

# Meeting of the ICAR Sheep, Goat and small Camelid Working Group (SGC-WG)

Edinburgh, UK, 12<sup>th</sup> June 2017

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## Agenda

- 1-Opening and welcome
- 2-Presentation of the SGC-WG and its Expert Advisory Group (EAG)
- 3-State of the art: what achievements of the former WG so far?
- 4-Meat recording EAG
- 5-Information on the fiber recording EAG
- 6-Information on the milk recording EAG
- 7-Genomic as a term of reference of the SGC-WG
- 8-Date of next meeting
- 9-Any other business
- 10-Closure

## **Agenda 1**

### **Opening and welcome**

13:30 – 18:00  
Ochil 3 Room

Usually, at each ICAR session:

- 1 meeting of the WG
- 1 technical session dedicated to small ruminants (at the same level of other technical sessions)

Different this year ...

### **Out of agenda : introducing ICAR**

#### **Introducing ICAR**

International Non Governmental Organization  
formed in 1951 in Rome

117 members from 57 countries

87 Full members & 30 associate members

# Out of agenda : introducing ICAR

What's behind the ICAR 'descriptor' ?

Network. Guidelines. Certification.

## ICAR Mission Statement

Mission of ICAR is to be the leading global provider of Guidelines, Standards and Certification for animal identification, animal recording and animal evaluation.  
 ICAR wants to improve the profitability, and sustainability of farm animal production by:

- Establishing and maintaining guidelines and standards for best practice in all aspects of animal identification and recording.
- Certifying equipment, and processes used in animal identification, recording and genetic evaluations.
- Stimulating and leading: continuous improvement, innovation, research, knowledge development, and knowledge exchange.

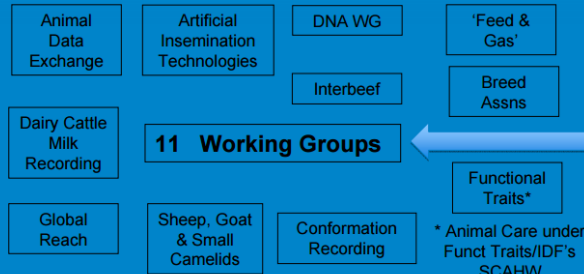
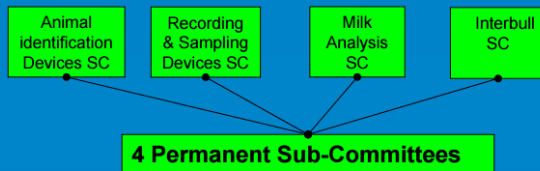


Network. Guidelines. Certification.

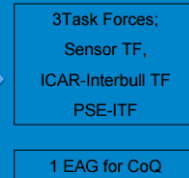
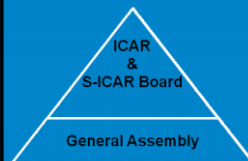
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# Out of agenda : introducing ICAR

## ICAR Technical Organisation 2017



### Administrative bodies



## Agenda 2

### Presentation of the SGC-WG and its Expert Advisory Group (EAG)

ICAR has been seeking to expand its role for Sheep and Goats to include meat, reproduction and maternal traits.

Formation of a Working Group that encompasses the interest of **Sheep, Goat and Small Camelid**.

The ICAR Board at its meeting on 19<sup>th</sup> July 2016 approved the Terms of Reference for the **SGC-WG** to replace the three existing groups

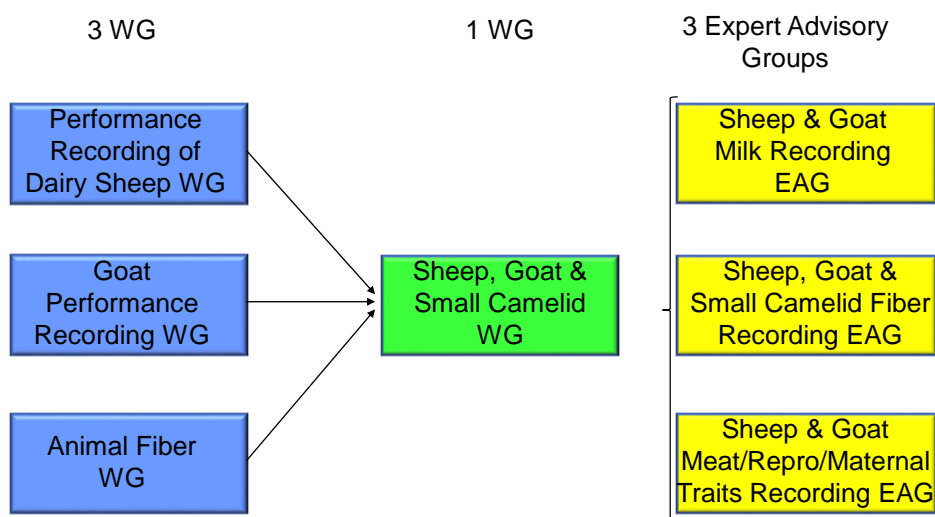
### SGC-WG : terms of reference

#### General considerations

- ✓ **To date**, the **focus** of ICAR activities for sheep & goats has mainly been **on milk recording** and the existing WG work closely together (joint meetings)
- ✓ **Animal fiber WG** covers small ruminants species (sheep, goats) and a range of small camelids including alpacas, llamas and vicunas.
- ✓ There is a **demand and need** for ICAR's guidelines to be extended to include **meat and wool production** especially from sheep.

## New organization of the Sheep, Goats and Fiber sector in ICAR

Approved by the ICAR Board at its meeting on 19<sup>th</sup> July 2016



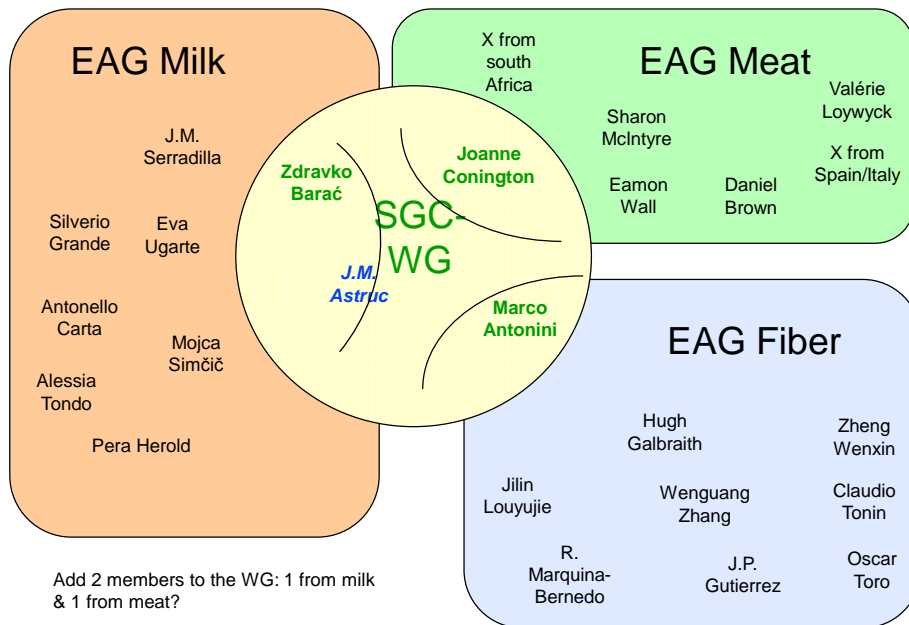
### SGC-WG : terms of reference

Objectives of the SGC-WG

For sheep, goats & small camelids :

- ✓ Provide a **forum for members of ICAR** to collaborate, exchange and learn on **performance recording and genetic evaluation**.
- ✓ Maintain, update, promote, extend **guidelines** for performance recording for traits relevant to decisions on : genetic improvement, farm management, quality assurance, animal health and welfare.
- ✓ Conduct and report results of periodic **international surveys** on performance recording and genetic evaluation
- ✓ **Develop and support services** relevant to SGC that service ICAR will provide to members of ICAR on a user-pays basis.
- ✓ Facilitate and co-ordinate **international collaboration in research and development** on performance recording & genetic evaluation

## SGC-WG : members



## SGC-WG : terms of reference

### Priorities

- To be established by the Committee taking into account of its ToR and any request from the ICAR Board
- Priorities in the next 5 years include :
  - ✓ Develop guidelines for the sheep and goat meat performance recording
  - ✓ Develop guidelines for the sheep and goat reproduction and maternal trait performance recording
  - ✓ Maintain and develop the ICAR guidelines for milk recording of sheep and goats
  - ✓ Maintain and develop the ICAR guidelines for fiber production from sheep, goats and small camelid
  - ✓ Genomics ?

## Agenda 3

### State of the art: what achievements of the former Working Groups so far?

#### Agenda / achievements

- ✓ **Guidelines:** update ICAR recommendations  
The core of ICAR purpose
- ✓ **Survey:** yearly enquiry on-line in dairy sheep and dairy goats  
Provide official figures to ICAR  
Establish the state of the art on different topics related to the ToR of the WG
- ✓ **Cooperation** with other relevant **ICAR bodies:**  
Working Groups, Sub-Committees  
Ex. For sheep & goat: SC Recording devices
- ✓ **Contact** with **non-ICAR** organizations  
CIHEAM, EAAP, non ICAR countries
- ✓ **Organize a technical session** at each ICAR Conference

# Guidelines

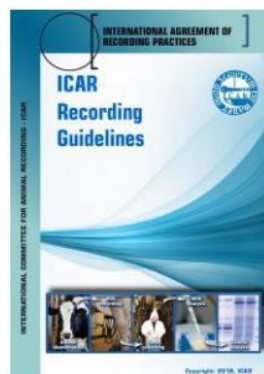
## ICAR Recording Guidelines

The last edition of the [ICAR Recording Guidelines](#) (Edition 2016) is available here as PDF file.

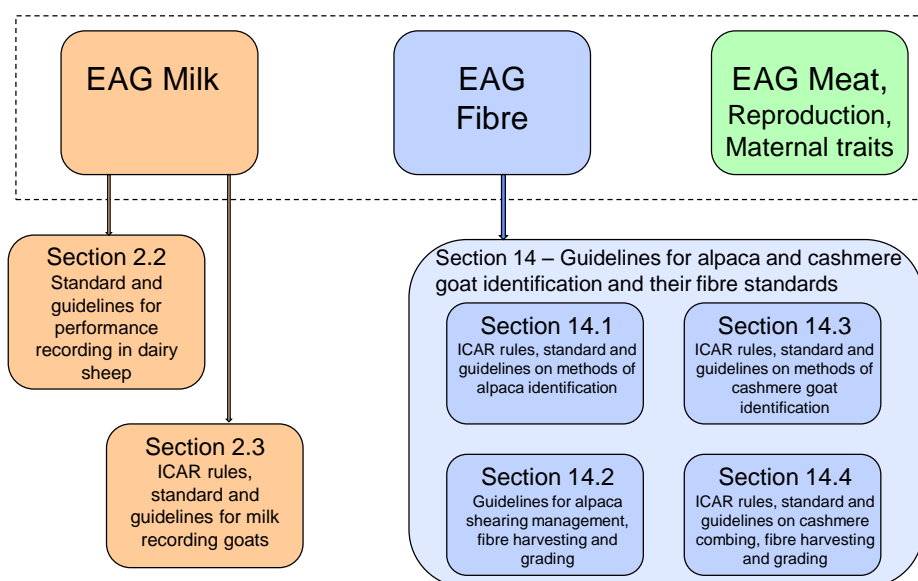
The Guidelines are published after their approval by the General Assembly voting the amendments presented by Sub-Committees and Working Groups.

Other documents related with the Guidelines are:

- The instructions (June 2016) on how to perform the "Periodic checking of approved meters. Hints for the sample taker and farmer" can be downloaded [here](#)
- The [Interbull Guidelines 2001](#) (about 150Kb) for National and International Genetic Evaluation Systems in Dairy Cattle with Focus on Production Traits are now available.



## SGC-WG : pictorial summary of guidelines linked with the WG





## On-line survey

### Milk recording surveys on cow, sheep and goats

ICAR takes care of the "Yearly enquiry on the situation and the results of cow, sheep and goat milk recording in ICAR member countries". Please consider that:

- the responsibility for the validation of the data is totally delegated to each country, whose e-mail address is reported in each field.
- submission of the data and their edition can be done only by the national contact point
- for submitting data, the Internet browser must accept cookies.
- report malfunctions of the database to Cesare Mosconi ([mosconi@icar.org](mailto:mosconi@icar.org))

Please use the following mask to browse the interested data:

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Goat milk recording	▼
2b. Milk yield result	▼
Italy	▼
<input type="button" value="Submit"/>	

[Goat survey](#)

[Dairy sheep survey](#)

## On-line survey

Publication on biennial statistics of cow milk, sheep milk, goat milk and beef recording: booklet with raw data



**Yearly survey on the situation of MILK RECORDING SYSTEMS (Years 2014 and 2015) in ICAR member countries for cow, sheep and goats**

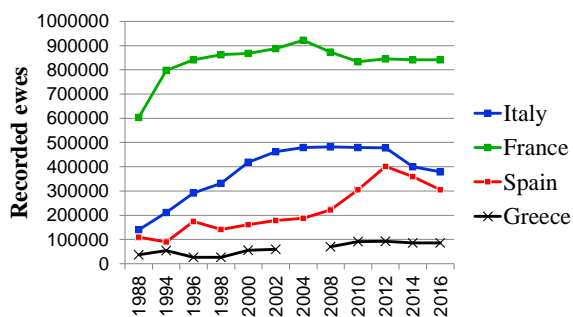


## On-line survey

Within the WG: synthesis and added-value presentation of results of the on-line survey

### Example 1

Evolution of number of recorded ewes in some ICAR countries (ICAR Puerto Varas 2016)

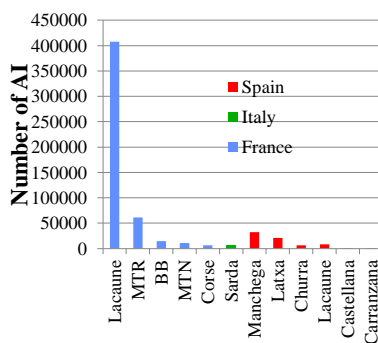


## On-line survey

Within the WG: synthesis and added-value presentation of results of the on-line survey

### Example 2

Number of AI (ICAR Puerto Varas 2016)



# ICAR website

**Page dedicated to the SGC-WG: to be completed**

You are here: [ICAR](#) > [TECHNICAL BODIES](#) > [WORKING GROUPS](#) > [Sheep, Goats and Small Camelids Working Group](#)

## Sheep, Goats and Small Camelids Working Group

The Working Group was endorsed at the 40th ICAR Biennial Session held in Puerto Varas and it is the result of the merging of three previous Working Groups ([Performance Recording of Dairy Sheep WG + Goat Performance Recording WG + Animal Fibre WG](#))

→ Link to the former WG and all the documents stored

This page shows introductory information about the Sheep, Goats and Small Camelids Working Group, the composition of the Working Group and documents related to the activities

### Chairperson

- [Jean-Michel Astruc](#), Institut de l'Elevage (IDEL), France

→ Add all the members. Should be done by ICAR Secretariat

### Documents

For this Working Group, the following documents are available:

- [Terms of Reference](#)
- [Minutes of the meeting of the WG in Puerto Varas on 25th October 2016](#)
- [Slides of the meeting of the WG in Puerto Varas on 25th October 2016](#)

→ Link to document of the SGC-WG

## Agenda 5

## Meat recording EAG

**Joanne ...**  
**+ Zdravko for survey**

## Agenda 6

### **Information on the fiber recording EAG (on behalf of Marco Antonini)**

From poster presented at the 3<sup>rd</sup> European Meeting on Animal Fibers (Assisi)



# GUIDELINE FOR THE ANIMAL FIBRE PRODUCTION IN ALPACA AND CASHMERE, AND NEW RULES FOR THE ORGANIZATION OF THE FIBRE AND FLEECE COLLECTION CENTERS

M. ANTONINI , I. PAZZAGLIA, C. NOCELLI, Y. LOU, N. THOMPSON,



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

The ICAR working group established on Alpaca and Cashmere fibre production, some guidelines on methods for identification of animals and shearing /combing, management, fibre harvesting and grading.



Define guidelines on the identification of the objective and criteria of selection in Alpaca breeding and open new guidelines on the definition of the animal fibre collection centers.

## ACTION 1

WG - EAG defined the *Guidelines on methods of Alpaca and Cashmere goat identification* according to the standards defined by the ICAR Animal Identification Sub-Committee adjusted at the animal extensive breeding systems according to:

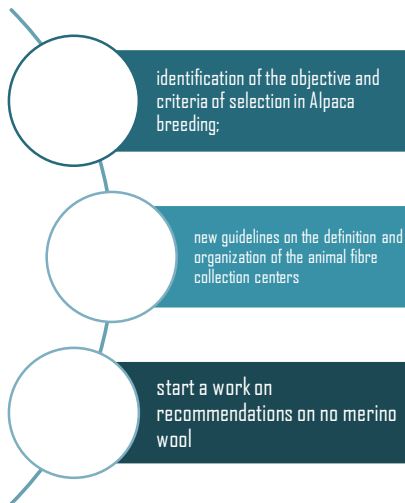
- ICAR general rules on alpaca identification
- ICAR standard methods of Alpaca identification
- Record of identification methods
- ICAR Standards for alpaca identities

## ACTION 2

*Guidelines for ALPACA and CASHMERE shearing /combing, management, fibre harvesting and grading*

- Clip preparation standard
- Structural needs
- Preparation for harvesting
- Harvesting process
- Grading and classing
- Packaging and transport

## FUTURE DIRECTIONS



## CONCLUSIONS

In the world Alpaca and Cashmere are the fibre production rejected without any rules and organization in spite of their high value with respect merino wool. ICAR wanted to support Alpaca and Cashmere goat breeders in animal breeding and in fibre production management in order to provide more adding value to their business.

In the future recommendations on no merino wool will be provide at all the sheep breeders not specialize in wool for environment problems and for economic reasons. Often no merino wool especially in Europe has been sheared and abandoned in the environment, producing strong impact. On the other hand, shepherds have to shear the sheep for welfare reasons each year at least. Good management of fleeces under ICAR rules should solve twice problems avoiding the abandonment of wool in the environment and giving an economic value at the no merino wool, at least to repay the clip costs.

## Agenda 7

### Information on the milk recording EAG

Activity since Puerto Varas: writing of updates of guidelines in goats

## Proposition to update guidelines in goats

**Krakow, 2015** : presentation by Agnès Piacère of method Liu adopted in France to estimate daily yield and content from a one-milking record

**Background & objectives** : (i) decrease the constraints, more flexible, simpler, less expensive ; (ii) avoid the need of alternating time of record (problem of AT); (iii) correction by Liu method OK, better than AT for daily yields/contents, as precise as AT for genetic evaluation

**Puerto Varas, 2016** : discussion on the principles of updating the guidelines: new methods, correction methods + frequency, # of visits, interval between kidding & test-days

⇒ Conclusions produced

⇒ Writing to be done for Edinburgh, 2017

## Nomenclature and symbols of existing protocols in the current guidelines in goats & dairy sheep

Official / non official	First letter	Second letter or number
Official	A   B   C   E	4   5   6   T   C
Non official	D	

A = official tester | B = farmer | C = official tester or farmer

E = flexible official method where rules of not recording suckling ewes may not be respected | rules of recording all animals may not be respected

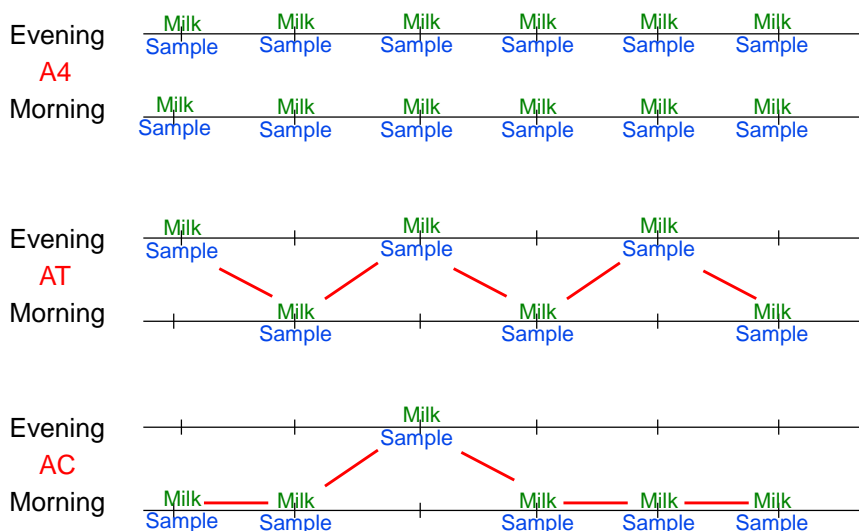
D = simplified, based on 2-4 visits/flock. No lactation, no EBVs

**A4 = reference method**

T = alternate monthly

C = corrected monthly

## Nomenclature and symbols of existing protocols in the current guidelines in goats & dairy sheep



## Proposition to update guidelines in goats (+ dairy sheep)

### Proposition agreed in Chile:

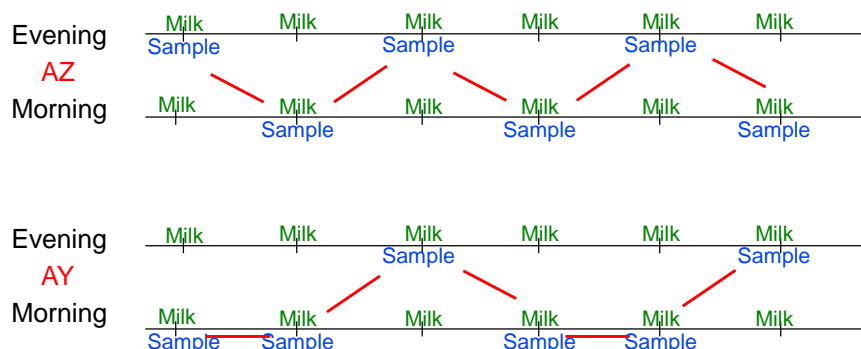
#### New methods :

**Z : alternate scheme**, with **milk yield from the two daily milking and only one-milking sampling alternately** the morning and the evening on the next recording visit. As the alternate scheme is realized, there is **no obligation to correct daily contents** in order to calculate fat yield and protein yield for the whole lactation.

**Y : milk yield from the two daily milking and only one-milking sampling** that occur **at any milking** at each recording visit; this scheme **implies to use a correction method** among those described to estimate the daily fat and protein contents.



## Nomenclature and symbols of existing protocols in the current guidelines in goats & dairy sheep



## Proposition to update guidelines in goats (+ dairy sheep)

### Proposition agreed in Chile:

#### Correction method :

- Different correction methods may be listed in the guidelines (ex. Liu method).
- It is up to the ICAR member to describe precisely the correction method in its own situation (ex. France explains as it is below).

Separate regressions for combinations of :  $y_{Day}^{[ijk]} = b_0^{[ijk]} + b_1^{[ijk]} y_{Test}^{[ijk]} + e^{[ijk]}$

Trait	Nb of classes	Class definition
Parity	2	1 <sup>st</sup> lactation, 2 <sup>nd</sup> and later lactations
Lactation stage (in months)	10	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 +
Milking interval (time duration)	5 AM: 5 PM:	≤ 12.5h long; 12.5h to 13h ; 13h-13.5h; 13.5h-14h; ≥14h long ≥ 11.5h long; 11h-11.5h; 10.5h-11h; 10h-10.5h; ≤10h long

## What has been done with regards to the conclusion at last meeting?

	Proposition discussed & agreed in Chile	Guidelines updated ?
new methods	Add Z : alternate scheme, with milk yield from the two daily milking and only one-milking sampling alternately the morning and the evening on the next recording visit. As the alternate scheme is realized, there is no obligation to correct daily contents in order to calculate fat yield and protein yield for the whole lactation.	yes §2.3.9
	Add Y : milk yield from the two daily milking and only one-milking sampling that occur at any milking at each recording visit; this scheme implies to use a correction method among those described to estimate the daily fat and protein contents.	yes §2.3.9
correction method	Different correction methods may be listed in the guidelines (ex. Liu method).	yes §2.3.9
	It is up to the ICAR member to describe precisely the correction method in its own situation	yes §2.3.9

## What has been done with regards to the conclusion at last meeting?

frequency & number of milk recording visits	Add the interval of 7 weeks for the reference method	yes §2.3.9
	For the simplified method with records at one milking only (T, C, Z, Y), it is up to each member country to accept an interval larger than 4 weeks. It might depend on the lactation length of the breed (for example, in goats, some breeds have short lactation length as observed in sheep)	yes §2.3.9
Lower and upper bound in intervals between visits	In section 2.2 (sheep) and 2.3 (goats), the intervals are defined by an average recording interval, without any lower not upper bound. It is OK = it must be possible to tighten the intervals (example : for experimental reasons).	already in the guidelines
	≠ in section 2.1 and especially 2.1.2 (ICAR standards for recording intervals) where there are lower and upper bounds	to be corrected later
Tolerance regarding the interval between lambing/kidding and first test-day and between 2 consecutive test-days	It is up to each country/breed/breed society to describe the tolerance accepted in its situation about : •Interval between lambing/kidding and first test-day; •Interval between 2 consecutive test-days	yes §2.3.8.2

# Proposition of writing in goat guidelines

## 2.3.9 Frequency and number of milk recording visits

### 2.3.9.1 For the flock

In the case of record of the two daily milking, the average recording interval (days) between two successive milk recording for a flock is monthly (30 days, with a range from 28 to 34 days) for A4, B4, C4 or ~~E~~D4 method, and it can reach 36 days for A5, B5, C5 or ~~E~~D5, and 42 days for A6, B6, C6 or ~~E~~D6 and 49 days for A7, B7, C7 or E7 method.

Methods with -ff record at only one daily milking (either for milk & samples or only for milk) are named by the second letter (after the first letter A, B, C or E). They are defined as follows:

In the method T for alternate (AT, BT, CT, ET), there is no obligation to correct daily yield (except multiplying by 2) and content in order to calculate milk, fat and protein yield for the whole lactation. Nevertheless, correction is possible.

In the method C for corrected (AC, BC, CC or EC), recording and sampling occur at any milking at each recording visit. This scheme implies to use a correction method among those described to estimate the daily production of milk, fat and protein.

# Proposition of writing in goat guidelines

The Z method (AZ, BZ, CZ, EZ) is an alternate method for sampling while milk yield is recorded at all the milkings. As the alternate scheme is realized, there is no obligation to correct daily contents in order to calculate fat yield and protein yield for the whole lactation.

In the Y method (AY, BY, CY, EY), sampling occur once a day at any milking at each recording visit while milk yield is recorded at all the milkings. This scheme implies to use a correction method among those described to estimate the daily production of fat and protein.

The correction method must be chosen among one the following listed method (Liu method, xxx). It is up to the ICAR member to describe precisely the correction method used.

~~is recorded (AT, BT, CT, DT, AC, BC, CC or DC method). In those methods with record and/or sampling at one daily milking, ICAR recommends that the average recording interval beis monthly (30 days), as for the A4 method (considered as the standard method). But higher intervals (5, 6 or 7) are possible depending on the lactation length. It is up the each ICAR member to decide which intervals are allowed within breeds.~~

-There is no minimum interval, so supplementary testing can be carried out when necessary due to the way the kidding is spread out (e.g.: a fortnight to three weeks between two successive tests).

## Proposition of writing in goat guidelines

Method	Recording interval (weeks)	Recording interval (days)		
		Average	Min.	Max.
A4 / B4 / C4 / <u>ED</u> 4	4	30	28	34
A5 / B5 / C5 / <u>ED</u> 5	5	36	32	40
<u>A6 / B6 / C6 / E6</u>	<u>6</u>	<u>42</u>	<u>38</u>	<u>46</u>
<u>A76 / B76 / C76 / ED76</u>	<u>76</u>	<u>492</u>	<u>4538</u>	<u>5346</u>
AT / BT / CT / <u>ED</u> T	4	30	28	34
<u>AC / BC / CC / EC</u>	<u>4</u>	<u>30</u>	<u>28</u>	<u>34</u>
<u>AZ / BZ / CZ / EZ</u>	<u>4</u>	<u>30</u>	<u>28</u>	<u>34</u>
<u>AYG / BYG / CYG / EDYG</u>	4	30	28	34

The above intervals between 2 consecutive test-days may be changed if the breed society, for its breed, justifies other bounds of the allowed intervals.

## Proposition of writing in goat guidelines

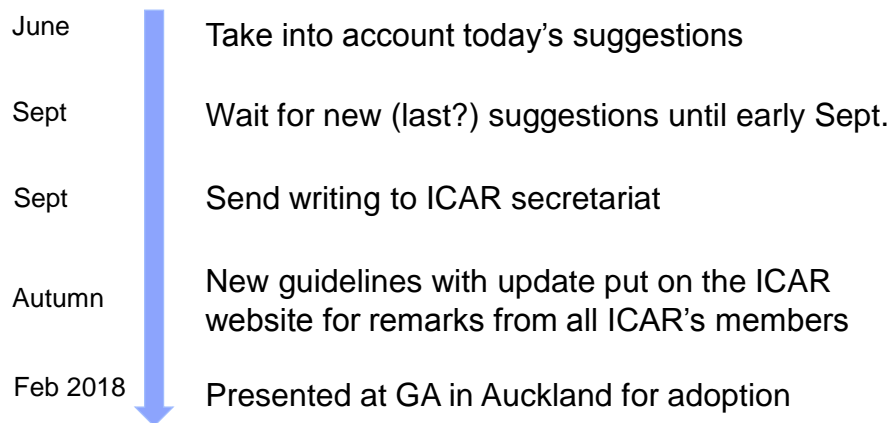
### 2.3.13.1 Obligatory results

It is obligatory to provide the following results for a given breed and a given year or milk period:

#### 2.3.13.1.1 Information on the milk recording and calculation methods

- Organizations responsible for the milk recording
- Method of quantitative recording used: method A4, B4, C4 or D4, E4, A5, B5, C5 or ED5, A6, B6, C6 or ED6, AT, BT, CT, EDT, AC, BC, CC or EDC, AZ, BZ, CZ or EZ, AY, BY, CY or EY. For method with correction of milk and or fat/protein, the method must precisely described.
- Unit of measurement used for milk quantity: liters or kilos
- Type of milk recording equipment (milk meter...) used: to be described

## Next steps?



### Agenda 8

## Genomics as a term of reference of the SGC-WG

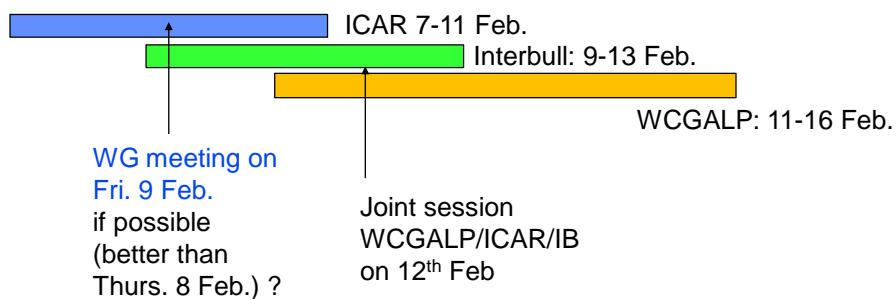
## Agenda 9

### Any other business

## Agenda 10

### Date of next meeting

41<sup>st</sup> ICAR Biennial Session : Auckland (NZ) on 7-11 February 2018  
Conferences start on Sat. 10 Feb.



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Czech Republic : 2019  
The Netherlands : 2020

+ possible WebConf meeting of the  
SGC-EAG (not scheduled so far)

## **Agenda 11**

### **Closure**