

American Embryo Transfer Association

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Guidelines & Recommendations for Embryo Identification

(Revision 2.1 - updated 10/12/2023)

General Considerations:

- Use at least one space between each item of information to facilitate ability to read. **Strongly recommended**
- Use an “E” as the character immediately *preceding* the practitioner’s IETS Freeze Code on the straw labels, cane tops, canes & goblets, in order to eliminate confusion with embryo straw #, donor ID, etc. **REQUIRED**
- IETS Stage & Grade codes are NOT required on straw labels, but ARE **Strongly Recommended**. If used, put in parenthesis.
- Loading only 1 embryo per straw is **Strongly Recommended**, regardless of cryoprotectant. It IS allowable, however, to freeze/vitrify more than 1 embryo per straw. Straw label does NOT require # of embryos per straw, *unless* more than 1 embryo per straw is loaded.
- Cane tab on top of cane must have a unique cane number & practitioner’s IETS Freeze Code. **REQUIRED**
- Side of cane must have unique cane #, donor’s barn name or number and sire’s name or stud code. **REQUIRED**
- Mechanically printed straw, cane &/or goblet labels are **Strongly Recommended**
- Labeling of embryos produced by certified practitioners must follow IETS requirements as a *minimum* standard.
- The new IETS recommendation is to put all information in **the specific order of the 2- or 3-line format** shown below.
- Head of cane / cane tab, top & bottom goblets and straw extension / ID plug should be in the following colors as **REQUIRED** (summarized from IETS Manual, 5th Ed., Ch. 9, pg. 128):
 - **Yellow** – Direct Transfer (DT) embryos
 - **White** – NON-Direct Transfer embryos
 - **Light Blue** – Vitrified embryos (the use of this color indicates the method of cryopreservation, & thus, supersedes the use of Yellow, even if the embryo is vitrified for DT, but should be labeled “DT-VIT”).

Straw labeling in recommended order (2-line printer)

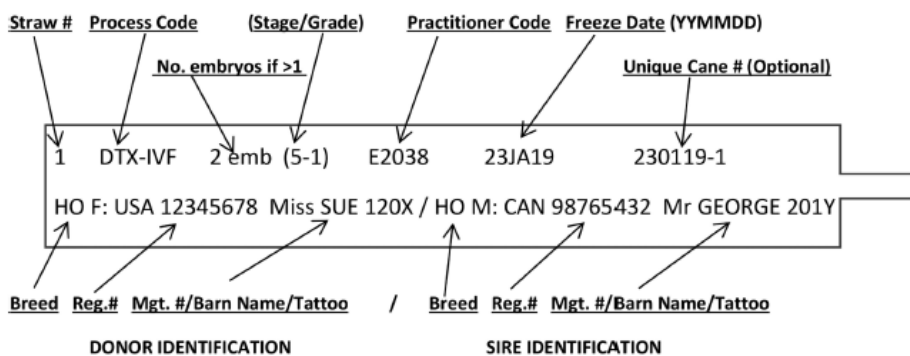
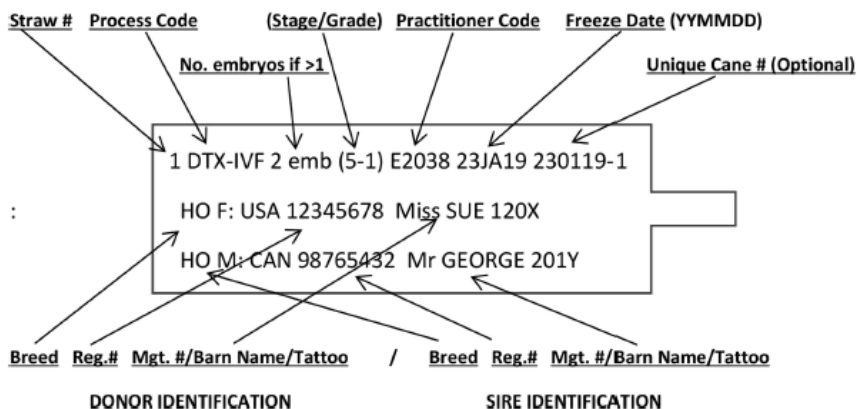


Figure 1. Straw labels:

Identification of embryos, in this case, IVP bovine embryos on a straw for direct transfer, made with female sexed semen (printed on two or three lines). If the straw has not been frozen for direct transfer, omit “DT” and remainder of the code applies. If vitrified, add “VIT” by itself or with any other code that applies (e.g., DT-VIT-IVF).

Straw labelling in recommended order (3-line printer)



Donor/sire identification must include breed code, gender (F/M) if not part of reg. #, country code, and registration number, in that order.

Number of embryos is only necessary if more than 1. (Unique cane # & embryo stage / grade are optional).

IETS CODES for:

STAGE OF DEVELOPMENT

| No. | Stage |
|-----|-----------------------------|
| 1 | Unfertilized |
| 2 | 2- to 12-cell |
| 3 | Early Morula |
| 4 | Morula |
| 5 | Early Blastocyst |
| 6 | Blastocyst |
| 7 | Expanded Blastocyst |
| 8 | Hatched Blastocyst |
| 9 | Expanded Hatched Blastocyst |

QUALITY OF EMBRYOS

- Code 1. Excellent or Good
- Code 2. Fair
- Code 3. Poor
- Code 4. Dead or degenerating

Refer to IETS Manual, Fourth Edition, Chapter 9, for description of codes.

MANIPULATION OF EMBRYOS

- N - Not Manipulated
- D - Divided
- F - Female by Biopsy
- M - Male by Biopsy
- U - Sex Undetermined by Biopsy

Use comment column to describe other biopsies.

SEXED SEMEN

- X - Female
- Y - Male

MONTH

| | |
|-----------|----|
| January | JA |
| February | FE |
| March | MR |
| April | AP |
| May | MY |
| June | JN |
| July | JY |
| August | AU |
| September | SE |
| October | OC |
| November | NO |
| December | DE |

Side of Cane must contain:

1. Unique cane number
2. Donor name or ID # (or ID of cell line for clones)
3. Number of embryos in the goblet
4. If repackaged, a cane suffix A, B, C, etc.

Goblets must contain:

1. Unique cane number
2. IETS freeze code (practitioner/team freezing the embryos)
3. Date of freezing, format as YYMMDD (numeric/alpha/numeric)
4. Breed code, ID number and name of donor female
5. Breed code, ID number and name of donor male
6. ID of cell line for clones

Head of cane must contain:

1. Unique cane number
2. IETS freeze code (practitioner/team freezing the embryos)

Optional:

- Donor name or ID #
- Number of embryos remaining in the goblet

Processing Codes:

- DT = Direct transfer in vivo-derived**
- DT-IVF = Direct transfer in vitro-produced**
- DTX = Direct transfer sexed semen – Female**
- DTY = Direct transfer sexed semen – Male**
- DTX-IVF = Direct transfer sexed semen – Female-IVF**
- DTY-IVF = Direct transfer sexed semen – Male-IVF**
- DTF-IVF = Direct transfer embryo biopsied – Female-IVF**
- DTM-IVF = Direct transfer embryo biopsied – Male-IVF**
- DTB = Direct transfer embryo biopsied**

Figure 2. Cane, goblet & head of cane:

