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A Review of the Senepol Cattle Breeders Association Database

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Summary

This paper reviews some interesting statistics pertaining to the Senepol breed's database housed at the Association's headquarters in Statham, Georgia. Statistics, trends and distributions are given for a host of variables. These include numbers of cattle recorded, distributions of different categories utilized in recording cattle, performance information, EPD values and trends. Also included is distribution of cattle recorded by state, country and largest breeders. The most prolific sires and dams are also listed.

SCBA Database Statistics

The major objective for the Senepol Cattle Breeders Association (SCBA) is to record Senepol Cattle. Different types of information associated with cattle recorded is of interest to some people.

Table 1 shows the numbers of records in some of the association's major tables. These included records which were input since the beginning of the association.

Not all cattle recorded in the SCBA database are officially registered. Historically there was a different price schedule for registered versus non-registered cattle, thus some breeders record non-registered cattle to include performance information at a lesser fee. In addition, some non-Senepol parents of half-blood progeny are recorded, but not registered. Table 2 shows cattle recorded and registration status within the SCBA database since born 1980.

Senepol cattle are born throughout the year. Typically calves are born in the spring or fall, but Table 3 shows most Senepol cattle are born in March then April, but are fairly evenly distributed the rest of the year.

The sex ratio of all calves born is nearly 50% male and 50% female, but a far different sex percentage of cattle are recorded in the SCBA database. Significantly more heifers are recorded compared to bulls or steers. Table 4 shows the database distribution by sex.

Black color is becoming slightly more predominant in the Senepol breed. Part of this is the infusion of Angus cattle in the Senepol composite program. Table 5 shows the color distribution by birth year since 1980.

Table 6 lists the percentage of cattle according to their mating type. The majority of all cattle are conceived through natural service.

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Performance Data

Weaning weights are adjusted to 205 days with acceptable age ranges between 160 and 280 days of age. Yearling weights are adjusted to 365 days with acceptable age ranges between 310 and 430 days of age. Table 7 shows the statistics associated with weaning and yearling dates.

Tables 8 and 9 show the average adjusted birth, weaning and yearling weights by year of birth for bulls and heifers. These are phenotypic averages not genetic averages. Genetic averages for these traits can be found in the following Genetic Trend table. The adjusted weight of an animal is a combination of genetic and environmental effects. Because of this, there is not a direct relationship between the yearly weight averages and the yearly EPD averages. One cannot and should not equate a certain year's average EPD to that year's average adjusted weight. These tables are given simply to show the cumulative effect of years of genetics, management and other environmental effects.

Expected Progeny Differences (EPDs)

Genetic trend table 10 illustrates the genetic trends in the Senepol breed. All animals in the analysis were used to generate this information. The EPD changes from one year to the next are quite substantial for the growth traits. This table indicates the progress the Senepol breed has made since 1965. A fixed base year of 1986 was chosen for the current Animal Model analysis. This simply means the average animal born in 1986 has an EPD of 0 pounds for each trait. This will give more consistency to the EPDs in future genetic analyses.

The percentile EPD breakdown for calves born in 2000 are given in table 11. This table is utilized to compare an individual to the total Senepol population.

Top Sires and Dams

Many Senepol sires have been very influential throughout the breed. The more progeny produced equates directly to the more influence a given sire has on the breed. Table 12 gives the more prolific producing sires in the Senepol breed. Table 13 shows the comparable information for the more prolific dams in both ET and naturally produced calves.

States and Countries Producing Senepol Cattle

Senepol cattle are distributed throughout the United States, but the major portion are in the southern states, specifically the southeast. In addition, Senepol cattle are beginning to be located throughout the world. Table 14 lists each state and country with a member owning a Senepol animal born since 1998. Also listed in this table is the numbers of owners represented in these cattle numbers.

Owners of Senepol Cattle

The owners of Senepol cattle are obviously extremely important. People make the cattle that makeup the breed. Table 15 lists the top breeders of Senepol throughout the history of the breed. Listed is both the number of animal recorded as well as number of animals registered. As one would expect, the breeders in the Virgin Islands have been and continue to be extremely important to the breed.

Table 1. Records in SCBA database tables.

Database Table	Records
Customer	2870
Animal	51919
Birth	31922
Weaning	24984
Yearling	11597
Ultrasound	350

Table 2. Cattle recorded and registration status.

Birth Year	Non-Registered	Registered	Total	% Registered
1980	0	1373	1373	100.00
1981	0	987	987	100.00
1982	0	941	941	100.00
1983	3	982	985	99.70
1984	0	1159	1159	100.00
1985	5	1742	1747	99.71
1986	6	1313	1319	99.55
1987	4	1469	1473	99.73
1988	10	2388	2398	99.58
1989	10	1853	1863	99.46
1990	18	2072	2090	99.14
1991	18	2227	2245	99.20
1992	18	2484	2502	99.28
1993	27	3026	3053	99.12
1994	21	3225	3246	99.35
1995	24	2769	2793	99.14
1996	27	2669	2696	99.00
1997	120	2188	2308	94.80
1998	453	1635	2088	78.30
1999	813	1259	2072	60.76
2000	406	960	1366	70.28
2001	254	1332	1586	83.98
2002	81	162	243	66.67
Total	2318	40215	42533	94.56

Table 3. Distribution of calf birth month.

Birth Month	Number Recorded	Percent
January	3917	8.11
February	3817	7.91
March	9153	18.96
April	6228	12.90
May	4543	9.41
June	3124	6.47
July	2594	5.37
August	3256	6.75
September	3422	7.09
October	2525	5.23
November	2494	5.17
December	3197	6.62

Table 4. Frequency by sex of all cattle recorded.

Sex	Number Recorded	Percent
Bull	17654	34.05
Cow	33508	64.63
Steer	684	1.32

Table 5. Color distribution by year of birth.

Frequency	Black	Brown	Mixed	RWF	Red	White	Yellow	Total
1980	0	0	0	1	237	0	0	238
1981	0	0	0	0	276	0	0	276
1982	0	0	0	0	257	0	0	257
1983	1	0	0	3	251	0	0	255
1984	0	0	0	0	396	0	0	396
1985	3	0	0	0	450	0	0	453
1986	14	2	2	0	452	0	0	470
1987	19	2	0	0	635	0	0	656
1988	14	0	0	8	845	0	0	867
1989	30	4	0	9	1135	0	4	1182
1990	87	11	4	23	1424	7	13	1569
1991	92	53	17	37	1832	2	10	2043
1992	153	16	1	63	2058	4	10	2305
1993	221	10	2	57	2560	5	11	2866
1994	302	14	2	65	2724	3	14	3124
1995	167	15	4	47	2516	2	17	2768
1996	162	9	8	65	2414	1	8	2667
1997	141	3	5	62	1991	2	5	2209
1998	164	3	10	46	1761	0	5	1989
1999	187	0	4	39	1387	0	5	1622
2000	125	7	0	29	1084	0	3	1248
2001	79	51	1	20	1417	0	2	1570
2002	24	3	0	3	210	0	1	241

Total	1985	203	60	577	28312	26	108	31271
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Table 6. Frequency of cattle by mating type.

Mating Type	Frequency	Percent
Artificial Insemination	1012	1.95
Natural Service	48007	92.57
Embryo Transfer	2833	5.46

Table 7. Weaning and yearling date statistics (days of age).

Variable	Number	Mean	Std Dev	Minimum	Maximum
Wean Age	24860	220.52	37.199	101	360
Year Age	11575	382.12	38.789	181	641

Table 8. Phenotypic Trends — Bulls (lbs.)

Birth Year	Birth Count	Birth Wt.	Weaning Count	Weaning Wt.	Yearling Count	Yearling Wt.
76	78	71	50	563	47	750
77	286	71	245	473	218	680
78	306	71	287	505	175	705
79	311	71	251	494	143	697
80	390	71	343	477	248	665
81	425	71	340	482	242	657
82	357	71	289	490	155	691
83	353	71	266	469	151	678
84	417	71	326	469	57	648
85	347	75	157	472	69	727
86	316	74	231	473	63	710
87	383	74	350	478	115	686
88	301	73	379	500	118	728
89	290	75	394	521	191	720
90	469	75	526	521	310	758
91	454	79	511	522	346	739
92	592	79	534	535	317	768
93	813	79	688	525	444	776
94	845	80	748	530	449	806
95	709	79	591	542	282	819
96	670	81	601	539	269	756
97	632	82	554	516	185	786
98	567	79	471	535	215	749
99	651	79	497	512	272	647
00	392	80	329	542	106	795
01	628	79	293	528		

Table 9. Phenotypic Trends — Females (lbs.)

Birth Year	Birth Count	Birth Wt.	Weaning Count	Weaning Wt.	Yearling Count	Yearling Wt.
74	92	71	11	472	5	635
75	75	71	19	487	7	660
76	118	72	49	455	24	609
77	258	71	176	450	122	592
78	290	71	240	454	72	598
79	223	71	202	456	3	603
80	300	71	251	440	7	534
81	308	71	217	442	4	627
82	347	69	273	443	8	659
83	298	70	155	441	28	546
84	359	69	306	430	37	531
85	347	71	169	434	8	593
86	343	71	225	430	15	575
87	412	71	363	435	49	563
88	274	75	463	457	81	668
89	431	76	514	458	127	621
90	670	77	676	473	231	685
91	802	79	813	464	335	629
92	1069	78	872	482	352	674
93	1272	78	1045	467	446	684
94	1493	78	1104	480	607	671
95	1457	76	990	484	444	665
96	1336	76	1004	481	446	660
97	1090	77	887	472	374	639
98	919	77	688	475	271	623
99	963	77	738	470	330	605
00	565	75	476	476	164	655
01	665	74	331	487		

Table 10. Genetic Trend — Average EPDs by Birth Year (lbs.)

Birth Year	Numb. Head*	Birth Weight	Weaning Weight	Mat. Milk	Milk & Growth	Yearling Weight
65	109	-0.3	-1.2	-1.5	-2.2	-2.1
66	26	-0.4	-1.1	-0.5	-1.1	-1.8
67	39	-0.6	-3.5	-0.6	-2.4	-4.2
68	56	-0.6	-3.2	-1.7	-3.3	-4.2
69	61	-0.3	-1.9	-0.1	-1.1	-2.9
70	134	-0.3	-1.5	-0.7	-1.4	-2.4
71	91	-0.5	-2.2	0.2	-0.9	-2.7
72	92	-0.7	-2.9	-0.2	-1.7	-3.5
73	74	-0.3	-2.1	-0.1	-1.2	-3.0
74	95	-0.8	-4.6	-0.4	-2.7	-6.1
75	167	-0.4	-1.6	0.0	-0.8	-1.9
76	148	-0.4	-3.7	-0.7	-2.6	-5.0
77	207	-0.3	-3.0	1.0	-0.5	-3.4
78	333	-0.8	-5.1	-0.6	-3.1	-6.5
79	299	-0.3	-2.9	0.1	-1.4	-3.6
80	566	-0.2	-1.8	0.1	-0.8	-2.5
81	445	-0.2	-1.6	0.1	-0.7	-2.2
82	479	0.0	-0.1	0.0	0.0	-0.5
83	417	-0.1	0.3	-0.1	0.1	-0.1
84	673	-0.1	-1.2	1.1	0.6	-1.1
85	659	-0.1	0.0	0.1	0.1	-0.5
86	600	0.0	0.0	0.0	0.0	0.0
87	820	-0.1	1.0	0.9	1.4	1.1
88	1153	0.0	0.8	0.1	0.5	0.7
89	844	0.1	0.6	0.5	0.8	0.3
90	1026	0.1	1.4	0.4	1.1	1.5
91	1223	0.2	1.5	0.8	1.6	1.9
92	1181	0.2	1.9	0.8	1.7	2.3
93	1470	0.2	1.6	0.6	1.3	1.8
94	1435	0.2	2.8	0.5	1.9	3.4
95	1192	0.3	2.8	0.8	2.2	3.5
96	1563	0.3	2.5	0.6	1.8	3.0
97	1165	0.4	4.0	1.2	3.2	5.1
98	905	0.5	4.5	1.8	4.0	5.7
99	1009	0.6	5.3	1.9	4.5	6.3
00	586	0.7	6.3	2.5	5.7	8.1
01	526	0.5	4.8	2.3	4.7	6.5

*Number of head with weaning weight EPD.

Table 11. Percentile Breakdown — All 2000 Calves

	Birth Weight	Weaning Weight	Maternal Milk	Milk & Growth	Yearling Weight
Number	701	586	586	586	586
Average	0.7	6.3	2.5	5.7	8.1
Minimum	-4.8	-20.9	-8.3	-15.5	-26.8
Maximum	5.7	30.2	16.4	25.7	36.9
Std. Dev.	1.4	7.3	4.5	6.0	9.5

Upper Percent	Birth Weight	Weaning Weight	Maternal Milk	Milk & Growth	Yearling Weight
1	-2.4	22.7	13.8	19.5	30.2
2	-2.2	20.6	12.5	18.6	25.9
3	-1.8	19.3	11.2	16.8	24.0
4	-1.5	18.4	10.5	16.5	23.3
5	-1.3	17.7	10.4	15.5	22.5
10	-0.9	15.3	8.5	13.2	20.4
15	-0.6	13.5	7.1	11.9	17.6
20	-0.5	12.6	6.4	11.0	15.8
25	-0.2	11.2	5.4	9.7	14.5
30	-0.1	10.2	4.7	8.8	13.5
35	0.1	9.4	4.2	7.9	12.4
40	0.2	8.4	3.6	7.0	11.4
45	0.4	7.4	3.1	6.5	9.8
50	0.5	6.5	2.6	5.8	8.3
55	0.7	5.5	2.1	5.1	7.3
60	0.8	4.8	1.3	4.2	6.3
65	1.0	3.9	0.7	3.6	5.0
70	1.3	2.9	0.0	2.8	3.6
75	1.5	1.4	-0.7	1.7	2.1
80	1.7	0.2	-1.3	0.8	0.5
85	2.0	-1.0	-2.4	-0.7	-1.8
90	2.5	-2.8	-3.2	-1.8	-3.9
95	3.1	-6.4	-4.6	-4.5	-8.9
100	5.7	-20.9	-8.3	-15.5	-26.8

Table 12. Number of calves sired by most prolific bulls.

Number of Progeny	Sire Name	Sire Birth Year	Sire Registration Number
400	ASL BIG ED HU47	1986	1005456
342	AC 761	1987	1006278
292	CN 4716	1987	1005916
277	CN 2556	1984	1004604
268	ASL HOT SHOT 106U	1986	1005440
255	WC 850	1992	1064154
254	ASL HOT ROD 64X E.T.	1988	1050971
254	RAB MR. EFFICIENCY S126A	1991	1053436
222	WC 837P THE KING	1982	1003803
221	WCS 410-S	1984	1004591
220	CN 4635	1986	1005760
210	CN 2731	1985	1004934
207	CN 1029	1978	1000420
196	WCS 258	1974	1001239
188	WCS 603	1972	1001234
187	CN 1781	1981	1003180
185	CN 2225	1983	1003783
176	ASL 193S OMEGA 65Y E.T.	1989	1051199
169	WCS 234	1976	1001254
167	WC 0687	1981	1003325
167	CN5480	1991	1060890
165	WC 525 S	1984	1005980
158	CN 6044D	1994	1075547
156	WC 648Z	1990	1063969
155	ASL CLEAR CUT 27X	1988	1050957
155	CN 5562	1992	1062010
150	HBC HOT STUFF 8E E.T.	1995	1073416

Table 13. Number of calves sired by most prolific cows.

Number of Progeny	Dam Name	Dam Birth Year	Dam Registration Number
55	ASL QUEEN 103U	1986	1005471
53	ASL DUCHESS 65X E.T.	1988	1006748
53	HBC AP030 66F	1996	1077839
44	ASL LADY 108W E.T.	1987	1006723
41	ASL QUEEN 102U	1986	1005470
38	CN 434	1976	1000203
36	RAB MS S607B	1992	1062711
32	N 1063	1983	1004021
29	WC 4758	1983	1003828
29	WC 7020	1991	1062917
28	ASL BABE 75U E.T.	1986	1005484
28	ASL EVA 15W	1987	1005673
28	CN 4664	1987	1005873
27	N 1179	1983	1004039
26	702 JS	1984	1004361
26	ASL QUEEN 84Y	1989	1051004
25	HBC LADY 26D E.T.	1994	1071587
25	JH346	1993	1104531
23	CN 702	1977	1000207
23	CO 508	1986	1005365
22	WC 4937	1984	1003845
21	CN 2113	1983	1003723
21	CN 2135	1983	1003788
21	ASL QUEEN 136U E.T.	1986	1005504
21	ASL 95Y	1989	1050771
21	HBC SUSIE 13Z E.T.	1990	1051633

Table 14. Top states and countries of cattle recorded born since 1998.

Total	Breeders	Cattle
Florida	71	947
Alabama	76	738
Georgia	48	493
Oklahoma	11	405
Kentucky	15	391
Mississippi	15	236
Texas	26	199
North Carolina	25	171
Tennessee	16	148
Louisiana	10	134
South Carolina	15	107
Montana	1	94
West Virginia	1	92
Virginia	9	57
California	6	24
Arizona	1	15
Arkansas	2	10
Kansas	2	10
Illinois	2	7
Missouri	3	7
Alaska	1	5
Pennsylvania	1	5
New Mexico	1	3
Ohio	1	3
Nevada	1	2
Sub Total	360 (87%)	4303 (58%)
USVI	7	794
Sub Total	7 (2%)	794 (11%)
Venezuela	27	604
Paraguay	3	438
Brazil	2	479
Puerto Rico	4	324
Nicaragua	1	187
Australia	5	170
Panama	2	25
Canada	2	23

Argentina	1	9
Philippines	1	7
Dominican Rep	1	4
Sub Total	49 (12%)	2270 (31%)
Total	416	7367

Table 15. Top Lifetime Breeders in Cattle Produced.

Number Recorded	Number Registered	SCBA Member	Breeder Number
8375	8122	Annaly Farms, St Croix, VI,	5
5258	4973	Castle Nugent Farms, St Croix, VI	1
2241	2241	Granard Estates, St Croix, VI	12
1881	1877	American Senepol Ltd, Harrogate, TN	1000006
1751	1671	R A Brown Ranch, Throckmorton, TX	100
978	712	Prime Rate Ranch, Miami, FL	1000715
787	778	Futral Farms, Griffin, GA	34
745	269	Ganadera 63 S.A., Miami, FL	1001942
735	670	Honey Bee Creek, Hampton, GA	1000028
704	688	5 T Ranches, Gainesville, FL	72
639	639	Brooksville Arc, Brooksville, FL	40
620	202	Kerr Center Inc, Poteau, OK	10265
535	529	Frits E. Lawaetz, St Croix, VI	7
497	493	Spur Headquarters Ranch, Spur, TX	1000036
468	453	Shady Bower Farm, Sonora, KY	1000068
458	347	Springside Farm, Versailles, KY	53
422	325	Parkers Senepol, Rogersville, AL	1000092
411	349	B Farms, Bowling Green, KY	114
389	389	Senepol A P Ltda, Sao Paulo, SP, Brazil	1003325
327	313	Cross Creek, Gold Hill, NC	1000052
302	302	Century Oaks Farms, Somerset, KY	1000106
300	300	Michael M Alexander, Limestone, TN	1000055
290	256	Bar 51 Senepols, Fairland, OK	1000486
289	266	Bent Tree Cattle Co, Fort Payne, AL	10102
280	280	Lawson Senepol Farms, Speedwell, TN	1000040
269	269	Smith Farms, Cave City, KY	1000067
265	194	Telfair Farms, Bushnell, FL	1000010
261	172	Cedar Hill Farm, Jane Lew, WV	1000026
257	257	Dr Don Metz, Deer Park, TX	128