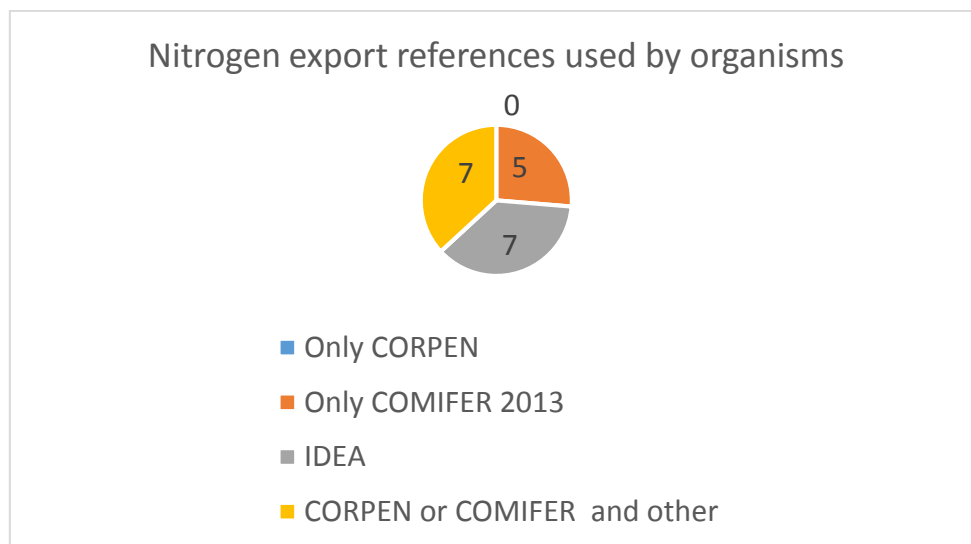


Figure 11: Chart pie of the export nitrogen references used by organisms to calculate the Nitrogen Balance.

The sanitary situation has delayed the beginning of the expertise work, but there is a will of producing answers for organisms as fast as possible.

## 3 Results and Discussion

### 3.1 Results of the survey

The results of the survey concerning the method used by organisms is presented in the figure 10. We can see that only 1 organism use the CORPEN Balance, 8 are using the Apparent Balance and the BGA is the most used method with 10 organisms that use it. The BGA is the method advised to be used by the Ministry, but the Apparent Balance is widely used too. The reasons of the use of one method compare to another are very diverse. It could be linked to the philosophy of the method and to the scale of study, to the better adaptability of a method to the agricultural sector, to the fact that it's easier to use thanks to computing tools or just the habit of the organism.

In the aim of homogenising the methods of certification, conclusions of this survey on support and certification organisms are focusing on two major issues:

- ❖ Justification of nitrogen inputs and outputs
- ❖ Nitrogen export references used

These issues occurred because not all organisms operate in the same way, which implies a bias in the overall fairness of the certification.

The first issue mainly concerns the nitrogen outputs, as the inputs are generally rather well informed. Concerning nitrogen outputs, the greatest inaccuracies come from the estimation of yields for the calculation of nitrogen exports. Indeed, sometimes in the absence of selling justification (which is the most used proof when it's possible), the yield tonnage used is the one estimated by the farmers themselves and it's not the most precise. However, these inaccuracies only have an impact when the farm's nitrogen balance is close to one of the thresholds set by the control plan. Nevertheless, if it is far above or below the thresholds, the result will not change. But if it is closer, there is a need to clarify data to be used, so everyone can proceed in the same way and it will improve the equity for farms during the audits. Because some farmers or organisms could be tempted to overestimate yield, sometimes just a small difference could raise the result above the threshold and thus score more points. This issue is linked to the fact the threshold system is maybe not the most optimal, because the difference between the thresholds are too high. This point will be more discussed after.

The second point is even more crucial in a logic of equity and homogeneity. As a reminder, the control plan specifies that the nitrogen export references must be those of CORPEN, and they are given in an annex to the control plan. And if some crop's references are missing, then the crop must be considered as "minor" and is not included in the calculation. The interviews showed that there is a will, shared by many organisms, to put as few crops as possible as minor and to establish a nitrogen balance for the whole farm's crops. To do this, they often look for other references of exported nitrogen in the bibliography. The results of the survey presented in the figure 11 show that there is no organism that uses these values only. The only values used alone are those of the COMIFER of 2013. Indeed, the Ministry of Agriculture asked to the COMIFER to refresh and extend the CORPEN list with new crops under the nitrate plan. These values have been taken by some organisms as the new references of the Ministry, but they are not the ones of the HVE currently (even if it is planned soon). We can see that there are 5 organisms that use this list alone, and we have considered them as "respectful" of the Control Plan, because of the situation of the COMIFER list. There

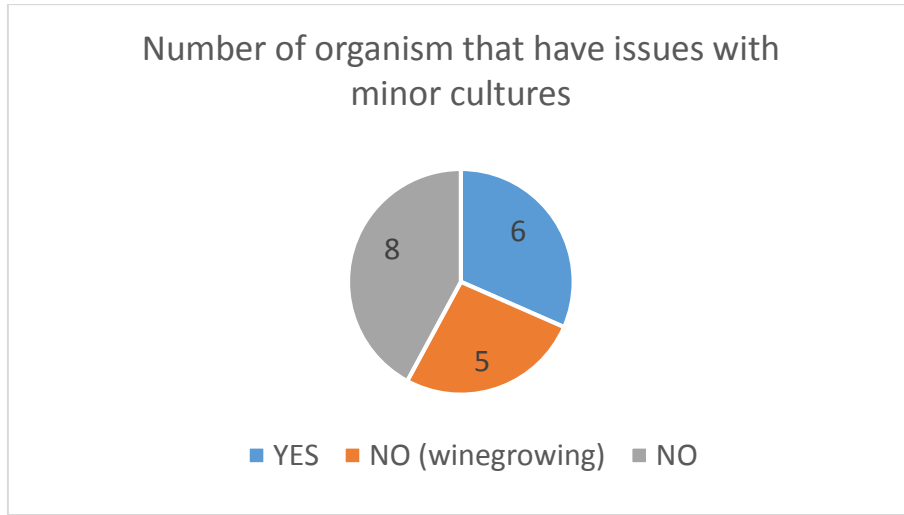


Figure 12: Chart pie of the Number of organisms that have issues with minor cultures in the "Nitrogen Balance" indicator.

are 7 organisms that use only the references from the IDEA tool (Indicator of Farm Sustainability) in which the Apparent Balance has been developed by the INRA of Quimper in 2005. The references come from many sources, as the CORPEN but also others. And there are 7 organisms that add other references from technical organisms in order to complete the CORPEN or COMIFER list, which represent 37% of our panel of 19 organisms.

The figure 12 shows the answer of organisms that concerning issues with minor crops. We can see that 13 responds that haven't issues, and 8 of them are the same organisms that will complete their nitrogen export references, so it is normal that they do not have problems. The 5 others who declare no having issues are organisms specialised in viticulture, so there is no problem for this sector, as there is a single reference for vines and when the farms have other crops, it is often field crops that have references.

The 6 organisations that declare that they have problems with minor crops are the 5 organisations that use the COMIFER list alone and another one because it deals with very particular crops.

Even if the practice of searching for new references reflects a positive desire on the part of the organisms, this practice is highly biased because it is not shared by every organism and, above all, the references are not common. Another justification of the fact of using other references than the CORPEN ones is because, the organism estimate that the reference doesn't represent well the reality depending on the variety used or the agronomic context. So, they use their own reference and not the one shared by everyone.

In both cases, the farm audited by two different organisms will therefore not necessarily have the same result, and that is a huge issue.

Concerning the Apparent Balance, many organisations use the IDEA tool and the references used are therefore not the same either.

Another conclusion of this survey is the fact that it is more advantageous for certain agricultural sectors to use one method rather than another depending on the specific characteristics relating to agricultural practices. For example, it is more advantageous to use the BGA in livestock farming with pasture, because the nitrogen inputs of permanent and temporary grassland by legumes are not considered. Another example is when the livestock farming strategy is to increase the herd, the BGA is then less suitable. But these remarks are more related to the methodology of the different methods.

After this survey, the Association HVE has some recommendations to make to the groups that will work on this indicator for the Reader's Guide. The first one is about the nitrogen references and is to enlarge the current list. Some production is not in the list, it makes the calculation impossible for these one and it could deprive farms of 10 potential points. It should have as little minor crop as possible. The list of reference from the COMIFER in 2013 should replace the CORPEN one, because it's just a new version with some new crops and it's already used by many organisms.

The second proposition is also about the nitrogen reference. It would be to create a list of nitrogen reference, based on the current one, of "generic" values per species. Even if these values do not correspond exactly to all varieties or all contexts, there will be a homogeneity in the references used and everyone will be under the same reference system. The bias would be transferred to everyone, practices would be homogenised, and equity would be preserved. We can also imagine that if organisms or sectors propose and justify new values because the current ones do not correspond to certain varieties or to their regional context, this can be submitted for validation to the Ministry.

The third proposition is about the point attribution system which could be more progressive. The difference between thresholds is maybe too high, which could conduct to the temptation of searching way of raise the threshold when the result is under but close to it.



	Note maximale possible	Coef 1 (Impact sur la note de 10)	Item spécifique	% SAU nationale	Coef 2: % SAU concernée pour une exploitation moyenne	Nombre d'exploitations de ce type en France (RA 2010 : 51496 exploitations)	Coef 3: Nombre d'exploitations en France	Coef final: Coef 1 x Coef 2 x Coef 3	CLASSEMENT PAR INDICATEUR :
<b>BIODIVERSITE</b>									
% de la SAU en IAE	10	1			1	514 964	1	1	1
Poids de la culture principale	6	0,6			1	514 964	1	0,6	2
Nombre d'espèces végétales cultivées	7	0,7	Végétal		1	238 583	0,4633	0,32	4
Nombre d'espèce animales élevées	3	0,3	Animal		1	210 376	0,408526	0,12	5
Présence de ruches	1	0,1			1	514 964	1	0,1	6
Nombre de variétés, races ou espèces menacées	6	0,6			1	514 964	1	0,6	2
<b>STRATÉGIE PHYTOSANITAIRE</b>									
% de la SAU non traitée	10	1			1	514 964	1	1	1
IFT GC PT	10	1	GC PT		0,454	130 402	0,253225	0,11	5
IFT Vigne	10	1	Vigne		0,027	69 961	0,135856	0	10
Quantité de produits phytosanitaire appliquée	3	0,3	Horticulture et pépinière		1	16 314	0,03168	0,01	7
Utilisation de méthodes alternatives à la lutte chimique	3	0,3			1	514 964	1	0,3	2
Utilisation de méthodes alternatives à la lutte chimique CULTURE ORNEMENTALE	6	0,6	Culture ornementale		1	3 611	0,007012	0	9
% de la SAU engagé dans des MAE	2	0,2			1	514 964	1	0,2	3
Diversité spécifique et variétale VIGNE	2	0,2	Vigne		0,027	108 181	0,210075	0	12
Diversité spécifique et variétale ARBO LEGUMES FRUITS PAPAM CULTURE ORNEMENTALE	2	0,2	Arbo, Légumes, fruits horsarbo, PAPAM et culture ornementale		0,023	108 181	0,210075	0	13
Conditions d'application des traitements visant à limiter les fuites dans le milieu	2	0,2			1	514 964	1	0,2	3
Enherbement inter-rang	3	0,3	Vigne Arbo et culture ornementales		0,035	95478	0,185407	0	11
En hors-sol, surfaces équipées de recyclage ou de traitement des eaux d'irrigation	10	1	Hors sol : Légumes, fruits hors arbo, PAPAM, culture	???	1	10000	0,019419	0,02	6

			ornementale						
En hors-sol, surfaces équipées de recyclage ou de traitement des eaux d'irrigation CULTURE ORNEMENTALE	9	0,9	Culture ornementale	???	1	3611	0,007012	0,01	8
GESTION DE LA FERTILISATION									
Bilan Azoté	10	1			1	514 964	1	1	1
Quantité d'azote apportée	5	0,5	Horticulture et pépinière		1	16 314	0,03168	0,02	7
Utilisation d'OAD incluant les analyses de reliquats	7	0,7			1	514 964	1	0,7	3
% de la SAU non fertilisé	10	1			1	514 964	1	1	1
Part des surfaces en légumineuses seules dans la SAU	2	0,2			1	514 964	1	0,2	5
Part de la SAU des surfaces en mélange de cultures ou en mélange prairial comportant des légumineuses au moment du semis	2	0,2			1	514 964	1	0,2	5
Couverture des sols	3	0,3			1	514 964	1	0,3	4
Utilisation de matériel optimisant les apports de fertilisants	6	0,6	CULTURES ORNEMENTALES		1	3611	0,007012	0	10
En hors sol, surfaces équipées de recyclage ou traitement total	6	0,6	HORS SOL		1	10000	0,019419	0,01	8
En hors sol, surfaces équipées de recyclage ou traitement partiel	3	0,3	HORS SOL		1	10000	0,019419	0,01	9
GESTION DE L'IRRIGATION									
Enregistrement des pratiques d'irrigation	6	0,6			1	514 964	1	0,6	1
Utilisation d'OAD	2	0,2			1	514 964	1	0,2	5
Utilisation de matériel optimisant les apports d'eau	6	0,6			1	514 964	1	0,6	1
Adhésion à une démarche collective	2	0,2			1	514 964	1	0,2	5
Pratiques agronomiques mises en œuvre pour économiser l'eau	6	0,6			1	514 964	1	0,6	1
Part des prélèvements en période d'étiage	5	0,5			1	514 964	1	0,5	4
En hors sol, surfaces équipées de recyclage ou traitement total	6	0,6	HORS SOL		1	10000	0,019419	0,01	8
En hors sol, surfaces équipées de recyclage ou traitement partiel	3	0,3	HORS SOL		1	10000	0,019419	0,01	9
Réupération des eaux de pluie	1	0,1			1	514 964	1	0,1	7

*Figure 13: Table of coefficient and ranking of each indicator in each item of the indicator risk analysis.*



It could be overestimating yields, finding new references or others. The difference of 5 points is too important in the result of the item and at the end of the certification.

The conclusion of this survey to answer the general problematic, is that the homogeneity of the method for the indicator “Nitrogen Balance” is not well ensured. Depending on organisms, methods of calculation are not the same. And most of the time, it’s the Certification Organisms that have the last word. During the preparation of the certification audits, the Support Organisms discuss with the Certification Organisms to come to an agreement when there is a problem on a farm. There is a real need of a Reader’s Guide to answer the questions about the Nitrogen Balance and rule the methods.

### 3.2 Discussion about the Survey

The Survey did not have a statistic goal but just to illustrates the point that some indicators really need clarifications and explanations about the indicator itself and their methods of assessment. It will be helpful for the people who will work on the indicator “Nitrogen Balance” for the “Reader’s Guide” because all the information in the survey’s report come from the practice reality. Maybe a work like this should be done for each indicator with big issues to help the working groups.

This work helped me to understand the reality of what the farmers or organisms have to deal with in the process of certification. I didn’t imagine when I’ve read the Control Plan that it could be so difficult to implement and follow, because of the multiplicity of cases.

### 3.3 Results and Discussion about the Reader’s Guide and the Question Fair

Concerning the Indicator’s weight analysis, the three coefficients have been calculated with the methodology presented in the part 2.2.2.2, multiplied by themselves and then a ranking per item have been done. The figure 13 shows the details of the result of each coefficient for each indicator and the final result.

The figure 14 is an extraction of the final coefficient table, it presents per item the most important indicators per item that have to be treated in priority.

We could say that the most important indicators are the one with the higher potential of points and which concern all the farms surface and all sector. The indicators 2 and 3 could pull down the indicators that are sector specific, but it’s logical in a strategy of prioritizing the answers because a higher number of farms need some explanation on the identified indicators. It’s a funnel strategy, from general to specific indicator.

The indicator results correspond to the questions most frequently asked to the HVE association, even if it has no statistical value, this observation confirms the trend of the importance of these indicators.

	INDICATOR	FINAL COEF	RANK
BIODIVERSITY	UAA% Agroecological infrastructures	1	1
	UAA% Weight of the Principale Crop	0,6	2
	Number of varieties, endangered breed or species	0,6	2
PHYTOSANITARY STRATEGY	UAA% no treated	1	1
	Use of alternative methodes to the chemicals	0,3	2
	UAA% engaged in MAE	0,2	3
	Treatment application conditions to limit leaks to the environment	0,2	3
FERTILISATION MANAGEMENT	Nitrogen Balance	1	1
	UAA% Non fertilized	1	1
	Use of decision support tools	0,7	3
IRRIGATION STRATEGY	Recording of irrigation practices	0,6	1
	Use of materials optimizing irrigation	0,6	1
	Agronomic practices implemented to save water	0,6	1

*Figure 14: Table of the ranks of indicators which have the higher weight for each item following the methodology explained.*

For the moment, there are only few conclusions about the conception of these documents. We could say that the collaboration between the Ministry of Agriculture and the Association HVE is good with a clear separation of the different tasks with a respect of each roles. The unexpected high number of questions and the sanitary crisis forced them to revise the initial planning of work and publication. But the change of plan and the creation of the Question Fair was a response which is one of the most appropriate due to the context. We don't know yet if all the work done until now will be validated by the CNCE, but when all have been presented last July in front of the commission, it was rather well received. The work done on the indicator's weight analysis have been recognized as a good methodology analysis which will be helpful for the creation and structuration of the "Reader's Guide" to prioritize the indicators.

Concerning the project of creating a document which answer the questions of both Support and Certification organisms, I could say that it's a good idea to explain better some indicators, how they are constructed and why they exist. To take an example, there is an indicator in the "Biodiversity" item which is the presence of a beehive on the farm. To obtain one point, the farmer has to be the owner of the beehive. This indicator is often misunderstood because the organisms don't really understand the philosophy of the indicator. It exists because the presence of the beehive all along the year is a bioindicator of a good biodiversity on the farm and of the quality of the ecosystem. These explanations are not in the Control Plan and they are necessary in an objective of a good understanding and integration of the system by the agricultural world.

In an objective of homogenization of the methods of support and certification, I think that it could provide answers to some questions and improve some methods, especially for some indicators on which clarifications are really needed. But in my opinion, it will not literally homogenise the methods of the different organisms. To do that, I think that the Certification Organisms are the key. They are the ones that have the final word in the process of certification. And when Support Organisms are facing issues, they frequently ask to the Certification Organism which with they work to adapt to them or copy to their method, in order to be sure to maximise their chance to be certified. Currently there are 15 organisms that are accredited to certify farms at the HVE level, so it should be possible to work with them all and to agree on a method which would be the one of the HVE certification, especially for the indicators where there are the most problems. It could be a way, in addition to the "Reader's Guide", to really homogenise the methods of the organisms and also to promote the certification.

## Discussion and Conclusion

The CEE system has been operational since 2012 and since its beginning it has faced a lot of criticism. As soon as its creation was announced after the "Grenelle de l'Environnement" in 2007, it raised many questions, particularly about the certification HVE, which has disturbed many people in the agricultural world, including key actors. However, some NGOs such as France Nature Environnement (FNE) has always supported the system, and FNE even

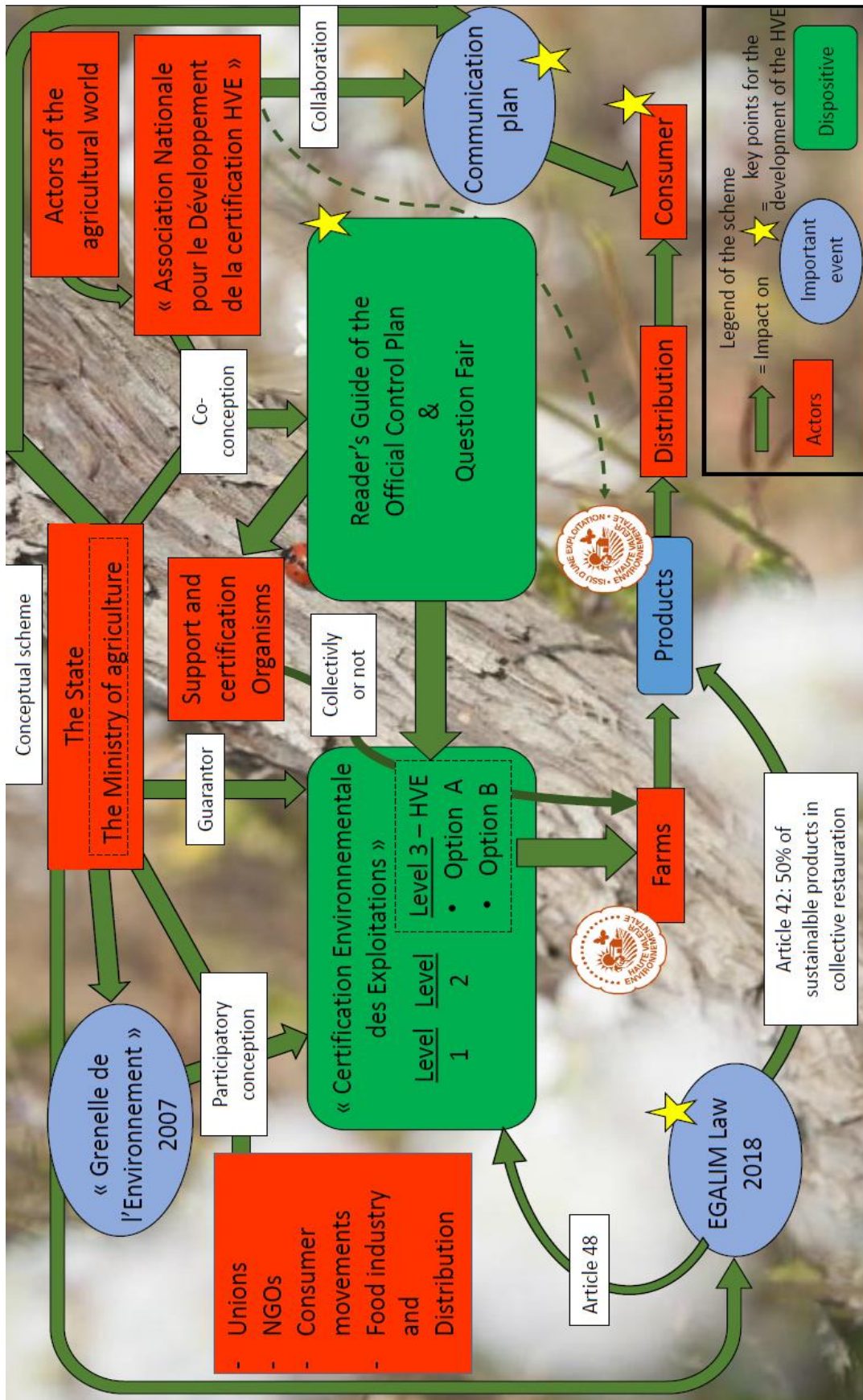


Figure 15: Conceptual scheme of the CEE

participated in the elaboration of the HVE control plan. Since that, the CEE and the HVE certification have been grown, they are now into the agricultural landscape and seems to be able to make a strong contribution to the environmental aspect of the agroecological project of French agriculture (Meybeck et al., 2011). However, in 2017, the CGAAER issued this opinion "the certification appears to have a good image but suffers from a lack of notoriety" (CGAAER, 2017). Since then, thanks to the "États Généraux de l'Alimentation" of 2017 and the Egalim law of 2018 among others, the certification HVE has been increasingly demanded by the mass distribution.

So, the HVE certification is at a crossroads and must continue to reinforce his credibility to gain the confidence of the largest number of agricultural stakeholders. The Question Fair and the Reader's Guide are the first answers to these issues, and I hope that some others will follow, like I mentioned previously, such as a work with Certification Organisms to agree to a common method to assess some important indicators.

The recent dynamic development of the HVE suggests new good prospects for the future. However, two other projects remain very important for its good development and linked to the enhancement of the credibility of the certification. The first one is a better consumer recognition and demand for products from HVE farms. Only a good communication which explains the certification and presents the logos to the general public could involve the consumer in the development of the certification. And this communication plan will increase the credibility of the certification to the consumer. The second project is a price enhancement for certified producers, currently there is a lack of value added in the prices paid to producers for HVE products (Magnard, 2019a). These two projects are going together and will have to be carried out collectively and strategically by the various stakeholders. Indeed, if the consumer has confidence into the credibility of the certification HVE and demand products from HVE farms, these products will become some research goods. Following Hobeika et al, the market for research good is more open than for the other goods, and with a better market the producer will be more financially valorised.

In order to have an overall view of all the system, the figure 15 is a conceptual scheme of the "Certification Environnementale des Exploitations" that I built with a focus on the HVE. This scheme presents the key points of its development and the different actors involved in. From its participatory conception following the "Grenelle de l'Environnement" in 2007, to the HVE association, which is currently working with the Ministry of agriculture to produce a Reader's Guide and a Question Faire of the control plan, to the Egalim law of 2018, to the project of the communication plan for the general public.

Many different stakeholders (red boxes on the scheme) have taken part in the creation of this system, and make it live. Today, thanks to strong concrete actions (highlighted with yellow stars), the development of the HVE certification has taken on a new meaning, with her credibility strengthened by the Egalim law and the Reader's Guide to be published. These two actions are more addressed towards agricultural professionals. And, the next major step is to





improve the consumer visibility with a major communication plan on which the HVE association and the Ministry will work. Indeed, the last key player is the consumer, because it is the consumer who, through his purchases and his search for products from HVE certified farms, will reward virtuous agriculture, the farmers involved, and all the efforts made by all the actors.

For my part, I've already known the HVE certification before I started to work on it. I have already heard certain criticisms about it, such as the fact that it was not adapted to the animal sector or that it was only for high added value productions such as champagne. During the 6 months of my mission, I discovered new criticisms against the HVE, and I realised that many of them came from the fact that the certification is not really well known. The French agricultural world is not used to working with a multi-sector tool and certain sectors have some difficulty in recognising themselves in it, because it doesn't directly valorise their agricultural practices. However, I think that the HVE is well adapted to all types of farms and the criteria are well built around the philosophy of the HVE. Concerning the non-adaptability of the HVE to livestock farming, the regional agricultural chamber of Nouvelle-Aquitaine has conducted a study and the conclusions are really positive for the feasibility and the adaptability of the HVE certification on it (Chambre Agriculture Nouvelle Aquitaine and Région Nouvelle Aquitaine, 2020). About the critic on the option B and the item on the weight of inputs in the revenue that must be less than or equal to 30%, it turns out that in productions with high added value, I agree that there is a bias in the validation of this item. But the biodiversity item still needs to be validated in order to be certified, so certification is not simply given to these farms either.

Nevertheless, since 2012 the development of certification has been rather complicated, and this is due to the lack of awareness of the certification by the farming world and by the consumer. In my opinion, the Ministry has not used all their means to make the most of the certification, but since 2017 with the creation of the Association, the co-management of the certification has been successful, and the development is now exponential. Now, to validate this growth, they have to continue to assure the high credibility of the HVE and I think that they are in the good way and I hope that the certification HVE will become unavoidable soon.

To conclude, the general mission I did during for the last six months within the Association HVE was to participate in the development and the influence of the certification. This wide mission has been fulfilled by numerous actions. There was of course the participation in the conception of the Question Fair for professionals of the agricultural world and the setup of the survey about the Nitrogen Balance indicator. These technical works fit perfectly within the objective of a better development of the certification by homogenising the practices of Support and Certification organisms. Indeed, a solid development of certification requires a solid and fair control plan and a good understanding and adoption of it by the various actors of the French agricultural world. Other actions have been carried out also in this direction, such as the management of the sale of logo buttons and logo plates. This allows a better visibility



of the farms and products. The participation in the daily life of the association, by answering questions on phone or by email or also providing support during formations sessions for organisms, also goes in the objective of the main mission.



## Bibliography

- Adèle Magnard. 2019a. 'Certification HVE : où est la valeur ajoutée pour les producteurs ?' *Pleinchamp*, 2019. <https://www.pleinchamp.com/actualites-generales/actualites/certification-hve-ou-est-la-valeur-ajoutee-pour-les-producteurs>.
- . 2019b. 'HVE, la crainte d'une démarche volontaire obligatoire'. *Pleinchamp*. <https://www.pleinchamp.com/actualites-generales/actualites/hve-la-crainte-d-une-demarche-volontaire-obligatoire>.
- Alexandre Meybeck, Loïc Schio, Vincent Gitz, and Nathanaël Pingault. 2011. 'Le Grenelle de l'environnement et La Certification Environnementale Des Exploitations Agricoles : Un Exemple de Conception Participative'. *Notes et Études Socio-Économiques*, October 2011.
- Bioconsommateur. 2020. 'La certification Haute Valeur Environnementale en débat'. 2020. [/bio/dossiers/agriculture-alimentation-sante-environnement/la-certification-haute-valeur](https://www.bioconsommateur.org/bio/dossiers/agriculture-alimentation-sante-environnement/la-certification-haute-valeur).
- Bonroy, Olivier, and Christos Constantatos. 2004. 'Biens de confiance et concurrence en prix'. *Revue économique* Vol. 55 (3): 527–32.
- CGAAER. 2017. 'Rapport N° 16079 - Certification Environnementale Des Exploitations Agricoles'.
- Chambre Agriculture Nouvelle Aquitaine, and Région Nouvelle Aquitaine. 2020. 'Operation Tests Nouvelle Aquitaine Rapport Final'.
- CORPEN Groupe Azote Indicateurs. 2006a. 'Des Indicateurs Azote Pour Gérer Des Actions de Maîtrise Des Pollutions à l'échelle de La Parcelle, de l'exploitation et Du Territoire - Indicateur 13bis Page 82'.
- . 2006b. 'Des Indicateurs Azote Pour Gérer Des Actions de Maîtrise Des Pollutions à l'échelle de La Parcelle, de l'exploitation et Du Territoire - Indicateur 13 Page 78'.
- Directeur du Cabinet du Ministère de l'agriculture, de l'agroalimentaire et de la forêt. 2016. 'Lettre de Mission N°CI 0735317'.
- FAO. 2015. 'Estimations Des Émissions de Gaz à Effet de Serre En Agriculture'.
- Grolleau, Gilles. 2001. 'Management Environnemental et Exploitation Agricole'. *Économie Rurale*, 2001.
- J.C. Simon, and L. Le Corre. 1992. 'Le Bilan Apparent de l'azote à l'échelle de l'exploitation Agricole: Méthodologie, Exemples de Résultats.' *Fourrages* 129: 79–94.



- Jean-Claude Simon, Carlo Grignani, Alain Jacquet, Louis Le Corre, and Jérôme Pagès. 2000. 'Typologie Des Bilans d'azote de Divers Types d'exploitation Agricole: Recherche d'indicateurs de Fonctionnement.' *Agronomie, EDP Sciences*, no. 20: pp.175-195. <https://doi.org/ff10.1051/agro:2000118ff>. ffhal-00886003f.
- Jean-Luc Pujol, and Dominique Dron. 1999. 'Agriculture, Monde Rural et Environnement : Qualité Oblige'. *Courrier de l'environnement de l'INRA N°37*, 52–56.
- Lionel Vilain. 2009. 'Certification HVE : contribution au débat'. *CAIRN N° 202-203 (3)*: 12–15.
- Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt. 2015. 'CERTIFICATION ENVIRONNEMENTALE DES EXPLOITATIONS AGRICOLES - GUIDE DE PROCEDURE NIVEAU 1'.
- . 2016a. 'CERTIFICATION ENVIRONNEMENTALE DES EXPLOITATIONS AGRICOLES - PLAN DE CONTROLE NIVEAU 3 – OPTION A'.
- . 2016b. 'CERTIFICATION ENVIRONNEMENTALE DES EXPLOITATIONS AGRICOLES - PLAN DE CONTROLE NIVEAU 3 – OPTION B'.
- Ministère de l'Agriculture, de l'Agroalimentaire et de le Forêt. 2015. 'REGLEMENT D'USAGE DE LA MARQUE COLLECTIVE HVE'.
- Ministère de l'Agriculture, de l'Alimentation, de la Pêche, de la Ruralité et de l'Aménagement du territoire. 2011. 'CERTIFICATION ENVIRONNEMENTALE DES EXPLOITATIONS AGRICOLES - PLAN DE CONTROLE NIVEAU 2'.
- Ministère de l'Agriculture et de l'Alimentation. 2016. 'Bio et Haute Valeur Environnementale : deux modes de valorisation complémentaires'. 2016. <https://agriculture.gouv.fr/bio-et-haute-valeur-environnementale-deux-modes-de-valorisation-complementaires>.
- . 2019. 'NOTE D'UTILISATION DE LA MARQUE COLLECTIVE (LOGO) « Issu d'une Exploitation de HAUTE VALEUR ENVIRONNEMENTALE »'.
- . 2020a. 'Certification Environnementale : Liste Des Organismes Certificateurs Agréés Par Le Ministère de l'Agriculture'.
- . 2020b. 'Les Chiffres de La HVE'. <https://agriculture.gouv.fr/les-chiffres-cles-de-la-haute-valeur-environnementale-hve#:~:text=Les%20chiffres%20cl%C3%A9s%20de%20la,Agriculture%20et%20de%20l'Alimentation&text=La%20Haute%20Valeur%20Environnementale%20correspond,certification%20environnementale%20des%20exploitations%20agricoles>.
- . 2020c. 'Niveau 2 de La Certification Environnementale : Chiffres Clés et Liste Des Démarches Reconnues'.





- Ministère de l'Alimentation, de l'Agriculture et de la Pêche, and AGRESTE. 2010. 'Recensement Agricole 2010'.
- Nelson, Phillip, 1970. "Information and Consumer Behavior," *Journal of Political Economy*, University of Chicago Press, vol. 78(2), pages 311-329, March-Apr.
- OCDE. 2019. 'Le Triple Défi de l'agriculture et Comment l'aborder'. 2019. <https://www.oecd.org/fr/agriculture/triple-defi-agriculture-aborder/>.
- République Française. 2011. 'Code Rural et de La Pêche Maritime - Articles R641-57 à R641-57-5'.
- Samer Hobeika, Jean-Pierre Ponsard, and Sylvaine Poret. 2013. 'Le Rôle Stratégique d'un Label Dans La Formation d'un Marché. Le Cas de l'ISR En France'.
- Sylvie Bonny. 2000. 'Les Consommateurs, l'agriculture, La Qualité et La Sécurité Des Aliments : Une Analyse Du Questionnement Des Consommateurs et Des Réponses Apportées'. *Productions Animales, Institut National de La Recherche Agronomique*, 2000.



**Préparer l'avenir du dispositif à plus long terme**

A plus long terme, on pourrait souhaiter que la certification devienne plus autonome dans sa gestion, soutenue par les filières, sous l'action conjointe des producteurs et des distributeurs.

La mission invite à une réflexion sur les possibilités qu'il y aurait, à terme, à confier la gestion et l'animation du dispositif à un organisme spécifique, distinct du MAAF, existant ou à créer.

**R21.** Réfléchir à une possible externalisation de la gestion du dispositif

L'État pourrait ainsi être moins impliqué dans la gestion, mais doit conserver son rôle de pilotage et de contrôle du système, dont il est le garant.



Annex II: List of the members of the HVE association in 2020 (Source: Association Nationale pour le Développement de la Certification Haute Valeur Environnementale, 2020)

<b>51 Adhérents</b>	<b>Nom de l'organisation ou Raison Sociale de votre Structure</b>	<b>Filière(s) agricole(s) (plusieurs choix possibles)</b>
<b>6 organisations Membres fondateurs</b>	AOP PECHES ET ABRICOTS DE FRANCE SAS	Arboriculture
	AOP TOMATES ET CONCOMBRES DE FRANCE	Maraîchage
	ASSOCIATION NATIONALE DES PRODUCTEURS DE NOISETTES	Arboriculture
	ASSOCIATION NATIONALE POMMES POIRES	Arboriculture
	FEDERATION DES MARAICHERS NANTAIS	Maraîchage
	VIGNERONS INDEPENDANTS DE FRANCE	Viticulture
<b>4 organisations Aval (transformateurs et/ou distributeurs)</b>	GROUPE POMONA	Toutes filières agricoles
	AGROM SERVICES (AGROMOUSQUETARIES)	Toutes filières agricoles
	PROSOL SAS (GRAND FRAIS)	Arboriculture, Elevage, Horticulture, Maraîchage, Cultures Hors Sol
	SC GALEC - E.LECLERC	Toutes filières agricoles
<b>1 Collectivité territoriale</b>	RÉGION NOUVELLE AQUITAINE	Toutes filières agricoles
<b>8 organisations Conseil et accompagnement (chambre d'agri, formateurs, organismes conseil et acteurs de la certification)</b>	ARTERRIS	Grandes Cultures, Viticulture
	ARMBRUSTER	Toutes cultures
	BERGON SAS	Viticulture
	BUREAU VERITAS CERTIFICATION	Toutes filières agricoles
	CERTIPAQ	Toutes filières agricoles
	CHAMBRE RÉGIONALE D'AGRICULTURE DE NOUVELLE-AQUITAINE	Toutes filières agricoles
	GIE ICV-VVS	Viticulture
	GROUPE COLLECTIF DE LA CHAMBRE D'AGRICULTURE DU TARN-ET-GARONNE	Toutes filières agricoles
<b>30 organisations Production - Groupement de producteurs agricole (Coopératives, Organisation de Producteurs, Interpro, Syndicats, etc.)</b>	AOP CERAFEL	Maraîchage
	AGPM	Grandes Cultures
	AOPN CERISES DE TABLE	Arboriculture



	AOPN FRAISES DE FRANCE	Horticulture, Maraîchage, Cultures Hors Sol
	AOPN RAISIN DE TABLE	Viticulture
	ASSOCIATION D'ORGANISATIONS DE PRODUCTEURS NATIONALE PRUNE	Arboriculture
	ASSOCIATION ECO-PHYT'	Elevage, Grandes Cultures, Maraîchage, Cultures Hors Sol
	AXEREAL	Grandes Cultures
	BLEU-BLANC-COEUR	Elevage, Production végétale (cultures oléo-protéagineux, légumineuses)
	CAVES DE RAUZAN	Viticulture
	CIDEF	Elevage
	CIVB	Viticulture
	COLLECTIF NOUVEAUX CHAMPS	Arboriculture, Maraîchage, Cultures Hors Sol, Viticulture
	CONFÉDÉRATION DES VINS IGP DE FRANCE	Viticulture
	COOP AGRICOLE MÂCONNAIS BEAUJOLAIS	Viticulture
	COOP DE FRANCE - VIGNERONS COOPÉRATEURS	Viticulture
	COOPAZUR	Viticulture
	Coopérative Agricole de la Tricherie (OXYANE)	Grandes Cultures
	COOPERATIVE DAUPHINOISE (OXYANE)	Grandes Cultures
	D'AUCY( branche Eureden long life)- groupe euredereden	Maraîchage
	GROUPE COOPERATIF CAVAC	Elevage, Grandes Cultures
	EXCELLENCE VEGETALE	Horticulture
	INTERFEL	Arboriculture, Maraîchage
	LES CELLIERS ASSOCIES	Arboriculture
	OP LA FERME DES ARCHES SA	Grandes Cultures, Maraîchage
	PARMENTINE SA	Grandes Cultures
	CAVE DE PLAIMONT	Viticulture
	SOLARENN	Maraîchage, Cultures Hors Sol
	SYNDICAT DES CÔTES DE PROVENCE	Viticulture
	SYNDICAT GENERAL DES VIGNERONS REUNIS DES COTES DU RHONE	Viticulture
<b>2 Membres de Droit</b>	ASSOCIATION REGIONALE BEAUCE VAL DE LOIRE POUR LE DEVELOPPEMENT DE LA HAUTE VALEUR ENVIRONNEMENTALE	Toutes filières agricoles
	Association Alliance BIOdiV	Toutes filières agricoles





Annex III: Picture of the HVE logo metal plate (Source: Association Nationale pour le Développement de la Certification Haute Valeur Environnementale, 2020)





## Annex IV: Guide Sheet used for the interviews

ASSOCIATION NATIONALE POUR LE DEVELOPEMENT DE LA CERTIFICATION HVE

### QUESTIONNAIRE BILAN AZOTE

Date :

Nom de l'organisme :

Nom de la personne, téléphone, email :

Contexte régional :

Type d'exploitation accompagnée :

Méthode du bilan utilisée et pourquoi ?

BGA, BA, Solde CORPEN ? Utilisation d'un outil en particulier ?

Quelles données sont utilisées pour justifier les quantités pour les exports ? Factures, estimation ...

Beaucoup de culture mineure ?

Quelles références sont utilisées ?

Remarques :



ANNEX V: Summary table of the 19 interviews done for the “Nitrogen Balance” indicator’s survey.

Nom de l'organisme	Membre Asso HVE ?	Type d'exploitation accompagnée	Type de Bilan le plus utilisé	Données utilisées	Références utilisées	Problème avec le nombre de culture Mineures
Chambre Agriculture Tarn et Garonne	oui	Arboriculture, Grandes Cultures	BGA	Rendement au champ estimé, bon de vente	CORPEN + Références CTIFL pour l'arboriculture + Arvalis pour GC	NON car ils vont chercher de nouvelles références
Arterris	oui	Viticulture, Céréales	BA	Bon de vente, nombre d'hectolitres de vin	Comifer 2013 + Références outils IDEA	NON car ils vont chercher de nouvelles références
ICV Viticulture	oui	Viticulture (avec peu de polyculture)	BA	Bon de vente, nombre d'hectolitres de vin	Références outils IDEA	Non pas en viticulture
Chambre Agriculture Dordogne/ Nouvelle Aquitaine	oui		Bilan Corpen	Rendement au champ estimé	Comifer 2013	OUI
Cerfrance	Non	Céréales, Polyculture élevage	BGA	Rendement au champ estimé	Comifer 2013	OUI
CDDM Comité Départemental de Développement Maraîcher	Non	Maraîchage	BA	Rendement au champ calculé	Références outils IDEA + Références d'organismes techniques	OUI
VitaCulture	Non	Grande Culture, Viticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Corpen + Autres références techniques	NON car ils vont chercher de nouvelles références
Chambre d'Agriculture de Région Ile de France	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Horticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Corpen + Autres références techniques	NON car ils vont chercher de nouvelles références
Synvira : Vignerons Indépendants d'Alsace	Non	Viticulture	BA	Nombre d'hectolitres obtenus	Références outils IDEA	Non pas en viticulture
Chambre d'agriculture des Pays de la Loire	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Horticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Comifer 2013	OUI
CAPL	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Horticulture, Elevage	BA	Rendement au champ, bon de vente, état des stocks	Références outils IDEA	OUI
CHAMBRE D'AGRICULTURE DES BOUCHES-DU-RHONE	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Comifer 2013	OUI
ECOVIGNE	Non	Viticulture	BA	Nombre d'hectolitres obtenus	Références outils IDEA	Non pas en viticulture
Groupe VIVADOIR	Non	Grande Culture, Viticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Comifer 2013 + Autres références techniques	NON car ils vont chercher de nouvelles références
MD CONSULTANT	Non	Viticulture	BA	Nombre d'hectolitres obtenus	Références outils IDEA	Non pas en viticulture
RACINE SAP GROUPE PERRET	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Horticulture	BGA	Rendement au champ estimé, bon de vente	Corpen + Autres références techniques	NON car ils vont chercher de nouvelles références
VITIVALOR	Non	Viticulture	BA	Nombre d'hectolitres obtenus	Références outils IDEA	Non pas en viticulture
Chambre d'agriculture du Cher	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Corpen + Autres références techniques	NON car ils vont chercher de nouvelles références
Chambre d'Agriculture des Alpes-Maritimes	Non	Arboriculture, Grande Culture, Maraîchage, Viticulture, Elevage	BGA	Rendement au champ estimé, bon de vente	Comifer 2013 + Autres références techniques	NON car ils vont chercher de nouvelles références



Annex VI: Template of the Excel Sheet where questions have been compiled  
 (Translated by Pierre DECAP)

	A	B	C	D	E	F	G
1							
2	Agricultural sector	Control Plan Reference	Theme of the question	Reminder of what the Control Plan says	Question or issue	Answer proposed by the organism	Justification of the answer (bibliographie, Expert, organism, etc...)
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							





 agriculture • alimentation • environnement	Diplôme : Ingénieur Spécialité : Agronome Spécialisation / option : Agroecology Enseignant référent : Anne-Lise Jacquot
Auteur(s) : Pierre Decap Date de naissance* :20/06/1996	Organisme d'accueil : Confédération des Vignerons Indépendants de France / Association Nationale pour le Développement de la Certification HVE
Nb pages : 48 Nb Annexes :7	Adresse : 18, Avenue Winston Churchill 94227 CHARENTON-LE-PONT Cedex
Année de soutenance : 2020	Maître de stage : Laurent Brault
Titre français : Participation au développement et au rayonnement de la certification « Haute Valeur Environnementale » Titre anglais : Participation in the development and the influence of the certification « Haute Valeur Environnementale »	
Résumé (1600 caractères maximum) : <p>Ce document est le rapport de stage de fin d'études de Pierre Decap qu'il a réalisé de février à août 2020 au sein de l'Association Nationale pour le Développement de la Certification HVE.</p> <p>La Certification Environnementale des Exploitations est un dispositif public du Ministère de l'agriculture composé de trois niveaux, le dernier la "Haute Valeur Environnementale" et est le seul à donner droit à une mention valorisante. Pour continuer d'assurer le développement actuel de la HVE , le Ministère et l'Association HVE doivent continuer de garantir un haut niveau de crédibilité dans la méthode de certification des exploitations. En collaboration, ils ont pour projet la conception d'un Guide de lecture du Plan de Contrôle permettant de répondre aux questions des organismes impliqués dans le processus de certification et homogénéiser leurs pratiques.</p> <p>Ce rapport présente la méthodologie et les conclusions d'une enquête sur un des indicateurs de la certification, le bilan azoté, afin d'illustrer les problèmes de manque d'homogénéité des méthodes de certification.</p> <p>La méthodologie utilisée dans les premières étapes de la conception du Guide de lecture seront aussi présentées. Ces étapes sont la collecte, le tri et la priorisation des plus de 1000 questions de la part d'une cinquantaine d'organismes. Ce rapport explique aussi le choix de se tourner dans un premier temps vers un format de FAQ, en effet le contexte ne permettait pas la bonne tenue des groupes de travail qui devaient travailler sur le Guide de lecture.</p>	

Abstract (1600 caractères maximum) :

This document is the end-of-study internship report of Pierre Decap, which he did from February to August 2020 within the National Association for the Development of the HVE Certification.

The Environmental Certification of Farms is a public system of the Ministry of Agriculture composed of three levels, the last one is the "Haute Valeur Environnementale" and is the only one to give the right to a rewarding mention. In order to continue to ensure the current development of the HVE, the Ministry and the HVE Association must continue to guarantee a high level of credibility in the farm certification method. In collaboration, they are creating a Reader's Guide of the Control Plan to answer questions from the organisms involved in the certification process and to homogenize their practices. This report presents the methodology and the conclusions of a survey on one of the indicator of the certification, the nitrogen balance, in order to illustrate the issues of the lack of homogeneity of the certification methods.

The methodology used in the first steps of the design of the Reader's Guide will also be presented. These steps are the collect, sorting and prioritisation of more than 1000 questions from about 50 organisations. This report also explains the choice to turn initially to an FAQ format, as the context did not allow the working groups that had to work on the Reading Guide to do so properly.

Mots-clés : Certification Haute Valeur Environnementale – Guide de lecture – Bilan Azoté -

Key Words: Certification Haute Valeur Environnementale – Reader's Guide – Nitrogen Balance

*\* Élément qui permet d'enregistrer les notices auteurs dans le catalogue des bibliothèques universitaires*

Document à intégrer au mémoire