Zoetis Animal Genetics
Genomic Data Report

Animal ID		Zoetis HD50K Percentile Rank*												Zoetis MVP**		
Reg#	Prefix ID	CED	BW	WW	YW	Milk	CEM	Marb	REA	Fat	TND	DMI	RFI	TND	DMI	RFI
1569159	TTWY 116Y	39	50	33	44	54	70	87	81	40	60	11	15	-0.37	-1.27	-0.62

*While Zoetis HD 50K Percentile Ranks help breeders gauge the effect of genomic information on the EPDs of tested animals and evaluate non-EPD traits (Tenderness, Dry Matter Intake, and Residual Feed Intake); selection, mating and marketing decisions should be based on RAAA provided EPDs, ACC and Percent Rank (not 50K Ranks) for associated traits.

Zoetis HD50K Percentile Ranks are based on the animal's MVP for each trait as compared to the overall population of Red Angus animals with HD 50K Global MVPs in the Zoetis global database. Rank values indicate the 'top' position of the animal in the population, with lower values generally indicating more favorable genetic merit.

**Zoetis MVPs are provided for traits in which RAAA does not calculate and publish EPDs. Due to the fact that RAAA does not possess significant data describing these traits, the validation process of TND, DMI, and RFI MVPs was limited to Zoetis owned data.

Definitions:

Molecular Value Prediction (MVP): Predicted genomic breeding values for animals, based on the sum of the effects of the associated markers from the HD 50K genotypes, expressed in units of measure for the trait. Similar to Expected Progeny Differences (EPDs), MVPs rank animals for genetic merit and are expressed as deviations in performance from a set base-point for each trait. One-half of the difference in genomic breeding values between animals is transmitted to offspring.

Dry Matter Intake (DMI): Presented in pounds of dry matter feed consumed per day, DMI predicts genetic differences for feed intake while on feedlot finishing rations. MVPs and ranks for DMI should be evaluated in relation to genetic merit for output traits, especially including MVPs and ranks for yearling and carcass weight (YW and CW).

Residual Feed Intake (RFI): Presented in pounds of dry matter feed consumed per day – compared to expected consumption, RFI predicts genetic variation in weight of dry matter consumed per day, as compared to expected feed consumption based on body weight and growth rate. Lower MVP and rank values are desired, and identify genetics for less feed intake for the same amount of weight gain.

Tenderness (TND): Presented in pounds of shear force, TND predicts differences in genetic merit for tenderness based on the amount of shear force required to slice through cooked steak samples. Lower MVP and rank values are preferred and indicate less shear force required and more desirable meat tenderness.