## More Than 700 Attend 24th Annual Lancaster Ag Industry Banquet

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began his career as a poultry feed salesman in 1956 with D.E. Horn, a local feed company. In 1971, D.E. Horn became Pennfield Corporation, and Horn became sole owner of the business in 1981.

Horn served as president of the corporation from 1985-1996. Since 1996, Horn continues to serve as chairman of the board for the company.

Pennfield processes 23 million broilers each year (one of the U.S.'s top 50), and manufacturers more than a half million tons of feed each year (making it the 19th largest in the country). The company owns Banner Foods, Goodhart Meats, and Ritter Foods, and employs 650.

Horn, who has served on several poultry and other agriindustry councils, said the industry has "hardworking, capable people." Horn said, if he has made any contribution, "hopefully it is to strengthen this industry in the future."

## **Rural Activism**

Guest speaker at the annual banquet, attended by 740, was Bruce A. Vincent, who helped form and serves as president of Communities for a Great Northwest, a nonprofit education and information group dedicated to the intelligent use of natural resources.

Vincent is outspoken against ill-advised, unknowledgeable environmental activists with few credentials who aggressively try to set policy for responsible stewards of the land.

The business manager of Vincent Logging, a three-generation logging company founded by his father in Libby, Mont., learned that rural America is not "politically impotent" and that the rural population is not "disposable," contrary to what others were trying to tell him.

The past summer proved that

## Paul R. Peterson Extension Forage Specialist Virginia Tech

Nutrient cycling in pastures is a dynamic process involving the natural movement of mineral nutrients through soil, plants, and livestock, and the manager's manipulation of these components.

Livestock affect nutrient cycling when they graze pasture plants and consume mineral nutrients, including nitrogen (N), phosphorus (P), and potassium (K), and then return most of those mineral nutrients to the soil in their manure and urine.

This paper will focus on the livestock and manager's manipulation components of pasture nutrient cycling. It will include a discussion of the characteristics and impact of livestock manure (and urine) on pasture, how animal behavior relates to nutrient excretion patterns, and how we can design grazing systems to optimize the distribution of manure and urine return by grazing livestock.

Only small proportions of the N, P, and K that grazing animals consume are actually retained in animal products. On average, a cow/calf pair removes 10 pound N, three pound P, and less than one pound K annually from two to six acres. Thus, a

aggressive environmentalists were wrong in their attempts to allow nature to handle the workings of a forest environment. After the "storm of the century" passed through 2.5 million acres of woodland, 165 forest fires were generated in two hours. The forest "burned and burned and burned," said Vincent.

Some staunch and ill-advised environmentalists, according to Vincent, noted they would "rather see it burn than managed by people."

He said, "We have a fuel problem with too many trees," with the wrong sizes, types, and in the wrong places, which fuels fires. Those who understand forest ecology know that 50 tons of debris to the acre is manageable; 500 tons, as exists in the areas he knows, is not.

As a result, nature's work made the family realize it will take "eons to regain my children's forest," Vincent said.

Stubborn and ignorant environmentalists, according to the logging company executive — if the plans are followed — could rob the region of about \$100 million in revenue. The tourist industry would have to bring in a million people and have them spend \$100 each to make up for the lost economy.

That type of proposed "industrial tourism," noted Vincent, could create real problems.

Middle America, said the multiple timber award winner, is trying to create "a Disney-esque eco-topia that has never before existed," where people believe they are "going to places like 'Bambi," Vincent said. But if

we hurt our ecology, we will "never see a healthy economy."

Without the healthy, freeenterprise system that has stood successfully in place, we "don't have the economic ability to protect our environment."

And if poverty drives business, then environmental issues



Century Farm Award recipients were honored Tuesday evening at the Lancaster ag industry banquet. Families represented, from left, the John and Cheryl Zimmerman family; the James and Ruth Rutt family; the Paul Minnich family; the Charles and Janet Leaman family; the Loren and Mary Landis family; and the Marc and Estella Grove family.

"sit way in the back," Vincent said.

"There's a fine line between environmental sensitivity and environmental insanity," said the logger. "And we're beginning to cross the line."

Vincent related the true story of a man trying to protect his home from a grizzly bear assault. The courts nearly tried to make the grizzly the victim.

And, said Vincent, America remains 300 votes away, as of the banquet night, "from a president who wrote in his book that 'man is a cancer on this planet." The book is called "Earth In the Balance," by Al Gore.

"How did we get so crazy?" said Vincent. The statements by the vice president should have been questioned.

The general population remains mostly ignorant about logging. In Montana, the joke goes that many people believe wood comes from "a bunch of boards that show up at the Home Depot," said Vincent (similar to the line, where does milk come from? — a carton in the convenience store).

Stewards — farmers of the land — despite some imperfections, provide the best managers of resource, according to Vincent

He pointed out three truths about rural America: democracy

works (it's not a spectator sport); "when people lead, leaders follow," he said; and rural people need to create a line item for "activism" in their business planner, right next to equipment and maintenance, he said.

"The world is run by those who show up."

Activism is simply taking an hour a week to become active in school, calling a legislator, talking to the state or U.S. secretary of agriculture, or simply writing a letter to the editor of the newspaper about rural issues.

Vincent was active in helping to push the agenda of the League of Rural Voters. Their mission: to get 80 percent of all rural Americans to the polls in

That would be about 55 million of the 250 million people in the country. It would create a voting block of 40 million people, maybe just enough to provide the "swing vote" necessary to elect a president to the office.

The organization's Website is at www.ruralvoters.org.

"Our future," said Vincent, "is going to be the product of someone's activism. And it should be ours."

Century Farm Awards Several families were honored as Century Farm Award recipients. They include: • Marc and Estella Grove, Marietta. The farm has been in the family since 1892.

• Loren and Mary Landis, Lancaster. The farm has been in the family since 1883.

• Charles and Janet Leaman, Ronks. The farm has been in the family since 1896.

• Paul Minnich, Lititz. The farm has been in the family since

• James and Ruth Rutt, Elizabethtown. The farm has been in the family since 1837.

• John and Cheryl Zimmerman. The farm has been in the family since 1870.

Master of ceremonies for the event was Rick Haines, ag director of the Northern Ag Network, a five-state network coverage area that produces radio and TV programs, and president of the National Association of Farm Broadcasters. He oversees the production of 165 radio and 10 television programs each week.

Haines is the author of "Cowboy Spirit," a book that takes a satirical look at ranching life complete with cartoons.

Brent Landis, ag services coordinator with the Chamber, spoke about the many different ways the Chamber reaches out to bring the message about agriculture.

According to several who spoke, the banquet is the largest county ag banquet in the state.

## Managing Manure Deposition By Grazing Livestock To Benefit Pasture Performance

dairy where purchased concentrates are fed can actually have increasing nutrient levels on pasture. Since livestock excrete most of the mineral nutrients they consume, manure and urine from grazing animals represent valuable sources of fertilizer nutrients if they are distributed uniformly across the

Cattle defecate and urinate, on average, 12 and eight times per day, respectively, but this can vary substantially. Since grazing animals generally excrete at sites other than where the nutrients in that excreta were consumed, nutrient redistribution occurs. Interestingly, the sites of highest concentration of these excretions are somewhat predictable based upon an understanding of grazing livestock behavior.

The manager should strive to design and manage his/her grazing system to enhance uniformity of manure and urine, and thus mineral nutrient, return without incurring excessive costs or unduly affecting animal performance.

What Is The Impact Of Livestock Excrement On Pasture Production? The response of pasture forage production to animal excretion includes both short-and long-term effects, depending upon which nutrient is being considered.

Short-term forage production responses are largely an N response, and to a lesser degree a K response via the relatively higher concentration of these elements in urine.

An individual urination can range in size from 1.5-feet<sup>2</sup> to over four-feet<sup>2</sup> in ground coverage, but the area of influence of the nutrients in the urine can be considerably larger.

This short-term response is especially evident in N-deficient pastures. However, in contrast to P and K, there can be significant uncontrolled losses of N on pastures. On average, 25 percent of the nitrogen in urine and feces deposited on a pasture can be lost to the atmosphere via ammonia volatilization.

P and K are the primary nutrients implicated in more longterm pasture responses. New Zealand researchers performed an experiment where they applied cattle manure with low or high P concentration to pasture in simulated piles of about 0.5foot<sup>2</sup> in ground coverage. They discovered that the manure pile affected forage growth in a zone five-fold larger than the area physically covered by the pile. The area influenced had 14 percent more forage yield and 23 percent more P than pasture areas outside the area of influence.

The researchers attributed the large zone of influence of the manure pile to lateral wash by rain and lateral spread of roots and stolons (for example, white clover). Based on their results, they estimated that under heavy stocking, more than 50 percent of a pasture is directly influenced by manure pile nutrients at any one point in time. They also speculated that this is an underestimate, since in a grazier's pasture, lush spring and fall pasture usually results in more liquid, widely-spread manure, and cattle kick and carry manure on their feet as they travel about a pasture.

Research in the UK documented that extretal return by sheep increased perennial ryegrass-white clover pasture yield by 26 percent and 53 percent at ten and 20 yearling wethers per acre, respectively.

Can We Predict Where In A Pasture Livestock Will Excrete The Most?

If livestock spent proportionate amounts of time on all areas of a pasture, excretions would uniformly cover the pasture and optimize nutrient cycling. This is not the case, however, because livestock are attracted to certain areas of pasture's.

Manure and urine deposition patterns are influenced primarily by water, shade, and topography. Location of water has a profound effect on manure distribution. Iowa researchers reported that after five years of continuous grazing, soil in the five percent of the pasture area closest to water had P levels sixfold greater than the remainder of the pasture and K levels almost four-fold greater.

Missouri researchers found that after four years of a three-paddock rotation on a 32-acre pasture stocked at 2.6 acres per cow-calf pair, soil in a zone extending 40-feet from the watering site had P and K levels four and 10 times those, respectively, in the rest of the paddock (Figure 1). Both research groups

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