

DAIRY PIPELINE

Include somatic cell score in breeding programs. Dairy producers have emphasized production and type in breeding programs for many years, but genetic evaluations for other important traits are now available including longevity, fertility, dystocia and somatic cell score or SCS. These “new” traits are gaining attention because they reduce costs of production, and they don’t necessarily flood an already saturated milk market with more product in the process. SCS is an indicator trait for clinical mastitis, the most costly disease of dairy cattle. We can use selection programs to develop cows genetically disposed to fewer mastitis infections. Daughters of some bulls have lower SCS than daughters of other bulls because their bodies respond to and eliminate infection quickly and/or because their mammary systems are less prone to infection in the first place. Genetic evaluations for SCS are a little different from most other traits. Lower numbers are better – an SCS proof of 2.80 is better than a proof of 3.20. The average Holstein bull in active AI service has a SCS of 3.10. Bulls with SCS evaluations below 2.94 are pretty special, as they have lower SCS proofs than 5 of every 6 active AI Holsteins bulls available. Average proofs for Jersey bulls are higher than for Holsteins, averaging 3.28. Jersey bulls with SCS evaluations below 3.13 have better SCS proofs than 5 of every 6 active AI Jersey bulls available. SCS is included in the selection index Net Merit, receiving 9% of total emphasis on all traits. It is one of the most important non-production traits in Net Merit, and, if anything, it doesn’t get as much weight yet as it will likely receive in the future. Genetically lower SCS is valuable. First of all, it is permanent, and benefits the recipient animal throughout her life. It can help a herd qualify for quality milk premiums. Lower SCS leads to reduced mastitis treatment costs, lower risks of

contaminated milk, less discarded milk, less cross-cow contamination, and less labor to manage cows with mastitis. But the biggest economic value would be higher yield from cows with low SCS – between one and two lbs. of milk a day for each reduction of 1 unit of SCS. Genetic improvement in SCS deserves more attention. Check out the AI bulls on your mating list to see if they are helping you to breed a healthier herd.

-- Bennet Cassell
Extension Dairy Scientist,
Genetics and Management
540/231-4762 email: bcassell@vt.edu

Virginia Johne’s Disease Control Program. Local veterinarians and the area dairy agents have recently received training on the State’s new Johne’s Disease Prevention and Control Program. Johne’s is a deadly disease that attacks the cow’s small intestine causing inflammation that reduces and then finally eliminates the infected animal’s ability to absorb nutrients from feed. MAP is the bacteria most widely claimed to cause Johne’s. MAP takes up to 8 weeks to grow in a laboratory so it is difficult to diagnose. Many different species of animals can contract and shed Johne’s causing organisms. Included in these animals are: deer, bison, rabbits, and monkeys, so you can see the ability to contract this disease is pretty widespread. There has been speculation that Johne’s is linked to Crohn’s Disease in humans, but that has NOT been verified. The most prevalent way to introduce Johne’s into an animal is by the ingestion of fecal material from shedding animals. MAP can live in tap water for over 500 days! In short, cleanliness is paramount to preventing the spread of Johne’s in your herd. You may begin by signing up with your vet to become a certified herd. During the initial year of joining the program, all information regarding

identifying your operation is protected by anonymity. Your herd is issued a number and only your veterinarian knows whose farm matches which number. You also receive some monetary help to offset the vet's time in testing animals and inspecting your farm. All inspection visits include your vet and a certified program implementer, namely your dairy extension agent or county agent. If you have any questions regarding certifying your herd as being enrolled in a Johne's Control Program, please contact me at (276) 223-2542 or your veterinarian.

-- Andy Overbay
Extension Area Dairy Agent,
Southwest Virginia
(276) 223-6040 email: aoverbay@vt.edu

**** Upcoming Activities****

Little All American Dairy Show & Banquet, <i>Virginia Tech</i>	April 17
Showcase Sale of Virginia Tech By Dairy Club, <i>Virginia Tech</i>	April 16
2004 Hokie Cow Classic Golf Tournament at New Championship River Course, <i>Radford</i>	May 27
Grand Opening of the Virginia Tech Dairy Complex, <i>Virginia Tech</i>	July 16

Raymond L. Nebel
Dairy Extension Coordinator
and Extension Dairy Scientist, Reproduction