



## SUMMARY OF EMBRYO TRANSFER ACTIVITY IN CANADA FOR 2021

Prepared by Dr. Reuben Mapletoft, University of Saskatchewan and Karen McDermott, CETA/ACTE  
(Based on data from 54 clinics across Canada)

<b>BOVINE DATA</b>			
<i>(Based on data from 52 clinics across Canada)</i>			
<b>BOVINE: IN VIVO DATA</b>			
<b>DONORS – EMBRYOS – FROZEN - TRANSFERS</b>	<b>DAIRY</b>	<b>BEEF</b>	<b>TOTAL NUMBER</b>
Number of donors using conventional semen	2117	3130	<b>5247</b>
Number of donors using sexed semen	2703	28	<b>2731</b>
<b>TOTAL NUMBER OF DONORS</b>	<b>4820</b>	<b>3158</b>	<b>7978</b>
Total number of ova/embryos collected	51,317	41,069	<b>92,386</b>
Number of transferable embryos collected using conventional semen	12,262	22,472	<b>34,734</b>
Number of transferable embryos collected using sexed semen	16,434	80	<b>16,514</b>
<b>TOTAL NUMBER OF TRANSFERABLE EMBRYOS COLLECTED</b>	<b>28,696</b>	<b>22,552</b>	<b>51,248</b>
<b>TOTAL NUMBER OF EMBRYOS FROZEN</b>	<b>18,892</b>	<b>17,862</b>	<b>36,754</b>
<b>TOTAL NUMBER OF FRESH EMBRYOS TRANSFERRED</b>	<b>9,619</b>	<b>4,321</b>	<b>13,940</b>
Number of fresh sexed embryos transferred ( <i>sexed by biopsy</i> )	1	0	1
Number of fresh sexed embryos transferred ( <i>sexed using sexed semen</i> )	5,276	27	5,303
<b>TOTAL NUMBER OF FRESH SEXED EMBRYOS TRANSFERRED</b>	<b>5,277</b>	<b>27</b>	<b>5,304</b>
Number of frozen embryos transferred by Direct Transfer	12,062	11,219	23,281
<b>TOTAL NUMBER OF FROZEN EMBRYOS TRANSFERRED</b>	<b>12,091</b>	<b>11,243</b>	<b>23,334</b>
Number of frozen sexed embryos transferred ( <i>sexed by biopsy</i> )	95	5	100
Number of frozen sexed embryos transferred ( <i>sexed using sexed semen</i> )	3,567	38	3,605
<b>TOTAL NUMBER OF FROZEN SEXED EMBRYOS TRANSFERRED</b>	<b>3,662</b>	<b>43</b>	<b>3,705</b>
<b>PREGNANCY RATES</b>	<b>DAIRY</b>	<b>BEEF</b>	<b>TOTAL NUMBER</b>
Fresh embryos ( <i>based on 4,745 transfers examined for pregnancy</i> )	---	---	<b>57.5 %</b>
Frozen embryos ( <i>based on 6,142 transfers examined for pregnancy</i> )	---	---	<b>53.6 %</b>
<b>EXPORT / IMPORT</b>	<b>DAIRY</b>	<b>BEEF</b>	<b>TOTAL NUMBER</b>
Total number of embryos exported	3,405	4,805	<b>8,210</b>
Total number of embryos imported	25	289	<b>314</b>
<b>BOVINE – OTHER TECHNOLOGIES (IN-VIVO):</b>			<b>TOTAL NUMBER</b>
Total number of split embryos transferred			<b>311</b>
Total number of embryos biopsied for sexing			<b>93</b>



<b>BOVINE: IN VITRO (IVF) DATA</b>						
<b>OPU/IVF SESSIONS OOCYTES - EMBRYOS PRODUCED</b>	<b>Produced by OPU Non-Stimulated</b>		<b>Produced by OPU Super-Stimulated</b>		<b>Produced from ABATTOIR OVARIES</b>	<b>TOTAL NUMBER</b>
	<b>DAIRY</b>	<b>BEEF</b>	<b>DAIRY</b>	<b>BEEF</b>		
Number of sessions using conventional semen	0	0	3285	1155	---	<b>4440</b>
Number of sessions using sexed semen	2	0	722	59	---	<b>783</b>
<b>TOTAL NUMBER OF SESSIONS</b>	<b>2</b>	<b>0</b>	<b>4,009</b>	<b>1,214</b>	<b>---</b>	<b>5,223</b>
Total number of oocytes collected	21	0	45,404	17,115	2,095	<b>64,635</b>
<b>TOTAL NUMBER OF TRANSFERABLE IVP EMBRYOS PRODUCED</b>	<b>0</b>	<b>0</b>	<b>22,590</b>	<b>6,338</b>	<b>501</b>	<b>29,429</b>
<b>IVF EMBRYOS FROZEN - TRANSFERRED - EXPORTED</b>						
	<b>Produced by OPU</b>		<b>Produced from ABATTOIR OVARIES</b>	<b>TOTAL NUMBER</b>		
	<b>DAIRY</b>	<b>BEEF</b>				
Total number of IVP embryos frozen	13,209	5,790	353	<b>19,352</b>		
Total number of fresh IVP embryos transferred	4,557	279	0	<b>4,836</b>		
Total number of frozen IVP embryos transferred	2,684	1,227	0	<b>3,911</b>		
Total number of IVP embryos exported	1,424	181	0	<b>1,605</b>		
Total number of IVP embryos imported	0	107	0	<b>107</b>		
<b>BOVINE – OTHER TECHNOLOGIES (IN-VITRO)</b>						<b>TOTAL NUMBER</b>
Total number of split IVP embryos transferred						<b>276</b>
Total number of IVP embryos biopsied for sexing and/or genetic testing						<b>10,401</b>

<b>ALTERNATIVE SPECIES</b>			
<i>(Based on data from 4 clinics across Canada)</i>			
<b>ALTERNATIVE SPECIES – IN VIVO</b>			
<b>DONORS - EMBRYOS – FROZEN - TRANSFERS</b>	<b>CAPRINE</b>	<b>EQUINE</b>	<b>OVINE</b>
Total number of donors	<b>15</b>	<b>39</b>	<b>24</b>
Total number of ova/embryos collected	<b>136</b>	<b>---</b>	<b>159</b>
Total number of transferable embryos collected	<b>43</b>	<b>19</b>	<b>76</b>
Total number of embryos frozen	<b>37</b>	<b>1</b>	<b>48</b>
Total number of fresh embryos transferred	<b>4</b>	<b>18</b>	<b>28</b>
Total number of frozen embryos transferred	<b>0</b>	<b>1</b>	<b>420</b>
<b>EXPORT / IMPORT</b>	<b>CAPRINE</b>	<b>EQUINE</b>	<b>OVINE</b>
Total number of embryos exported	<b>0</b>	<b>0</b>	<b>0</b>
Total number of embryos imported	<b>0</b>	<b>0</b>	<b>6</b>
<b>NO DATA REPORTED for BISON, CERVINE and PORCINE SPECIES</b>			