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A.I. Sire Summary

Michigan State University

Cooperative Extension Service

Farm Science Series

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A.I. Sire Summary

This report contains the latest USDA-DHIA genetic evaluation on 332 sires. These are proven sires with semen available through each of the five studs (MABC, Carnation, ABS, Midwest, Tri-State) at the time this bulletin was printed.

Sires are ranked in this bulletin by the expected differences of their future daughters and their herd-mates as expressed by the Predicted Difference value for income (PD\$\$). The PD\$\$ combines economic aspects for both milk and fat. Due to the increasing average merit and number of sires available, we culled those Holstein bulls with PD\$\$ less than \$140 and bulls of other breeds with PD\$\$ less than \$75.



By Dept. of Animal Science Staff: Ted Ferris and Clyde Anderson.

Explanation of Headings

REGISTRATION NUMBER and CODE NAME of sire.

STUD CODE for technicians.

NO. HERDS in which records were made.

NO. DAUS. with production records.

PCT. INC. (percent 1st cull) represents the portion of a sire's daughters which were removed from the herd before completing a first lactation.

PCT. RIP. (percent records-in-progress) denotes the portion of a sire's daughter-records on in-progress lactations.

PCT. RPT. (percent repeatability) is an index value which measures the reliability of the PD considering the number of daughter records and its distribution over herds.

PREDICTED DIFFERENCE is to be used to measure the sire differences in ability to transmit production potential. Predicted Difference indicates the amount of MILK, PCT (% test), FAT, and \$\$\$ (dollar value) that future daughters of a sire are expected to differ from their herd-mates of zero PD bulls. Prices used were \$13.00 per cwt. for 3.5% milk with an 17.2 cent fat differential. The dollar value is the difference in gross value of product that should return per lactation.

Cow Indexes are Important

The last sire summary bulletin included a table with average cow index values for herds on DH1. The average Cow Index (CI) for all milk cows in Michigan in 1981 was +445, the average CI for their dams was +214 and the average genetic index for their calves was +878, suggesting that the current cows are genetically superior to their dams and the calves will be superior to the current cows. This gives us a handle on our genetic progress.

Knowing when and how to use cow indexes is important. In short, cow index is a Predicted Difference (PD) for cows or a method of ranking cows on genetic potential just as PD is for sires. However, for cows we use their own records which are few and usually occur in one herd. Therefore, accuracy of the CI (repeatability) cannot approach that of a sire with many daughters in many herds (55% maximum repeatability vs 99% for sires).

CI's are useful in comparing cows within a herd and particularly cows in different herds. The difference between 305 day actual, 305 day mature equivalent (M.E.) and CI's is as follows:

The 305 day actual record does not include adjustment for age or season at freshening. We know that these two factors have a large impact on a lactation. If we want to accurately compare two cows using only 305 day actual records, we would compare only cows freshening at the same age and season. The 305 day

Summary of A.I. Sires Recommended to Michigan Dairymen.

Breed	No. Bulls	PD Milk	PD%	PD Fat	PD\$	% RPT
Ayrshire	4	1054	-.13	26	118	81
Guernsey	25	1004	-.11	37	133	67
Holstein	244	1573	-.07	46	188	68
Jersey	33	1399	-.22	48	181	68
Brown Swiss	26	1330	-.06	46	173	68

M.E. includes adjustments for age and season. Therefore, we can compare cows of different ages freshening in different seasons in the same herd.

We also know that the herd in which a cow lactates has a large impact on how well she produces. The 305 day actual and M.E. records do not adjust for herd differences. Therefore, we needed a method to adjust for herd so we can rank cows between herds like we do sires. The Modified Contemporary Deviation (MCD) makes it possible to adjust a cow's production for herd by deviating her record or records from her contemporary (same age) herdmates' (freshening \pm 2 months from her fresh date) records.

In the following Cow Index formula:

$$CI = 1/2 [w (\overline{MCD}) + (1-w) (Sire's PD + Dam's CI)]$$

w is a weighting factor derived from the amount of information available in the evaluation. \overline{MCD} is the average Modified Contemporary Deviation, which is a cow's average production deviated above or below production of contemporaries with adjustment made for genetic merit of the contemporaries' sires and those sires' repeatability. Dam's CI is the dam's cow index computed the same as the cow's CI.

The major uses of CI's are comparison of (1) genetic

potential of cows in different herds and (2) genetic potential of cows within a herd. The 305 day actual and M.E. records include no genetic information but the CI includes the estimate of parents genetic transmitting ability (Sire PD and Dam CI) plus the performance of the cow within the herd, i.e., her \overline{MCD} .

Bull studs have used CI's for years to select superior bull dams. Dairymen have long selected the best cows in their herd to use as bull dams if they are keeping a bull to breed their heifers (heaven forbid, but if you're going to use one it may as well be from a good cow). The CI will help you to select the best cows in your herd to embryo transfer. CI also allows you an accurate method to pick out top cows in a sale catalog because it allows you to compare cows between herds of differing production levels.

Finally, the genetic index on your calves is essentially the pedigree portion of the cow index, i.e., $1/2 [Sire's PD + Dam's CI]$. The genetic indexes and the current cow indexes can be found on your DHI herd inventory report under the appropriate column titled "Index". This is useful in ranking your calves and heifers and determining if you are making genetic progress. To make progress, the genetic index should increase about 100 lbs per year. To accomplish this, you need to increase your average sire PD on milk about 100 lbs each year.

REGISTRATION NUMBER	NAME	STUD CODE	NO. HERDS	NO. DAUS.	PCT CULL	PCT RIP	PCT RPT	PREDICTED MILK	DIFFERENCE PCT	FAT	\$\$\$
AYRSHIRE											
M A B C - SELECT SIRES											
136605	HAGGAI	7A0042	12	22	***	5	54	932	-.22	11	84
TRI-STATE BREEDERS											
134476	CHAD	14A0475	99	241	10	34	89	1189	-.21	22	121
A B S											
130772	JUMBO	29A7615	101	252	9	30	90	1311	-.07	43	165
136088	SUPER STAR	29A7616	106	263	10	12	91	785	-.03	28	103
GUERNSEY											
M A B C - SELECT SIRES											
583873	PATRICIAN	7G1030	105	228	12	36	90	1266	-.07	52	178
579953	B. MAVERICK	7G1038	629	2965	12	33	99	1138	-.04	50	165
585495	PREMIER	7G1036	136	296	7	41	92	881	-.06	48	144
591552	A.F.C.	7G0172	20	26	***	65	52	1133	-.18	35	139
589545	TOP ROE	7G0156	107	295	13	23	91	974	-.06	40	137
591225	CHUCK	7G0192	4	12	***	50	27	1077	-.14	36	137
588441		7G0159	15	35	10	6	59	835	-.03	36	120
503872	FANCY	7G0142	90	193	12	4	90	979	-.19	27	115
MIDWEST BREEDERS											
591235	KING ARTHUR	2160257	5	12	***	25	29	1305	-.17	44	167
590504	RON	2160255	3	14	***	9	26	1573	-.34	32	165
587076	JAMAICA	2160249	17	42	9	15	62	952	-.11	34	125
589104	FANTASTIC	2160251	5	14	***	0	40	716	-.07	27	95
TRI-STATE BREEDERS											
590101	JA DA	1460189	11	35	9	6	55	1067	-.15	35	135
589666	TRANSFER	1460188	3	20	***	0	34	848	-.13	27	105
591696	BRIGHT	1460182	11	16	***	31	37	889	-.19	23	102
585033	WINNER	1460169	105	263	21	14	91	434	-.09	29	80
A B S											
590165	ADMIRAL	2960811	29	42	4	26	66	1738	-.11	70	242
586731	TELESTAR	2960796	235	476	10	33	95	1527	-.06	66	220
583550	FABIAN	2960788	256	725	19	28	96	1026	-.02	51	159
599456	JUPIER	2960808	196	402	15	24	94	1054	-.25	24	115
586569	EXTRA	2960798	61	113	9	16	85	675	-.02	34	106
588800	FERNELL	2960806	96	159	14	19	87	808	-.13	25	99
590919	FAYVOR	2960784	965	5084	15	16	99	583	-.01	29	91
591826	SUPREME	2960812	16	16	***	88	38	743	-.12	23	91
591944	LOYAL	2960813	17	23	***	96	48	891	-.26	16	90

REGISTRATION NUMBER	NAME	STUD CODE	NO. HERDS	NO. DAUS.	PCT CULL	PCT RIP	PCT RPT	PREDICTED MILK	DIFFERENCE PCT	74 FAT	\$\$\$
JERSEY											
M A B C - SELECT SIRES											
623158	SAINTE	7J0123	11	23	0	0	55	2249	-.49	59	258
623330	MAGIC	7J0121	33	87	9	32	74	1856	-.28	64	240
623660	POET	7J0127	15	84	8	15	68	1604	-.16	64	222
627500	SARGENT PLUS	7J0108	101	176	11	29	88	1267	-.02	66	202
617287	EARL	7J0112	257	612	10	65	96	1562	-.37	41	180
613173	SAMSON	7J0102	964	5612	6	24	99	1360	-.21	47	176
629962	TROJAN	7J0113	39	61	***	79	72	1161	-.11	48	164
622333	SPARKLE	7J0140	8	53	8	26	51	1292	-.23	42	162
629852	ORLANDO	7J0111	46	88	7	57	77	1195	-.29	31	137
MIDWEST BREEDERS											
626412	SUCCESS	21J0323	29	51	10	13	70	1197	-.16	44	159
TRI-STATE BREEDERS											
624896	BLACK MAGIC	14J0151	13	59	0	2	63	1861	-.37	55	224
623830	MG	14J0150	4	25	3	4	39	1455	-.13	60	205
627379	SANTA	14J0141	44	74	15	36	75	1218	-.01	60	188
625113	NOBLE	14J0154	1	28	***	19	23	1262	-.19	45	165
GENETICS - CARNATION											
621875	MASTER C	11J0353	10	86	0	38	58	1624	-.11	71	235
629803	EDYVEAN CELEBRITY	11J0332	14	29	***	83	53	1714	-.29	56	216
630451	MARK 2ND	11J0333	8	14	***	100	37	1395	-.21	49	182
630554	MONARCH	11J0336	11	19	***	95	42	1218	-.13	48	163
627330	FALLNEVA	11J0327	42	115	7	10	82	1026	-.06	46	151
628341	SOLDIER ZEV	11J0364	11	45	6	23	56	1006	-.05	46	149
618062	SPARKPLUG	24J0305	41	165	7	16	84	947	-.23	25	109
617655	FAVORITE JUAN	24J0306	128	572	7	17	93	560	-.06	34	98
A B S											
630622	TOP BRASS	29J2793	20	27	***	89	52	1669	-.16	68	233
625825	GREAT	29J2805	10	23	5	4	50	1956	-.43	53	228
625184	CHOCOLATE SUNDAE	29J2783	13	21	0	0	56	1842	-.40	50	215
621333	BRAVE SOLDIER	29J2791	72	181	3	53	86	1754	-.42	44	198
620428	JEWELER	29J2785	416	1371	6	38	98	1646	-.46	35	175
630260	VOLUNTEER	29J2792	20	28	***	96	52	1107	-.04	52	167
617923	MIDNIGHT	29J2799	195	452	8	44	94	1348	-.29	39	161
624576	STARDUST	29J2770	33	59	12	20	74	1094	-.06	49	161
616022	BOLD TORONDO	29J2788	256	792	5	30	96	1539	-.49	27	154
622801	EXPLORER	29J2797	10	22	5	0	51	886	-.02	47	143
625725	SILVER ZEV	29J2804	18	64	8	16	68	1310	-.39	27	138
BROWN SWISS											
M A B C - SELECT SIRES											
154912	EVILO	780625	206	371	10	14	94	2351	-.18	69	283
171140	REWARD	790638	42	56	4	49	68	1253	-.06	58	187
159771	KING	790629	259	733	7	48	96	1515	-.19	36	168
164943	KAYLE	780633	37	54	2	0	75	851	-.03	31	113
MIDWEST BREEDERS											
171547	MATTHEW	2180420	51	87	10	57	76	2470	-.02	102	388
163153	IMPROVER	1480148	402	1314	9	33	98	1559	-.06	55	203
171713	ROCKET	2180421	16	21	***	90	44	1550	-.08	52	198
148487	EL BRITE	2180413	228	901	9	4	96	947	-.07	47	147
166467	LONDON	2180423	4	34	3	3	36	1083	-.08	33	132
TRI-STATE BREEDERS											
170838	NORVIC	1480155	85	137	2	44	85	2018	-.00	82	282
169785	MASTER	1480154	124	273	7	38	91	1755	-.05	64	233
172258	JOHNNY D	1480158	14	19	***	84	42	1450	-.01	57	199
156458	STRETCH	1480143	485	1751	10	17	98	1453	-.09	47	182
167061	SUNSHINE	1480151	30	62	12	7	73	1207	-.05	42	156
158853	TOM JONES	1480144	288	925	10	15	97	1162	-.03	43	155
158696	MAPLE	1480145	279	802	12	31	97	1342	-.18	31	147
170051	SIGNAL	1480170	11	29	0	8	49	1238	-.13	33	143
GENETICS - CARNATION											
171191	MARINER	1180520	15	22	***	73	43	1671	-.03	71	239
169179	SULTAN	1180517	14	25	***	9	51	849	-.05	40	128
152968	ROCKY	1180519	30	66	8	2	74	825	-.14	16	95
164757	LU ANSON	1180516	73	151	9	6	86	828	-.14	16	85
A B S											
168654	CONTINUATION	2983691	11	26	0	8	46	1357	-.03	59	196
166802	HECTOR	2983685	4	20	***	6	31	1088	-.05	37	140
170132	DJ	2983666	31	54	17	34	67	1020	-.08	31	125
171303	LEADER	2983671	7	12	***	83	32	931	-.04	33	122
170693	BENJAMIN	2983663	12	15	***	67	35	815	-.08	23	96

REGISTRATION NUMBER	NAME	STUD CODE	NO. HERDS	NO. DAUS.	PCT CULL	PCT RIP	PCT RPT	PREDICTED MILK	DIFFERENCE PCT	74 FAT	74 \$\$\$
HOLSTEIN											
M A B C - SELECT SIPES											
1697572	ROTATE	7H1118	6	46	0	24	42	2362	-.05	78	299
1697281	STARFIRE	7H1128	25	32	0	17	62	2311	-.05	76	292
1617266	NUGGET	7H0286	2274	5506	11	56	99	1925	-.04	77	257
1556373	GLENDELL	7H0477	5134	17598	7	14	20	2030	-.08	61	247
1693955	SKY HIGH	7H1110	20	58	7	7	67	2224	-.19	49	240
1747962	ENCHANTMENT	7H0877	9	14	***	100	36	2093	-.14	54	233
1731632	DELL	7H0830	26	32	***	78	39	2108	-.15	53	233
1665634	BOVA	7H0572	40	57	4	0	77	2071	-.14	52	234
1583197	CONDUCTOR	7H0195	4855	15072	7	27	99	1824	-.04	60	231
1689839	FAGIN	7H0579	28	34	0	0	68	1912	-.08	57	231
1697719	BEN	7H0694	34	43	11	10	71	1834	-.05	59	223
1678020	LANCE	7H0556	46	55	16	9	77	2168	-.22	43	223
1667366	BELL	7H0543	42	57	11	2	77	1732	-.03	58	223
1734067	MAJESTIC	7H1124	7	29	0	17	44	1766	-.05	57	221
1689860	MAGNUS	7H0587	37	43	3	5	74	1791	-.06	55	220
1727553	ASTRO MATT	7H1129	6	15	***	20	34	1962	-.14	48	220
1672056	ELMER	7H1105	23	44	10	9	67	1661	-.00	60	215
1685357	PERFECTOR	7H1109	10	25	12	0	51	1986	-.16	47	219
1721881	DELEGATE	7H0800	29	38	***	41	64	1611	-.02	61	217
1703462	HEILO	7H1122	14	75	15	11	60	1979	-.17	45	216
1635843	PETE	7H0900	1325	2268	5	68	99	1790	-.11	47	205
1711154	LOUIS	7H0751	34	41	10	23	67	1714	-.08	49	204
1626813	MARS	7H0401	1232	2455	12	86	99	1746	-.10	47	203
1682467	IVAN	7H0591	41	55	9	2	77	1450	-.04	59	203
1677435	JOSIE	7H1113	5	50	7	6	41	1564	-.02	53	200
1680125	GAYLORD	7H0595	33	39	7	3	70	1558	-.02	53	200
1561753	WALKWAY	7H0182	1246	4284	8	25	99	1794	-.14	43	199
1666252	STAR WILLIE	7H1111	14	25	***	5	57	1610	-.15	42	199
1685527	LEE	7H0603	25	36	13	4	66	1635	-.07	48	197
1608425	CINNAMON	7H0241	2332	5244	10	62	99	1683	-.10	45	195
1675357	FRANK	7H0561	44	54	9	6	76	1313	-.08	60	195
1709993	VALENTIA	7H0760	40	47	7	7	72	1332	-.18	38	193
1724053	PATRICK	7H0773	38	49	9	9	70	1634	-.10	43	186
1731930	PINTO	7H0803	32	41	***	19	46	1341	-.04	55	188
1491007	ELEVATION	7H0658	9495	49268	5	6	99	1440	-.01	50	187
1646886	HIGH SPOT	7H0448	73	91	17	66	81	1727	-.16	37	184
1715210	EVOLUTION	7H0783	38	52	17	26	71	2087	-.53	22	184
1701643	MADELLO	7H0735	37	60	7	16	74	1103	-.14	51	182
1701967	SUPER	7H0715	31	35	11	3	66	1487	-.06	45	181
1690034	GAYIETY	7H0629	27	39	13	6	58	1292	-.03	52	180
1648394	MONEYMAKER	7H0903	404	643	7	80	96	1459	-.05	45	179
1681382	PERSEUS CHIEF	7H1126	17	65	7	5	65	1502	-.07	43	179
1663720	PABST	7H2294	154	313	9	6	93	1744	-.20	32	177
1693107	LULU	7H0683	31	40	17	0	68	1621	-.14	37	177
1590112	UK SENSATION	7H0190	2535	8420	9	24	99	1437	-.06	43	174
1728078	ARLINDA HARTOG	7H0864	22	25	***	92	53	1365	-.02	46	174
1734198	PRINCEP	7H1500	10	16	***	50	39	1677	-.18	33	174
1622953	LUCKY ROYAL	7H0902	309	527	2	82	95	1344	-.02	46	173
16P1734	JUNIPER	7H1115	17	42	0	9	55	1535	-.11	38	173
1644629	GLEN	7H0457	225	321	13	67	93	1495	-.10	39	171
1664286	ASTRO CHIEF	7H1120	7	24	***	0	40	1204	-.04	50	170
1697698	LUCKY	7H1121	6	34	0	22	39	1323	-.02	45	170
1648691	HANNIBAL	7H0473	45	69	12	19	79	1404	-.06	41	169
1699804	CHIEF STRIKER	7H0685	28	35	16	0	66	1256	-.01	47	169
1715982	FINESSE	7H0766	30	49	8	19	59	1305	-.02	45	168
1667692	MANNIX	7H0907	9	86	6	10	51	1409	-.08	39	165
1729637	A & H WAPA	7H0839	19	22	***	82	51	1470	-.11	36	165
1691991	BON BON	7H0617	28	33	11	0	56	1464	-.13	33	159
1700985	APRIL	7H0696	30	36	6	0	68	1393	-.09	36	159
1688842	FREE LANCER	7H0598	26	32	4	0	66	1404	-.11	34	156
1694963	TOP CHIEF	7H1117	15	21	***	0	54	1289	-.06	38	155
1713269	ROANOKE	7H0764	24	27	5	12	60	1263	-.04	39	155
1729295	POLY CHIEF CLASSIC	7H0835	29	39	***	87	63	1266	-.05	38	154
1703999	COLOSSAL	7H0727	18	34	0	0	55	1674	-.27	18	148
1721314	SUMMIT	7H0785	41	54	3	12	73	1307	-.10	32	146
1667607	VEEMAN	7H0514	31	40	12	3	71	1243	-.08	33	144
1716222	ROUND-UP	7H0775	37	49	***	46	70	1387	-.15	27	143
1610590	LANCELOT	7H2111	674	1514	8	28	98	1067	-.00	39	142
1629120	TREAT	7H0418	58	67	9	37	79	1346	-.14	28	142
1691659	WARRIOR	7H0575	26	32	0	4	67	1307	-.12	29	141
1717296	BRIGADIER	7H0765	42	51	9	17	72	1305	-.12	29	141
1660406	CINDER	7H0505	31	36	10	3	70	1444	-.13	23	140
1675762	BARBER	7H1107	14	35	0	12	57	1013	-.02	40	140
MIDWEST BREEDERS											
1674245	FORD	21H0280	54	66	7	13	80	2664	-.20	63	294
1690612	VICTORIAN	21H0568	9	29	0	0	50	1916	-.02	56	247
1732030	MAG	21H0583	14	17	***	100	43	2326	-.28	38	228
1680681	CYRANO	21H0575	17	44	3	5	65	1297	-.15	70	211
1707322	JUAN	21H0341	68	69	11	3	80	1583	-.00	57	209
1738883	TREB	21H0416	73	83	***	81	78	1286	-.09	61	195
1691711	CHIEFTAIN	21H0332	53	58	11	4	76	1609	-.07	47	193
1740146	TIDY	21H0482	24	91	***	80	80	1339	-.04	55	188
1727429	FROST	21H0580	59	62	14	23	75	1555	-.07	45	186
1684830	RICH	21H0478	10	64	7	4	50	1360	-.01	51	183
1659308	BART	21H0270	56	65	12	14	80	1011	-.18	64	181

REGISTRATION NUMBER	NAME	STUD CODE	NO. HEFDS	NO. DAUS.	PCT CULL	PCT RIP	PCT RPT	PREDICTED MILK	DIFFERENCE PCT	FAT	74 \$\$\$
HOLSTEIN -CONTINUED-											
MIDWEST BREEDERS -CONTINUED-											
1710057	JOEL	21H0357	74	61	7	9	92	1358	.00	49	179
1687902	ANDY	21H0410	64	67	12	40	81	1758	-.20	32	178
1699176	RAMROD	21H0683	9	60	9	3	48	969	.19	54	178
1689657	CHIEF	21H0301	99	116	12	1	88	1467	-.06	43	176
1730103	JETSET	21H0676	14	15	***	36	43	1630	-.17	33	171
1744601	MOONSHOT	21H0388	47	49	8	44	70	1451	-.08	40	170
1623662	ABEL	21H0246	1865	4300	9	49	99	1100	.09	53	168
1694652	MEDALLION	21H0333	71	76	3	4	82	1561	-.16	31	162
1721140	CAVALIER	21H0561	15	21	***	57	45	1249	-.03	41	158
1728128	ROMAN	21H0405	51	59	***	78	72	956	-.12	53	158
1598618	MILKMAKER	21H0319	1210	2315	9	37	99	1605	-.23	22	150
1692995	JESTER	21H0291	93	129	7	4	68	1045	.05	45	150
1640500	TIHO	21H0436	133	182	8	74	87	1227	-.06	36	148
1733344	FORESIGHT	21H0393	44	55	***	91	59	1418	-.16	26	144
TRI-STATE BREEDERS											
1733665	DENNIS	14H0665	23	52	***	63	64	1634	-.02	56	210
1795143	AL	14H0610	7	26	***	14	42	1728	-.12	44	196
1718523	SANK	14H0635	17	41	7	33	61	1568	-.07	46	189
1714326	VIOLIN	14H0600	6	21	***	6	44	1699	-.15	37	182
1689264	COMET	14H0580	19	42	3	16	63	1417	-.02	48	181
1699054	MONTY	14H0670	12	27	***	46	49	1281	-.04	53	191
1642796	GRUENDALE	14H0530	54	91	0	67	75	1488	-.08	41	174
1709784	GOLIATH	14H0640	23	50	3	31	66	1600	-.15	35	172
1734212	GENIUS	14H0467	12	19	***	89	43	1221	.04	50	171
1757833	DEL	14H0474	12	18	***	78	42	1626	-.18	30	165
1580020	COMMANDER	14H0277	3954	14259	8	20	99	1241	.00	45	164
1695401	TEX	14H0645	8	22	***	15	39	1268	-.01	44	164
1716764	DANNY BOY	14H0443	49	105	12	55	80	1379	-.07	39	161
1663497	PERSUADER	14H0495	190	327	9	64	92	977	-.12	54	151
1634661	WEN-JO	14H0570	8	93	11	11	59	1343	-.07	38	159
1674582	R A WONDER	14H0550	23	51	8	17	67	1565	-.13	27	156
1726440	PRAIRIE	14H0468	11	13	***	100	36	1265	-.06	37	152
1685148	MAXMAKER	14H0395	20	27	12	0	61	1635	-.04	44	148
1732992	ANIMATOR	14H0620	7	56	7	45	39	1300	-.11	30	142
GENETICS - CARNATION											
1731599	ARROW	11H2250	21	41	***	61	59	1939	.00	70	256
1713779	HERO	11H0466	9	23	***	11	50	1397	-.08	56	229
1701719	REBEL	11H2076	24	49	8	28	67	1745	-.02	60	225
1741025	ENGINEER	11H1340	13	15	***	100	40	2020	-.15	49	225
1754029	JASON	11H2139	17	23	***	100	50	1693	-.01	60	221
1740529	JEWEL	11H1329	12	15	***	87	40	1664	-.04	54	209
1726541	PRO	23H0226	17	27	***	26	56	1636	-.03	54	207
1655983	MONEY BAGS	11H2039	16	48	3	3	59	1188	.18	71	205
1697109	CLIFFORD	11H1261	20	30	3	6	62	1576	-.01	55	203
1649214	PONCHO	11H2017	28	82	4	36	72	1833	-.15	42	200
1698983	CRAWLER	11H1264	20	59	0	7	63	1852	-.19	39	196
1712271	ELECTRON	23H0219	32	61	5	5	75	1516	-.03	50	192
1747064	HARDYS STARWARS	11H0313	12	13	***	100	37	1662	-.11	43	189
1733449	MIRACLE MAN	11H2120	13	22	***	95	47	1410	-.00	52	188
1695501	SILVER ROCKET	11H1242	16	28	4	4	59	1843	-.21	33	185
1690363	STARS PRIDE	11H2059	33	64	14	0	73	1351	.02	52	184
1726577	BIG ROCK	11H2600	55	99	***	63	80	1610	-.11	41	183
1734202	DANSEUR	11H2215	9	43	***	40	49	1595	-.11	41	182
1659978	BEACON	11H2025	8	12	***	0	43	1387	-.01	49	181
1703603	STAR KIT	11H2078	22	59	3	2	58	1910	-.27	26	178
1668920	SKIPPER	11H1162	18	57	0	12	64	1460	-.07	42	174
1681130	JEREMY	11H1204	27	78	5	7	74	1757	-.21	30	174
1706061	ASTRO BLEND	11H2641	18	23	***	19	54	1518	-.10	39	173
1753897	BOOKIE	11H2105	9	10	***	90	32	1439	-.07	42	173
1612677	EL CAPITAN	11H1057	29	50	2	5	71	1436	-.07	42	172
1690733	SILVER WAVE	11H1233	21	33	0	4	65	1554	-.12	37	172
1705317	STAR KING	11H2060	25	53	5	12	69	1326	-.01	46	172
1682056	MILLIS-AN	11H1208	14	71	10	29	59	1488	-.10	38	169
1595067	STAR PERFORMER	24H0692	375	1374	7	38	97	1687	-.21	28	166
1712938	FONZIE	11H1291	25	56	6	32	69	1196	-.03	48	166
1624877	PAYMASTER	11H0173	207	758	8	36	96	1402	-.08	39	165
1600743	PER HILARY	11H1012	375	1560	10	70	97	1611	-.18	30	164
1682949	APOLLO IDEAL	11H1215	20	28	5	5	62	1525	-.14	33	163
1706984	STANDO MAGIC	11H1273	15	35	4	20	59	1478	-.12	35	163
1729742	ANDY	11H1331	10	18	***	100	41	1395	-.08	38	163
1736388	GLENVIEW JOE	11H2132	29	54	***	69	57	1332	-.05	40	162
1712770	STARDOM	11H2103	28	53	2	14	72	1399	-.10	36	160
1607814	PARAGON BOOTMAKER	11H2612	573	1199	6	59	98	1533	-.17	29	157
1626486	CHAMP	11H1096	33	48	4	43	71	1233	-.03	40	155
1717127	JET	11H2106	13	30	5	19	56	1386	-.11	34	155
1626131	S BONANZA	11H1124	24	51	***	64	58	1239	-.04	39	154
1652210	TORNADO	11H0469	15	49	6	0	63	1379	-.11	33	153
1661728	ADVENTURER	11H2006	19	56	0	29	53	1251	-.05	38	153
1670356	REFORM	11H1160	28	42	12	3	70	1157	.00	42	153
1742725	ARION	11H2118	14	41	***	56	51	1459	-.15	30	153
1723229	REVELLER	11H1292	14	49	***	53	56	1311	-.09	33	148
1763021	FESTUS	11H2110	14	16	***	94	41	1807	.05	44	146
1676445	JURILEE	11H1168	38	66	9	9	75	845	.11	47	140

REGISTRATION NUMBER	NAME	STUD CODE	NO. HERDS	NO. DAUS.	PCT CULL	PCT RIP	PCT RPT	PREDICTED MILK	DIFFERENCE PCT	FAT	74 \$\$\$
HOLSTEIN -CONTINUED-											
A B S											
1724657	COLUMBUS	29H4000	11	29	***	10	48	2717	-.16	71	312
1712352	MARC	29H4215	9	19	***	63	41	2196	-.04	73	279
1736222	TOBY	29H3364	27	31	***	100	59	2425	-.19	57	267
1698738	PRINT	29H3161	43	52	0	2	76	2018	-.01	71	263
1684205	JASON	29H3064	34	45	3	2	74	2136	-.08	65	261
1684385	ELMER	29H3085	27	56	2	4	72	1876	.02	72	255
1726591	HAKIM	29H3360	28	33	***	88	59	1825	.01	68	244
1685359	DYNAMO	29H3098	35	42	5	0	73	1985	-.08	60	242
1743178	GERANJD	29H4230	9	21	***	100	43	2315	-.23	46	241
1704268	RADAR	29H3845	18	25	0	0	61	2042	-.11	56	239
1694023	SPARTAN	29H4138	37	54	5	18	74	2093	-.15	51	234
1733643	GALAXY	29H3359	24	28	***	96	56	1649	.04	66	229
1722425	MILKMASTER	29H3815	18	50	3	7	56	1780	-.03	60	227
1721497	ERIC	29H3303	44	52	16	29	72	2029	-.16	48	224
1650414	VALIANT	29H2851	219	288	8	81	93	1801	-.06	56	222
1680121	MILMAY	29H3105	25	46	12	3	69	1679	.00	61	222
1695218	TEMPEST	29H3130	51	43	6	7	71	1805	-.07	55	221
1705804	DYNASTY	29H3246	19	37	7	24	63	1610	.03	63	221
1715880	LUCK E	29H3287	49	66	10	23	76	1878	-.11	51	219
1738081	MAGNEETO	29H3593	12	19	***	89	45	1859	-.10	52	219
1647459	CHRIS	29H2811	766	1303	9	81	98	2454	-.38	27	218
1699493	VIC	29H3195	43	59	13	2	77	1644	.03	59	216
1714278	LOGIC	29H3268	43	59	6	29	74	1684	-.03	56	214
1727635	MAIZ	29H4195	9	20	***	85	36	2061	-.21	41	214
1700428		29H3204	15	27	8	0	59	1717	-.05	54	213
1670778	TANNSEN	29H3635	9	53	2	4	48	1673	-.04	55	211
1631223	MARS	29H2786	1010	1844	9	72	99	1315	-.17	42	206
1672325	DAIRYMAN	29H3820	12	40	4	30	56	1546	.01	57	205
1698925	VENTURA	29H4152	17	42	0	26	62	1689	-.07	50	204
1713821	SINNISSIPPI	29H3261	39	48	6	11	72	1990	-.21	38	204
1693549	MINUTEMAN	29H4151	15	82	2	23	64	1747	-.10	47	203
1694079	PLATEAU	29H3135	42	48	6	0	74	1847	-.15	43	203
1708145	ALLEN	29H3206	30	35	15	18	66	1479	.03	58	203
1564328	DEMAND	29H2510	2260	6372	6	17	99	2177	-.31	29	202
1707240	HARTLEY	29H4147	35	46	3	27	69	1656	-.07	49	200
1738730	KISHCO	29H3399	21	27	***	93	53	1517	.00	55	200
1701583	DOLAN	29H4070	15	37	0	16	58	1610	-.07	48	195
1672151	SEXATION	29H2960	31	44	4	7	73	1328	.07	59	194
1739490	ROCKETIER	29H3415	27	38	***	92	61	1902	-.21	35	193
1717713	BRITE	29H3295	44	59	0	40	74	1617	-.08	46	192
1692359	WEST	29H3131	40	56	10	2	77	1631	-.09	45	191
1750529	NASTASE	29H3376	35	41	***	75	65	1750	-.15	40	191
1663473	DIPLOMAT	29H2915	46	74	0	31	80	1577	-.07	46	189
1739643	MAPLE	29H3421	14	16	***	100	43	1626	-.10	44	189
1697162	KEN ROYAL	29H3183	37	48	8	5	73	1217	.10	60	188
1679918	DAVID	29H3088	41	60	10	0	78	1464	-.03	48	185
1698712	JEWELMAKER	29H4376	26	38	7	6	68	1542	-.07	45	185
1714309	ROSSITER	29H3258	49	59	5	12	76	1983	-.28	27	185
1671336	CHECKMATE	29H3086	56	82	8	3	83	1767	-.19	35	184
1704526	GRCHARD	29H3272	20	32	10	13	61	1545	-.08	44	184
1642993	MONEY-MAKER	29H2847	90	122	14	68	85	1909	-.25	29	183
1692173	HARVUE	29H3124	34	43	5	0	72	1639	-.12	40	183
1708937	JAX	29H3313	20	89	4	25	67	1732	-.17	36	183
1605637	BICKEN	29H4137	697	1837	6	60	98	1498	-.05	45	182
1679466	LYLE	29H4142	22	28	4	4	60	1776	-.19	34	182
1692253	CREST	29H4139	25	34	0	10	64	1792	-.20	33	182
1723830	TRIUNE	29H4130	8	17	***	35	37	1293	.04	53	181
1710482	STARFLEET	29H3286	15	50	3	21	62	1420	-.03	47	180
1714827	TILLER	29H3283	41	54	3	16	74	1425	-.03	47	180
1669592	MARVIN	29H2969	35	41	0	22	72	1571	-.12	39	177
1687535	DOMINANT	29H4141	18	23	5	5	58	1515	-.10	40	175
1692150	GRAND SLAM	29H3093	49	65	16	2	79	1009	-.16	61	175
1673127	LUMINOUS	29H3329	37	54	2	2	77	1521	-.10	39	173
1693030	LUKE	29H3145	15	35	14	6	59	1425	-.12	43	173
1725496	POLITICIAN	29H4175	36	43	15	29	67	1866	.12	57	172
1678710	BLEND	29H3070	33	101	4	9	75	1414	-.06	42	171
1672322	JORDAN	29H3050	123	218	11	14	91	1694	-.20	30	170
1685540	DIXIE	29H3760	7	38	6	3	47	1235	.01	47	167
1690469	HENRY	29H3081	25	34	7	0	67	1221	.02	47	166
1645942	BUFF	29H4150	53	106	4	71	77	1439	-.10	37	164
1693040	STONEY	29H3151	29	44	3	3	71	1293	-.04	41	161
1633380	FROSTY	29H2779	146	237	12	80	91	1269	-.04	40	157
1698918	EAGLE	29H3181	60	70	4	0	81	1184	-.01	41	153
1730049	IVANED	29H3337	37	46	***	76	67	655	-.15	54	153
1629385	MILESTONE	29H2785	2403	4748	8	74	99	1407	-.13	31	152
1673806	BELLE	29H3017	27	101	6	2	76	1120	.00	41	149
1450228	BOOTMAKER	29H1881	8027	28753	6	2	99	1249	-.07	35	147
1724058	HARMONY	29H4180	7	18	***	61	42	1208	-.05	35	145
1668484	SOONER	29H3645	18	31	***	25	56	1007	.03	41	141

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