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Milk recording results of Sheep
France 2021

CNBL
Comité National Brebis Laitières

Milk recording results - Sheep France – Year 2021

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OS Lacaune
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Introduction

The research and development process in genetic improvement of dairy sheep successively dealt with productivity of ewes and herds (during the 70s and 80s), chemical milk composition and its suitability for cheese production (during the 80s and 90s), finally functional abilities such as resistance to subclinical mastitis and udder morphology (2000 decade). These functional characteristics enable the animals' functional longevity to be improved. This improvement matches with their ability to postpone their culling for other reasons than those linked with their milk yield level. In other words, functional longevity contributes to have flocks with a better cost-effectiveness, not by increasing takings, but by decreasing production costs through reduced early culling. Genomics has been fully involved during these last years in dairy sheep breeding schemes with, on one hand, the selection for resistance to scrapie thanks to the genetic typing of the PrP gene widely implemented right at the beginning of the 2000s, on the other hand genomic breeding prospects which are subject to Roquefort'in (Lacaune breed) and Genomia (Pyrenean dairy sheep breeds – Manech and Basco-Béarnaise) programmes. Since 2015 (choice of young rams at the end of 2014), Lacaune breed implemented a genomic selection with a new scheme design.

The genetic improvement of dairy sheep within the three French traditional breeding areas ("Rayon"de Roquefort, Pyrénées-Atlantiques, Corse) is based on the breeding of local breeds within their own production area and systems. This principle is strengthened by the French AOC label (which guarantees the origin of a product) of each area. This label requires the local breed as the genetic material to be used for the cheese production of Roquefort (Lacaune breed), of Issau-Iraty (Basco-Béarnaise and Manech breeds) and Brucciu (Corse breed). The implementation of dairy sheep breeding programmes is based on milk recording and progeny testing of animal insemination rams. It has systematically been well-reasoned in order to increase its efficiency-cost ratio

Pyramidal structure of the population

Breeds' population is organized on the basis of a pyramidal structure made up of breeders, creators of the genetic gain and farmers using genetic gain, in order to select the local breeds in population-wide terms. Selection tools are gathered in flocks of breeders who are registered at the official milk recording organizations. These tools include qualitative recording and breeding animals' qualification with possibly udder scoring. Breeding flocks serve as a testing medium and provide the breeding centers with young rams. Testing has been developed in order to maximize breeding schemes. The effort required for its implementation is considerable as (depending on the breeds) 50 to 60 % of the inseminated ewes within a flock under breeding are inseminated with tested rams. Breeders receive as compensation inseminations with the elite rams, i.e. the sires of the breed's rams. If they wish it, the breeders who use the genetic gain may receive a simplified milk recording. Its objective is firstly to get a within-flock ranking of the ewes, but also the technical monitoring of the dairy flock.

Rationalization and optimization over the time

Breeding objectives have been planned gradually. Official milk recording implemented in the 60s was at the beginning only a quantitative control (milk yield) due to the industry needs of milk on one hand, and because of the low initial productivity of the French local breeds on the other hand. The first objective was clearly to increase ewes' productivity. The breeding criteria taken in consideration was the milk yield during the milking period which steps up fat and protein contents quantities, and thereby cheese quantities.

Such an objective may be accepted during the start-up period of the breeding scheme. However, when this objective is fully operational and becomes completely effective (in the 80s for the Lacaune breed, in the 90s – 2000s for the Pyrenean breeds), the milk quality (fat and protein contents) deteriorates on a genetic level speaking. Thus, it is becoming essential to be interested in the chemical quality of the milk also in order to know about cheese yield and the fat/dry ratio of cheese in the framework of AOC cheese produced with raw milk and whole milk. That's why a qualitative recording was to be performed, although it is difficult and expensive to implement in dairy sheep because of the flocks' size and the rapid mechanical milking routines.

Finally, when the context of the industry was such as productivity was no longer directly looked for, breeders became then interested in functional characteristics which are going to enable to decrease production costs and to improve work conditions, especially milking conditions which represent the first work station of dairy ewes' breeding.

Today, farmers and stakeholders of selection schemes raise the question of hardiness and plasticity and evoke the wish to work on resistance to gastro intestinal parasitism, dairy persistency, ability to one-milking per day, feed efficiency, but also the ability to transhumance and at the valorization of rangelands.

Milk recording simplification

The official AC design (monthly recording of one of the two daily milkings, whatever the milking) has been widespread. The qualitative recording has been even more simplified. Only a part of the ewes is recorded: the primiparous (Pyrenean breeds) or the first two lactations (Lacaune breed). Only the middle of the lactation is controlled, because it is the most representative period from a genetic point of view. Thus, the objective is to carry out three samples at the first four test-days of the ewe during the morning milking. The morning milking enables a better milk sampling, especially of the fat content and somatic cells. The partial recording as described here above enables to save about 85% of the samplings and analyses in order to get an efficiency a bet lower (the loss of precision may easily be compensated for rams by increasing the testing daughters' number by about 10%), compared to the exhaustive A4 recording method (on a monthly rhythm for the two daily milkings and for all the ewes on milking). This process is also systematically used for functional characteristics.

Table 1 : Evolution of the main criteria related to breeding schemes for the 3 French breeding areas

		Official milk recording (OMR)				Simplified milk recording (SMR)
		Number of recorded ewes (% of the OMR population)	AI rate in the nucleus	Number of progeny-tested rams	Milk yield in liters (lactation duration)	Number of recorded ewes
1985	Rayon	113 519 (17%)	70%	430	186 (162)	311 000
	Pyrénées	38 026 (12%)	30%	52	92 (127)	13 000
	Corse	7 300 (7%)			88 (151)	
2005	Rayon	176 936 (21%)	81%	477	277 (163)	585 000
	Pyrénées	108 836 (23%)	55%	200	158 (146)	32 000
	Corse	20 408 (20%)	39%	40	124 (181)	
2020	Rayon	189 147 (17%)	87%	319	339 (174)	505 457
	Pyrénées	121 136 (28%)	48%	278	231 (156)	38 026
	Corse	20 157 (24%)	36%	17	149 (189)	13 446
2021	Rayon	192 923 (19%)	88%	297	346 (176)	483 869
	Pyrénées	123 388 (28%)	47%	262	239 (159)	38 532
	Corse	18 860 (22%)	35%	21	153 (188)	9 397

Data processing

Annual results of the sheep official milk recording are calculated from an extract of the French national dairy sheep database used for indexing and research, which is part of the SIEOL Information System. This extract was performed at the end of the dairy sheep year in December 2021. Thus, these results concern the year 2021. Regarding the seasonality of the dairy sheep production in France, all lactations are considered as finished and qualified if they are calculated.

The results are presented by breeding area, French local administrative area (=French "département"), Milk Recording Organization (MRO), Performance Testing organization and by breed. Here are the definitions of these terms:

Breeding areas: 1 = 'Rayon de Roquefort' ; 2 = 'Corse' ; 3 = 'Pyrénées-Atlantiques'.
French local administrative areas: 11, 12, 2A, 2B, 30, 34, 48, 64, 65, 81, 82.
Milk Recording Organizations (=MRO): 'CDEO', 'Confédération Générale de Roquefort', 'EDE 48', 'EDE 81', 'EDE 82', 'SCP 30-34', 'SUAE Corse du Sud', 'SUAE Haute-Corse', 'UNOTEC 12'.
Recognized Performance Recording Organizations (=RPRO): 'CDEO', 'OS Lacaune', 'EDE 82', 'SUAE Corse du Sud', 'SUAE Haute-Corse'.
Breeds: 'Lacaune', 'Manech tête rousse', 'Manech tête noire', 'Basco-Béarnaise', 'Corse'. Other breeds representing less than 50 ewes nationwide are not taken into account in these results.

NB : In paragraphs 2.2 to 2.6, maps only show French local administrative areas where at least 10 lactations haven been calculated for the corresponding breed.

Warning:
Results between breeds or populations (Basco-Béarnaise, Corse, Lacaune, Manech Tête Rousse, Manech Tête Noire) should not be compared, mainly for two reasons:
    - Each breed is represented only in one breeding area. Therefore, genetic type and dominant farming system(s) of each French administrative region are closely linked.
    - The calculation of milk yield at milking period varies from one region to another (and for breeds accordingly), in relation with the average suckling length, depending on the farming system:
        - 25 days in the area of Roquefort,
        - 35 days in the Pyreneans area and in Corsica.

Some definitions :

Total number of ewes: ewes present in the flock at the beginning of the lambing period.

Number of ewes in lactation: ewes for which calculating a lactation has been possible (so this total takes into account ewes that had at least one test-date with non-null milk production record).

Number of ewes that lambed: ewes with a date of lambing, non-pregnant ewes, aborted ewes without milk and not mated ewe in 1st lactation are therefore excluded from this total.

Lambing rate: number of ewes which lambed divided by the total number of ewes (expressed in %).

Lactation rate: number of ewes with calculation of lactation divided by the number of ewes which lambed (expressed in %).

Milk yield: it represents the milk yield at the milking-only period.
This milk yield is calculated only on the period of exclusive milking of the animal after the weaning of the lamb(s), and doesn't take into account the milk yield during the initial period of suckling or suckling x milking. So the **milking duration** matches only to this milking-only period. The milk yield is expressed in liters and the length in days.

The official milk recording is an AC milk recording protocol, i.e. a monthly control of one of the two daily milkings, without any obligation of rotation. However, the recording occurs mainly in the morning because the sampling for the qualitative control is more precise during the morning milking (more milk in the morning).
Results for fat and protein contents are not provided. The sheep qualitative control is indeed a very simplified control (partial qualitative recording). It is based on a sampling performed only at the milking of the morning, on 3 recordings during the middle of the lactation and it concerns only a part of the flock (the primiparous or the first 2 lactations, depending on the breed). The way of recording and calculating the fat and protein contents are relevant for genetics, but are not representative of current economic reality.

Trends for 2021

Increasing by 4,740 (+1.4%), the total number of ewes present at the lambing period reached 335,171 in 2021. At the same time the total number of ewes with lactation calculation is increasing on 6,879 and reaches 285,321 (+2.4%).
This increase of the ewes number on official milk recording (CLO) puts an end to the stability observed over the previous two years.

750 flocks are counted up today in Official Milk Recording, which is identical to that of the previous year. Meanwhile, with 447 ewes, the average size of flock still progressed in 2021 (441 ewes in 2020, 433 in 2019 and 428 in 2018).

In 2021 the average milk yield is increasing for all breeds, Lacaune and Manech Tête Rousse breeds +7.3 liters, Basco Béarnaise breed +10 liters, Corse breed +3.8 liters, Manech Tête Noire breed +8.8 liters. At the national level the milk yield reached 299.2 liters (+7.6 liters) in 171 days (+2 days).

A simplified milk recording, corresponding to the D recording method in the ICAR nomenclature and not presented in this document, exists in addition to the Official Milk Recording AC design. It concerns commercial flocks out of the selection nucleus (while the Official Milk Recording is devoted only to breeders involved in the selection program). 1,156 flocks and 531,798 ewes present at the lambing period were submitted to D recording in 2021.

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I - GLOBAL RESULTS

1.1 - Reminder of the previous years

Year	Total number of ewes	Number of ewes that lambed	Lambing rate	Number of ewes in lactation	Lactation rate	Milk yield *liters*	Lactation duration *days*
2011	**300,488**	279,941	*93.2*	260,029	*92.9*	246.8	162
2012	**302,102**	277,961	*92.0*	257,826	*92.8*	250.8	163
2013	**304,925**	280,581	*92.0*	259,666	*92.5*	247.5	164
2014	**305,619**	280,575	*91.8*	259,791	*92.6*	254.2	165
2015	**306,047**	280,001	*91.5*	259,589	*92.7*	256.9	166
2016	**313,291**	287,171	*91.7*	267,737	*93.2*	273.9	166
2017	**321,968**	294,415	*91.4*	274,003	*93.1*	278.6	167
2018	**328,980**	301,292	*91.6*	280,117	*93.0*	284.2	167
2019	**329,394**	299,938	*91.1*	278,423	*92.8*	286.3	169
2020	**330,431**	301,305	*91.1*	278,442	*92.4*	291.6	169
2021	**335,171**	306,167	*91.3*	285,321	*93.2*	299.2	171
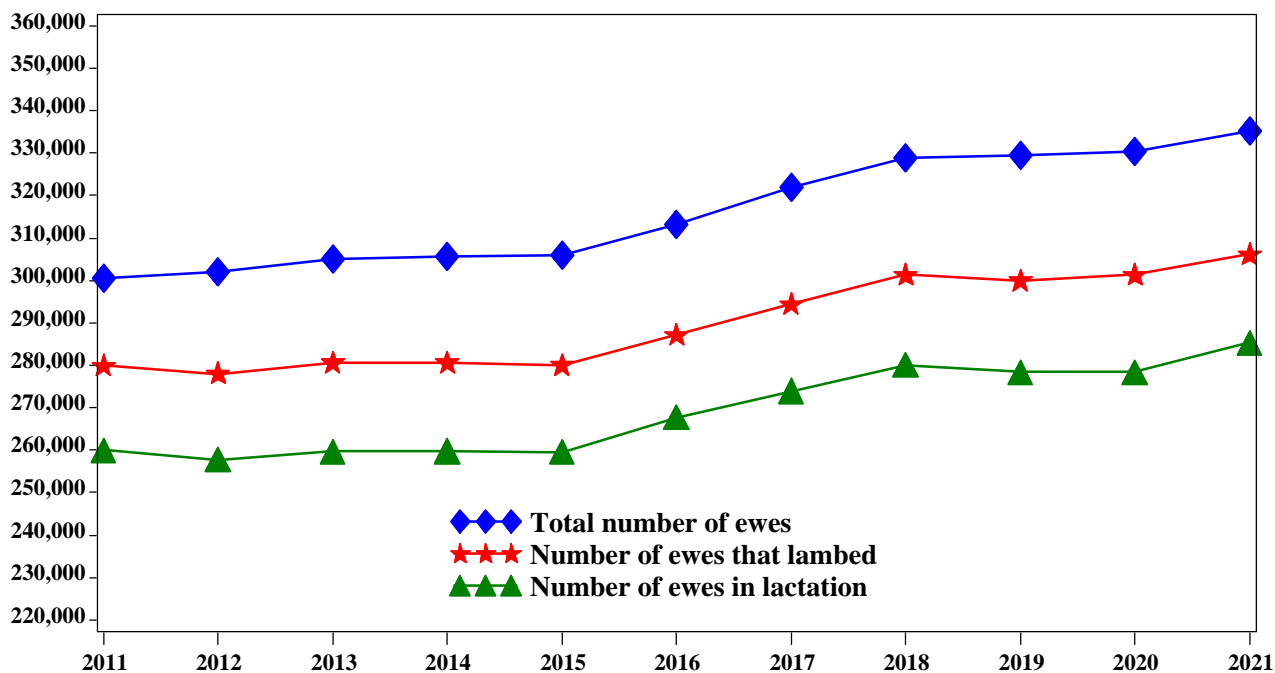
1.2 - Results of the year

1.2.1 - Distribution by parity

Parity	Total number of ewes	Number of ewes that lambed	Lambing rate	Number of ewes in lactation	Lactation rate	Milk yield *liters*	Lactation duration *days*
1st lactation	**97,957**	79,715	*81.4*	73,847	*92.6*	264.2	158
2nd lactation and over	**237,214**	226,452	*95.5*	211,474	*93.4*	311.3	175
Overall total	**335,171**	**306,167**	**91.4**	**285,321**	**93.2**	**299.2**	**171**

1.2.2 - Number of flocks and average number of ewes per flock

Total number of ewes in lactation	Total number of flocks	Average number of ewes per flock
285,321	750	380.4

1.2.3 - Results per local area

Local area	Number of flocks	Number of ewes in lactation	Milk yield *l*	Lactation duration *d*
Aude	**1**	443	339.5	188
Aveyron	**281**	132,775	347.8	176
Corse du Sud	**16**	2,801	161.9	173
Haute Corse	**35**	13,040	150.5	192
Hérault	**8**	3,318	328.0	176
Lozère	**17**	7,428	324.7	175
Pyrénées Atlantiques	**326**	96,888	239.0	159
Hautes Pyrénées	**1**	96	159.2	149
Tarn	**64**	27,894	348.8	177
Tarn & Garonne	**1**	638	328.8	157
Overall total	**750**	**285,321**	**299.2**	**171**

Distribution of lactations per local area (= French « département »)

Number of lactations

- <1,000
- >=1,000 & <5,000
- >=5,000 & <10,000
- >=10,000
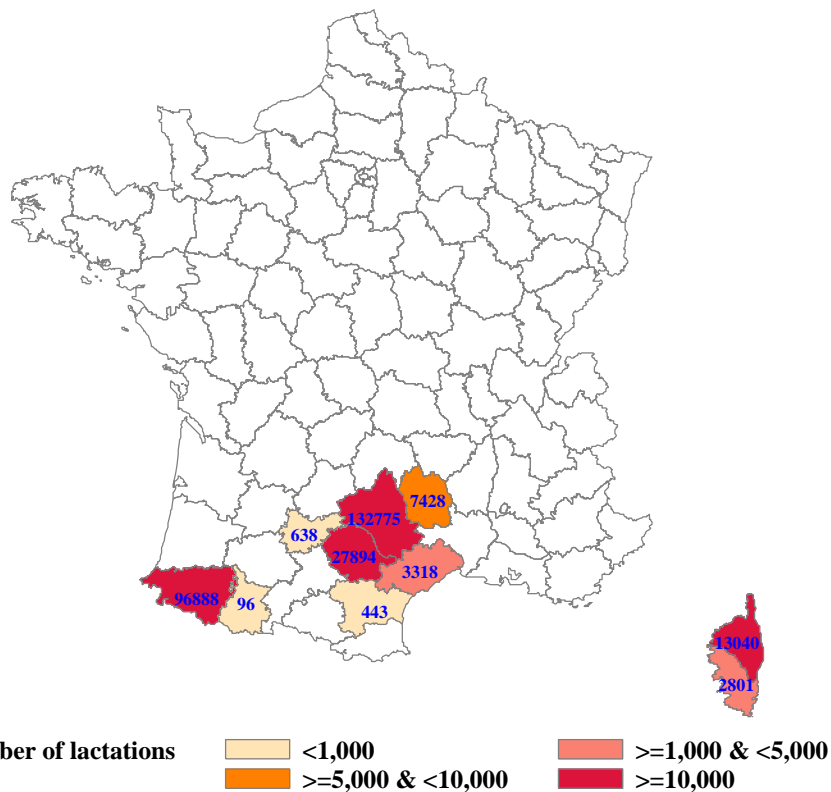
Distribution of flocks per local area

Number of flocks

- <10
- >=10 & <50
- >=50 & <100
- >=100
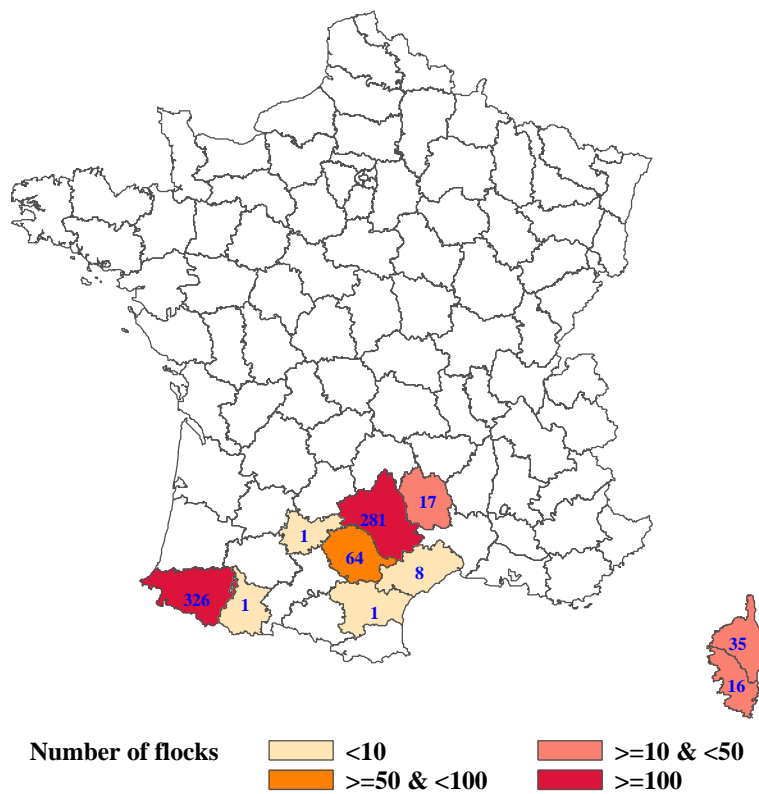
1.2.4 - Results per breeding area and parity

Breeding area [1]	Parity	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
01	1st lactation	47,161	297.0	163
	2nd lactation	38,112	366.1	182
	3rd lactation	30,061	382.4	184
	4th lactation	22,518	377.7	183
	5th lactation	15,715	361.4	180
	6th lactation	10,080	341.5	176
	7th lactation and over	8,423	303.8	166
	Unknown	426	293.3	162
Total breeding area		*172,496*	*346.5*	*176*
02	1st lactation	3,148	110.9	146
	2nd lactation	2,784	154.0	188
	3rd lactation	2,208	177.1	207
	4th lactation	1,952	180.6	211
	5th lactation	1,574	174.7	209
	6th lactation	1,334	162.5	202
	7th lactation and over	1,905	144.4	192
	Unknown	936	137.2	179
Total breeding area		*15,841*	*152.6*	*188*
03	1st lactation	23,538	219.0	149
	2nd lactation	19,905	251.9	160
	3rd lactation	16,220	261.3	166
	4th lactation	12,951	254.8	166
	5th lactation	9,432	241.5	164
	6th lactation	6,274	229.2	160
	7th lactation and over	6,530	201.9	151
	Unknown	2,134	201.6	152
Total breeding area		*96,984*	*239.0*	*159*
Overall total		**285,321**	**299.2**	**171**

[1] Refer to the Introduction paragraph for details.

1.2.5 - Results per breeding area, parity and month of lambing

Breeding area	Parity	Month of lambing	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
01	1st lactation	January	8,140	281.0	151
		February	6,848	270.9	148
		March	2,361	234.8	122
		April	528	184.9	106
		May	92	160.4	86
		June	14	113.8	56
		July	218	322.8	198
		August	1,548	363.2	201
		September	2,828	341.4	190
		October	7,690	329.9	183
		November	10,148	311.3	171
		December	6,746	281.9	153
	2nd lactation and over	January	18,464	360.3	173
		February	9,079	328.9	154
		March	2,264	255.3	118
		April	658	238.3	119
		May	255	211.9	95
		June	12	154.4	77
		July	1,802	357.6	197
		August	6,369	390.6	199
		September	13,240	375.4	190
		October	34,986	378.2	191
		November	27,471	368.2	184
		December	10,735	361.4	172
Total breeding area			*172,496*	*346.5*	*176*
02	1st lactation	January	772	102.4	125
		February	483	77.0	92
		March	191	52.1	69
		April	54	22.8	42
		May	4	10.0	29
		June			
		July			
		August	1	224.1	275
		September	205	169.1	227
		October	533	146.6	202
		November	459	121.5	176
		December	446	118.9	152
	2nd lactation and over	January	481	120.7	119
		February	392	94.7	96
		March	118	56.5	68
		April	29	15.9	38
		May			
		June			
		July			
		August	119	174.7	218
		September	4,779	171.9	223
		October	5,273	170.7	202
		November	1,248	151.3	179
		December	254	133.5	143

[1]Refer to the Introduction paragraph for details.

1.2.5 - Results per breeding area, parity and month of lambing

Breeding area	Parity	Month of lambing	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
Total breeding area			*15,841*	*152.6*	*188*
03	1st lactation	January	2,752	205.4	134
		February	2,562	158.7	98
		March	2,584	121.6	73
		April	534	81.1	49
		May	22	48.4	31
		June			
		July			
		August			
		September			
		October	2,075	278.5	197
		November	8,296	258.1	181
		December	4,713	234.7	164
	2nd lactation and over	January	3,734	228.7	135
		February	3,721	188.9	100
		March	3,220	145.4	75
		April	670	99.2	52
		May	47	43.8	27
		June	2	53.3	16
		July			
		August			
		September	7	334.3	216
		October	11,486	263.8	186
		November	38,722	255.5	173
		December	11,837	253.4	160
Total breeding area			*96,984*	*239.0*	*159*
Overall total			**285,321**	**299.2**	**171**

[1]Refer to the Introduction paragraph for details.

1.2.6 - Results per breeding area and flock size

Breeding area	Flock size	Number of flocks	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
01	< 200	**2**	297	354.8	164
	>=200 & <250	**19**	4,353	354.8	178
	>=250 & <300	**20**	5,532	341.9	174
	>=300 & <350	**56**	18,331	339.7	175
	>=350 & <400	**51**	19,074	345.7	176
	>=400 & <450	**40**	17,034	348.5	177
	>=450 & <500	**51**	24,252	346.5	177
	>=500 & <550	**40**	21,056	333.7	176
	>=550 & <600	**32**	18,314	353.2	181
	>= 600	**61**	44,253	351.8	173
Total breeding area		*372*	*172,496*	*346.5*	*176*
02	< 200	**23**	3,270	159.0	181
	>=200 & <250	**7**	1,556	127.0	169
	>=250 & <300	**2**	577	115.2	200
	>=300 & <350	**7**	2,255	172.4	190
	>=350 & <400	**1**	363	192.6	185
	>=400 & <450	**3**	1,258	159.0	187
	>=450 & <500	**2**	950	135.3	179
	>=500 & <550	**1**	503	119.0	190
	>= 600	**5**	5,109	153.7	199
Total breeding area		*51*	*15,841*	*152.6*	*188*
03	< 200	**59**	9,996	209.8	153
	>=200 & <250	**62**	13,708	220.4	154
	>=250 & <300	**72**	20,001	237.1	158
	>=300 & <350	**53**	17,054	248.6	164
	>=350 & <400	**39**	14,414	243.7	164
	>=400 & <450	**10**	4,229	243.2	157
	>=450 & <500	**12**	5,630	253.5	158
	>=500 & <550	**8**	4,162	254.2	160
	>=550 & <600	**6**	3,475	277.5	165
	>= 600	**6**	4,315	251.1	153
Total breeding area		*327*	*96,984*	*239.0*	*159*
Overall total		**750**	**285,321**	**299.2**	**171**

[1]Refer to the Introduction paragraph for details.

1.2.7 - Results per milk recording organization (MRO)

MRO	Number of flocks	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
CDEO	327	96,984	239.0	159
Confédération Générale de Roquefort	184	83,895	341.9	176
EDE 48	8	4,412	313.9	173
EDE 81	27	11,764	358.2	183
SUAE CORSE DU SUD	16	2,801	161.9	173
SUAE HAUTE-CORSE	35	13,040	150.5	192
UNOTEC 12	153	72,425	351.8	175
Overall total	**750**	**285,321**	**299.2**	**171**

[1]Refer to the Introduction paragraph for details.

1.2.8 - Results per milk recording organization (MRO) and local area

MRO	Local area	Number of flocks	Number of ewes in lactation	Milk yield *liters*	Lactation duration *days*
CDEO	Pyrénées Atlantiques	**326**	96,888	239.0	159
	Hautes Pyrénées	**1**	96	159.2	149
Total MRO		*327*	*96,984*	*239.0*	*159*
Confédération Générale de Roquefort	Aude	**1**	443	339.5	188
	Aveyron	**133**	61,894	342.4	176
	Hérault	**3**	1,774	332.2	189
	Lozère	**9**	3,016	340.5	179
	Tarn	**37**	16,130	342.0	173
	Tarn & Garonne	**1**	638	328.8	157
Total MRO		*184*	*83,895*	*341.9*	*176*
EDE 48	Lozère	**8**	4,412	313.9	173
Total MRO		*8*	*4,412*	*313.9*	*173*
EDE 81	Tarn	**27**	11,764	358.2	183
Total MRO		*27*	*11,764*	*358.2*	*183*
SUAE CORSE DU SUD	Corse du Sud	**16**	2,801	161.9	173
Total MRO		*16*	*2,801*	*161.9*	*173*
SUAE HAUTE-CORSE	Haute Corse	**35**	13,040	150.5	192
Total MRO		*35*	*13,040*	*150.5*	*192*
UNOTEC 12	Aveyron	**148**	70,881	352.4	175
	Hérault	**5**	1,544	323.2	160
Total MRO		*153*	*72,425*	*351.8*	*175*
Overall total		**750**	**285,321**	**299.2**	**171**

[1]Refer to the Introduction paragraph for details.

1.2.9 - Results per recognized performance recording organization (RPRO)

RPRO	Number of flocks	Number of ewes in lactation	Milk yield _liters_	Lactation duration _days_
CDEO	327	96,984	239.0	159
OS Lacaune	372	172,496	346.5	176
SUAE CORSE DU SUD	16	2,801	161.9	173
SUAE HAUTE-CORSE	35	13,040	150.5	192
Overall total	750	285,321	299.2	171

1.2.10 - Results per recognized performance recording organization (RPRO) and local area

RPRO	Local area	Number of flocks	Number of ewes in lactation	Milk yield _liters_	Lactation duration _days_
CDEO	Pyrénées Atlantiques	326	96,888	239.0	159
	Hautes Pyrénées	1	96	159.2	149
Total RPRO		_327_	_96,984_	_239.0_	_159_
OS Lacaune	Aude	1	443	339.5	188
	Aveyron	281	132,775	347.8	176
	Hérault	8	3,318	328.0	176
	Lozère	17	7,428	324.7	175
	Tarn	64	27,894	348.8	177
	Tarn & Garonne	1	638	328.8	157
Total RPRO		_372_	_172,496_	_346.5_	_176_
SUAE CORSE DU SUD	Corse du Sud	16	2,801	161.9	173
Total RPRO		_16_	_2,801_	_161.9_	_173_
SUAE HAUTE-CORSE	Haute Corse	35	13,040	150.5	192
Total RPRO		_35_	_13,040_	_150.5_	_192_
Overall total		750	285,321	299.2	171

[1]Refer to the Introduction paragraph for details.

II - RESULTS PER BREED

2.1 - Results for all breeds

Breed	Number of flocks	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
Lacaune	372	172,495	**346.5**	*105.9*	176	*41*
Manech Tête Rousse	237	65,676	**250.6**	*93.6*	164	*48*
Basco-Béarnaise	98	23,743	**224.4**	*84.7*	148	*49*
Corse	51	15,841	**152.6**	*66.5*	188	*59*
Manech Tête Noire	67	7,523	**183.8**	*72.9*	149	*46*
Other breeds	31	43	**150.1**	*93.3*	110	*52*

Legend:
- Lacaune
- Manech Tête Rousse
- Basco-Béarnaise
- Corse
- Manech Tête Noire
- Other breeds
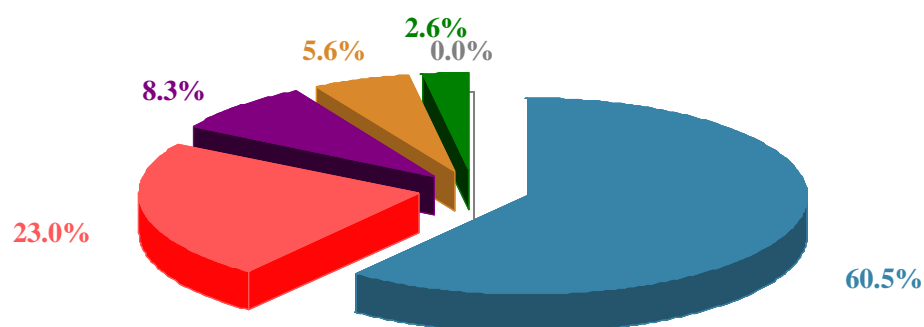
[1]Refer to the Introduction paragraph for details.

2.2 - Breed LACAUNE
(French breed code: 010)

Geographical distribution of ewes with lactations of Lacaune breed

▢	>=443 & <1000
▢	>=1000 & <5000
▢	>=5000 & <10000
▢	>=10000 & <50000
▢	>=100000 & <=132774
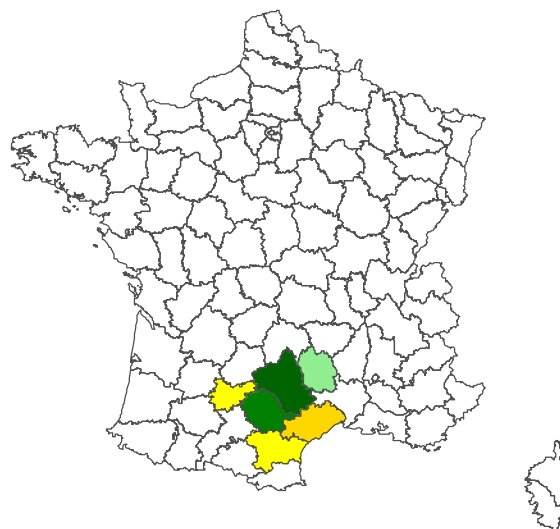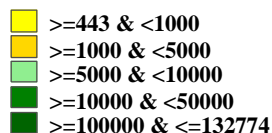
Distribution by parity for Lacaune breed

Parity	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
1st lactation	47,160	297.0	93.9	162.5	40
2nd lactation	38,112	366.1	100.8	181.8	39
3rd lactation	30,061	382.4	101.4	184.0	37
4th lactation	22,518	377.7	102.8	183.1	38
5th lactation	15,715	361.4	104.1	179.6	40
6th lactation	10,080	341.5	102.6	176.3	41
7th lactation and over	8,423	303.8	103.2	166.5	45
Unknown	426	293.3	120.1	162.4	53
Overall total	**172,495**	**346.5**	**105.9**	**175.8**	**41**

Evolution of the number of lactations for Lacaune breed
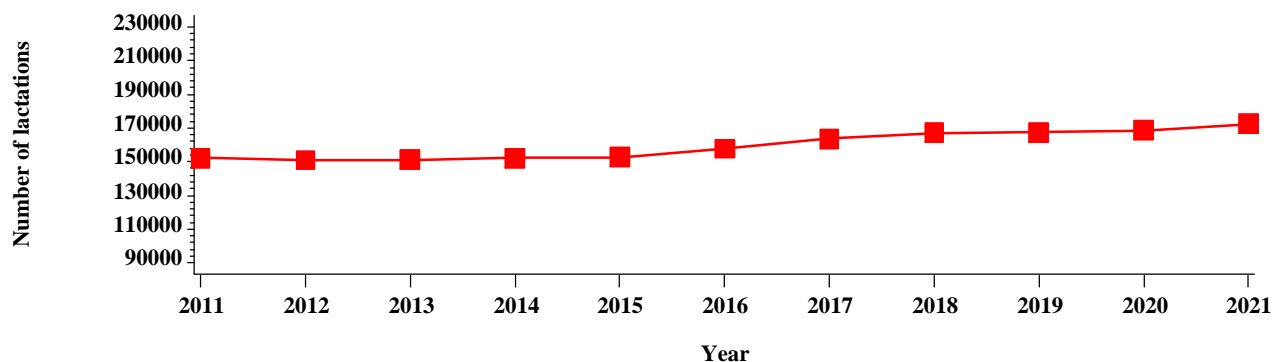
2.3 - Breed BASCO BEARNAISE
(French breed code: 030)

Geographical distribution of ewes with lactations of Basco Bearnaise breed
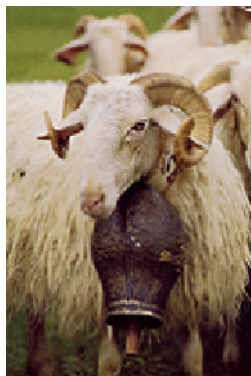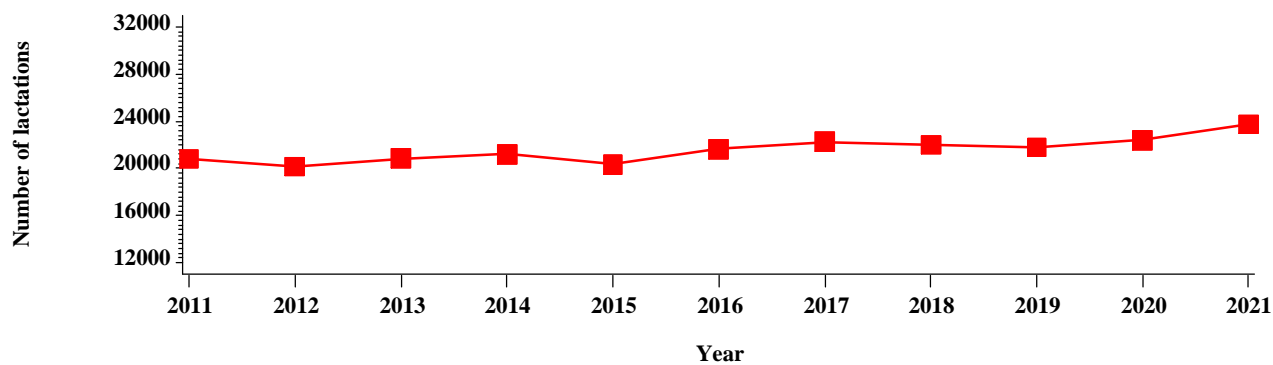

☐ 96
☐ 23647
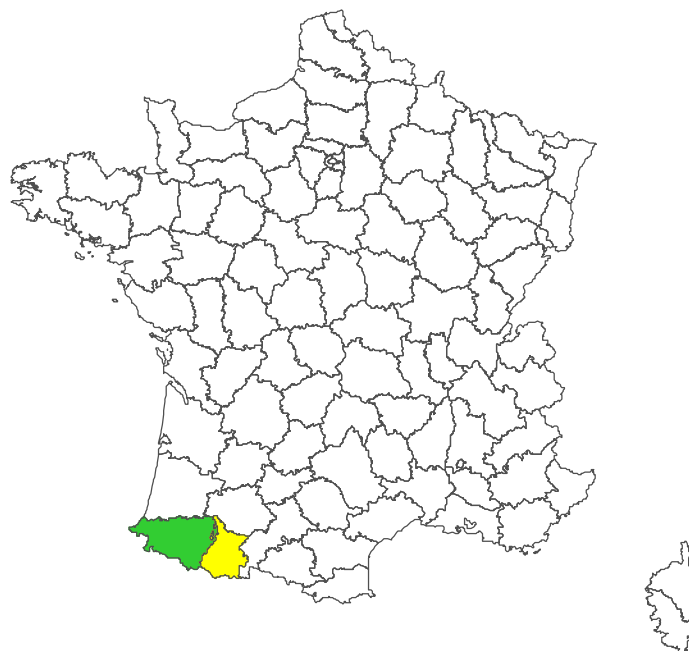
Distribution by parity for Basco Bearnaise breed

Parity	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
1st lactation	5,330	175.5	72.1	116.1	49
2nd lactation	4,773	231.4	76.2	148.1	46
3rd lactation	3,899	251.2	80.6	161.9	42
4th lactation	3,233	253.0	82.3	164.7	42
5th lactation	2,300	244.3	84.3	163.7	41
6th lactation	1,566	240.0	86.7	161.0	42
7th lactation and over	1,745	210.5	85.9	152.0	46
Unknown	897	206.5	85.5	156.6	51
Overall total	**23,743**	**224.4**	**84.7**	**148.4**	**49**

Evolution of the number of lactations for Basco Bearnaise breed

2.4 - Breed MANECH TETE NOIRE

(French breed code: 052)

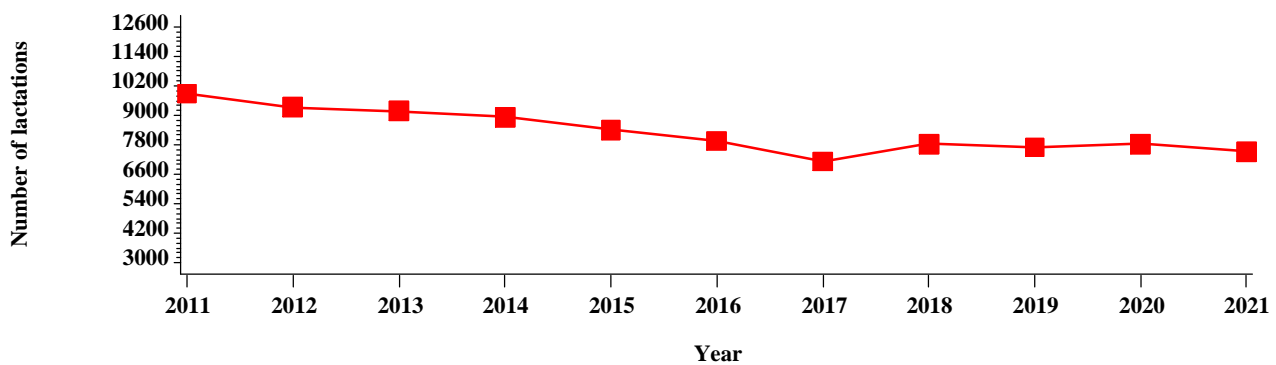Geographical distribution of ewes with lactations of Manech Tete Noire breed

 7523
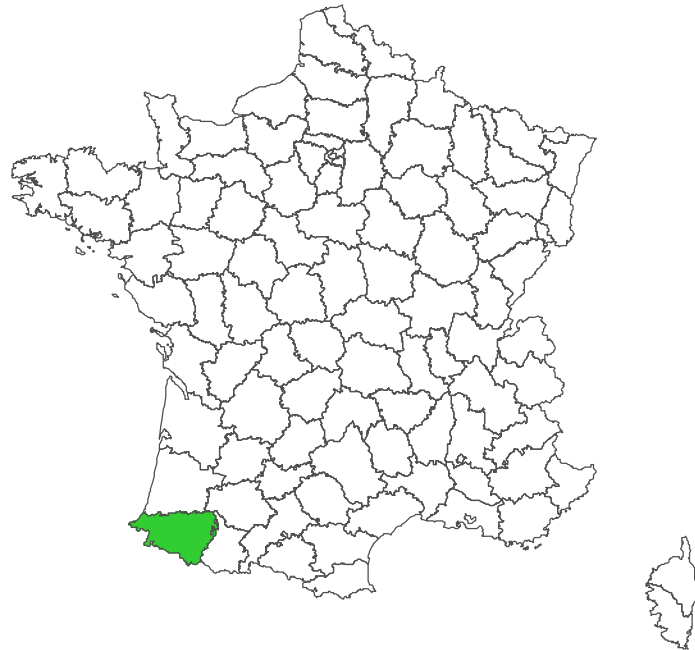
Distribution by parity for Manech Tete Noire breed

Parity	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
1st lactation	1,672	171.9	70.2	145.1	50
2nd lactation	1,541	199.8	72.4	152.8	45
3rd lactation	1,264	202.9	72.3	155.4	43
4th lactation	985	193.9	73.6	153.8	43
5th lactation	766	176.0	70.3	148.1	46
6th lactation	503	170.6	69.0	145.3	46
7th lactation and over	507	149.2	64.9	139.4	45
Unknown	285	153.9	66.9	136.5	46
Overall total	**7,523**	**183.8**	**72.9**	**149.2**	**46**

Evolution of the number of lactations for Manech Tete Noire breed
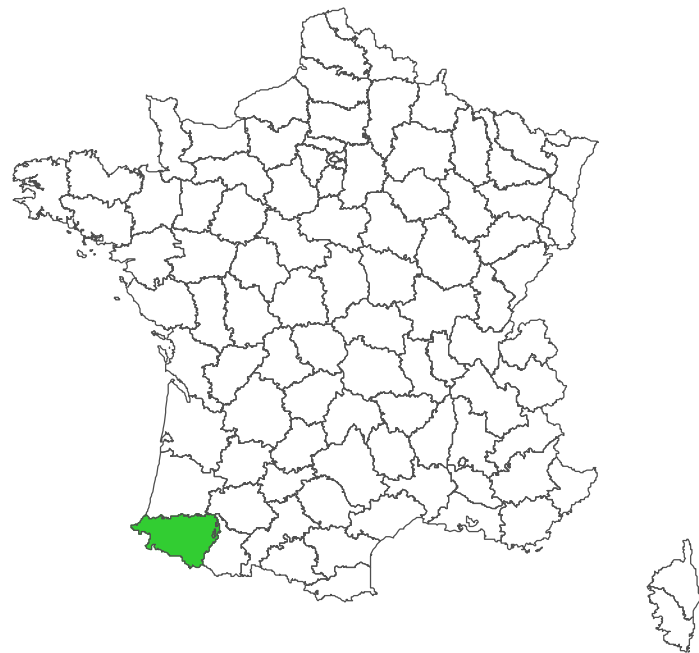
2.5 - Breed MANECH TETE ROUSSE

(French breed code: 053)

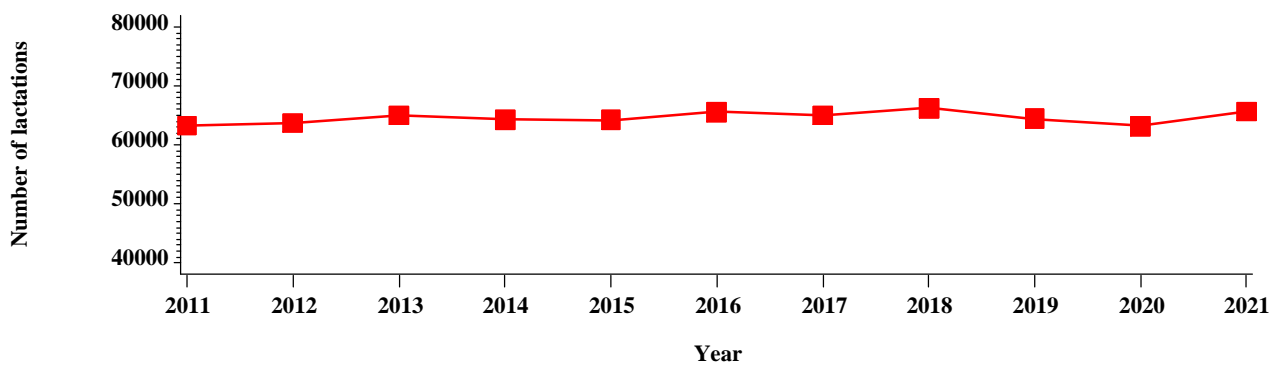Geographical distribution of ewes with lactations of Manech Tete Rousse breed

■ 65676

Distribution by parity for Manech Tete Rousse breed

Parity	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
1st lactation	16,525	237.9	88.2	160.4	47
2nd lactation	13,583	265.1	91.2	164.9	48
3rd lactation	11,052	271.7	93.4	168.3	46
4th lactation	8,723	262.5	94.8	168.3	46
5th lactation	6,362	248.4	94.7	165.8	47
6th lactation	4,204	232.2	91.6	161.5	48
7th lactation and over	4,278	204.7	89.8	152.0	52
Unknown	949	211.7	94.6	152.8	50
Overall total	**65,676**	**250.6**	**93.6**	**163.7**	**48**

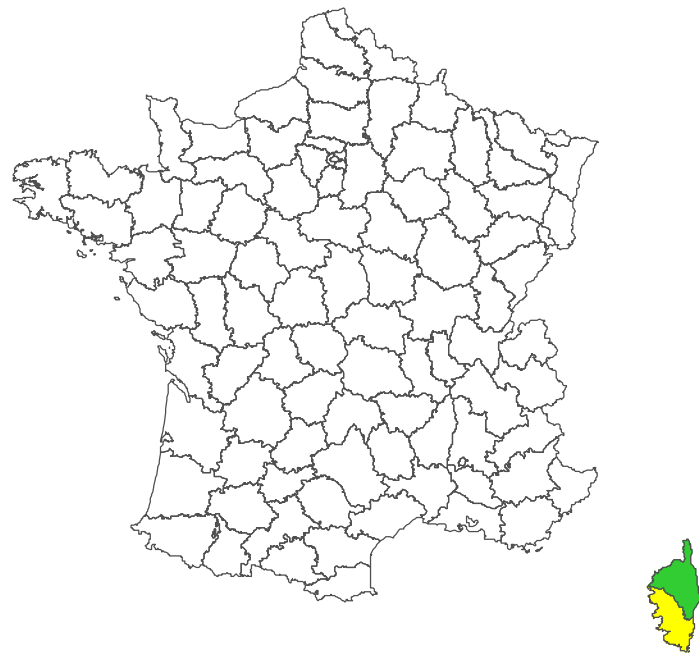### Evolution of the number of lactations for Manech Tete Rousse breed

2.6 - Breed CORSE
(French breed code: 046)

Geographical distribution of ewes with lactations of Corse breed

☐ **2801**
☐ **13040**

Distribution by parity for Corse breed

Parity	Number of ewes in lactation	Milk yield *liters*	Milk yield standard deviation *liters*	Lactation duration *days*	Lactation duration standard deviation *days*
1st lactation	3,148	110.9	50.3	145.8	54
2nd lactation	2,784	154.0	62.5	187.7	59
3rd lactation	2,208	177.1	65.0	207.3	50
4th lactation	1,952	180.6	64.3	211.3	47
5th lactation	1,574	174.7	66.9	208.9	51
6th lactation	1,334	162.5	65.8	201.6	55
7th lactation and over	1,905	144.4	64.2	192.4	59
Unknown	936	137.2	62.4	179.1	61
Overall total	**15,841**	**152.6**	**66.5**	**188.4**	**59**

Evolution of the number of lactations for Corse breed
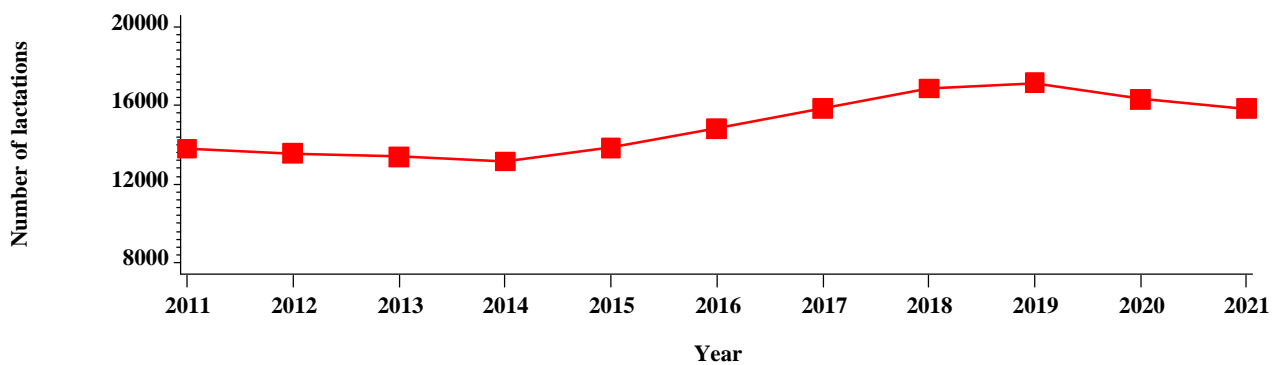
Milk recording results of Sheep
France 2021

Increasing by 4,740 (+1.4%), the total number of ewes present at the lambing period reached 335,171 in 2021. At the same time the total number of ewes with lactation calculation is increasing on 6,879 and reaches 285,321 (+2.4%). This increase of the ewes number on official milk recording (CLO) puts an end to the stability observed over the previous two years. 750 flocks are counted up today in Official Milk Recording, which is identical to that of the previous year. Meanwhile, with 447 ewes, the average size of flock still progressed in 2021 (441 ewes in 2020, 433 in 2019 and 428 in 2018). In 2021 the average milk yield is increasing for all breeds, Lacaune and Manech Tête Rousse breeds +7.3 liters, Basco Béarnaise breed +10 liters, Corse breed +3.8 liters, Manech Tête Noire breed +8.8 liters. At the national level the milk yield reached 299.2 liters (+7.6 liters) in 171 days (+2 days). A simplified milk recording, corresponding to the D recording method in the ICAR nomenclature and not presented in this document, exists in addition to the Official Milk Recording AC design. It concerns commercial flocks out of the selection nucleus (while the Official Milk Recording is devoted only to breeders involved in the selection program). 1,156 flocks and 531,798 ewes present at the lambing period were submitted to D recording in 2021.