

CVM Graduate

Helping Build Veterinary Programs in Iraq

By Bob Ratliff
(Paul M. McKellips, U.S. Embassy, Baghdad contributed)

When Deanna Brown graduated from Mississippi State University's College of Veterinary Medicine in 1990, she hoped to pursue a career as a large animal veterinarian. She did work as a dairy practitioner in Wisconsin for a year, but today Lt. Col. Brown is putting her expertise to use in a much different capacity.

"I'm originally from Little Rock, Ark., but now I live in Fayetteville, N.C., at Fort Bragg," she said. "Just recently I led a large animal veterinary workshop in Erbil, Iraq."

As a U.S. Army veterinarian, Brown is part of a team working to train Iraqi veterinarians and help them refocus on large animal health.

"Most of our emphasis is on improving agricultural production by assisting farmers with improving sheep and cattle production, as well as helping establish private poultry farms," she said. "We also are working to improve both government and private veterinary services."

Iraq has about 10,000 veterinarians. About 2,900 are employed by the government, universities or laboratories, and another 4,000 are working at least part time in private practice. Approximately 3,000 are unemployed.

There is a shortage of veterinary drugs and vaccines in Iraq and they often are too expensive for most farmers to afford. Iraqi veterinarians also struggle with basics their U.S. counterparts take for granted.

"Lack of reliable vehicles for vaccination and other treatment activities is one of the most reported complaints by veterinarians," Brown said. "Clinic staff reportedly rely entirely on taxis for field activities, and the cost severely limits their ability to provide services to farmers."

Vaccinations against major animal diseases, including those that can spread to humans, are an important part of the work of Iraqi veterinarians.

"Veterinarians in Iraq have many issues to deal with that we don't in the United States," Brown said. "They have many significant diseases here, including foot and mouth disease, that we don't. The country also

does not have the infrastructure needed to develop overarching programs to control these diseases."

Developing an infrastructure is part of the work of Brown and other U.S. veterinarians in Iraq.

"We've developed an interagency working group of veterinarians from many different organizations, including the military, the U.S. Department of Agriculture, U.S. universities and the American Veterinary Medical Association," she said. "Together, we're helping the Iraqi veterinarians pull together to develop a good plan."

Their work is beginning to show results, especially in northern Iraq.

"Veterinarians in northern Iraq are on the front lines when it comes to controlling the spread of avian flu," Brown said. "They have developed a good plan to control the disease in that part of the country."

U.S. Secretary of Agriculture Mike Johanns has proposed developing a program to train Iraqi agricultural experts to work directly with the country's farmers, much like Extension Service specialists and agents support agriculture in this country. Such a program, Brown said, could have a significant impact on animal agriculture in Iraq.

"It would be an opportunity for the veterinarians to actually work with the farmers to teach them about what they can do," she said. "A lot of the veterinarians here are very excited about the possibility of being involved in an Extension-type program."



MSU graduate Lt. Col. Deanna Brown and Col. Danny McDaniels of Hattiesburg are part of a team of U.S. Army veterinarians working with veterinarians in Iraq.

"We've developed an interagency working group of veterinarians from many different organizations, including the military, the U.S. Department of Agriculture, U.S. universities and the American Veterinary Medical Association."

Deanna Brown

Summary of Agriculture in Iraq

By Lt. Col. Deanna Brown

Background on Agricultural Situation in Iraq: Agriculture is the single largest source of employment in Iraq. Despite years of neglect and mismanagement, it continues to be relatively productive. In terms of agricultural practices, Iraq has been in a technological time warp for about the last 30 years. Most farmers are at about the equivalent level to U.S. farmers back in the 1950s to 1960s. Everything has been done in a socialistic system in which national government (i.e., Saddam) provided all of their inputs (seeds, fertilizer, animal protein supplements, fertilized eggs for poultry, etc.). Many of these inputs were low quality, and farmers were given no incentives to improve outputs. In addition, government “food basket” handouts under the Oil-for-Food Program severely reduced the value of Iraqi food products, making it very difficult for farmers to sell on the open market for even a break-even price. The Fertile Crescent, once an agricultural model for the region, exported agricultural products (pre-Saddam), but it is now dependent on imports and “handouts,” and the population is severely protein deficient.

Typical Farm: Most farms are very small, with the majority of them owning between 10 and 30 acres (some less). Farmers grow a small crop of grains (wheat, barley, rice and some corn), along with vegetables (tomatoes, cucumbers, melons, eggplant, squash, onions and potatoes). They usually have a small flock of 20 to 30 sheep and eight to 12 cattle. Almost all farms irrigate through a system of irrigation canals, which have been perfected over centuries of agriculture in the country. Many of these canals are in disrepair, and arable land has been reduced because of high salinity.

Livestock in Iraq: Their primary livestock emphasis is sheep, followed by poultry, then cattle (dual use), water buffalo, goats, and finally camels. They also have an emerging aquaculture industry.

- **Sheep** are primarily “fat-tailed sheep” (Agassi), which is a breed primarily found in Iraq. This breed is known for its hardiness for the region. They lamb once a year and sometimes twin. Sheep are very important to the Iraqis as a primary protein source, and they are significant culturally because lambs are an important part of religious celebrations. Most countries in the region (including Kuwait) prefer Iraqi sheep to those from other countries and have said they would import Iraqi sheep if they were available.

- **Poultry:** The poultry industry in Iraq was the fastest growing area of animal production during the Saddam regime (the only form of animal production that increased under Saddam). Farmers received significant subsidies and were provided chicks,

as well as feed and protein supplements, by the government in exchange for selling birds to government-run slaughterhouses. Most houses measure about 225 by 40 feet and hold between 7,000 and 10,000 birds. Since the war, the number of functioning houses has decreased significantly (less than half remain, and in some areas more than 80 percent are nonfunctioning). Immediately after the war, most hatcheries were looted, and grandparent stocks were lost. The 2005 outbreak of avian influenza resulted in the loss of many of the remaining sources of fertilized eggs in the Kurdish region when flocks had to be killed during the stamping-out process. Currently, poultry farmers cannot get chicks and have difficulty obtaining feed for their birds. When they can get inputs, it costs them much more to produce birds than they can get on the open market because quality of feed is not good.

- **Cattle:** The local cattle breed is a dual-purpose breed that looks similar to a Jersey. In most areas, Holsteins have been crossed with the local breed to improve production. Current milk production ranges from 440 to 3,300 pounds per lactation. Most Iraqis prefer Holsteins, and they want to increase the percent of Holstein blood in their “national herd.” Prior to the war, government-run dairy processing centers purchased much of the milk produced. Now, most of these are inoperable due to looting and neglect. Most families now “process” the milk themselves by boiling and then making butter, cheese and yogurt in their homes. These products are then sold on the local market. Product not sold locally usually gets discarded since transportation to larger markets is difficult and refrigeration is unavailable in most areas. When cattle get old, they are sold for meat. Bull calves also are raised until they reach about two to three years of age and then sold for meat (usually for religious slaughter).

- **Buffalo:** There are specialized farmers who deal specifically with buffalo. These animals are kept primarily for their milk, which is very high in butter fat. The cream is processed locally into sour cream, butter, yogurt and sometimes cheese, and then sold. Buffalo farms often will have up to 100-plus animals, and they tend to be found only in certain locations and always near water.

- **Fish:** Primary breeds are carp (big head, silver carp), which are grown in fish farms owned by individuals. Iraqis love this fish and will pay a premium for it. Most fish farms are not modern and rarely have pumps to aerate. A lack of aeration, as well as water quality problems, significantly inhibits these farms’ productivity. Aquaculture has significant potential if Iraqis can learn modern techniques to raise and market fish.

