

Meeting of the ICAR Working Group on Milk Recording of Sheep Riga, Latvia, 1st June 2010

Draft agenda

- Changes in the constitution of the group
- Main activities of the WG over the last 2 years
- Presentation of the results of the on-line enquiry
- How to handle situations where meeting the guidelines is difficult ?
- Including udder morphology in the guidelines
- Relaxing or not relaxing the requirements for recording devices ?
- Glossary
- Miscellaneous

Agenda 1

Members of the Working Group in Niagara Falls

| | | |
|---------------------|----------|---|
| Jean-Michel ASTRUC | France | Institut de l'Elevage |
| Francis BARILLET | France | INRA |
| Antonello CARTA | Italy | AGRIS Sardinia |
| Mauro FIORETTI | Italy | AIA |
| Elisha GOOTWINE | Israel | Volcani Center |
| Drago KOMPAN | Slovenia | University of Ljubljana |
| Franz-Josef ROMBERG | Germany | Dienstleistungszentrum Ländlicher Raum Westpfalz |
| Eva UGARTE | Spain | NEIKER |

In red : new members

Members of the Working Group in Riga

| | | |
|---------------------|----------|---|
| Jean-Michel ASTRUC | France | Institut de l'Elevage |
| Zdravko BARAC | Croatia | Croatian Agricultural Agency |
| Francis BARILLET | France | INRA |
| Antonello CARTA | Italy | AGRIS Sardinia |
| Mauro FIORETTI | Italy | AIA |
| Elisha GOOTWINE | Israel | Volcani Center |
| Drago KOMPAN | Slovenia | University of Ljubljana |
| Franz-Josef ROMBERG | Germany | Dienstleistungszentrum Ländlicher Raum Westpfalz |
| Alessia TONDO | Italy | AIA |
| Eva UGARTE | Spain | NEIKER |

In red : new members

In green : old members

Greek member ?

Agenda 2

Main activities of the WG over the last 2 years (1/2)

Few activities ...

No emendations of the guidelines

Last emendations in 2005

Report of the activities, communication

Synthesis of the situation of the WG for the Porec (Croatia) session in May 2009. Nobody present.

On-line enquiry

Preparation of the Riga session : tables, slides

Main activities of the WG over the last 2 years (2/2)

Co-operation with other bodies of ICAR

Recording devices Sub-Committee :
meeting on 21 March 2009 about the requirements for sheep

WG on Milk Recording of Goats : none

Preparation of the Riga session

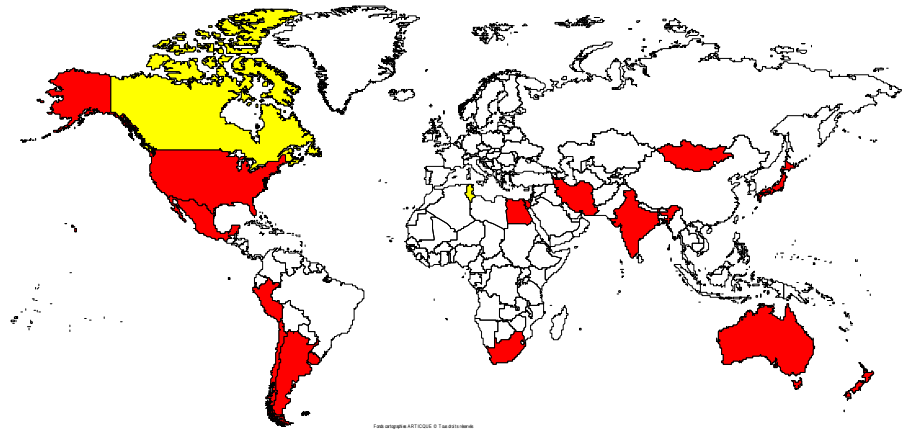
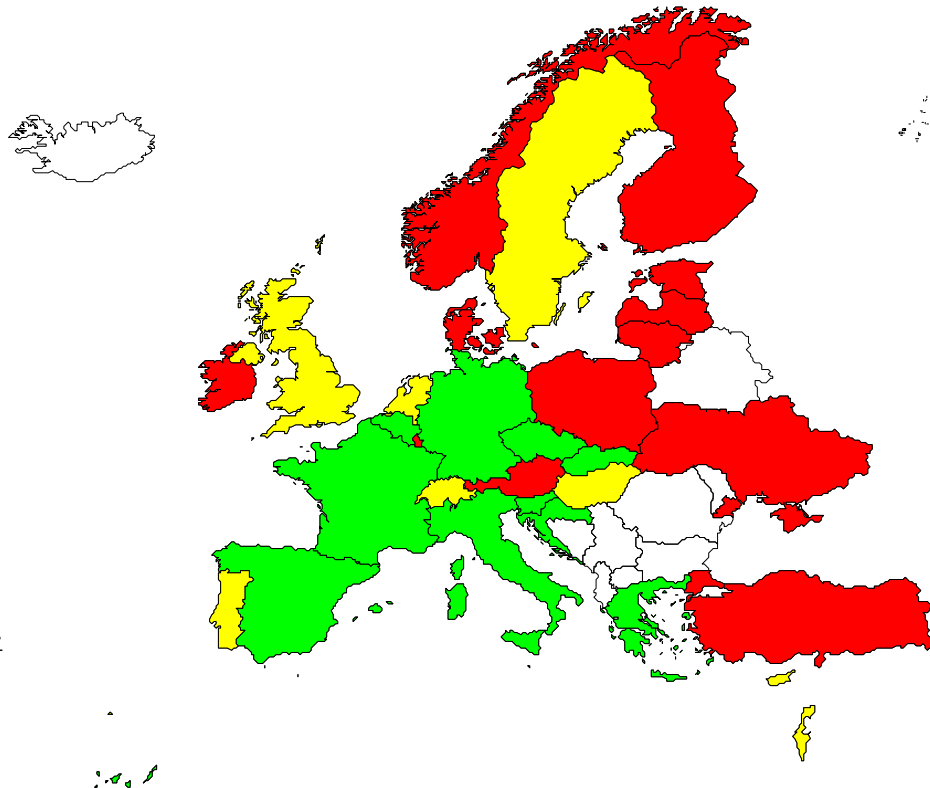
Agenda 3

PRESENTATION OF THE RESULTS OF THE ON-LINE ENQUIRY

Yearly enquiry on-line

Green : ICAR countries having submitted data to the database since 2008

Yellow : ICAR countries having sawering the survey at least once between 1988 and 2008



ONLY 10 submissions in 2008-2010

Remind regularly the countries

Survey on milk recording of sheep

■ 10 answers

Belgium

Germany

Slovak Rep.

Croatia

Greece

Slovenia

Czech Rep.

Italy

Spain

France

Hungary, Tunisia,

Israel ?

Turkey, Portugal, Cyprus ?

Recorded population - countries (ICAR 2010)

| Countries | Size of population | | Recorded population | | % recorded population |
|----------------------------|--------------------|------------------------|---------------------|-----------|-----------------------|
| | #flocks | # ewes | #flocks | # ewes | |
| Italy (2009) | | 5,617,000 ¹ | 3,075 | 479,897 | 8.5% |
| Spain (2008) | >11,139 | 3,064,000 | 543 | 305,402 ↗ | 10.0% |
| France (2009) ² | 4,913 | 1,445,000 | 781 | 301,823 | 20.9% |
| Greece (2007) | 150,000 | 7,034,000 ¹ | 581 | 90,834 ↗ | 1.3% |
| Israel (2007) | 64 | 35,000 | 22 | 18,600 ↗ | 53.1% |
| Slovak Rep (2009) | | 220,000 ¹ | 119 | 17,883 | 8.1% |

¹ figures from STATFAO

² 531,299 in D recording

Recorded population - countries (ICAR 2010)

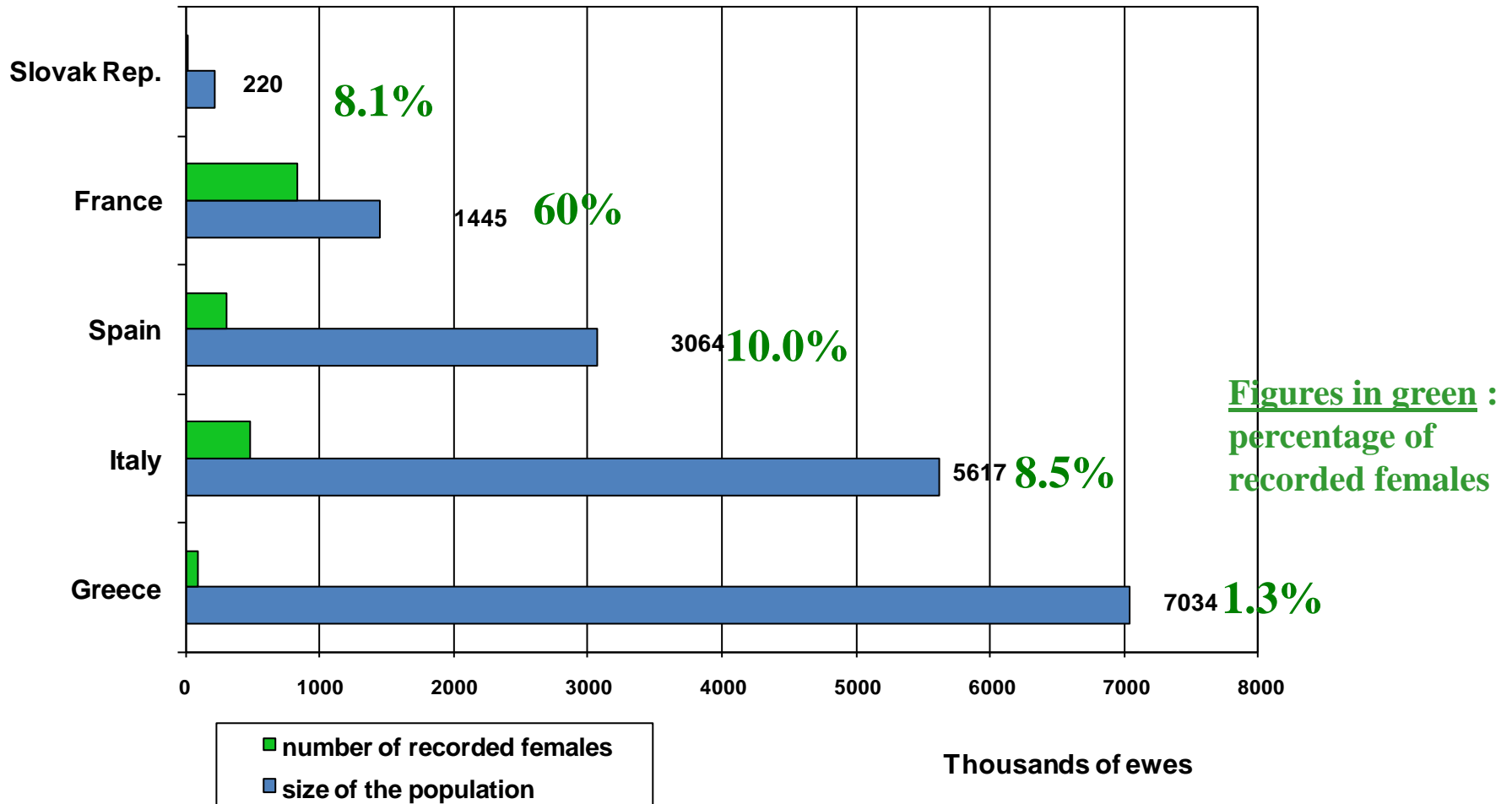
| Countries | Size of population | | Recorded population | | % recorded population |
|-----------------------------|--------------------|----------------------|---------------------|---------|-----------------------|
| | #flocks | # ewes | #flocks | # ewes | |
| Spain (2008) | >11,139 | 3,064,000 | 543 | 305,402 | 10.0% |
| Spain local breeds (2008) | 11,139 | 1,491,785 | 408 | 229,402 | 15.4% |
| Spain foreign breeds (2008) | | 930,000 ³ | 135 | 76,000 | 8.2% |

³ deduced from STATFAO

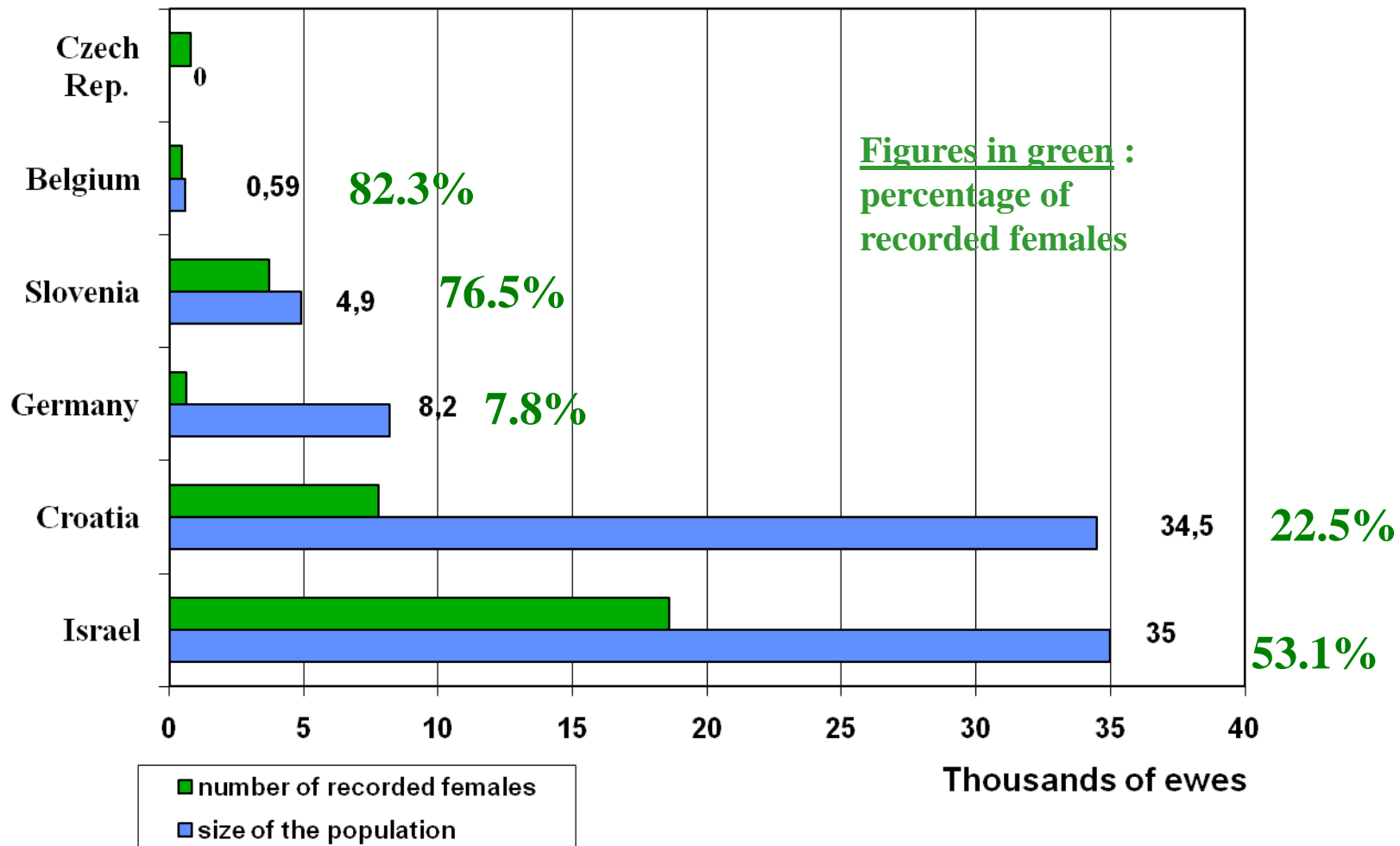
Recorded population - countries (ICAR 2010)

| Countries | Size of population | | Recorded population | | % recorded population |
|---------------------|--------------------|--------|---------------------|------------------|-----------------------|
| | #flocks | # ewes | #flocks | # ewes | |
| Croatia (2009) | 690 | 34,500 | 126 | 7,770 | 22.5% |
| Slovenia (2009) | 115 | 4,900 | 41 | 3,749 | 76.5% |
| Czech Rep (2009) | | | 23 | 821 | |
| Germany (2009) | 511 | 8,204 | 54 | 638 | 7.8% |
| Belgium (2008-2009) | 21 | 593 | 19 | 488 | 82.3% |
| TOTAL | | | 4,862 | 1,227,905 | |

Sheep milk recording in countries with more than 100,000 ewes (ICAR 2010)



Sheep milk recording in countries with less than 50,000 ewes (ICAR 2010)



Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|------------------------|-------------------------|--------------------|--------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Belgium (2008-2009) | Mouton Laitier Belge | 21 | 593 | 19 | 488 | 82.3% |
| Israel (2007) | Assaf | | | 21 | 17,100 | |
| | Improved Awassi | | | 1 | 1,500 | |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|----------------------|-----------------------|--------------------|--------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Czech Rep. (2009) | Lacaune | | | 3 | 402 | |
| | East Friesian | | | 18 | 350 | |
| | Bohemian Forest Sheep | | | 1 | 68 | |
| | Improved Valachian | | | 1 | 1 | |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|--------------------|----------------------------|--------------------|------------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Germany (2009) | Ostfriesisches Milchscharf | 510 | 8,100 | 53 | 601 | 7.4 % |
| | Lacaune | 1 | 104 | 1 | 36 | 34.6% |
| Slovak Rep. (2009) | Improved Valachian | | 91,000 (*) | 46 | 8,497 | 9.3 % |
| | Tsigai | | 72,000 (*) | 36 | 5,920 | 8.2 % |
| | Hybrids | | | 19 | 2,676 | |
| | Lacaune | | | 13 | 714 | |
| | East Friesian | | | 5 | 76 | |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|-----------------|---------------------|--------------------|--------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Croatia (2009) | Paska | 600 | 30,000 | 55 | 4,253 | 14.2 % |
| | Istrian | 40 | 2,500 | 39 | 2,142 | 85.7 % |
| | East Friesian | 50 | 2,000 | 32 | 1,375 | 68.8 % |
| Slovenia (2009) | Bovec | 75 | 2,700 | 26 | 2,292 | 84.9 % |
| | Istrian Pramenka | 15 | 1,100 | 5 | 901 | 81.9 % |
| | Improved Bovec | 25 | 1,100 | 10 | 556 | 50.5 % |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population | Ewes in D method |
|---------------|--------------------|--------------------|---------|---------------------|---------|-----------------------|------------------|
| | | #flocks | # ewes | #flocks | # ewes | | |
| France (2009) | Lacaune | 2,600 | 900,000 | 376 | 173,568 | 75.3 % | 504,081 |
| | Manech Tête Rousse | 1,150 | 270,000 | 203 | 70,712 | 33.2 % | 18,928 |
| | Corse | 420 | 95,000 | 72 | 21,050 | 24.2 % | 1,982 |
| | Basco-Béarnaise | 420 | 80,000 | 78 | 21,984 | 34.3 % | 5,427 |
| | Manech Tête Noire | 510 | 100,000 | 52 | 14,509 | 15.4 % | 881 |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|------------------|-------------|--------------------|---------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Greece (2007) | Xios | 189 | 49,430 | 96 | 24,135 | 48.8 % |
| | Lesvou | 1,650 | 254,000 | 131 | 23,280 | 9,2 %. |
| | Frisarta | 635 | 54,500 | 83 | 10,510 | 19.3 % |
| | Sfakion | 480 | 58,000 | 69 | 8,687 | 15.0 % |
| | Karagouniki | 2,850 | 190,800 | 77 | 8,021 | 4.2 % |
| | Serron | 68 | 7,500 | 62 | 6,862 | 91.5 % |
| | Kefallinias | 300 | 32,000 | 14 | 2,450 | 7.7 % |
| | Karistou | 450 | 60,000 | 17 | 2,100 | 3.5 % |
| | Katsika | 6 | 1,880 | 6 | 1,880 | 100% |

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|---------------|------------------------|--------------------|--------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Greece (2007) | Zakynthou | 10 | 845 | 10 | 845 | 100 % |
| | Kimis | 11 | 703 | 11 | 703 | 100 % |
| | Kalaritiki | 22 | 6,589 | 1 | 680 | 10.3% |
| | Agriniou | 3 | 653 | 3 | 653 | 100 % |
| | Sarakatsaniko | 4 | 1,166 | 1 | 28 | 2.4% |
| | Pilioritiki | 28 | 2,906 | | | 0 |
| | Glossas Skopelous | 20 | 2,815 | | | 0 |
| | Florina- Pelagonias | 2 | 200 | | | 0 |
| | Thrakis | 1 | 190 | | | 0 |

724,177 purebred sheep (out of 7,034,000 dairy sheep on the whole)

Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|--------------|------------------|--------------------|------------|---------------------|---------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Italy (2009) | Sarda | 13,000 | 3,600, 000 | 1,095 | 249,072 | 6.9 % |
| | Valle del Belice | | ? | 970 | 138,123 | |
| | Comisana | | 666,000 | 581 | 50,505 | 7.6 % |
| | Pinzirita | | ? | 234 | 30,051 | |
| | Massese | | | 59 | 4,764 | |
| | Delle Langhe | | | 86 | 2,661 | |
| | Brigasca | | | 8 | 1,421 | |
| | Lacaune | | | 10 | 1,365 | |

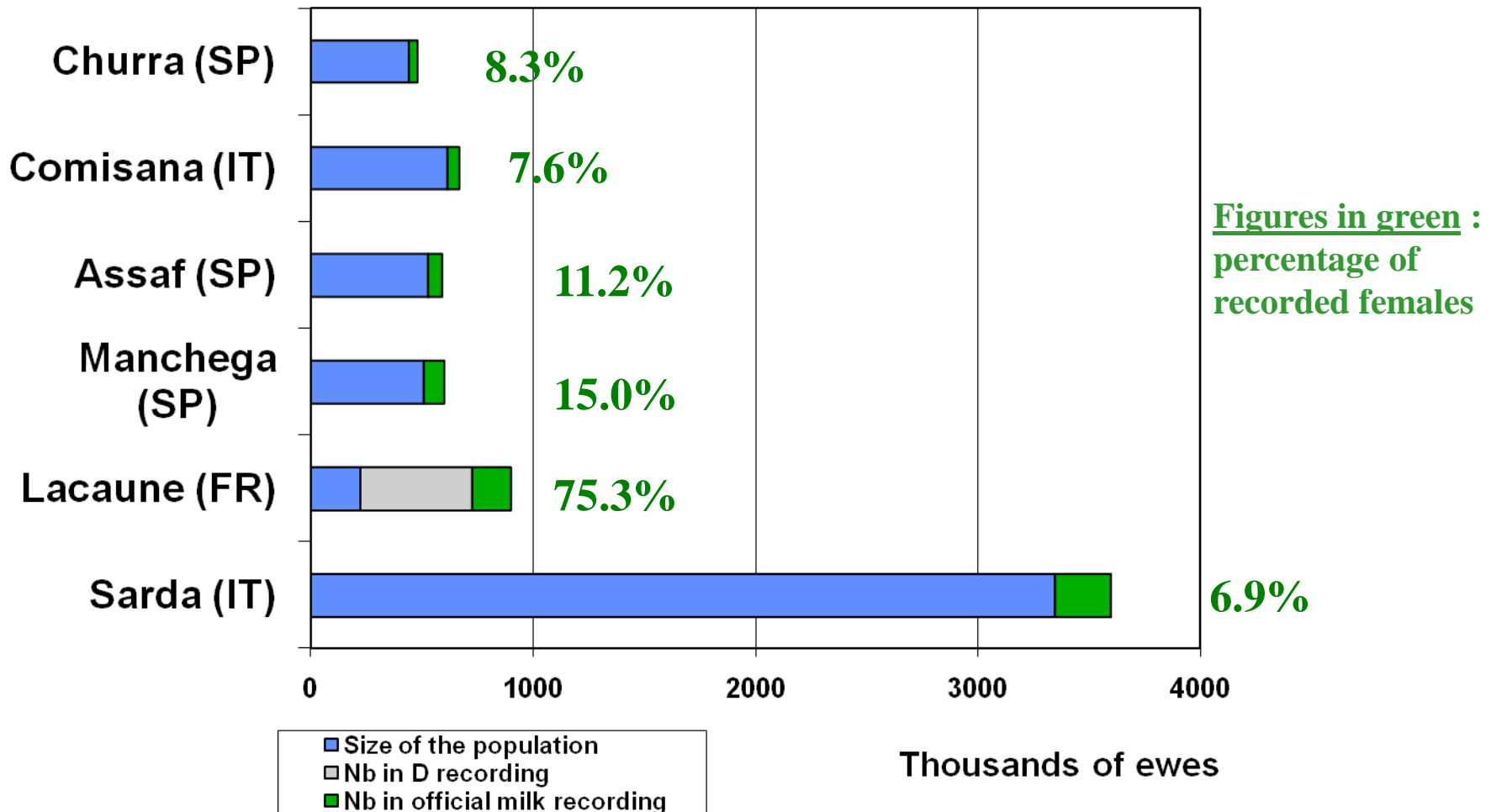
Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|--------------|-------------------|--------------------|--------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Italy (2009) | Barbaresca | | | 16 | 1,162 | |
| | Moscia Leccese | | | 8 | 618 | |
| | Altamurana | | | 2 | 92 | |
| | Frisona | | | 4 | 41 | |
| | Nera di Arbus | | | 2 | 22 | |

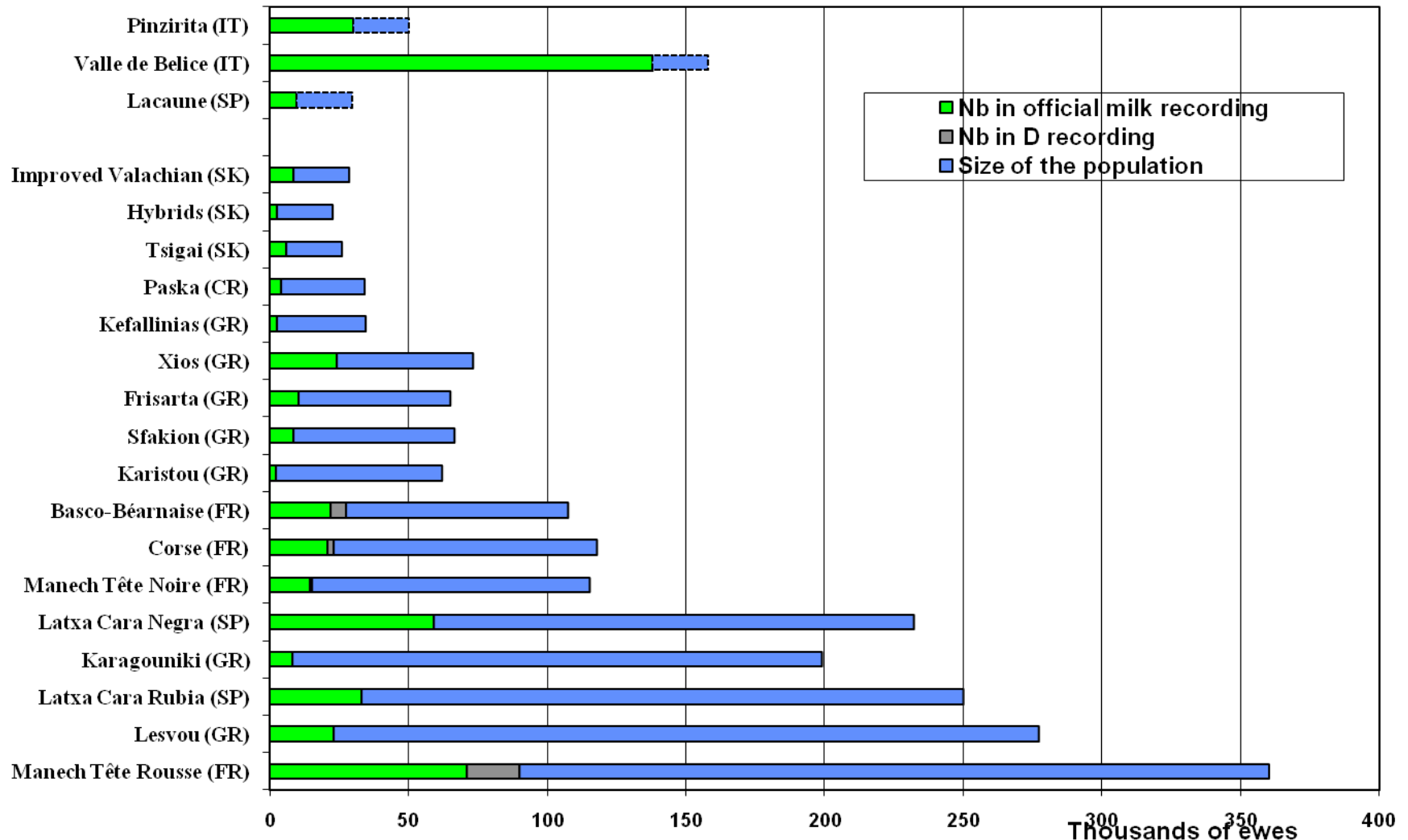
Recorded population - breeds (ICAR 2010)

| Countries | Breeds | Size of population | | Recorded population | | % recorded population |
|--------------------------|------------------------|--------------------|---------|---------------------|--------|-----------------------|
| | | #flocks | # ewes | #flocks | # ewes | |
| Spain (2008 /2009) | Manchega | 1,025 | 600,000 | 111 | 90,000 | 15.0% |
| | Assaf | | 592,949 | 126 | 66,500 | 11.2% |
| | Latxa CN | 4,146 | 173,237 | 123 | 59,279 | 34.2% |
| | Churra | 950 | 480,000 | 85 | 40,010 | 8.3% |
| | Latxa CR | 4,266 | 217,165 | 67 | 32,964 | 15.2% |
| | Lacaune | 52 | 46,751 | 9 | 9,500 | 20.3% |
| | Karranzana | 696 | 12,401 | 7 | 3,424 | 27.6% |
| | Colmenarena | 11 | 3,039 | 4 | 2,231 | 73.4% |
| | Merina de Grazalema | 34 | 4,676 | 8 | 983 | 21.0% |
| | Rubia del Molar | 11 | 1,267 | 3 | 511 | 40.3% |

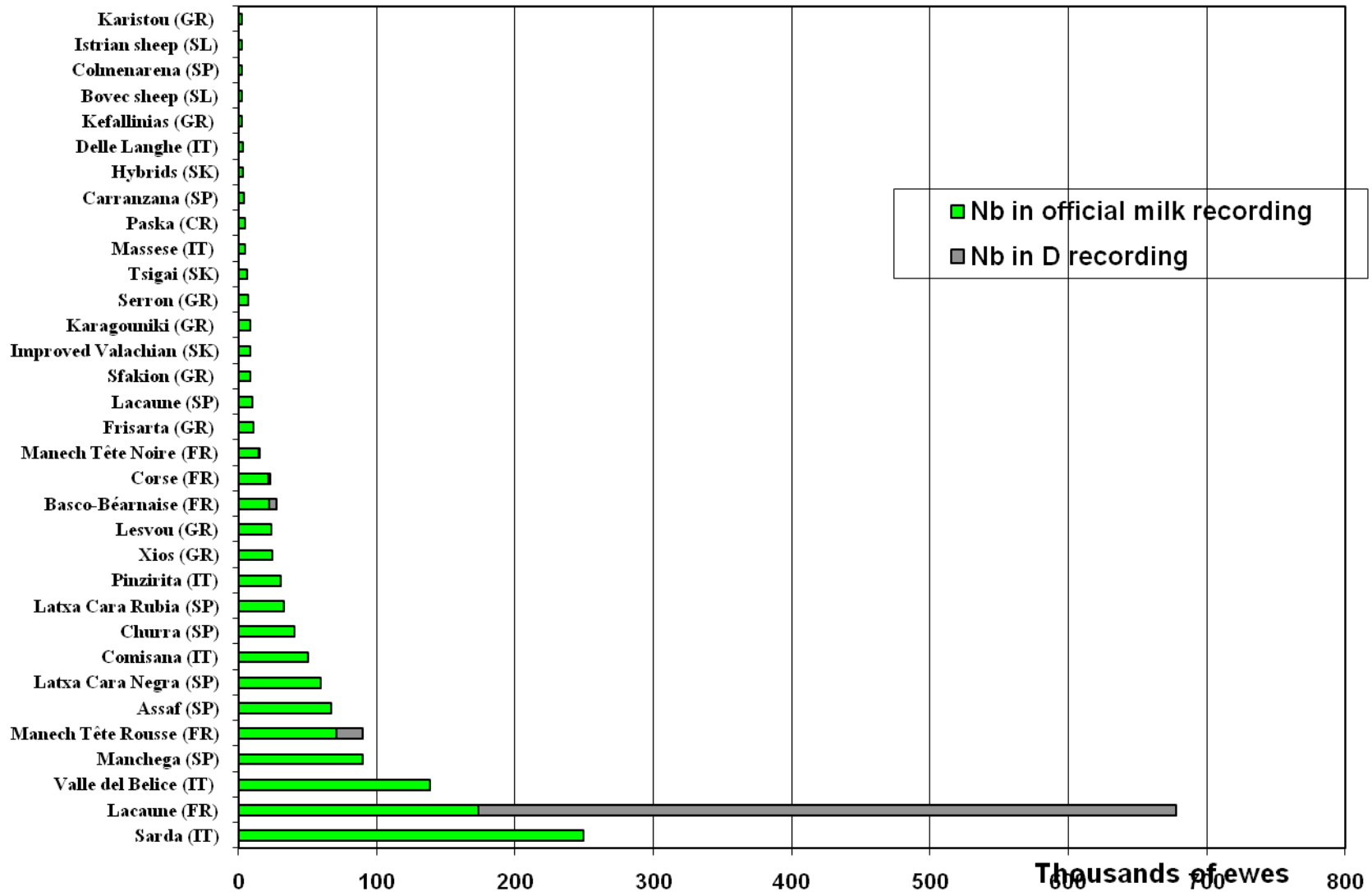
Sheep milk recording in breeds with more than 400,000 ewes (ICAR 2010)



Sheep milk recording in breeds with more than 20,000 ewes (ICAR 2010)



Sheep milk recording in breeds with more than 2,000 recorded ewes (ICAR 2010)

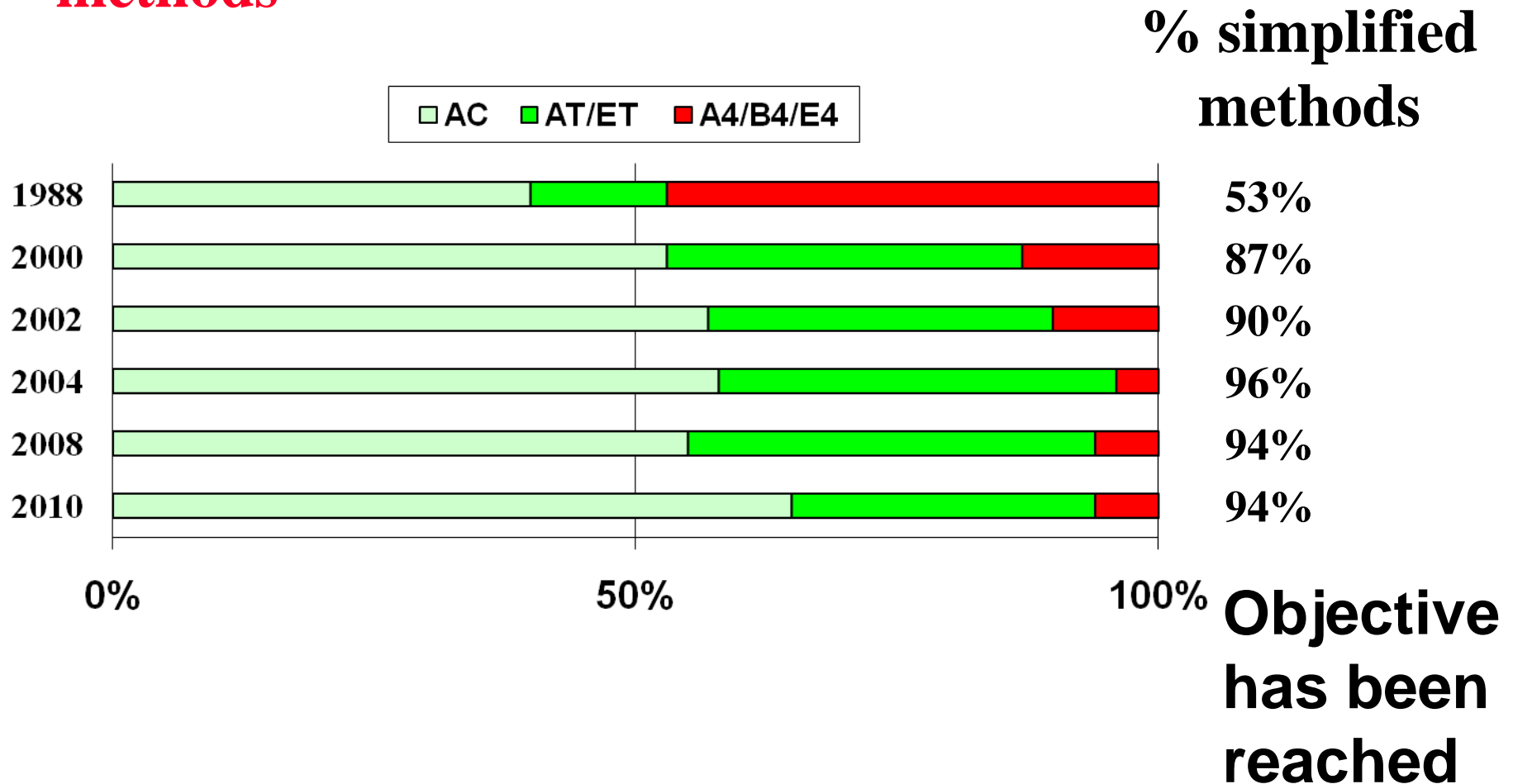


Methods and recording intervals

| Countries | A4 | AT | AC | E |
|---|-----|------------------|-----------|-----------|
| Belgium | | 100 | | |
| Slovenia | | 100 | | |
| Germany | 34 | 29 | | 37 |
| France | | | 100 | |
| Czech Rep. | | Part | | Part (ET) |
| Spain Churra & Manchega & Assaf Latxa & Karranz. Lacaune | 100 | 100 Part (50) | Part (50) | |
| Greece | 100 | | | |
| Croatia | | 100 | | |
| Slovak Rep. | | | 100 | |
| Italy | | Part | Part | |

Simplification of Milk recording

Milk yield : increasing use of simplified (AT or AC) methods



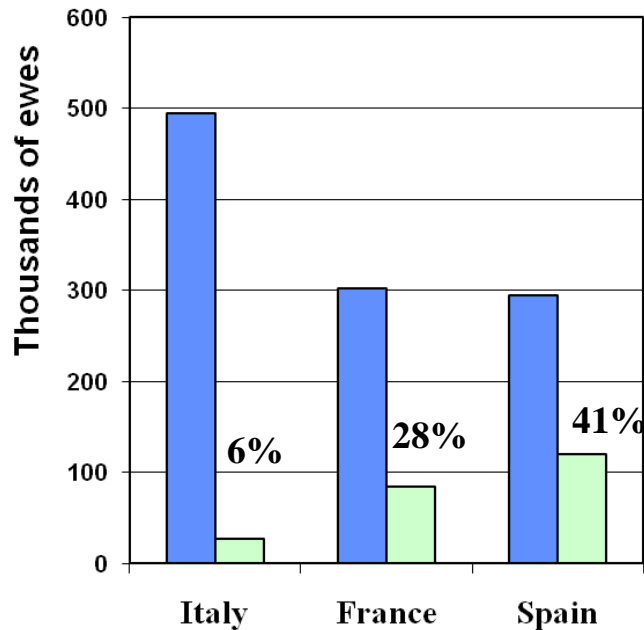
Methods and recording intervals

Simplified methods : 8/10 countries

| | |
|--------------------|--|
| AT | Belgium, Slovenia, Croatia, Czech (part), Germany (<1/3) |
| AC | France, Slovak |
| AT & AC | Italy, Spain |
| A4 | Greece, Germany (1/3), Spain(3%) |
| E | Germany (>1/3), Czech (part) |

Simplification of Milk quality recording

Italy, France & Spain represent **90% of all the recorded dairy sheep** in ICAR member countries



■ Ewes in official milk recording
■ Ewes with samplings/analysis

HIGH COST OF RECORDING IN SHEEP

...

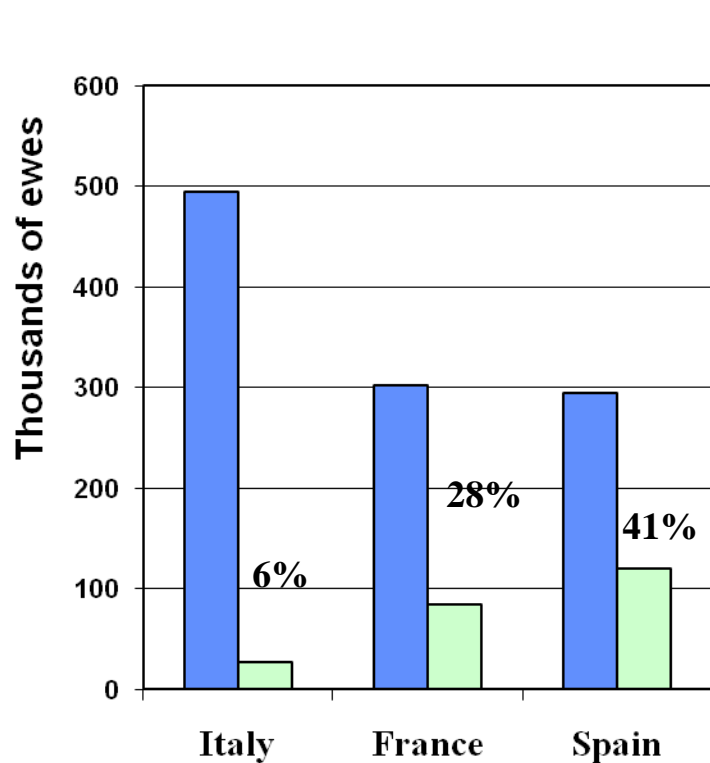
... SIMPLIFIED STRATEGIES OF RECORDING

- Only 21% of the recorded ewes are submitted to qualitative recording
- In France, only half the test-days are sampled (3/6 per ewe)

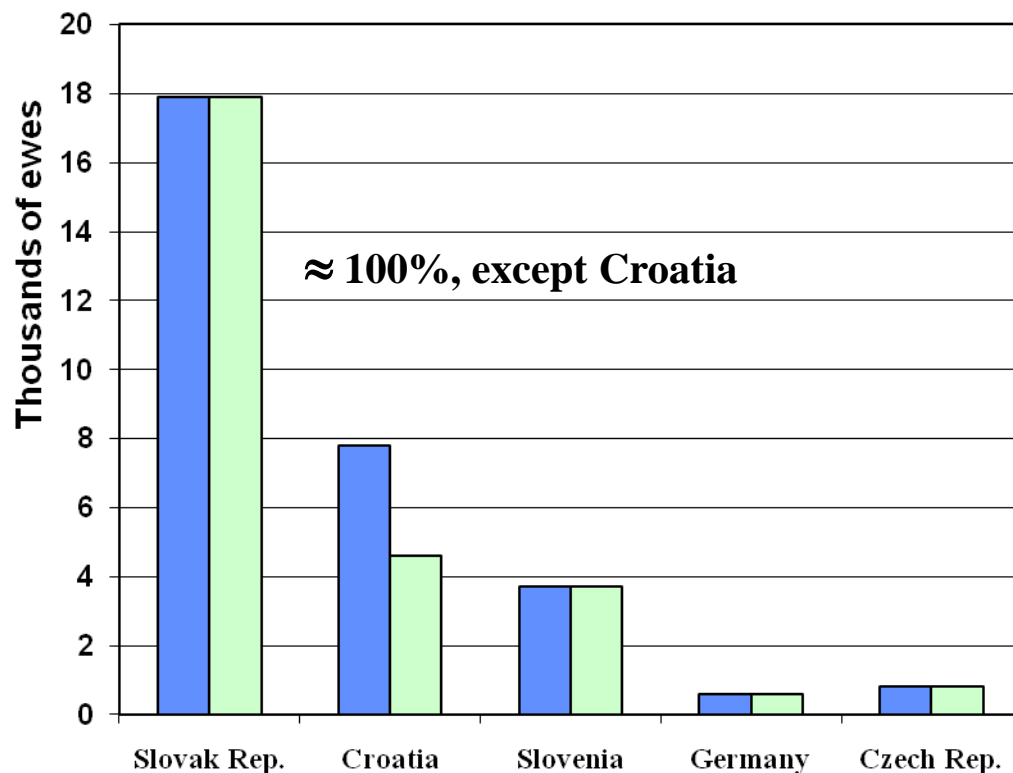
■ Relevant for genetic purposes

■ But not compatible with a too low accuracy of measures

Part of the ewes in official milk recording submitted to qualitative recording



■ Ewes in official milk recording
■ Ewes with samplings/analysis

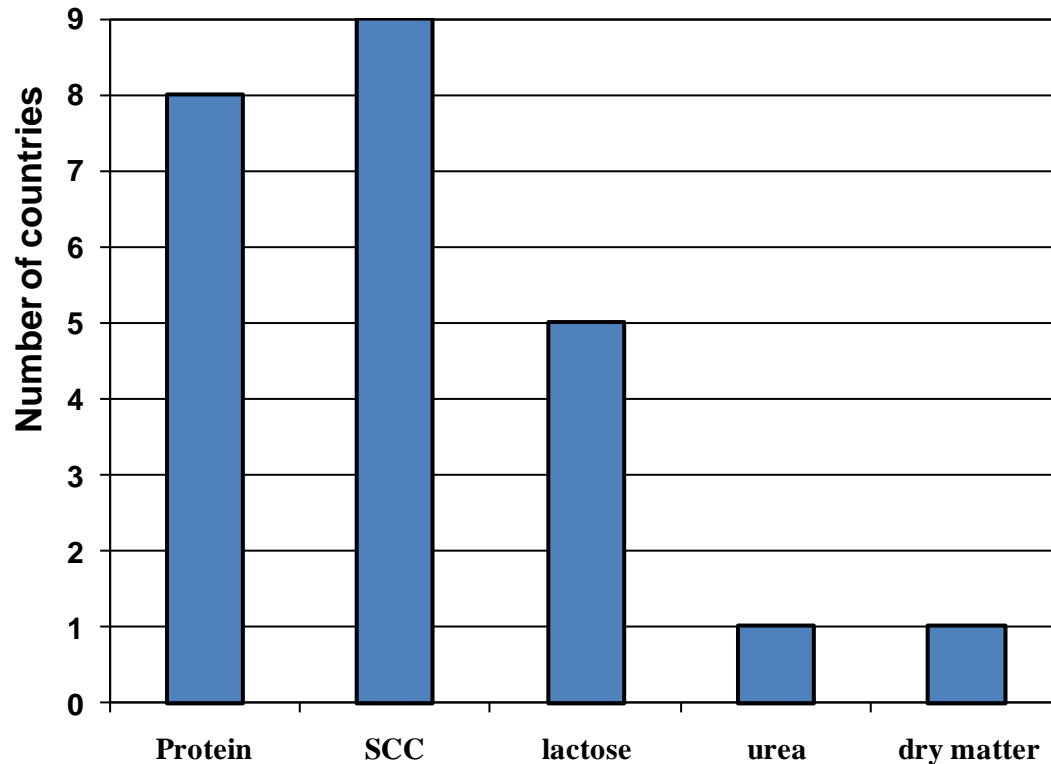


≈ 100%, except Croatia

■ Ewes in official milk recording
■ Ewes with samplings/analysis

Part-lactation sampling : France, Italy, Slovak Rep.

Type of analysis done by countries



SCC : all

Lactose : Croatia,
Czech, Germany,
Slovenia, Spain

Urea : Germany

Dry matter : Spain

Fat & SCC : Greece

Type of analysis done by countries

| | F | P | Lactose | SCC | Urea | Dry matter |
|------------------|----------|----------|----------------|------------|-------------|-------------------|
| Slovenia | X | X | X | X | | |
| Slovak | X | X | | X | | |
| Germany | X | X | X | X | X | |
| France | X | X | | X | | |
| Czech | X | X | X | X | | |
| Croatia | X | X | X | X | | |
| Greece | X | | | X | | |
| Italy (Sarda) | X | X | | X | | |
| Spain | | | | | | |
| Latxa | X | X | X | X | | X |
| Manchega | X | X | | X | | X |
| Churra | X | X | X | X | | |
| Assaf | X | X | X | X | | |

Method used and number of ewes sampled

| | Categories of ewes | Number of ewes | Method |
|---|--------------------------|------------------|----------------------------|
| Slovenia | All ewes | | AT |
| Slovak | Parity 1 to 3 | 17,883 | AC |
| Germany | | 602 | A4,B4,AT4,E4 |
| Greece | | | A4 |
| France Pyrenean breeds Lacaune breed | Parity 1 Parity 1 & 2 | 19,269 64,897 | Part-lactation sampling |
| Czech | | | AT,E |
| Croatia | | 4,619 | AT |
| Italy (Sarda) | Parity 1 | 25,108 | Part-lactation sampling |
| Spain Latxa Manchega Churra Assaf | | | AC AT AT AT |

Breeding schemes and selection criteria

FRANCE - 2009

| | Number of AI progeny-tested rams (2009) | AI (2008) fresh | Year of starting | Selection criteria |
|--------------------|---|-----------------|------------------|---|
| Lacaune | 445 | 395,812 | 1968 | (FY+PY+1/16F%+1/8P%) + 0.5 SCC + 0.5 Udder |
| Manech tête rousse | 151 | 56,760 | 1977 | FY+PY+F%+P% |
| Manech tête noire | 36 | 7,869 | 1977 | FY+PY+F%+P% |
| Basco-Béarnaise | 52 | 14,128 | 1977 | FY+PY+F%+P% |
| Corse | 31 | 6,336 | 1992 | MY |

+ PrP : selection on scrapie resistance

Breeding schemes and selection criteria

SPAIN - 2008

| | Number of AI progeny-tested rams (2008) | AI (2008) Fresh (frozen) | Year of starting | Selection criteria |
|-------------------|---|-----------------------------|------------------|---|
| Latxa blond-faced | 30 | 9,210 | 1984 | MY,F,P,Lactose,SCS, dry matter, udder, morphology |
| Latxa black-faced | 50 | 15,103 | 1985 | |
| Karranzana | 2 | 300 | 1985 | MY,morphology |
| Manchega | 150/175 | 35,764 | 1988 | MY,F,P,SCS, udder |
| Churra | 51 | 8,850 (frozen : 3,454) | 1986 | MY,F,P,lactose,SCS, udder |
| Assaf | 60 | 6,488 (frozen : 160) | | |

+ PrP : selection on scrapie resistance

Breeding schemes and selection criteria

ITALY

| | Number of AI progeny-tested rams | AI (2009) Fresh | Year of starting | Selection criteria |
|------------|----------------------------------|-----------------|------------------|----------------------|
| Sarda (IT) | 60 | 15,000 | 1986 | MY, udder morphology |

+ PrP : selection on scrapie resistance

Milk yield : type of lactation calculation (ICAR 2010)

| Countries | Lactation calculation | Production of reference |
|-------------|-----------------------|-------------------------|
| Belgium | TMM | |
| Italy | TSMM,TMM | TMM |
| Slovak Rep. | TMM | TMM (150-160) |
| Czech Rep. | TSMM,TMM | TSMM,TMM |
| France | TMM | |
| Croatia | TSMM,TMM | |

Milk yield : type of lactation calculation (ICAR 2010)

| Countries | Lactation calculation | Production of reference |
|-------------|-----------------------|--|
| Germany | TMY (main), TMM (few) | TMY (150), TMY (150) |
| Slovenia | TSMM,TMM,TMY | |
| Greece | TMM | TMM |
| Spain | | |
| Churra | TSMM,TMM | TMM (120) |
| Manchega | TSMM,TMM | TSMM (120), TMM (120) |
| Latxa/Karr. | TSMM,TMM,TMY | TSMM (120), TMM (120) |
| Assaf | TSMM, TMY | TSMM (150), TMM (150), TMY (150-210), |
| Lacaune | TMY | TMY (200) |

Milk yield : results for some population (ICAR 2010)

| | Average MY per recorded ewe in liters (length in days) [a = TMY / b = TMM / c = TSMM / ref = reference length in days] | | |
|--------------------|---|--------|----------------|
| | Yearlings | Adults | All ewes |
| CROATIA | [b] | [b] | [b] |
| East Friesian | 152 | 175 | 166 |
| Paška | 85 | 100 | 100 |
| Istrian Pramenka | 110 | 138 | 132 |
| CZECH REP. | | | [?] |
| East Friesian | | | 263 |
| GERMANY | | | [a] |
| East Friesian | | | 313 (ref :150) |
| Lacaune | | | 300 (ref :150) |
| FRANCE | | | [b] |
| Lacaune | | | 272 (164) |
| Basco-Béarnaise | | | 164 (146) |
| Manech tête noire | | | 134 (139) |
| Manech tête rousse | | | 180(155) |
| Corse | | | 133 (182) |

Milk yield : results for some population (ICAR 2010)

| | Average MY per recorded ewe in liters (length in days) [a = TMY / b = TMM / c = TSMM / ref = reference length in days] | | |
|--------------------|---|--------|----------|
| | Yearlings | Adults | All ewes |
| SLOVAK REP. | | | [b] |
| East Friesian | | | 183 |
| Lacaune | | | 205 |
| Hybrids | | | 138 |
| Tsigai | | | 98 |
| Improved Valachian | | | 107 |
| GREECE | | | [b] |
| Karagouniki | | | 189 |
| Lesvos | | | 184 |
| Chios | | | 308 |
| Frisarta | | | 237 |
| Serron | | | 138 |
| Sfakion | | | 156 |
| Kefallinias | | | 163 |

Milk yield : results for some population (ICAR 2010)

| | Average MY per recorded ewe in liters (length in days) [a = TMY / b = TMM / c = TSMM / ref = reference length in days] | | |
|-----------------|---|---------|----------|
| | Yearlings | Adults | All ewes |
| ITALIA | [b/ref] | [b/ref] | [b/ref] |
| Valle de Belice | 119 | 209 | 202 |
| Sarda | 191 | 196 | 188 |
| Comisana | 97 | 187 | 182 |
| Barbaresca | 99 | 166 | 161 |
| Langhe | 113 | 161 | 157 |
| Massese | 112 | 132 | 131 |
| Pinzirita | 67 | 118 | 115 |
| Moscia Leccese | 84 | 128 | 127 |
| Altamurana | | 38 | 38 |
| Brigasca | | 93 | 93 |
| Nera di Arbus | | 156 | 156 |

Warning : until now, the yield was TMM. In 2009 : TMM / ref

Milk yield : results for some population (ICAR 2010)

| | Average MY per recorded ewe in liters (length in days) [a = TMY / b = TMM / c = TSMM / ref = reference length in days] | | |
|---------------------|---|---------------------|---------------------|
| | Yearlings | Adults | All ewes |
| SLOVENIA | | | [b] |
| Bovec | | | 183 |
| Improved Bovec | | | 219 |
| Istrian Pramenka | | | 87 |
| SPAIN | | | |
| Churra | 85 [b] (ref : 120) | 91 [b] (ref : 120) | 90 [b] (ref : 120) |
| Latxa blond-faced | 144 [b] | 152 [b] | |
| Latxa black-faced | 131 [b] | 158 [b] | |
| Karranzana | 181 [b] | 190 [b] | 188 [b] |
| Manchega | 150 [c] (ref : 120) | 160 [c] (ref : 120) | 154 [c] (ref : 120) |
| Assaf | 370 [c] | 420 [c] | 400 [c] |
| Lacaune | 287 [c] (ref : 200) | 399 [c] (ref : 200) | 361 [c] (ref : 200) |
| Merina de Grazalema | 69 [b] | 125 [b] | 123 [b] |
| Colmenarena | 66 [c] (ref : 120) | 64 [c] (ref : 120) | 64 [c] (ref : 120) |
| Rubia del Molar | | 84 [b] (ref : 120) | 84 [b] (ref : 120) |

Milk recording equipment

| | JARS | MILK METERS |
|-------------|---|--|
| CROATIA | Cartel Germany (Vol, No sampler, 33 in use) | |
| FRANCE | Gély (ex. Dintilhac (Vol, Sampler, 3,000 in use) | |
| GERMANY | | Tru-Test (Weight) |
| GREECE | | Strago, Westfalia, Hector, Flaco, Akma, Sylco, Westfalia, Full Ward, Milk Line, KTA, OMC, Westfalia, DeLaval, Sillaaios, Georgopoulos, Manovak (Vol, Sampler) |
| SLOVAK REP. | Fisher Slovakia (vol, 20 in use) | Berango (Vol., no sampler, 226 in use) Milkovis (Vol., no sampler, 144 in use) |

Milk recording equipment

| | JARS | MILK METERS |
|--------------|---|---|
| ITALY (?) | Alfa Laval Mibo Royal Westfalia Separator Misurator e Italiana (all Vol, NS) | Tru-Test mod. H.I. (Weight, S, 11 in use) |
| SLOVENIA | (Vol, Sampler, 2) | Tru-Test, Girotech (Weight, Sampler, 45 in use) |
| SPAIN | (vol, sampler, 1 in use) | Berango (Vol, Sampler, 166 in use). <i>Churra</i> Esneider (Vol, Sampler, 425 in use). <i>Assaf</i> DeLaval, Flaco, Westfalia (Vol, Sampler, 1700 in use). <i>Manchega</i> Westfalia (MIBO) (Vol, Sampler, 432 in use). <i>Latxa & Karrantzana</i> |

Molecular information

| | FILIATION TEST | PRP GENOTYPING | OTHER |
|-----------------|--|----------------------------------|---|
| FRANCE | 1,466 animals progeny-tested + some ewes | 14,907 analysis | |
| GERMANY | | | |
| CZECH REP. | | yes | |
| ITALY (2009) | 35,000 analysis (140 flocks) | 20,000 analysis | Microsatelites (QTL detection program) |
| SLOVAK REP. | | 2246 analysis | |
| SLOVENIA | | 2,255 analysis (253 flocks) | |
| SPAIN ?? | 32,136 animals (228 flocks) | 118,075 analysis (616 flocks) | |

Molecular information

| | FILIATION TEST | PRP GENOTYPING | OTHER |
|-----------------------|----------------|-------------------|-------|
| BELGIUM (Wallonia) | 673 animals | 206 | |
| CROATIA | - | - | |

Recording of other traits

| | TRAITS REPORTED TO BE AT LEAST ON-FARM RECORDED |
|------------------|--|
| BELGIUM | none |
| CROATIA | Reproductive traits, Birth weight |
| CZECH REP. | Reproductive traits, Weights |
| FRANCE | Reproductive traits, Udder score, Longevity, Cause of culling |
| GERMANY | Reproductive traits, Udder score, Wool quality, Appearance, Longevity, Weights |
| GREECE (2003) | Prolificacy |
| ISRAEL (2003) | Prolificacy, Age at first lambing, Open days |
| ITALY (2007) | Morphological evaluation, Udder score (Sarda) |

Recording of other traits

| | TRAITS REPORTED TO BE AT LEAST ON-FARM RECORDED |
|-------------|--|
| SLOVAK REP. | Reproductive traits, weights |
| SLOVENIA | Litter size and other data on reproductive cycle, Daily gain to weaning (on-farm), daily gain to puberty (on-station) |
| SPAIN | Udder score , longevity, prolificity, mortality, weights and growths |

Agenda 4

Difficulties to meet the guidelines in some situations

See last meeting in Niagara Falls & explanation by Antonello Carta

1/Large size flocks have a **part of the ewes which are registered and another part non-registered**. This is due to difficulties in organizing the milk recording and reproduction activities for a large number of ewes. There is no evidence of preferential treatments of the registered part of the flock.

2/Some farmers are used to **milking part of the flock twice and another part only once**. This practice is particularly spread at the end of the milking period (May-June-July) when primiparous are always milked twice while adult ewes are often progressively dried-off by decreasing the milking frequency.

➤ AC recording difficult to implement

Difficulties to meet the guidelines in some situations

Presentation by Antonello Carta ... and decision to be taken

Agenda 5

Including udder traits in the guidelines

Purpose : propose different udder appraisal tables with udder morphological traits

Based on a work within a EU contract “Genesheepsafety” (2000-2002), 3 tables are proposed (Sarda, Churra – Spanish ? – Lacaune)

Other tables may be added by other breeds/countries

Informative. Not normative.

Including udder traits in the guidelines

Content in the guidelines :

1/Explain the purpose

2/Describe the general principle : several traits to appraise the udder, progressive linear scale

3/Describe the existing tables : description of the traits, sketch of the udder to illustrate, photos ?

4/Explain that the traits must be chosen according to the specificity of the udder of each given breed

Including udder traits in the guidelines

Where in the guidelines :

Cattle : specific part (section 5 : conformation recording methods)

Sheep : section 2.2 = milk recording in sheep → **section 2.2 = performance recording in dairy sheep ?**

2.2.3 : ICAR guidelines on optional records

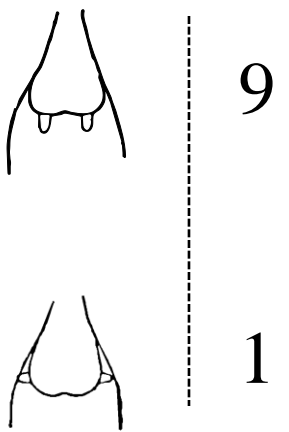
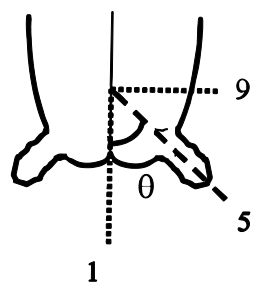
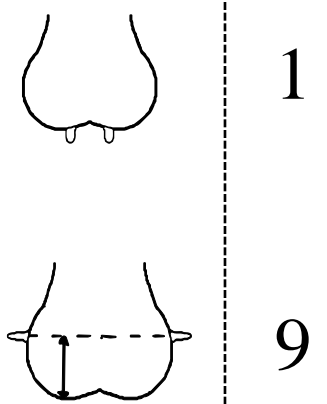
2.2.3.1. : Qualitative tests

← 2.2.3.2. : Udder traits appraisal

2.2.3.2. : Other types of testing

Who and deadline ?

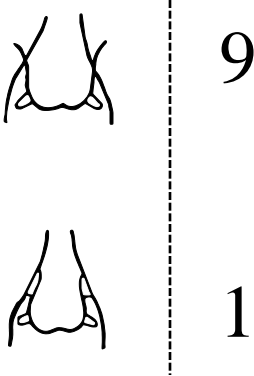
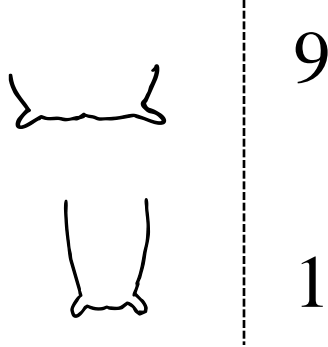
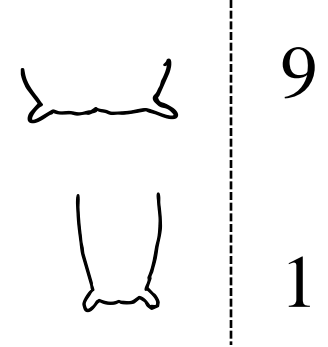
Including udder traits in the guidelines

| GENERAL TERMS (*) | Spanish Linear Scale De la fuente et al. 1996 | French Linear Scale Marie et al. 1999a | Italian Linear Scale Casu et al. 2000 |
|--|--|--|--|
| TEAT POSITION 1 or 9 = vertical 1 or 9 = horizontal |  Teat placement |  Right teat angle |  Udder cistern height |


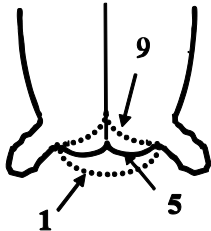
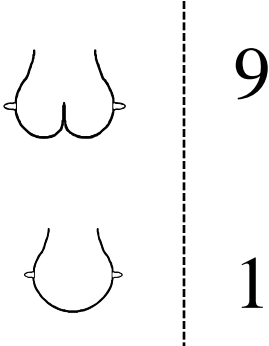
Including udder traits in the guidelines

| GENERAL TERMS (*) | Spanish Linear Scale De la fuente et al. 1996 | French Linear Scale Marie et al. 1999a | Italian Linear Scale Casu et al. 2000 |
|---|---|---|---|
| UDDER DEPTH 1 or 9 = shallow 1 or 9 = deep | <p>Diagram showing udder depth relative to the abdomen basis. The top diagram is labeled '1' and the bottom diagram is labeled '9'.</p> | <p>Diagram showing the distance between the udder floor and the hock. The top diagram is labeled '9' and the bottom diagram is labeled '1'.</p> | <p>Diagram showing the distance between the udder cleft and the hock. The top diagram is labeled '9' and the bottom diagram is labeled '1'.</p> |
| | Udder depth respect to abdomen basis | Distance between udder floor and hock | Distance between udder cleft and hock |

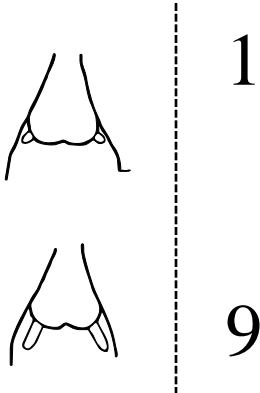
Including udder traits in the guidelines

| GENERAL TERMS (*) | Spanish Linear Scale De la fuente et al. 1996 | French Linear Scale Marie et al. 1999a | Italian Linear Scale Casu et al. 2000 |
|---|--|--|--|
| UDDER ATTACHMENT 1 = weak 9 = wide |  |  |  |
| | Perimeter of insertion to the abdominal wall | Ratio: udder height / attachment width | Ratio: udder height / attachment width |

Including udder traits in the guidelines

| GENERAL TERMS (*) | Spanish Linear Scale De la fuente et al. 1996 | French Linear Scale Marie et al. 1999a | Italian Linear Scale Casu et al. 2000 |
|--|---|---|--|
| UDDER CLEFT 1 = missing 9 = well marked |  |  <p>Furrow</p> |  <p>Udder separation</p> |

Including udder traits in the guidelines

| GENERAL TERMS (*) | Spanish Linear Scale De la Fuente et al. 1996 | French Linear Scale Marie et al. 1999a | Italian Linear Scale Casu et al. 2000 |
|---|--|--|---|
| TEAT SIZE 1 = short 9 = long | <div><div>1</div><div>9</div></div> <p>Teat size</p> | X | X |

Agenda 6

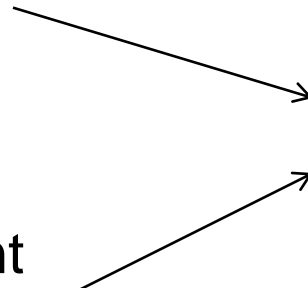
Relevance of the requirements about the sheep recording devices

⇒ Context of cooperation with SC on Recording Devices (1)

90's : proposition of requirements by the Sheep WG on the following basis :

low milk yield in sheep
compare to cattle

high fat & protein content
+ viscosity of milk



Limits (bias, standard deviation) **twice higher in sheep** than in cattle

Limits of error (milk yield & fat content)

| MILK YIELD | Cattle | Goats | Sheep |
|-----------------------|--|----------------|----------------|
| Bias | 2% or 0.2 kg | 3% or 25 ml | 3% or 25 ml |
| Standard deviation | 2.5% → 5% or 0.25 kg → 0,5 kg | 5% or 40 ml | 5% or 40 ml |

| FAT CONTENT | Cattle | Water buffaloes | Goats | Sheep |
|------------------------|--------|--------------------|-------|-------|
| Bias | 0.05% | 0.10% | 0.10% | 0.10% |
| Standard deviation | 0.10% | 0.20% | 0.20% | 0.20% |

Relevance of the requirements about the sheep recording devices

⇒ Context of cooperation with SC on Recording Devices (2)

| Before 2006 | 2006 | 2007 - 2009 |
|-----------------------------------|---|----------------------------|
| No device tested/agreed for sheep | First meters tested in sheep (on-farm electronic milk meters) | 2 meters passed ICAR tests |
| | Are the guidelines relevant for sheep ? | and portable milk meters ? |

▪ Requirements are relevant for sheep and do not have to be relaxed.

▪ Separate approval for goats & sheep

Co-operation within ICAR

Provisionally Approved milk meters for sheep and goats

| | | Meter | Manufacturer | Species |
|----------------------------|---|--|---|---------------|
| On-farm fixed meters | { | Afifree | SAE Afikim | Sheep & goats |
| | | Free Flow Meter SG Additional name: MM25 SG | SCR Engineers Ltd. Sold by DeLaval | Sheep & Goats |
| Portable meters | { | Lactocorder | WMB AG | Goats |

Co-operation within ICAR

Afifree



MM25 SG



Lactocorder



Relevance of the requirements about the sheep recording devices

⇒ Context of cooperation with SC on Recording Devices (3)

Cattle : demand of the manufacturers to relax the requirements (given development of on-farm meters and increase of number of measures)

| | Cattle (before) MILK YIELD | Cattle (before) FAT | Cattle (now) MILK YIELD | Cattle (now) FAT |
|--------------------|----------------------------------|------------------------|-------------------------------|---------------------|
| Bias | 2% or 0.2 kg | 4% or 80 ml | 2% or 0.2 kg | 4% or 80 ml |
| Standard deviation | 2.5% or 0.25 kg | 5% or 100 ml | 5% or 0.5 kg | 5% or 100 ml |

Relevance of the requirements about the sheep recording devices

⇒ Context of cooperation with SC on Recording Devices (3)

Sheep : demand of ICAR to study the possibility of relaxing the requirements in sheep

21 march 2009 : meeting with Ufe Lauritsen, Andrea Rosati & Frank Armitage. How to handle the question of decreasing the limits. My answer : (1) I repeat the specificity of sheep regarding milk recording, (2) I say there will be discussion within the WG.

Agenda 7

A glossary of terms

Done in beef working group

<http://www.icar.org/Documents/Glosary.pdf>

9 pages, about 180 terms

From generic terms (ex. allele, breed, clone, ASCII) to specific terms (ex. average daily weight gain, carcass composition)

A glossary of terms

Interest for dairy sheep working group ?

Defining **specific terms** or terms that somebody who would like to know by going straight to the point without reading the guidelines

Ex. total milk yield, total milk milked, total suckled + milked milk

Proposition

1/Identifying the relevant terms to be defined

2/Proposing a definition (on the basis of the guidelines)

OK or not OK ? Who ? Deadline ?

Agenda 8

MISCELLANEOUS

Recorded population - countries (ICAR 2007)

| countries | 1988 | 1994 | 1996 | 1998 | 2000 | 2002 | 2004 | 2008 |
|-------------|----------|----------|---------|------|------|------|------|-----------|
| Belgium | NR | 95 | | | | | | |
| Canada | | NR | | | | | | |
| Croatia | | | | | | | | |
| Czech | | | 75 | | | | | |
| France | 603,000 | 798,323 | 841,058 | | | | | |
| Germany | 356 | 1,460 | 1,237 | | | | | |
| Greece | 37,000 | 54,700 | 26,000 | | | | | Australia |
| Hungary | | 1,154 | 6,160 | | | | | Denmark |
| Israel | | 6,200 | 6,200 | | | | | Finland |
| Italy | 140,000 | 211,247 | 291,739 | | | | | |
| Netherland | NR | 3 flocks | 400 | | | | | Lux |
| Portugal | 7,600 | 21,448 | 38,571 | | | | | N Zealand |
| Slovak | | | 5,076 | | | | | Argentina |
| Slovenia | | 458 | 349 | | | | | |
| Spain | 110,000 | 90,757 | 174,597 | | | | | |
| Sweden | | NR | 113 | | | | | |
| Switzerland | 204 | 340 | | | | | | |
| Tunisia | 2,750 | 2,200 | | | | | | |
| UK | 2 flocks | NR | | | | | | |