

A.I. organizations share sire selection criteria

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MOHRSVILLE — The new bull proofs are out! Curiosity, and perhaps concern, has been in the back of the minds of many purebred dairy cattle breeders all month. "How did that young sire used in my herd turn out? Did that popular bull hold his numbers? Did the repeatability change on that bull I really wanted to use? Did AI daughters make a difference on that breeder-proven bull?"

If your farm has a bull in A.I. service, the semi-annual bull proofs can become an occasion. Or, maybe there is a cow at home that you know could mother a bull on that list, and when the list comes out each time, you wonder...

Do the genetics of that cow measure up? Is your management of her production and reproduction allowing her to reach her full potential? Are you taking advantage of the many programs available that will "advertise" your cow in the industry?

Lancaster Farming questioned several A.I. organizations on their basic sire selection criteria. They all responded that one of the primary goals is to sample as many superior sires as possible to make the best genetics available to dairymen. Following is some general information and advice from three industry leaders to purebred dairy cattle breeders of all breeds.

Richard G. Smith, manager of young sire development at American Breeders Service, responded to our questionnaire. Previously the manager of ABS Genetic Mating Service for ten years, Smith is a graduate of Delaware Valley College and Iowa State University.

American Breeders Service boasts over 40 years in the A.I. industry. In 1953 they led the way into frozen semen technology with the first calf born from processed frozen semen in the United States. Today their network of breeders

takes ABS semen throughout the United States.

J. Lloyd Ebersole, assistant manager and director of sire programs at Sire Power, covered the policies of his cooperative. A federation of Maryland Artificial Breeders Cooperative, Inc., West Virginia Artificial Breeders Cooperative, Inc., and Northeastern Breeders Association, Sire Power, Inc., was formed in 1969. The continual upward growth the cooperative has enjoyed since that time has enabled facilities to be expanded, sire acquisition programs to increase, and patronage dividends to members to grow.

Harry Roth, general manager of Atlantic Breeders Cooperative, also participated in the questionnaire. A Penn State dairy science graduate and former York County Extension agent, Roth served as general manager of the Western Pennsylvania Artificial Breeders Cooperative (WPABC), and from 1964 until this year, he was director of operations at Atlantic.

In business since 1944, Atlantic is a Pennsylvania-based co-op that has a national and international marketing program. As a member of NAL Affiliated Breeders since 1969, Atlantic is able to provide customers with more and better sires through this association.

1. What are some of the traits on which the most importance is placed when looking at a "potential bull mother?"

The Cow Performance Index is considered to be of invaluable importance by these three organizations.

"This incorporates," states Smith of ABS, "according to a constant formula by breed, several important factors: a) Cow index milk, which is derived from modified contemporary deviation, with pedigree influence from both the sire and the dam of the cow; b) A measure of butterfat production



Richard G. Smith, manager of young sire development at ABS.

which is also based on MCD and pedigree; and c) A cow index for type which considers how the cow's score deviated from herd-mates, and again, is affected by her sire's PDT, maternal grand-sire's PDT and classification deviations for the cow's dam and grandam."

"We are just starting to get information on protein on many of the cows and, as this is routinely available, we will also be looking at protein as a production trait," states Ebersole, Sire Power. "Type-wise we want the cow to be classified "very good" or higher and must have a sound udder and feet and legs," he adds.

Ebersole also makes clear, "In addition to a high index on a cow, she must have a large difference over herd-mates on MCD."

Roth, Atlantic, points out that two-year-old performance which includes herd-mate deviation, in addition to lifetime performance, is "most important." Emphasis is placed on total milk per lactation, butterfat, cow index dollar value, and sound bodies, legs, feet, and udders, according to Roth.

"Lactation interval and reproductive health are also considerations," Roth adds. "All of the above points are blended with emphasis on depth of pedigree and female relations to the dam of a bull," he concludes.

2. What should a dairyman strive for in a cow to better promote her as a bull mother?

"I'd like to think bull mothers are born, not made," Smith, ABS, flatly states. He adds that there are many ways the industry can identify a super cow, whether she is promoted or not.

"Good professional photos and ads that alert the A.I. industry to the cow's desirability and availability of offspring, can enhance sales efforts," Smith advises.

"She should work under the same management conditions as the rest of the herd," Ebersole, Sire Power, points out. "I think a reasonable calving interval is important, particularly between early lactations," he adds.

Ebersole also suggests to dairymen when providing pedigree information to a sire analyst to "provide all available information; have the computerized DHI life history sheets, latest DHI monthly reports, latest classification reports, and the pedigrees on at least the cow and her dam."

Roth stresses proper management to achieve the cow's full potential. "There is a great need for a cow to be able to honestly express herself in her production performance." He continues, "Good management practices in calf and heifer raising programs are essential. Good feeding and management in the



J. Lloyd Ebersole, assistant manager and director of sire programs at Sire Power.

milking herd is equally important."

And, Roth adds, "Production testing and classification programs along with adequate record-keeping systems are all necessary to give accurate evidence of the cow's genetic worth."

3. Do you place much importance on longevity and/or consistency in calving and production?

"Thus far," states Smith, ABS, "all indications are that longevity is positively correlated to high production and sound udders. By emphasizing animals in the pedigree with these characteristics, especially high production sires that transmit improved udders, the ABS bulls have done very well in all studies dealing with longevity."

"Calving interval is not highly heritable to a cow's paternal granddaughters," Smith also states. "Of course we like to see cows that calve regularly and make a good record every year. Therein is the secret to profit."

"Prior to widespread embryo transplant, it was safe to assume that the cows that calved the most often had the most offspring. Ironically, today we sometimes sense that the cow with the most offspring has the fewest lactations - due to routine flushing," Smith adds, "I am skeptical of the cow that has made one or two lactations and then retires to 'donor' status."

"Calving interval, particularly on earlier lactations, and consistency of production are important to us," states Ebersole, Sire Power. "We certainly like to have longevity, but do not feel enough can be gained in longevity to wait long enough on a cow to know what her longevity is before mating her."

Ebersole concludes, "We look more at a cow's soundness as an



Harry Roth, Atlantic's general manager.

indication of longevity then we do at the number of lactations."

"On a population basis, so many factors affect longevity that the genetic differences are sometimes difficult to evaluate," states Roth, Atlantic. "The younger cows generally, however, have the most current genetic ancestry and have the greatest potential for higher performance offspring and, therefore, are quite important in our program," Roth comments.

4. Do you believe in contracting two- and three-year-olds?

"Yes," Smith, ABS, is quick to state. "Each year the best cows we mate are the two- and three-year-olds."

Ebersole, Sire Power, also answers affirmatively. "Research indicates very strongly that the first two lactations will tell you about as much about a cow's genetic transmitting ability for production as six lactations will," he concludes.

Roth, Atlantic, also adds, "Yes, we contract young cows. The updated genetics and the latest high performance sires are only found in the pedigrees of the younger cows."

"It is also very possible to find sound, young cows who in a few years will be the grand old cows we all admire. These cows, therefore, have a greater opportunity to contribute when selected as bull mothers when at a younger age," Roth states.

5. Is there a set number of sires your company seeks to prove each year for each breed?

"In 1984 the various programs at ABS sampled 218 bulls," Smith, points out. These included 181 Holsteins, nine Red and Whites, 13 Jerseys, 12 Guernseys, two Brown Swiss, and one Ayrshire.

According to Ebersole at Sire Power, 70 Holsteins are proven each year, along with two to four others in each of the other breeds.

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Chairman



Cal-Clark Board Chairman is a widely used sire at Sire Power.

Valiant



S-W-D Valiant is ABS' best example of a progeny test sire.

Stewart



Crescentmead Chief Stewart is one of the many sires at Atlantic that has met the co-op's selection criteria.