

Keep Reproductive Evaluations Accurate

By Dr. H. Duane Norman¹

Probably nearly everyone is familiar with such warnings as *Weather Alerts* (severe storm warnings ahead) or *Amber Alerts* (urgent notices regarding abducted children). Now we want to request everyone recording reproductive data in the dairy programs become aware of this *Semen Straw Alert*. We need all dairy managers and artificial insemination (AI) organization personnel to become familiar with and pass along a simple notice to their employees who can make fertility evaluations for their herd (or all herds they deal with through AI service) as accurate as possible.

WHAT IS THIS NOTICE? WHEN ENTERING INSEMINATION INFORMATION INTO EITHER ON-FARM RECORDS OR THE DHIA SYSTEM, RECORD THE SERVICE BULL'S NATIONAL ASSOCIATION OF ANIMAL BREEDERS (NAAB) CODE FROM THE SEMEN STRAW INSTEAD OF THE BULL'S SHORT NAME OR REGISTRATION NUMBER.

U.S. producers have had genetic evaluations for a reproductive trait (daughter pregnancy rate, DPR) provided from the U.S. Department of Agriculture and subsequently from the Council on Dairy Cattle Breeding (CDCB) for 16 years. Use of these evaluations are producing cows with better fertility every year. In 2010 two additional genetic evaluations were provided: heifer conception rate (HCR) and cow conception rate (CCR). Also, phenotypic measures of service-bulls' fertility (sire conception rate, SCR) have been revealing which AI bulls are most successful in settling cows for even longer.

NAAB assigns different marketing codes to AI organizations for use on conventional and sexed semen. Bulls marketed with both conventional and sexed semen are usually assigned different NAAB codes for various semen type. These NAAB bull codes are printed on the semen straw at processing. Accuracy of fertility evaluation depends on properly accounting for whether a unit of sexed- or conventional-semen was used. The best way to be certain this information is accounted for accurately is to record the bull's NAAB code from the semen straw.

Why does recording the preferred NAAB bull code matter? Conventional semen typically results in a slightly higher conception rate than does gender-specific semen² (Norman et al., 2010). Thus, failure to record the correct semen type will result in biases entering all four fertility evaluations, i.e., being either too favorable or unfavorable to the service bull that produced the semen and likewise to the female that received it. Because the semen processing affects conception rate, the animals should not be shown to have either higher or lower fertility predictions than appropriate simply because the semen type was recorded incorrectly, i.e., is partially responsible for the differences observed. Accurate recording of the gender of calves expected should be beneficial for herd management as well.

Two examples of NAAB bull codes are shown on a photo of semen straws below; the first is for a *sexed-semen* straw of a Jersey bull, DUTCH HOLLOW OLIVER-P assigned an NAAB code of 507JE12191. The second is for a *conventional semen* straw of the same bull with an NAAB code of 007JE12191. If the NAAB code printed on the straws is recorded in preference to the short name or registration number (both of which are also there), then the accuracy of fertility evaluations will be maximized within the herd as well as for the entire dairy industry.





So please help spread the word so that **“ALL RECORDERS OF BREEDING DATA KNOW THEY SHOULD ENTER THE BULLS’ NAAB CODE FROM THE SEMEN STRAW.”**

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²Norman, H.D., J. L. Hutchison, and R. H. Miller. Use of sexed semen and its effect on conception rate, calf sex, dystocia, and stillbirth of Holsteins in the United States. *J. Dairy Sci.* 93: 3880-3890.