



by Linda Wells

Teaching and Living One Step Ahead

Probably no Angus herd in the nation has undergone more change during the past 73 years than the one at Michigan State University in East Lansing. Under the direction of such notable leaders as Dr. Ron Nelson, the late Byron Good, Dr. Harlan Ritchie, Dr. Dave Hawkins, Larry Cotton (now with Premier Beef Corp.) and Pete Sweeney, the net result has been progress. Progress achieved not only through brilliant minds but also by a unique aspect that seems to set Michigan State University apart from the others.

First and foremost, breeding and raising purebred beef cattle on the 320-acre Michigan State University farm provides students with work experience in all areas of the beef cattle business—breeding, feeding and management. Second, the herd furnishes examples of high-performance modern-type cattle for selection and evaluation courses. And third, the herd gives staff members the opportunity to demonstrate breeding programs for genetic improvement of seed stock. None of which is highly uncommon among universities with purebred beef programs.

But what seems to set MSU's program apart from most other universities is its purebred livestock fund—a revolving account that allows the staff to use money acquired from selling cattle and apply that money toward buying better cattle.

Most universities do not work on this principle. Usually when university cattle are sold, the money goes into a general account. This money is then dispersed throughout different departments within the school's system. Thus, most university purebred beef programs do not have enough readily available funds to improve the quality of their herds as rapidly as they would like.

Account Established in 1940s

The idea of a revolving account came about in the late 1940s when Thomas Wilson, the owner of Edellyn Shorthorn Farm in Illinois, traveled to East Lansing to look over the university's cattle. To say the least, he was not impressed. Wilson, who was a friend to MSU President Dr. John Hannah, suggested they do something to improve the quality of their beef cattle, especially since MSU was a teaching institution. President Hannah turned to Animal Science Dept. Head Dr. Ron Nelson and Prof. Byron Good for suggestions. They came up with the idea of a revolving account.

"Fortunately, at that time," Dr. Nelson recalls, "we had an Angus bull that we wanted to sell. His name was Blackbird Grandier GR2, one of the bigger bulls of the breed during the 1940s." They sold the bull for \$15,000. "That was a lot of money in those days," says Dr. Nelson, "and because of it, we were able to select females of all breeds from some of the better herds across the country." As a result, a type change occurred in the MSU herd and they became competitive in the 1950s.

This marked only one of many turning points yet to come for Michigan State University. Because of the account, it was possible for them to buy the more fashionable, shorter-legged, compact cattle popular in that era.

Herd Originated in 1909

The Angus herd at MSU was first established in 1909 when two females were purchased from Jim Bowman near Guelph, Ont. Later, large growthy sires were introduced—Plumb Square and Level (1920s), Revolution of Wheatland (1930s),

Revalloch of Sunbeam (early 1940s) and Black Bardolier of White Gates 3 (mid-1950s), whose picture was used by the American Angus Assn. for several years as model bull of the breed. When this bull was mated to the large cows in the MSU herd, his progeny were exceptionally well liked and became popular show ring competitors. A large number of his daughters were retained as replacements, and many of them turned out to be excellent producers. But average size of the herd declined. So the search for a superior bull to mate with the "model" bull's daughters and granddaughters began.

They found what they were looking for at Ohio State University, where progeny of Bardoliermere 2 were making headlines. His son, O Bardoliermere 32, was singled out because of his size, balance and structural correctness. He was longer and taller than any of his contemporaries exhibited at that time, but in spite of this, he was successfully campaigned on the show circuit. At the 1954 American Angus Breeders' Futurity, his show career reached a peak when he was named supreme champion. His progeny were considered large in the late 1950s, but O Bardoliermere 32 managed to hold the MSU herd's size decline somewhat in check. Yet his progeny were faulted for lacking thickness in the quarter.

In an effort to correct this deficiency, Bardoliermere M40 (bred in the Les Mugge herd at Cleghorn, Iowa) was selected for use on the O Bardoliermere 32 daughters. M40 was sired by Dor Macs Bardoliermere 70, one of Bardoliermere 2's most popular sons and acclaimed the most successful sire of Angus show cattle in the late 1950s and early 1960s. When mated to daughters of O Bardoliermere 32, his offspring attained immediate success at shows and sales in the early 1960s.

Major Shift in Type

In the mid-1960s, the beef cattle industry experienced a major shift toward larger-framed, growthier, less wastey cattle, with emphasis on performance records. Michigan State responded to the change. Dr. Nelson spotted Ankonian Jingo 2 as a large growthy yearling at Ankony Farms in 1962 and managed to secure a temporary interest in the young prospect for the 1963 breeding season. Jingo was the largest bull on the 1963 show circuit and was considered rather extreme. Although Jingo probably will not go down in breed history as a transmitter of size, his offspring at MSU were growthier than those sired by other bulls of that time and commanded top prices in the Michigan Futurity.

It was at the 1966 Ohio State Fair that Dr. Dave Hawkins, MSU's purebred beef cattle coordinator, spotted Homanor Bardoliermere 1564. His nickname, "Hoss," described him well. MSU bought the bull but, unfortunately, he proved to be only marginally fertile and sired no calves. In 1967 they bought a K17 son from Kansas State University in Manhattan. But once

again, their efforts proved fruitless when his calves were too small.

Radical Measures Taken

After this series of disappointments and just plain hard luck, the animal husbandry staff concluded that selecting the largest bulls within the well-known conventional bloodlines of the day was not the way to go. It was decided that more radical measures would have to be taken; namely, searching for bulls in herds that had stayed with growthier cattle even when it was not considered desirable. The search began in 1967. The first truly large-type bull was found that fall in Jim Bradford's herd near Fonda, Iowa (now at Guthrie Center, Iowa). The bull was Atlas Marshall. He was intensely Earl Marshall-bred and was produced in the Wayne Lacock herd at Farnhamville, Iowa. He was sent to MSU in the spring of 1968 and used early in the breeding season. That same spring, Dr. Ritchie and Good paid a visit to Wye Plantation, Queenstown, Md., where they purchased Megaton of Wye. He had just come off test after setting a record 205-day adjusted weaning weight of 782 lb.

In the summer of 1969 Dr. Ritchie discovered Marshall Pride 4, better known as "Big John," and his son Marshall Pride 476, "Little John," in the Jim Bradford herd. These two bulls were sent to MSU and used for a short time. In 1969 they leased Black Revolution 317 from Erdmann Angus Ranch, Wetonka, S.D. He was so long, tall and trim that Good nicknamed him "Pipeline." "At that time, there were so many different bulls at Michigan State it looked like a zoo," Dr. Ritchie comments.

Dr. Ritchie Takes Good's Advice

After Pipeline came Bonanza of Wye, Up John and Freestate of Wye in 1971. Dr. Ritchie reflects, "Byron Good cooked that up. He kept bugging me that Francis of Wye was the best bull for growth in the Wye program, and if we were wise, we would find out where the best son of Francis was." This prompted Dr. Ritchie to draft a letter to Jim Lingle and Dick Whaley asking them to compile a list of all the sons of Francis that had ever weighed 1,100 lb. or more at a year of age. Upon receiving the information, Dr. Ritchie immediately wrote to Lyle Springer at the American Angus Assn. to find out the bulls' present owners. In all, this took about a year to do, calling and writing different people to find out if these bulls were available.

It turned out that there were only three for sale, and two of them were owned by the U.S. Federal Prison System. Dr. Ritchie called the director of federal prisons in Washington, D.C., and was told that the only prison with registered Angus cattle was the El Reno Federal Reformatory in Oklahoma. After contacting the prison's farm manager in El Reno, Okla., it was discovered that they were using two Francis of Wye sons and were willing to sell. Dr. Ritchie promptly inquired about buying one. He found out that any federal government sale is con-

ducted through sealed bid. So without ever seeing the bull, MSU submitted a \$2,500 bid for the Francis of Wye son named Freestate of Wye, mainly because he sounded like the best choice performance-wise. The offer was accepted.

Good evidently knew what he was talking about when he advised Dr. Ritchie to look for a son of Francis, because when Freestate arrived in Michigan, everyone liked him so well that Dr. Ritchie decided to visit the Oklahoma prison to look at his calves. The prison's main operation was dairy, so the bull had been used mostly on dairy cows, he also had been used on a few registered Angus. "Sure, the ones out of Holsteins looked fantastic, but I wanted to know how the Angus looked," he says.

Dr. Ritchie found the records on Freestate's calves impressive, but Michigan State was unsuccessful in its attempt to buy any of his sons or daughters.

More Recent Sires

More recent herd sires used at the university are MSU Freestate 343 (reserve grand champion at the 1974-75 North American International and 1975 American Angus Breeders' Futurity and grand champion at the 1976 National Western), MSU Black Revolution 165 (as a yearling, this son of Pipeline out of an Atlas Marshall daughter was never defeated in class), MSU Headliner, MSU Director, MSU G Bardolier 411, MSU Headstart and MSU Shawnee.

The Michigan State staff is constantly searching for outcross sires to complement their breeding program. Bulls being used currently include Schearbrook Shoshone, Thomas Chaps, LEMAR Eileenmere Lad 549, Bon View Connection, Ken Caryl Mr. Angus 8017, Sir Wms Warrant, Continental and Ellanin Affirmed 1K.

"We're in a position now, with the industry the way it is, that we can't afford to go out and buy the outstanding bull calf that we would like to use," explains Dr. Hawkins. This has forced them into an A.I. situation. So they select three or four bulls they believe to be the best in the country and pick from their calf crop. "We will follow the calves through and use those bulls artificially, hoping that we can get a son of one that we may be able to retain and use naturally for a year or two."

New Cow Herd for MSU

The first larger-framed females were added to Michigan State's herd in October 1968. They included 10 heifers purchased from the Erdmann herd. These females made such an impact on the university herd that it was decided to buy heifers in other herds noted for superior performance. By 1972 the Michigan State herd was composed entirely of new females and their daughters sired by new bulls.

The university's transplant program is funded without using any general appropriations from the school. It's a function of their total beef cattle merchandising program that was kicked off when Michigan State exhibited a very competitive Polled

Hereford heifer that went undefeated at the American Royal, North American International and National Western, where they sold one-half interest for \$50,000. The money was used to pay for the initial transfers.

But the staff realized they still had a cash flow problem. They were nine months away from having a calf on the ground and another two months away from having one big enough to sell. "We remedied this problem by selling some pregnant recipients," states Dr. Hawkins, "and to this day, we have sold more dollars worth of cattle out of the embryo transplant program than the \$50,000 seed money originally put into it. So it hasn't taken any money away from existing programs or other research activities we've had."

Key Is Merchandising

Michigan State believes embryo transplanting has some potential use in the industry, but staff members agree that it's not for everyone. "You have to have a good merchandising program. I don't think a person could use embryo transplants to generate a herd of replacement females. You have to be selling some along the way. So that dictates using your very best cows but only if they have some merchandising value," Dr. Hawkins adds.

"There are some disadvantages," says Pete Sweeney, purebred beef cattle manager. "Management is tough and you end up calving at all times of the year. But it probably puts the biggest tax on your facilities, especially during the winter months—cold damp weather accompanied with heavy snows is a typical Michigan winter."

Another management aspect Sweeney stresses is practicality. "The MSU herd is managed much the same as you would expect a well-managed commercial herd in Michigan to be run," explains Sweeney. The staff agrees. If their cattle are going to be useful as breeding material for the commercial industry, then they must be subject to the same stress commercial cattle are exposed to.

Selection Process

Michigan State's number one criterion in selecting cattle is frame size. Dr. Hawkins explains, "I think we can go into the average herd in the midwest and find cows that are not quite big enough. In our situation, a large number of our bulls are sold to commercial operations and are mated to smaller cows, so their size becomes diluted fairly rapidly."

On the other hand, Dr. Nelson points out that the Angus breed is reaching the point where today's larger-framed cattle are in the same position the smaller-framed cattle were back in the 1950s—no matter how careful the selection process, breeders are not going to make a big change in frame size during the next 10 years compared to changes made in the last 10. "No matter how hard you work at it, we're not going to see a significant change in frame size, because these cattle are not going to get

very much bigger very fast," Dr. Nelson believes.

"If you look at the very top-end cattle being exhibited at a major livestock show, I think most people would agree that those cattle are big enough. But this needs to be put into perspective. These are the very elite top-end cattle selected from thousands. When we reach the point where 50% of the cattle shown are close to that size, then probably from the standpoint of shows over the next four or five years, there may be more of a tendency for the top five heifers in the class to be the biggest rather than just the top one or two, then other selection criteria will enter into it," Dr. Nelson continues.

Other Criteria

And Michigan State staff members firmly believe that there are indeed other criteria besides frame size, criteria such as structural soundness, milk production and efficiency. Cattle that are functional. "All things being equal," Sweeney adds, "the biggest one is the best one. But they have to be able to breed at two years of age and calve every 12 months after that. From my standpoint, I have got to be out there with those cows every day, and I sure like the ones you can breed A.I. once, have them calve by themselves and rebreed without any problems." So when it comes right down to it, Sweeney believes the number one thing cattle have got to do is breed and reproduce. "That has got to be the number one priority. It doesn't matter what you paid for an animal or how good that animal is if it can't reproduce," he continues.

Whether attending a show or on judging assignments, the Michigan State staff is constantly on the look-out for cattle that will improve any of the breeds they are working with—Angus, Polled Herefords and Simmentals. "We decided long ago that we have no biases as far as bloodlines. Whenever we find cattle that we believe will work in our program, we discuss it and follow through," Dr. Hawkins states.

One Step Ahead

So far as type changes go, Michigan State always has seemed one step ahead of the times. They could very well be termed "trend-setters." They sought taller bulls to use on their cows before it was popular to do so, simply because the Michigan State staff agreed that Angus cattle needed to be bigger. "As university people, we need to be leaders, not followers," Dr. Ritchie states.

Michigan State's staff members' first concern is to have good livestock for their students to study and work with. And so far they've been fairly successful at it with the help of not one but several unique aspects—a revolving purebred livestock fund and staff members who aren't afraid to initiate a change when a change is needed. To be sure, mistakes have been made, but the net result has been progress. As the old saying goes, "The only people who don't make mistakes are the people who aren't doing anything." 