Farm Talk

Jerry Webb

More food, less drugs

Knowledge and technology are gaining over land as the key factors to better agricultural production in the years ahead.

"We're becoming less dependent on land as the limiting factor of productivity," according to U.S. Department of Agriculture economist Leroy Quance.

The need for continuing productivity gains is apparent from a look at world population figures and the distribution among the "have" and "have not" countries. By the year 2000, the current 3.3 billion population of the developing countries may reach 5 billion; the developed countries will rise only from 1.2 to 1.4 billion.

To feed these people, annual food grain production must increase from the current 1.3 billion metric tons to about 2.0 billion. And the U.S. will produce a significant share of the needed increase in food and feed grains.

This task isn't impossible. On the average, one American farmer produces enough for 68 people—48 at home and 20 abroad. Forty years ago, a U.S. farmer produced only enough for 11 people. But such dramatic gains in productivity can be found only in recent history.

Many experts worry that comparable gains won't materialize fast enough to keep food production in balance with growing consumption. So what's the immediate outlook for gains in productivity? There's no clear consensus.

Some analysts contend that we've already pushed current technology to its limits, and they see no new miracles in the next few years.

Quance's figures show annual productivity gains have slowed to about 1½ percent since 1960, down from an average of 2 percent per year in the previous two decades. Nevertheless, he disagrees with both the prophets of doom who predict that food needs will soon outstrip productivity and the peddlers of a technology fix (money will solve any problem.)

"For future prospects, productivity will vary with the weather and the economy," according to Quance, "but, on the average, will likely increase 1½ to 2 percent per year."

He supports the belief that the laws of supply and the demand will, through proper public and private management, generate enough productivity growth in the next few decades to keep the vital food equation in general balance.

******

Can livestock and poultry producers afford to do without antibiotic feed additives to promote growth and prevent disease?

Extensive use of drugs in animal rations is suspected by the U.S. Food and Drug Administration of contributing to human health problems. FDA has proposed restrictions that would ban the use of penicillin in animal feed and eliminate certain uses of tetracycline.

Action on the proposal has been delayed pending further study, but farmers are worried about the impact any further restrictions could have on the economics and management of their livestock and poultry production.

Although restrictions would not necessarily prevent the use of the drugs for treatment of sick animals, many operations depend on continued, low-level doses in animal rations to enhance growth and prevent disease.

Producers with confinement operations, where animals are under stress and more vulnerable to the spread of disease, could be especially hard-pressed. Many consider antibiotic feed additives a necessary tool for large-scale, high-density production.

Since antibiotics were first employed as feed additives about 30 years ago, their use for this purpose has increase dramatically — from about 265,000 pounds in 1951 to 2.3 million in 1962 and 12.3 million in 1978.

Almost half of the antibiotics produced in this country are now used for low-level additions to livestock and poultry feed, and about half of this is penicillin and tetracycline, according to U.S. Department of Agriculture's Clark Burbee.

Economist William Henson says use of these drugs has helped maintain relatively low production costs and food prices — particularly in the poultry industry. The drugs reduce animal sickness and mortality and improve animal growth and feed conversion efficiency.

Antibiotics also improve feed efficiency, reducing the amount of feed needed for weight gain or egg production — although nobody understands exactly how.

Laboratory tests have shown feed efficiency for broilers fed antibiotics increased 6 to 12 percent compared with birds that did not receive antibiotics. Egg production increased 5 to 10 percent among birds that were given tetracycline in their feed.

In addition, use of feed additives also enhances reproduction rates and improves quality of the final meat product.

Pa. Horse Breeders re-elect Jenney

KENNETT SQUARE — Marshall W. Jenney, owner of Derry Meeting Farm in Cochranville, has been re-elected to a third term as president of the Pennsylvania Horse Breeders' Association.

Jenny's well-known commercial Thoroughbred operation is primarily involved in the marketing of yearlings, with the European champion, Mrs. Penny, one of its most distinguished alumnae.

Re-elected to the post of vice president was Richard D. Abbott, a West Chester attorney and a partner in Charlton Bloodstock Agency. Also named to serve again were Paul D. Mills as secretary and Truman C. Welling as treasurer.

Mills, who has been the leading award recipient from the Pennsylvania Breeding Fund program, operates Willow Tree Farm just outside of York. Welling is a retired duPont Company executive and breeds for the sales at his Scarlett Thicket Farm in Kennett Square.

Named to the PHBA's Board of Directors were Kathleen M. Crompton, Christiana; Bernard J. Daney, Wilmington; Grace E. Falkenberg, Reading; Robert K. Fetters, Westtown; Bill J. Henry, Grantville; and Anne F. Thorington, Malvern.