High-Tech Communication With Your Colleagues: Fax, Computer-Fax, BBS, and e-mail

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Introduction

If you don't talk shop with your colleagues you will petrify. We've all seen practitioners isolated in their practices (or their ivory tower University offices) becoming progressively less valuable to their clients while losing all joy in veterinary medicine, until they end up burned out and whining about the competition from the feed store.

Electronic communication can help, making it vastly more convenient to communicate with people in the next town or around the world. Unfortunately the number of options available make choosing a system, and getting it functioning, viciously complicated. Once you do get things working, though, you won't know how you got on before.

Fax systems are now almost a requirement for businesses of all sizes. I noted that well over half of the speakers on this year's program have fax numbers listed. Fax machines send a "FACSimile" of anything you can write on a piece of paper to any other fax machine using ordinary phone lines.

In many cases, a "fax machine" is really a faxmodem board plugged into a computer that allows a computer to act as if it were a fax machine. This is what I mean by Computer-Fax, and has both advantages and disadvantages relative to a true stand-alone fax machine.

BBS stands for "Bulletin Board System" and refers to a computer set up to act much like a large bulletin board - users can post public or private messages to each other. These "messages" can actually be computer files. The AABP maintains a BBS for free use by members.

E-mail is short for "electronic mail", and until fairly recently has been used mostly by people with computers connected to university or business networks. Thousands of these smaller networks are interconnected, particularly on a system called The Internet, so that messages generated on one network can be sent to almost any other network in the world. Individual veterinarians, or anyone else with a computer, can get access to this gigantic network by buying an account with a public dial-up service reachable by phone. Because E-mail can be extraordinarily convenient and cheap to use, it is gradually supplanting fax as the business standard.

Fax Machines

Fax machines are the "least common denominator" of electronic communication. They can be bought for under $300. Almost all sold in the past five years are "Group 3" fax machines, and should be able to send to, and receive from, any other Group 3 fax, using ordinary phone lines. They are easy to set up, and reliable. They send everything as rows of tiny black dots on a field of white, so it makes no difference if you are sending a page from a book or a handwritten note in Sanskrit. Noisy phone lines can cause stray marks on the page, or interrupt a transmission, and in some areas this is a problem. It may take less than a minute per page to send a fax, so phone costs are often cheaper than first-class postage. Most fax machines use thermal printer paper that is more expensive than plain paper, fades with time, and feels yucky.

Computer Fax

An alternative is a fax-modem board for your computer. These can be bought for about $50 to $300 (including software), but only can send something that you can make appear on your computer screen. For example, you might type a message with your word processor then, rather than print it, enter the phone number of a fax machine and it will be sent there instead. Received faxes can be displayed on the computer screen, or printed on most printers (including common dot-matrix printers). How convenient this process is depends greatly on the fax software that you use.

You must have your computer turned on and connected to a phone line when you expect to receive a fax, though many will allow you to continue using the computer at the same time for another task. Some fax boards have problems connecting with certain fax machines, especially receiving, but these problems are gradually being ironed out. Most fax software makes it easy to keep a list of phone numbers, to send faxes to multiple places, and to keep logs of all faxes coming in and out. They vary in their ability to send documents produced by paint programs, spreadsheets, etc., though all can send ASCII files. If you use Microsoft Windows, there are

several fax packages available that will allow you to fax anything that you could print from Windows.

Any fax machine must be connected to a phone line. This can be a dedicated line, or it can share a line with a phone. A $75 automatic fax switch will divert incoming faxes to the fax machine or computer, and voice calls to the phone. A few fax boards have this feature built-in.

BBS systems, Data Modems

There are tens of thousands of private free Bulletin Board Systems that are accessible to anyone with a data modem, and thousands of other boards for which access is restricted in some way. For example, The AABP BBS is free, but open to AABP members only. On most BBSs (including ours) you can share files or messages with other callers to the system.

Data modems differ from fax in that they send text as a series of characters (as you would type them) rather than as a picture made up of thousands of dots. This means that large quantities of information, and also computer files, can be sent more quickly than if they were sent as a facsimile. It also means various "error correction" methods can be used so that you can be certain that what is received is exactly what was sent, even in the face of noisy phone lines. Fortunately, nearly all fax boards also can function as data modems.

Both data and fax modems are rated for speed in "bps" - bits-per-second. Cheap data modems are rated 2400 bps, better ones 9600 bps or 14,400 bps. Most fax-modems operate at 9600 bps. When a faster modem tries to talk to a slower one it automatically cuts its speed to match the slower. Also note that a 2400 bps modem will send a page of text more quickly than a 9600 bps fax because it is sending individual letters rather than the dozens of dots needed to "draw" each letter.

E-Mail

E-mail systems differ from BBSs by making messages between individuals much easier to handle, at the expense of some of the flexibility in a BBS system. Large businesses and universities have internal e-mail systems that permit the sending of messages between networked computers. There are also commercial services (like Compuserve, MCI Mail, and America Online) that provide (for a fee) accounts for anyone who wants one. These private and public networks are interconnected, mostly through a system called "The Internet". If you have an account with access to the Internet you can send messages to anyone else on the net (with a few exceptions - mostly military installations). This amounts to over eight million people around the world, nearly all of the veterinary colleges in the world, and many veterinarians, nutritionists, and consultants.

Major E-mail systems offer "front-end" software that handles the routine jobs of collecting, writing, and sending messages, storing addresses, and "filing" messages. MCI Mail (for example) offers "Express" ($35) which also includes a spelling checker and search utilities to help search through your "filed" messages. Compuserve offers a similar package called Compuserve Information Manager. One keypress collects your mail. Another keypress can pull the address of the sender from a message you want to answer, than start a built-in word processor. One more keypress sends your reply. I strongly suggest that anyone starting out to explore e-mail use front-end software.

I am currently using MCI Mail for which I pay $35 per year for my "mailbox" which includes the use of a toll-free phone number which I may call whenever I want to collect or send "mail". Collecting and reading mail is absolutely free. I am charged for messages I send, about $.50 to $1, depending on length. The MCI Mail Express software cost another $35. Compuserve charges $9 per month for an account, less than MCI to send messages, but also charges to receive messages that come via Internet. Either system communicates with the other and the Internet. Other services offer more power for certain uses, but I don't know of any others that offer good e-mail front-ends.

The Internet also supports hundreds of "Discussion Group Lists". Most of these are free and open to anyone. "Dairy-L" and "Beef-L" are examples. These work by automatically forwarding copies of any message sent to the List's electronic address to everyone who has subscribed - hundreds of Extension agents, veterinarians, nutritionists, etc. who are then encouraged to reply. This leads to lively discussions and lots of useful information on all kinds of topics.

Recommendations

If you have a computer, you should have a faxmodem. This can be an internal board, or an external model. For example the Zoom External Pocket fax modem (2400bps data, 9600 fax send, 4800 fax receive) will fit in a shirt pocket (mostly), and work fine on almost all computers. It's commonly available for less than $100, including software. Two high-speed modems that were rated tops in a recent review in "Byte" magazine were the Boca Research 14.4K Bocamodem and the Practical Peripherals PM14400FXMT, both available for about $250. There are dozens of other good choices, but any modem can be a hassle to install, so you may want to have it done by a dealer unless your willing to face the possibility of having to do a little fiddling. At least don't buy a modem without the option to return it if you can't get it going properly.

If you don't have a computer (and won't buy one),

buy a fax machine. Choosing one is straightforward based on features versus cost. Even the cheapest generally work just fine. Or, if you want maximum reliability in receiving faxes and also the ability to send pages you don't have in your computer, buy both a fax machine and a fax board.

Call the AABP bulletin board and browse a bit. Download at least two files: EMAILADD and COMMTIPS. The first will be a list of e-mail addresses of interest to bovine practitioners, and the second will have any updates I may make to this paper.

Open an account with either Compuserve (get Compuserve Information Manager) or MCI Mail (get Express) and subscribe to Dairy-L and/or Beef-L. Compuserve will be more expensive if you receive much Internet mail. I find Compuserve Information Manager slightly easier to use and less powerful than Express.

Details

AABP BBS: 612-624-5364 or 612-625-7791 (voice) if you need help. Use 8 data bits, no parity, 1 stop bit.

MCI Mail: 800-444-6245

CompuServe: 800-849-8199

Beef-L - to subscribe send an e-mail message to ListServ@WSUVM.CSC.WSU.EDU with the phrase "SUBSCRIBE BEEF-L" followed by your name in the text (not subject) of the message.

Dairy-L - to subscribe send an e-mail message to ListServ@UMDD.UMD.EDU with the phrase "SUBSCRIBE DAIRY-L" followed by your name in the text (not subject) of the message.

For MCI Mail the entire message for me to subscribe to Dairy-L looks like this:

To: ListServ
     EMS: Internet
     MBX: ListServ@UMDD.UMD.EDU

     SUBSCRIBE Dairy-L Jim Ehrlich

When the subscription request is received by the List Server it will automatically send you a message outlining basic procedures, and how to un-subscribe if you should want to.

Big Mac Attack for Information Management

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Driving to client's farms takes a considerable amount of my time. Many of my clients are 100-500 miles from my office. I try to make the best possible use of this time by thinking about opportunities and problems in my practice and listening to tapes.

Time management consultants encourage us to plan our day--either before retiring at night or early in the morning. I am an early riser so I try to spend 15-20 minutes early each morning planning my day--listing, prioritizing, and visualizing the day ahead. This technique has been very successful for me. I know many others in the organization that do the same.

For the past two years, I have been planning and visualizing individual farm visits--complete with written agendas. These agendas are developed immediately after the completion of a farm visit. At the same time that I write my summary of the farm visit, I write an agenda for next months visit.

I list the areas that I want to address, any areas the producer has expressed concern or interest in, any areas that need follow up next month and routine items such as gratitude and collecting my fee.

Many of these agendas and summaries are written over a cup of coffee at a McDonalds or convenience store.

By spending five to fifteen minutes immediately following a farm visit, you can greatly increase your efficiency and effectiveness on a farm. Once the summary of this month's farm visit and the agenda for next month's farm visit are made, one can purge their mind of this client's problems to prepare for your next client. Completeness builds energy and enthusiasm.