

**2009 NATIONAL FFA DAIRY CATTLE EVENT
SIRE SELECTION PROBLEM No. 1**

Situation: Semen from these four bulls is available. The bulls were selected to improve the next generation of this herd. RANK the four bulls as they best meet the following objectives in mating with the cow being considered below.

This herd owner has a purebred Holstein herd of 375 cows which is operated as a commercial herd. The lactation her average is currently 28,605M, 1,078F and 816P. Milk is marketed in an area that pays a premium for protein but the main concern of this mating is to create a sire of daughters with high production potential and correct type.

COW TO BE MATED		BULLS TO CONSIDER			
CURRENT RECORD	TRAITS	1	2	3	4
(2yr 1mo ME)	REL	92	98	92	92
29,700	MILK	+2080	+1841	+2256	+1638
3.96	FAT %	-0.05	-0.03	-0.13	-0.06
1176	FAT	+62	+58	+46	+44
	FluidMerit\$	+454	+455	+428	+522
2.95	PROT %	-0.07	-0.03	-0.08	+0.02
876	PROT	+42	+46	+46	+54
	NetMerit\$	+382	+421	+480	+515
	TPI	+1730	+1806	+1763	+1840
	Productive Life	+0.6	+1.0	+3.1	+2.8
	Daughter Pregnancy Rate	-1.2	-1.7	-1.4	0.9
	SCS	+2.98	+2.79	+2.65	+2.66
LINEAR SCORE					
40	STATURE	2.00T	3.25T	0.16T	1.30T
38	STRENGTH	0.44S	1.95S	0.69F	1.51S
38	BODY DEPTH	0.94D	2.34D	0.44S	1.09D
38	DAIRY FORM	3.00O	2.91O	1.33O	0.51O
14	RUMP ANGLE	0.45L	1.93L	0.02H	0.31H
36	RUMP WIDTH	0.47W	2.51W	0.31N	0.93W
32	LEGS-SIDE VIEW	2.10S	2.08S	1.30S	2.35S
39	FOOT ANGLE	2.68S	3.29S	1.65S	3.23S
24	FORE ATTACHMT	1.42S	2.73S	1.62S	1.02S
17	REAR UDDER HT	3.79H	3.80H	2.06H	1.22H
22	REAR UDDER WD	5.45W	4.05W	3.26W	1.51W
20	UDDER CLEFT	2.12S	1.76S	0.31S	0.67S
15	UDDER DEPTH	0.05S	1.06S	1.03S	0.71S
28	F TEAT PLCMNT	1.22C	0.86C	1.08C	0.75C
28	TEAT LENGTH	1.14L	0.23L	0.27S	0.26L

STATURE (T-TALL,S-SHORT); STRENGTH(S-STRONG,F-FRAIL);BODY DEPTH (D-DEEP,S-SHALLOW)
 DAIRY FORM(O-OPEN, T-TIGHT RIB); RUMP ANGLE (H-HIGH, L-LOW PINS); THURL WIDTH(W-WIDE,N-NARROW);
 LEGS SIDE VIEW (C-CURVED,S-STRAIGHT); FOOT ANGLE (S-STEEP, L-LOW);
 FORE ATTACHMENT(S-STRONG,L-LOOSE);REAR UDDER HEIGHT(H-HIGH,L-LOW);
 REAR UDDER WIDTH(W-WIDE,N-NARROW);UDDER CLEFT(S-STRONG,W-WEAK);UDDER DEPTH (D-DEEP, S-SHALLOW);
 F TEAT PLACEMENT (W-WIDE, C-CLOSE); TEAT LENGTH (L-LONG, S-SHORT)

Prepared by K.L. Heckaman, Purdue Extension – Kosciusko County, Warsaw, IN

2009 NATIONAL FFA DAIRY CATTLE EVENT
SIRE SELECTION PROBLEM No. 2

Situation: Semen from these four bulls has been purchased. The bulls were selected to improve the next generation of this herd. RANK the four bulls as they best meet the following objectives in mating with the cow described below.

This herd owner has a purebred Guernsey herd of 100 cows in which the main goal of the herd is producing milk to make cheese on the farm. The main type traits emphasized are medium sized cows with functional udders and correct feet and legs to be successful in the grazing operation. Milk not used for cheese production on the farm is sold to a fluid market. Current M.E. lactation average is 17,572M, 825F and 638P.

COW TO BE MATED		BULLS TO CONSIDER			
CURRENT RECORD	TRAITS	1	2	3	4
(3yr 3mo ME)	REL	82	76	90	89
18480	MILK	+726	+641	+1030	+420
4.6	FAT %	+0.06	+0.04	+0.12	+0.14
859	FAT	+43	+35	+66	+42
	Net Merit\$	+295	+236	+307	+205
3.7	PROT %	0.00	+0.04	-0.03	+0.03
677	PROT	+23	+28	+28	+18
	Cheese Merit\$	+297	+254	+298	+216
	PTI	146	143	208	154
	Productive Life	+2.50	+1.50	+0.6	+0.6
	Daughter Pregnancy Rate	-0.40	0.00	-1.6	-0.9
	SCS	+3.03	+3.00	+2.90	+2.97
LINEAR SCORE					
20	STATURE	+1.00	+2.00	+1.60	+2.30
20	STRENGTH	-0.30	+1.00	+0.50	+1.50
32	DAIRY FORM	+1.20	+0.80	+2.00	+1.60
18	RUMP ANGLE	H0.40	S0.40	H0.40	H0.10
17	THURL WIDTH	+0.50	+1.10	+0.30	+2.10
23	REAR LEGS	P0.60	P0.20	0.00	P0.80
37	FOOT ANGLE	S0.60	L0.10	S0.70	S0.70
25	FORE UDDER	+1.10	+1.10	+1.00	+2.40
28	REAR UDDER HT	+1.80	+2.00	+2.00	+2.20
28	REAR UDDER WD	+1.20	+1.20	+2.10	+1.40
32	UDDER CLEFT	+1.60	-1.10	+0.80	+0.40
34	UDDER DEPTH	S2.00	S1.40	S0.30	S1.50
17	TEAT PLACEMENT	C1.40	W1.20	C2.10	C2.00
35	TEAT LENGTH	S0.10	L0.50	S0.30	L0.50

RUMP ANGLE (H-HIGH, L-LOW); REAR LEGS (S-SICKLE, P-POSTY);
FOOT ANGLE (S-STEEP, L-LOW); UDDER DEPTH (D-DEEP, S-SHALLOW);
TEAT PLACEMENT (W-WIDE, C-CLOSE); TEAT LENGTH (L-LONG, S-SHORT)