# WAGYU BLOODLINES AND BREEDING DECISIONS

- Presented by: Loren Ruth

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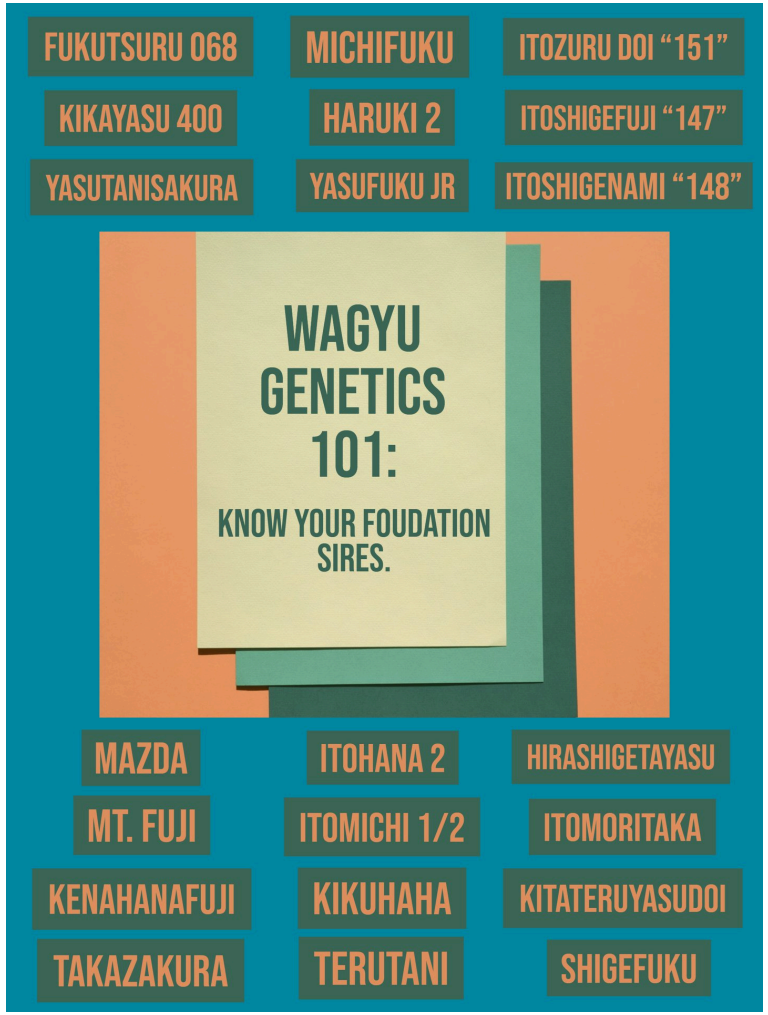
# Wagyu Bloodlines:




**Prefectural Percentages**: 16/16 Analysis: Tajima, Itozakura, Kedaka, etc

-Don't get caught up on these
-There are high marbling Tajima, Shimane, and Kedaka.
-There are high growth Tajima, Shimane, and Kedaka.

**Instead classify sires on traits**: Carcass (MS, MF, REA) specialists, Growth & Maternal specialists, or a Balance of both.

Prefectural Percentages are most useful for tracking inbreeding but Inbreeding coefficients do a better job

Essentially they have become obsolete with EBVs

| Tajima | Kedaka | Tottori | Itozakura | Shimane | Okayama | Hiroshima | Other | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 9.4 | 1.6 | 0.5 | 2.8 | 0.4 | 1.1 | 0.3 | – | 16 |

# Quote: Established Breeder

- **“Prefecture is not a focus for us, traders and consumers are only interested if it is fullblood, fine marbling, marble score, and eating quality.”**
  – Anthony Winter, Macquarie Wagyu
- Sells into an established Branded Beef line & their herd has bred leading sires such as Prelude, Y408, C1176, etc.

Macquarie Wagyu

# Female Bloodlines are Important!

- Aka **Cow Families** or **Maternal Lines**
- Female contributes half the DNA, just like the sire
- **Often overlooked** in carcass results & data evaluation
  - i.e. Itomichi ½ x Mayura Itoshigenami JNR steers will likely perform far better than Itomichi ½ x World K's Haruki 2 steers
  - May skew your perspective on how good Itomichi ½ is, Why EBVs are so valuable
- Mitochondrial DNA inheritance only coming from the dam
  - https://www.ajas.info/upload/pdf/17_243.pdf
- Cytoplasmic inheritance theories
  - https://www.sciencedirect.com/science/article/pii/S0022030286807731
- Epigenetics triggered in utero by the dam
  - https://epigeneticsandchromatin.biomedcentral.com/articles/10.1186/s13072-016-0081-5

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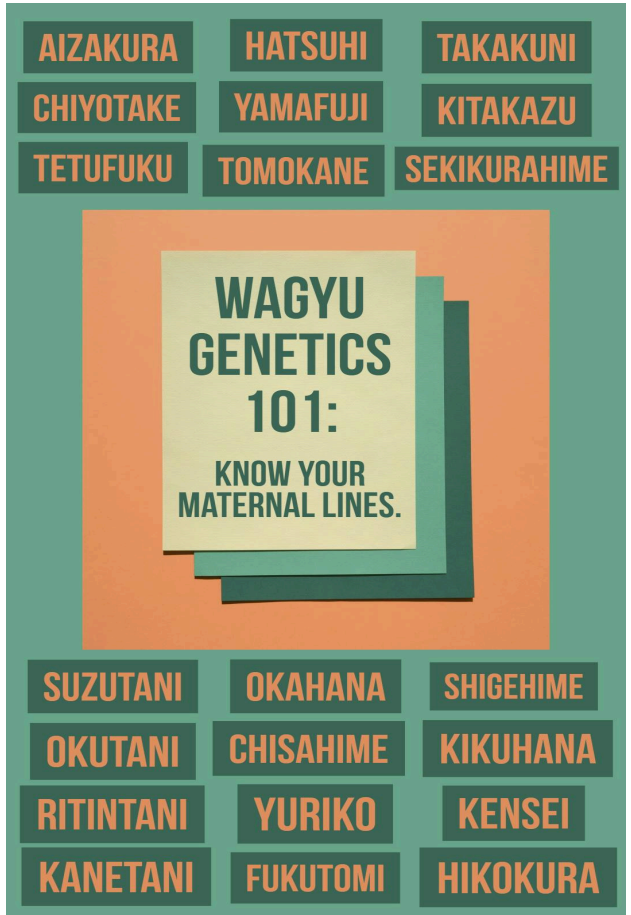
# The Importance of Maternal Lines




1) Risk Management

2) Females Unique Ability to transmit to offspring

3) Marketability

4) Genetic Merit

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# RISK MANAGEMENT

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.

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# WHAT IS A MATERNAL LINE?

## Synergy Mich Suzi 158D

**5-Generation Pedigree**

**Sire:** FB1615 [ WKS - 1139 ] **WORLD K'S MICHIFUKU** B3F, CHSF, CL16F, F11F, F13F

FB204 [ ] **TAYASU DOI 7208**
FB548 [ J10328 ] **YASUMI DOI**
FB320 [ ] **DAI 4 FUKUMUSUME**
FB201 [ ] **MONJIRO 11550**
FB205 [ ] **TAMORI DOI 7663**
FB203 [ ] **HARUMI 1086409**
NR251B [ ] **JAPANESE COW (BLACK)**
FB212 [ J472 ] **YASUTANI DOI**
FB211 [ ] **TANISHIGE 1526**
FB213 [ ] **TETSUSHIGE 5 101117**
FB215 [ ] **MICHIKO 655635**
FB217 [ ] **KAMINAKA-13 10804**
FB216 [ ] **MICHIFUKU 494290**
NR251B [ ] **JAPANESE COW (BLACK)**

**Dam:** FB11844 [ A3 ] **STONYRUN ID 151 SUZITO 3** B3F, CHSF, CL16F, F11F

FB226 [ J65 ] **DAI 7 ITOZAKURA**
FB678 [ J1081 ] **ITOKITATSURU**
FB4569 [ 101266 ] **NISHIZURU**
FB3685 [ TF 151 ] **ITOZURU DOI** B3F, CHSF, CL16F, F11C
FB548 [ J10328 ] **YASUMI DOI**
FB662 [ ] **YASUHIME**
FB638 [ ] **FUJIHIME**
FB609 [ ] **TAKAEI 1412**
FB2892 [ 14767 ] **WORLD K'S TAKAZAKURA** B3F, CHSF, CL16F, F11F, F13F
FB612 [ ] **DAI NI SAKURA 7**
FB6032 [ 2 ] **SUZUTAKA 2** B3F, CHSF, CL16F, F11F
FB211 [ ] **TANISHIGE 1526**
FB1617 [ 976 ] **WORLD K'S SUZUTANI**
FB227 [ ] **SUZUNAMI 472255**

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# NOT A SUZUTANI?

## Stonyrun ID 151 Yasu 4

**5-Generation Pedigree**

**Sire:** FB3685 [ TF 151 ] **ITOZURU DOI** B3F, CHSF, CL16F, F11C

- FB347 [ J8994 ] **DAI 14 SHIGERU 8994**
  - FB226 [ J65 ] **DAI 7 ITOZAKURA**
    - FB395 [ ] **DAI 9 ITOZAKURA**
  - FB678 [ J1081 ] **ITOKITATSURU**
    - NR250B [ ] **JAPANESE BULL (BLACK)**
  - FB4569 [ 101266 ] **NISHIZURU**
    - NR251B [ ] **JAPANESE COW (BLACK)**
- FB204 [ ] **TAYASU DOI 7208**
  - FB548 [ J10328 ] **YASUMI DOI**
    - FB320 [ ] **DAI 4 FUKUMUSUME**
  - FB662 [ ] **YASUHIME**
    - NR250B [ ] **JAPANESE BULL (BLACK)**
  - FB638 [ ] **FUJIHIME**
    - NR251B [ ] **JAPANESE COW (BLACK)**

**Dam:** FB6050 [ 185R ] **CHR MS SANJIROU 185R** B3C, CHSF, CL16F, F11F

- FB201 [ ] **MONJIRO 11550**
  - FB1615 [ WKS - 1139 ] **WORLD K'S MICHIFUKU** B3F, CHSF, CL16F, F11F, F13F
    - FB215 [ ] **MICHIKO 655635**
  - FB2501 [ 8898 ] **WORLD K'S SANJIROU** B3F, CHSF, CL16F, F11F, F13F
    - FB211 [ ] **TANISHIGE 1526**
  - FB1617 [ 976 ] **WORLD K'S SUZUTANI**
    - FB227 [ ] **SUZUNAMI 472255**
- FB301 [ ] **KIKUYASU DOI 575**
  - FB2100 [ 400 ] **JVP KIKUYASU-400** B3F, CHSF, CL16F, F11F, F13F
    - FB302 [ ] **FUKUYOSHI 703223**
  - FB4025 [ 028G ] **CHR MS KIKUMICHI 028** B3C, CHSF, CL16F, F11F
    - FB2102 [ 931 ] **JVP YASUTANISAKURA** B3C, CHSF, CL16C, F11C
  - FB3084 [ 410E ] **JVP MS YASUYOSHI 410**
    - FB2109 [ 266 ] **JVP YASUFUJI 1-4 266**

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# NOT A SUZUTANI?

## Stonyrun Shig Hikokura 15

**5-Generation Pedigree**

**Sire:** FB2907 [ 1593 ] WORLD K'S SHIGESHIGETANI B3F, CHSF, CL16F, F11F, F13F

- FB548 [ J10328 ] YASUMI DOI
  - FB201 [ ] MONJIRO 11550
    - FB203 [ ] HARUMI 1086409
      - FB1614 [ WKS - 1164 ] WORLD K'S HARUKI 2 B3F, CHSF, CL16F, F11F, F13F
        - FB207 [ ] KENSHIN 902
          - FB206 [ ] SAKURA 2 741638
            - FB208 [ ] ITOHIME 3 545978
              - FB212 [ J472 ] YASUTANI DOI
                - FB211 [ ] TANISHIGE 1526
                  - FB213 [ ] TETSUSHIGE 5 101117
                    - FB1617 [ 976 ] WORLD K'S SUZUTANI
                      - FB219 [ ] SHIGESHIGENAMI 10632
                        - FB227 [ ] SUZUNAMI 472255
                          - FB228 [ ] SUZUKO 289535

**Dam:** FB8839 [ LMR8164U ] LMR MS ITOZURUDOI 8164U B3F, CHSF, CL16F, F11F

- FB226 [ J65 ] DAI 7 ITOZAKURA
  - FB678 [ J1081 ] ITOKITATSURU
    - FB4569 [ 101266 ] NISHIZURU
      - FB3685 [ TF 151 ] ITOZURU DOI B3F, CHSF, CL16F, F11C
        - FB548 [ J10328 ] YASUMI DOI
          - FB662 [ ] YASUHIME
            - FB638 [ ] FUJIHIME
              - FB219 [ ] SHIGESHIGENAMI 10632
                - FB3682 [ TF 148 ] ITOSHIGENAMI B3F, CHSF, CL16F, F11C
                  - FB661 [ ] FUKUYUKI
                    - FB5698 [ 2418 ] CF 503 B3F, CHSC, CL16F, F11C
                      - FB500 [ J1158 ] ITOMICHI
                        - FB3699 [ 154 ] HIKOKURA 1/10
                          - FB482 [ ] HIKOKURA 1/7

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# 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

| Maternal Line | Color |
|---|---|
| Hikokura | |
| 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 Length (days) | Birth Wt (kg) | 200 Day Wt (kg) | 400 Day Wt (kg) | 600 Day Wt (kg) | Mat Cow Wt (kg) | Milk (kg) | Scrotal Size (cm) | Carcas Wt (kg) | Eye Muscle Area (sq cm) | Rump Fat (mm) | Retail Beef Yield (%) | Marble Score | Marble Fineness (%) | Terminal Carcase Index | Maternal Line |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MACQUARIE WAGYU C1176 (AI) | -0.7 | -1.1 | 1 | 0 | 0 | 1 | -1 | -1.1 | 9 | 3.4 | -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 | 18 | 21 | 25 | 0 | 0 | 39 | 1.8 | -1.4 | 0 | 1.8 | 0.37 | $561 | Hikokura |
| SUMO CATTLE CO MICHIFUKU F154 (AI) | 1.1 | 0.9 | 9 | 17 | 21 | 19 | -1 | -0.4 | 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 | $520 | Chiyotake |
| WESTHOLME FUJITERU 3 (AI) (ET) | -0.7 | 0.5 | 6 | 10 | 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 | 7 | 6 | 12 | 2 | -0.8 | 14 | 5 | 2.6 | -0.3 | 1.9 | 0.36 | $464 | 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 | Chiyotake |
| 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 |
| WESTHOLME 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 | $413 | Hatsuhi |
| WESTHOLME MICHIYUHOU 2/31 [CC] | 0 | 0.9 | 14 | 22 | 30 | 25 | 0 | 1.6 | 25 | 1.8 | 1.8 | -0.7 | 1.4 | 0.39 | $410 | Tomokane |
| SHER 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 |
| SUMO CATTLE CO ITOSHIGENAMI C0158 (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 |
| SUMO 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 | $394 | Hikokura |
| WESTHOLME ITOKITANAMI | -0.3 | 2.8 | 19 | 36 | 41 | 37 | 2 | 1.2 | 41 | -2.4 | 0.7 | -1.4 | 1 | 0.14 | $392 | Hikokura |
| WESTHOLME 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 L0004 (AI) | -0.2 | 1.7 | 8 | 10 | 12 | 12 | -3 | -0.6 | 11 | 2.8 | -1 | 0 | 1.6 | 0.3 | $385 | Fukutomi |
| WESTHOLME 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 |
| WESTHOLME 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 |
| KURO 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 |
| SUMO 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 |
| GOSHU 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 |
| TRENT 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 |
| SHER 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 |
| SHER F X254 | -0.1 | 1 | 10 | 21 | 29 | 29 | -1 | 0.2 | 29 | -0.2 | 0.1 | -0.5 | 1.1 | 0.14 | $363 | Hikokura |
| WESTHOLME 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 |
| DIAMOND 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 |
| WESTHOLME 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 |
| WESTHOLME SHIGETERUDOI (AI) | 1.1 | -2.4 | -3 | -7 | -19 | -14 | -4 | -0.9 | -14 | 0 | 2.5 | -1.8 | 2 | 0.4 | $353 | Sekiyohou |
| WESTHOLME 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 |
| WORLD K'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 |
| WESTHOLME K1325 | -0.8 | -2 | 3 | 5 | 3 | 3 | 1 | -0.5 | 3 | 3 | 2.3 | -0.7 | 1.6 | 0.33 | $349 | Takakuni |
| TRENT BRIDGE 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 |
| GINJO F W0088 (AI) (ET) | 1.4 | 0 | 7 | 13 | 13 | 21 | -1 | -0.4 | 26 | 0.2 | 2 | -1 | 1.1 | 0.2 | $348 | Hikokura |
| LMR DAISUKE 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 |
| WESTHOLME 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 |
| WESTHOLME 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 |
| LONGFORD 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 |
| WESTHOLME ITOKITAHIRA 5 | -1.2 | 4.1 | 28 | 52 | 66 | 57 | 5 | 2 | 54 | -1.6 | -0.9 | 0 | 0.5 | 0.09 | $341 | Sakikurahime |
| ITOSHIGENAMI (IMP USA) | 1.5 | -1.5 | -2 | -7 | -15 | -12 | -5 | -1.5 | -8 | 2 | 2.2 | -1.1 | 1.8 | 0.27 | $339 | |
| GINJO MARBLEMAX 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 |
| WESTHOLME 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 |
| MAYURA 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 |

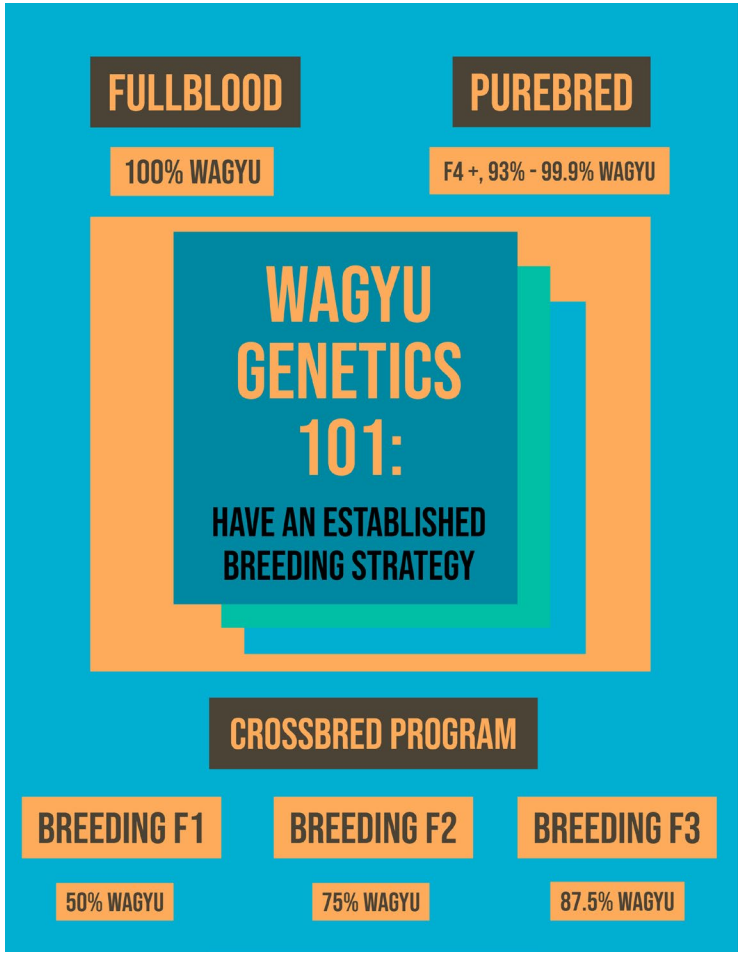
| Key |
|---|
| Suzutani |
| Chisahime |
| Yuriko |
| Shigehime |
| JVP Kikuhana |
| JVP Yasuyoshi |
| Okutani |
| Yamaketakafuji 3 |

## 2017 WSU Sire Summary EDPs: Maternal Lines Noted

| Reg # | Name | Marbling EPD | Acc. | REA | Acc. | Ex Fat | Acc. | HCW | Acc. | Maternal Line |
|---|---|---|---|---|---|---|---|---|---|---|
| FB2900 | Sanjiro 3 | 1.01 | 0.49 | 1.5 | 0.51 | -0.02 | 0.32 | -25.25 | 0.75 | Suzutani |
| FB2101 | JVP Fukutsuru-068 | 0.76 | 0.57 | 0.34 | 0.49 | 0.08 | 0.18 | - | - | Foundation Sire |
| FB5072 | Bar R Yasafuku 42K | 0.68 | 0.43 | 1.6 | 0.4 | 0 | 0.17 | -22.16 | 0.6 | Chisahime |
| FB6185 | Bar R Ichiro 31R | 0.68 | 0.37 | 0.79 | 0.39 | 0.1 | 0.18 | -4.87 | 0.59 | Yuriko |
| FB6521 | BR Itomichi 4632 | 0.55 | 0.32 | 0.54 | 0.34 | 0.06 | 0.14 | 14.79 | 0.54 | Shigehime |
| FB13915 | Bar R Saburo 53Y | 0.54 | 0.29 | 2.27 | 0.3 | -0.06 | 0.13 | -45.94 | 0.52 | Chisahime |
| FB8994 | Bar R Itoshigenami 48U | 0.51 | 0.42 | 1.24 | 0.45 | 0.08 | 0.24 | -28.11 | 0.71 | Suzutani |
| FB9861 | CHR Shigeshigetani 5 | 0.5 | 0.29 | 1.81 | 0.3 | 0 | 0.14 | 12.73 | 0.53 | JVP Yasuyoshi |
| FB2501 | World K's Sanjirou | 0.48 | 0.63 | 2.16 | 0.46 | -0.03 | 0.29 | -35.13 | 0.69 | Suzutani |
| FB12691 | HOH Kiatani 25Y | 0.46 | 0.45 | 0.91 | 0.47 | -0.02 | 0.26 | -3.76 | 0.63 | Suzutani |
| FB9420 | Michiyoshi | 0.46 | 0.35 | 2.14 | 0.35 | 0 | 0.15 | -9.12 | 0.56 | Yuriko |
| FB8895 | Bar R Yasufuku 34T | 0.44 | 0.35 | 1.42 | 0.38 | -0.02 | 0.16 | -22.71 | 0.57 | Shigehime |
| WSRFS064 | Overflow Mishashi | 0.44 | 0.41 | - | - | - | - | - | - | Okutani |
| FB5663 | Bar R Sanjirou 4P | 0.43 | 0.3 | 1.64 | 0.24 | -0.03 | 0.16 | -18.9 | 0.5 | Chisahime |
| FB1615 | World K's Michifuku | 0.42 | 0.65 | 1.88 | 0.54 | 0 | 0.3 | - | - | Foundation Sire |
| FB5836 | BR Michifuku 1628 | 0.42 | 0.32 | - | - | - | - | - | - | Yuriko |
| FB4934 | BR Kitateruyasudoi 9680 | 0.41 | 0.41 | 1.33 | 0.32 | 0.01 | 0.05 | -0.51 | 0.53 | Chisahime |
| FB4954 | Bar R Takasuru 1 K | 0.41 | 0.36 | 0.94 | 0.37 | 0 | 0.12 | 23.96 | 0.57 | Shigehime |
| FB5267 | BR Kitateruyasudoi 0632 | 0.38 | 0.37 | 1.92 | 0.26 | 0.02 | 0.09 | -3.7 | 0.58 | Chisahime |
| FB6135 | BR Kitateruyasudoi 0615 | 0.38 | 0.31 | 1.07 | 0.21 | 0.01 | 0.05 | 9.45 | 0.39 | JVP Kikuhana |
| FB6152 | BR Michifuku 1604 | 0.38 | 0.36 | 2.07 | 0.37 | 0 | 0.14 | -3.3 | 0.6 | Shigehime |
| FB5665 | Bar R 12P | 0.37 | 0.16 | 0.94 | 0.15 | 0.04 | 0 | - | - | Shigehime |
| WSRFQ062 | Kaneyama | 0.36 | 0.47 | - | - | - | - | - | - | Suzutani |
| FB14289 | Bar R Itomoritaka 42Z | 0.35 | 0.43 | 1.51 | 0.45 | -0.01 | 0.25 | -17.05 | 0.67 | Chisahime |
| FB6186 | Bar R Ichiro 32R | 0.35 | 0.35 | 1.58 | 0.4 | 0.02 | 0.17 | -4.45 | 0.59 | Chisahime |
| FB7713 | Bar R Dbl Suzutani 50T | 0.35 | 0.47 | 2.01 | 0.48 | -0.02 | 0.26 | -11.95 | 0.72 | Suzutani |
| FB7721 | Bar R Dbl Suzutani 59T | 0.34 | 0.51 | 1.65 | 0.52 | -0.03 | 0.31 | -28.58 | 0.76 | Suzutani |
| FB8177 | Bar R Shigeshigetani 30T | 0.34 | 0.52 | 2.25 | 0.54 | -0.09 | 0.34 | 23.31 | 0.78 | Yuriko |
| PB10308 | Dow Ranches 912 | 0.34 | 0.47 | 1.07 | 0.47 | 0.03 | 0.28 | 42.88 | 0.64 | Purebred |
| FB14364 | Prescott Ranch OZO | 0.33 | 0.42 | 1.56 | 0.43 | -0.07 | 0.22 | 25.81 | 0.61 | Yamaketakafuji 3 |
| PB13285 | Dow Ranches DWA33 | 0.33 | 0.44 | 1.38 | 0.45 | 0.01 | 0.24 | 53.01 | 0.62 | Purebred |
| FB4938 | BR Kitateruyasudoi 9678 | 0.32 | 0.36 | - | - | - | - | - | - | JVP Kikuhana |
| FB5055 | Bar R Fukutsuru 40K | 0.32 | 0.38 | - | - | - | - | - | - | Suzutani |
| FB4960 | BR Fukutsuru 9670 | 0.31 | 0.36 | - | - | - | - | - | - | JVP Kikuhana |
| FB5056 | Bar R Sanjirou 44K | 0.31 | 0.39 | - | - | - | - | - | - | Yuriko |
| FB14074 | Prescott's Y-15 | 0.29 | 0.43 | 1.34 | 0.45 | 0 | 0.26 | 45.82 | 0.62 | Yamaketakafuji 3 |
| FB2892 | World K's Takazakura | 0.27 | 0.6 | - | - | - | - | - | - | Foundation Sire |
| PB15642 | HOH 63Z | 0.27 | 0.42 | 0.29 | 0.43 | 0 | 0.23 | -14.95 | 0.6 | Purebred |
| FB6008 | CHR Hirashige 170P | 0.26 | 0.33 | 1.47 | 0.33 | 0.04 | 0.15 | 4.59 | 0.55 | Yuriko |
| FB4937 | BR Kitateruyasudoi 9676 | 0.25 | 0.33 | - | - | - | - | - | - | JVP Kikuhana |
| FB8376 | Westholme Hirashigetayasu Z278 | 0.25 | 0.38 | 1.02 | 0.38 | 0.06 | 0.19 | -3.28 | 0.58 | Takeharu |
| FB8995 | Bar R Itoshigenami 49U | 0.23 | 0.42 | 0.69 | 0.43 | 0.07 | 0.23 | -10.64 | 0.66 | Suzutani |

# Your Breeding Goal Will Determine the Genetics You Need

- **Crossbred Program**: F1 (50% Wagyu), F2 (75% Wagyu), F3 (87.5% Wagyu)
- **Purebred Program**: F4+ (93% - 99.9% Wagyu)
- **Fullblood Program**: 100% Fullblood Wagyu
- **A combination of two or more**

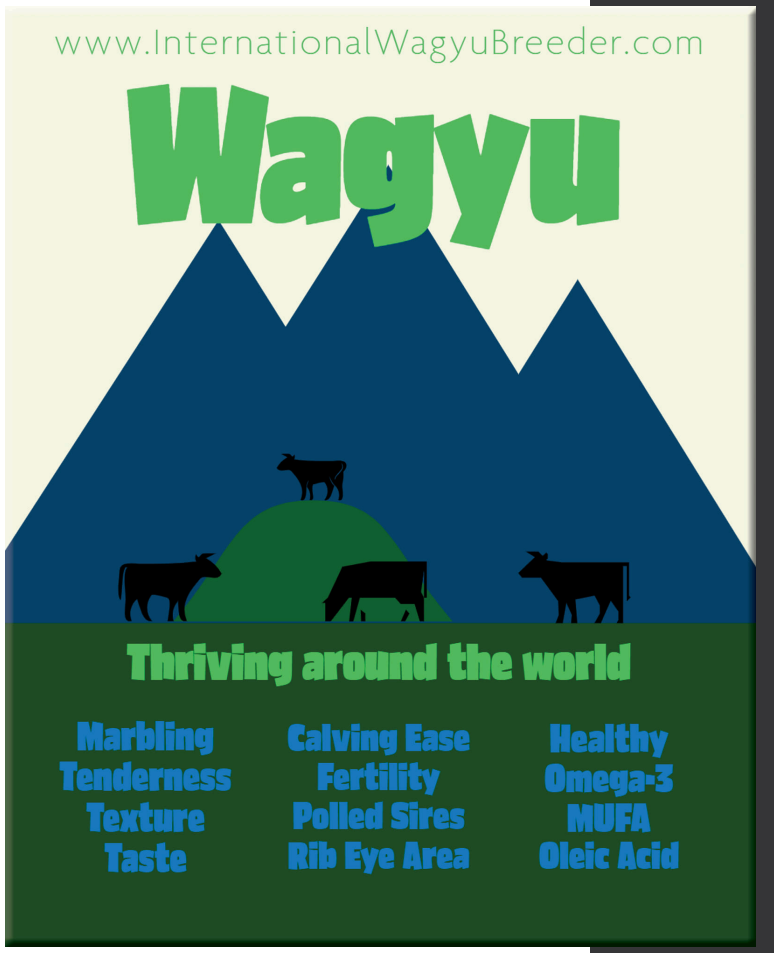


# Establishing a Breeding Strategy: What should I consider?

- **Current Resources**:
  Cattle, land, feed, infrastructure, etc.
- **Your Goals & Strengths**:
  i.e. Produce premium beef, strong cattle management team, etc.
- **End/Target Market**:
  Target marble score, price point, who is your buyer?, etc.

# Breeding Decisions: Basics

- End market should dictate decisions: Work backwards
  - How will I get paid?
  - What type of animal earns the most money in my payment system?
- What Traits Are Most Economically Important In Your System?
  - Scott de Bruin selected for Rib Eye Area, and now nets $500 more per carcass with no additional investment
  - SCD/Tenderness – have no economic value in a branded beef line, are not worth sacrificing other more valuable traits for
    - Don't mislead prospective buyer
- Successful Breeding is Optimizing Genetic Potential and Minimizing the Risk of Failure!
- Genetic Selection has the Greatest Opportunity for large ROI with the least $ input!



# Common Mating Decision Strategies

- **Random Mating**: Turn bulls out breed anyone, no rhyme or reason
- Mating based on inbreeding coefficient
- **Corrective Mating**:
  - Dairy – i.e. mating services
- **Linebreeding**: Consolidation of desirable traits
- Blanket AI or Natural Service: One sire on all cows
- Terminal Mating:
  - Sexed male semen
  - Carcass traits emphasized
  - No consideration to maternal traits, etc.
- Replacement AI:
  - Sexed female semen –
  - Focused on key replacement heifer traits
  - Less consideration to carcass traits

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# **Quote**: Established Breeder

- "**If I use this bull what is the risk."**
  –Scott De Bruin, Mayura Station
- **"Don't be fooled by Cheap or Inferior Genetics, they will have long lasting effects in your herd."**
  –Scott De Bruin 2018 AUS Wagyu Edge Presentation
- Mayura has its own Branded Beef line & has bred leading sires such as Mayura Itoshigenami JNR, Mayura Jackpot, Mayura Admiral A0113, etc.

# Why Use Proven Genetics??

- **First What is Proven?**
  - **Gold Standard**: Performance recorded data, Objective 3rd Party Carcass Data, Breedplan data backed proof, etc.
  - **Next:** inhouse performance & carcass data
  - **Last:** Opinion – i.e. "I killed some and they looked great"
- **Consistency & Reliability of Outcomes:**
  - Risk management
  - In reality a son is rarely better than his sire/father!
  - Need a saleable carcass

# Why Use Proven Genetics??

- **In reality a son is rarely better than his sire/father!**
  - Following is the effort that it takes to breed a top Holstein bull:
    - There are **10,000,000** Holstein cows in the USA
    - Of these **4,000,000** are milk fat and protein recorded
    - Of these **827,500** are registered
    - Of these **8,275** are elite cows (top 1%)
    - Of these **3,200** are classified as V.G. 85 or better (type assessment)
    - Of these **1,600** have V.G. maternal sire and V.G. dams
    - From these, **600** sons enter AI centres
    - After proving their daughters in a minimum of **30 herds** and **70 daughters** and minimum **reliability of 75%**
    - The top 10% return to service = **60 bulls** for use in USA herds
    - 1% or **6 bulls** become elite sires to sire the next generation
    - It takes a **minimum of 6 years** from selection to a proven sire
- How hard do you think it is to breed a genetically superior Wagyu bull?

Source:
http://blackmorewagyu.com/commercial-wagyu-farming

# “Cheap” or Inferior Genetics

- **“Don’t be fooled by Cheap or Inferior Genetics, they will have long lasting effects in your herd.”** – Scott de Bruin 2018 AUS Wagyu Edge Presentation
- **Long Lasting Effects**:
  - Their Steers – 3yrs+ from conception to harvest
  - Their Daughters – Replacements: 3yrs+ from conception until calving
  - Their Daughters Daughter’s – 5 yrs + if retained for breeding
- **Directly Impact Profitability**: Limit the Potential Performance of Animals

You own this!

AUST. Est 1845 Mayura

## *Genetic improvement, measured*

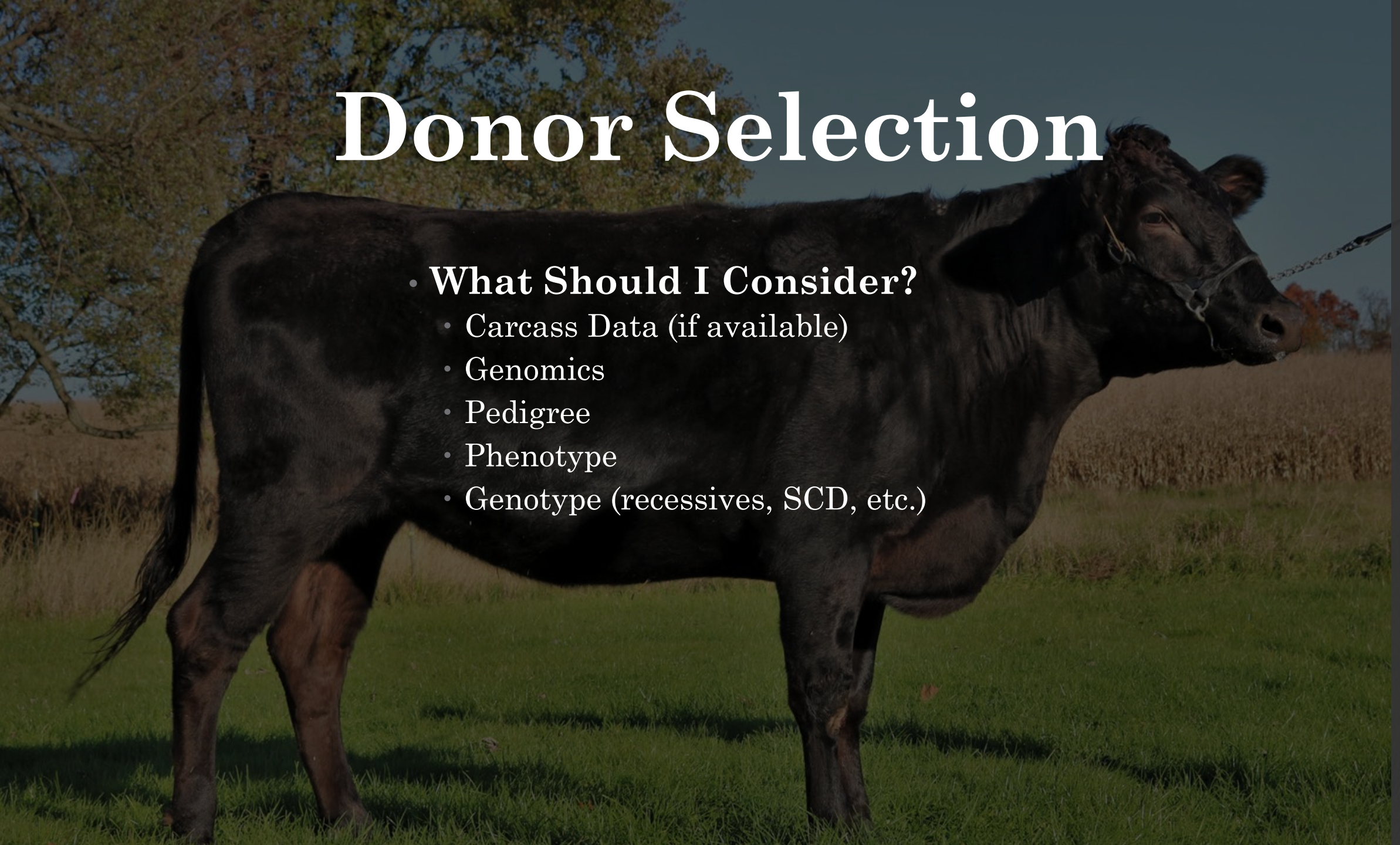
- Importance of genetic improvement of female lines
- Improvement in cow herd
- HSCW lifted by 7.1%
- EMA at 10/11th rib increased by 7.4%
- Ausmeat ave marble score increased by 17%
- **Age at Slaughter reduced by 24%**

| Cow Year Prefix | Z | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|---|
| AVE HSCW | 406 | 407.19 | 410 | 415 | 412.6 | 418 | 420.75 | 437.4 | 435 |
| AVE EMA | 94.45 | 93.56 | 93.79 | 92.92 | 94.62 | 96.34 | 98.39 | 100.45 | 101.43 |
| AVE MS | 7.45 | 7.88 | 7.75 | 7.77 | 8.07 | 8.05 | 7.75 | 8.28 | 8.73 |

# The Danger of Breeding with Indexes, Single Traits, Etc.

- **Potential Loss of Traits**
  - Example: Holstein Dairy Cattle
- **Potential to Amplify Weaknesses**
  - Example: Guernsey Dairy Cattle
- **No Corrective Mating**
- **Inbreeding not controlled**

# Donor Selection



- **What Should I Consider?**
  - Carcass Data (if available)
  - Genomics
  - Pedigree
  - Phenotype
  - Genotype (recessives, SCD, etc.)

# Mating My Donors

- What Should I Consider?
  - **Carcass Data** (if available): Strengths, Weaknesses
  - **Genomics**: Weaknesses, Strengths
  - **Pedigree**: Inbreeding, Complimentary genetics, Linebreeding
  - **Phenotype**: Strength, Faults/Corrections needed
  - **Genotype**: Recessives, Exon 5, SCD, etc.
- Sire Factors:
  - **Price**
  - **Availability**
  - **Reliability**
  - Above factors

Mayura L0010

World K's Michifuku

TF Itohana 2

# Proper Strategies for Utilizing Genomics:

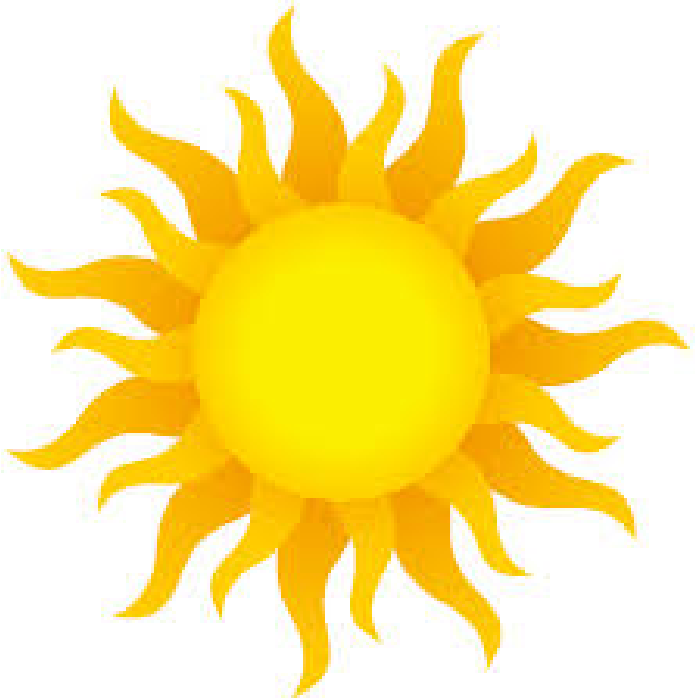
- **Whole Herd**:
  - Identify the top and bottom of the herd
  - Donors & Recipients

- **Within Herd:**
  - Individual Selection & Decision Making
  - Comparison of Siblings & Flush mates
  - Identify Individual Strengths/Weaknesses

- **National/International Level:**
  - Top Sire Selection
  - Top Females Selectin
  - Buy or Acquire new or complimentary genetics

# The Bright Future of Wagyu

- Increasing Global Demand for Premium Beef
- Increasing Buying Power of Global Middle Class
- Genomics/ GEBVs
  - Reducing DOF
  - Continued Progress in Carcass Traits
- Increased Availability of Elite Semen & Genetics
- Strong Diversity of Genetics
- EBVs Make Pedigree Reading Easier



SYNERGY
WAGYU
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# 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!