

York Holstein Breeders

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new technology, confronted with the same industry suspicion which greeted A.I. and bulk tanks. But, controversial or not, BST, if and when approved by FDA, could be available for dairy farmer use within the year. The university is taking no position on the product, but making available to farmers compiled research findings.

BST is a natural protein hormone needed by all mammals, produced in the bodies of both cows and humans, and is naturally found in milk. It helps to coordinate how energy from feed intake is utilized in the animal's system.

After extensive testing, no increase has been found in the levels of BST in milk from treated animals over the BST levels in milk from non-treated, control animals. Since it is a protein, BST is not orally active if ingested by mouth, nor is it harmful if accidentally injected.

Frequency of dosages range from daily to monthly, depending on how each farm producing the product establishes usage. However, says Dr. Muller, dosage intervals of two to four weeks seem most palatable. Adaptation of cows to the periodic injections has not been a problem.

Production response per head, from compiled statistics of seven separate research stations, ranged in the area of 8 to 11 pounds milk increase per day, and within three to four days of BST administration. A 15 percent increase, or 8.4

pounds milk per head per day, was an overall average production response to BST.

BST efficiency was greatest when administered beginning at 80-90 days into lactation, just after production peaked. With an estimated 215 days remaining in a 305-day lactation, at an additional 8.4 pounds per day, an average gain of 1800 pounds per lactation might be expected with BST.

Most successful response was in mature cows, those in second or greater lactations, ranging from 6 to 13 pounds per day increases. First lactation cows show less overall average response, from 1 to 6 pounds per day increase, possibly due to continuing body growth to maturity.

Feed intake, however, must be increased 5 to 10 percent, to compensate for the greater energy needed by the cow to produce additional pounds. Without increased feed levels, animals draw extra production resources from their own body reserves. And, a delay in administering BST until about 90 days helps avoid putting the cow in a negative energy intake position during the first months of heavy production after freshening.

There are concerns for delayed

breeding, due to the added draw on body resources for greater production. However, BST in no way affects the endocrine system controlling reproductive hormones.

Body reserves, noted Dr. Muller, must be restored during late lactation and the dry period. With BST usage, dairy producers might have to redo feeding programs to provide higher energy intake to end-lactation, dry, and "close" cows.

"BST management strategies are similar to those used for all high production cows," he advised.

Economics of BST will have to be weighed in each individual dairymen's management situation. It requires no capital investment outlay, but does impact costs through increased labor, feed, and cost of the product itself. Other profitability factors include herd health, milk price, rate of industry acceptance and long-term response.

While researchers have no sure-fire way of gauging dairy industry acceptance, projections are for 15 to 25 percent early acceptance of BST increasing to up to 50 percent within five years after and, if approved for use.

A 25-percent adoption rate of



Hosts for the York Holstein barn meeting were, from left, Ramsay, Veda and son Scott Cooper, who opened their 60-head stall barn for the annual gathering. Scott, a recent Delaware Valley College dairy science graduate, manages the registered Holsteins, with a herd average of 18,600 milk, 722 fat, 600 protein, while Ramsay handles crops and machinery.

BST, at the average lactation increase of 1800 pounds, would increase production nationwide by an estimated 3 percent. Likewise, a 50-percent adoption rate, about the industry usage rate of DHIA testing, would boost production about six percent.

FDA approval is expected when safety for use on cows, as well as safety for meat and milk consumption by the public has been satisfactorily demonstrated, and the product is deemed an effective industry production tool.

Continuing wariness among

dairymen over the impact of BST approval was evident in a lively question-answer session which wrapped up Muller's presentation. Consumer perception and acceptance of BST treated milk, decreasing milk prices with production increases, cow health and cost effectiveness are concerns dairymen are wrestling with as apparent from the discussion.

However, when questioned, other say they are ready to at least give BST a try in their management program, when - and if - FDA gives the OK.

Ag Teachers In Workshop

BLUE BALL — The Lancaster County Vocational Agriculture Teachers Association sponsored a welding workshop in cooperation with M.H. Eby of Blue Ball on Wed., April 12.

The workshop involved a tour of the aluminum trailer manufacturing plant and hands-on instruction by welders employed by Eby using MIG welders. Company representatives from Century Manufacturing and Keystone Gas made presentations about equipment available from their companies.

The workshop was planned by the ag teacher group to better prepare them in the new fields of agriculture mechanics. Because the teachers are training students for a vocation in a field of agriculture it is important for them to be up to date with the new technologies in today's agriculture industries. Several schools are considering adding MIG type welders to their agriculture curriculum.

Bill Shrum, human resource manager for M.H. Eby, stressed the constant need for workers with sound mechanical abilities. He encouraged the ag teachers to expose their students to a variety of mechanical skills such as MIG welding. Several agriculture students from local high schools have worked with employees at Eby on an On-The-Job Training Co-Op Program.

A number of workshops have been planned by the LCVATA in an effort to stay on the "Leading Edge" of the new fields of agriculture. Students interested in a career in agriculture should contact their local agriculture program instructors.

Chore-Time's ULTRAFLO® feeder can free you from your chains

We have probably been too modest up to now about the merits of our new generation ULTRAFLO® cage feeder vs. the old style chain feeders some of our competitors are still trying to sell you. In fact, the only negative comments about our feeder come from our competition, not our customers. So we would like to point out the bare facts:

FEED SAVINGS: On-farm results show a feed savings of 1/2 lb. per 100 birds per day - over \$10,000 per year savings on a 100,000-bird house. Year after year.

TROUBLE-FREE DESIGN: Our feeder has only two moving parts - the one-piece auger plus each drive wheel; their chain has more. Our corners are heavy 12 ga. zinc plated tubing for long life; their corners have a reputation for trouble and short life.

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5-YEAR WARRANTY: Ours gives you a 5-year warranty on auger and trough. Theirs doesn't. In fact, their dealers derive a large percentage of their income from parts sales. Ours don't.

MICROPROCESSOR CONTROL: Our control lets you program feeding time to the second, to match the exact time of one circuit. Control number of feedings, time of each feeding - also 10-second "Stimulation Cycles" between feedings, to minimize separation, and improve your birds' feed intake.



SIMPLE OPERATION: "Push-pull" Power Units with 1/2 or 1/4 HP motor are located in a cage, have hardened steel gears for trouble-free operation.

HI-GRADING OF FEED: Our auger travels at 80 FPM so birds are limited from eating until it stops; birds will hi-grade feed from chain feeders, causing uneven nutrition.

REMIXING FEED: Our auger slowly revolves, remixing old and new feed; theirs leaves most old feed to get stale.

BILLED-OUT FEED: Our auger acts as a grid to prevent birds from raking, piling, and throwing out feed; neither chain or disk systems prevent feed waste.

COST SAVINGS: Ours saves vast amounts of energy costs since it's easier to propel and runs only half as long as theirs.

LOW MAINTENANCE: With our 5-year warranty on auger and 20 ga. trough (one competitor has only 22 ga.) - plus no corner wheel mechanisms to wear out - ours saves you maintenance costs.

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