

## **Annual Report of the AETA Statistics Committee**

The 2004 US ET industry statistics have been compiled and analyzed. The committee would like to thank all the AETA members for their cooperation in filling out the questionnaire. Anonymity was maintained throughout the process by having Jennifer Gavel of FASS designate ETB numbers so that names of ETBs did not accompany the completed stat sheets, which were mailed to the stats committee.

This year's questionnaire was more comprehensive than in the past. Consequently, the report of the committee is more thorough. If we're going to ask it, we're going to report it. While recovering data from the questionnaires it was apparent that some of the questions were unnecessary and that some of the questions were confusing. For example, one of the most important questions asked, the number of frozen embryos transferred, was hidden under the category of Pregnancy Data. As a result nearly 25% (likely those who had no intention of submitting preg rate data) of all ETBs reported zero frozen transfers, which was an erroneous omission. Jennifer had to re-collect that data from some of you and the committee apologizes for the confusion. The committee will address those issues before next year's questionnaire is sent to the membership.

Pregnancy rate data is perhaps the most unscientific portion of the questionnaire. That's not unique to this year's data. Less than half of the ETBs reported preg rates for the various categories and less than 20% listed the number of recipients palpated open and bred. Since very few ETBs charge by the pregnancy, it is often difficult to obtain the data. Many ETBs that did report preg rate data made the remark "estimated" in their questionnaire. With the consent of the Board of Directors, the committee will not ask for preg rate data next year.

Collecting stats from ETBs has its problems. Conversely, it's a big thorn in the side of nearly every ETB to have to report. The biggest holdup seems to be consistency relative to what's asked from year to year. If an ETB knew what data the committee needed ahead of time, it could tabulate data on a daily basis directly from the ABC forms especially if there was a programmed spreadsheet available to the membership. This would lighten the load of the ETB every year, plus make the Stats Committee report available by the end of March instead of September or October. The committee will do its best to create an electronic spreadsheet by the September convention. The committee would like to acknowledge Partnar Animal Health. Partnar Animal Health donated a 5% off coupon for every report turned in on time, plus a generous donation to the Romanian Embryo Transfer project.

## The Report

Generally speaking this report will be a compilation of Tables listed by category so that each ETB can look at as much of the data as possible. When appropriate, comments will be made to bring attention to specific data. Also, 2004 data will be compared to 2003 data whenever possible.

Regions Defined:

Northeast = MD, ME, NY, OH, PA, VT, CT

Southeast = GA, KY, MS, NC, TN, VA

North Central = IL, IA, IN, MI, MN, NE, WI

South Central = CO, KS, LA, MO, OK, TX

Northwest = ID, UT, MT, OR, WA, WY

Southwest = CA, NM

Report prepared by Jeanne Reyher, Reyher Embryonics, AETA Stats Committee Chair and Brad Stroud, DVM, AETA Stats Committee member.

The following states have no ETBs reporting:

Nevada, Arizona, North Dakota, South Dakota, Arkansas, Alabama, Florida, South Carolina, West Virginia, New Hampshire, Massachusetts, Rhode Island, Delaware, New Jersey, Alaska, Hawaii

## ETB Data:

**Table 1. ETBs reporting**

Region	CERT YES?	CERT NO?	ETBs Reporting
Northeast	20	1	21
Southeast	14	1	15
North Central	29	1	30
South Central	17	2	19
Northwest	12	1	13
Southwest	4	1	5
<b>Totals</b>	<b>96</b>	<b>7</b>	<b>103</b>

**103 total ETBs reported data for 2004 year. That's one less than a year ago.**

**Table 2. Full Time vs. Part Time ETBs**

Region	FULLTIME	PARTIME
Northeast	8	13
Southeast	5	18.4
North Central	13	14
South Central	14	5
Northwest	3	10
Southwest	2	3
Totals	45	63.4

**45 of 103 (44%) ETBs reporting devote nearly 100% of their business efforts towards ET. A year ago 57% were full time embryo transfer businesses.**

**Table 3. Staffing**

Region	PROF STAFF	PRO STAFF/ETB	SUPPORT STAFF	Support Staff per ETB
Northeast	21.68	1.03	14.50	0.69
Southeast	18.40	1.23	20.60	1.37
North Central	39.40	1.31	92.33	3.08
South Central	22.45	1.18	40.80	2.15
Northwest	9.10	0.70	12.90	0.99
Southwest	9.00	1.80	6.00	1.20
Totals	120.03	1.17	187.13	1.82

**Support staff per ETB is up 0.6 per ETB from last year.**

**Table 4. House Donors/Recipients**

Region	HOUSE DONORS	PROVIDE RECIPS
Northeast	4	2
Southeast	10	4
North Central	10	6
South Central	16	10
Northwest	16	3
Southwest	3	1
Totals	59	26

**Unchanged from 2003**

## Embryo Collection Data

**Table 5. Non-stimulated Donor Collections**

Region	Non Stim Dairy Donors Collected	EMB Collected From Non Stimulated Dairy Donors	Embryos Per Collection Dairy	Non Stim Beef Donors Collected	EMB Collected From Non Stimulated Beef Donors	Embryos Per Collection Beef
Northeast	182	97	0.53	0	0	
Southeast	31	23	0.74	13	9	0.69
North Central	154	76	0.49	21	10	0.48
South Central	21	13	0.62	20	14	0.70
Northwest	17	13	0.76	8	4	0.50
Southwest	2	1	0.50	0	0	
Totals	407	223	0.55	62	37	0.60

Single emb collections were not reported last year.

**Table 6. Stimulated Dairy Donor Collections**

Region	Dairy Donors Stimulated	Dairy Donors Stimulated & Collected	Total Dairy Donors Collected	Trans EMB Collected From Stim Dairy Donors	Total Transferrable EMB Collected From Dairy Donors	EMB PER COLLECTION DAIRY
Northeast	5220	4900	5082	25767	25864	5.26
Southeast	872	823	854	4068	4091	4.94
NorthCentral	6792	6363	6517	34502	34578	5.42
Southcentral	760	730	751	3689	3702	5.05
NorthWest	1306	1213	1230	6741	6754	5.56
Southwest	425	957	959	2138	2139	2.23
Totals	15375	14986	15393	76905	77128	5.13

Dairy donors collected is up 2700 from 2003. Emb collected was not split between dairy and beef in 2003.

**Table 7. Stimulated Beef Donor Collections**

STATE	Beef Donors Stimulated	Beef Donors Stimulated & Collected	Total Beef Donors Collected	Trans EMB Collected From Stim Beef Donors	Total Transferrable EMB Collected From Beef Donors	EMB PER COLLECTION BEEF
Northeast	1292	1212	1212	7205	7205	5.94
Southeast	4649	4602	4615	31562	31571	6.86
NorthCentral	7415	7034	7055	44415	44425	6.31
Southcentral	11084	10643	10663	73182	73196	6.88
NorthWest	2031	2028	2036	13827	13831	6.82
Southwest	196	196	196	1373	1373	7.01
Totals	26667	25715	25777	171564	171601	6.67

Beef donor collections are up 3571 from 2003.

**Table 8. Total Emb Collected and Emb per Collection Dairy and Beef**

Region	TOTAL TRANSFERABLE EMB COLLECTED DAIRY & BEEF	EMB PER COLLECTION DAIRY	EMB PER COLLECTION BEEF
Northeast	33069	5.26	5.94
Southeast	35662	4.94	6.86
NorthCentral	79003	5.42	6.31
Southcentral	76898	5.05	6.88
NorthWest	20585	5.56	6.82
Southwest	3512	2.23	7.01
Totals	248729	5.13	6.67

Total emb collected (beef & dairy combined) is up more than 43,000 from 2003.

**Transfer Data**

**Table 9. Fresh Emb Transfers (includes demis and biopsied)**

Region	FRESH TRANSFERS DAIRY	FRESH TRANSFERS BEEF	TOTAL FRESH TRANSFERS BEEF & DAIRY
Northeast	11985	2797	14907
Southeast	2060	13687	15949
NorthCentral	11615	11649	23360
Southcentral	1600	29464	31334
NorthWest	3266	3914	7671
Southwest	2528	912	3860
Totals	33054	62423	97081

Fresh transfers are up from 73,000 in 2003

**Table 10. Frozen Emb Transferred**

Region	EMB THAWED-GLY DAIRY & BEEF	EMB THAWED-DT DAIRY & BEEF	Total Emb Thawed Beef & Dairy
Northeast	1178	7968	9146
Southeast	523	10008	10531
NorthCentral	4185	22813	26998
Southcentral	2197	18631	20828
NorthWest	759	3584	4343
Southwest	945	3609	4554
<b>Totals</b>	<b>9787</b>	<b>66613</b>	<b>76400</b>

Total emb thawed/transferred down from 84,000 last year. (Likely due to omissions in reporting)

**Embryos Frozen**

**Table 11. Emb Frozen Dairy**

Region	EMB FROZEN GLYCEROL DAIRY	EMB FROZEN DT DAIRY	EMB VITRIFIED DAIRY	TOTAL EMB FROZEN DAIRY
Northeast	2419	10965	0	12170
Southeast	235	1688	0	1923
Northcentral	5668	15409	0	21077
Southcentral	492	931	0	1423
Northwest	16	2243	0	2259
Southwest	571	1584	566	2721
<b>Totals</b>	<b>9401(22.6%)</b>	<b>32820 (78.9%)</b>	<b>566(1.4%)</b>	<b>41573</b>

Dairy and beef frozen emb were not separated in 2003 – no comparison.

**Table 12. Emb Frozen Beef**

Region	EMB FROZEN GLYCEROL BEEF	EMB FROZEN DT BEEF	EMB VITRIFIED BEEF	TOT EMB FROZEN BEEF
Northeast	52	4409	0	4461
Southeast	882	19592	0	20474
Northcentral	1025	32760	0	33785
Southcentral	3338	36490	0	39828
Northwest	1348	8335	0	9683
Southwest	739	15	512	1266
<b>Totals</b>	<b>7384 (6.7%)</b>	<b>101601 (92.8%)</b>	<b>512 (0.5%)</b>	<b>109497</b>

Dairy and beef frozen emb were not separated in 2003 – no comparison.  
25,000 more emb were frozen (dairy & beef combined) in 2004 than in 2003.

**Table 13. Fresh vs. Frozen Embryos Transferred**

Region	TOTAL FRESH TRANSFERS BEEF & DAIRY	Total Emb Thawed Beef & Dairy
Northeast	14907	9146
Southeast	15949	10531
Northcentral	23360	26998
Southcentral	31334	20828
Northwest	7671	4343
Southwest	3860	4554
Totals	97081	76400

Transfer data includes Demi embryos and Biopsied embryos.

**Manipulated Embryos**

**Table 14. Biopsied Emb**

STATE	FRESH BIOPSIED TRANSFERRED DAIRY	EMB BIOPSIED & FROZEN DAIRY	FRESH BIOPSIED TRANSFERRED BEEF	EMB BIOPSIED & FROZEN BEEF	TOT EMB BIOPSIED DAIRY & BEEF
Northeast	125	48	0	0	173
Southeast	17	12	0	0	29
Northcentral	42	528	0	20	590
Southcentral	15	16	0	18	49
Northwest	491	395	0	0	886
Southwest	210	0	210	0	420
Totals	900	999	210	38	2147

There were only 722 biopsied embryos in 2003

**Table 15. Demi Emb**

Region	FRESH DEMIS TRANSFERRED DAIRY	DEMI EMB FROZEN DAIRY	FRESH DEMIS TRANSFERRED BEEF	DEMI EMB FROZEN BEEF	DEMI EMB THAWED
Northeast	0	0	0	0	0
Southeast	0	0	185	0	0
Northcentral	28	0	26	0	0
Southcentral	24	2	231	0	2
Northwest	0	0	0	0	0
Southwest	0	0	0	0	0
Totals	52	2	442	0	2

Demi embryo data was not reported in 2003

## Stored Embryos

**Table 16. Emb in Storage**

Region	FROZEN EMB IN STORAGE DAIRY	FROZEN EMB IN STORAGE BEEF	TOTAL EMB IN STORAGE
Northeast	4919	149	5068
Southeast	75	11156	11231
NorthCentral	6348	64302	70650
Southcentral	3711	40884	44595
NorthWest	988	10406	11394
Southwest	213	0	213
Totals	16254	126897	143151

48 of 103 ETBs reported having emb in storage.

## Embryos Exported

**Table 17. Dairy Exports by Breed**

Breed	
Holstein	5274
Guernsey	0
Jersey	24
B Swiss	570
Totals	5868

Dairy embryo exports were down by about 500 embryos as compared to 2003

**Table 18. Dairy Exports by Country**

ARG	AUSTRAL	AUSTRIA	BELG	BRA	CAN	Central AMER	CHINA	COL	Costa RICA
0	96	38	0	0	333	0	0	0	0

CROATIA	CZECH	DENM	D. REP	EGYPT	ENG	EQUA	FIN	FRAN	GER
57	208	8	0	0	188	0	10	477	776

GUAT	HOLL	HUNG	IRE	ITALY	JAPAN	KENYA	MADAGASCAR	MEX	NETH
0	212	31	4	142	2005	40	0	252	261

N. ZEA	NICA	PAN	POL	PORT	ROM	RUSS	SCOT	S AFR	SPAIN
0	5	0	122	0	108	0	0	0	132

SWED	SWIT	TAIW	TURK	VEN	UK
39	226	0	69	0	20

Japan again takes top prize for most exports in 2004 followed by Germany, France, and Canada in that order.



**Table 19. Beef Exports by Breed**

Angus Totals	1342
AR Totals	534
BN Totals	20
BN Red Totals	420
Brahman Totals	1407
GV Totals	0
MG Totals	0
Scotch High Totals	36
Senepol Totals	360
SM Totals	336
SG Totals	51
Waygu Totals	0
Lm Totals	40
BM Totals	24
LH Totals	29
<b>Total Beef Emb Exported</b>	<b>4599</b>

Beef exports were up by 1750 embryos in 2004. Brahman lead the way with Angus coming in a close second.

**Table 20. Beef Exports by Country**

Arg	Austral	Bra	Can	Chile	C Rica	Eng	Guat	Mex	New Z	Pan	Par	Rom	Urug
154	2985	820	223	0	35	94	20	0	56	24	0	162	26

Australia lead the pack followed by Brazil and Canada

**IVF Data**

**Table 21. IVF**

Dairy Recov	Beef Recov	Total Recov	Viable Oocytes	Oocytes per Recovery	Embryos Frozen	Fresh Transfers	Fresh Transfers per Recovery	Total Emb Produced	Viable Embryos per Recovery
280	2385	2665	14410	5.41	125	1953	0.73	2078	0.78

Dairy recoveries were down and beef up from last year. Oocytes per recovery and embryos produced were up indicating improved efficiency. Pregnancy rates were not reported for most of the transfer data.

### Non-Bovine Species

**Table 22. Other species - Equine**

<b>DONORS NON STIMULATED</b>	<b>DONORS STIMULATED</b>	<b>DONORS TOTAL</b>	<b>EMB REC</b>	<b>TRANSF</b>	<b>FRESH PREG RATE</b>	<b>FROZEN</b>	<b>DT THAWED</b>
372	2	374	399	449	71.17	1	1

There were no other species reported for 2004. It's not understood how 399 embryos were recovered and 449 transferred.

#### Observations by the Committee

1. ET activity for species other than bovine and equine were not reported.
2. Ed Squires (personal communication) estimates about 10,000 equine embryo collections annually. Only 374 were reported.
3. No embryo imports were mentioned by the 103 ETBs reporting.
4. Pregnancy rate data was not listed in this report. It wasn't possible to accurately compute an average preg rate for a given statistic. For example, one ETB would say they preg checked 244 with 122 bred. The next would estimate their preg rates at 60% but not report the number checked.