



**The
Road
Ahead**

MKT.



Man's reach should exceed his grasp...

During the past century improvements in genetics and technology allowed the entire cattle industry to achieve accomplishments unimaginable 100 years ago. What lies ahead as far as... Genetics? Technology? Management Practices? Markets and Marketing Strategies? Financing and Economics? The Angus Breed?

We asked some of our JOURNAL readers to look into their crystal ball and tell us what they see. The following pages contain their responses.

There was an underlying tone common to all replies: These breeders are looking to the future with voices of optimism. Their crystal balls are bright with anticipation of an even greater century ahead for the Angus breed.

They believe maternal traits, if breeders continue to work on them, will further strengthen and maintain our breed's stronghold. It is the consensus of those replying that advances in reproductive technology will be mind-boggling. They conceive more efficient and more practical management practices in the years ahead. These breeders foresee an expansion of available AHIR information and an increased use of the sire summary. And enveloped in all these advances and improvements—computers.

Their comments are thought-provoking, entertaining, educational and some, controversial. Read on.

Robert L. Leonard, D.V.M.
RCT Genetics
Mountain View, Mo.



"We will have the ability to correct specific defects inherent to a family line. . . . this could be done because we know the exact location of that genetic information on the animal's genetic chain."

The theme of this article very well summarizes the dramatic progress that has been made in the reproduction of Angus cattle. In the last few years we have seen the procedure of embryo recovery and transfer progress from a scientific phenomenon to a very practical management tool for the progressive breeder.

The ability to preserve embryos by freezing and storage in liquid nitrogen has allowed expansion of the potential of embryo transfer. The embryos can be stored conveniently and, as far as the scientific community knows now, indefinitely. They can then be thawed and transferred to recipients at a time convenient to the breeder and his calving schedule.

The embryo can be even more intensely utilized by dividing it (splitting or cloning are terms frequently used). By doubling the number of transferable embryos, the number of resulting calves almost doubles. By freezing one half of the embryo (a demi), and transferring the other, the breeder is assured of an exact duplicate being available for future use.

But the above progress will pale beside the scientific achievements of the foreseeable future. With the work that is being done with the storage of embryos in straws, for subsequent thawing and transfer at chute side, we should see this technique become successful enough to warrant its widespread use. Once the thawing procedure is perfected, the procedure will closely duplicate that used in artificial insemination, both in technique and pregnancy rate.

On the horizon, we will see a practical and reproducible technique of embryo sexing become available. The sexing and subsequent splitting of the embryo will give the breeder even greater control over the selection of replacements for his herd.

A procedure already being incorporated into both the production of vaccines, and to a lesser extent in the correction of congenital genetic disorders, is a procedure called genetic manipulation and recombination. Perfection of the technique will allow us to pick and choose from the genetic material unique to each individual. We will have the ability to correct specific defects inherent to a family line. By the same respect, we can also improve specific characteristics. All of

this could be done because we know the exact location of that genetic information on the animals genetic chain. That specific link could be lifted out, and replaced with a new improved link.

With all of the above futuristic forecasting, I think we have only scratched the surface. As each technique is perfected, it opens the door for many other possible procedures. In a very few years, we will again be talking about new techniques, most of which were not even hinted of here. Of course, the purpose is to make our cattle more productive and more efficient.

Dick Beck
Wye Angus
Queenstown, Md.



"Let's face the fact that quality grading of beef will most likely be obsolete in the near future, and instead concentrate on breeding Angus cattle that will contribute to the production of the most pounds of red meat in the least amount of time."

The future of the Angus breed has never been brighter—provided Angus breeders unite and accept and utilize the technology available to us to continue improving our breed! Let's face the fact that quality grading of beef will most likely be obsolete in the near future, and instead concentrate on breeding Angus cattle that will contribute to the production of the most pounds of red meat in the least amount of time. Even with the advances of embryo transfer and the potential for genetic manipulation and recombination, the beef industry as we know it is faced with a long generation interval and a low reproductive rate at the commercial level. Progress is slow even when we're working hard at it!

Let's concentrate on improving the fertility, mothering ability, and milk production that have made our breed famous. Some breeders may choose to try and compete for the small share of the bull market now occupied by Longhorn and Jersey bulls, but calving ease alone cannot be a major emphasis for the future, unless the Angus breed is willing to settle for that small share of the bull market. Let's do a better job of collecting birth weight and calving ease data and then let's do a better job of educating our bull buyers to use that data instead of forecasting the demise of the breed if we don't do something about calving ease.

Let's look for the good in our breed. Instead of worrying about any negative effects that shows, sales, and new techniques and technology have upon the commercial industry, let's enjoy shows for the great social

events that they are, let's appreciate the breed promotion derived from outstanding sales, let's utilize the rapid advancement made possible by new technology and let's concentrate on the basics of fertility, milk production, and mothering ability that have made Angus cattle the No. 1 beef breed! Very simply, let's not forget the girl who brought us to the dance—the Angus cow.

Dr. Bob Kropp
Oklahoma State
University
Stillwater, Okla.



" . . . we need to expand the sire summary to include estimated breeding values for birth weight, the calving ease of the sire, as well as his first calving daughters and cutability of a sire's offspring."

The future of the Angus industry looks bright. With nearly 60 beef cattle breeds existing in the United States today, the breeds that progress in productivity and efficiency, while remaining functional, will remain for the next generations to utilize for the production of red meat. The Angus breed appears to be in the driver's seat as one of the breeds that combines productivity, efficiency and functionality to the highest degree.

I would simply wave a little red flag to the other Angus breeders. Certainly we need to increase the frame size and efficiency of production of many Angus cattle in the United States today. But as we move toward the year 2000, frame must be combined with functionality for the Angus breed to remain strong. Do not sacrifice fertility, milk production and productivity in the sole name of increasing frame size.

If we continue on our mad rush for increased frame size at the same rate as we have been during the past decade, the fertility and grading ability of Angus cattle—traits that have made Angus cattle great—may be decreased. The big end of our Angus cattle are big enough. Now we need to start a mad rush to estimated breeding values, so cattle that bring the high dollars have a productive genetic base and are not simply the tallest animal available.

The national sire summary is one of the greatest breeding tools currently available. The progeny testing of the breed's elite sires is a necessity for breed improvement. But we need to expand the sire summary to include estimated breeding values for birth weight, the calving ease of the sire as well as his first calving daughters, and cutability of a sire's offspring. The whole industry from conception to the retail market must be refined and made as efficient as possible.

Through the use of improved technology, genetics and nutrition and certainly improved marketing strategies, the Angus breeders should remain a dominant factor in beef production.

I'm definitely looking forward to what develops. It is going to be exciting.

David Imm

Imm Angus Farm
Long Island, Kan.

"... completely sealed, climate-controlled pastures. TV monitors for keeping a close eye on the cattle and mechanical robots to do the dirty work (what little there is)."

A day in the life of farmer Brown, 2083. Hey Joe, you'd better get your antigravity

suit on, we've got a broken panel in the dome of the south forty. These domes sure are nice, but I don't think I'll ever get used to floating around in the air to fix things. Yes, completely sealed, climate-controlled pastures. TV monitors for keeping a close eye on the cattle and mechanical robots to do the dirty work (what little there is).

Well it's time to check the eggs that are ready. Since we've done away with calving cows it sure is a lot easier. All you have to do is take your embryo, put it in the development center and nine months later you take your calf out. You can have your pick of bull calves, heifer calves or genetically neutered calves that were developed for producing beef, not for breeding purposes. The computer cows that provide nutrients for the growing calf can handle 20 head and provide the exact amount of feed for maximum growth.

Feeding time for the donor cows and bulls. Nothing to do, the computer already has the conveyors running, filling the bunks

with specially formulated by-products. Since the majority of all the land is taken up by housing projects, grass and other feeds are almost nonexistent. Most of the feed comes from recycling waste products.

The next 100 years in the Angus business probably won't be anything like farmer Brown in 2083. The possibility is always there, but I hope we don't get that far removed from the actual breeding and raising of cattle. I'm sure we will see the business of raising cattle make a lot of progress, hopefully most of it for the better. The efficiency of the Angus cow has kept a lot of people in business for many years and will undoubtedly continue to do so.

In closing out my feelings about the next 100 years, I hope all of you can see the lighter side of what I've said. Raising good Angus cattle can and should be an enjoyable experience. When you really like doing something, you want to do the best you can. With cattle this means using all the available information to the best of your advantage.

Plus, you may have your own new and innovative ideas to put to work. Here's hoping our next century is even more prosperous than the last.



Bob Connell
Skarship Farms
Hillsdale, N.Y.

"I also think E.T. may help the lower end of the Angus sales when breeders finally figure out how much it costs to feed a Holstein."

I recently revisited a Texas herd; the visits were approximately one year apart. A year ago they had six mature donor cows and two or three yearling show heifers. This herd is expecting 125 calves this year which they plan to market in a fall production sale. What a genetic explosion! Litters like hogs.

Embryo transfer has certainly taken the one calf per year "bit" out of the cow business. We have finally come close to equaling hogs in a yearly progeny expectancy. With the split of embryos we will surpass the hog's production while at the same time be able to sell part interest in the good calves or syndicate them.

What this does for the future I am not sure, but embryo transfer certainly can add excitement to the breeding and selling of cows. I also think E.T. may help the lower end of the Angus sales when breeders finally figure out how much it costs to feed a Holstein. They will discover you can come closer to bailing out financially with a purebred Angus recipient cow when things go wrong because of a poor calf, a dead calf or a white problem.

Think of buying a pregnant Angus cow used as a recipient with her natural heifer calf alongside and rebreeding privileges for mother and calves—it would be a whole herd!



John E. Hutchcroft
Hutchcroft Stock Farm
Indianola, Iowa

"In coming years, economic and ecological factors will govern further expansion of the breed."

How much farther can the Angus breed go? We already have the greatest breed following, the strongest competition within itself, and more beef is marketed sooner and sold higher—all because of that black hide!! In just 100 years time we've seen everything from syndicating to semen-sexing, and now in recent times that whole new field of embryo transfer. What would W.A. McHenry's reaction be if someone offered to sell him a "flush?"

In coming years, economic and ecological factors will govern further expansion of the breed. Life on the farm and ranch is much more technical and precise than in years past. We as cattle breeders who make a living off of what we produce, must keep an open eye to new innovative ideas. Marketing strategies such as hedging will have to become a vital part in the cattle industry as a whole, or life on the family farm will not prevail in these volatile times.

I can see a possible problem of good grassland availability in the future. Cattle populations may center in certain regions. Industrial growth has already threatened some of our precious grazing lands.

Those of us who are actively involved with an Angus enterprise realize the true strength of the breed. Cattle that consistently produce lean beef economically, and breed back quickly, will always be in the picture, even a hundred years from now. These good black cattle do not serve as a tax deduction, but as a sound investment!

Let's not forget the cowmen of our Angus history. From Kinochtry to Tillyfour, from Tolan to McHenry. These were the master stockmen that articulated the bloodlines and built the base of today's Angus empire.



Steve Alexander
Alexander Land & Cattle Co.
Linneus, Mo.

"The market competition for our breeding cattle is tough, but the dominance of the Angus breed is as real as our efforts to maintain it. Surely, the Angus cow is a model for the industry."

It is a pleasure to address the ANGUS JOURNAL readers in this centennial year. Angus breeders have witnessed a tremendous number of technological advances and practices for beef cattle production throughout the past 100 years. I believe that the techniques and methods of breeding our good Angus females will receive the greatest amounts of attention and concentrated efforts of new and improved products in the upcoming years.

The basis of our livelihood has stayed

constant since the importation of the first Angus bull in 1873. Black cattle. Feed. Water. Reproduction. Offspring. Marketing. Cowboys. These factors have been and will continue to be the basis of our industry. The applied concepts of modern agriculture, along with A.I. and embryo transfers are examples of the changes that have transpired over the years.

A conscientious effort on the part of every Angus breeder is necessary to maintain the genetic base of our breed from which we can continue our selection processes for improved matings. I feel that a large percentage of breeders will be using computers in their cow herd planning and management in the not too distant future.

The market competition for our breeding cattle is tough, but the dominance of the Angus breed is as real as our efforts to maintain it. Surely, the Angus cow is a model for the industry. Our black Angus cattle are for all times being the descendants of 1883 and the ancestors of 2083.



Bill Hall
Texas Angus Assn.
Fort Worth, Texas

"The new era cattleman will have to develop a marketing strategy based on his area and the demand for his breeding program."

I believe the future of the Angus breed is unlimited. In the past 100 years we have seen tremendous changes in the Angus industry as a whole; not only has there been an increase in frame size and a change in body types of our cattle, but cattlemen are using a number of different techniques and methods in their management programs.

Artificial insemination, palpation, surgical embryo transplants, nonsurgical embryo transplants and freezing of embryos . . . these and many more new technological breakthroughs have helped the Angus breeder vastly improve his breeding program by increasing his genetic pool.

What is to come in the future? Sexing of semen and embryos is just a start. In the future, I believe an Angus breeder will have new techniques and methods to help him genetically improve his cattle. He will utilize refined management practices to help him realize his maximum goal in the most efficient and economical way. The new era cattleman will have to develop a marketing strategy based on his area and the demand for his breeding program.

I feel the breed as a whole needs to promote our cattle in every means available to us. Other breeds, to an extent, have out-promoted us in the past and we have a prove-

product to promote. For an example, every time you see a black crossbred win a steer show you hear and read: "Chianina or Maine Anjou steer, etc. . . wins grand champion." The only way that steer obtained his black color is through our breed: ANGUS!! Let's, as a breed, get on the bandwagon and promote and push our great breed of cattle.

The bull market in the future should be better than it has been in the past if we as breeders raise bulls the commercial man is demanding. In Texas, and possibly throughout the nation, he is selecting and paying more bull dollars for frame than any other factor.

Frame is, to me, one of the most important functions of performance that we Angus breeders need to be concerned with in this

day and time. If you take the word performance and remove the word "form," this relates to what the individual buyer is looking for in a particular animal, and to what particular function for which he will pay extra dollars. I believe in this era the commercial man is looking at size, frame and structural correctness in an individual animal along with adequate amounts of muscling.

We need to continue in our endless challenge to improve our cattle genetically, selecting ones large in their frame size and skeletal make-up as well as having adequate muscling, volume, fertility, maternal traits and being structurally correct.

In all the changes the breed has gone through in the past 100 years we have proven one thing to ourselves and the industry,

the Angus cow will do anything we as breeders are smart enough to ask her to do. She will produce calves that have great performance on gain tests, are large frame, will go into the feed yard and reach the choice grade with less time and feed, produce replacement females that will go into registered and commercial herds and upgrade a breeding program. She is fertile, a great mother and is truly the universal mother cow of the industry.

W.A. Seidel
Golden Spurs Ranch
Knippa, Texas



"To accomplish constructive results in breeding . . . work with families or strains within the herd, rather than individual animals."

To accomplish constructive results in breeding, not only now but for the future, it would be best, in a herd that is established, to work with families or strains within the herd, rather than individual animals. I was discussing this subject with a breeder recently and his comment was that a grand champion bull at a major show is a freak. I agree, but that word is rather harsh so I would prefer to call such a bull a happenstance. The point is that he is the result of the joining of the genes of his sire and dam in such a way as to produce him. If the sire and dam are unrelated and they are mated again, the calf will almost certainly not be a grand champion. Linebreeding would help to provide more reliable results but there does not seem to be much interest in that.

With regard to modern livestock shows, there are now a good many herds that contain several hundred cows. It should be no great accomplishment to go into several hundred calves and find a dozen or so that are show prospects. If you were issued a hundred hands in a poker game, you would not need to be a crack poker player to find a full house or straight flush. Of course, my ideas are admittedly old-fashioned, but I remember when John Brown, from a herd of 25 cows (yes, 25) consistently produced

grand champions. That is what I call breeding.

Many people who are working with livestock, do not know that when we attempt to produce two traits or characteristics in our animals instead of one, we do not merely double our problem but multiply it many times. When we go for three qualities, we increase our problems still more.

In reading ads in breed magazines now I find mention of a lot of details. We are told how much a bull weighed at birth, how much later on, how much at weaning. Also, his height at his withers. All that is nice information, but too much of it risks giving much interest to figures rather than pedigrees and breeding performance of ancestors. Some 60 years ago when I was breeding chickens for egg production, we had what we called "figure breeders" and they were not rated as high as chicken breeders.

Newbill Miller
Ginger Hill Angus
Washington, Va.



"Angus bulls used on ear cattle will be different than those used in British and exotic herds."

The Angus cattle of the future? Certainly I don't know, but I will share a few of the ideas and thoughts of the crew at Ginger Hill.

Cattle breeding is an art and it always has been. The breeder that best combines three traits: (1) sound common sense (2) performance records and (3) an evaluating eye will

excel in breeding cattle. The degree of importance placed on each of these three traits will vary from person to person. This is as sound as the talents of individuals are different. A breeder that ignores any one of these three traits, I feel, is doomed to failure.

There is no one ideal beef animal. Varying cattle markets and environmental conditions dictate the ideal beef animal for a specific area. Angus bulls used on ear cattle will be different than those used in British and exotic herds. Cattle in the "hard grass" country do not need the capacity required in the cattle of the wet grass sections, etc. The packer influences the type of cattle produced in an area. Several packing plants in our area pay a premium for the heavier weight slaughter cattle. This required us to increase the importance of frame in our program to compete with the exotic breeds for the commercial bull market.

As the industry has increased the frame size, there has been a tendency to straighten the angles of the bone structure of the shoulder and rear quarter to attain extra height. We feel this will increase calving difficulty as the entire shoulder reaches the pelvic area at the same time. The ability to move will be reduced and longevity is decreased. Frame is very important to us at Ginger Hill, but we will not sacrifice soundness and the ability to move to attain the extra bit.

The cattle industry, fortunately or unfortunately, is not entirely governed by economic factors of the cattle business. Tax

laws (tax shelters) certainly influence the Angus industry. New capital and money earned by other means is being pumped into the Angus industry. We think we see breeding programs that are being developed based on tax policy rather than sound cattle management. The "new" money is beneficial if the industry understands the economic factors involved.

A bleak future for Angus cattle? Absolutely not! The genetic power of Angus cattle and the strength of the people that breed them will insure that the breed will prosper and survive the trends, diet fads, tax policies, and any other problems not discussed. Amen.



Walter Zimmerer Jr.

**Big Brook Farms
Colts Neck, N.J.**

"... fundamental traits must not be pushed aside in our quest for bigger and more extreme cattle."

One of the few advantages of getting on in years is having a great span of hindsight.

This vision shows the traits that have made the Angus cow the greatest are the fundamental traits which the breed must perpetuate to maintain its top position.

This great breed must not lose sight of the basic traits Angus cattle are known to possess; capacious beef cows with sound udders, good milking ability, sound feet and legs, reproductive efficiency and ease of calving and bulls prepotent for these important economic qualities. These fundamental traits must not be pushed aside in our quest for bigger and more extreme cattle.

Although I do not feel Angus cattle are getting too big, I think we should look at them as "how are they big—not how big are they." We must not forget that we are a beef breed, and if we are to continue to add more frame size we **must** also select for the superior carcass, the percentage of red meat and quality cuts from animals that have **high food conversion ratios**.

I feel one of the most valid management tools of the future will continue to be the AHIR program. We have been on this program for 12 years and find the data an excellent indicator of true performance. Animals with poor performance should be eliminated together with those which lack enough size and scale to calve as a 2-year-old. Fertility in both bulls and females is in jeopardy in our quest for size. This fertility must be guarded to keep our breed out front.

It is by close adherence to such rigid fundamentals that has enabled me to stay in

the Angus cattle business for the past 33 years. I hope to continue into the future using the sound economic basics of cattle production.

Pat Sullivan
Sullivan Angus
Farms
Adel, Iowa



" . . . an ADG and WDA combined with scrotal circumference and frame score will be more in demand."

Cattlemen and the cattle industry have changed very little the past 100 years except in its trappings. The cattlemen's personality and activities are basically unchanged and the industry offers the same product. We have, however, traded horses for pickups, and management services (such as health and feed services) are significantly improved.

I suspect over the next 100 years the same types of changes to occur. The peo-

ple and the cattle will stay the same; only the methodologies will change.

I look forward to changes in two main areas: breed improvement and economics. Under breed improvement I suggest three items:

1) There will be continued interest in the great sire summary service with a "female factor" added. This would utilize heifer calves weaned from the test herds only. They would be grown under the same management as the heifers from the reference sires. They could then be compared for any number of female factors such as on-set of cycling, conception rate, pelvic width, calving ease and milking ability. We will then have a much more significant maternal breeding value.

2) I suspect buyers to continue production testing with interest in birth weights, weaning weights and yearling weights. However, an ADG and WDA combined with scrotal circumference and frame score will be more in demand.

3) Home computers will become essential for record keeping, feed rations and bookkeeping. Embryo transfer and heat synchronization will affect the next 20 years the way A.I. has affected the past 20 years. Who knows after that.

The second main area of change is economics.

1) Continued emphasis on cost-effective management will dictate to each breeder the extent he can participate in new, expensive advancements.

2) I can see a surge in demand for Angus breeding stock on exotics to counter drawbacks in fertility, calving ease, disposition and feed efficiency.

3) Pendulum effect of "hot items" or fads will continue. As in the past, fads in various breeding directions and management practices will be promulgated from every corner—college professors to steer judges will continue to find disciples. I put this item under economics instead of breed improvement because these fads have cost breeders much more money than they have achieved breed improvement.

And I am sure that 100 years from now there will still be the same friendly, hard-working and thoughtful people in the Angus business as there are today.

Tom Benton
Hillhouse Angus
Ranch
Garnett, Kan.



"Marketing of our Angus cattle must always be uppermost in our minds . . ."

My interest in Angus cattle dates back to

my own 4-H days in the "dirty thirties" when I chose an Angus steer for a project and was fortunate enough to show him to the county grand championship. However, our present herd was not started until the early 1960s when my son, Tim, wanted Angus for his 4-H project. We found a small herd close to our home which had been put together with some care, but due to failing health of the owner he was forced to sell.

With this start we were ready for the great genetic explosion toward larger and more upstanding cattle. One of our bits of luck was that Tim had seen Marshall Pride 4 ("Big John") and Marshall Pride 476 ("Little John") and thought we should investigate the Erdmann herd as a choice of an out-cross herd sire. (This was before the Erdmanns became the most popular brood stock source in the Angus breed.) We were able to purchase two of the Marshall bulls and, later, to artificially use many of the Erdmann sires. We appreciated their help very much, as many of our top cows today are a result of this breeding.

I believe the Angus breed is staying up with the competition from other breeds in increased size and has certainly led the way in promoting production testing.

The cattle elevated to the top via the show ring and promotional routes are not always the best when it comes down to being economical producers. The cost of producing desirable beef for the table has to be figured into the picture before the commercial cattleman is interested.

Marketing of our Angus cattle must always be uppermost in our minds, and one of the reasons why we should continue to maintain the fine quality of beef we have always had on Angus carcasses and the efficient manner in which it is produced. Also, I think it is extremely necessary that the American Angus Assn. needs to ride herd on all members so we can always say we are proud to be breeding Angus cattle.



Jim Wolf
Wagonhammer
Ranches
Albion, Neb.

"More and more breeders will be using the practice of stacking pedigrees with genetically proven, trait-leading sires."

The great wisdom of the American Angus Assn. in developing very comprehensive programs for national sire and dam evaluation is becoming more apparent every day. These programs are closing the gap between seed stock selection based on visual appraisal and selection based on performance data. More and more breeders are

recognizing that the best results are obtained with a combination of both methods.

This trend will intensify until all our very top bulls will be superior by both standards. Some of these top bulls will be balanced both in appearance and in measurements for fertility, calving ease, maternal traits, growth and carcass traits. Some will be purposely designed for extreme superiority in one or more traits, while maintaining at least average performance in the remaining traits. More and more breeders will be using the practice of stacking pedigrees with genetically proven, trait-leading sires. This will result in progeny with increasingly higher breeding values and accuracies. All of this will greatly add to the flexibility and continued positive development of the Angus breed.

Looking ahead in market strategies, more

commercial cow-calf operators will maintain ownership of their cattle from birth to slaughter. There will also be an increasing number who will market their beef directly to the consumer. This will increase understanding of and the demand for total performance from birth through the consumer. Seed stock producers will have to answer this demand. In doing so, they will enhance the competitive position and profits of the cattle industry.

The tremendous gains made by the Angus breed in recent years has resulted in a very positive future for the breed. Angus bulls are competing with and beating exotic breeds in bull tests across the country. The demand for black females has never been stronger as commercial cattlemen are increasingly realizing the maternal excellence of the Angus females. More than ever, to-

day the Angus breed has something to offer everyone.



Don Hutzel
Noba Inc.
Tiffin, Ohio

"The day of 'one trait' selection is already over. Some breeders don't know that yet, but they'll be finding out."

On the basis of "fools tread where angels fear to walk," I'll take a stab at some predictions for Angus cattle breeding in the next century, at least for the next 20 years into year 2000. Beyond that, God only knows.

Genetics: We will see more and more improvement and development of our sire summaries, E.T.A.s, cow indexes and all the genetic information we use today. More of the economically important traits will be measured. For example, the dairy sire summaries will likely, in the near future, have a predicted difference for bulls daughters' susceptibility to mastitis. The day of "one trait" selection is already over. Some

breeders don't know that yet, but they'll be finding out.

Technology: Incredible things will be occurring, especially in the field of reproduction. We'll see dramatic acceleration of reproduction through embryo transfer, cloning and splitting techniques. I expect it will greatly change the merchandising opportunities in purebred beef cattle. Some unfortunate situations could result, such as, lessening the opportunities of the "small breeder" and creating monopolies for the "top end" of the market for the larger firms, especially, if they are in the position to utilize large amounts of investment capital. We're already seeing it.

Management practices: We're going to have to be efficient, no more guesswork. Nutrition will be monitored much more closely than we have known it. We will see some successful confinement programs emerging. Computers will play a big part in all phases of management.

Marketing: In 50 years we won't even recognize marketing compared to how we know it today. This will be especially true in merchandising "fed" cattle. An overhaul here has been long overdue anyhow. Grading, as we know it, and guessing cattle on the hoof will be the first to go. Marketing beef cattle will be exacting and categorized.

The Angus breed: If Angus breeders get off the single-trait-selection syndrome that so many are in today and once again begin to breed and improve the complete animal, the future could be theirs.



Ben Lawson
Bovagene
Orem, Utah

"New technology will come by leaps and bounds, maybe faster than we can comprehend it's usefulness."

Five years ago, I made this statement to some of my friends, "Individual cows will be selling for more money than bulls in the not too distant future." The thought never occurred to me when I dispersed my herd that one of the heifer calves beside her mother would bring \$62,000 five years later in a California production sale.

Since I'm now in a somewhat better position to forecast what lies ahead for us in the next five years . . . I predict:

New technology will come by leaps and bounds, maybe faster than we can comprehend it's usefulness. Individual private enterprises are now splitting and sexing embryos with a high degree of success. Hopefully, sexing of semen will be right around the corner.

New and more accurate AHIR information will be available to those of us who use it for the selection of economically important traits. Also, finding the source of the information and how it was gathered becomes even more critical.

Research into genetic capabilities by individual breeders will be "the way to go" in the next five years. A few breeders have already successfully fixed genes in some bulls for specific traits. Can you foresee breeders producing bulls like the Denver champions in numbers every year? Believe me, it's coming.

There will be less conflict about the size of the ideal cow. Commercial breeders are finding out the expense involved in maintaining those 1,500-lb. cows and the money going down the drain feeding her over the winter, when that same cow's calf can be produced by the ideal 1,100-lb. cow.

According to Bill Farr, a well recognized authority in the cattle feeding business from Greeley, Colo., "... the future is bright for the seed stock producer who can consistently produce highly efficient cattle." And guess what? He also says that "... the feedlot cattle of the future will weigh 1,000 lb (heifers) and 1,150 lb. (steers)."

Stock shows will maintain or increase in popularity over the next few years. The reason? Breeders will come to learn the "REAL" genetic value in those champion bulls, heifers and steers. Virtually all geneticists agree that most show champion purebreds are the terminal cross product and

might add "the most beautiful animals in the world." They will also come to realize that to reproduce those animals with regularity is impossible with the breeding systems most are familiar with today.

It's a privilege to live in these exciting times of great progress. With all these opportunities before us, it's great to be able to participate in one of the most challenging years in the history of the Angus business. For me personally, there's not a business I'd rather be in right now. We here at Bovagene and Associates will promote the more positive approach, one of proven genetic improvement through fixing of certain economically important traits, and we won't sit home and wait for it to happen. We will be conducting seminars throughout the industry in the months to come. We invite you to attend when we're in your area.

Rick Hales
Hales Angus Farms
Canyon, Texas

"We must put profitability into commercial beef production, or seed stock producers and cow-calf producers alike will boycott our products."

The Angus breed has come a long way since it's inception in 1883. We have bred cattle extremely small, thick and deep. To-

day we want optimum size, height and capacity combined with performance and show ring ability.

We as beef producers need to look at our industry and our operations with regard to the market demands of our area. We also need to consider genetic flexibility and feed supplies available to our herds. We must put profitability into commercial beef production, or seed stock producers and cow-calf producers alike will boycott our products. We should be producing cattle and minimizing our cost of inputs, while producing optimum outputs.

The commercial feedlots are demanding more yearling performance so they can cover all their feed, interest, labor, maintenance and equipment costs. The commercial producer is more concerned with reproduction and growth. The cattle must have the volume, yet produce calves with growth potential. It has been proven many times in the past that Angus steers' cost of gain is less than other steers, thus the use of progeny of performance proven bulls pays everyone. Through the use of our AHIR we can monitor 205-day weaning weights to see if our cow is doing her job. We can monitor 365-day yearling weights on all calves so we can tell which calves will perform to meet the needs of our buyers. The combination of use of our individual performance records, estimated breeding and maternal values, and size evaluation information allows us as breeders the most adequate balance of traits required to increase the efficiency of our herd.

Animal breeding and reproductive physiology is in a new and exciting era. I feel sure the future of the breed will be much more exciting than the past. The Angus breed of tomorrow will bring us a stronger, more efficient and productive offspring than even Charles Gudgell could dream.



Al Stroobants
Northcote Angus
Forest, Va.

"... we will see the purebred herd getting smaller, with these fewer animals on a much larger productive basis."

It is amazing what technology did to our world in the past 20 years. Looking at what it does to the purebred business is another thing. For any breeder to use the spearhead of technology is going to mean radical changes in management practices. It will require a well-educated working force trained to take on more of the responsibilities performed today by hired professionals.

I would think that because of economics

involved around newer technology, we will see the purebred herd getting smaller, with these fewer animals on a much larger productive basis.

I feel privileged to live and gain the knowledge of this rapidly changing world.



Martin Jorgensen
Jorgensen Angus
Ideal, S.D.

"Our strength for survival lies in two basic traits: early rapid growth and maternal characteristics for the Angus breed."

I consider it a privilege to be involved with a breed with the justified popularity of the Angus in the country where approximately 35 percent of the entire world beef supply is consumed. It certainly is an occasion of celebration on this 100th year for the Angus to achieve the growth in numbers, both purebred and percentage, and be acclaimed the maternal breed.

In trekking through the 100-year period, the Angus breed has met the challenge of

human whims from big to little and from little to big. What are the challenges as we enter the next century?

We can be assured the computer readout will not accommodate the near 50 years of emphasis on body type with little regard to overall efficiency contribution to the beef industry. The formation of new breeds can readily replace the established or any breed that fails to serve the needs of the industry for cost efficiency.

The Angus breed is fortified with numbers tabulated in the Angus Herd Improvement Records sufficient enough to allow for a broad base of selection, which is a real plus. This will enable breeders to make objective selections for the traits best suited for the breed to serve the beef industry. Our strength for survival lies in two basic traits: early rapid growth and maternal characteristics for the Angus breed.

We must be on guard against small scrotum measurements, delayed puberty or any body confirmation selection that would hinder the maternal traits as we create the future Angus cow to best serve the many breeds in the industry.

The 1,150-lb. cow will not go out of style as more and more producers realize many of our cattle management practices can accomplish the most for the least with an optimum size, which requires less body maintenance and more emphasis on production. Furthermore, the packer would appreciate a ready supply of more standardized carcasses of quality beef reaching slaughter

weight at a young age for assured tenderness.

I conclude the Angus breed will become ever more popular as we tool up to modern technology and watch economic pressure sort them out.



Bob Neumeier
Jaynbee Ranch
Bonners Ferry, Idaho

"With gene splicing on the horizon we can only guess what the next breakthrough will be."

What does the next century hold for the Angus breed? If we only look at the progress made the past 20 years genetically, it should give us some insight in what to expect in the next century.

I believe the Angus Sire Evaluation Report, the performance pedigree and all the information available will do more to keep breeders in the business and profitable, than any other thing the Association has done the past 100 years. There is no doubt, for any breeder to survive, he has to be efficient

and produce seed stock that can perform for his customers.

I don't really believe any of us can, even in our wildest dreams, predict what to expect in the next 100 years. Embryo transfer, frozen embryos, cloning and sex determination are really in their infancy and all will have tremendous impact on the Angus breed's future. With gene splicing on the horizon we can only guess what the next breakthrough will be.



Lynn Frey
Frey Angus Ranch
Granville, N.D.

"I believe that what happens the next 10 years will have a deciding effect on the breed's future."

1983 marks the centennial year for the American Angus Assn. What does the next century hold?

If you are an Angus breeder, you should sit back and ask this of yourself. I believe that what happens the next 10 years will have a deciding effect on the breed's future.

What has happened the last 10 years has given us an opportunity to make the future even greater than the breed can imagine.

With the introduction of exotic cattle, a change in cattle type, experiencing of volatile economics, introduction of improved technology and management, and a realization of new marketing frontiers, the breed of Angus cattle has become more popular and predominate than one could imagine. Why is this so? If you can answer this question, I believe you as an individual can help keep the breed going in the right direction. If we as breeders can answer this question, together we can continue to insure that Angus cattle continue to be the predominate breed.

I for one would like to take this opportunity to answer my own question. I believe the Angus female is at the root of the breed's success. The Angus female was the mother of the purebred Angus steer from Scotland, Black Prince, that was first introduced into this country 100 years ago. She produced at that time a product the industry accepted and a product that became predominate throughout the industry. The breeders who sacrificed this purebred bull to become a steer while other breeders hesitated to do the same have been followed by breeders of similar convictions and insight. I'm sure the breeders of this steer were assured the Angus female in question would repeat her production or another Angus cow would do equally well. This female has repeated herself to be unequalled by no other