8 Pa. bulls go to ABS

DE FOREST, Wisc. — Eight more young Holstein bulls from Pennsylvania have been selected by American Breeders Service for the Progeny Testing Program.

The Pa. Bulls, which have been moved to company facilities at DeForest, Wisc., join some 170 other bulls being tested this year. The Pa. Bulls include:

—Two from Walebe Farms, Collegeville, Walebe Centerfold-ET, bred by Earl Waltmyer, and Walebe Viking.

Mowry Sexy Idea, bred by Ken Mowry, of Roaring Spring.

Holler-View Dyno Morris, bred by James Holler, of Jamestown.

Lambert Farms Boulder-ET, bred by Lambert Farms, of Dushore.

Chateau-Ridge Milkmaster Bonus, bred by Dale Hoffman, of Bloomsburg.

Campbell-Hollow Columb King-ET, bred by Van Cornish, of Dayton.

Hickorymea Jay P., bred by Edwin T. Johnson, Jr., of Airville.

Walebe Centerfold-ET is the result of a mating between Ecraso Rocket Eric, +$224, +2,128M and +46BF Quietcove Matt Cinderella. His dam has production records to 35,710 lbs. of milk, with a Cow Index of +1,535M. She is classified EX-95 and is sired by No-Na-Me Fond Matt.

Walebe Viking is the result of a mating between Sweet-Haven Tradition, +$248, +2,154M and +59BF and Rudmar Glendell Violetta. His dam has production records to 30,270 lbs. of milk, with a Cow Index of +1,504M. She is classified EX-90 and is sired by Glendell Arlinda Chief.

Mowry Sexy Idea is the result of a mating between Ocean-View Sexation, +$200, +1,407M and +61BF and Luth-R-Le Glendell Idea. His dam has production records to 25,900 lbs. of milk, with a Cow Index of +1,664M. She is classified VG-85 and is sired by Glendell Arlinda Chief.

Holler-View Dyno Morris is the result of a mating between Donacres Dynamo-Twin, +232, +1,951M and +58BF and Holler-View Marc Molly. His dam has production records to 16,250 lbs. of milk, with a Cow Index of +2,206M. She is classified VG-86 and is sired by Holler-View Elevation Marc.

Lambert-Farms Boulder-ET is the result of a mating between S-W-D Valiant, +$279, +2,235M and +74BF and Lamberts Elevation Rush Bess. His dam has production records to 25,880 lbs. of milk, with a Cow Index of +1,479M. She is classified VG-89 and is sired by Round Oak Rag Apple Elevation.

Chateau-Ridge Milkmaster Bonus is the result of a mating between Gil-Tex-B Milkmaster-Twin, +$201, +1,540M and +56BF and Chateau-Ridge Elev Brac-Twin. His dam has production records to 31,460 lbs. of milk, with a Cow Index of +1,563M. She is classified EX-90 and is sired by Round Oak Rag Apple Elevation.

Campbell-Hollow Columb King-ET is the result of a mating between Leadfield Columbus-ET, +$297, +2,596M and +70BF and Campbell-Hollow Gay Kris. His dam has production records to 21,490 lbs. of milk, with a Cow Index of +1,583M. She is classified EX-90 and is sired by Harrisburg Gay Ideal.

Hickorymea Jay P is the result of a mating between Sweet-Haven Tradition, +$248, +2,154M and +59BF and Hickorymea Sunny Jolly P. His dam has production records to 19,600 lbs. of milk, with a Cow Index of +395M. She is classified VG-85 and is sired by Collins-Crest Sunshine Chief.

Penn State gets tobacco grant

LANDISVILLE — R.J. Reynolds Tobacco Company has presented Penn State with a fit of $5,000 for tobacco production research.

The funds will be used for projects in plant breeding, measuring and nutrient content of manure applied to tobacco fields, determination of objective characteristics that indicate superior leaf for chewing tobaccos, and determining the effect of maturity on chewing tobacco quality.

A.R. Mitchem, Senior Agricultural R&D Coordinator for Reynolds Tobacco, presented the check for the gift to John O. Yocum, senior research associate and superintendent of the Southeastern Field Research Laboratory.

R.J. Reynolds contributions to tobacco research, extension, and education at Penn State have totaled $51,350 since 1979. Since 1962, R.D. Reynolds gifts to land grand universities for tobacco production research, extension, and education have totaled $4,362,774.

Type of feed affects buffers

MINNEAPOLIS, MN. — The type of feed, and not just the forage-to-concentrate ratio, affects response from buffering ingredients, a leading dairy nutritionist reported recently.

Speaking at the Buffers, Neutralizers and Electrolytes Symposium sponsored by the National Feed Ingredients Association (NFIA), Jimmy Clark of the University of Illinois said that buffers like sodium bicarbonate were first thought to be effective only when high levels of concentrate were fed in diary rations. More recent research suggests buffer response is also affected by feed particle size and whether the forage is fermented or unfermented.

The move toward greater amounts of chopped forages and use of complete, blended rations has reduced the particle size of many dairy cows' diets, Clark explained.

"Reduction in particle size of the diet markedly reduces the amount of saliva secreted and hence the buffering capacity of the ruminal contents," Clark said. Several experiments have shown that feeding finely chopped or ground forage reduces butterfat production, compared to feeding a coarse or long forage. Sodium bicarbonate fed at .75 to .8 percent dry matter can help maintain normal butterfat production when particle size is reduced by chopping or grinding.

Fermented forages also increase the need for buffering, Clark said, because they increase the "acid load" on the animal. He cited Penn State research with sodium bicarbonate fed at 1.2 percent of the dry matter in a ration of 75 percent corn silage and 25 percent concentrate. A beneficial response to bicarb in that study was partially due to bicarb's neutralizing effect on the acids present in the silage. Bicarb also counteracted acids produced when the silage further fermented in the rumen, he said.

In conclusion, Clark called for dairy researchers to routinely measure the mean particle size of rations when studying buffer response.

"To make effective use of buffers in the future, we must pay more attention to such factors as acid load imposed on the animal and the physical and chemical properties of the diet," he said.

Nitrogen

(Continued from Page D6)

forms, more N will be available to the crop at the crucial seed-filling stage," Johnson says.

Three-In-One Nitrogen

For this reason, Johnson favors the use of urea-ammonium nitrate (UAN) solutions. "A UAN solution contains all three forms," he explains. "The fertilizer itself will help 'spoon feed' the crop."

UAN Solutions, available in 28%, 30% and 32% formulations, also provide more versatility, he says. They can be dribbled near the base of the plant, close to the root zone. "As long as you get some rain within four or five days of application, you can leave the fertilizer on the surface without mixing or knifing it into the soil," Johnson says. "That's an important consideration if you're on a conservation tillage program."

Nonetheless, Johnson says placing UAN solutions two to three inches deep is the best method of application. This can be done by dribbling the solution ahead of the cultivator.

Another factor favoring the use of UAN solutions is the possible need to correct unexpected nutrient deficiencies. A prescription mix of nitrogen and other needed nutrients can be applied together without using two separate application rigs, he says.