The Facts About Recombinant Bovine Somatotropin (rbST)

What is Recombinant Bovine Somatotropin (rbST)?

- Bovine Somatotropin (bST) is a protein molecule produced naturally by the cow and is essential for a cow to coordinate nutrient use and convert feed into milk.
- Cows with higher levels of bST are able to produce more milk.
- The same technology used to develop insulin for diabetes was utilized to develop and manufacture rbST so cows could be supplemented with bST to improve milk production.
- Manufactured rbST is the most researched animal product ever approved by the U.S. Food and Drug Administration (FDA).
- Since rbST was introduced in the early 1990s, hundreds of millions of units have been sold in the U.S. alone for use on millions of cows by tens of thousands of dairy farmers.

Is rbST safe for consumers?

- Yes, absolutely! Proteins such as rbST are made up of amino acids – the same amino acids found naturally in eggs, fruits, vegetables and other foods.
- bST's activity is species limited. It is active in cows but has absolutely no effect in humans. This was demonstrated in the 1950s when bST was used in a failed attempt to treat childhood dwarfism. There was no impact on health at all.
- rbST cannot be distinguished from the cow's own bST. All milk contains the same minute amounts of bST, including organic products or those labeled as rbST free. When milk is consumed, bST and rbST are digested just like any other food protein.
- All U.S. dairy products meet strict safety requirements, set by the FDA and U.S. Department of Agriculture (USDA) – making them some of the safest foods available.
- Milk safety has been confirmed by numerous highly credible worldwide scientific organizations (see list on following page.)

What does rbST do for consumers?

- rbST reduces the price of milk!! It makes milk production more efficient and, when food production is more efficient, food is more abundant and less costly.
- rbST is one of many agricultural production tools and technologies which enhance the quality, abundance and affordability of food – just like artificial insemination (AI) or hybrid seed corn.
- rbST helps to conserve natural resources and reduce environmental impact.

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What are the benefits of rbST to the environment?

- rbST leaves a smaller carbon footprint on the environment.
- rbST has beneficial effects on utilization of resources and on the environment because the same quantity of milk can be produced with fewer cows.
- Fewer cows per gallon of milk, means less use of water, feed, land and fuel, and less production of manure and greenhouse gases per gallon of milk produced.

How do dairy producers benefit from rbST?

- The technology is size neutral, therefore equally effective in both small and large dairy herds that utilize good management practices. Cows remain healthy and productive.
- Today, dairy farmers are paying much higher feed costs and rbST helps producers reduce the impact of these higher feed prices on their farm operations.
- Milk production efficiency (the ratio of milk produced to feed consumed) and especially, profits are increased as cows produce more milk.
- An example – the University of Illinois conducted a study to evaluate the impact of removing rbST from the University's ~200 cow dairy herd. Using typical milk prices and feed, labor and rbST costs, they concluded the economic loss of stopping rbST would be dramatic – ranging from $20,000 to $60,000 less INCOME annually.

Partial list of the 50 plus worldwide scientific organizations which have confirmed milk safety in milk from rbST supplemented cows:

- American Cancer Society
- American Council on Science & Health
- American Dietetics Association (ADA)
- American Medical Association (AMA)
- Canadian Animal Health Institute
- Canadian Dietetic Association
- Canadian Institute of Biotechnology
- Canadian Medical Association
- Canadian Network of Toxicology Centres
- Canadian Pediatric Society
- Children's Nutrition Research Center, Baylor College of Medicine
- Council on Agricultural Science & Technology
- European Union's Committee for Veterinary Medicinal Products (CVMP)
- Food & Agriculture Organization of the United Nations (FAO)
- Food & Nutrition Science Alliance
- Food Marketing Institute
- Grocery Manufacturers of America (GMA)
- Health Canada (Royal College of Physicians & Surgeons)
- Institute of Food Technologists (IFT)
- International Dairy Foods Association (IDFA)
- Joint FAO & WHO (World Health Organization) Expert Committee on Food Additives (JECFA)
- National-American Wholesale Grocers' Association
- National Dairy Council
- National Institutes of Health (NIH)
- The American Academy of Family Physicians Foundation
- Toronto Biotechnology Initiative
- University of California – Berkeley
- University of California – Davis
- U.S. Congress Office of Technology Assessment (OTA)
- U.S. Dairy Export Council
- U.S. Food and Drug Administration (FDA)
- U.S. Surgeon General's Office

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