# **Proof that Better Cows** Make More Money

Official Holstein Pedigrees<sup>™</sup> put ancestry, performance and genetic potential information on one easy-to-use document. Whether you are looking to make mating decisions or you want to decide which sale animals might have a place on your operation, Official Holstein Pedigrees give you the details you need on the animals you are working with.

Official Holstein Pedigrees also serve as a verified source of production and ancestry information when you are selling animals, allowing you to provide trusted documentation on just how much better your animals are.

## Read with ease, evaluate with confidence

Official Holstein Pedigrees contain a lot of important information. The data is presented in the same format each time, however, making it easy to evaluate and compare animals.

Official Holstein Pedigrees<sup>™</sup> provide multi-generation details and performance information on registered cattle of all ages.

State and national leader records for Milk, Fat and Protein production are labeled on the line below the outstanding record. This recognition is based on DHIR and TriStar Premier records.

Once a cow produces more than 100,000 pounds of milk in her lifetime, total production information (LIFE) appears on the pedigree.

### Type of Testing Program Labels

Type of Test	Dairy Herd Improvement Registry	Dairy Herd Improvement Association
Alternating AM/PM with a time monitor	APT	APM
Alternating AM/PM component sampling	APS	АРС
Alternating AM/PM without a time monitor	APR	APD
Weights and component samples at monthly test milkings	DHR	DHI

TriStar Labels (for production records starting after 1/1/1997)			
Premier	***		
Deluxe	**		
Custom	*		

ALL-AMERICAN JR 3Y COW 1993 RESERVE ALL-AMERICAN 5Y COW 1995 1st INTERNATIONAL DRY AGED 1996 1st INTERNATIONAL JR 3Y COW 1993 2nd INTERNATIONAL 5Y COW 1995

7. Show records for females are found under the production records if there is room. 1st, 2nd, and 3rd place class winners of the National and International shows are currently added to the database. All-American, Reserve All-American, and Honorable Mention All-American winners are also included in the database.

Copyright 2008 Holstein Association USA, Inc.

### GETTING THE MOST FOR YOUR INVESTMENT

# How To Read **An Official Holstein Pedigree**<sup>™</sup>

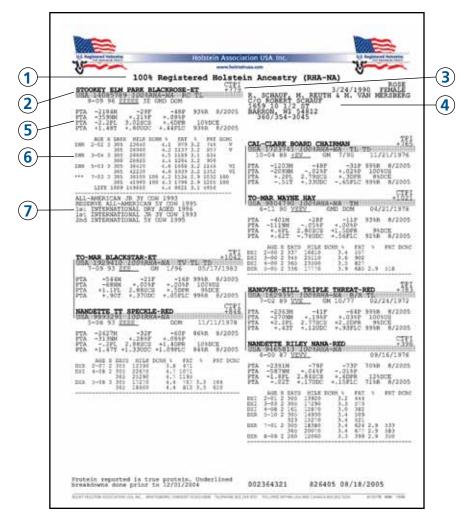




Holstein Association USA, Inc.

1 Holstein Place . Brattleboro, VT 05302-0808 800.952.5200 • www.holsteinusa.com

# How to Read an Official Holstein Pedigree<sup>™</sup>

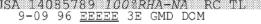


The following describes what information is on an Official Holstein Pedigree and where it can be found.

### 100% Registered Holstein Ancestry (RHA-NA)

**1.** The first line, centered on a pedigree, shows the **percentage Registered Holstein** Ancestry (RHA) and whether the animal is of a North American (NA) blood-line or International (RHA-I)

# STOOKEY ELM PARK BLACKROSE-ET USA 14085789 1008RHA-NA RC TL



**2.** The first information block on the left side of a pedigree provides you the animal's complete identification and classification information. You will see the animal's name, country of origin of the identification, identification number, RHA information, birth date and any genetic codes.

### **Genetic Codes**

- BD Bulldoa
- ΒL Bovine Leukocyte Adhesion Deficiency (BLAD)<sup>1</sup>
- TL Tested free of BLAD
- CV Complex Vertebral Malformation (CVM)<sup>1</sup>
- ΤV Tested Free of CVM
- DF Dwarfism<sup>1</sup>
- DP Deficiency of Uridine Monophosphate Synthase (DUMPS)<sup>1</sup>
- Tested free of DUMPS TD
- HL Hairless<sup>1</sup>

<sup>1</sup>Recessive gene carrier

IS

MF

ΤM

PO

PG

PT

RC

TR

B/R

Imperfect Skin<sup>1</sup>

Tested free of Mule-Foot

Prolonged Gestation<sup>1</sup>

Carrier of red hair<sup>1</sup>

Pink Tooth (Porphyria)<sup>1</sup>

Tested free of red hair color

Mule-Foot<sup>1</sup>

Black/Red<sup>1</sup>

Polled<sup>2</sup>

<sup>2</sup>Dominant gene carrier

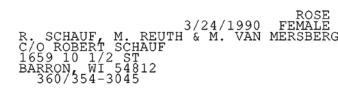
**Classification information** is found under the animal's identification number. It includes the age of the animal at classification, final score and major classification categories. Cows scored after 12/1/2004 have five categories; Front End/Capacity, Dairy Strength, Rump, Feet & Legs, and Udder. Cows scored between 5/1/1993 and 11/30/2004 have five categories; Frame, Dairy Character, Body Capacity, Feet & Legs,

and Udder. If an animal has been classified Excellent more than once, a multiple E designation may appear on this line after major category designations. Recognition as a Gold Medal Sire, Gold Medal Dam or Dam of Merit will be found on this line as well.

CTPI +779

**3.** TPI<sup>TM</sup> (Total Performance Index) values appear on the same line as the name. TPI combines the Predicted Transmitting Ability (PTA) values for Protein, Fat, Type, Productive Life, Somatic Cell Score, Daughter Pregnancy Rate and Daughter Calving Ease. It also includes the Standard Transmitting Ability (STA) for Dairy Form and the Linear Composite indexes for Udder Composite and Feet & Legs Composite into one numeric value. TPI ranks animals on their ability to transmit a balance of these traits. For females, this value is labelled CTPI (Cow TPI).

For young animals (and older animals that do not have PTAs), a PTPI (Pedigree TPI) will be provided. Pedigree TPIs are calculated by adding the TPI of the sire and the CTPI of the dam and then dividing in half. PTPI estimates the potential transmitting ability of a young animal. It is preceded by a percentile ranking of P5 through P9 for the top 50% of animals born within a given year of birth.



**4.** The information block in the upper right corner reflects **ownership information and** the birth date of the animal on which the pedigree was produced. This block also designates if the animal is male or female and the animal's barn ID or short name for AI bulls.

PTA PTA PTA PTA

**5.** Predicted Transmitting Ability (PTA) information follows the animal's identification and classification information. PTAs express the level of genetic superiority or inferiority an animal is expected to transmit to its offspring for a given production or type trait. These values are used to rank animals based on their genetic merit.

Line one indicates the Predicted Transmitting Ability for Milk (M), Fat (F), Protein (P), and Reliability (R) for production information. The date of the PTA for production calculation is also shown on this line. For young animals, the PTA values are estimated by averaging the parents' PTAs. This is denoted with #.

Line two indicates the PTA for Net Merit (NM) and the PTA% for Fat and Protein. For males this line will also include the percent of U.S. daughters in the evaluation.

Line three shows PTAs for Productive Life (PL), Somatic Cell Score (SCS), Daughter Pregnancy Rate (DPR), and Daughter Calving Ease (DCE).

the date of PTAT calculations are also shown on this line. International genetic evaluations for type and production are labeled by printing MACE YIELD EVALUATION and/or MACE TYPE EVALUATION on the line above the PTA data. The TPI value will be followed by an M. If a conversion formula is used to convert a foreign type evaluation to a U.S. base then CONVERTED TYPE EVALUATION will be printed above the PTA data. These evaluations are based on either conversion formulas or Multiple Across Country Evaluations (MACE). Whenever the PTPI of an offspring of a bull with a MACE or converted proof is calculated a C or an M will appear after the PTPI value until U.S. information is available.

AGE DHR 2-02 DHR 3-0 DHR 5-0. \*\*\* 7-0

LI

93%R 8/2005 -2184M -29F -48P -359NM +.21%F +.08%P 10%DCE -2.2PL 3.02SCS +.6DPR +.80UDC +.44FLC 93%R 8/2005 +1.48T

Line four provides the animal's Predicted Transmitting Ability for Type (T), Udder Composite (UDC) and Feet and Legs Composite (FLC). The Reliability (R) for Type and

Line five will show the daughter averages for Milk, Fat, Protein, and Type for a bull on a non-standard pedigree.

			MILK 23640						
2	č		26960						
4	3	305	26660		4.5	1189	3.1	834	
		360	28680		4.4	1264	3.2	906	
3	3	305	36420		4.6	1668	3.2	1148	VI
		365	42230		4.6	1939	3.2	1352	VI
3	3	305	36100	100	4.2	1534	2.9	1032	100
		365	41960	100	4.3	1796	2.9	1205	100
FE	2 3	1609	149880		4.4	6621	3.1	4656	

6. For females, production records follow the genetic information. Each main line indicates the type of testing program (for production records starting prior to 1/1/1997) or TriStar Option (for production records starting after 1/1/1997); age at calving; number of times milked per day; length of record in days; pounds of milk; DCRM (Data Collection Rating for milk); fat percent; pounds of fat; protein percent; pounds of protein; and DCRC (Data Collection Rating for components) during that lactation up to 305 days. A "V" at the end of the line indicates a verification test took place during the lactation. An "I" means an injection was used during the lactation. An "X" at the end of the line indicates that the record contains some extreme test-day data and that details are available under FREE MATERIALS. A second line of data is only included if the cow's lactation is longer than 305 days (up to 365 days) for that lactation.