

# Forging BY LESLIE LIMON Healthy Partnerships

“The old-fashioned way of looking at veterinarians was as the plumber you call when the pipes break. Now our clients also see us as trusted advisors: partners in their operations.”

THIS IS HOW DR. GEORGE SAPERSTEIN, AMELIA PEABODY PROFESSOR AND CHAIR of the Department of Environmental and Population Health, characterizes the role of the modern farm animal veterinarian. In this issue—in honor of the May 2, 2008, Grand Opening of the new facility for the Tufts Ambulatory Service (TAS)—we take a closer look at that role. In particular, the articles in this section focus on the contributions of farm animal veterinarians with respect to education, economics, public health, and land conservation.

Since the TAS was established in rented quarters in 1980, the staff has quadrupled to meet rising need in the region. Today its seven veterinarians, with fourth-year students in tow, deal mostly with dairy herds ranging in size from a dozen to several hundred, but also beef cattle, sheep, goats, and swine. In January 2008, a brand-new 6,000-square-foot facility opened to accommodate this growth. Located on a 25-acre parcel of land in Woodstock, Conn., the site uses five acres with the rest preserved as open space. The new facility includes a large conference room named after the late Dr. Howard Levine, TAS director until his death in February of this year (a tribute to Dr. Levine appears on page 3).

One of the clinic’s most important features is a haul-in area for animal examination and outpatient surgery, which didn’t exist in the former space. “There aren’t a lot of large animal practices around,” states Dr. Eugene White, TAS director, “so it’s hard to say no if somebody calls with a cow that’s

sick or calving. You constantly get pressure to go further and further. Before you know it, you have a hard time serving clients that are close by, especially for emergencies. That’s one reason we built that haul-in.” Most clinical work, however, takes place during farm visits, which entail travel of up to an hour and twenty minutes north to the Massachusetts-New Hampshire border, south to the Connecticut coast and Rhode Island, and everywhere in between.

The geographical range of the TAS touches on a critical issue that has gained national attention: the shortage of food animal veterinarians. In June 2006 the American Veterinary Medical Association (AVMA) projected an increase in demand of about 12 to 13 percent between now and 2016, coupled with a shortfall of four to five percent per year. Dr. Lyle Vogel of the AVMA called the projected shortage “catastrophic for the industry and for society.” As a teaching facility, the TAS fulfills a key role in exposing Cummings students to food animal medicine. The

“adopt-a-veterinary student” program sends first-year students—most of whom have had little or no agricultural background—to local farms for a brief stay to live and work there. The fourth-year ambulatory rotation is a perennial favorite for its unique hands-on experience and the quality of the veterinarian-farmer relationship that students come to appreciate.

Ambulatory Service faculty have always had much to do with generating enthusiasm among Cummings students. White says, “I love my job, and if I can communicate that to the students, hopefully that will attract people to the field.” While it can be intimidating to a new graduate to contemplate making recommendations that can cost a farmer tens of thousands of dollars—with the risk that it won’t work—there are plenty of opportunities for them to gain their bearings by spending a few years in an established practice tending to one sick farm animal at a time. Jen Hall, V08, who left a five-year career in the Coast Guard to enter veterinary school, didn’t enter with the idea of doing large animal medicine. But she learned that her lack of background and the fact that she wasn’t “a burly six-footer” made no difference. With encouragement and continued exposure, she has gained the confidence to enter mixed-practice medicine. “I’m so glad I didn’t have to pick a concentration,” she says. “If I had, I would have gone into small animal medicine.” **TVM**

# Sustained Efforts That Pay Off


## Partnerships with farmers veer into economics

“BACK IN 2006, BECAUSE OF FUEL INFLATION, everything that comes in the door related to trucking went up,” says Tom Murdock, owner of a Pomfret, Conn., dairy farm with a herd of about 80. Murdock, whose Yankee speech matches his hardscrabble, bushy-bearded appearance, took over the farm from his uncle, who started it in 1949. “Yup. Vehicle taxes, medicine for cows, tractors, tires, everything,” chimes in his son Tim. His burly size is barely a match for the irritated 1,200-pound Holstein, her rear leg in a sling so that Dave Hernke, V08, can work on her foot.

Rising costs—the Murdocks pay \$2,400 for a load of grain mix that not long ago cost \$1,900—hit hard in an industry of flat prices. “These guys are getting roughly what they were getting back in the 80s,” says Dr. Eugene White, director of Tufts Ambulatory Services (TAS) in Woodstock, Conn. “They need to make a living on the same \$14 for 100 pounds of milk that they made in 1988.” Keeping unit production costs below that

requires greater efficiency, and veterinarians are an important ally. Their first job is maintaining herd health through vaccination and nutrition, performing services such as de-horning or hoof trimming, assisting with breeding and pregnancy, and treating illness and injury. As consulting partners to farmers with herds that range from a handful to thousands, they also monitor farm productivity and health.

Alan Clarisse, V01, who works mostly with dairy herds in Vermont, deals with the problems that affect dairy cows’ jobs: eating, breeding, and producing milk. “Lots of sore feet means cows are not getting to the feed bunk. Is the problem the ration? Housing? Foot trimming?” Once he identifies the factors, he works with the farmer to correct the problem, which is where medicine and economics can intersect. Should the farmer install rubber mats in his freestalls—a huge investment—or is there a reasonable alternative?



Ultrasound is one way to check the fertility of a dairy cow.

“Production medicine” is as much about handling data as it is about handling animals. Here, Dr. Eugene White of the TAS and Sarah McCormack, V09 (bottom center), check the herd of dairy farmer Liz Gilman (bottom right).

## PRODUCTION MEDICINE

Dr. David Matsas, TAS clinician and assistant professor in the Division of Environmental and Population Health (DEPH), describes the intersection of health and profitability as “production medicine.” Veterinarians spend as much time reviewing

grain bill drop, but milk production rose seven to eight pounds per cow.

Education is an essential element of food animal veterinarians’ work. Farmers learn to perform basic veterinary tasks themselves because “it would put them out of business in a month if we charged them

“The more we train farmers to be self-sufficient, the more efficient they are. And if that keeps them in business....”

—DR. DAVE MATSAS, TUFTS AMBULATORY SERVICES

data or discussing cases as they do touching cows. The Dairy Herd Improvement Association gathers data farm by farm; in monthly visits, a representative checks a milk sample from each cow for fat and protein content and somatic cell count (the lower it is, the higher the milk quality). Each cow’s milk production and breeding data is also recorded. TAS clinicians download the data from a central database and review it before farm visits. An overall rise in somatic cell counts (suggesting mastitis, a common bacterial infection of the udder) would lead them to zero in on the segment of the herd experiencing the rise and investigate possible contributing factors: contaminated bedding, a malfunctioning milking system, or inappropriate milking technique.

The ration formula is often at the root of problems. Clarisse once spotted a troubling number of lame cows in a herd of 400 despite excellent footing on rubber mats. He suspected a nutrition problem and discussed it with the farm’s nutrition consultants—who were not convinced—but Clarisse’s testing showed he was right. The farm hired a new nutritionist, and together they changed the ration. “In about six months we saw a significant reduction in lameness,” he says. Plus, not only did the

to go out to give every shot,” Matsas states. Given the geographic spread that veterinarians cover, it makes sense to train farmers to give an injection, de-horn a calf, insert a nasogastric tube, or trim a hoof, instead of traveling an hour or more each way to do it themselves. And when a cow is sick, a farmer often calls with an accurate description of disease signs and even a diagnosis. White appreciates that level of partnership, stating, “The more we train farmers to be self-sufficient, the more efficient they are. And if that keeps them in business....”

## SHARING BEST PRACTICES

To that end, TAS also encourages farmer-to-farmer interaction. When one farmer buys new equipment that works well, veterinarians can help spread the word. White and Assistant DEPH Professor Dr. Kevin Lindell also hold monthly producer meetings for farmers to share best practices with each other and set the agenda of issues to address. The herd project, in which teams of about eight Cummings fourth-year students consult with an assigned farm to address a specific issue or problem, adds another source of ideas to boost farm efficiency and productivity. Students learn, for example, that if a farm’s practices differ from the textbook approach but are effec-



White is one of seven TAS veterinarians who—together with Cummings School residents and students—work with farmers to boost efficiency and production in herds of all sizes. Pictured here: Cato Corner Farm in Colchester, Conn. Its herd of about 30 dairy cows supports dairy farmer Liz Gilman's cheese-making operation.

tive, there's no point in recommending a \$100,000 investment to change them. One team recently helped one of Connecticut's largest dairies find out how much it could expand its herd, given current capacity. The team did a cost-benefit analysis, projected growth numbers, and recommended ways to improve efficiency. Team member Kelly Hackett, V08, noted that working with a farm owner and herd manager of differing opinions was good practice in maintaining objectivity.

Using that objectivity, veterinarians can advise farmers on how far to go to boost profits without harm. Increasing rations usually leads to higher milk production, so farmers may be tempted to feed cows more. But too much grain leads to gastrointestinal problems and lameness. "We're in a good position to keep an eye on animal welfare," White says. "When you see your cows every

day, you might start to think that having 10% of your herd lame is normal. We can come in and say, wait a minute, this isn't right. Let's take a look."

Where do these efforts lead? For a farm like Murdock's, success likely depends on its ability to "fill a niche market such as safe raw milk, grass-fed beef, or designer cheese," states Matsas. Diversifying, he adds, helps small farms succeed by offering premium products that entice consumers into supporting the local economy. Since the success of dairy farming is all about the next generation, TAS's own success can be seen in a healthy local farm that the clinic has worked with since the 1980s. For a while it looked like it would become a golf course. "But now the daughter is home from the University of Wisconsin and all fired up," White notes, "so it looks like that herd's going to go on." **TVM**

## A BOOST FOR AZULUNA

Renewed USDA funding and the support of a major retail food chain recently gave a lift to Azuluna™, the brainchild enterprise of Dr. George Saperstein (see "Spotlight on Azuluna," winter 2006) and the brand name for sustainable agriculture based at the Cummings School. Azuluna veal from naturally milk-fed, free-roaming calves is now available in many stores of Whole Foods Market™, the leading worldwide retailer of natural and organic foods. Azuluna's model of farm diversification and sustainability targets small cottage livestock operations in New England that have mostly transitioned out of dairy farming. "Many of my producers are from Vermont, with a lot of pasture and all kinds of beef, dairy breeds, and cross-breeds," Saperstein explains. Raising Azuluna veal is an easy task for them, he says, "because you just have to breed the cows and let them raise their calves."

Overcoming initial resistance to retail distribution, he forged a connection with Whole Foods Market through a series of serendipitous meetings and agreed to a test marketing program. That meant conforming to the supermarket chain's animal welfare standards and arranging distribution. After the veal was on the shelves, Saperstein received an E-mail from a Whole Foods Market vice-president who had tried it and loved it, smoothing the way for continued supply. Azuluna eggs, distributed in various stores directly matched to local producers, also have a loyal following. One Rhode Island grocery store regularly sells out in one day the eggs delivered by a local farmer. Food editors, chefs, and consumers seeking locally produced foods give these premium New England farm products high praise for taste and quality

