



Israeli Holstein Bulls Catalogue 2012





SION AI & BREEDING COMPANY

M.P. Shikmim

79800

ISRAEL

Tel : 972-8-8592812/3

Fax : 972-8-8593381

E-mail : south@sion-israel.com

www.sion-israel.com



As Israel's leading company for the artificial insemination and breeding of dairy cows, we are proud to present our 2012 catalogue.

We trust that you will benefit from the professional data and updated information, including our listing of bull characteristics, production traits and functional traits.

We feel certain that you will find valuable information to help you promote your breeding program and improve production results at your dairy farm.

In addition, we welcome you to visit our website www.sion-israel.com and feel free to "Contact Us" for any additional information and/or comments.

Sincerely,

Alon Inbar, CEO

SION Israeli Company for AI & Breeding Ltd.

Genomics

Every year, as part of its breeding program, Sion purchases 50 young bulls for testing. With the entrance of the genomic era, fewer bulls will be tested and the number will most probably drop to about 30 bulls per year. The Israel Cattle Breeders Association and Sion have recently completed the validation tests in Israel for more than 1,000 proven bulls. We are currently in the process of implementing a national program for receiving the genomic data from selective cows and heifers, as well as from all of the calves and young bulls for the breeding program.

Sion Laboratory and Sperm Bank

In 2011, semen was collected from 117 bulls, out of which 28 were proven bulls for use on the bull list and the rest were young and tested bulls - a total of 1.2 million doses. Close to 454,000 doses of semen were artificially inseminated in Israel and about 95% of the semen was Israeli. At the Sion laboratory we currently produce doses of semen based on a targeted post thaw number of 8 million progressively motile sperm cells. The total number of sperm cells per straw can vary, but at the end of the process, and after freezing and thawing, there are 8 million sperm cells with progressive motion.



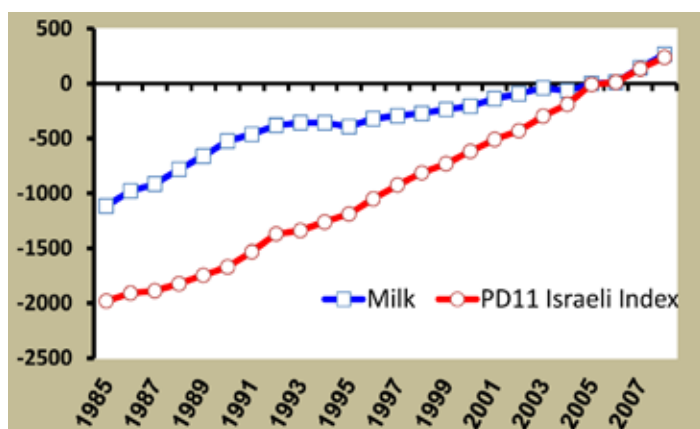
Inseminators

Two additional insemination areas were added to our workload in 2011, bringing the total to 35 different areas throughout the country. The majority of inseminations are from the Holstein Friesian breed. Sion purchased software that is capable of informing the inseminators of the mating demands per farm on a daily basis. This information enables the coordination and distribution of workloads among the various insemination areas. The inseminators participated in professional training courses, both in Israel and around the world, in attempts to improve their professional levels of performance.

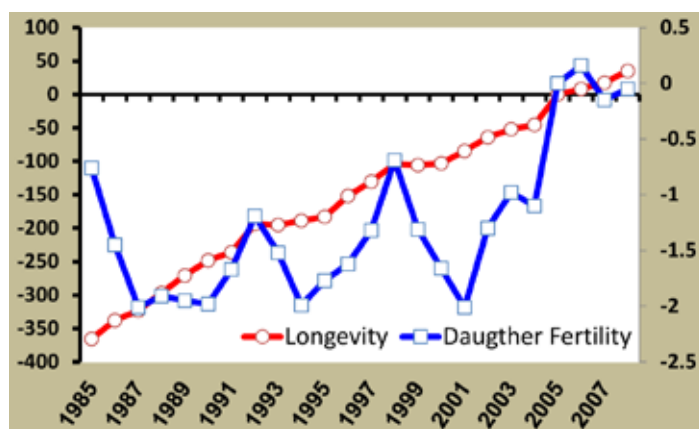
Genetic Advancements

Details regarding the planned mating of the dairy cows in Israel are transferred directly to the inseminators' portable terminals. In turn, inseminators work according to an organized plan, coordinating between cow and bull. The primary advancements are the kilograms of protein and fat, supplemented by the secondary traits of daughter fertility, persistence, longevity and daughter calving ease. The genetic advancements over the past ten years stand at: 100 PD11 units (the Israeli Breeding Index) per year, 50 Kg. of milk per year, 15 days of cow longevity in the herd per year, 0.1% daughter fertility per year and 0.08% persistence in first lactations per year (illustrations).

Genetic Advancements in Milk and the Israeli Index



Genetic Advancements in Longevity and Daughter Fertility



Exports










Sion exports semen primarily to countries in the Middle East, Eastern Asia, Western Asia and Africa. Numerous dairy farms and organizations around the world have requested Israeli genetic material, but due to veterinary limitations, we are not able to export to countries in Europe or North America. The number of doses of semen being exported is on the rise and currently stands at 100,000 doses per year.



Israeli Artificial Insemination & Breeding Company

The Israeli dairy cattle population has the highest mean milk and milk solid production in the world, even though dairy production conditions are sub-optimal due to heat stress during most of the year. Israeli bulls transmit outstanding genetic ability for milk yield and components and excel in fertility, longevity and udder health traits. Currently, 88% of the Israeli dairy herds are involved in the DHI system.

Approximately 50 young bulls are tested every year. Semen from about 20 proven bulls is available to the Israeli dairy farmers for general service. Most are proven bulls with evaluations based on daughter production records, and the rest are high pedigree index young bulls. Genetic evaluations are performed bi-annually. Bulls are ranked by the Israeli Selection Index PD11.

-  Sion is Israel's leading company for AI techniques, with decades of practical experience.
-  Sion is responsible for 95% of all dairy cow inseminations and breeding in Israel.
-  Sion's breeding index focuses on production and economic fitness traits.
-  Sion is an integral part of the 3 pillars: the insemination, expert cow veterinarians and the Herd Book data flow.
-  Sion's mating program ensures very low inbreeding percentages.
-  Sion's data reliability assures trustworthy and dependable genetic parameters.
-  Sion's bulls are of the highest quality, due to the combination of mutual cooperation among Israeli breeders and the central data system, along with the lack of incentive for preferential treatment of elite cows.
-  Sion's bulls, with excellent genetic traits, combined with professional management, ensure high production dairy cows, in spite of the hot, humid climate.
-  Sion's bulls contribute to reasonable fertility parameters and high longevity.



Adia Hefman

 **SION** Israeli Artificial Insemination & Breeding Company



Adia Hefman

ADESO 7505

International No. ISRM000000007505

PD 11
545



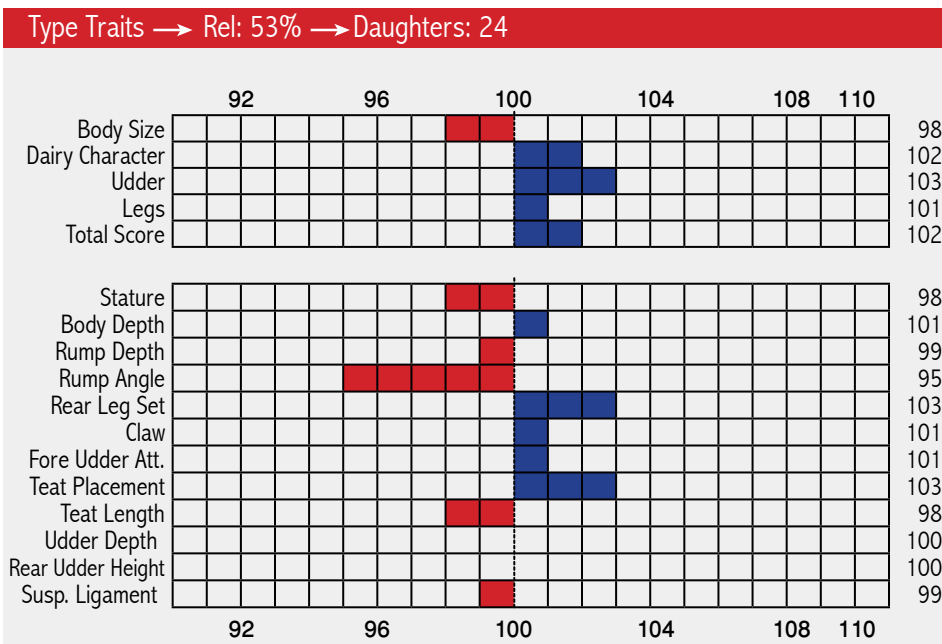
Born : February 22, 2007
Farm : Reshafim
Owner : SION
Breeding Values : November 2011

Sire : Aise	{ Avsha Tapuach
Dam : 4992	{ Dandan 4515

Production Traits Rel:86	
Milk Kg	208
Fat Kg	19.5
Fat %	0.1
Protein Kg	14.8
Protein %	0.07
Daughters	82
Herds	68

Functional Traits		
Somatic Cell Count		-0.13
Sire Calving %	Stillbirth	0.4
	Calving Difficulty	1.0
Daughter Calving %	Stillbirth	0.8
	Calving Difficulty	1.8
Longevity (days)		41
Persistence %		0.6
Female Fertility %		-0.5

Average Daughter Performance (305d)	
Milk Kg	12,006
Fat Kg	429
Fat %	3.57
Protein Kg	381
Protein %	3.17



- Positive milk components
- Low somatic cell count
- Daughters have small body size

ASA 7085

International No. ISRM000000007085

PD 11
413



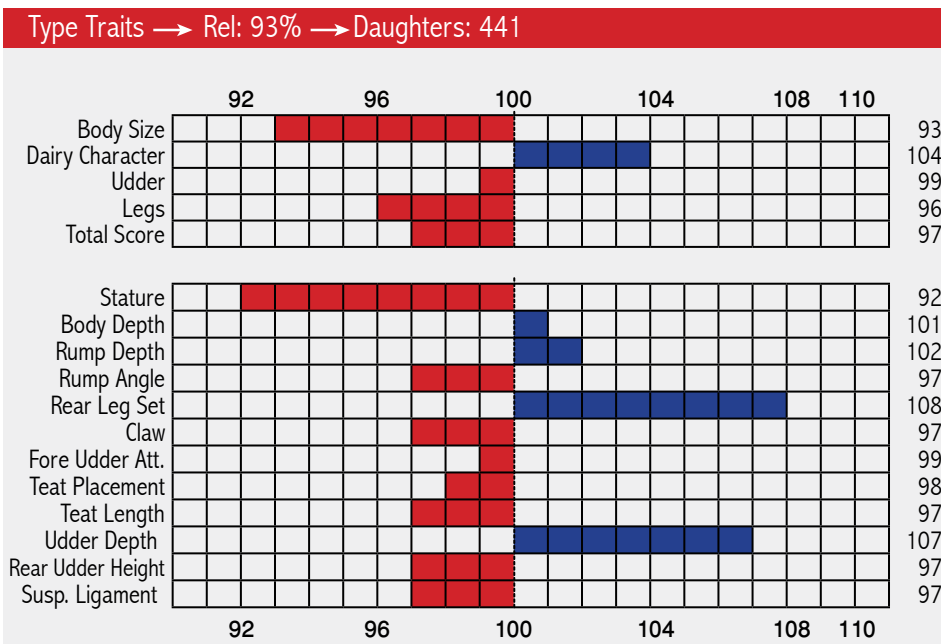
Born : October 19, 2001
Farm : Ashdot Yaakov
Owner : SION
Breeding Values : November 2011

Sire : Avsha	{ Bell Extra Dekel
Dam : Hamra	{ Scorer Helem

Production Traits	Rel:100
Milk Kg	396
Fat Kg	12.9
Fat %	-0.01
Protein Kg	11.5
Protein %	-0.01
Daughters	4,384
Herds	636

Functional Traits		
Somatic Cell Count		0.26
Sire Calving %	Stillbirth	0.1
	Calving Difficulty	-1.7
Daughter Calving %	Stillbirth	1.2
	Calving Difficulty	2.4
Longevity (days)		78
Persistence %		4.3
Female Fertility %		1.8

Average Daughter Performance (305d)	
Milk Kg	11,995
Fat Kg	432
Fat %	3.6
Protein Kg	375
Protein %	3.13



- Extremely easy calving
- Golden bull with high reliability
- Small body size

CONGRESS 7489

International No. ISRM000000007489

PD 11
499



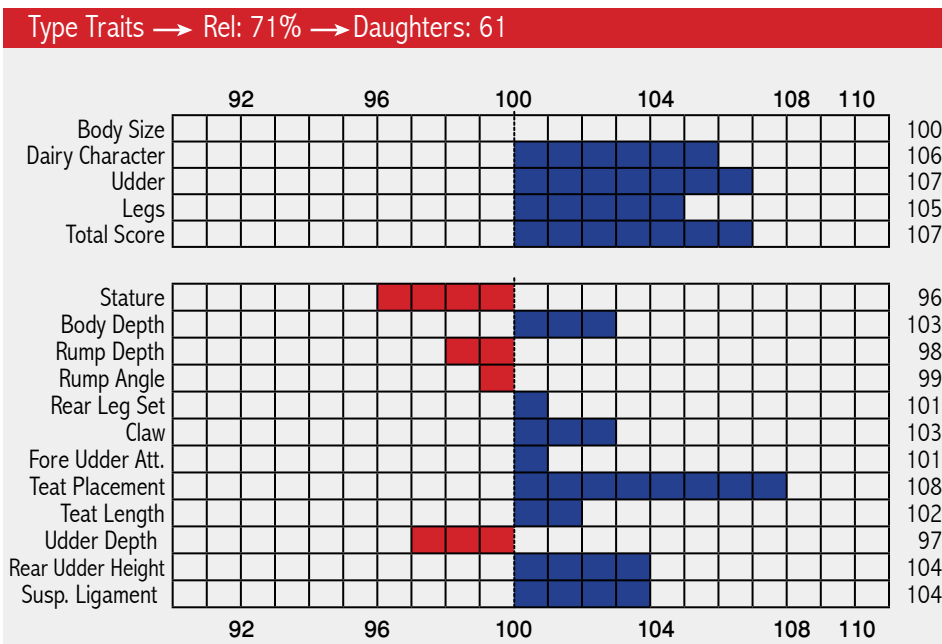
Born : September 29, 2006
Farm : Afek
Owner : SION
Breeding Values : November 2011

Sire : Canvas	{ Sparta Canberra
Dam : Gartel	{ Marseye Mandarina

Production Traits Rel:88	
Milk Kg	340
Fat Kg	28.0
Fat %	0.13
Protein Kg	12.7
Protein %	0.02
Daughters	98
Herds	72

Functional Traits		
Somatic Cell Count		-0.16
Sire Calving %	Stillbirth	0.8
	Calving Difficulty	2.7
Daughter Calving %	Stillbirth	2.4
	Calving Difficulty	3.6
Longevity (days)		1
Persistence %		1.0
Female Fertility %		-1.8

Average Daughter Performance (305d)	
Milk Kg	12,294
Fat Kg	461
Fat %	3.75
Protein Kg	390
Protein %	3.17



- Positive milk components
- Low somatic cell count
- Good udder and leg conformation traits

DIGI 7334

International No. ISRM000000007334

PD 11
535



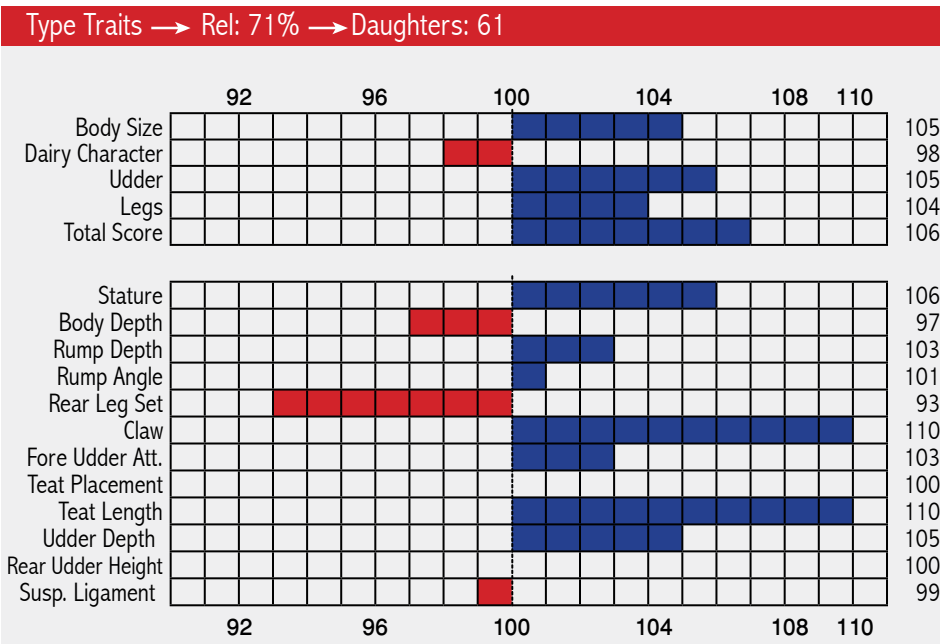
Born : February 9, 2004
Farm : Nirim
Owner : SION
Breeding Values : November 2011

Sire : Dandan	} Damsel
Dam : Bat 500	
	} Patzil Bat

Production Traits	Rel:93
Milk Kg	-61
Fat Kg	2.6
Fat %	0.04
Protein Kg	10.4
Protein %	0.11
Daughters	128
Herds	96

Functional Traits		
Somatic Cell Count		-0.38
Sire Calving %	Stillbirth	1.1
	Calving Difficulty	5
Daughter Calving %	Stillbirth	1.1
	Calving Difficulty	1.7
Longevity (days)		155
Persistence %		0.9
Female Fertility %		2.6

Average Daughter Performance (305d)	
Milk Kg	11,651
Fat Kg	421
Fat %	3.61
Protein Kg	380
Protein %	3.26



- Elevated milk content (% protein)
- Excellent secondary characteristics (longevity and fertility)
- Especially good conformation traits (udder depth)

GUTYE 7518

International No. ISRM000000007518

PD 11
793



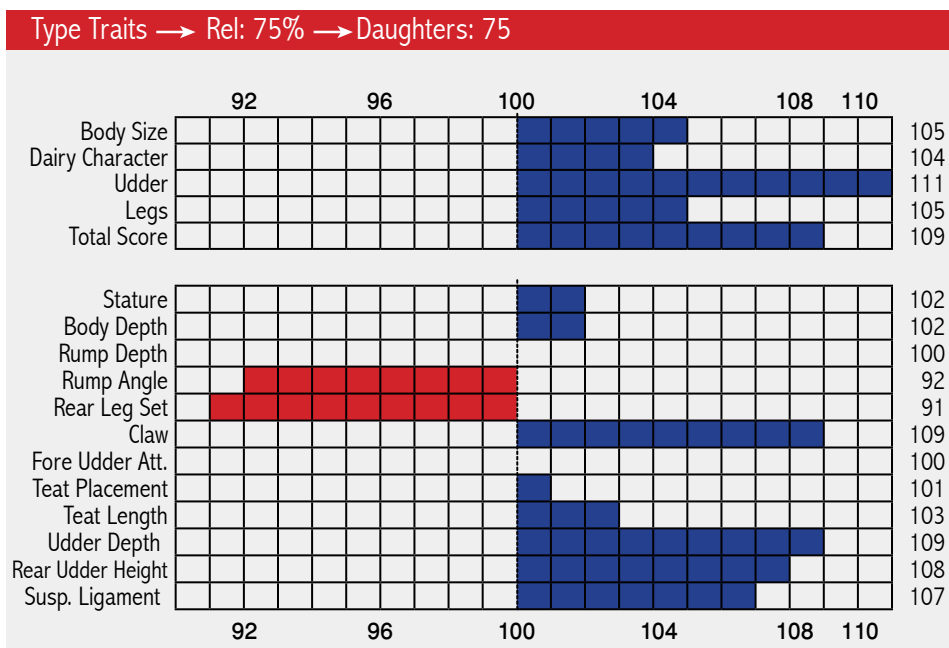
Born : September 19, 2006
Farm : Sa'ad
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice	{ Cubby Manfred Jezebel
Dam : Bar Mat	{ Horst Harry Birzia

Production Traits	Rel:89
Milk Kg	586
Fat Kg	27.2
Fat %	0.05
Protein Kg	23.4
Protein %	0.04
Daughters	104
Herds	78

Functional Traits		
Somatic Cell Count		-0.15
Sire Calving %	Stillbirth	1.0
	Calving Difficulty	1.6
Daughter Calving %	Stillbirth	2.4
	Calving Difficulty	2.1
Longevity (days)		61
Persistence %		-3.8
Female Fertility %		0.02

Average Daughter Performance (305d)	
Milk Kg	12,491
Fat Kg	456
Fat %	3.65
Protein Kg	396
Protein %	3.17



- Very good and balanced milk production and components
- Low somatic cell count
- Very good udder and leg conformation traits

JAKI 7397

International No. ISRM000000007397

PD 11
637



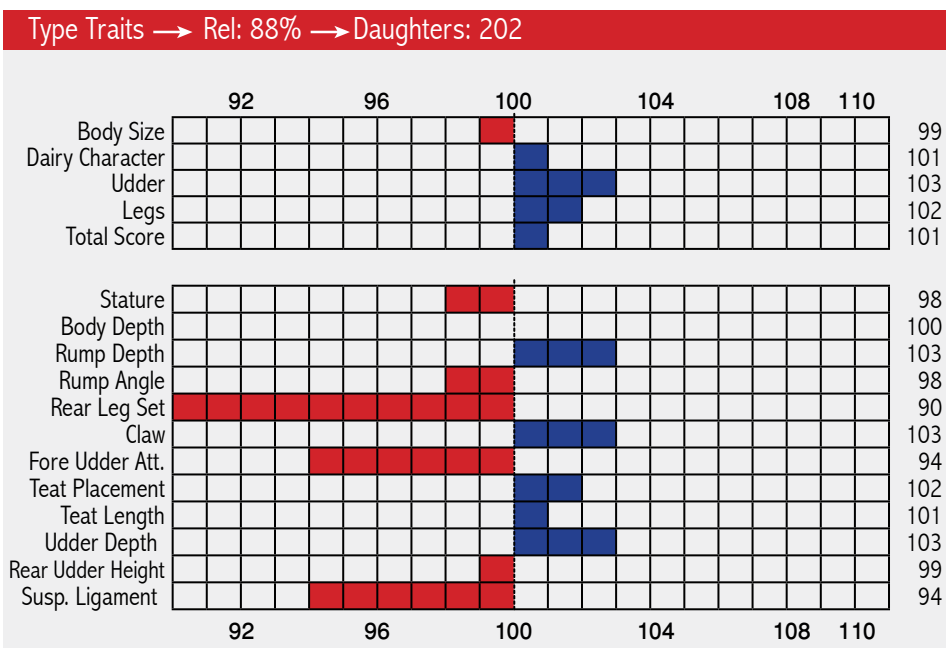
Born : August 10, 2005
Farm : Shamir Eliahu
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice { Cubby Manfred
Jezebel
Dam : 593 { Goopi
Shachmitz

Production Traits	Rel:98
Milk Kg	430
Fat Kg	10.9
Fat %	-0.04
Protein Kg	14.8
Protein %	0.01
Daughters	702
Herds	291

Functional Traits		
Somatic Cell Count		-0.23
Sire Calving %	Stillbirth	-2.1
	Calving Difficulty	-3.5
Daughter Calving %	Stillbirth	0.5
	Calving Difficulty	1.5
Longevity (days)		99
Persistence %		-0.4
Female Fertility %		3.3

Average Daughter Performance (305d)	
Milk Kg	12,137
Fat Kg	436
Fat %	3.59
Protein Kg	384
Protein %	3.16



- Extremely easy calving
- Impressive somatic cell count
- Notable udder qualities

JEMBA 7394

International No. ISRM000000007394

PD 11
458



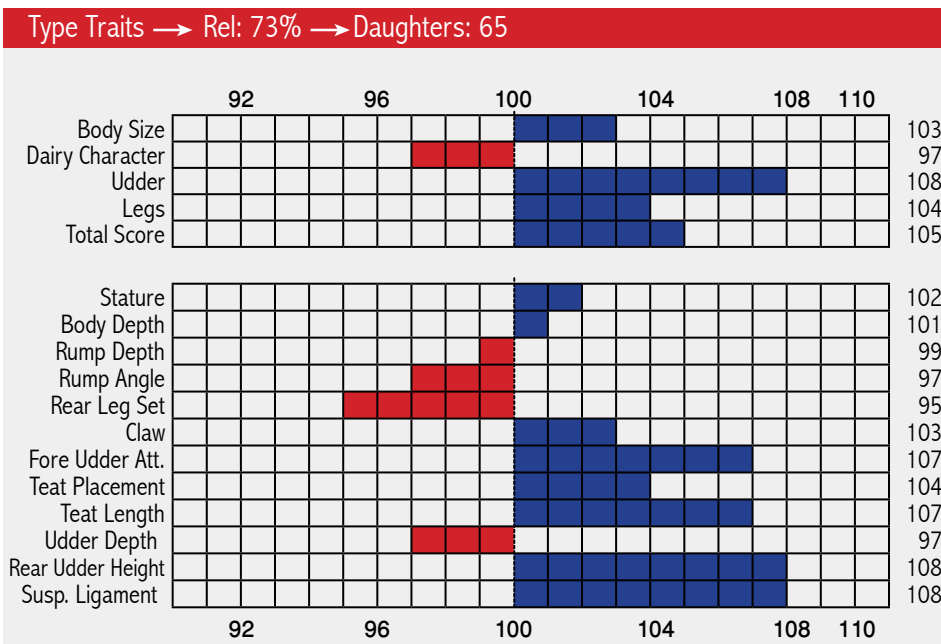
Born : July 2, 2005
Farm : Beit Hashita
Owner : SION
Breeding Values : November 2011

Sire : Jocko Besn	{ Besbe Buck Gaya
Dam : Kohenet	

Production Traits Rel:93	
Milk Kg	430
Fat Kg	9.9
Fat %	-0.04
Protein Kg	11.7
Protein %	-0.01
Daughters	151
Herds	117

Functional Traits		
Somatic Cell Count		-0.13
Sire Calving %	Stillbirth	-0.2
	Calving Difficulty	1.3
Daughter Calving %	Stillbirth	1.3
	Calving Difficulty	2.4
Longevity (days)		109
Persistence %		1.1
Female Fertility %		0.4

Average Daughter Performance (305d)	
Milk Kg	12,051
Fat Kg	428
Fat %	3.55
Protein Kg	375
Protein %	3.11



- Outstanding bloodline
- Daughters display good feet and legs
- Notable udder qualities

JENTILE 7395

International No. ISRM000000007395

PD 11
347



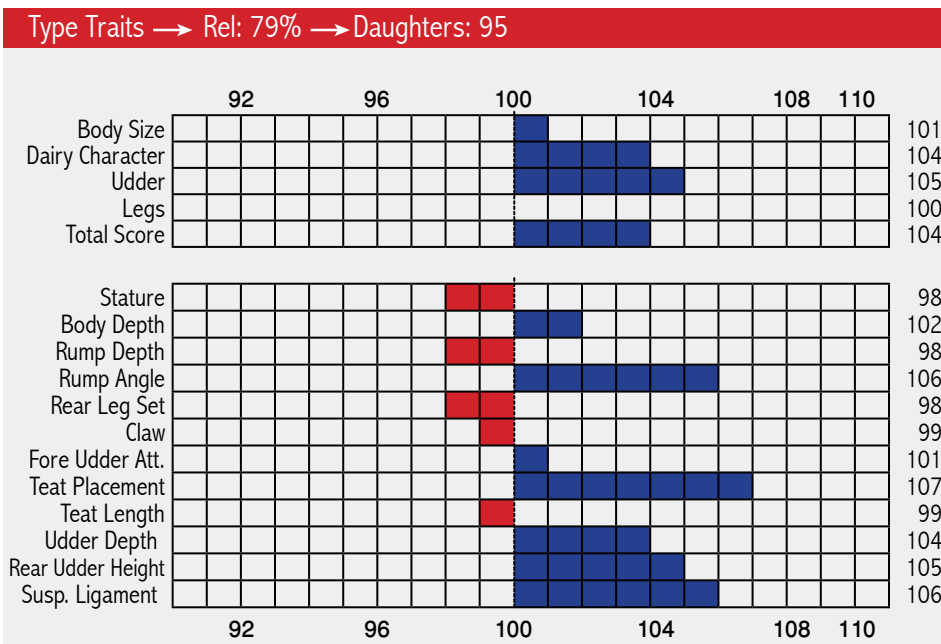
Born : May 4, 2005
Farm : Revadim
Owner : SION
Breeding Values : November 2011

Sire : Jocko Besn	{ Besne Buck Gaya
Dam : Agora	{ Patsil Epon

Production Traits Rel:97	
Milk Kg	124
Fat Kg	11.3
Fat %	0.06
Protein Kg	11.1
Protein %	0.06
Daughters	319
Herds	168

Functional Traits		
Somatic Cell Count		0.33
Sire Calving %	Stillbirth	-0.4
	Calving Difficulty	1.0
Daughter Calving %	Stillbirth	1.2
	Calving Difficulty	2.7
Longevity (days)		52
Persistence %		2.2
Female Fertility %		2.5

Average Daughter Performance (305d)	
Milk Kg	11,962
Fat Kg	439
Fat %	3.67
Protein Kg	378
Protein %	3.16



- Suitable for heifers
- Good daughter fertility
- Different bloodline



JENTILE 7395

ASFOR 7664





SEEDORF 7381



JERMIN 7396

International No. ISRM000000007396

PD 11
881



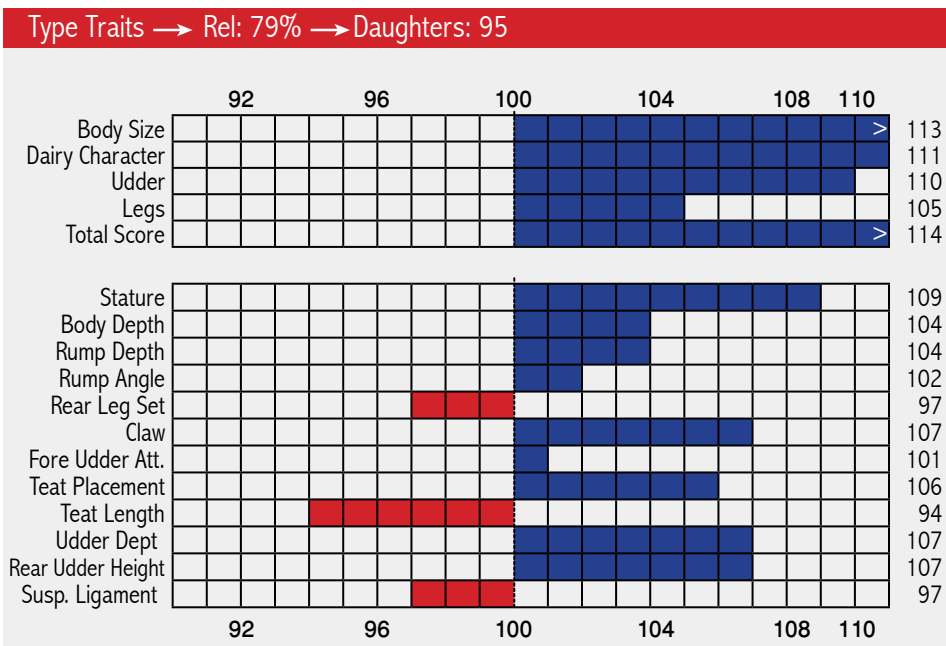
Born : July 15, 2005
Farm : Ein Hashlosa
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice	{ Cubby Manfred Jezebel
Dam : Krembo	{ Moach Klee

Production Traits Rel:95	
Milk Kg	549
Fat Kg	5.8
Fat %	-0.11
Protein Kg	29.3
Protein %	0.10
Daughters	219
Herds	139

Functional Traits		
Somatic Cell Count		-0.01
Sire Calving %	Stillbirth	2.5
	Calving Difficulty	6.1
Daughter Calving %	Stillbirth	3.4
	Calving Difficulty	3.7
Longevity (days)		163
Persistence %		0.5
Female Fertility %		2.6

Average Daughter Performance (305d)	
Milk Kg	12,375
Fat Kg	432
Fat %	3.49
Protein Kg	397
Protein %	3.21



- Outstanding conformation traits, especially udders
- Large body size
- High longevity and daughter fertility

JEROM 7425

International No. ISRM000000007425

PD 11
737



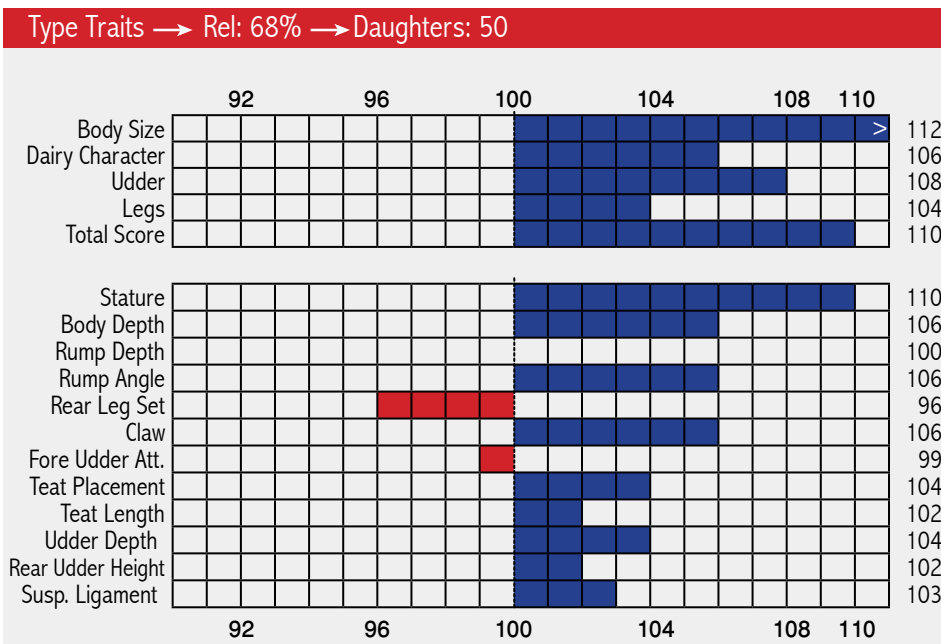
Born : October 5, 2005
Farm : Refet Gan
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice	{ Cubby Manfred Jezebel
Dam : Man	{ Masbo Mania

Production Traits	Rel:92
Milk Kg	637
Fat Kg	12.4
Fat %	-0.08
Protein Kg	20.9
Protein %	0.01
Daughters	121
Herds	91

Functional Traits		
Somatic Cell Count		-0.09
Sire Calving %	Stillbirth	2.1
	Calving Difficulty	4.6
Daughter Calving %	Stillbirth	1.2
	Calving Difficulty	2.3
Longevity (days)		98
Persistence %		0.6
Female Fertility %		2.7

Average Daughter Performance (305d)	
Milk Kg	12,394
Fat Kg	434
Fat %	3.5
Protein Kg	387
Protein %	3.12



- High milk production
- High protein (Kg and %)
- Good conformation traits, especially udders

JEYJEY 7424

International No. ISRM000000007424

PD 11
705



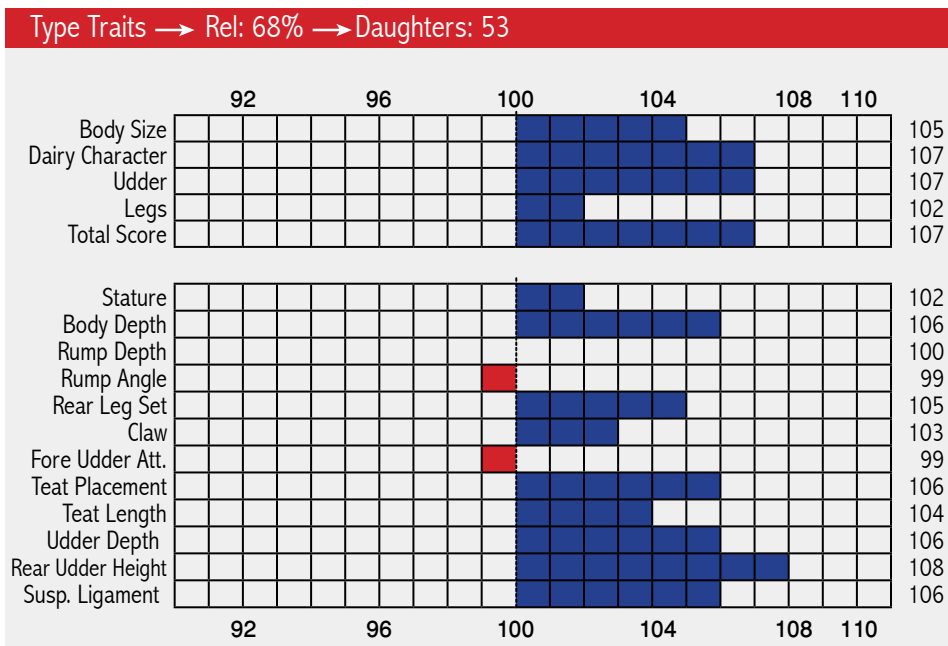
Born : October 5, 2005
Farm : Ramat Yochanan
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice	{ Cubby Manfred Jezebel
Dam : Naomi	{ Jeffrey Noam

Production Traits	Rel:90
Milk Kg	315
Fat Kg	17.2
Fat %	0.05
Protein Kg	20
Protein %	0.09
Daughters	92
Herds	73

Functional Traits		
Somatic Cell Count		-0.14
Sire Calving %	Stillbirth	0.1
	Calving Difficulty	-0.1
Daughter Calving %	Stillbirth	2.1
	Calving Difficulty	2.4
Longevity (days)		100
Persistence %		-0.2
Female Fertility %		0.6

Average Daughter Performance (305d)	
Milk Kg	12,249
Fat Kg	447
Fat %	3.65
Protein Kg	392
Protein %	3.2



- Elevated milk content (fat %)
- Balanced protein and fat contents
- Superior udder qualities

JHEY 7400

International No. ISRM000000007400

PD 11
601



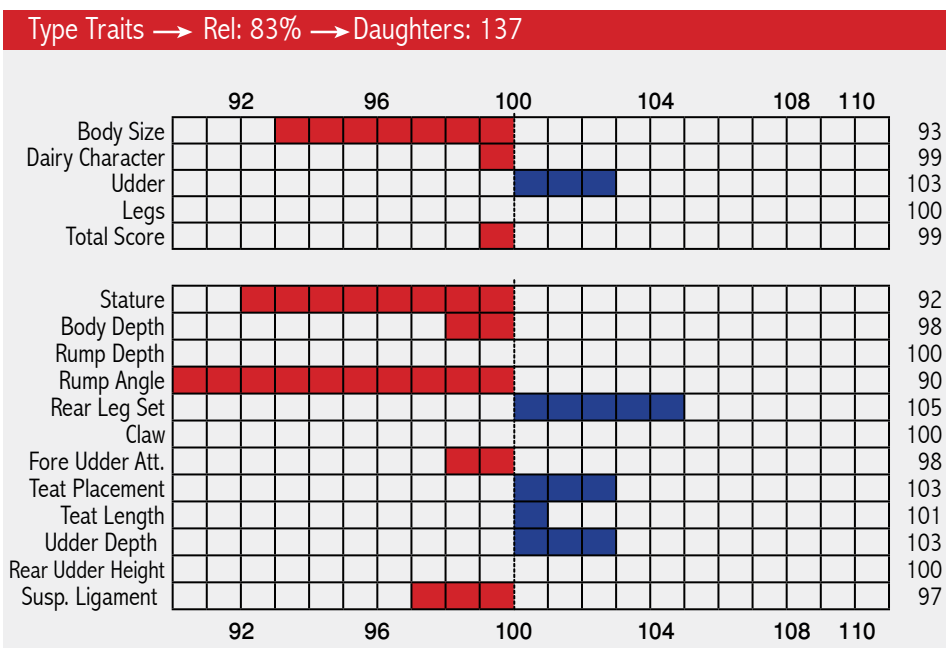
Born : April 2, 2005
Farm : Refet Hamenorah
Owner : SION
Breeding Values : November 2011

Sire : Manfred Justice	{ Cubby Manfred Jezebel
Dam : Afikim	{ Goopi 53813

Production Traits	Rel:97
Milk Kg	-154
Fat Kg	15.7
Fat %	0.19
Protein Kg	12.5
Protein %	0.15
Daughters	349
Herds	198

Functional Traits		
Somatic Cell Count		-0.16
Sire Calving %	Stillbirth	-1.4
	Calving Difficulty	0.1
Daughter Calving %	Stillbirth	2.1
	Calving Difficulty	2.2
Longevity (days)		76
Persistence %		-0.8
Female Fertility %		4.4

Average Daughter Performance (305d)	
Milk Kg	11,462
Fat Kg	434
Fat %	3.79
Protein Kg	376
Protein %	3.28



- Elevated milk content
(protein and fat %)
- Superior daughter fertility
- Small body size with attractive udders

MARKANA 7437

International No. ISRM000000007437

PD 11
627



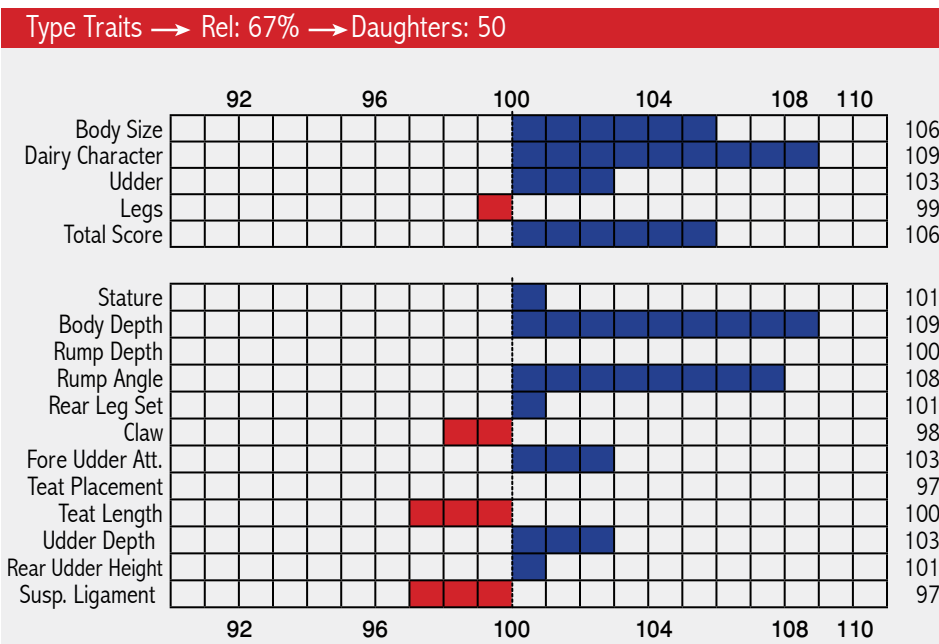
Born : November 3, 2005
Farm : Mevo Horon
Owner : SION
Breeding Values : November 2011

Sire : Marseye	{ Marke Mascot Teri
Dam : Ramelia	{ Comma Ramala

Production Traits	Rel:91
Milk Kg	785
Fat Kg	17.8
Fat %	-0.08
Protein Kg	20.7
Protein %	-0.03
Daughters	107
Herds	86

Functional Traits		
Somatic Cell Count		0.07
Sire Calving %	Stillbirth	0.4
	Calving Difficulty	4.6
Daughter Calving %	Stillbirth	0.5
	Calving Difficulty	2.1
Longevity (days)		91
Persistence %		1.4
Female Fertility %		-1.5

Average Daughter Performance (305d)	
Milk Kg	12,640
Fat Kg	437
Fat %	3.46
Protein Kg	388
Protein %	3.07



- Superior milk qualities
- Outbreeding bloodline
- Milk content with protein and fat balance

MEFAREK 7592

International No. ISRM000000007592

PD 11
705



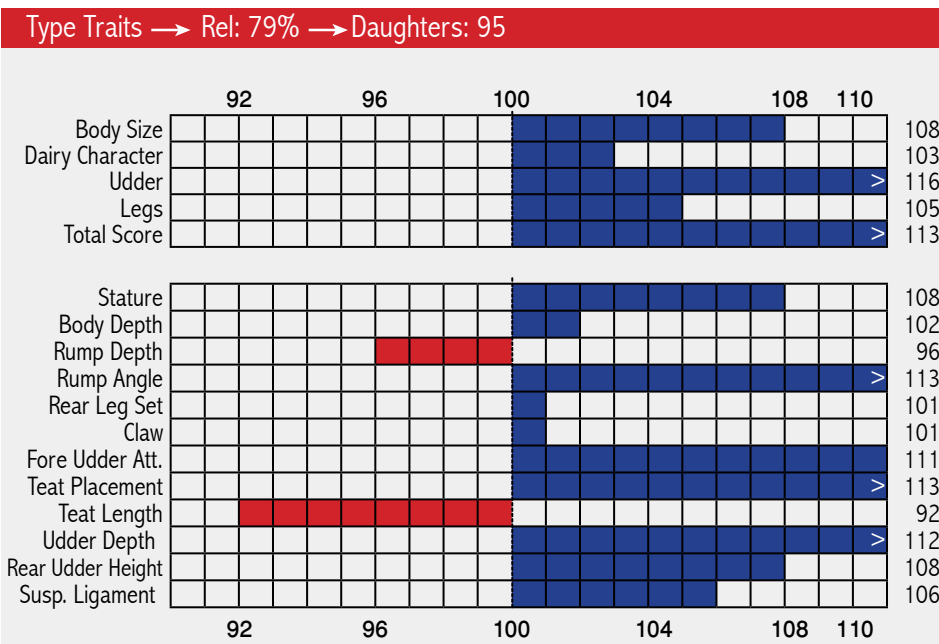
Born : February 16, 2007
Farm : Fudor Menachem
Owner : SION
Breeding Values : November 2011

Sire : Maskol	{ Prelude Mtoto Elaine 2Y
Dam : 312	{ Almere Pericles 894

Production Traits Rel:96	
Milk Kg	105
Fat Kg	30.7
Fat %	0.23
Protein Kg	11.1
Protein %	0.07
Daughters	386
Herds	190

Functional Traits		
Somatic Cell Count		-0.37
Sire Calving %	Stillbirth	0.0
	Calving Difficulty	1.0
Daughter Calving %	Stillbirth	-0.4
	Calving Difficulty	0.2
Longevity (days)		114
Persistence %		-0.1
Female Fertility %		0.9

Average Daughter Performance (305d)	
Milk Kg	12,062
Fat Kg	443
Fat %	3.67
Protein Kg	380
Protein %	3.15



- Easy daughter calving
- Very good production, secondary and conformation traits
- New bloodline

PATRUSHA 7483

International No. ISRM000000007483

PD 11
686



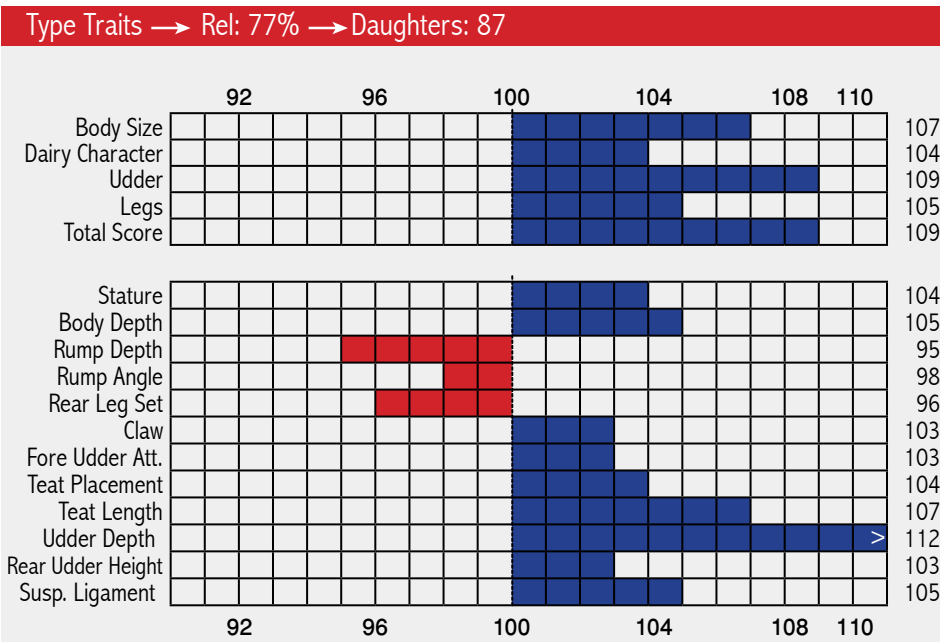
Born : September 30, 2006
Farm : Sa'ad
Owner : SION
Breeding Values : November 2011

Sire : Patur Ad	{ Addison TL Larissa
Dam : Bat Mazal	{ Avsha Birzia

Production Traits	Rel:91
Milk Kg	643
Fat Kg	23.7
Fat %	0.01
Protein Kg	24.3
Protein %	0.04
Daughters	142
Herds	102

Functional Traits		
Somatic Cell Count		-0.04
Sire Calving %	Stillbirth	0.9
	Calving Difficulty	4.2
Daughter Calving %	Stillbirth	-1.0
	Calving Difficulty	-1.0
Longevity (days)		26
Persistence %		-2.2
Female Fertility %		-3.5

Average Daughter Performance (305d)	
Milk Kg	12,293
Fat Kg	450
Fat %	3.66
Protein Kg	392
Protein %	3.19



- Balanced milk production and components
- Daughters display very easy calving
- Very good udders

SILVAN 7365

International No. ISRM000000007365

PD 11
581



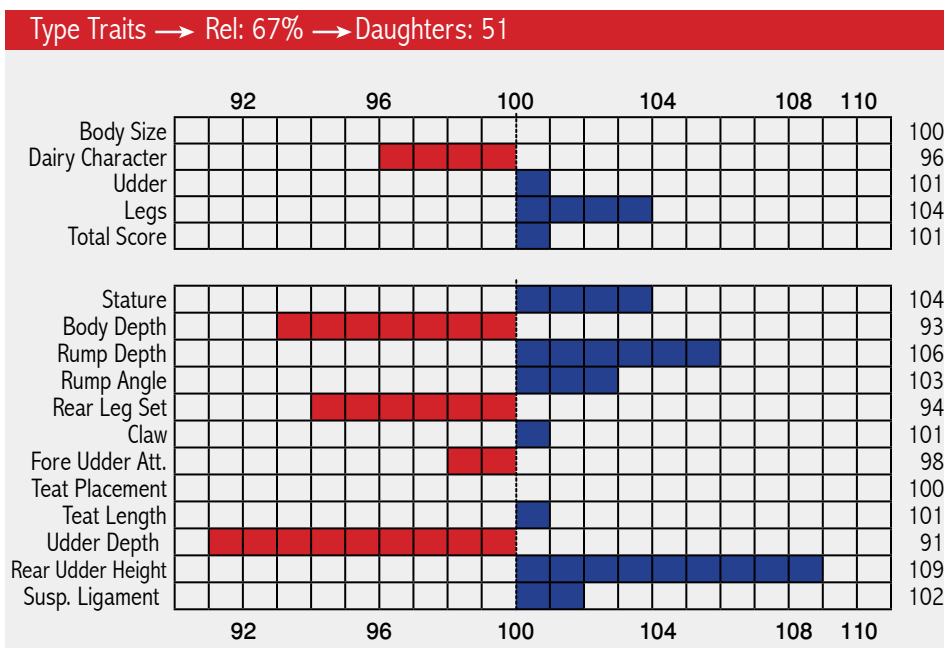
Born : October 23, 2003
Farm : Foder - Nir Israel
Owner : SION
Breeding Values : November 2011

Sire : Wonderboy	{ Lily 55276
Dam : 832	{ Dalia 50507

Production Traits	Rel:91
Milk Kg	488
Fat Kg	35.3
Fat %	0.15
Protein Kg	14.4
Protein %	-0.01
Daughters	97
Herds	78

Functional Traits		
Somatic Cell Count		-0.07
Sire Calving %	Stillbirth	-0.6
	Calving Difficulty	4.0
Daughter Calving %	Stillbirth	1.8
	Calving Difficulty	2.0
Longevity (days)		16
Persistence %		2.2
Female Fertility %		-2.9

Average Daughter Performance (305d)	
Milk Kg	12,130
Fat Kg	450
Fat %	3.71
Protein Kg	377
Protein %	3.11



- Outstanding bloodline
- Elevated milk content (%fat)
- Excellent conformation traits (feet and legs)

STED 7279

International No. ISRM000000007279

PD 11
662



Born : November 11, 2003
Farm : Yariv Shultfut
Owner : SION
Breeding Values : November 2011

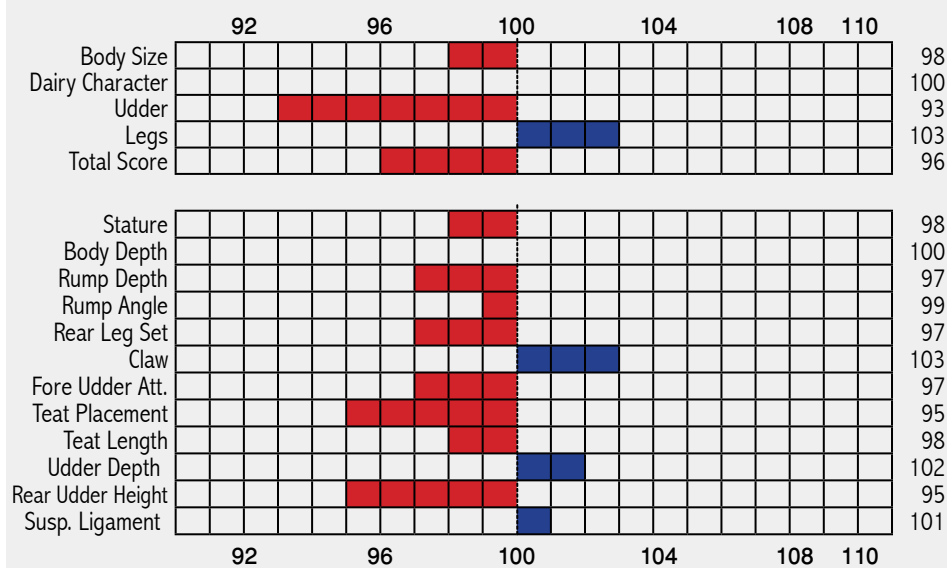
Sire : Sufon	} Scorer 4679
Dam : Agata	

Production Traits	Rel:97
Milk Kg	-10
Fat Kg	22.7
Fat %	0.2
Protein Kg	9.1
Protein %	0.08
Daughters	312
Herds	186

Functional Traits		
Somatic Cell Count		-0.47
Sire Calving %	Stillbirth	1.4
	Calving Difficulty	3.4
Daughter Calving %	Stillbirth	1.3
	Calving Difficulty	1.8
Longevity (days)		91
Persistence %		0.2
Female Fertility %		3.3

Average Daughter Performance (305d)	
Milk Kg	11,517
Fat Kg	434
Fat %	3.77
Protein Kg	370
Protein %	3.21

Type Traits → Rel: 84% → Daughters: 137



- Excellent secondary traits (somatic cell count, daughter fertility)
- Elevated milk content (% protein and fat)
- Elevated fat content (kg)

WINS 7454

International No. ISRM000000007454

PD 11
557



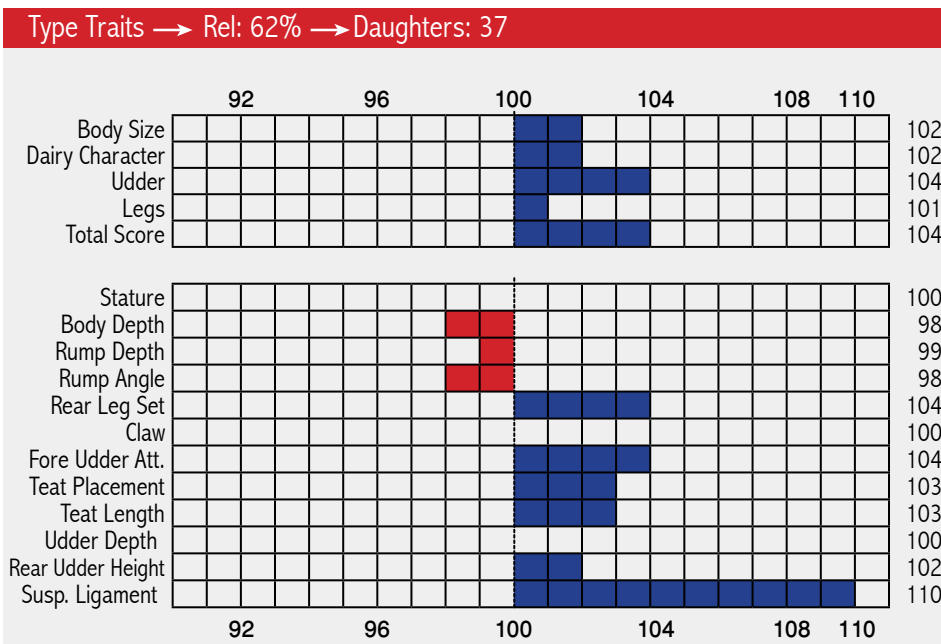
Born : July 22, 2006
Farm : Netzer Sireni
Owner : SION
Breeding Values : November 2011

Sire : Win 395	{ Winchester ET 17214213
Dam : Reuma	

Production Traits	Rel:86
Milk Kg	542
Fat Kg	11.2
Fat %	-0.07
Protein Kg	13.8
Protein %	-0.03
Daughters	81
Herds	68

Functional Traits		
Somatic Cell Count		-0.14
Sire Calving %	Stillbirth	0.5
	Calving Difficulty	1.4
Daughter Calving %	Stillbirth	-0.3
	Calving Difficulty	0.5
Longevity (days)		81
Persistence %		1.1
Female Fertility %		1.7

Average Daughter Performance (305d)	
Milk Kg	12,090
Fat Kg	434
Fat %	3.59
Protein Kg	378
Protein %	3.13



- Elevated milk production
- Very good daughter fertility and longevity
- Daughters display very easy calving



JERMIN 7396

JHEY 7400





STED 7279





JEYJEY 7424

GRASS 7337



Terms and Abbreviations

The information for all bulls listed is from the Israel Cattle Breeders Association (ICBA).

Data	ICBA November, 2011 genetic evaluation calculated. Fixed base = mean of daughters born in the year 2005 set to zero.	Persistency	Measured as the ratio of milk yield 220-240 days post partum to peak yield (40 to 60 days post partum, depending on parity). Higher percentage is favorable.
PD11	Israeli breeding index. The PD11 is the criterion for ranking bulls and cows in Israel.	Calving difficulty	Expressed as percentage of incidence of dystocia. Negative values are favorable.
The calculation is	$7.9 * \text{Kg Fat} + 23.7 * \text{Kg Protein} + 0.6 * \text{Durability} + 26 * \text{Fertility} - 300 * \text{Somatic Cells} + 10 * \text{Persistence} - 9 * \text{Bull daughter calving index}$.	Bull daughters calving index	The sum of percent dystocia and still births. Less than 1.5% is appropriate for heifers. Negative values are favorable.
Reliability (REL)	An indication of the degree of accuracy of the proof. A higher REL indicates better reliability of the proof.	Conformation	Four quality traits and 12 linear traits are scored. The mean is 100 and standard deviation is 6 for all traits. Positive values are favorable.
Somatic Cell Count (SCC)	Is highly correlated with mastitis. Minus indicates higher resistance to mastitis and is favorable.	TV	Tested as free of CVM (Cervical Vertebral Malformation).
Fertility	Scored as the inverse of the number of inseminations to conception, recorded in parities 1-5. Each cow that is not reinseminated is vet checked for pregnancy. Plus is favorable.	CV	Bulls checked and found to be CVM carriers.
Durability	Measured in days from first calving to culling. Durability is predicted for cows that are still milking. The mean is 1,150 days. Plus is favorable.		

Editor: Dr. Amir Shiffman
Professional Advisor: Dr. Yoel Zeron
Design: Adva Hochman
Photography: Adva Hochman, Irit Tohar
Data: Israel Cattle Breeders Association (ICBA)
English Proofreading: Keren Grass
Photographer's Assistants: Ofer Mendelman, Ya'akov Salach, Amnon Rozenberg and Shai Gol



