have not referred is culling. We are aided and abetted in its use by a high beef price and management conditions to keep cows in good fit at all times. We have no specific criteria for culling because the pressures, and the objectives, vary from farm to farm, and from time to time. In general, if a cow is going to exceed 400 days between calves she would have to show significant superiority in some area other than reproduction. Strong culling pressure is more important to us in beef cattle even than in dairy cattle, and I regret that I have not been able to use more examples from that industry. That is largely due to the fact that we have branched out into herd health practice in beef herds only very recently, and I don't have the knowledge or confidence that I have in the dairy industry.

At first glance it seems that infertility is going to present little in the way of problems. A herd conception rate, including heifers, is likely to be as high as 95% and a weaning rate of 92% is not unusual. To attempt to do better might not be cost effective. That, and everything else I have said, probably gives you the impression that I adopt a mechanistic, unbiological approach to the whole matter of animal production, including fertility. I do, but I think it is essential to use mathematical and statistical methods to make the judgements on management procedures.

To me, it is the only way that animal farming can stay alive and in competition with man-made materials that we have the benefit of being detached from sociological whims and fancies, and from environmental independability and biological variability.

## Has the Practitioner A Future for Pharmaceutical Sales

John J. Linney Merck & Co., Inc. Merck Chemical Division Rahway, New Jersey

Ladies and gentlemen, I speak to you today as a businessman, pure and simple. As the marketing director for Merck's Professional Veterinary Products, I am responsible for returning a profit to my company for the products that we market to the veterinarian. These products are not selected randomly or by chance. They have a pedigree of research, reliability and quality. They are positioned in the market to return the best possible profit. Since veterinarians are independent businessmen, for the most part, you are fully aware of the need for profits to pay for the overheads in your business just as we are aware of their need in our business. You have also the added responsibility of improving the profitability of your clients' animal production operations.

At the risk of seeming to present the obvious, may I stress that the beef or milk producer looks to you to help him protect his investment. The producer is not a scientist, seeking solutions to the problems of disease and nutrition merely to enrich existing knowledge. The producer is a businessman. Those who serve him must understand, above all,

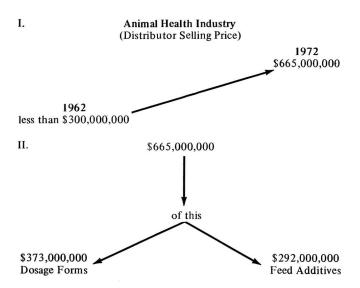
the economic nature of his business. They must demonstrate that the cost of their knowledge and services more than pays for itself in terms of increased earnings for the producer.

My specific assignment today is consideration of the theme, "Has the Practitioner a Future for Pharmaceutical Sales?" This is a pertinent question. In fact, it might even be considered a "hot potato subject" since there is much controversy on what the future holds. Pharmaceuticals have contributed substantially to greater efficiency in the production of both meat and milk products. The occasional misuse of some of these products has posed a threat to their continuing availability; and the occasional over-reliance on them has sometimes led to relaxation of desirable standards of management. Such circumstances can rebound to the economic disadvantages of producer and consumer.

The veterinarian who takes a business-like approach to his practice; who, as I have said earlier, recognizes that he can improve his profitability by contributing to that of the producer, will give full

consideration to the need for pharmaceutical sales in his profit future. This calls for both short and long-range study and planning. There may be quite a difference between the two. Someone once defined short-range planning as dimming the lights, chilling the champagne and selecting the appropriate music; long-range planning as deciding which room to convert to the nursery!

We all realize that change is taking place in our industry. We keep looking for a simple, concise plan that helps us to identify the changes precisely and design a plan to handle them. That's easier said than done! Let's review the changes in the past before tackling the future and start by taking a look at the business we are in.

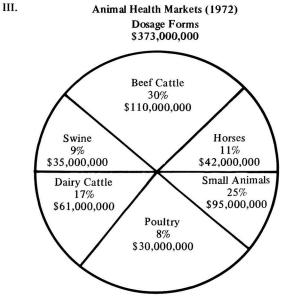


The animal health industry is not a very large business, but it has experienced tremendous growth over the last decade. In 1972, the total sales volume of animal health and feed additive products was \$665,000,000 at the distributor's price level compared to less than \$300,000,000 in 1962. On a compounded basis, this is equal to a steady growth of approximately 10% annually.

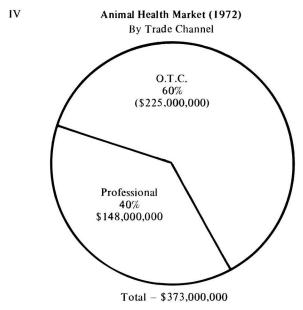
Many products make up this sales volume, with the four principal product groups being antibacterials, growth promotants, wormers and coccidiostats. The bovine practitioner's interest is largely centered in two of these groups—dosage forms of antibacterials and wormers.

The market for all animal health dosage form products was \$373,000,000 last year—significantly greater than the feed additive market. This \$373 million was for all animal species and represents sales to the entire industry, both you and the proprietary outlets.

The dosage form market by animal species



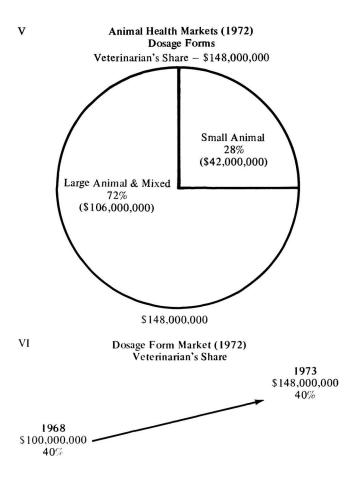
suggests that the dairy and beef segments make up nearly half of the total dosage form market. This is where you now compete for pharmaceutical business and where a great deal of growth lies in the animal health area.



Of the \$373 million—60% is OTC and 40% or \$148 million is purchased through the veterinarian.

Of the \$148 million purchased through the veterinarian, 72% or \$106 million was directed through the large animal and mixed practitioner.

In only five years, the veterinarian's part of the dosage form market has grown 48%—\$100 million to \$148 million. Also to be noted was that the veterinarian's share of the market has remained constant. It was 40% of the total five years ago, and it is still 40% of the total now. You have successfully kept pace with the rapid growth of the



Professional Products (\$148,000,000)		
Antibacterials	31%	
Biologicals	27%	
Anthelmintics	8%	
Vitamins/Nutrients	8%	
Hormones	6%	
	80%	

Animal Health Market (1972)

VII

pharmaceutical market, holding a steady share over the last five years.

The products that make up the bulk of the animal health market will not surprise you, probably; but, let me list them for you. One point that strikes me as I look down this list is that all the large-volume items—biologicals and antibiotics—are product groups that serve a mass treatment market and, further, may even be administered more efficiently by someone other than the veterinarian. Another point that strikes me is that with the exception of the antibacterials, by and large, it is a prevention market—another area where non-professionals are doing the administering.

Analyses that we have made indicate veterinarians provide more medication to the dairy market and other small production units, particu-

larly where calving is involved. They have less in the larger units, particularly feedlots. These are the facts today. They may change in the near future.

I believe it best to consider the future in terms of the next five-year period. We can speculate beyond five years, but our accuracy drops considerably. The further we project into the future, the more difficult it is to forecast and the tendency is to be very optimistic!

One of the favorable factors for the large animal practitioner to continue this role in pharmaceuticals is that it is an important score of income; approximately 16% for the average bovine practitioner. As an aggressive action-oriented individual, the practitioner will not abandon this

**Future Market Projection** 

	1972	1978
Total Dollars	\$373,000,000	\$665,000,000
% Proprietary	60%	62%
% Professional	40%	38%
Professional Dollars	\$148,000,000	\$250,000,000
Large Animal Products	\$ 70,000,000	\$ 95,000,000
% Market Share	47%	38%
Number Bovine Practitioners	6200	6200

source of revenue easily. Income from pharmaceuticals tends to offset losses from traditional sources. Many services, particularly those semiprofessional services like dehorning, vaccinations, etc., are more economically done in large operations by lay employees; sometimes trained and supervised by the veterinarian, sometimes not. As the practice of bovine medicine becomes more and more complex, these are typical services the veterinarian cannot continue to perform. However, the income lost will have to be made up somewhere; and pharmaceuticals continue to be an important income source. Please remember, that we are limiting this discussion now to what will be happening over the next five years.

Another favorable factor for the veterinarian to continue in pharmaceuticals will be as a result of the producer's concern for FDA controls on residues and labeling plus the greater emphasis on consumer protection. The veterinarian probably will be, and should be, a major source of information on federal and state requirements, especially with smaller producers. As controls become more enforceable, producers will rely on the counsel of the veterinarian, and should be another reason to sustain his position as a source of pharmaceuticals. The larger, corporate producers have to be much more aware of government regulations because we are a regulated industry. It

is with the smaller-to-moderate size producer that the opportunities exist.

Another favorable factor is whether new drugs and some old ones will eventually become available exclusively through the veterinarian. Legislation favoring more drugs with prescription legends would place the veterinarian in an advantageous position in the market. I doubt if regulations will evolve in this direction. Both industry and government recognize that drugs must be inherently safe and easily available. In the next five years, we do not see any greater percentage heading in this direction than in the past. But those that do have restrictions will, of course, tend to support the veterinarian's position as supplier.

Another compelling favorable factor to support the veterinarian's role in animal drug supply is contract arrangements with producers. These are becoming more prevalent. Contracts that contain incentives for the producer and veterinarian to work as a team, each taking advantage of the other's expertise to the maximum. Combining professional skills with good management tend to support more reliance on the veterinarian. This offers greater opportunity for continued participation in pharmaceutical sales.

These are typical of the favorable factors supporting the future for the veterinarian in pharmaceutical sales. There are other factors that will have an adverse effect. Let's discuss these.

A review of the factors that tend to threaten the veterinarian's position in pharmaceutical sales over the next five-year period shows that they seem to break down into two broad categories: External Factors — those over which the veterinarian has little or no control; Internal Factors — those which are subject to change or modification and over which the veterinarian has control.

When large integrated animal production units achieve sufficient size, they tend to provide more formal arrangements for their veterinary service. I am sure you remember well the integration that took place in the poultry industry, especially the broiler industry. The beef industry, a traditional veterinarian and dealer market, has already undergone severe changes in purchasing habits that range from annual contracts to daily bids for all supplies and services. We are convinced that there will be continued pressure by producers to lower drug costs and consolidate them where possible. As pressure builds for greater cost improvements, larger producers will try to bypass purchasing from the veterinarian.

Pharmaceuticals will gradually be purchased by the paramedical staff of some producers or the proprietary distributors or direct-selling manufacturers will supply their needs directly.

You may wonder why we stress the proprietary distributor. It is a reality that he has great influence in the feedlot and dairy markets. Selling to the large producer came about as a mutuallysatisfactory development. As producers grew, they no longer were willing to pay the extra cost of purchasing through the veterinarian or from the dealer while the distributor found his orders could be larger with less time and effort by selling directly to the large operators. In a few short years, the industry went from a three-step distribution system to a two-step system. The net today is that over 40% of the total animal health business, including feed additives, is sold either directly by the manufacturer or directly by the distributor to these large integrated operations.

The veterinarian, on the other hand, participates in most parts of the U.S. as a middle step in the traditional three-step distribution system. The price at which he purchases is comparable to the "dealer" price—but nonetheless, accounts for over 20% of the total market or approximately \$150 million.

The trend of proprietary distributors expanding their sales coverage to larger producers presents a threat to the veterinarian's ability to survive in these markets.

Another factor that may well threaten the veterinarian's pharmaceutical sales potential is the emphasis by pharmaceutical manufacturers on medication systems. The manufacturer recognizes the impact of high labor and handling costs in livestock production. Through research and development, they are attempting to design products or systems that eliminate the need for individual administration. If the manufacturer is successful in meeting the demands of the industry, these achievements may pose a threat to the veterinarian. However, we are convinced that the "market must be served." While it would be nice to keep product systems to fit the present practices of veterinarians, it may not be practical. There is no doubt but that mass treatment systems would tend to weaken the veterinarian's position in pharmaceutical sales.

Now, what about the "internal" factors or those where the veterinarian exhibits control. Most significant is the paramedical program. Although the training of paramedicals permits the veterinarian to focus on important services, it threatens his future in the sale of pharmaceuticals. As paramedicals become more reliable for routine needs, the producer will find these services very

satisfactory. If the veterinarian accepts the impact of this group, he will find the paramedical program a reliable source of trained assistants. Eventually, they will help him maximize his services to his clients.

In the last decade, at almost every national, state or county meeting, the subject of fees and mark-up has been discussed. All practitioners recognize that drug mark-ups of 50%, 100% and even 200% are unrealistic in today's agribusiness scene. Most veterinarians do recognize this and realize that maintenance of high mark-ups seriously jeopardizes their role in pharmaceutical sales.

Now that we have considered some of the factors that might influence the veterinarian's position in the sale of pharmaceuticals, perhaps it would be in order to deal directly with the purpose of my being on the program. What then is the "future for pharmaceutical sales?" We know there is going to be continued growth in the number of animals and the total value of the fed cattle and dairy industry; continued growth in the size of the cow/calf industry, both in the number of animals and units; and, the possibility of confinement feeding in cow/calf operations. We know that the dairy industry will continue its progress toward greater sophistication in milking methods and more efficient cows. We know, too, that there will be new pharmaceutical products that will continually add growth to the existing markets; such as production improver products and programs; estrus inducers and estrus regulation programs to improve conception; better methods for artificial insemination; scours and other viral disease problems. There are no reasons we know of why research, good marketing and distribution will not make this market grow to more and greater heights. The veterinarian can share in these new developments and participate vigorously, if he so desires.

Let's take a look now at what the market will be in dollar value in 1978 and what share of pharmaceutical sales the veterinarian will enjoy.

Here is how we see the market size and the percent available to the veterinarian, especially the bovine practitioner:

	1972	1978
Total Market Dollars	\$373,000,000	\$665,000,000
% Proprietary	60%	62%
% Professional	40%	38%
Professional Dollars	\$148,000,000	\$250,000,000
Large Animal Products	\$ 70,000,000	\$ 95,000,000
% Market Share	47%	38%
No. of Bovine Practitioners	6,200	6,200

Some interesting forces surface in the above projection: 1) The proprietary market will grow slightly faster than the professional market. 2) The

large animal practitioners' share of the market will decline; but, the percent of market remaining will be of a larger universe. 3) The number of bovine practitioners will remain constant; since the total market will grow, income from pharmaceutical sales will be greater to those in practice.

If we assume that many of you in this audience will decide to remain a force in the distribution of pharmaceuticals, what then will be your position? What will be the force that will make it favorable for you to participate in this market.

A veterinarian in bovine practice after 1978, a personality who enjoys the pressures of business, will not resist inevitable change but adapt to it. He will find ways to compete in the pharmaceutical market. Not only will he be capable of selling drugs at competitive prices, but his practice will also be organized in that he will dominate the programs of his clients through the services he offers.

Group practice will be more prevalent. Laboratory services will improve; electronic devices for diagnosis will be familiar techniques; modern facilities will smack of success and reliability. Clients will be motivated to make the veterinarian more a part of their operation because of the "value" he provides. Supplying pharmaceuticals will be a natural result and continue as a meaningful percent of the total income of the practice.

Manufacturers' pricing policy may change to benefit the veterinarian. During the last decade, the pressures created by the direct-selling distributor and the producer's desire to buy at the best possible price left the veterinarian non-competitive. We can visualize that by 1978, many more manufacturers will attempt to place the veterinariengaged in bovine practice in a more competitive position to take advantage of his abilities to service the needs of the producer. In the next five years, more manufacturers will specialize their marketing effort and recognize one, a proprietary business wherein the distributor supplies the producer direct. The other, a veterinarian business wherein the producer has a contractual arrangement that includes not only complete herd health service but pharmaceuticals as well.

What then will be the unfavorable factors for pharmaceutical sales? First and foremost, the strongest unfavorable factor is the aggressive lay distributor who provides quote veterinary unquote service to the producer in return for pharmaceutical purchases. You are familiar with the service these distributors offer. The staff veterinarian provides information on preconditioning,

worming, vaccination, etc. The producer has come to rely on this help. These services will continue, and in fact, be more prevalent as lay distributors compete for a greater share of the producer's business.

The next serious factor that will have an unfavorable impact is what you affectionately call "solo practice." With each passing year, the demands on a veterinarian's time, the distances involved between client calls and the complexities of keeping up-to-date will make it increasingly difficult for the solo practitioner who has not adapted to the changing demands of the industry. The solo practitioner with limited facilities, without management or labor assistance, cannot expect his practice to grow in proportion to the practices of his associates. He will find it increasingly difficult to compete for pharmaceutical business.

Now, what will happen after 1978? What about the role of the bovine practitioner in the '80s? Those of us in the veterinary pharmaceutical industry are called upon frequently to make predictions and forecasts of the future. All of us have our own special "crystal ball." In the marketing game, predicting the future is a hobby. Here are a few predictions for the long-range future—that is, the late '70s and early '80s: 1) Mass Treatment Program - In the constant pursuit of lower production and labor costs, less handling and more confinement production, it will be mandatory that mass medication treatment systems-successful in other animal industries-be developed for livestock. It will be less and less necessary to treat individual animals. Unfortunately, only a few practitioners will benefit from these changes and the pharmaceuticals that may be associated with them. Mass medication equipment and pharmaceuticals will probably be sold through drug channels that specialize in the installation and service of equipment and through distributors that now dominate the large producer markets. 2) Use of the  $R_x$  — We predict that veterinarians in the 1980s will refer client producers to proprietary and professional wholesale suppliers to purchase their needed pharmaceuticals—and do it on a presciption basis. This type of system has begun to appear in several parts of the country. Basically, the veterinarian writes a prescription for the producer; both for restricted items and OTC generics. The client presents the prescription to either a proprietary or professional wholesale supplier who sells the products according to a published price schedule. The system provides the client the opportunity to purchase his drug needs through a

veterinarian at competitive prices. It takes the sting out of the cost of pharmaceuticals, lowers the "high price" image of the veterinarian and improves client relations. We visualize this practice expanding. 3) Market Share and Decline - As indicated in the expected market trends, we predict that the market share of the bovine practitioner will steadily decline in the 1980s. There will be fewer veterinarians in bovine practice; and their investment in equipment and other services will outweigh their dependency for pharmaceutical sales. We see a gradual decline from the current 38% of the market to 30% in the mid-1980s. The veterinarians who remain in practice will have business managers, provide excellent service; compete vigorously against the threats of the lay or professional distributors or manufacturers who sell direct to their clients. They will develop the talents of a good businessman combined with scientific capability and a strong desire for independence. The number of practices involved in food-producing animals will be approximately 3,000; down from the current estimate of 3,400.

## Conclusions

There was a time when I had a "gut" feeling that the role of the bovine practitioner in the sale of pharmaceuticals would be in serious jeopardy in the future. As I explored the past and the present, however, the facts of the future did not support my "gut" feelings. I gradually moved off my earlier contentions. I am now much more confident that there is a very definite place for the bovine practitioner in the sale of pharmaceuticals. The extent of that role is in his hands. Despite rapidly-changing conditions, there are opportunities as well as obstacles for the next several years, and indeed, in the period beyond that. You must decide. If you decide that pharmaceutical sales have a future in your practice, then you are a practitioner who has a future in pharmaceutical

As a manufacturer, we can well appreciate the role of the practitioner and the significance of his influence on the producer's operations. By the same token, we must acknowledge our responsibility to find the best and least expensive means of making the products of our research available to the producer. Our pledge to you is that we will continue to recognize your important role in this assignment and make you a part of it whenever marketing and distribution needs can thus be best served.

Thank you.