Science And Farming In The Future

Editor's Note: Nelvin B. Empet, General Manager, New York DHI Cooperative, gave some timely remarks to the Northeastern Agricultural Communicators last week in Ithaca. Here's an excerpt of those remarks:

I appreciate this opportunity to visit with you about science and farming in the future. I don't believe my crystal ball is any better than yours, but I'll tell you what I see from my perspective in the dairy business. For our purposes today I'll break farm science into 6 areas:

Farm Mechanization; Farm Computing; Farm Management; Genetics; Production Enhances -Bio Tech; and Marketing.

Farm Mechanization:

We've seen: new materials handling, for feeds, fertilizers manure and produce. I expect such

equipment to become smarter, and more trouble-free. As we rely more on mechanization, down time can be a real catastrophe. Imagine your computer or word processor down.

I expect we will find more efficient ways to move milk longer distances, maybe even from the farm.

Farm Computing:

This farm science is still in its infancy. Compare the first Mc-Cormick Reaper to today's high volume combines and you get some idea of how far farm computing has to go. However, the going will be slow. I see computers performing specific tasks such as feeding, accounting and production records independently. Full integration is very, very complex and will take a generation for implementation. Look how long it took for the bulk tank and pipeline to be adopted and they were simple to use compared to the computer.

DHI's delivery system is changing and will continue to change as we apply computing power to dairy herd management. Currently, the RMS telecommunications access permits farmers or farm consultants to access the herd records. The AIM program allows sorting and formatting of this data to provide management tools. We are now testing our Day One concept that will eliminate turnaround time for management records by equipping the DHI supervisor with a micro computer.

DHI has competition. For that reason I'd ask you to use the DHI record plan prefix when reporting herd averages. For example, DHI-AP record of 19,700# milk, or DHI- OS-AP record of 21,000# milk.

The role of DHI will continue to be one of providing dairy cow production information that will increase the dairy farmers net profit.

Management:

The farmer is becoming a business manager first and a production worker second. The new generation of farmers will manage resources to maximize the business profit. The resources of dollars, people and facilities will be fully utilized. I expect most farm businesses will be family run, so in one sense the family farm will remain. It will be larger, more mechanized, computerized and will likely have hired production workers.

Farm computing will play a major role in the management of the farm as a decision aid. The biggest change for most farmers wil be to make the time for management. A few years ago I heard a comment that I believe sums up the future in farm management. If you don't like to push the pencil, that is do management work, you can go to work for someone who does. **Genetics:**

Animal breeding and selection will respond to the market. As emphasis on milk solids increases, more emphasis will be given to that area. Somatrophin may reduce the emphasis on genetic selection for milk production, but there will be other challenges for dairy genetics: production; milk composition; milk quality; health disease resistance, reproduction; longevity; and disposition.

Production Enhances Somatrophin and Iso-Plus:

There are many questions to be answered in the cold light of reality. How will they work in the real world. Can farmers manage the increased production ability? Somatrophin is a great bio-tech break through and will help us learn about milk production and will improve production. I doubt if we'll see a 40% improvement. I think 15% is more realistic.

Marketing:

The science/art of marketing must be better applied to farming. We need to do a better job of:

determining the market - what does the customer want, not what can we produce;

- producing for the markets;

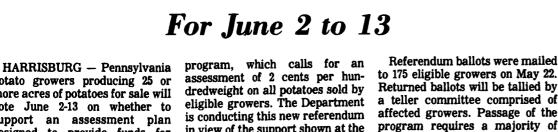
- monitoring customer needs, innovating and responding quickly.

The co-ops should be in an excellent position to perform this task of being market driven, but unfortunately, I don't see it happening. The fiscal conservatism of agriculture is preventing many coops from aggressively moving into the market.

I remain "cautiously optimistic about the long term viability of dairy farming in the Northeast. We have a couple more rough years ahead of us and then the situation should improve.

AGRICULTURAL

IRRIGATION SYSTEMS



potato growers producing 25 or more acres of potatoes for sale will vote June 2-13 on whether to support an assessment plan designed to provide funds for potato research.

State Agriculture Secretary Richard E. Grubb announced the referendum following a public hearing on the proposed program in Harrisburg. Testimony was received from five individual growers and the Pennsylvania Cooperative Potato Growers Association, representing more than 100 potato growers in the state

"All testified in favor of the

in view of the support shown at the hearing," said Grubb, noting that passage of the program could mean more than \$45,000 annually for research.

Potato Referendum Vote Set

"There's no question about the need for continued research to make Pennsylvania producers more competitive in the marketplace," he added.

The fund would be administered by a 10-member advisory board comprised of participating growers.

to 175 eligible growers on May 22. Returned ballots will be tallied by a teller committee comprised of affected growers. Passage of the program requires a majority of those voting accounting for a majority of acreage production. Ballots must be received at the

Department of Agriculture, Bureau of Marketing Development, 2301 N. Cameron Street, Harrisburg, PA 17110-9408 by 4 p.m. Friday, June 13.



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