

Any questions ?

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LIFE GREEN SHEEP FINAL SEMINAR · 17 & 18 NOVEMBER 2026

How To Carry Out an Environmental Assessment ?



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A farm assessment visit, played in fast-forward

MARC

The meat sheep farmer (fictional) · played by Benoît Nougadère

JULIE

The CAP'2ER-trained advisor · played by Elisabeth



1

The arrival

L'arrivée



JULIE

Hello Marc! As agreed, I'm here for the CAP'2ER® assessment.

MARC

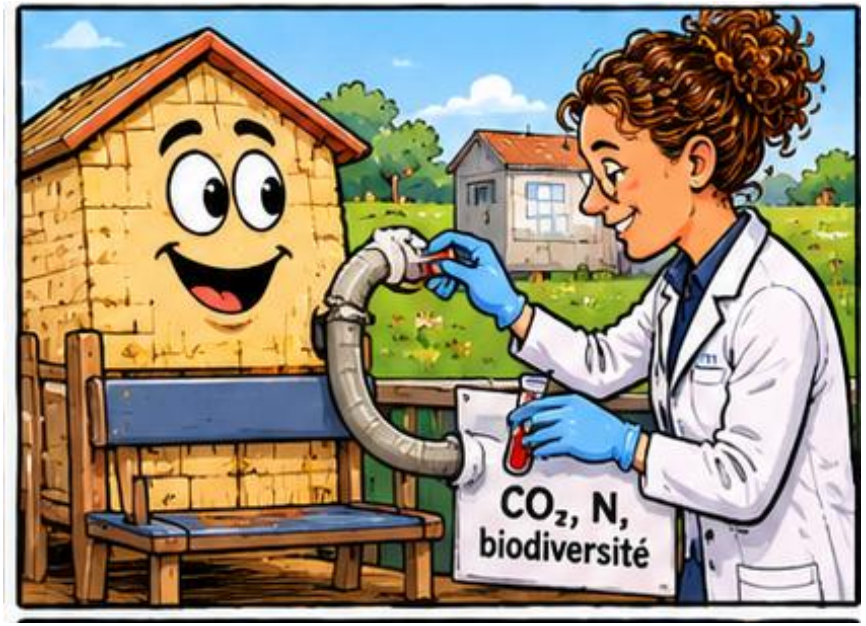
Yeah… So what is this, another inspection? CAP checks, the vets, and now carbon?

JULIE

Not at all. Nobody is penalising you. CAP'2ER® is a tool developed by the French Livestock Institute to calculate the environmental performance of a ruminant farm.

JULIE

It's a bit like a blood test for the farm: we see where you stand, then we look together at what can be improved.



MARC

And what does your blood test measure?

JULIE

The greenhouse gases the farm emits, of course. But also the carbon stored in your grasslands and hedges, biodiversity, energy use…

JULIE

…nitrogen losses to water and air, and the number of people your farm feeds.

MARC

Wait, hedges count too?

JULIE

They certainly do. We'll come back to that.

JULIE

There are two levels. Level 1 is a quick first overview with a few dozen data points.

JULIE

Level 2, the one we're doing today, needs much more information, about half a day, and leads to an action plan.

MARC

Half a day?! I've got lambs to look after!

JULIE

Well, the better prepared your paperwork, the faster it goes. Have you got your paperwork ready?

MARC

Should be in there somewhere.



What CAP'2ER measures

Greenhouse gases
Gaz à effet de serre

Carbon stored (grassland, hedges)
Carbone stocké (prairies, haies)

Biodiversity
Biodiversité

Energy use
Énergie consommée

Nitrogen losses (water, air)
Pertes d'azote (eau, air)

People fed
Personnes nourries

LEVEL 1 · NIVEAU 1

Quick first overview, a few dozen data points.

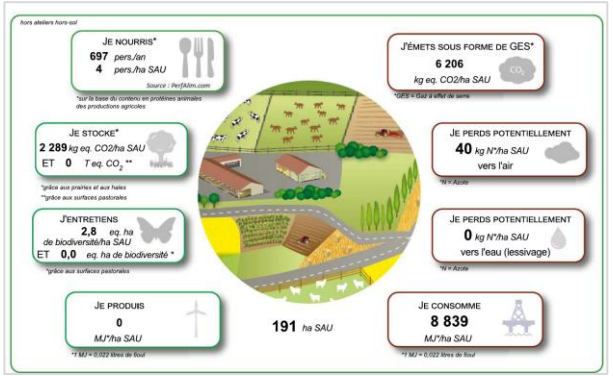
.

LEVEL 2 · NIVEAU 2

Much more data, about half a day, and an action plan.

CAP'2ER · REAL EXTRACT

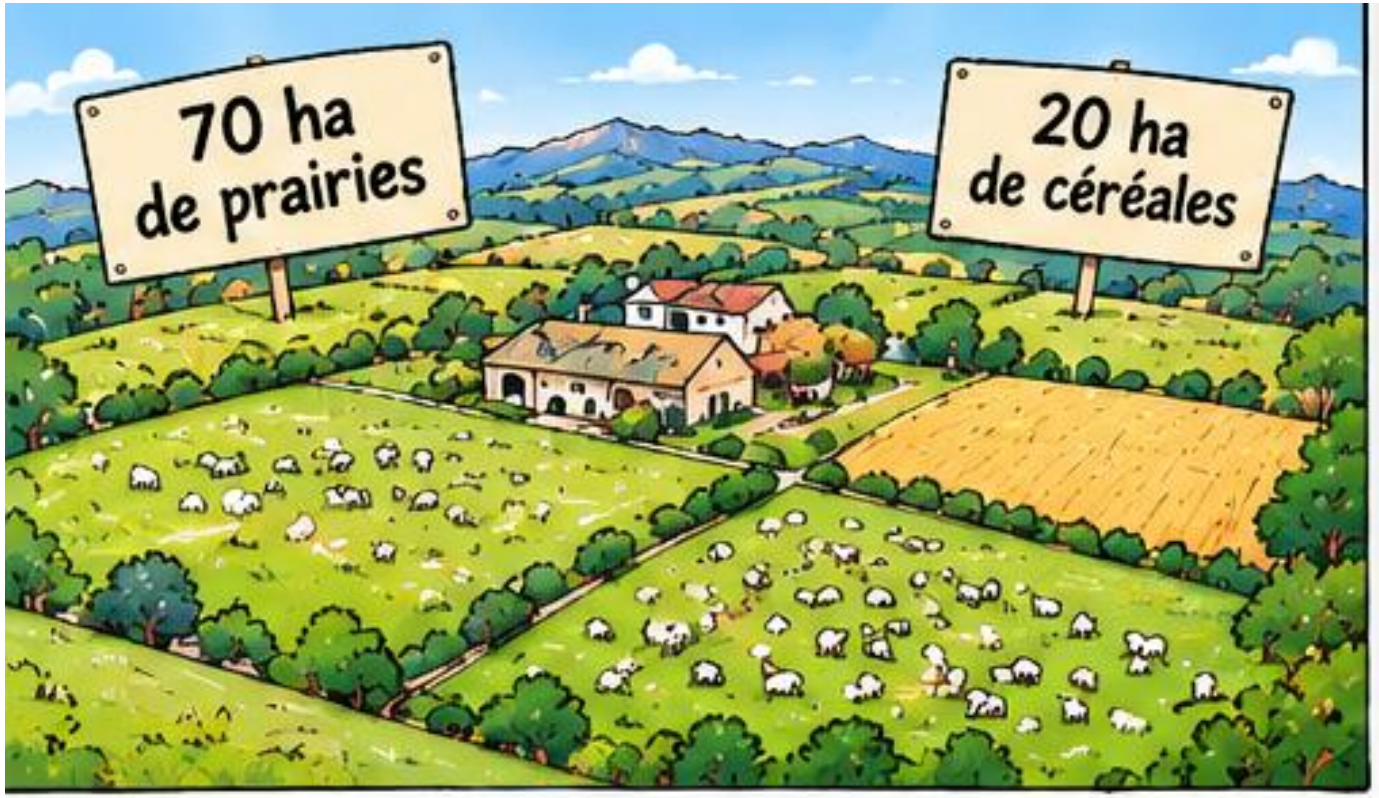
The farm's environmental balance / Bilan environnemental



CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

2 Farm structure

Structure



JULIE

Let's start with the easy part. Total area?

MARC

90 hectares.

JULIE

And how much of that is permanent grassland, temporary grassland, crops?

MARC

Well… 70 in grass, a good part of it never ploughed since my grandfather's day. And 20 of cereals for the ewes.



JULIE

That detail matters: old grassland doesn't store carbon like grassland ploughed every five years. Hence the question about the age of the grassland.



JULIE

And the hedges: how many linear metres?

MARC

Metres? I planted them, I trim them, I've never measured them!



JULIE

No need, we'll estimate them from the aerial photo or the land parcel register.

JULIE

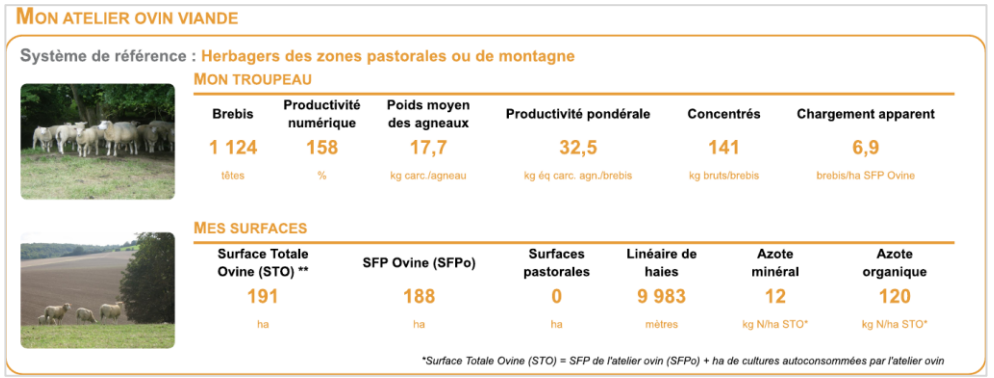
First classic challenge: data nobody ever needed to put a number on.

Farm area
Surface de l'exploitation

CAP'2ER · Level 2 · Farm area / Surface de l'exploitation

Total area *Surface totale*	90 ha *90 ha*
Grassland (age of grassland) *Prairies (âge des prairies)*	70 ha, partly never ploughed *70 ha, en partie jamais retournées*
Crops *Cultures*	20 ha of cereals for the ewes *20 ha de céréales pour les brebis*
Hedges (linear metres) *Haies (mètres linéaires)*	**? never measured → aerial photo** *jamais mesurées → photo aérienne*

CAP'2ER · REAL EXTRACT



MON ATELIER OVIN VIANDE

Système de référence : Herbagers des zones pastorales ou de montagne

MON TROUPEAU

Brebis	Productivité numérique	Poids moyen des agneaux	Productivité pondérale	Concentrés	Chargement apparent
1 124 têtes	158 %	17,7 kg carc./agneau	32,5 kg éq carc. agn./brebis	141 kg bruts/brebis	6,9 brebis/ha SFP Ovine

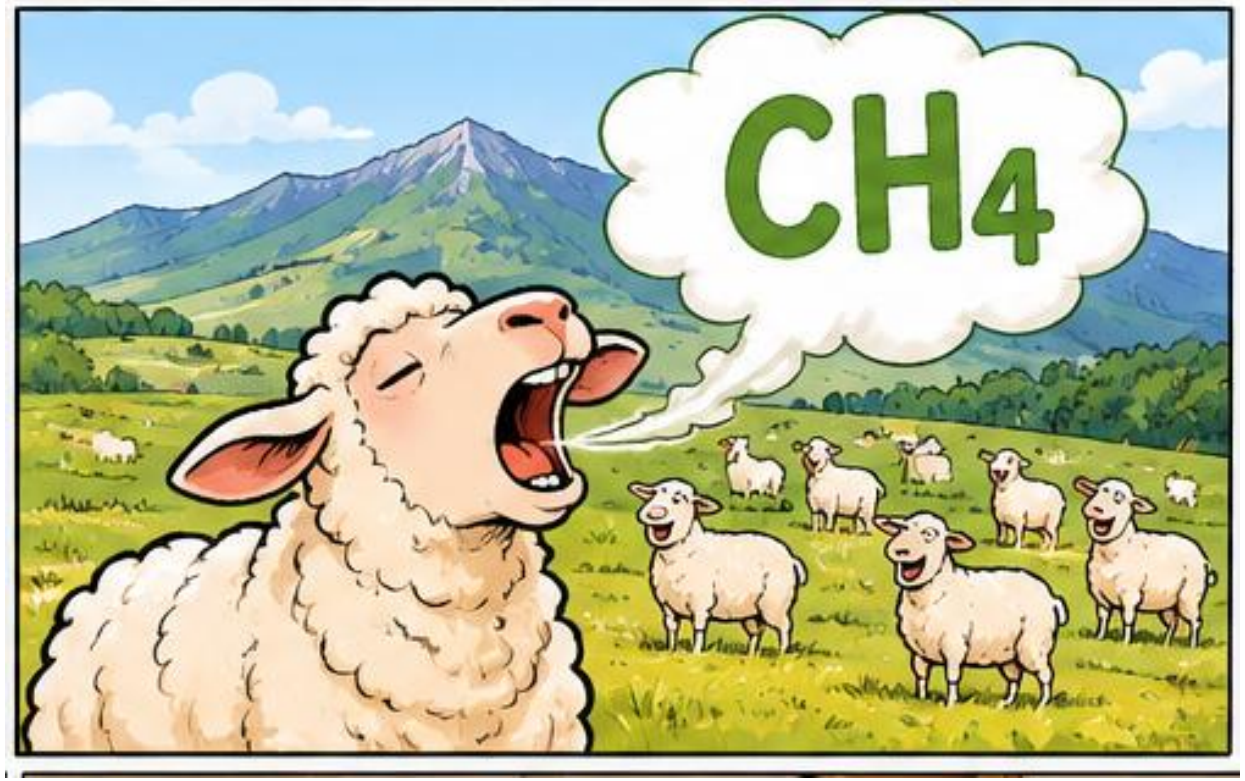
MES SURFACES

Surface Totale Ovine (STO) **	SFP Ovine (SFPo)	Surfaces pastorales	Linéaire de haies	Azote minéral	Azote organique
191 ha	188 ha	0 ha	9 983 mètres	12 kg N/ha STO*	120 kg N/ha STO*

*Surface Totale Ovine (STO) = SFP de l'atelier ovin (SFPo) + ha de cultures autoconsommées par l'atelier ovin

CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

3 The flock
Le troupeau



JULIE

Now the flock. How many ewes, replacement ewe lambs, rams?

MARC

450 ewes, about a hundred ewe lambs, 12 rams. That I know, it's in the flock register.



JULIE

Perfect. How many lambs born, how many sold, how many died?

MARC

Sold, I've got the papers. Deaths... let's say quite a few last spring, with the cold.

JULIE

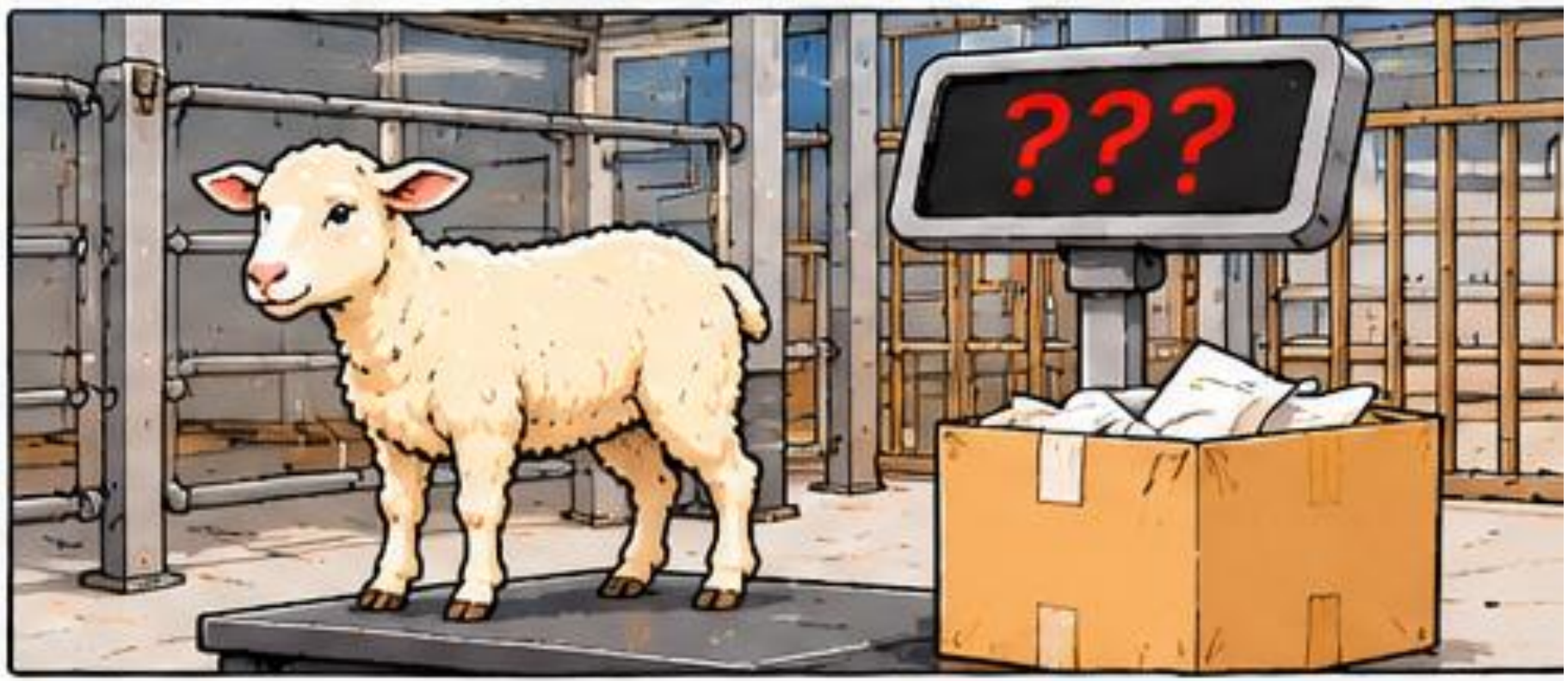
That's important. A lamb that dies was carried and fed by its mother with nothing to show for it. It weighs on the carbon footprint of every kilo sold.

MARC

And you need the weight of the lambs sold too?

JULIE

Yes, live weight or carcass weight.



MARC

Carcass weights are on the slaughterhouse invoices…
which are in the box.

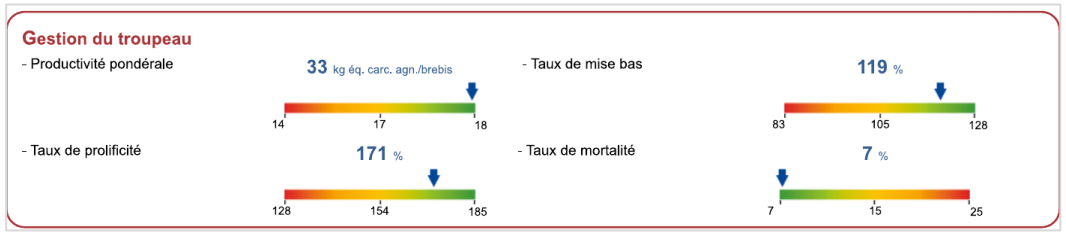
Flock
Troupeau

CAP'2ER · Level 2 · Flock / Troupeau

Ewes · ewe lambs · rams *Brebis · agnelles · béliers*	450 · ~100 · 12 (flock register) *450 · ~100 · 12 (registre)*
Lambs born / sold *Agneaux nés / vendus*	collection slips *bons d'enlèvement*
Lamb deaths *Agneaux morts*	**"quite a few last spring, with the cold"** *« pas mal au printemps, avec le froid »*
Weight of lambs sold *Poids des agneaux vendus*	**? slaughterhouse invoices… in the box** *factures d'abattoir… dans la boîte*

CAP'2ER · REAL EXTRACT

Flock performance (mortality, prolificacy) / Gestion du troupeau



Level 1: flock & land / Niveau 1 : troupeau et surfaces



Top: CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation) · Bottom: CAP'2ER level 1, training case study / CAP'2ER niveau 1, cas d'étude de formation

4 Feeding
Alimentation



JULIE

Now the big one: what your animals eat. First, bought-in concentrates. Which feed, and how many tonnes a year?

MARC

This one. How many tonnes… I buy bags when we run out!



JULIE

The supplier's invoices, then.

JULIE

Second challenge: the amounts actually eaten. We can find the purchases.

JULIE

But what goes to the ewes, the ewe lambs and the lambs, nobody weighs it. We rebuild it with the farmer, group by group.

JULIE

And the cereals you grow on the farm, how much do you feed?

MARC

Pretty much everything I harvest. Except last year, I had to buy some in.

JULIE

And forage? Hay, haylage, silage?

MARC

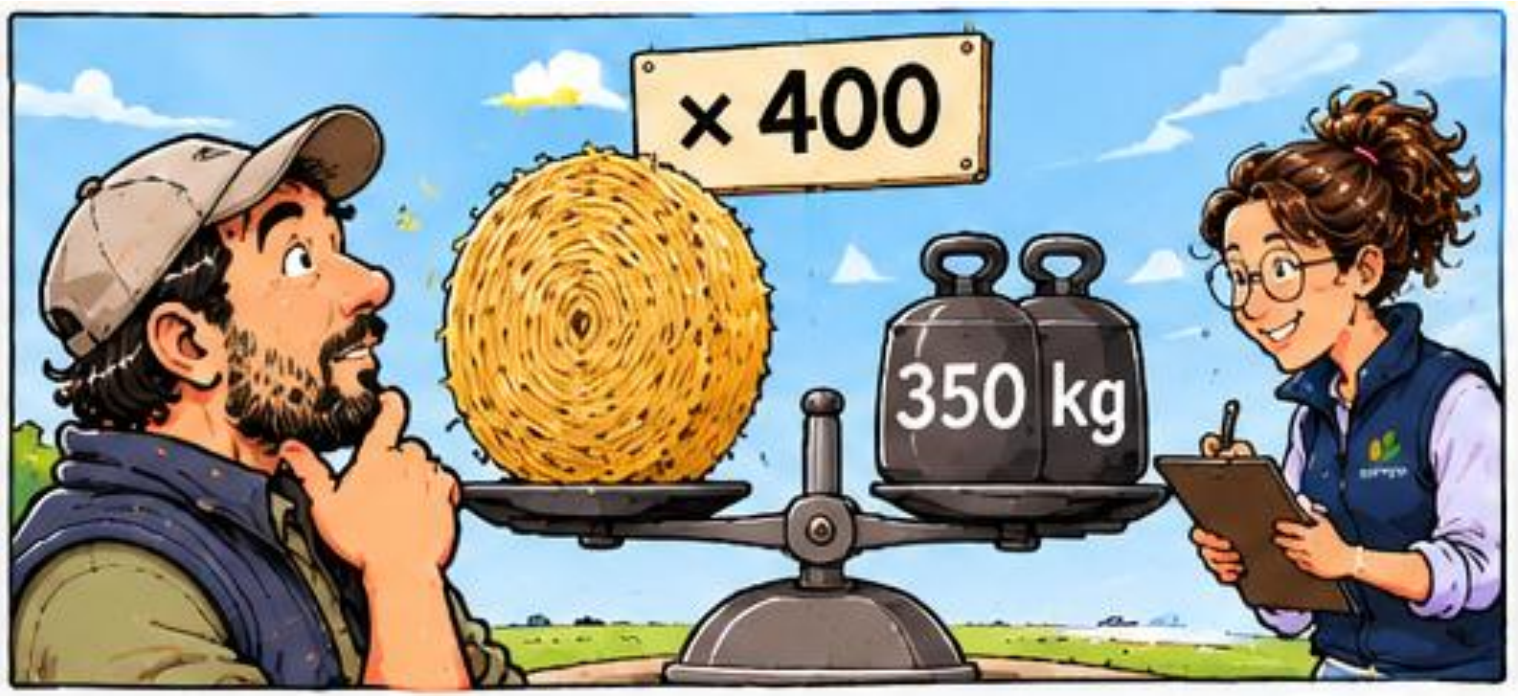
Hay and haylage. I count in bales, not tonnes.

JULIE

No problem, we'll convert: how many bales, roughly how heavy?

MARC

Haylage bales are about 350 kilos… 400 bales in a good year.



JULIE

And grazing? How many months outdoors?

MARC

Depends on the group. And some of the ewes go up to summer mountain pasture, run by the grazing association.

JULIE

Third challenge: animals that spend part of the year off the farm. We need to know for how long, and what they eat there.



MARC

And why does all this matter so much?

JULIE

Because bought-in feed already has a carbon footprint: it was grown, transported, processed.

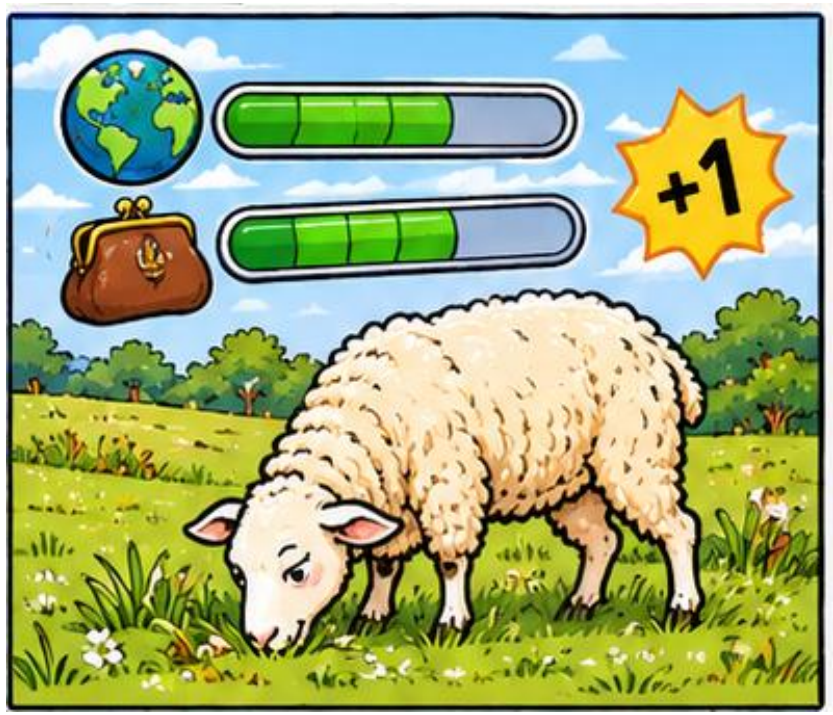


JULIE

And because what a ewe eats determines the methane she burps.

JULIE

The more self-sufficient you are with good-quality grass, the better, as a rule: for the climate and for your wallet.



MARC

My wallet? You've got my attention.

Flock feeding
Alimentation du troupeau

CAP'2ER · Level 2 · Feeding / Alimentation

Purchased concentrates (t/yr)
Concentrés achetés (t/an)

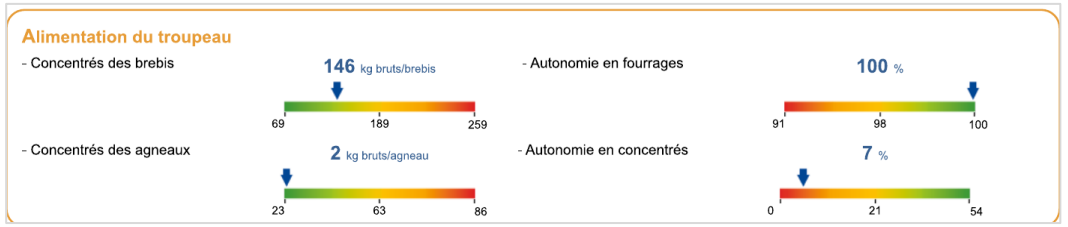
Home-grown cereals fed
Céréales autoconsommées

Hay and haylage
Foin et enrubanné

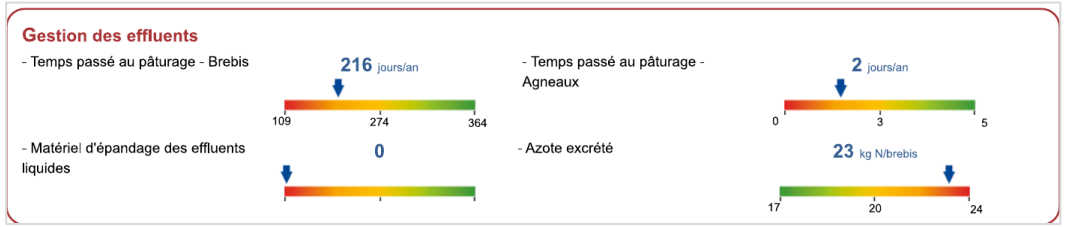
Grazing and summer pasture
Pâturage et estive

CAP'2ER · REAL EXTRACT

Feeding: concentrates, self-sufficiency / Alimentation



Grazing days, manure / Pâturage et effluents

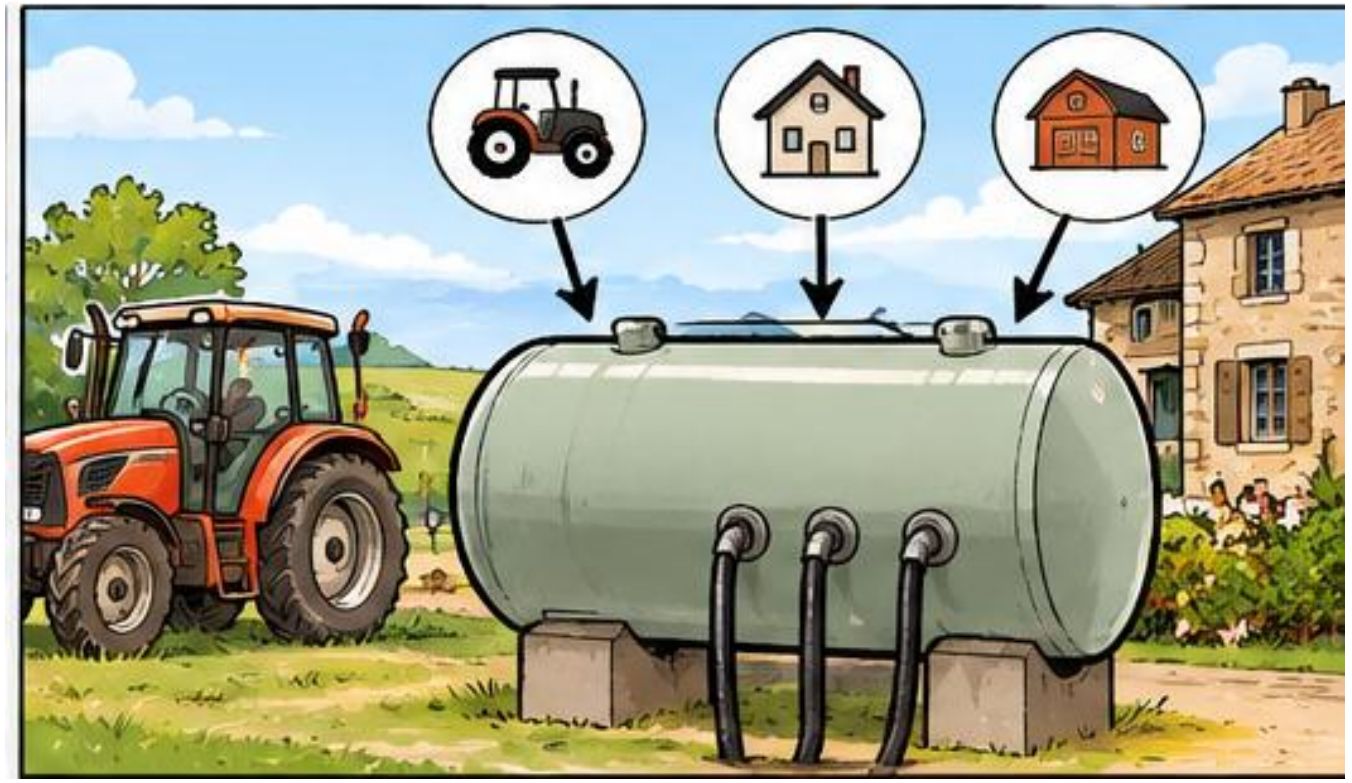


CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

5

Fertiliser, manure, energy

Fertilisation, effluents, énergie



JULIE

Do you use mineral fertiliser on the grassland or the cereals?

MARC

A little nitrogen on the cereals. The rest is just manure.

JULIE

How long are the ewes housed? And where does the manure go?

MARC

About three months in winter, plus lambing. I spread some manure on my land, and give some to my arable neighbour in exchange for straw.

JULIE

Swaps between farms are great for agronomy. But for the calculation, we need to know what goes out and what comes in.



JULIE

Straw received counts as a purchase, manure given away as an output.

JULIE

Last section: energy. Fuel, electricity?

MARC

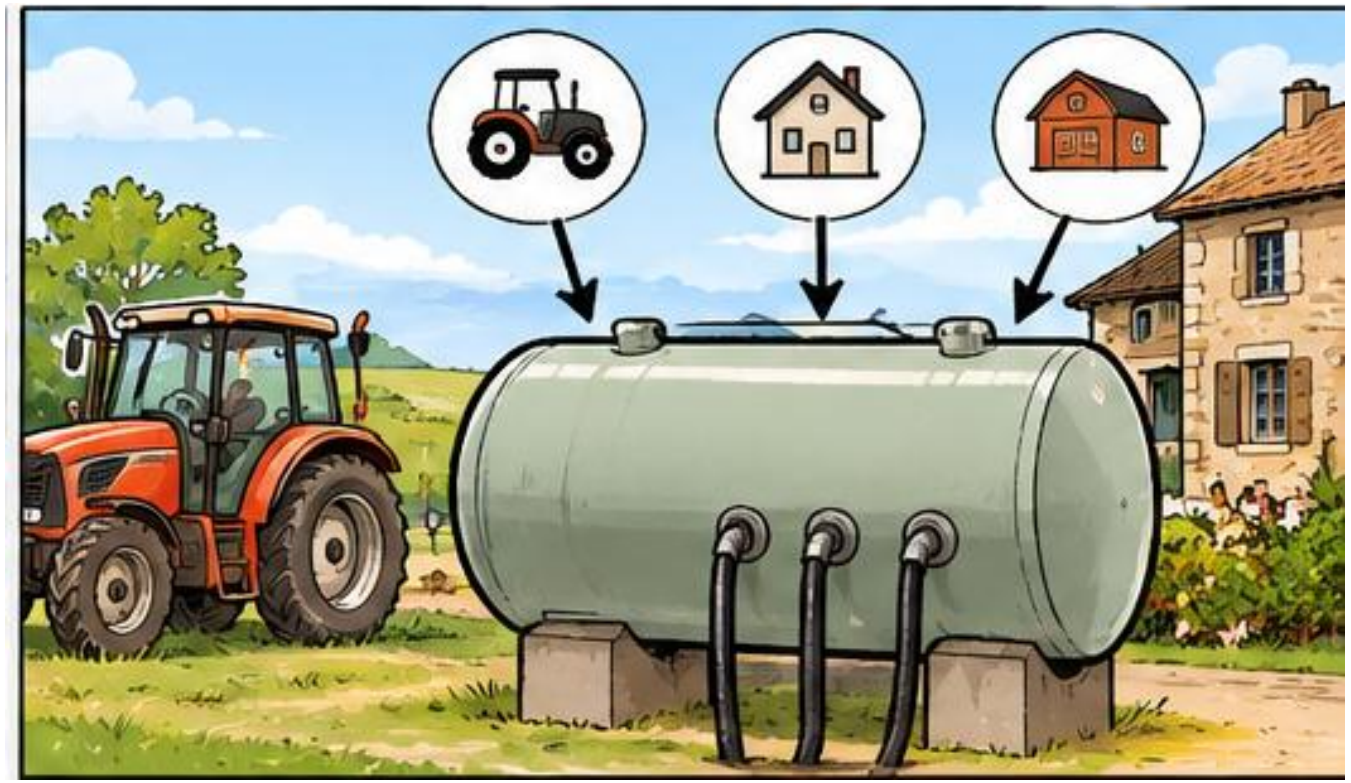
Electricity: I've got a single meter for the house and the sheep barn.

JULIE

And fuel?

MARC

One tank for the tractor… and a bit for heating the house. And heavy work is done by the machinery co-op, with its own fuel.



JULIE

Fourth challenge: separating the farm, the household and contractors.

JULIE

We agree on a reasonable split with the farmer, and record the assumption so it can be revisited.

Fertiliser – Manure – Energy

Fertilisation – Effluents – Énergie

CAP'2ER · Level 2 · Fertiliser, manure, energy

Mineral fertiliser
Engrais minéraux

Housing and manure
Bergerie et fumier

Straw received
Paille reçue

Electricity and fuel
Électricité et fioul

CAP'2ER · REAL EXTRACT

Nitrogen, machinery & energy / Azote, mécanisation, énergie

Gestion de l'azote



Azote minéral épandu	12 kg N/ha
Azote organique (épandu et pâturage)	120 kg N/ha
Répartition de la MO sur les surfaces	52 %
Part de la surface labourable* avec des légumineuses	0 %
Part de la surface labourable* avec une interculture	0 %

*Surface labourable : SAU hors PP

Mécanisation et énergie



Consommation de carburant hors bâtiment élevage	61 l/ha
Consommation d'électricité hors bâtiment élevage	0 kWh/ha
Nombre moyen de passages d'outils de travail du sol	- nb/ha
Part de la surface sans labour	98 %
Part de la surface irriguée	0 %
Part de fourrages consommée distribuée	32 %
Temps de travail de saison moyen	2 h/ha/an

CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

MARC

Right. Can I put my box away now?

JULIE

You can. And while I run the calculation, let's ask the audience what they think.

?

Quiz: your turn!

Quiz : à vous de jouer !



Question 1

Your vote! · À vous de voter !

Which item weighs most in a meat sheep farm's emissions?

Quel poste pèse le plus dans les émissions d'un élevage ovin viande ?

A **Tractor fuel**
Le fioul du tracteur

B **Purchased feed**
Les aliments achetés

C **Methane from the ewes' digestion**
Le méthane issu de la digestion des brebis

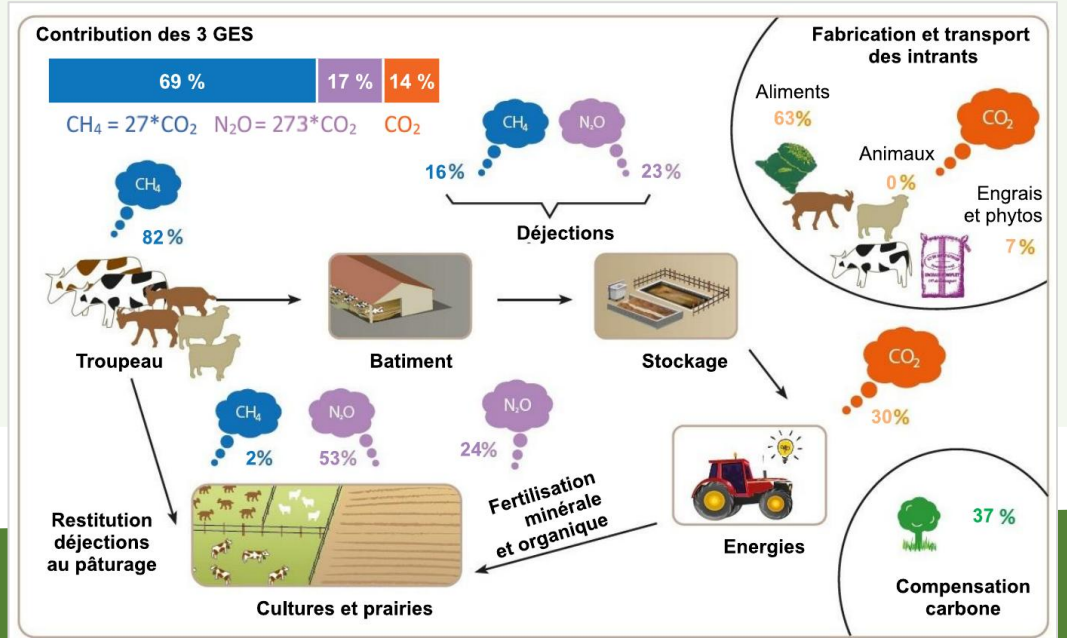
D **Manure**
Le fumier

Answer C: enteric methane

Réponse C : le méthane entérique

Methane from digestion is usually the biggest item, more than half of gross emissions. Fuel, which everyone mentions first, weighs much less.

Le méthane issu de la digestion est généralement le premier poste, plus de la moitié des émissions brutes. Le fioul, que tout le monde cite spontanément, pèse beaucoup moins.



Question 2

Your vote! · À vous de voter !

True or false: the more extensive the farm, the lower its footprint per kilo of lamb or litre of milk

Vrai ou faux : plus un élevage est extensif, plus son empreinte par kilo d'agneau ou litre de lait est faible



TRUE

VRAI



FALSE

FAUX

Not necessarily!

Pas forcément !

Per kilo produced, productivity matters most: lambs sold per ewe, at what age, with what mortality. On the other hand, grass-based systems offset part of their emissions through carbon stored in grassland and hedges. And produce other positive impact such as biodiversity

Par kilo produit, c'est surtout la productivité qui compte : combien d'agneaux vendus par brebis, à quel âge, avec quelle mortalité. En revanche, les systèmes herbagers compensent une partie de leurs émissions grâce au carbone stocké dans les prairies et les haies. Et ils produisent d'autres impacts positifs comme la biodiversité

Question 3

Your vote! · À vous de voter !

True or false: same type of farm, same region… and very different results

Vrai ou faux : même type d'élevage, même région… et des résultats très différents



TRUE

VRAI



FALSE

FAUX

True!

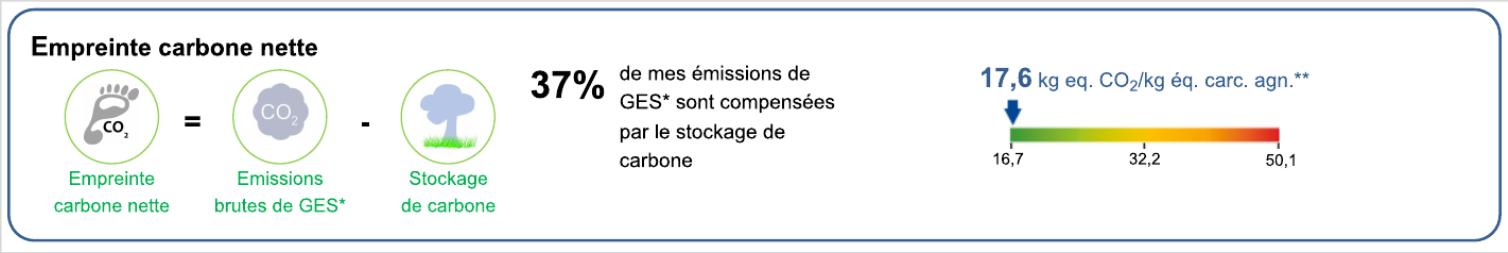
Vrai !

This is what the LIFE Green Sheep observatory shows: there is wide variability within the same system, which means room for improvement.

C'est ce que montre l'observatoire LIFE Green Sheep : il y a une forte variabilité au sein d'un même système, donc des marges de progrès.

Same system, from 15.7 to 50.1 kg CO2e/kg carcass: a ×3 range

Même système : de 15,7 à 50,1 kg CO2e/kg carcasse, un écart de 1 à 3



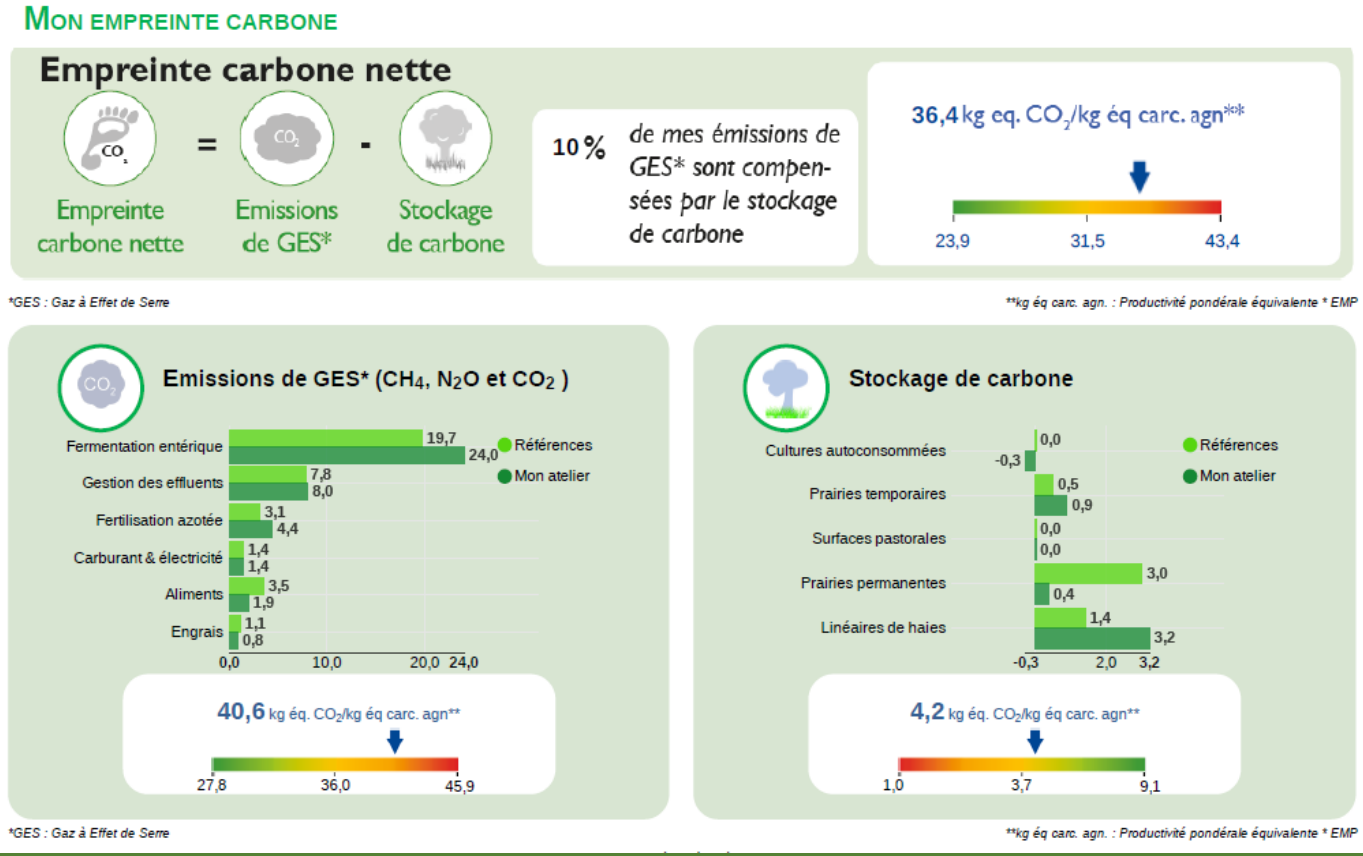
CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

6 The results
Les résultats



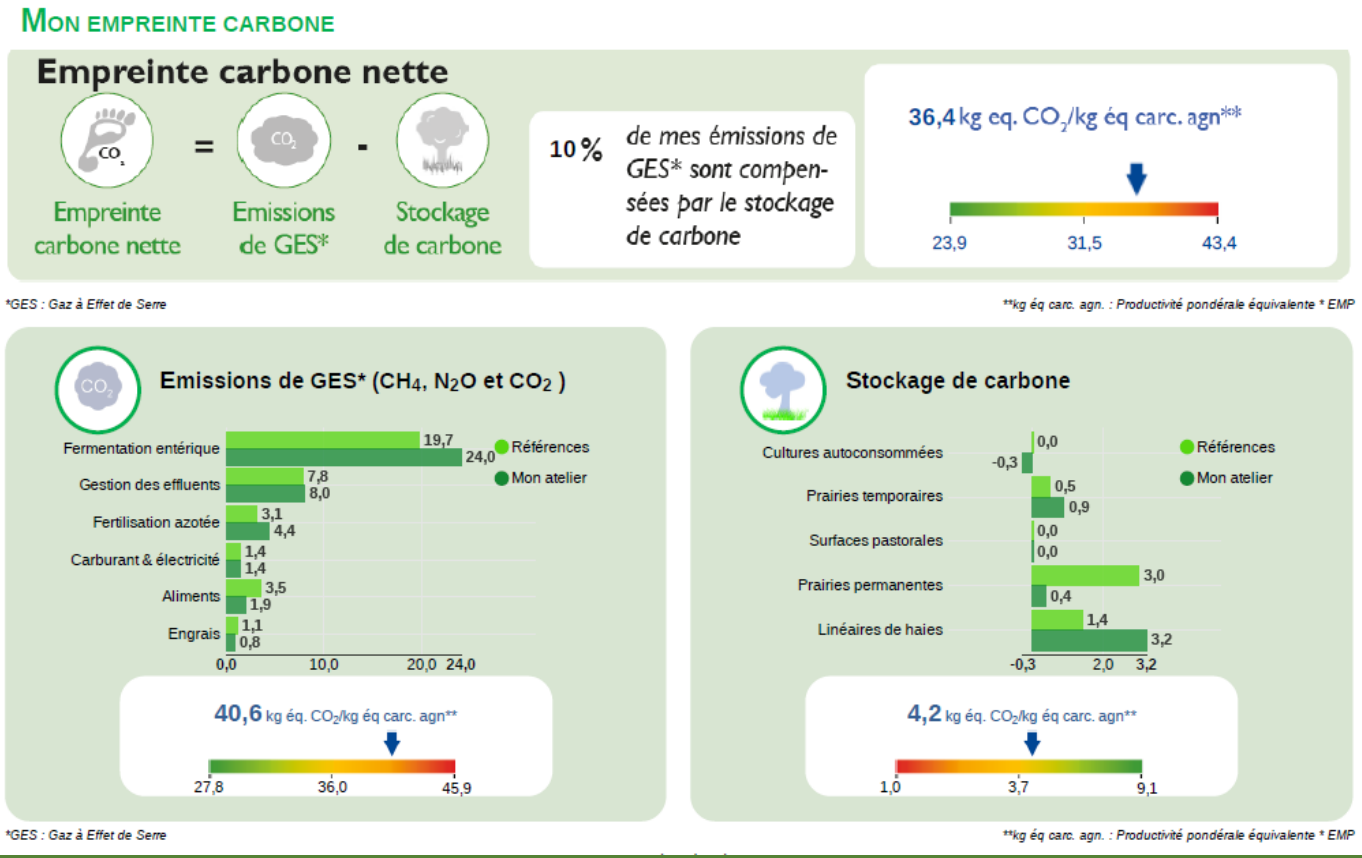
JULIE

Here are your results. First figure: the gross carbon footprint, meaning all the greenhouse gases emitted to produce one kilo of meat.



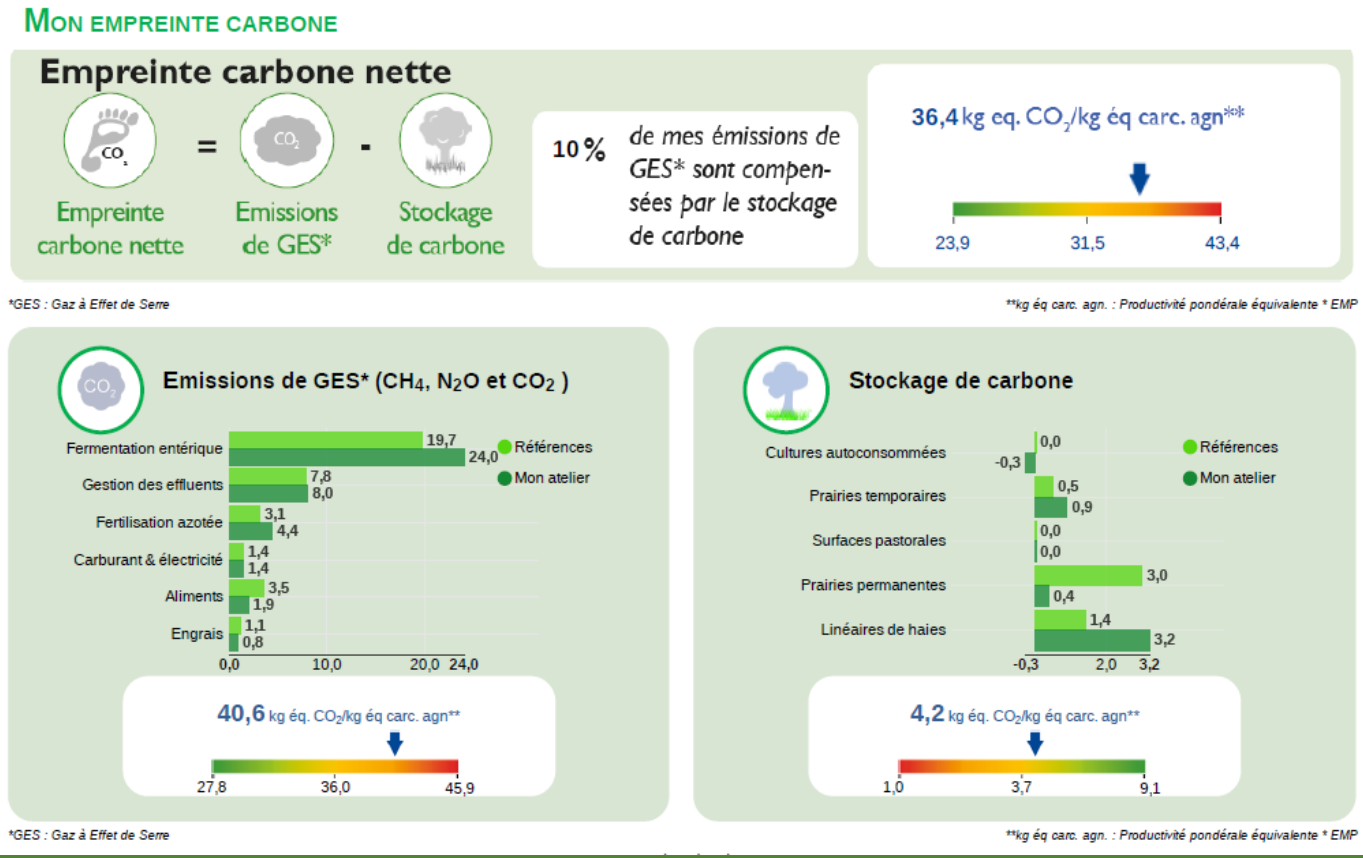
MARC

Is that a lot?



JULIE

We compare you with farms like yours: same system, same region. You're slightly above average.



MARC

So I'm a bad farmer.

JULIE

No.

JULIE

Fifth challenge, probably the most important: presenting a result without the farmer taking it as a judgement.

JULIE

Let's look at why instead. Remember the lambs that died in the spring?

MARC

Of course.

JULIE

They weigh in the calculation. And last year, you had to buy in cereals because of the drought.

JULIE

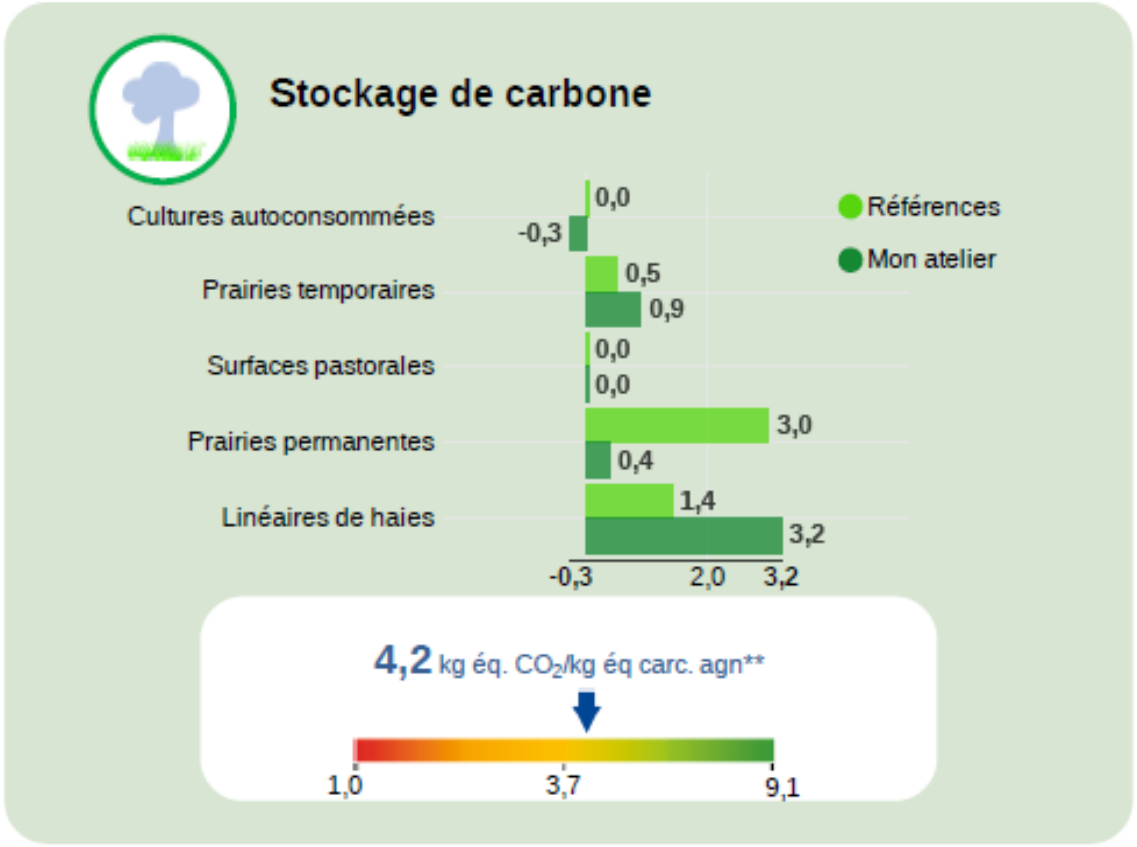
It was an atypical year: we note it, so we don't jump to conclusions.

MARC

Fine. What about my hedges, then?

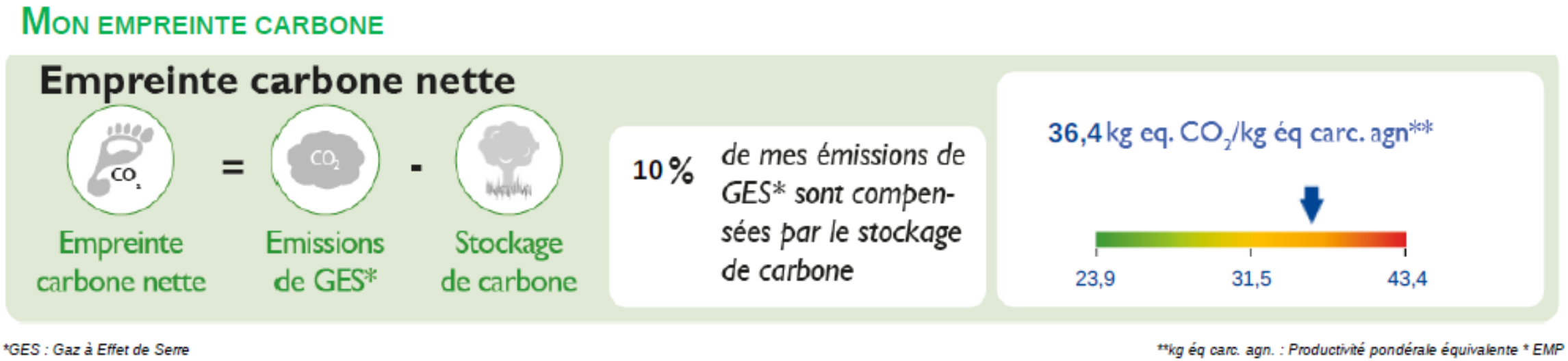
JULIE

Second figure: carbon storage. Your old grasslands and hedges store carbon, which offsets part of your emissions.



JULIE

That gives the net footprint, which is much lower than the gross one.

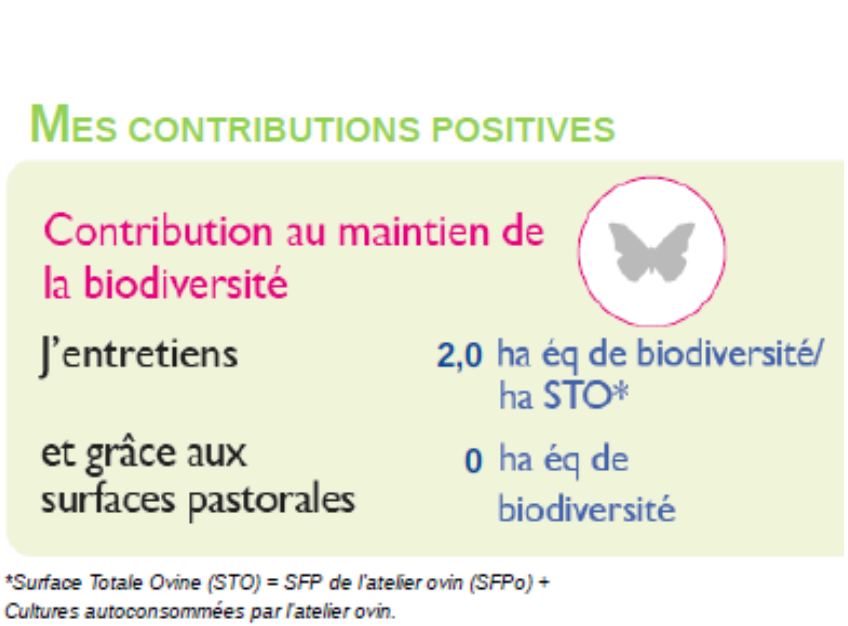


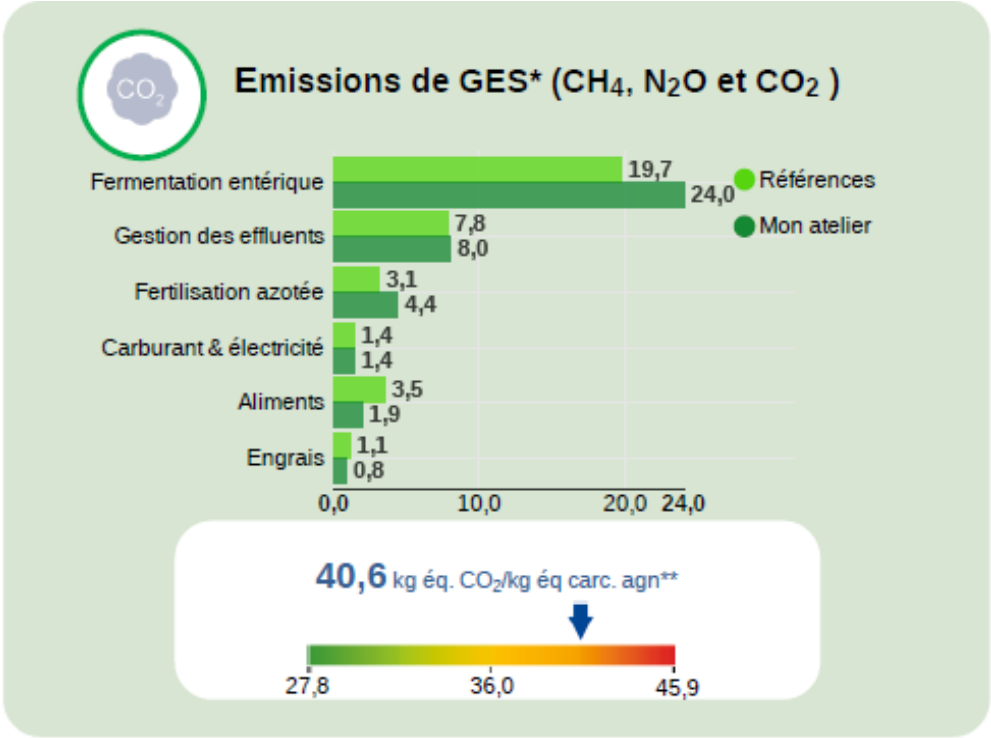
MARC

Ha! My grandfather was right not to plough.

JULIE

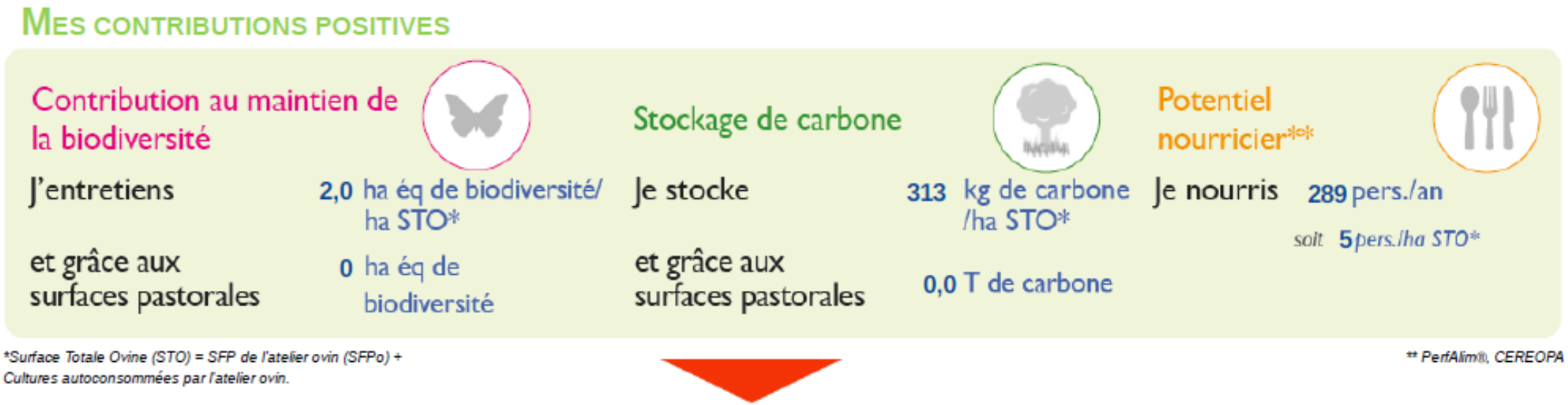
And that's not all. You maintain the equivalent of several dozen hectares of biodiversity, and your energy use is reasonable…





JULIE

…and your farm feeds several hundred people a year.



MARC

Several hundred? I'm putting that on the sign at the farm gate.

JULIE

An assessment isn't a single number. It's a set of indicators that show how the farm works, with its strengths and room for improvement.

The CAP'2ER results page

La page de résultats CAP'2ER

CAP'2ER · REAL EXTRACT

CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (sin

MES CONTRIBUTIONS POSITIVES

Contribution au maintien de la biodiversité

J'entretiens 2,0 ha éq de biodiversité/ha STO*

et grâce aux surfaces pastorales 0 ha éq de biodiversité

Stockage de carbone

Je stocke 313 kg de carbone /ha STO*

et grâce aux surfaces pastorales 0,0 T de carbone

Potentiel nourricier**

Je nourris 289 pers./an soit 5 pers./ha STO*

**Surface Totale Ovine (STO) = SFP de l'atelier ovin (SFPo) + Cultures autoconsommées par l'atelier ovin.*

*** PerfAlim®, CEREOPA*

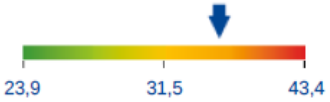
MON EMPREINTE CARBONE

Empreinte carbone nette

Empreinte carbone nette = Emissions de GES* - Stockage de carbone

10 % *de mes émissions de GES* sont compensées par le stockage de carbone*

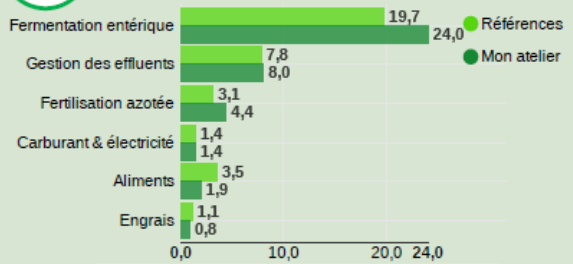
36,4 kg eq. CO_2/kg éq carc. agn**



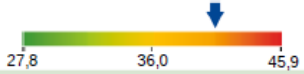
**GES : Gaz à Effet de Serre*

***kg éq carc. agn. : Productivité pondérale équivalente * EMP*

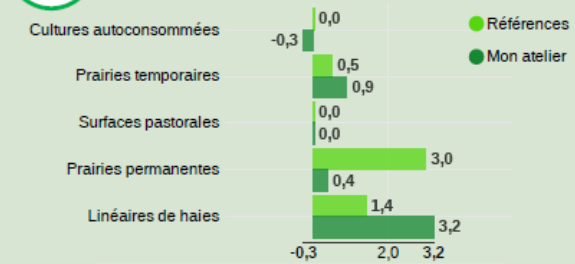
Emissions de GES* (CH_4, N_2O et CO_2)



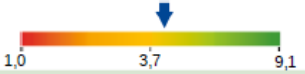
40,6 kg éq. CO_2/kg éq carc. agn**



Stockage de carbone



4,2 kg éq. CO_2/kg éq carc. agn**



**GES : Gaz à Effet de Serre*

***kg éq carc. agn. : Productivité pondérale équivalente * EMP*

7 The action plan

Le plan d'action



JULIE

Now the most interesting part: what do we do? I'm not going to impose ten measures on you.

JULIE

We pick two or three that make sense to you. What do you think?

MARC

Well, this year I lost quite a lot of lambs, so I guess I could improve that.

JULIE

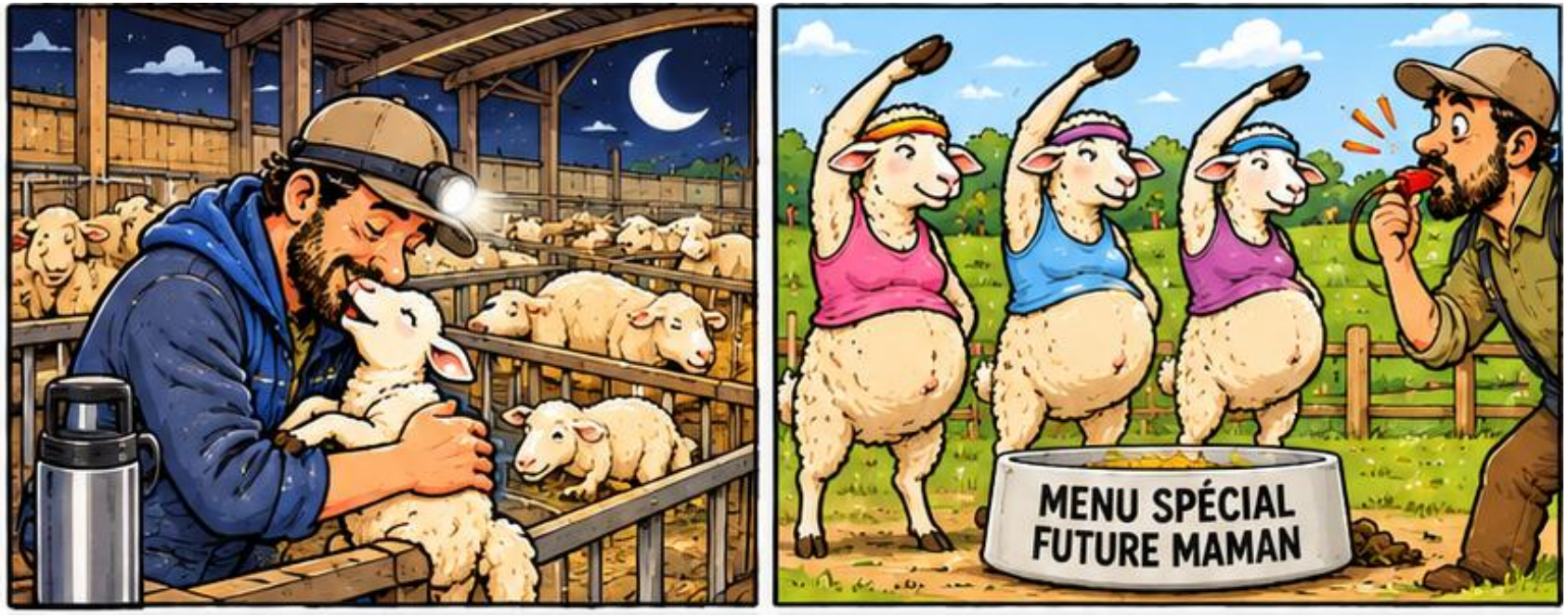
Indeed. Every lamb saved means more income and fewer emissions per kilo sold.

JULIE

So in practice, what could you do to reduce mortality?

MARC

I'll keep a closer eye on lambing, and work on feeding the ewes and preparing them for lambing.



JULIE

Great! Anything else regarding your land?

MARC

I'm thinking of the grassland. I could oversow legumes to get better-quality forage.

MARC

That would make me more self-sufficient and I'd buy fewer concentrates..



JULIE

Anything else? Planting more hedges, working on the age ewe lambs are first bred, or cutting fuel use.

MARC

Hedges. I like hedges. And so do the ewes…



JULIE

Perfect. We'll meet again in a year to take stock and measure how things have changed.

MARC

You know what? It wasn't an inspection after all.

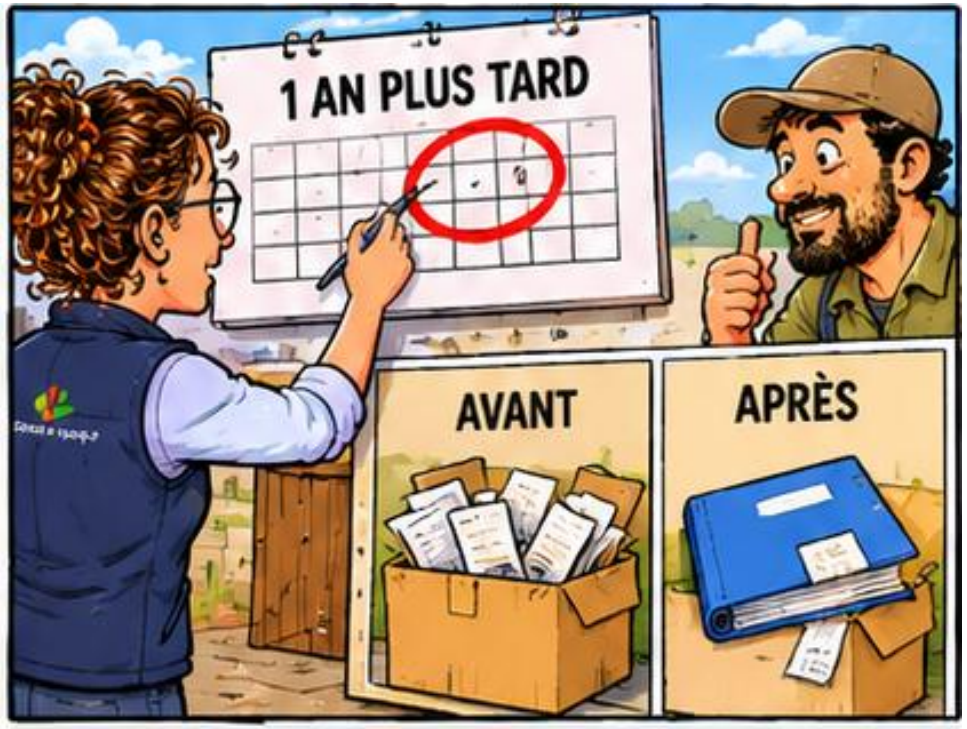
JULIE

No, it was a health check. And you're in good shape.



MARC

Next year, I'll sort out my invoices. Well... I'll try.



Marc's action plan

Le plan d'action de Marc

1. Reduce lamb mortality · Closer lambing watch, better feeding and preparation of the ewes.

Réduire la mortalité des agneaux : mieux surveiller l'agnelage, travailler l'alimentation et la préparation des mères.

2. Oversow legumes · Better-quality forage, more self-sufficiency, fewer bought-in concentrates.

Sursemer des légumineuses : fourrages de meilleure qualité, plus d'autonomie, moins de concentrés achetés.

3. Plant hedges · "I like hedges. And so do the ewes…"

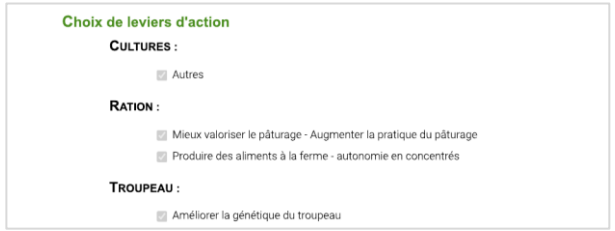
Planter des haies : « J'aime bien les haies. Et les brebis aussi… »

Other options · age at first mating of ewe lambs, less fuel. Follow-up visit in one year.

Autres pistes : âge de mise à la reproduction des agnelles, réduction du fioul. Rendez-vous dans un an.

CAP'2ER · REAL EXTRACT

Choosing action levers / Choix de leviers d'action


Choix de leviers d'action

CULTURES :

Autres

RATION :

Mieux valoriser le pâturage - Augmenter la pratique du pâturage

Produire des aliments à la ferme - autonomie en concentrés

TROUPEAU :

Améliorer la génétique du troupeau

CAP'2ER level 2 report, meat sheep farm (simulation) / Rapport CAP'2ER niveau 2, ovin viande (simulation)

Do you have any questions ?

Ask your questions live: scan the QR code or join on menti.com.

Scan to join

1 Go to **menti.com**

2 Enter the code

5509 7653



No question is too small

Type it in Mentimeter or simply ask out loud.

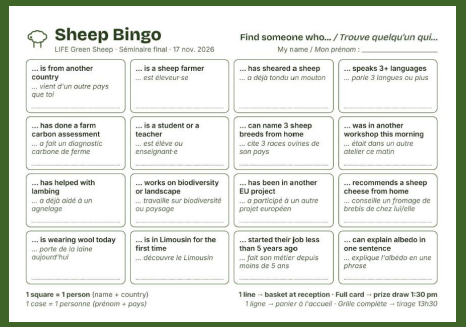
LIFE GREEN SHEEP · FINAL SEMINAR

Time for a **break**

20 minutes

Coffee, tea and madeleines are waiting for you.

Keep playing Sheep Bingo: one new face, one new square!



Sheep Bingo

LIFE Green Sheep · Séminaire final · 17 nov. 2026

Find someone who… / *Trouve quelqu'un qui…*

My name / *Mon prénom* : _____

… is from another country *… vient d'un autre pays que toi*	**… is a sheep farmer** *… est éleveur·se*	**… has sheared a sheep** *… a déjà tondu un mouton*	**… speaks 3+ languages** *… parle 3 langues ou plus*
… has done a farm carbon assessment *… a fait un diagnostic carbone de ferme*	**… is a student or a teacher** *… est élève ou enseignant·e*	**… can name 3 sheep breeds from home** *… cite 3 races ovines de son pays*	**… was in another workshop this morning** *… était dans un autre atelier ce matin*
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1 square = 1 person (name + country)
1 case = 1 personne (prénom + pays)

1 line → basket at reception · Full card → prize draw 1:30 pm
1 ligne → panier à l'accueil · Grille complète → tirage 13h30

Play Sheep Bingo and meet the people in the room

Find someone who…

…is a sheep farmer · …has helped with lambing · …can explain albedo in one sentence…

16

squares on your card

1 person

per square: their name + country

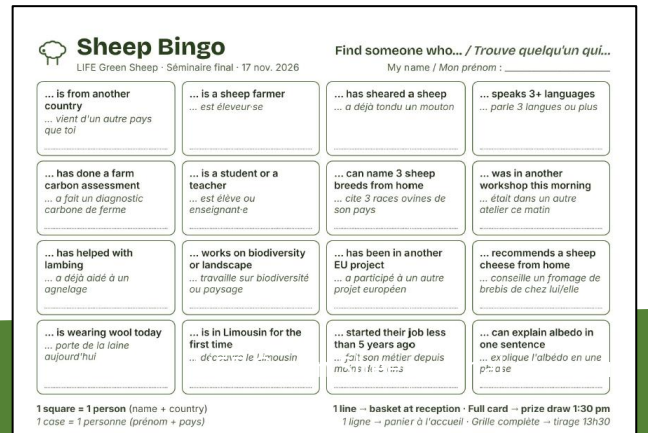
Wed.

prize draw at lunchtime

How to play

1. **Find** someone who matches a square.
2. **Ask them to write** their name and country.
3. **Meet as many people** as you can: one person per square.
4. **Drop your card** in the basket at reception before Wednesday lunch.

No card yet? Ask at the reception desk.



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LIFE GREEN SHEEP · FINAL SEMINAR

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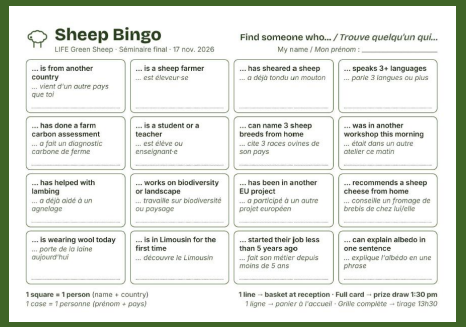

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