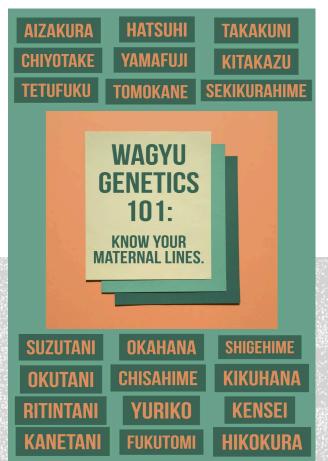


THE IMPORTANCE OF MATERNAL LINES

USA • AUSTRALIA • SOUTH AFRICA





- 1) RISK MANAGEMENT
- 2) FEMALES UNIQUE ABILITY TO TRANSMIT TO OFFSPRING
 - 3) MARKETABILITY
 - 4) GENETIC MERIT

Presented by:

Loren Ruth Synergy Wagyu









STONYRUN JERSEYS CASE STUDY

1985-1995 Observe/track maternal lines of USA Jersey Dairy Cattle

1988-2000 Acquire specific Jersey maternal lines

1995-2005 Export embryos to Australia from acquired donors

Note: Genetics entering Australia without any performance indexing on dams or sires in some cases

2000-2015 Development of imported female lines, females begin to out perform contemporaries in Australia

2015-Present Introduction of Genomics shown these maternal lines to be elite in a 2nd country, 20 yrs later

Current Stonyrun-Aus Jersey Herd

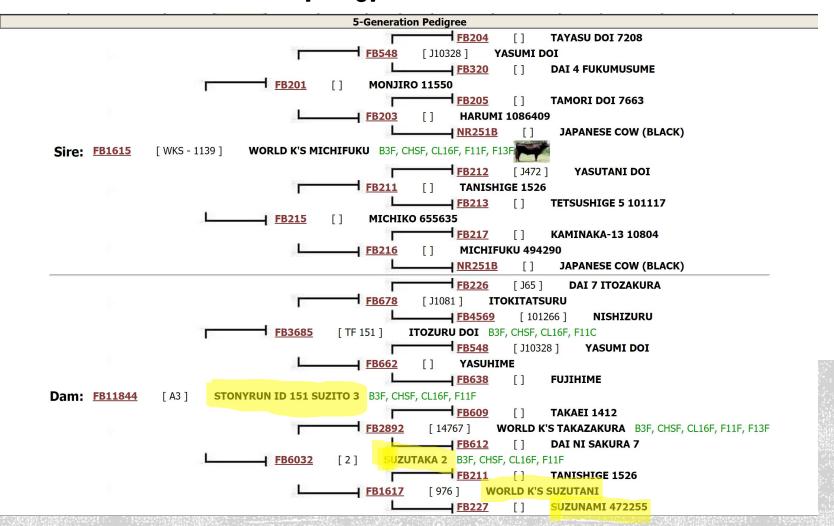
- 125 milking
- 100 young stock (replacement heifers)
- 6 of Top 100 Genomic females from 5 maternal lines





WHAT IS A MATERNAL LINE?

Synergy Mich Suzi 158D

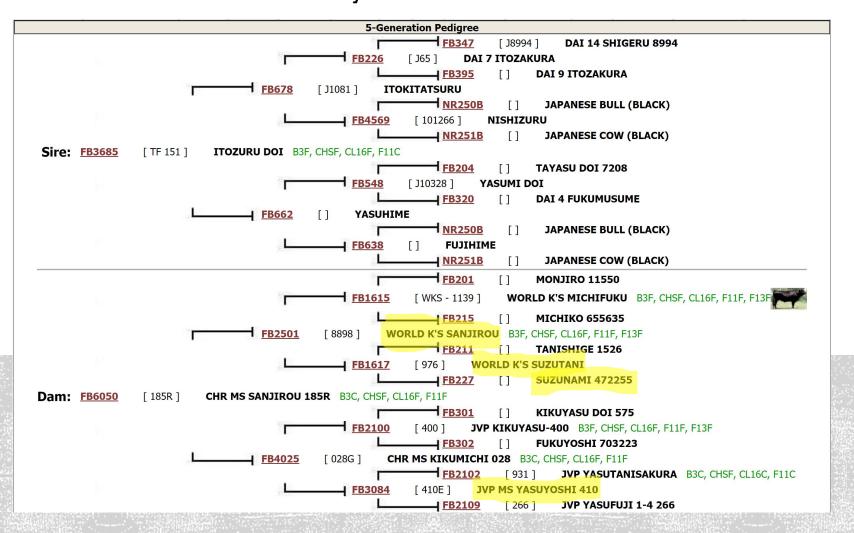






NOT A SUZUTANT?

Stonyrun ID 151 Yasu 4

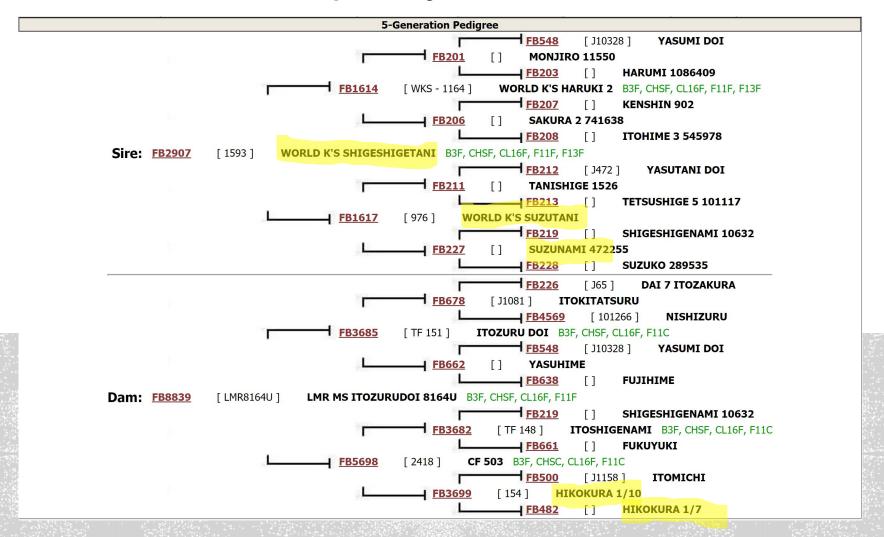






NOT A SUZUTANT?

Stonyrun Shig Hikokura 15







RISK WANAGEWENT

- 1) WE USE HIGH RELIABILITY SIRES
- 2) WHY NOT USE HIGH RELIABILITY FEMALES?
- 3) INCREASED CONSISTENCY AND UNIFORMITY: LESS FAILURE CARCASSES

4) HIGHER PERFORMANCE: MARBLE SCORE, MARBLE FINENESS, RIB EYE AREA, 200D WT, CARCASS WT, ETC.















FEWALES ABILITY TO TRANSMIT

1) EPI GENETICS

- INHERITED AND TRÍGGERED FROM THE MATERNAL ENVIRONMENT
- "TURNING ON OR OFF" GENES IN UTERO"
- HERITABLE PHENOTYPE CHANGES THAT **DO NO**T INVOLVE ALTERATIONS IN THE DNA

2) MITOCHONDRIAL DNA INHERITANCE

- MITOCHONDRIAL DNA INHERITANCE COMES FROM THE FEMALE ONLY - MITOCHONDRIA POWER THE CELL

3) CYTOPLASMIC INHERITANCE

- RESIDUAL ADDITIVÉ GENETIC INHERITANCE EFFECTS UNACCOUNTED FOR BY STATISTICAL MODELS

4) OTHER UNKNOWN GENETIC FACTORS

Sources/Read more:

https://www.ajas.info/upload/pdf/17_243.pdf

https://www.sciencedirect.com/science/article/pii/S0022030286807731

https://www.ncbi.nlm.nih.gov/pubmed/1597588

https://epigeneticsandchromatin.biomedcentral.com/articles/10.1186/s13072-016-0081-5

https://www.sciencedirect.com/science/article/pii/S0022030286807731





Maternal Line	Color
Hikokura	A
Suzutani	
Chiyotake	-
Chisahime	
Kensei	
Okutani	
Yamfuji	
Fukutomi	
Yuriko	
Tomokane	
Sakikurahime	
Moritakashige	
Sekiyoshiro 3	

MEASURING SUCCESS OF MATERNAL LINES: SIRE PRODUCTION

	May 2018 Wagyu GROUP BREEDPLAN															
Name/ID	Gestat Birth		200	400	600	Mat	Milk	Scrotal	Carcas	Eye	Rump	Retail	Marble	Marble	Terminal	Maternal
	Length		Day	Day	Day		(kg)		Wt	Muscle	Fat	Beef	Score	Fineness	Carcase	Line
	(days)	(kg)	Wt (kg)	Wt (kg)	Wt (kg)	Wt (kg)		(cm)	(kg)	Area (sq cm)	(mm)	Yield (%)		(%)	Index	
MACQUARIE WAGYU C1176 (AI)	-0.7	-1.1	(Kg)	(Kg)	(Kg)	(Kg)	-1	-1.1	9		-3	0.6	2.8	0.42	\$633	Aino/Aizakura
MAYURA ITOSHIGENAMI JNR (AI)	1.5	2.2	10	11	13	17	-5	-0.7	19	5.6	0	0.3	2.3	0.38	\$575	Hikokura
COATES ITOSHIGENAMI G113	1.1	1.3	10		21	25	0	0.,	39	1.8	-1.4	0.0	1.8	0.37	\$561	Hikokura
SUMO CATTLE CO MICHIFUKU F154 (AI)	1.1	0.9	9	17	21	19	-1	270	27	2	2.9	-0.8	1.9	0.48	\$527	Hikokura
MACQUARIE WAGYU Y408 (AI) (ET)	-1.8	1	12	23	22	20	3	0.5	17	1.9	-3.4	1	2.1	0.34		Chiyotake
WESTHOLME FUJITERU 3 (AI) (ET)	-0.7	0.5	6	0.000	10	14	-7	0.5	8	0.7	0.5	-1.5	2.1	0.38	\$477	Hikokura
WESTHOLME NAMIYOSHICHIKA	-0.6	-2.8	2	_	6	12	2	-0.8	14	5	2.6	-0.3	1.9	0.36		Yamafuji
MAYURA ADMIRAL A0113 (AI)	0.6	-0.2	2	2	4	7	-5	-1	17	1.4	-1.4	-0.2	1.7	0.24	\$435	Chivotake
WESTHOLME FUJITERUYOSHI	-0.6	0.8	8	14	18	20	-2	0.5	16	1.1	-0.9	-0.6	1.7	0.34	\$430	Tomokane
THE WRIGHT WAGYU HPCFK0262	0.6	2.9	20	26	41	31	5	-0.1	29	-0.5	0.8	-0.7	1.4	0.26	\$428	Kensei
VESTHOLME ASH 14 ITOSHIGE [CC]	-0.2	1.5	16	25	41	32	1	2	42	2.8	0.4	0	1.1	0.23	\$423	Kitayufuku
WESTHOLME HIRAMICHI TSURU	1.9	4.9	23	43	49	50	5	2.1	35	0.3	1.8	-0.6	1.2	0.31	A 5/2/20	Hatsuhi
VESTHOLME MICHIYUHOU 2/31 [CC]	0	0.9	14		30	25	0	1.6	25	1.8	1.8	-0.7	1.4	0.39	\$410	Tomokane
HER MURAI (AI) (ET)	-0.7	1.7	15	32	45	47	1	1	43	-0.4	1.8	-0.8	1	0.15	\$401	Okutani
UMO CATTLE CO ITOSHIGENAMI CO158 (AI	1.8	0.1	3	5	4	8	-7	-0.9	17	2.1	3.6	-1.2	1.5	0.39	\$395	Hikokura
UMO CATTLE CO MICHIFUKU F126 (AI)	-1.4	1.9	12	11	20	16	-6	-0.8	17	3.1	2.4	-0.8	1.5	0.41	Service Service	Hikokura
VESTHOLME ITOKITANAMI	-0.3	2.8	19	36	41	37	2	1.2	41	-2.4	0.7	-1.4	1	0.14	\$392	Hikokura
VESTHOLME KITAITONAMI (AI) (ET)	1.1	-2.9	-5	-13	-25	-15	-16	-0.8	-16	2.2	3.6	-2	2.2	0.39	\$387	Suzutani
PEPPERMILL GROVE LOOO4 (AI)	-0.2	1.7	8	10	12	12	-3	-0.6	11	2.8	-1	0	1.6	0.3	\$385	Fukutomi
VESTHOLME B0039 (AI) (ET)	0.9	2	14	22	30	26	2	-0.7	28	0.8	-0.8	0.3	1.2	0.22	\$379	Sekiyoshiro 3
VESTHOLME H0317 [CC]	-1.4	2.7	19	37	50	46	5	0.9	46	-1.3	-0.8	-0.4	0.8	0.15	\$374	Sekimasuokishida
MACQUARIE WAGYU F C1255 (AI) (ET)	0.6	0.5	5	11	5	-2	-4	-1.8	13	2.3	6	-1.5	1.5	0.46	\$373	Chisahime
ASHWOOD F X014 (AI) (ET)	-0.1	5.2	31	51	84	75	8	5.3	77	0.2	0	0.1	0.2	0.09	\$372	Namiko
(URO KIN DM 100/3 (AI) (ET)	0.8	2.2	14	25	38	40	0	-0.4	31	2.3	-0.3	0.4	1.1	0.14	\$371	Hikokura
UMO CATTLE CO HIRASHIGETAYASU E148	2	4.8	29	39	52	83	0	1.8	45	0.3	0.9	-0.1	0.8	0.32	\$370	Hikokura
OSHU KITAWAKI (AI)	-0.7	-1.3	1	3	-4	-3	-2	-1.7	-6	1.2	0.4	-0.7	1.9	0.39	\$369	Suzutani
RENT BRIDGE F D103 (AI) (ET)	1.4	1.4	9	21	22	25	2	1.1	26	2.6	1.6	-0.5	1.2	0.33	\$368	Hikokura
SUMO CATTLE CO F K014	0.6	1.4	11	17	22	26	0	-0.1	30	0.2	-1.9	0	1.1	0.2	\$366	Kensei
HER ZURUSHIGE B260 (AI) (ET)	-0.4	1	9	18	18	23	7	0.1	30	3.7	1.4	-0.1	1.1	0.33	\$365	Hikokura
54	-0.1	1	10	21	29	29	-1	0.2	29	-0.2	0.1	-0.5	1.1	0.14	\$363	Hikokura
ME D0676 (AI) (ET)	-0.1	1.4	13	22	46	46	-3	0.3	33	-1.5	0	-0.8	1	0.16	\$357	Kitakazu
BRAND ICHIRYUNO Z626 (ET)	-0.1	1.4	12	16	25	22	5	-0.2	27	4	2.5	-0.3	1.1	0.18	\$355	Chiyotake
ME NAMIYOSHI 4 (AI) (ET)	0.6	-0.1	5	10	11	15	-3	0.3	18	4	2.5	-0.3	1.3	0.23	\$355	Chisahime
ME SHIGETERUDOI (AI)	1.1	-2.4	-3	-7	-19	-14	-4	-0.9	-14	0	2.5	-1.8	2	0.4	\$353	Sekiyohou
ME H0232	-1.2	0.7	14	25	30	32	6	1.4	27	-1.6	2.1	-1.6	1.1	0.18	\$351	Moritakashige
'S KITAGUNI JR	-0.3	-3.6	-13	-20	-42	-23	-7	-0.5	-23	-0.3	0.5	-2.2	2.2	0.36	\$350	Nakayuki
ME K1325	-0.8	-2	3	5	3	3	1	-0.5	3	3	2.3	-0.7	1.6	0.33	\$349	Takakuni
IDGE F F0115 (AI)	0.4	-0.3	5	10	12	12	-2	-0.8	17	2.5	0.8	-0.1	1.3	0.32	\$349	Hikokura
V0088 (AI) (ET)	1.4	0	7	13	13	21	-1	-0.4	26	0.2	2	-1	1.1	0.2	\$348	Hikokura
UKE 2470Z (AI)	0.3	-1.6	-7	-6	-12	1	-7	-0.8	2	4.3	-1.1	0.3	1.6	0.21	\$347	Chisahime
ME ITOYUKIYOSHI	-0.7	-0.6	7	13	8	3	-6	-0.3	7	0.8	2.5	-1.1	1.5	0.27	\$346	Sakae
ME FIJITERUYOSHI	0.6	0.9	9	18	20	25	-1	1.2	15	0.7	0.6	-0.5	1.3	0.3	\$341	Kitayufuku
D 005 (AI) (ET)	-1.4	-1.2	0	-3	-7	-8	-4	-1.1	-12	3.9	-1	0.4	1.9	0.42	\$341	Suzutani
ME ITOKITAHIRA 5	-1.2	4.1	28	52	66	57	5	2	54	-1.6	-0.9	0	0.5	0.09	\$341	Sakikurahime
NAMI (IMP USA)	1.5	-1.5	-2	-7	-15	-12	-5	-1.5	-8	2	2.2	-1.1	1.8	0.27	\$339	
ARBLEMAX D356 (AI)	-0.4	-0.2	3	6	2	8	2	0.1	19	-0.6	0.5	-1.3	1.2	0.13	\$338	Chiyotake
.ME ITOKITATERU (AI) (ET)	-2.4	0.7	12	27	30	27	4	0.9	33	-3	-1.6	-1	0.9	0.11	\$338	Hikokura
D0427 (AI)	0.5	-1.2	-2	0	-8	6	-5	-0.4	10	0.1	-1.6	-0.7	1.4	0.27	\$338	Hikokura

LONGFORD 004 (AI) (ET)	-2.9	-1.5	0	-5	-8	-9	-4	-0.6	-18	4.6	-0.3	0.4	2	0.4		Suzutani
KURO KIN ITOSHIGENAMI D52 (AI) (ET)	0.5	0.7	8	15	24	19	-5	-1.2	23	0.9	3.1	-1.1	1.1	0.21	\$336	Kensei
WESTHOLME KITANAMIITO	0.2	-3	-5	-15	-28	-21	-11	-1.1	-22	-0.2	1.6	-2.1	2.1	0.4	\$335	Kitasekitori
LMR KOICHI 1409Y (AI) (ET)	0.8	-1.9	-8	-9	-17	-2	-7	-0.9	-1	-0.3	0.1	-1.5	1.6	0.32	\$334	Chisahime
WESTHOLME FUJITERUMIYA	-0.2	1.8	14	18	25	30	1	-0.5	18	1	2.6	-1.1	1.2	0.2	\$334	Yamafuji
THE WRIGHT WAGYU KANADAGENE J324	-1	0.9	13	20	30	27	2	-0.2	27	2.8	-1.6	0.8	1	0.21	\$332	Kensei
GINJO MARBLEMAX D993 (AI)	0.3	-0.1	5	11	17	16	1	-0.7	13	0.4	-0.3	-0.4	1.3	0.23	\$332	Yuriko
WAGYU GENETICS ITOSHIGENAMI E9162 (A	1.1	0.2	5	7	7	8	-3	-0.4	18	1.3	2.8	-1.2	1.2	0.18	\$332	Hikokura
TRENT BRIDGE F F0126 (AI)	1.3	-2.1	-6	-11	-23	-12	-9	-1.5	-10	2	2	-1.2	1.8	0.35	\$332	Hikokura
MOYHU F D0512 (AI)	-0.3	-0.1	2	0	-1	8	-4	-0.9	-10	1.6	-4	0.6	1.8	0.31	\$331	Fukutomi
WESTHOLME K0532 [CC]	-0.5	1.3	15	23	36	30	1	0.8	31	2	0.4	-0.1	0.9	0.17	\$329	Sekikurahime
GENJIRO (IMP CAN)	-2.4	0	15	25	39	31	1	1.3	31	0.7	2.2	-0.7	0.9	0.12	\$328	Okutani
GOSHU ITOMI (AI)	-0.3	-0.2	6	7	7	5	-4	-0.6	3	1.2	0.6	-0.7	1.5	0.25	\$327	Hikokura
WESTHOLME G1124	-1	0.5	10	12	16	19	3	0.9	12	-0.4	2	-1.5	1.3	0.25	\$327	Yamafuji
WESTHOLME K1566 [CC]	-0.9	1.5	16	26	40	30	4	1.9	36	2.3	0.3	0.2	0.8	0.22	\$326	Takakuni
TRENT BRIDGE L0189 (AI)	1	2.1	13	28	34	30	2	0	31	-0.2	0.2	-0.5	0.9	0.15	\$325	Hikokura
SUNNYSIDE F D65 (AI) (ET)	1	-0.5	4	10	13	15	-2	-1	16	1.6	2.7	-0.8	1.2	0.16	\$325	Hikokura
GINJO MARBLEMAX H817	2.3	1.9	12	25	29	39	0	0.2	35	0.4	0.5	0	0.8	0.15	\$324	Yuriko
SUMO ITOSHIGENAMI X0081 (AI) (ET)	1.3	1	3	1	3	8	-7	-1	-8	0.7	0.1	-0.9	1.7	0.28	\$321	Chiyotake
SHER SHIGESUZU A303 (AI) (ET)	0.6	-1.1	-1	1	3	6	-7	-1.1	10	2.5	1.1	-0.4	1.3	0.27	\$317	Suzutani
SUMO CATTLE CO MICHIFUKU G002 (AI)	1.3	-0.1	0	11	7	-1	-12	-1.6	14	3.6	1.1	0.1	1.2	0.3	\$317	Hikokura
SUMO F W0122 (AI) (ET)	1.9	2.3	11	17	22	23	2	-0.7	19	1	1.7	-0.7	1.1	0.24	\$316	Hikokura
OVERFLOW MIHASHI (IMP USA) (ET)	-0.4	-0.5	-1	1	-14	-12	-8	-1.3	-14	1.5	1.2	-0.9	1.8	0.43	\$314	Suzutani
WESTHOLME NAMIHARU (AI)	1.9	1.2	2	0	-2	2	-7	-2.1	-5	2.9	-1.8	0.2	1.6	0.33	\$314	Moritakashige
SHER ZURUSHIGE B119 (AI) (ET)	-0.4	0.4	7	14	10	15	2	-0.4	9	1.7	3	-0.7	1.3	0.26	\$314	Tetufuku
WORLD K'S KANADAGENE 100 (AI) (ET)	1.1	1.5	9	11	21	27	-8	-1.6	14	5.4	-0.2	1	1.2	0.22	\$314	Suzutani
WESTHOLME J0404 [CC]	0.9	0.8	12	24	27	29	-1	2.7	18	-0.5	4.4	-2	1.1	0.29	\$313	Sekiyoshiro 3
SOUTHERN CROSS SHIGESHIGEYASU (AI)	-0.5	-1	0	-1	-4	-3	-4	-1	-5	2.3	-1.8	0.3	1.6	0.31	\$311	Suzutani
MAYURA D0482 (ET)	0.1	0.1	1	0	-5	5	-6	-1.3	-1	8.3	-1.7	1.8	1.5	0.39	\$311	Hikokura
BALD RIDGE TERUTANI 40/1 Z116 (AI) (ET)	-0.7	1.2	14	28	43	41	2	1.6	47	0.6	2.4	-0.7	0.5	0.2	\$309	Chisahime
WESTHOLME E1135 (COM) (AI) (ET)	0.3	1.8	12	21	30	32	0	-0.4	22	0.7	-0.9	0	1	0.19	\$309	Umeko
WAGYU GENETICS TERUTANI E9006 (ET) (AI	0.1	2.6	18	31	48	48	4	1.2	47	-0.6	0.4	-0.4	0.5	0.16	\$308	Hikokura
TAMARIND T4 439 (AI) (ET)	1.3	0.1	5	7	6	10	-1	-0.7	12	1.1	1.9	-0.9	1.2	0.25	\$307	Hikokura
SAMURAI FARMS MICHIZURU (AI) (ET)	1.1	1.5	7	11	15	20	-5	-1.1	12	4.3	0.4	0.6	1.2	0.45	\$306	Suzutani
WESTHOLME K1927	-0.1	0	6	9	12	14	-4	-0.6	7	1.5	1.2	-0.7	1.3	0.29	\$305	lmori 1
KURO KIN TERUTANI H29 (AI)	0.2	-0.1	8	14	18	24	4	0.2	26	1	0.6	-0.3	0.9	0.23	\$304	Hikokura
TAMARIND T4 ITOSHIGENAMI 07/2 (AI) (ET)	1.2	0	5	7	5	9	-2	-0.5	12	1.2	1.8	-0.9	1.2	0.27	\$304	Hikokura
SUMO CATTLE CO ITOSHIGENAMI CO151 (AI	1,000,000	-0.5	0	-4	-9	-5	-5	-1.1	-2	1.4	3	-1.4	1.5	0.34	CASCASS PARTY	Hikokura
WAGYU GENETICS MICHIFUKU E9031 (AI)	1.5	0.4	3	2	1	5	-7	-1.9	2	4.3	0.9	0.1	1.4	0.36	\$303	Hikokura
WICKIUP KANADAGENE X162 (AI) (ET)	2	2.2	9	12	22	23	-8	-1.3	16	3.8	1.6	0	1.1	0.25	A 100 Miles	Hikokura
TRENT BRIDGE K0072 (AI)	0.4	0.9	7	9	10	16	-4	-0.9	11	4.2	2.7	-0.3	1.2	0.3	\$303	Kensei
WESTHOLME NAMIKAZE 9 (AI) (ET)	1.5	1.6	12	19	22	25	-2	-0.1	15	0.7	-0.4	0	1.1	0.22	\$301	Sasayoshi





GENETIC WERIT/VALUE

- 1) WHAT ARE YOUR GOALS?
- 2) PRODUCE HIGH QUALITY MEAT? PRODUCE ELITE SEEDSTOCK?
- 3) IF YOU ARE INVESTING IN AVERAGE GENETICS, SOMEONE ELSE WILL ALWAYS HAVE A BETTER PRODUCT. YOU WILL ALWAYS BE CASING THEM!
- 4) FEED COST IS THE SAME FOR AN ELITE ANIMAL AND BELOW AVERAGE ANIMAL IN MOST CASES.WHY NOT FEED AN ELITE ONE?

Value = Percieved Benefit/Cost





THANK YOU!!

1) AS A BREEDER/FEEDER IT IS YOUR
JOB/RESPONSIBILITY TO MAKE DECISIONS AND FIGURE
IT OUT.

2) AFTER ALL, IT IS YOUR INVESTMENT!



