Department of Agriculture
PHILIPPINE CARABAO CENTER
CERTIFIED: ISO 9001 | ISO 14001 | OHSAS 18001

SIRE

DIRECTORY 2018

(Swamp and Riverine Buffaloes)

SIRE
DIRECTORY 2018

CIP

Sire directory 2018 (Swamp and Riverine Buffalo Bulls/by
Ester B. Flores, with all staff of PCC at CLSU & PCC at UPLB AI Station
- Science City of Muñoz, Nueva Ecija: Philippine Carabao Center, 2018.
68p.: illus.

Sire directory 2018 --(Swamp and Riverine Buffalo Bulls--Philippines.--
Flores, Ester B. I. Philippine Carabao Center.
Library of Congress Catalog No.: SF 401. W34 F56 2009

Technical Editor: Ester B. Flores
Managing Editors: Ma. Cecilia C. Irang
and Gillanne G. Gantioque
Layout and Design: Chrissalyn L. Marcelo
Photos: Jaime Giancarlo L. Ramos, Khrizie Evert M. Padre,
Chrissalyn L. Marcelo and Mar Kristoffer V. Delizo

Packaged and produced by the Knowledge Management Division
of the Philippine Carabao Center

ISBN 978-971-748-030-5

CONTENTS

MESSAGE

The Philippine Carabao Center (PCC) is delighted to provide you an updated list of semen donor-bulls for breeding and artificial insemination (AI). The reason for publishing this new sire directory, which is an innovative step to describe the genetic characteristics of the semen presently available at the PCC's sperm station, is due to the retirement of senior bulls and entry of new and younger bulls to the semen processing center. It features the outcome of genetic evaluation of the top foundation sires based on their daughters' milk production performance and that of their relatives. Their genetic merit for milk yield trait is expressed as estimated breeding value (EBV).

The directory elucidates the EBVs, pedigree records, best milk production performance and genetic potential of each bull currently used as improved breed. This would further help our farmers and buffalo raisers to get a basket of options for selection of an appropriate sire both for upgrading and crossbreeding.

PCC is pleased to impart these genetics to a myriad of buffalo owners and raisers through our specially-trained and skilled AI technicians nationwide. In order to serve better our clienteles, PCC has established a central semen storage and distribution facility at its national headquarters situated in the Science City of Muñoz, Nueva Ecija. You may also contact the PCC regional center nearest you for access to our services (see page 67 for contact details).

Arnel N. Del Barrio
Executive Director

ESTIMATED BREEDING VALUE DATA AND STATISTICS

With the arrival of Murrah-based riverine buffaloes from Bulgaria in 1997, the Philippine Carabao Center (PCC) established a breeding program with emphasis on increasing the milk production potential of island-born dairy buffaloes. Milk production of imported cows were recorded and evaluated with the best performing cows artificially inseminated with the frozen semen of progeny-tested bulls from Bulgaria. The island-born bulls from these elite matings were recruited into the progeny testing program. As only cows produce milk, a means by which to determine how good the genes these bulls are carrying as parents of the next generation, i.e. breeding values, is to evaluate their daughters hence, the need for progeny testing. This is done by producing daughters from a group of progeny-tested bulls in as many herds as possible. As breeding value cannot be determined directly but can only be estimated from phenotype (milk yield), the use of a suitable genetic evaluation model is needed. Estimated breeding value (EBV) is predicted for each animal included in each genetic evaluation run and is used to rank animals in order that the best bulls are mated with the best cows. In essence, genetic improvement program is a deliberate plan to mate selected individuals to produce the next generation that will be better genetically than the previous one. This is done on a yearly basis. The first model for genetic evaluation was a multi-trait 305D lactation model wherein the 1st, 2nd and 3rd lactation measures are considered different traits. The only production trait considered in this model is milk yield. Population-specific heritability estimates with this model were low to moderate ranging from 0.17 to 0.25. Nevertheless, substantial improvement in genetic potential has been achieved based on this model. The realized rates of gain per year for the first and second parity lactation measure was 17.7kg/yr and 15.14kg/yr, respectively.

In recent years, genetic evaluations for dairy have shifted to the use of test day records (once a month 24-hour record of milk yield)

directly rather than a single 305D lactation measure, as a test day model can account for systematic environmental effects more accurately and there is no need to adjust or standardize lactation yields to 305D. In 2014, PCC has implemented the use of a multi-trait random regression test day model (RRM) which involves the regression of merit on days in lactation to account for variation between cows in their performance across the lactation trajectory. It is multi-trait as milk yield, fat yield and protein yield are analysed simultaneously to predict breeding values for each trait. Higher estimates of heritability and accuracy are obtained using this model relative to using 305D lactation measures done previously. At the same time, RRM allows an individual cow's lactation curve to deviate from the average, making it possible to select for lactation persistency. Selection for persistency has distinct advantage for dairy buffaloes. This is because selection for higher total milk yield also invariably increases peak yield. Higher peak puts stress to cows and may lead to more health and reproductive problems. Under medium to low production systems commonly seen in small hold farms in the Philippines, the true potential of these dairy cows may not be achieved. Selection for persistency will also produce a flatter curve and could address short lactations commonly seen in buffaloes. It is for these reasons that the PCC has now shifted to multi-trait random regression test day model for genetic evaluation of dairy buffaloes.

For each animal included in the analysis, including the sires in this directory, EBV and accuracies (Acc) are reported separately for milk, fat and protein yields. Higher EBVs equate to higher genetic merit thus, choose bulls with higher EBVs. There is also re-ranking of bulls for fat and protein yields, i.e., some bulls that might not be top ranked based on milk yield but might have higher ranking for fat or protein yield. To improve fat and protein yields in future generation of cows, choose bulls with high EBVs for fat and protein yield. For bulls with daughters

ESTIMATED BREEDING VALUE DATA AND STATISTICS

in recorded herds, EBVs are reported from daughters' milk production performance and accuracies computed based on the number of daughters contributing to the information. Thus, the higher the number of daughters, the higher is the accuracy and is less likely that EBVs will change with subsequent runs. Accuracy can be defined as a measure of "unbiasedness" or the correlation between true breeding value and EBV with extreme values ranging from 0 to 1. However, for young bulls that have no daughters that are included in the genetic evaluation run yet, EBVs and accuracies are reported based on mid-parent (parent average) values.

The genetic trend for AI sires (Figure 1) is higher compared with the trend for the overall recorded population (Figure 2). This is because, only few of the best young bulls are recruited to become semen donors. Hence, in order to benefit from the best genetics available from PCC, use AI bulls in breeding your cows.

Furthermore, the PCC has a breeding program for swamp buffalo to improve its genetic potential for growth with body weight, average daily gain (ADG) and body conformation as selection criteria for bulls recruited to become semen donor. Currently, three (3) semen donor bulls that underwent such process are included in the sire directory.

Ester B. Flores
Genetic Improvement Program Coordinator

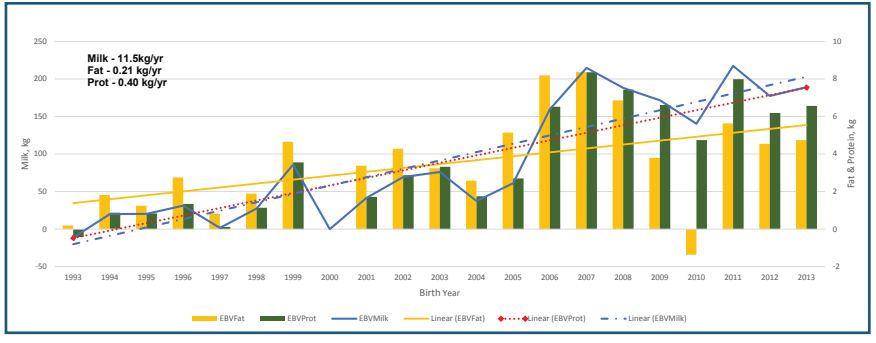


Figure 1. Average EBVs of dairy cows and bulls per birth year

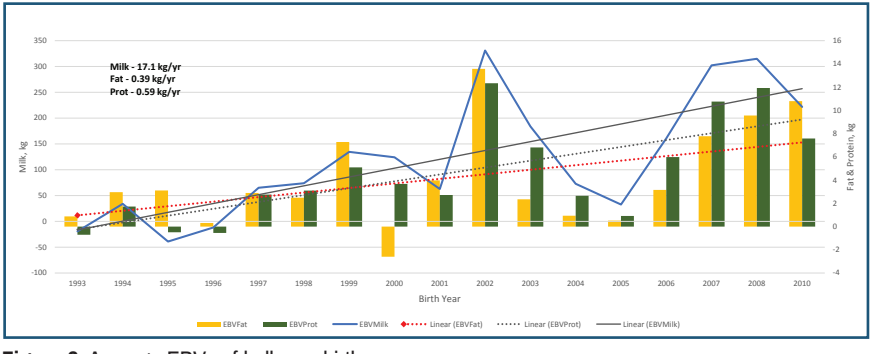


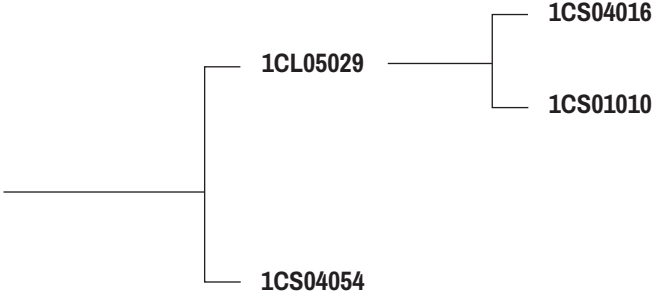
Figure 2. Average EBVs of bulls per birth year

THE SWAMP BUFFALO SIRES

IKONG

Date of Birth: 03/01/2012
Herd and Place of Birth: PCC at CSU I Piat, Cagayan

1CS12011



ADG200D, kg	ADG400D, kg	ADG600D, kg
0.58	0.41	0.39

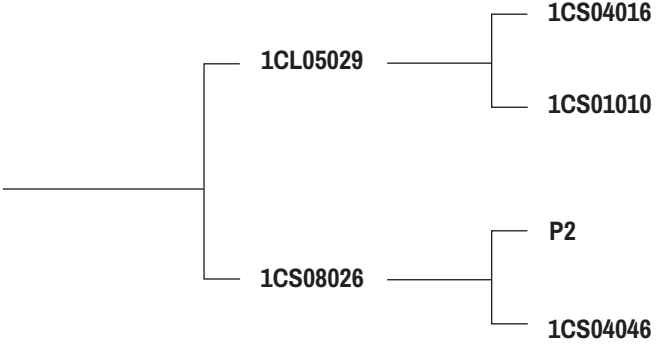
**ADG-AVERAGE DAILY GAIN*

KARDO

Date of Birth: 01/24/2013

Herd and Place of Birth: PCC at CSU I Piat, Cagayan

1CS13007



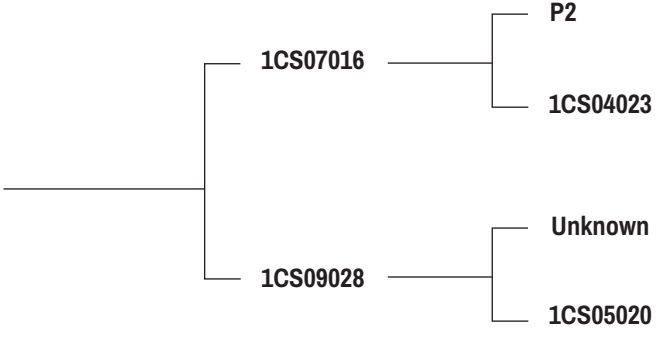
ADG200D, kg	ADG400D, kg	ADG600D, kg
0.55	0.46	0.38

*ADG-AVERAGE DAILY GAIN

EMONG

Date of Birth: 09/10/2014
Herd and Place of Birth: PCC at CSU I Piat, Cagayan

1CS14020



ADG200D, kg	ADG400D, kg	ADG600D, kg
0.53	0.47	0.41

**ADG-AVERAGE DAILY GAIN*

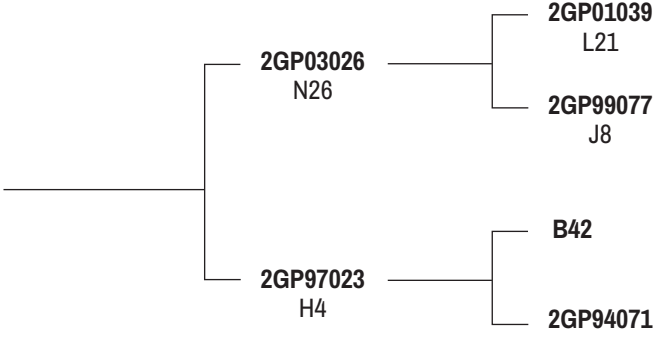
THE RIVERINE BUFFALO SIRES

DAVID

Date of Birth: 08/05/2011

Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11080



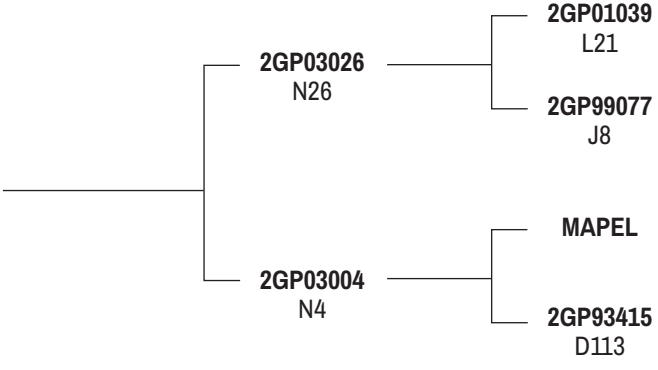
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	477.03	0.62	354.78	599.28
Fat yield, kg	16.95	0.49	5.30	28.60
Protein yield, kg	20.66	0.57	16.70	24.62
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,718.10	297	2718.1	
Sire's Dam	1,929.29	370	1718.39	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

NICK

Date of Birth: 01/22/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10003



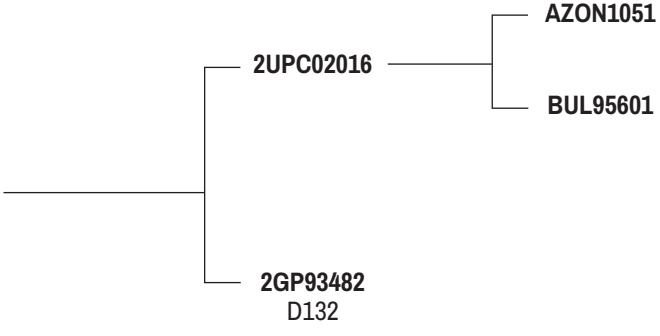
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	441.87	0.62	354.78	528.96
Fat yield, kg	16.53	0.49	5.30	27.75
Protein yield, kg	19.37	0.57	16.70	22.04
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,861.20	334	2663.9	
Sire's Dam	1,929.29	370	1718.39	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

MATT

Date of Birth: 07/22/2008
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP08041



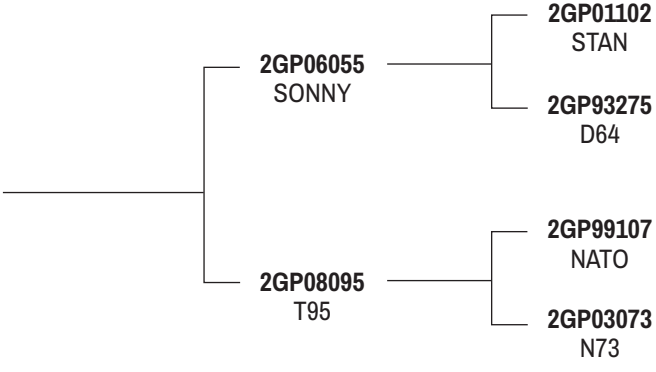
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	427.17	0.79	319.20	535.14
Fat yield, kg	19.05	0.69	21.37	16.73
Protein yield, kg	16.79	0.75	11.19	22.39
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,266.30	342	2125.9	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

FRED

Date of Birth: 09/13/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11108



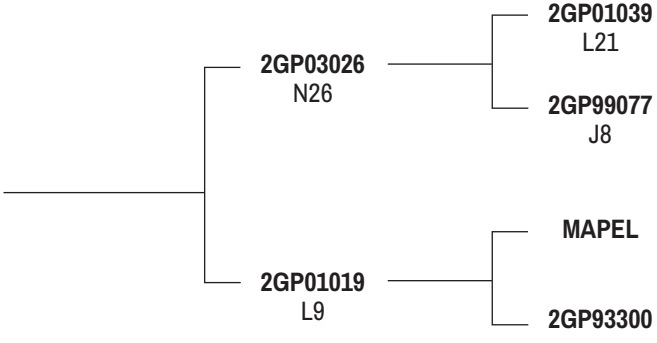
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	267.61	0.66	319.59	215.63
Fat yield, kg	9.67	0.54	9.00	10.33
Protein yield, kg	11.18	0.62	12.71	9.65
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,766.90	314	1753.9	
Sire's dam	2,068.40	402	1787.7	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

JOLO

Date of Birth: 02/26/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10022



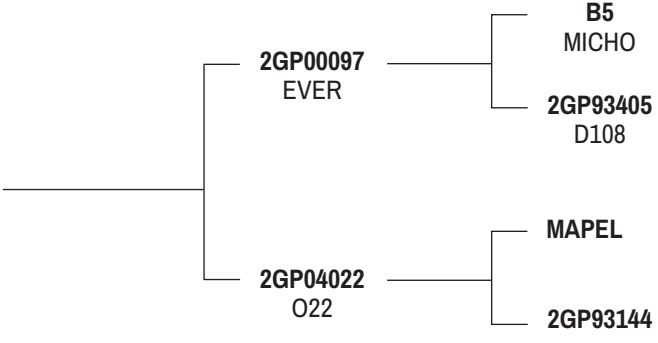
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	351.89	0.80	354.78	349.00
Fat yield, kg	14.94	0.71	5.30	24.58
Protein yield, kg	15.21	0.77	16.70	13.71
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,802.20	287	1802.2	
Sire's dam	1,929.29	370	1718.39	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

JONG

Date of Birth: 08/27/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11092



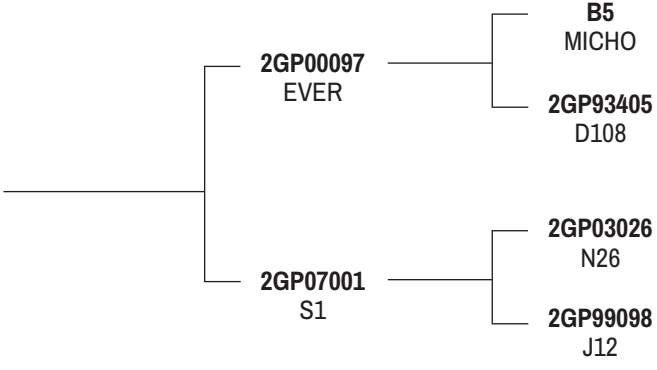
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	266.31	0.76	148.23	384.38
Fat yield, kg	2.84	0.66	-14.75	20.44
Protein yield, kg	10.02	0.72	4.08	15.95
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,259.80	306	2,256	
Sire's dam	3,032.80	342	2,828.3	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

WILL

Date of Birth: 02/07/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11023



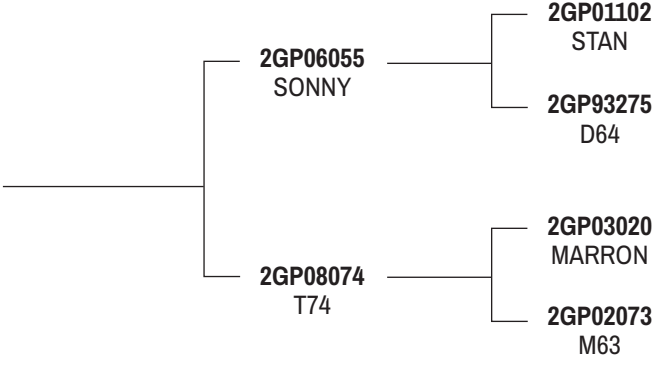
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	374.39	0.76	148.23	600.54
Fat yield, kg	5.29	0.66	-14.75	25.34
Protein yield, kg	15.11	0.72	4.08	26.15
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,305.00	336	2,177.88	
Sire's dam	3,032.80	342	2,828.3	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ARVIN

Date of Birth: 04/15/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11048



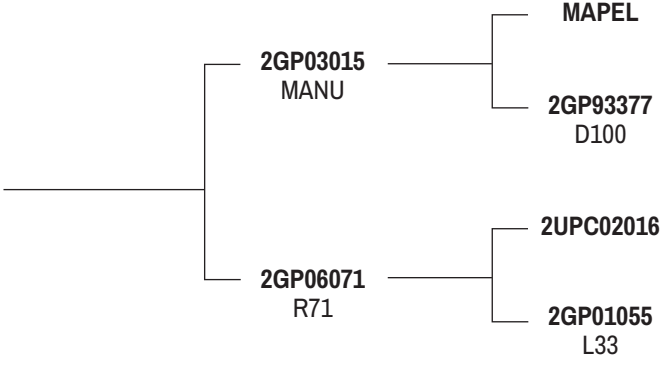
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	384.59	0.66	319.59	449.59
Fat yield, kg	18.36	0.54	9.00	27.72
Protein yield, kg	14.79	0.62	12.71	16.87
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,354.8	239	1,354.8	
Sire's dam	2,068.4	402	1,787.7	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

RALPH

Date of Birth: 07/29/2009
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP09054



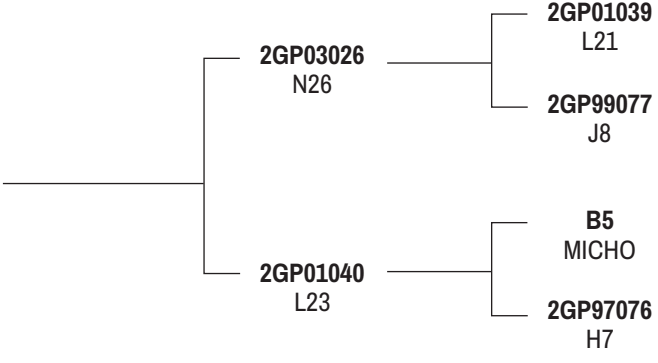
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	326.27	0.72	345.33	307.20
Fat yield, kg	15.32	0.61	20.8	9.85
Protein yield, kg	13.1	0.68	14.76	11.43
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,519.8	290	1,519.8	
Sire's dam	2,064.5	341	2,002.2	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

DENNIS

Date of Birth: 09/16/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11112



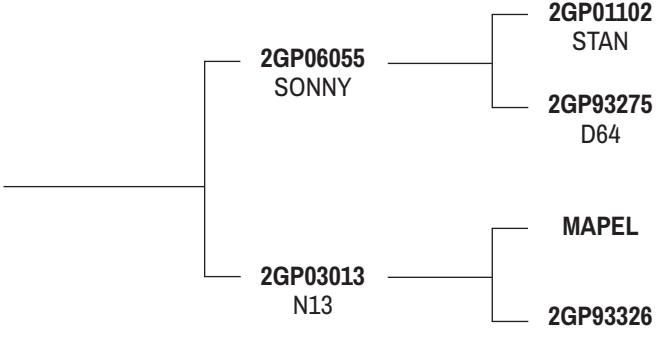
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	260.4	0.79	354.78	166.02
Fat yield, kg	8.78	0.7	5.3	12.26
Protein yield, kg	10.88	0.76	16.7	5.06
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,969.5	308	1,957.9	
Sire's dam	1,929.29	370	1,718.39	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

OMAR

Date of Birth: 11/10/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11162



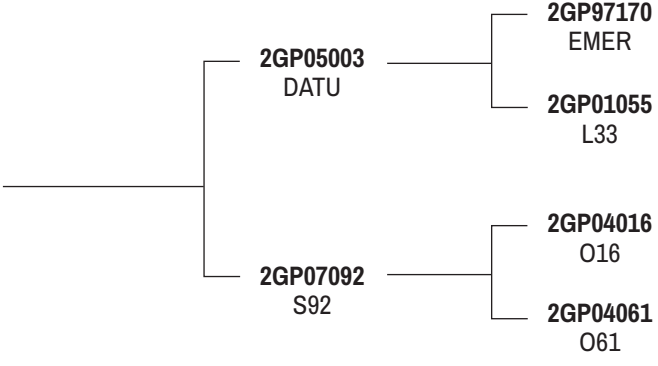
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	348.28	0.66	319.59	376.97
Fat yield, kg	18.98	0.54	9	28.96
Protein yield, kg	14.41	0.62	12.71	16.1
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,693.4	312	1,681.4	
Sire's dam	2,068.4	402	1,787.7	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

MIGS

Date of Birth: 08/22/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10048



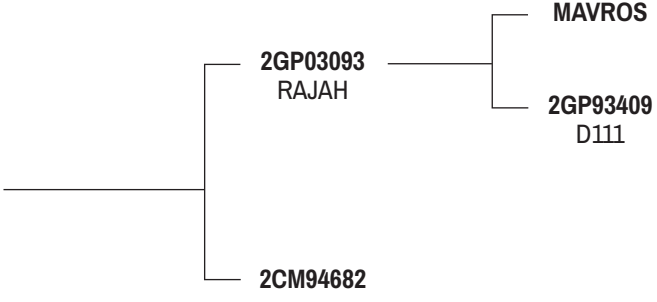
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	278.58	0.74	78.21	478.96
Fat yield, kg	8.43	0.63	-7.06	23.92
Protein yield, kg	11.07	0.7	2.65	19.49
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,498.3	288	1,498.3	
Sire's dam	2,446.1	324	2,397.5	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

MIKE

Date of Birth: 09/12/2010
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM10040



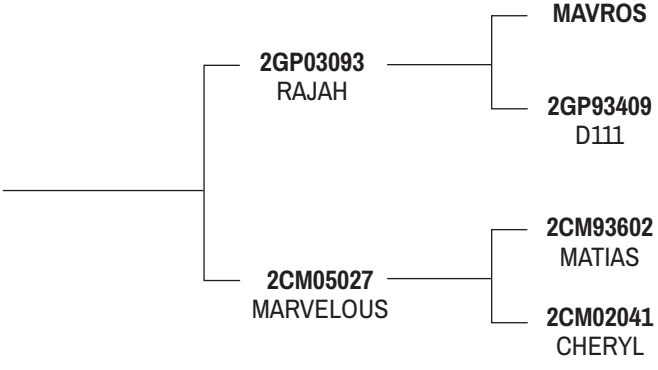
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	255.54	0.71	307.95	203.14
Fat yield, kg	0.65	0.6	-2.84	4.13
Protein yield, kg	9.71	0.67	11.80	7.62
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,993.4	307	2,981	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

GINO

Date of Birth: 10/24/2010
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM10049



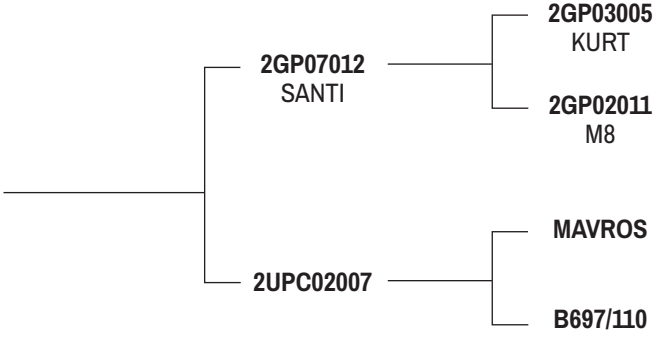
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	238.28	0.71	307.95	168.61
Fat yield, kg	2.63	0.6	-2.84	8.1
Protein yield, kg	9.63	0.67	11.8	7.45
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,005.50	306	2,000.5	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

TED

Date of Birth: 11/10/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11159



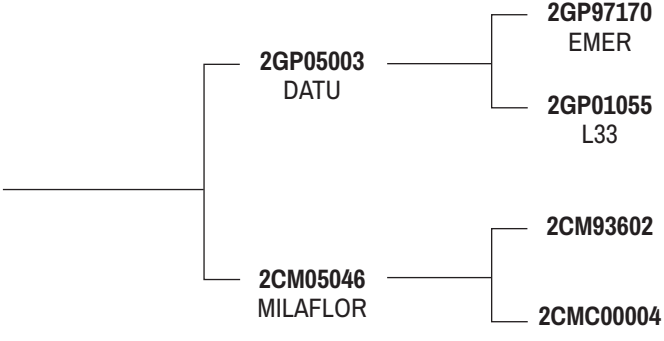
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	187.62	0.73	141.72	233.52
Fat yield, kg	-0.28	0.62	-4.86	4.3
Protein yield, kg	6.2	0.69	3.6	8.8
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,060.6	347	2,052.7	
Sire's dam	2,884.3	422	2,440.1	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

CHIEF

Date of Birth: 03/31/2010
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM10010



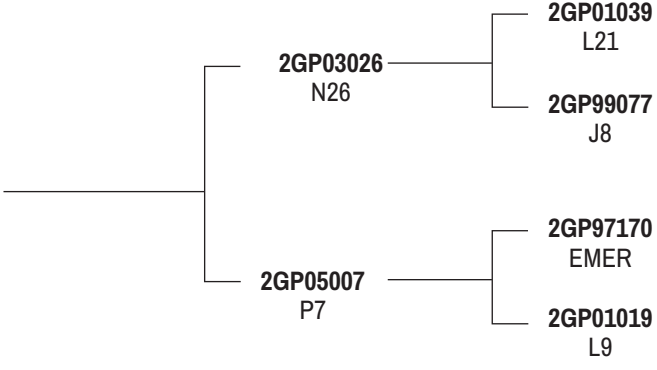
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	275.26	0.77	78.21	472.32
Fat yield, kg	15.08	0.66	-7.06	37.23
Protein yield, kg	10.84	0.73	2.65	19.03
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,905.00	305	1,905	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

DANIEL

Date of Birth: 11/05/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10103



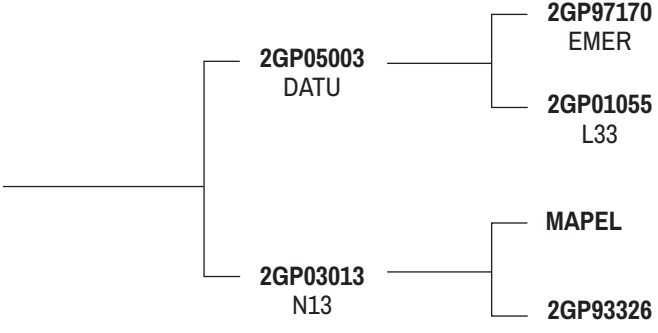
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	205.36	0.78	354.78	55.94
Fat yield, kg	7.71	0.68	5.3	10.12
Protein yield, kg	9.31	0.75	16.7	1.92
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,523.8	338	1,418.7	
Sire's dam	1,929.29	370	1,718.39	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

VON

Date of Birth: 11/11/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10105



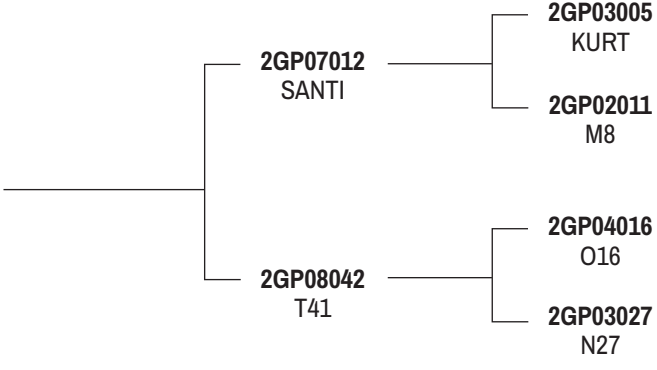
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	227.59	0.75	78.21	376.97
Fat yield, kg	10.95	0.65	-7.06	28.96
Protein yield, kg	9.38	0.72	2.65	16.1
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,693.4	312	1,681.4	
Sire's dam	2,446.1	324	2,397.5	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

CHAD

Date of Birth: 11/04/2011
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP11155



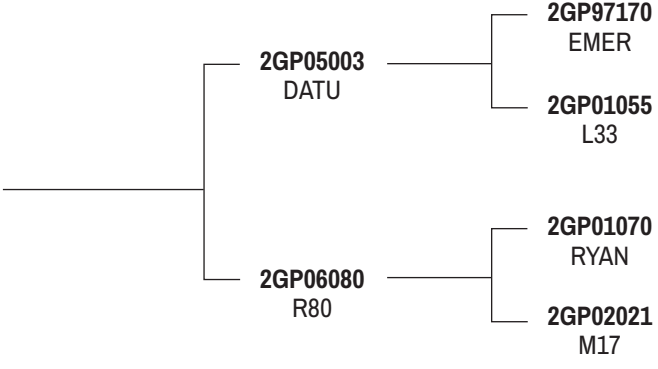
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	253.09	0.73	141.72	364.45
Fat yield, kg	6.71	0.62	-4.86	18.29
Protein yield, kg	9.41	0.69	3.6	15.22
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,620.2	346	1,614.48	
Sire's dam	2,884.3	422	2,440.1	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

JORDAN

Date of Birth: 10/18/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10089



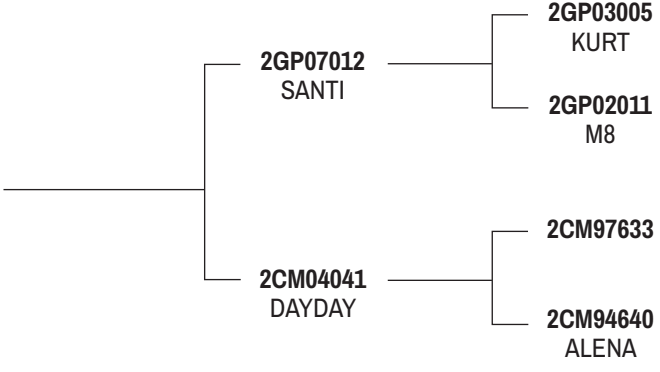
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	206.23	0.74	78.21	334.24
Fat yield, kg	6.63	0.63	-7.06	20.32
Protein yield, kg	7.98	0.7	2.65	13.3
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,745.4	277	1,745.4	
Sire's dam	2,446.1	324	2,397.5	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

CESAR

Date of Birth: 08/19/2011
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM11048



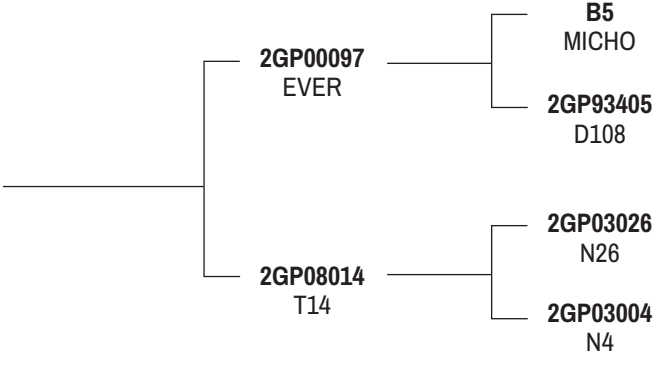
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	239.02	0.76	141.72	336.32
Fat yield, kg	5.72	0.66	-4.86	16.31
Protein yield, kg	8.89	0.73	3.6	14.19
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,866	294	1,866	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

HARRY

Date of Birth: 12/31/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10134



Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	257.51	0.76	148.23	366.79
Fat yield, kg	-0.89	0.66	-14.75	12.97
Protein yield, kg	10.05	0.72	4.08	16.01

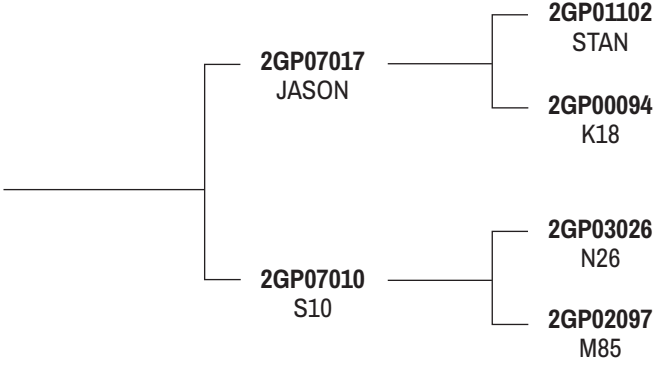
Best milk production performance			
	TMP,kg	DIM,d	305D Milk,kg
Dam	1,007.20	251	1,007.2
Sire's dam	3,032.80	342	2,828.3

*PA-PARENT AVERAGE *ACC-ACCURACY *TMP-TOTAL MILK PRODUCTION *DIM-DAYS IN MILK

KALOY

Date of Birth: 10/20/2013
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP13117



Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	282.1	0.75	120.66	443.54
Fat yield, kg	11.52	0.65	5.13	17.92
Protein yield, kg	11.42	0.72	3.22	19.61

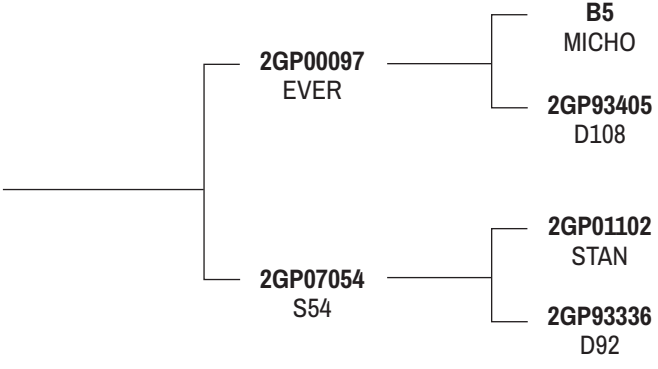
Best milk production performance			
	TMP,kg	DIM,d	305D Milk,kg
Dam	1,920.5	294	1,920.5
Sire's dam	3,081.5	312	3,038.8

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

HECTOR

Date of Birth: 09/13/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10070



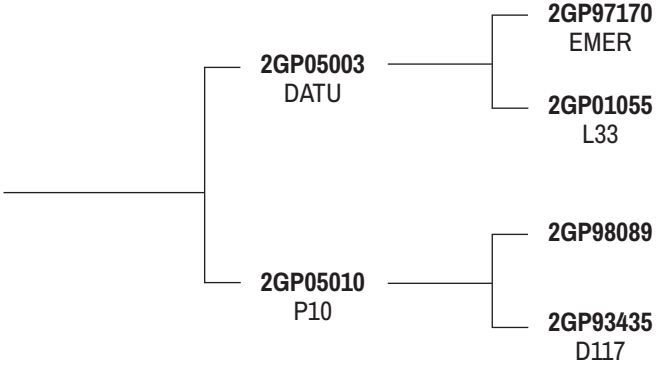
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	230.47	0.76	148.23	312.7
Fat yield, kg	0.26	0.66	-14.75	15.27
Protein yield, kg	8.02	0.72	4.08	11.96
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,280.2	272	1,280.2	
Sire's dam	3,032.8	342	2,828.3	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ROY

Date of Birth: 10/21/2010
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP10095



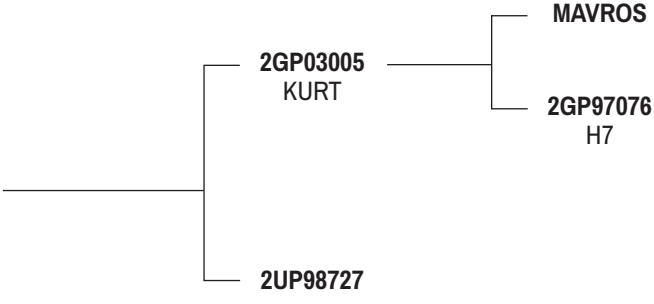
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	192.44	0.74	78.21	306.67
Fat yield, kg	5.99	0.63	-7.06	19.04
Protein yield, kg	8	0.7	2.65	13.35
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,819.4	315	1,775.9	
Sire's dam	2,446.1	324	2,397.5	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

TROY

Date of Birth: 11/04/2008
Herd and Place of Birth: PCC at UPLB I Los Baños, Laguna

2UP08016



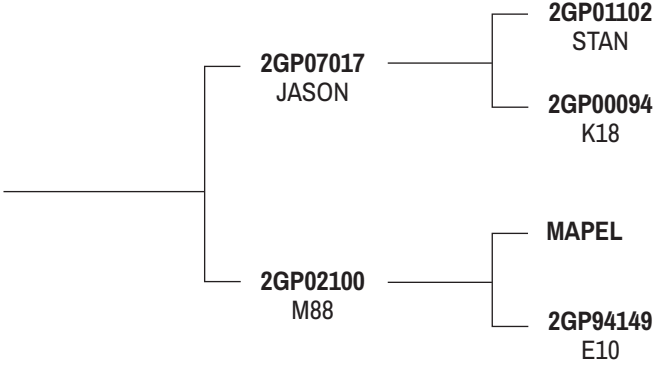
Performance Traits	EBV^{OP}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	64.13	0.63	168.94	48.96
Fat yield, kg	10.13	0.52	0.4	12.71
Protein yield, kg	1.58	0.59	4.31	2.11
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	3,089.6	423	2,496.2	
Sire's dam	2,233.53	325	2,142.48	

**OP-OWN PERFORMANCE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

AQUA

Date of Birth: 05/10/2012
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP12044

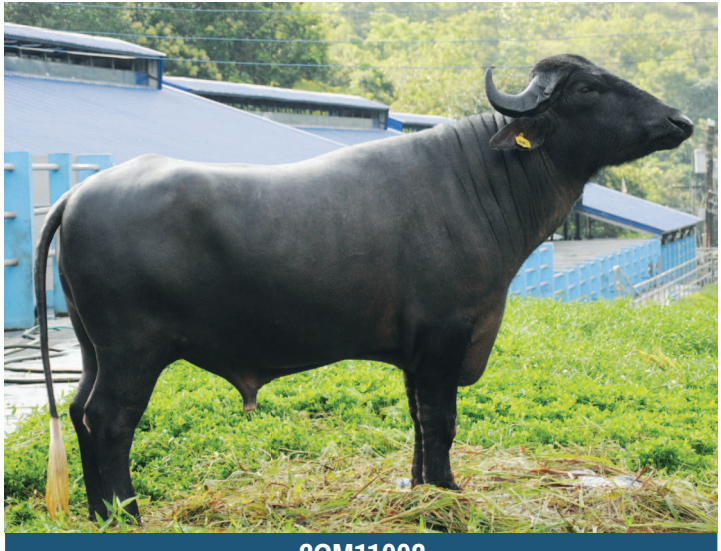


Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	188.46	0.78	120.66	256.26
Fat yield, kg	9.02	0.68	5.13	12.91
Protein yield, kg	7.06	0.74	3.22	10.9
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,238.9	326	2166.2	
Sire's dam	3,081.5	312	3038.8	

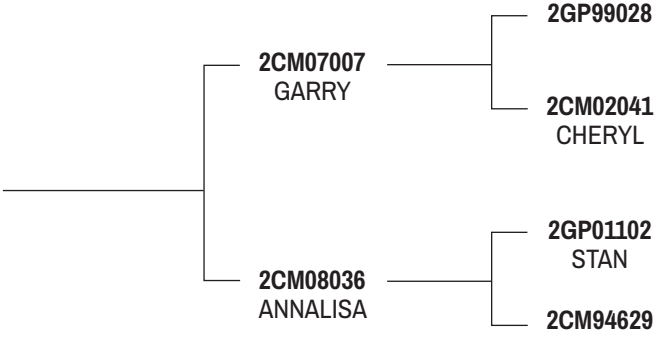
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

LANCE

Date of Birth: 01/08/2011
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon



2CM11002

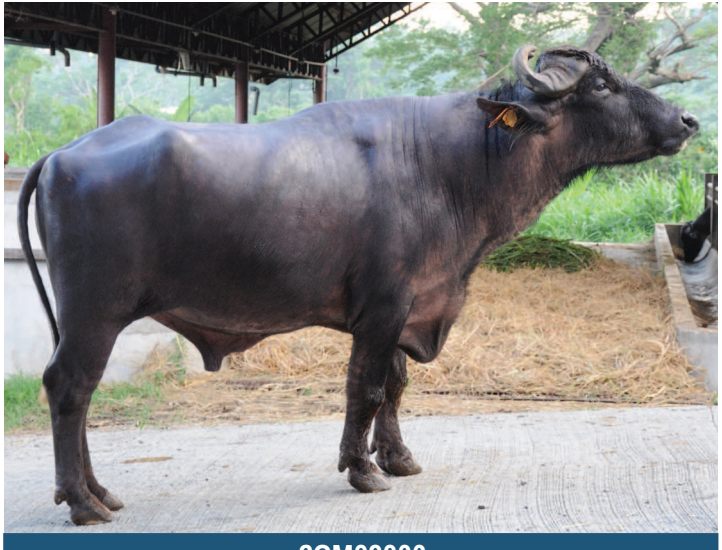


Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	538.21	0.59	555.52	520.9
Fat yield, kg	22.36	0.47	21.49	23.22
Protein yield, kg	21.33	0.55	21.89	20.76
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,621.6	297	1,621.6	
Sire's dam	2,023.75	237	2,023.75	

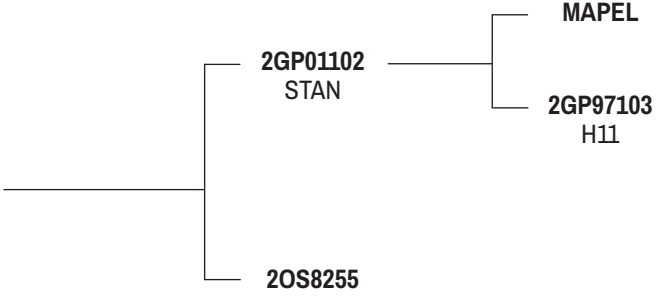
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

POY

Date of Birth: 11/19/2008
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon



2CM08066



Performance Traits	EBV^{OP}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	401.54	0.53	597.81	97.6
Fat yield, kg	20.56	0.42	29.56	3.8
Protein yield, kg	15.73	0.49	23.74	3.6
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,989	286	2,989	
Sire's dam	2,442	342	2,382.6	

**OP-OWN PERFORMANCE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ARIS

Date of Birth: 01/31/2008
Herd and Place of Birth: Ingaí I Brazil

BR090983

PAQUISTÃO da Ingaí

NANUQUE da Ingaí

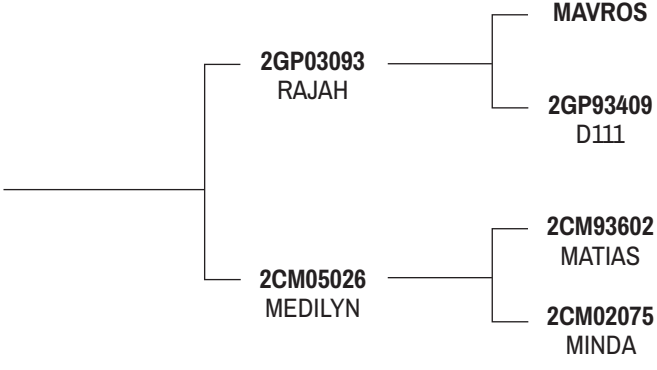
Performance Traits	EBV		Acc
Milk yield, kg	652.7		0.44
Best milk production performance			
	TMP,kg	DIM,d	305D Milk,kg
Dam	3,040.9	305	3,040.9
Sire's dam	4,745	305	4,745

**TMP-TOTAL MILK PRODUCTION* *ACC-ACCURACY* **DIM-DAYS IN MILK*

DIEGO

Date of Birth: 12/07/2010
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM10064



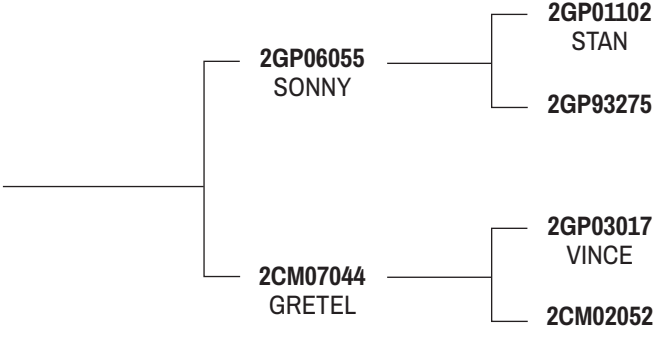
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	315.14	0.75	307.95	322.33
Fat yield, kg	4.05	0.64	-2.84	10.94
Protein yield, kg	12.54	0.71	11.8	13.27
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,938.2	293	1,938.2	
Sire's dam	2,192.8	370	2,007.3	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

BERT

Date of Birth: 04/29/2011
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM11032



Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	470.28	0.66	319.59	620.97
Fat yield, kg	14.48	0.54	9	19.96
Protein yield, kg	18.44	0.62	12.71	24.16
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,286.2	310	2,264.6	
Sire's dam	2,068.4	402	1,787.7	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

WILSON

Date of Birth: 10/08/2010
Herd and Place of Birth: PCC at UPLB I Los Baños, Laguna

2UP10023

2UP98582

2GP99107
NATO

MAVROS

2GP93453
D121

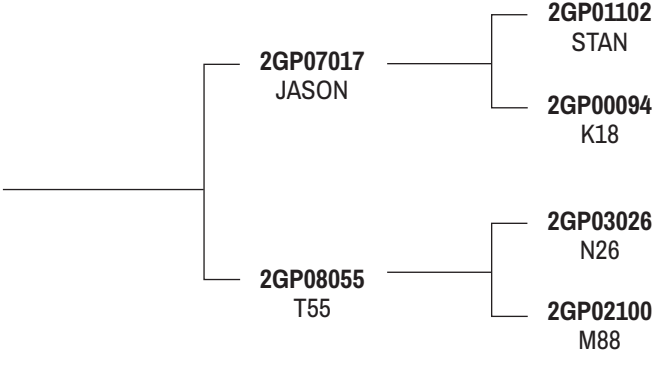
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	409.8	0.74	399	420.6
Fat yield, kg	22.66	0.63	23.73	21.58
Protein yield, kg	17.19	0.7	16.43	17.95
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	4,359.6	484	3,196.4	
Sire's dam	2482.7	399	2,132.1	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

GASTON

Date of Birth: 11/22/2012
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP12109



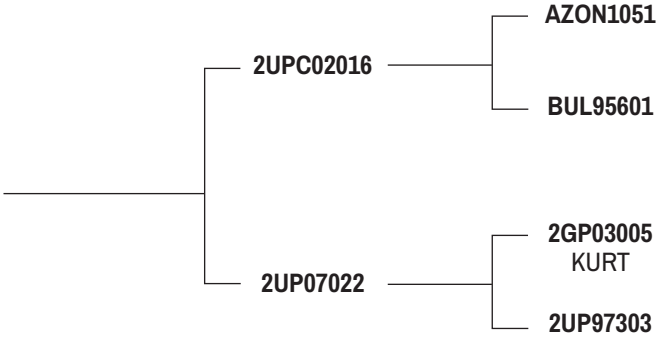
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	253.45	0.75	120.66	386.24
Fat yield, kg	7.75	0.65	5.13	10.37
Protein yield, kg	10.16	0.72	3.22	17.1
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,031.17	305	2,031.17	
Sire's dam	3,081.5	312	3,038.8	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

COCO

Date of Birth: 08/05/2011
Herd and Place of Birth: PCC at UPLB I Los Baños, Laguna

2UP11026



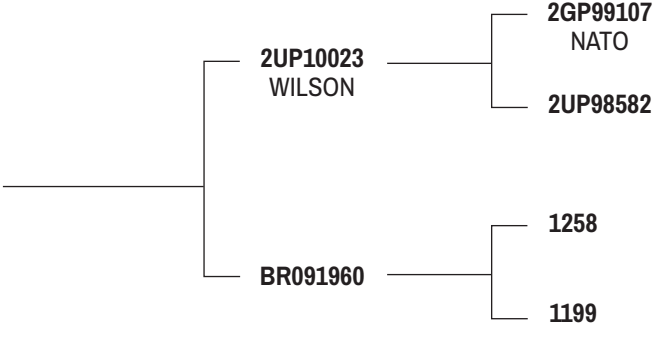
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	329.09	0.76	319.2	338.98
Fat yield, kg	19.77	0.67	21.37	18.17
Protein yield, kg	11.69	0.73	11.19	12.2
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,412.7	346	2,290.6	
Sire's dam	3,193.8	448	2,536.8	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

PATRICK

Date of Birth: 10/02/2014
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP14078



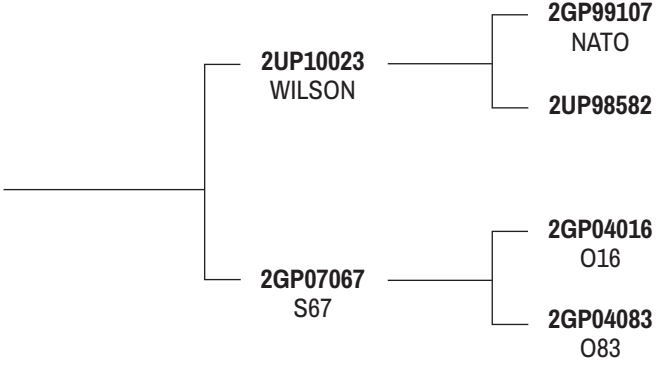
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	425.04	0.68	409.8	440.29
Fat yield, kg	18.92	0.55	22.66	15.18
Protein yield, kg	17.95	0.63	17.19	18.7
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,705.93	307	2,694.23	
Sire's dam	4,359.6	484	3,196.4	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

TOMAS

Date of Birth: 10/04/2014
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP14080



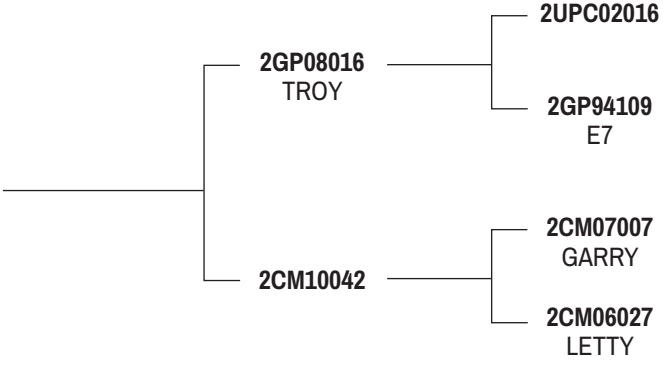
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	486.56	0.71	409.8	563.33
Fat yield, kg	23.13	0.6	22.66	23.6
Protein yield, kg	20.53	0.67	17.19	23.86
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,473.65	314	2,419.25	
Sire's dam	4,359.6	484	3,196.4	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ZEUS

Date of Birth: 09/28/2014
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon

2CM14048



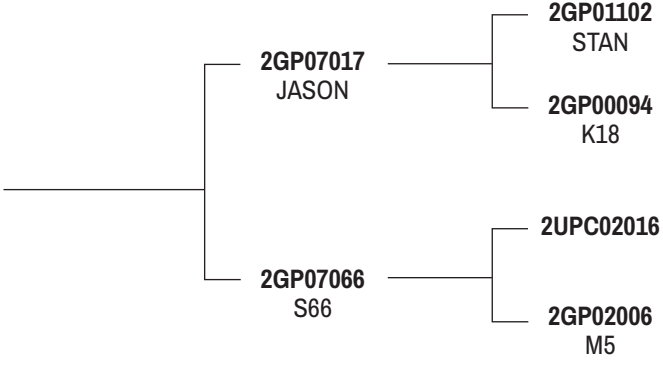
Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	515.03	0.69	67.96	962.1
Fat yield, kg	23.83	0.58	5.27	42.39
Protein yield, kg	20.23	0.65	2.29	38.17
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,060.3	307	2,049.7	
Sire's dam	2,002.7	302	2,002.7	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

BRIX

Date of Birth: 11/26/2013
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP13145



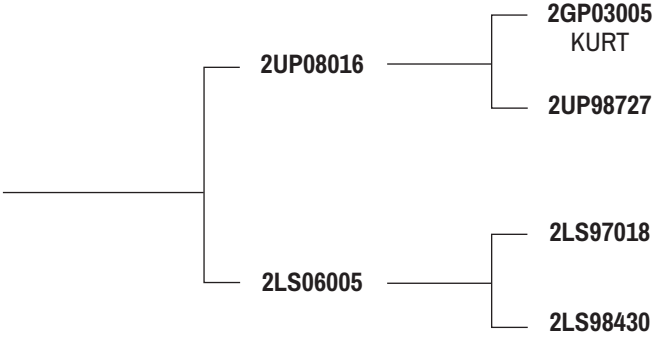
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	325.16	0.78	120.66	529.66
Fat yield, kg	14.63	0.68	5.13	24.13
Protein yield, kg	12.06	0.75	3.22	20.89
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,057.3	340	1,971.42	
Sire's dam	3,081.5	312	3,038.8	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

EDU

Date of Birth: 05/30/2014
Herd and Place of Birth: PCC at VSU I Baybay City, Leyte

2LS14007

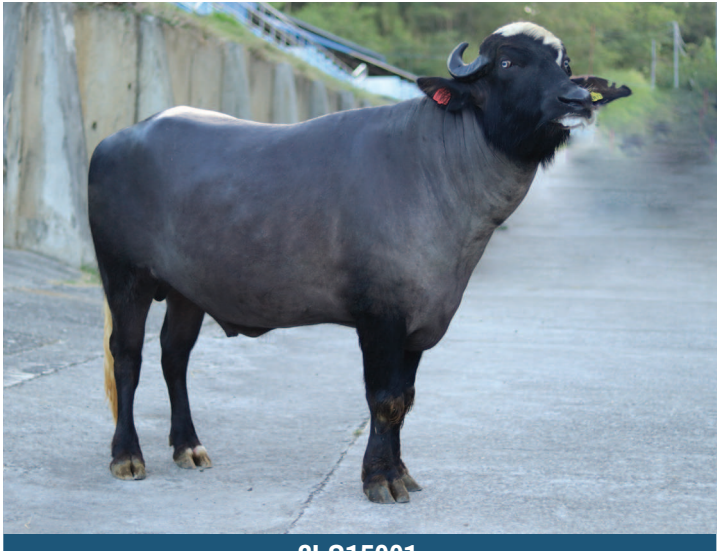


Performance Traits	EBV[PA]	Acc	EBV[Sire]	EBV[Dam]
Milk yield, kg	36.80	0.65	64.13	9.47
Fat yield, kg	5.33	0.53	10.13	0.54
Protein yield, kg	5.41	0.61	1.58	9.24
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	3,037.20	332	2,981.6	
Sire's dam	3,089.60	423	2,496.2	

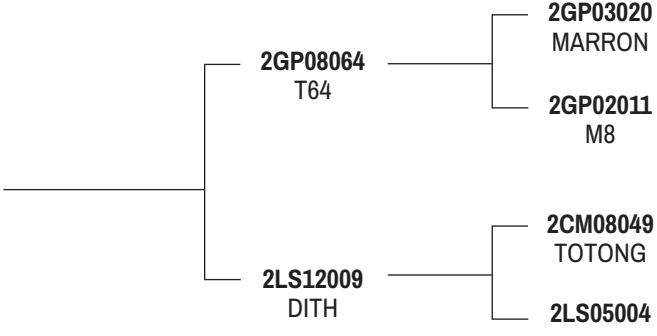
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

LUCAS

Date of Birth: 01/25/2015
Herd and Place of Birth: PCC at VSU I Baybay City, Leyte



2LS15001



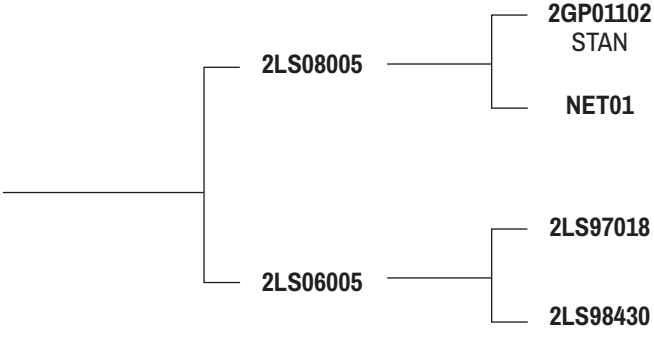
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	319.37	0.7	618.68	20.05
Fat yield, kg	16.54	0.58	32.6	0.48
Protein yield, kg	23.35	0.65	23.46	23.24
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,427.4	385	2,076.4	
Sire's dam	2,884.3	422	2,440.1	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

FERNAN

Date of Birth: 09/25/2015
Herd and Place of Birth: PCC at VSU I Baybay City, Leyte

2LS15012



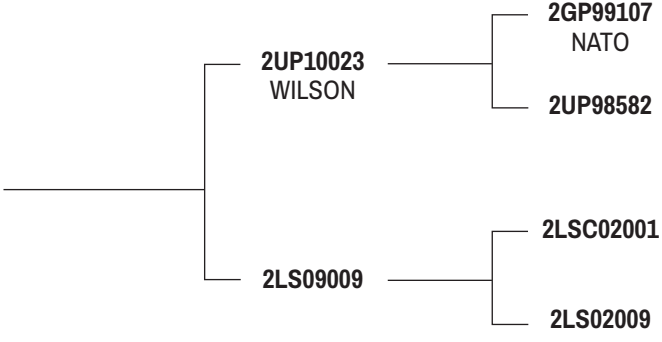
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	124.5	0.6	25.43	223.56
Fat yield, kg	6.11	0.48	2.74	9.47
Protein yield, kg	5.2	0.55	1.15	9.24
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	3,037.2	332	2,981.6	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

DEXTER

Date of Birth: 09/23/2015
Herd and Place of Birth: PCC at VSU I Baybay City, Leyte

2LS15010

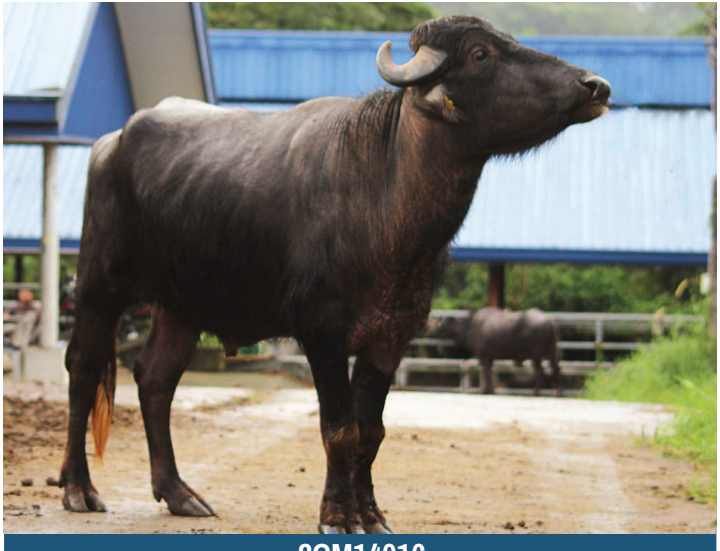


Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	583.95	0.7	409.8	758.09
Fat yield, kg	29.74	0.58	22.66	36.82
Protein yield, kg	23.59	0.66	17.19	29.99
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,620.9	374	2,319.4	
Sire's dam	4,359.6	484	3,196.4	

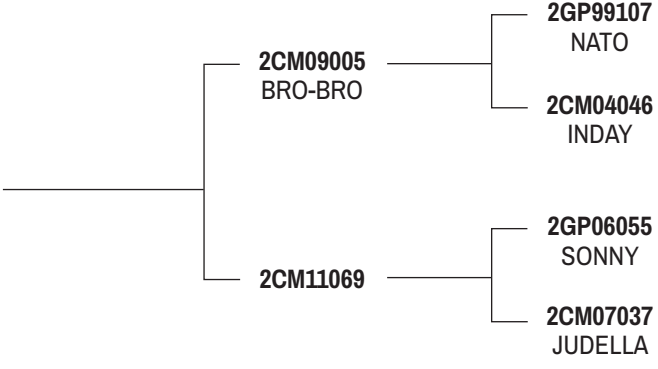
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ANDOY

Date of Birth: 04/29/2014
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon



2CM14016

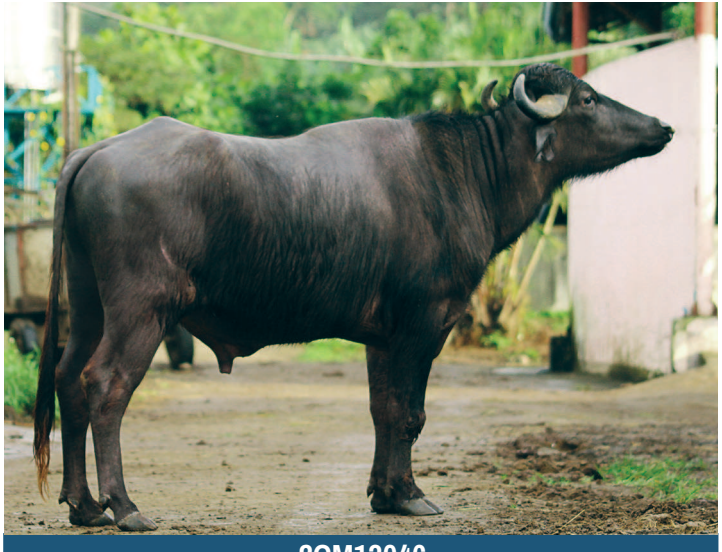


Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	467.4	0.68	617.16	317.64
Fat yield, kg	20.32	0.56	33.74	6.9
Protein yield, kg	19.07	0.63	25.12	13.03
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,796.1	287	1,796.1	
Sire's dam	2,225	311	2,211.9	

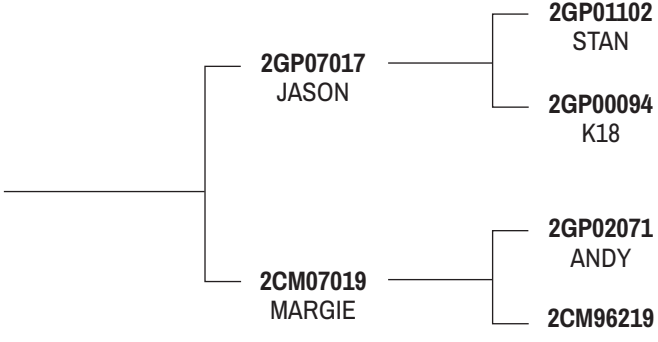
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

JOSE

Date of Birth: 08/13/2013
Herd and Place of Birth: PCC at CMU I Maramag, Bukidnon



2CM13046



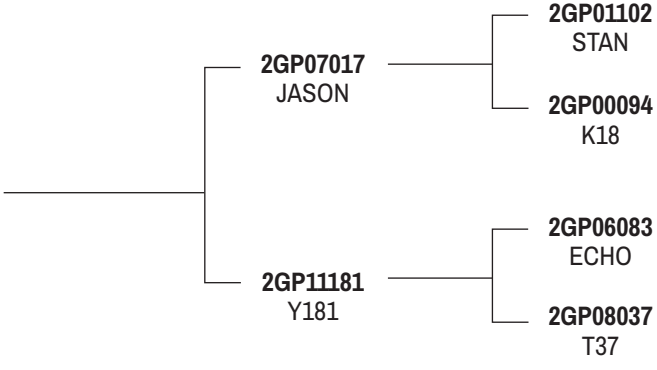
Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	371.82	0.75	120.66	622.99
Fat yield, kg	18.4	0.65	5.13	31.67
Protein yield, kg	13.67	0.72	3.22	24.11
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,928.4	306	2,922.1	
Sire's dam	3,081.5	312	3,038.8	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

BITOY

Date of Birth: 12/02/2014
Herd and Place of Birth: National Gene Pool I Nueva Ecija

2GP14122

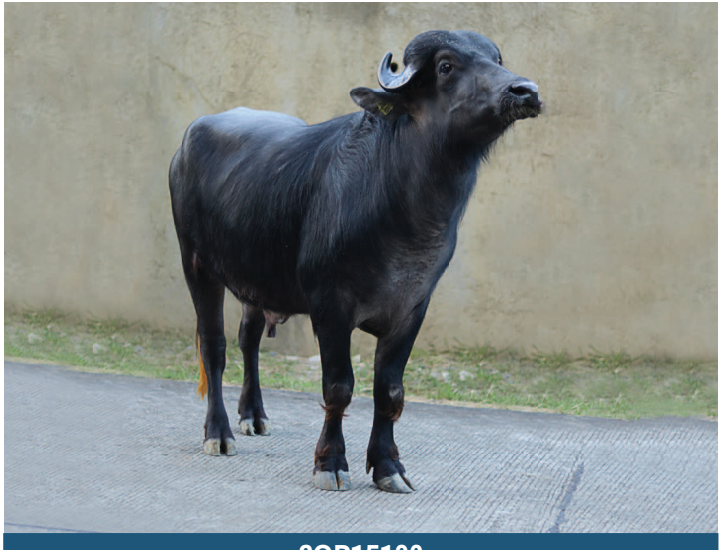


Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	310.6	0.75	120.7	500.53
Fat yield, kg	14.54	0.65	5.1	23.95
Protein yield, kg	12	0.72	3.2	20.78
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	2,637.5	338	2,490.1	
Sire's dam	3,081.5	312	3,038.8	

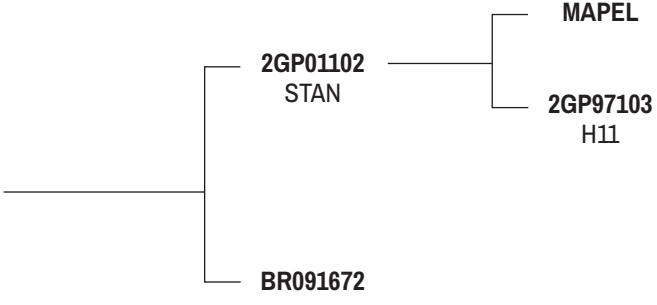
**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

ORLAN

Date of Birth: 10/05/2015
Herd and Place of Birth: National Gene Pool I Nueva Ecija



2GP15106



Performance Traits	EBV^{PA}	Acc	EBV^{Sire}	EBV^{Dam}
Milk yield, kg	479.32	0.6	597.8	360.83
Fat yield, kg	18.93	0.47	29.56	8.3
Protein yield, kg	19.22	0.55	23.74	14.71
Best milk production performance				
	TMP,kg	DIM,d	305D Milk,kg	
Dam	1,956.82	301	1,956.82	
Sire's dam	2,442	342	2,382.6	

**PA-PARENT AVERAGE* **ACC-ACCURACY* **TMP-TOTAL MILK PRODUCTION* **DIM-DAYS IN MILK*

PCC
Network of Centers

PCC has 12 regional centers strategically located nationwide: five centers in Luzon, four in Visayas and three in Mindanao.

LUZON

PCC at Mariano Marcos State University
Batac City, Ilocos Norte
Telephone No.: (63) (077) 792.3187
Email: pccmmsu@gmail.com

PCC at Cagayan State University
Tuguegarao City, Cagayan
Mobile No.: (63) 0916.752.8507
(63) 0917.518.4302
Email: pccpiat07@yahoo.com

PCC at Don Mariano Marcos Memorial State University
Rosario, La Union
Mobile No.: (63) 0908.864.9975
(63) 0930.782.6038
Email: pccdmmmsu95@yahoo.com

PCC at Central Luzon State University
Science City of Muñoz, Nueva Ecija
Telephone No.: (63) (044) 456.5238 to 39
Email: pcc.clsu@yahoo.com

PCC at University of the Philippines at Los Baños
Los Baños, Laguna
Telephone No.: (63) (049) 536.2729
(63) (049) 534.2009
Email: pccuplb@gmail.com

VISAYAS

PCC at Visayas State University
Baybay City, Leyte
Telephone No.: (63) (053) 335.5648
Email: pccvsu@gmail.com

PCC at West Visayas State University
Calinog, Iloilo
Telephone No.: (63) (033) 320.2445
Email: pccwvsu@yahoo.com

PCC at La Carlota Stock Farm
La Granja, La Carlota City, Negros Occidental
Mobile No.: (63) 0947.893.4794
(63) 0921.542.4379
Email: pcclcsf@yahoo.com

PCC at Ubay Stock Farm
Ubay, Bohol
Telephone No.: (63) (038) 518.5598
Email: pccusf.ubay@yahoo.com

MINDANAO

PCC at Mindanao Livestock Production Complex
Kalawit, Zamboanga del Norte
Telephone No.: (63) (065) 212.2636
Fax No.: (63) (065) 311.4762
Mobile No.: (63) 0949.404.4559
(63) 906.956.9060
Email: pcc-mlpc09@yahoo.com

PCC at Central Mindanao University
Maramag, Bukidnon
Mobile No.: (63) 0939.133.9815
(63) 0939.916.9719
Email: pccmusuan@yahoo.com

PCC at University of Southern Mindanao
Kabacan, North Cotabato
Telefax No.: (63) (064) 248.2250
Mobile No.: (63) 0919.397.0872
(63) 0920.621.9722
Email: usm_pcc@yahoo.com

www.pcc.gov.ph

PHILIPPINE CARABAO CENTER

National Headquarters and Gene Pool
Science City of Munoz, Nueva Ecija
Tel. No: (+63)044.456.0731 to 34
Fax No: (+63) 044.456.0730

Manila Liaison Office
Quezon City, Metro Manila
Tel. No: (+63)02.926.7707
Fax No: (+63) 02.926.7077