Respect for animals, environment take center stage at Fair Oaks

By Denise Faris

Our contingent of Chicago Farmers was on its way to tour Fair Oaks Farms, a consortium of family dairy and swine farms in northwest Indiana, on a day that promised sunny skies and 90 degree temperatures. With that in mind, wide brimmed hats and sunscreen were musts for the trip.

The 36 members of our summer field trip soon learned that these items were not necessary because Fair Oaks ferries its visitors to its swine and dairy facilities via an air conditioned, bio-secure bus. Additionally, while getting good views of the animals, there is no direct contact with any of the animals so that there is little chance of animals being contaminated by germs or diseases that humans might inadvertently bring with them. It is an odor-free and dirt-free visit that is highly entertaining and educational.

Fair Oaks Farms, a 75 mile drive from Chicago in northwest Indiana, opened its doors to the public in January 2004. Initially showcasing dairy farming, Fair Oaks was created to educate the public about farming operations and how dairy cows are raised and milked. The pig facility opened in 2013 and allows meaningful interaction with the animals under a controlled environment. A crop education building, sponsored by Land O' Lakes, is under construction and will open in 2016. John Deere has plans to open an equipment museum at Fair Oaks, also in 2016, and the poultry industry will become a part of Fair Oaks with a laying facility in 2016. Negotiations are under way for a hotel on the grounds.

"We wanted to be proactive and let the public see our farming operations," Gary Corbett, CEO of Fair Oaks Farms, told us during our luncheon break at the Farmhouse Restaurant, which opened at Fair Oaks last year. He later noted, "Only one percent of the U.S. population makes its living from agriculture. We think it is very important for farmers to reach out to the other 99 percent and begin to help these people understand the wonderment that is 21st century agriculture."

Nine dairy farm families purchased the original 15,000 acres of land in 1998 from Prudential Insurance, which had accumulated the acreage with the thought that it would be used as a third airport for the Chicago area. Presently, Fair Oaks covers 32,000 acres. The same families that purchased the site are farming the ground and milking the cows today, said Corbett. There are 92 dairy farm families that own the dairy education facilities.

Sitting on either side of Interstate 65, Fair Oaks Farms is highly visible and easy to reach by car. Some 350,000 people a year visit it. Corbett said the vast majority of Fair Oaks is a non-profit 501C3 organization. Recently, Cargill and Farm Credit donated funds for a dining area for the 75,000 school children that visit Fair Oaks Farms during the school year and summer.

Our day at Fair Oaks began at the Pork Education Center where you can read numerous pig facts written on the walls of the facility (e.g., pig heart valves have been implanted in humans since 1975, one pig produces 475 strips of bacon) and enjoy interactive displays. We then departed on our tour bus for the Visitor Center, which is the entry to the pig facility. All of the manure from the Pig Adventure is piped to the methane digesters at the dairy (more about this later). As a result, there is no odor. Additionally, the visitors' galleries, which allow you to view the pigs through large windows, throughout the facility have a completely separate ventilation system.

Our guide, Marie, discussed the bio-security that is in place at the facility. She noted that farmers who work at the site must shower every morning before entering the facility, don work clothes that are provided for them, and shower when leaving for the day. We took a virtual shower to get the idea.

Our first stop was the Growing Barn where the female pigs or gilts (females that have not had litters) are viewed in the barn's free roaming pens through large windows that run along a hallway overlooking the barn. The young pigs are acquired from Fair Oaks' sister farms. The pigs are separated in the pens by age and range from three to four weeks to six to seven months, when they become sexually mature. A Chinese Meishan boar resides in one of the pens because the breed emits a highly odiferous pheromone that helps to bring the gilts into heat. A partnership with PIC, a pig genetics company, allows Fair Oaks to enhance its breeding standards through artificial insemination. Once pregnant, the pig is moved to the Gestation Barn.

In the pens in the Gestation Barn, the pigs are marked on their backs with color markers to indicate their progress in the gestation period, which is three months, three weeks and three days. The sows produce 2.5 litters a year, with about 14 piglets per litter. Visitors are able to view births through viewing pods overlooking the farrowing crates, which provide room for the sow and the nursing piglets but inhibit the sow's ability to turn over and possibly crush the young pigs. These crates are kept warm for the piglets, which need 103 degree temperatures after birth, while a fan above the sow keeps her cooler.

As we watched the sows and the litters, a team of farrowing technicians moved along the rows of crates to check every 20 minutes on the sows that were having difficulty giving birth. If there was not a birth, the technician put on a plastic glove over her hand and arm, slipped it into the birth canal and retrieved a piglet. The technicians also stopped at each crate to count the pigs in a litter, weigh the litter, note the genders, administer iron shots, and clip the piglets' needle teeth. It takes about three to five hours for the birth of an average litter. We were able to get a close up view of a piglet born earlier in the morning when a farrowing technician brought it to a viewing area behind glass.

Litters are weaned off the sow after 21 days and moved to a nursery that focuses on their health and well-being. They are then sold. After weaning, the sows are moved to the gestation pens where the reproductive cycle begins again. At three to four-years-old, the sows are sent to market.

Our bus then transported us to the Farmhouse Restaurant for a buffet luncheon. Our next stop, via bus, was the dairy operation. But, first, a short walk to the Birthing Barn where we watched from an amphitheater two cows, behind glass, in the process of giving birth. A few of the pregnant cows are brought to this facility so visitors can be a part of the birthing experience.

Our bus took us to one of the several dairy farms that are part of Fair Oaks. The dairy side of the farms began production in February 2000. Free stall barns were configured so that each cow was not confined to one stall. The dairy operation we visited had 3,200 head of cattle while across all of the farms there are 37,000 head. Veterinarians and animal scientists are part of the dairies' staff. As we neared the barn, we passed large mounds of chopped corn silage that was fermenting under plastic tarps. Harvested from the acreage at Fair Oaks, the silage will become feed for the cattle. Each cow consumes 17 tons of feed per year.

Our bus entered the dry cow barn where we viewed cows from the bus windows that were waiting to give birth. Overhead sprinklers kept the cattle cool. The barn has sand beds for the cows because it is inorganic and won't support bacteria growth that would infect the cow's udder. Maternity technicians check the expectant mothers, who have been artificially inseminated, every hour to monitor their progress. It takes one to two hours for a birth, with about less than five percent of the cows needing assistance. After birth, the calf is fed colostrum, which is produced by the cows, four times on the first day. It is moved to a small hutch outside of the barn shortly after birth.

Next bus stop, the milking parlor. After we disembarked from the bus, we were led to a glassed in viewing area that overlooked a rotating milking station that accommodates 72 cows at one time. There are 11 such "merry-go-rounds" in operation at Fair Oaks. While the cows are seen contentedly chewing cud, dairy technicians are busy below the rotating platform sanitizing teats, attaching milking units, taking samples of milk to ensure that nothing is abnormal, sanitizing the teats again and attaching the milking unit to harvest the milk. Following the milking, which takes about five minutes during an eight and one-half minute rotation and has left the cow 20 to 30 pounds lighter, the teats are disinfected and the cow serenely backs out of her station and follows the cow ahead of her back into the barn. "It is the herd mentality," our guide noted. "The cows know when to exit." The milk produced at Fair Oaks is transported to the southeastern United States and sold to Kroger and Dean Foods.

Following our tours, we watched a short, light-hearted 4-D film that provides education about dairy farms and their operations.

While Fair Oaks is concerned about its livestock, it also is a good steward of the environment. When the cows leave to be milked, the waste in their stalls is sucked up through a vacuum and directed to underground anaerobic digesters where microbes are busy at work breaking down the manure solids.

The methane that is generated is scrubbed of CO2 and becomes fuel, compressed natural gas, for the dairy trucks that transport the farms' milk to market. The accumulation of the manure is done in a timely manner, noted Corbett, so there is not sufficient time for the atmosphere to interact with it or for flies to be attracted to it. The manure solids also are converted into top soil by the same process and used in Fair Oaks' fields.

A presentation by Bob Divers of United Power Company, which operates the renewable energy system for Fair Oaks, gave our group an overview of how Fair Oaks creates and uses the biomass and a glimpse of things to come. Plans are in progress to operate a greenhouse at Fair Oaks to grow lettuce using the CO2 that is scrubbed from the methane.

After a full day, there still was time to shop in the Fair Oaks Gift Shop for dairy products and the delicious cookies we had for lunch!