

TECHNICAL REPORT: PREGNANCY RATES EVALUATION AFTER LARGE SCALE TRANSFER OF IN VITRO PRODUCED AND VITRIFIED BOVINE EMBRYOS FROM DIVERSE BREEDS



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Introduction

There is a growing commercial interest in Brazil for the cryopreservation of *in vitro* produced (IVP) bovine embryos, since this technique allows commercializing and transporting of bovine superior genetic inside the country and abroad. We present herein the results obtained during one year of routine bovine embryo IVP with the use of vitrification of expanded blastocysts.

Results

Results were obtained at 26 routines (at different days or farms) during the period of one year. A number of 845 embryos were produced, which 41% were from Zebu breed, 2% from taurine breeds, and 57% crossbreed of Zebu and taurine (Girolando). From the transfer of these embryos, 152 pregnancies were obtained from vitrified Zebu embryos (42% pregnancy rate), seven pregnancies from vitrified taurine embryos (41% pregnancy rate), and 175 pregnancies from Girolando embryos (35%). Our laboratory results for pregnancy after fresh transfer of 34,000 embryos in the same period was 43%.

Material and Methods

Vitrification was the cryopreservation technique chosen by this company after several field experiments. Vitrification protocol included the use of Cryotop with ethylene glycol (EG) and dimethyl sulfoxide (DMS) as cryoprotectants.

Conclusion

These results show that nowadays it is possible to obtain satisfactory results of pregnancy rates from cryopreserved IVP Zebu and taurine embryos, compared to IVP embryos of fresh transfer.

	Cryopreserved Embryos			Fresh Embryos
	Zebu	Taurine	Girolando	
Nº transfered embryos	362	17	494	34.000
Nº pregnancies (%)	152 (42)	7 (41)	175 (35)	14.620 (43)

Keywords: bovine, embryo, in vitro fertilization, vitrification.