

LIVESTOCK EMBRYO TRADE: STATISTICS AND SANITARY LEGISLATION

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Introduction

Livestock embryo trade is a practice in constant progress nowadays. Embryos allow the selection and cryopreservation of the best genetics and sets them up for international trade and germplasm bank building.

Some applications are: vulnerable species protection, disease transmission and zoonosis reduction and reproductive upgrade.

Legislation

Commission Delegated
Regulation (EU) 2020/686

Regulation (EU)
2016/429

RD/2021 DRAFT

RD 841/2011

Commission Implementing
Regulation (EU) 2020/999

Objectives

- Analyse the current situation for livestock embryo trade through updated statistics and legislation.
- Learn about identification, relevance and prevention of sanitary risks associated to embryo trade.

Statistics

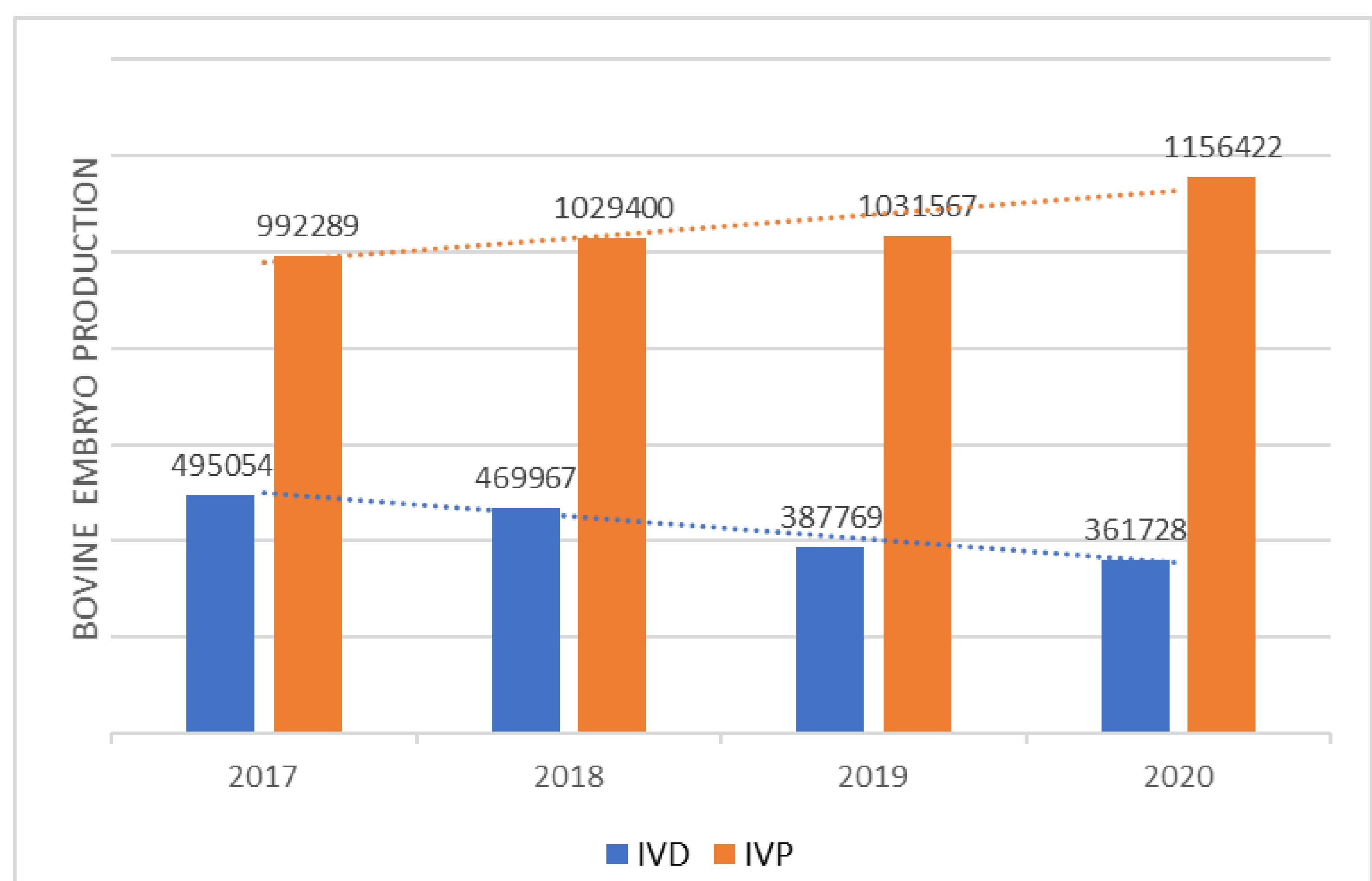


Figure 1. Bovine 2017-2020 embryo production. IVD: *in vivo*-derived; IVP: *in vitro*-produced.

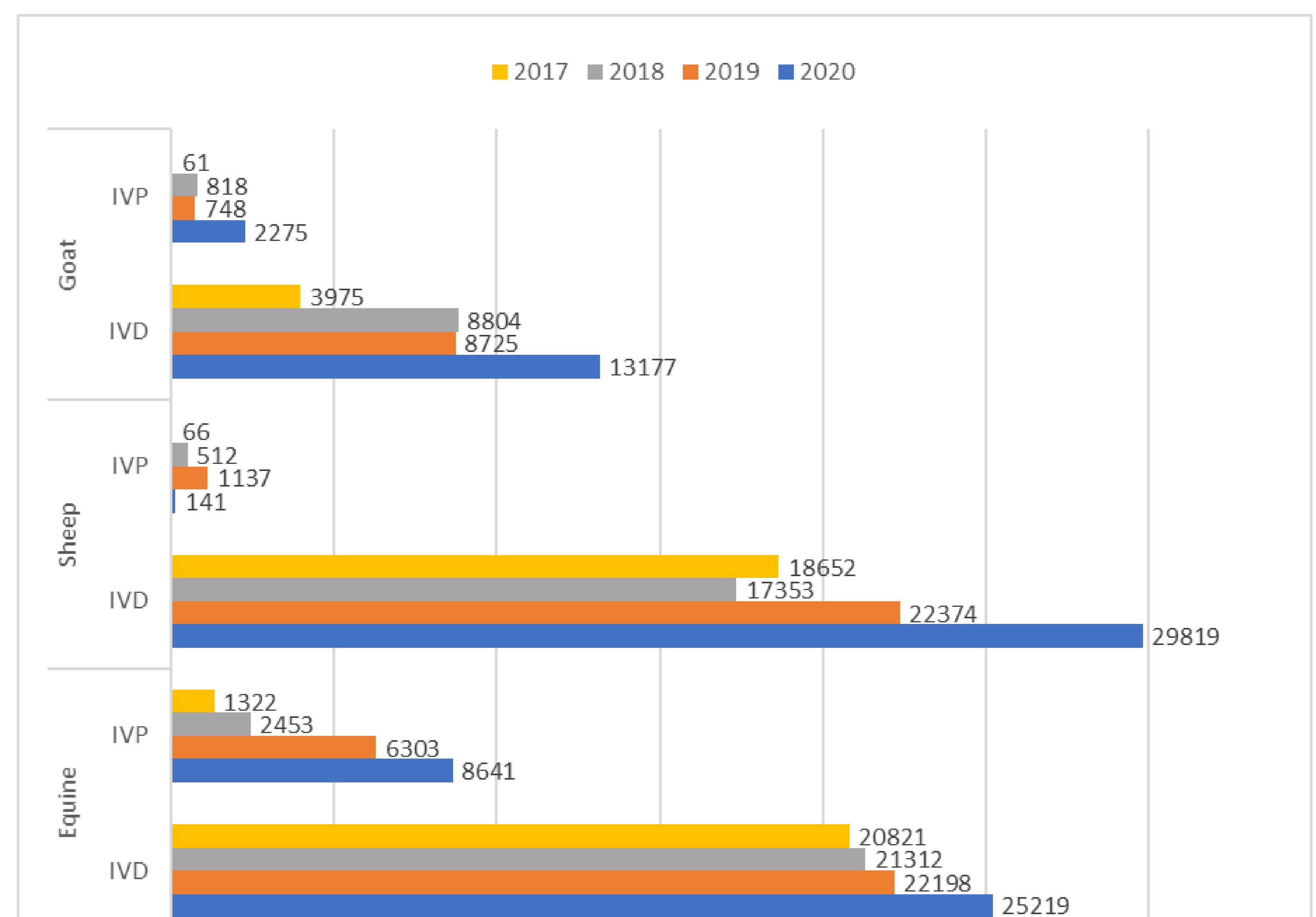


Figure 2. Sheep, equine and goat 2017-2020 embryo production. IVD: *in vivo*-derived; IVP: *in vitro*-produced.

Sanitary Protocols

- Zona pellucida (ZP) microscopic evaluation (50X).
- Embryo selection.
- Embryo washing procedure (PBS+BSA+AB).
 - 10 embryos/wash
 - Same donor of origin
- Trypsine exposition for potentially ZP-adherent pathogen removal (e.g., *Brucella ovis*, *Escherichia coli*).



Figure 3. Selected embryos for washing protocols (IETS 2009)

Conclusions

- Embryo trade enhances livestock genetics.
- Statistics show a favorable future for the industry.
- Embryo transfer is a safe procedure supported by legislation that ensures its efficient, ethical and sanitary performance.