OUTCROSS SIRES

HOLSTEIN – NAAB order

Bull Code	Name	CP	Pedigree	TPI	NM$	Milk	Pro	Fat	PTAT	UDC	FLC	SCS	PL	LIV	DPR	SCE	SSB	A2A2
11H012071	**AltaHORNET**		JETT X RODGERS	2588	757	2041	69	58	1.17	1.32	1.09	2.84	6.3	2.0	2.0	6.8	8.3	
11H011940	**AltaATANI**	CP	SILVER X SUPERSIRE	2571	740	1756	57	83	1.72	1.72	1.34	2.75	5.0	1.3	-0.2	8.5	8.0	
11H011888	**AltaDURST**	CP	MONTROSS X FREDDIE	2521	705	1961	67	63	1.38	1.75	1.45	2.95	5.4	1.5	1.0	6.3	6.9	✓
11H011877	**AltaSTAMP P**	CP	MONTROSS X EARNHARDT P	2411	630	2101	62	55	1.43	1.93	1.02	3.08	4.2	1.4	-0.2	6.1	6.2	✓
11H011860	**AltaSPARKLE**		SPARK X MONTROSS	2555	745	2167	73	64	1.62	2.06	0.63	2.82	5.1	-0.2	-0.4	5.7	6.0	
11H011767	**AltaCONCORD**	CP	RUBICON X SUPERSONIC	2626	815	999	50	118	1.53	0.97	1.05	2.85	4.5	0.7	0.2	7.2	6.7	
11H011755	**COMBINE**		BALISTO X YANO	2327	559	141	39	36	0.93	1.00	1.03	2.68	6.0	3.0	1.9	5.6	7.8	✓
11H011740	**AltaFACET**	CP	AltaSPRING X SUPERSIRE	2600	777	1585	62	98	1.39	1.16	0.93	2.80	4.7	0.4	-0.1	7.9	7.7	
11H011725	**AltaAMULET**	CP	JOSUPER X MOGUL	2674	803	2352	72	77	2.25	2.40	1.08	2.87	5.7	1.1	-0.2	8.3	7.4	✓
11H011549	**AltaSHOCK**		PRIDE X ERDMAN	2431	681	975	33	53	0.97	1.63	0.57	2.76	6.6	3.6	2.8	5.7	6.3	✓
11H011531	**AltaSABRE**	CP	JACEY X ROBUST	2536	666	1259	53	29	1.91	1.44	1.46	2.47	7.2	3.8	2.7	7.2	7.2	✓
11H011472	**AltaMEMORIAL**	CP	AltaOAK X MAN-O-MAN	2266	566	903	47	53	0.84	1.72	0.66	2.77	4.3	2.8	-2.1	8.3	6.4	
11H011435	**AltaCZAR**	CP	MOGUL X NIAGRA	2392	538	1083	43	67	2.30	2.85	1.52	2.80	1.5	-3.4	-1.4	6.3	7.4	
11H011414	**AltaPOSSESS**	CP	SUPERSIRE X PLAN	2324	594	2099	58	59	0.85	0.70	0.06	2.89	4.6	2.2	-0.4	7.4	7.4	
11H011406	**AltaMOPAN**		MOGUL X SUPER	2364	567	1021	27	56	2.14	2.82	2.13	2.75	4.6	-1.5	-1.1	7.1	7.5	✓
11H011348	**AltaBGOOD**	CP	ROBUST X MASSEY	2407	638	798	52	65	1.55	1.86	0.95	2.79	4.5	2.7	-1.8	7.2	8.0	
11H011320	**AltaPRESET**		ROBUST X PLANET	2380	690	1550	40	50	0.96	1.41	0.85	2.65	7.3	5.7	-0.9	8.3	8.4	
11H011316	**AltaBETTMAN**		ROBUST X MAN-O-MAN	2310	599	-38	38	66	0.38	0.71	0.51	3.04	3.8	2.9	1.9	5.3	5.8	✓
11H011302	**AltaALPHA**		SHAMROCK X DEANN	2324	568	834	32	57	1.16	0.98	1.35	2.78	3.8	2.7	0.3	6.6	8.2	✓
11H011298	**AltaSANFORD**	CP	ROBUST X PLANET	2235	509	387	20	15	0.81	0.96	0.91	2.69	7.2	4.7	3.3	5.5	7.7	
11H011293	**AltaECHELON**	CP	ROBUST X GOLDWYN	2389	555	1407	40	52	1.83	2.06	1.60	2.86	3.1	-0.8	0.9	6.2	6.6	✓
11H011256	**AltaMACBOOK**	CP	BOOKEM X MAC	2338	570	982	39	42	1.04	1.07	1.51	2.64	4.3	1.3	0.8	6.8	8.3	
11H011224	**AltaTERRA**	CP	PAUL X PLANET	2298	603	1173	40	55	0.81	0.75	0.38	2.99	4.8	2.8	0.9	5.6	7.9	✓
11H011201	**AltaSKODA**	CP	NIAGRA X LEIF	2247	460	784	30	27	1.52	2.18	1.67	2.59	4.0	3.9	0.4	6.6	8.5	
11H011100	**AltaEVERGLADE**	CP	MASSEY X O MAN	2337	523	545	45	75	0.56	0.25	1.38	2.83	0.8	-1.8	1.3	5.5	6.5	✓
11H000569	**AltaDO-RED**	CP	DURABLE X LAWN BOY P-RED	1958	330	1006	33	45	0.42	0.07	1.09	2.94	1.6	1.7	-2.3	7.8	7.9	✓
			Average	**2400**	**623**	**1226**	**47**	**58**	**1.29**	**1.45**	**1.09**	**2.80**	**4.7**	**1.7**	**0.4**	**6.8**	**7.3**	

- **DISCLAIMER: OUTCROSS SIRES SHOULD BE DEFINED ON AN INDIVIDUAL HERD BASIS WITH ALTAGPS. IT'S IMPORTANT TO DETERMINE A TRUE BALANCE BETWEEN GENETIC DIVERSITY AND GENETIC MERIT TO OPTIMIZE GENETIC PROGRESS.**

- In the genomic age, we are able to predict future inbreeding better than ever before. Genomic tests show the exact genetic profile that each animal received – instead of estimating it from the average of his/her parents. When it comes to AI sires, the genetic profile of each bull known is compared to a random sampling of the population to determine the average inbreeding coefficient. That figure is called GFI or "Genomic Future Inbreeding."

- This list of outcross sires includes only those that are less related to the population. Even though some of the bulls on this list have popular sire stacks, their genomic profile tells us that they are actually less related to the breed than other bulls that appear to be more outcross on paper.

- Depressed performance associated with inbreeding is already adjusted for in the published proofs. That means the evaluations for bulls with high GFI are already more regressed than bulls with lower inbreeding percentages.

- GFI values are calculated in comparison to the average genetic make-up of the breed. However, individual herds can have a very different genetic profile than average. In some herds, a specific sire with low GFI may actually create an inbreeding problem. Whereas, a bull with high GFI may be a great choice for a herd with a genetic profile that varies significantly from the breed average.

- If inbreeding is of concern to you, work with your trusted Alta advisor to set your own genetic plan, so that a more specific inbreeding can be calculated just for your herd through mating and herd ranks.

Alta