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BEEF IMPROVEMENT FEDERATION
ROUNDUP OF MEMBER ACTIVITIES, 1970
EDITED BY FRANK H. BAKER, BIF SECRETARY

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SECTION I

SPECIAL REPORTS

1. USDA - EXTENSION SERVICE
2. BRITISH BEEF IMPROVEMENT SERVICES

PARTICIPATION IN BEEF IMPROVEMENT PROGRAMS
AS REPORTED BY NATIONAL ASSOCIATIONS

ASSOCIATION	WEANING RECORDS	YEARLING RECORDS	HERDS	BULLS TESTED	BREEDERS	TEST STATIONS	FARMS & RANCHES	BREEDERS	SIRES
AMERICAN ANGUS ASSN.	42,722	15,388	---	7,490	930	750	6,740	60	90
AMERICAN BRAHMAN BREEDERS ASSN.	--	---	---	---	---	---	---	---	---
AMERICAN HEREFORD ASSN.	80,000	20,000	720	15,000	720	2,000	13,000	245	745
AMERICAN INTERNATIONAL CHAROLAIS ASSN.	--	---	---	---	---	---	---	---	---
AMERICAN POLLED HEREFORD ASSN.	9,895	3,023	655	2,500	655	--	--	--	--
AMERICAN SHORTHORN ASSN.	268	31	9	23	9	0	23	9	23
INTERNATIONAL BRANGUS BREEDERS ASSN.	--	---	---	---	---	---	---	---	---
PERFORMANCE REGISTRY INTERNATL.	20,818	5,506	632	4,000	400	400	3,600	53	70
RED ANGUS ASSN. OF AMERICA	5,209	453	749	205	11	165	40	5	9
RED POLL CATTLE CLUB OF AMERICA	517	517	50	156	50	0	50	3	7
SANTA GERTRUDIS BREEDERS INTERNATL.	137	111	2	1,459	53	23	---	---	---
TOTAL	159,566	45,029	2,817	30,833	2,828	3,338	23,453	375	944

PARTICIPATION IN TESTING REPORTED PROGRAMS AS BY EXTENSION SPECIALISTS

	Wng. Recs.	Yrlg. Recs.	Beef Herds	Bulls Tested	In Test Stations		On Farms		No. Brdrs. In Both	Carcass Data		No. BCIA Members
					No. Brdrs.	Test Sta's.	Bulls Tested	No. Brdrs.		Brdrs.	Sires	
Alabama	5000	385	109	139	30	1	230	18	40	1	8	120
Alaska	--	--	--	--	--	--	--	--	--	--	--	--
Arizona	3900	1150	182	80	17	1	170	5	20	2	6	?
Arkansas	4298	250	72	160	45	3	300	25	8	2	5	0
California	6162	2334	120	129	27	2	1500	100	115	4	20	127
Colorado	2620	1408	32	104	18	1	756	30	45	119	210	96
Connecticut	203	144	10	?	?	?	?	?	?	1	2	0
Delaware	306	53	7	0	0	0	0	0	0	0	0	0
Florida	32175	720	78	?	?	?	415	10	10	9	?	85
Georgia	11198	776	140	185	59	2	576	26	65	?	?	?
Hawaii	1201	560	12	?	?	?	150	?	4	?	?	?
Idaho	8000	3000	135	300	50	3	600	85	75	7	7	10
Illinois	10239	1901	425	25	15	2	708	133	145	25	30	?
Indiana	6225	500	132	50	17	1	145	35	45	100	70	500
Iowa	9000	3000	260	400	115	1	1200	100		25	25	267
Kansas	39700	5540	450	358	76	3	4100	120	160	25	57	?
Kentucky	5115	884	165	0	0	0	686	88	88	10	14	?
Louisiana	5400	200	73	120	20	1	113	3	23	0	0	72
Maine	266	144	12	0	0	0	20	8	8	0	0	0
Maryland	2400	750	73	53	16	1	150	25	30	18	14	?
Massachusetts	350	66	15	0	0	0	0	0	0	0	0	20
Michigan	2980	1055	121	55	42	5	?	?	?	?	?	?
Minnesota	6000	700	135	182	52	1	?	?	52	3	8	350
Mississippi	6579	745	84	0	0	0	452	26	26	0	0	84
Missouri	6005	798	244	125	18	2	?	?	?	30	35	200
Montana	25000	12000	300	900	200	6	4000	150	300	?	?	789
Nebraska	2000	500	50	322	64	3	900	70	150	10	25	120
Nevada	2800	1127	27	90	8	1	?	?	?	?	?	9
New Hampshire	173	49	10	0	0	0	0	0	0	0	0	10
New Jersey	300	100	4	0	0	0	25	?	25	0	0	--
New Mexico	0	0	0	112	20	1	1000	20	35	10	15	40
New York	1529	103	53	0	0	0	40	5	40	10	12	600
North Carolina	12595	423	275	91	41	1	423	40	61	0	0	275
North Dakota	48563	4988	545	128	24	5	2530	62	70	40	50	95

	Wng. Recs.	Yrlg. Recs.	Beef Herds	Bulls Tested	In Test Stations		On Farms		No. Brdrs. In Both	Carcass Data		No. BCIA Members
					No. Brdrs.	Test Sta's.	Bulls Tested	No. Brdrs.		Brdrs.	Sires	
Ohio	4538	1856	238	60	32	1	50	2	34	4	14	263
Oklahoma	6000	400	150	848	190	6	800	225	250	50	100	?
Oregon	53000	20000	345	625	64	2	5000	260	275	90	200	?
Pennsylvania	1050	75	45	0	?	?	?	?	?	10	10	?
Puerto Rico	600	300	1	0	0	0	1	1	1	1	1	0
Rhode Island	--	--	--	--	--	--	--	--	--	--	--	--
South Carolina	3698	0	30	95	20	1	0	0	0	1	2	100
South Dakota	33500	7100	321	744	123	8	2200	78	164	15	30	780
Tennessee	3669	0	181	58	28	1	225	45	58	0	0	0
Texas	204047	0	1852	198	17	2	6856	645	649	323	406	NA
Utah	4937	4592	48	34	9	1	2495	31	15	0	0	25
Vermont	--	--	--	--	--	--	--	--	--	--	--	--
Virginia	12351	1285	275	177	58	2	496	40	87	0	0	275
Washington	9600	1800	98	200	45	1	1200	16	56	10	15	55
West Virginia	9445	70	271	70	26	1	48	2	28	0	0	175
Wisconsin	2240	218	70	36	29	2	56	5	29	?	?	155
Wyoming	11000	5000	110	350	30	1	325	25	45	9	20	60
	632957	89049	8435	7603	1645	76	40941	2559	3331	964	1411	

SPECIAL REPORT FROM BEEF IMPROVEMENT SERVICES

MEAT AND LIVESTOCK COMMISSION
PO BOX 44, QUEENSWAY HOUSE, BLETCHLEY, BUCKINGHAMSHIRE

YOUNG BULL PROVING SCHEMES

Until now there have been no breeding schemes for beef cattle in which testing and selection have been combined. However, a positive scheme was recently announced devised in cooperation with the South Devon Herdbook Society. The Lincoln Red Society have also decided to operate a similar scheme and constructive discussions are in progress with other Societies.

The scheme involves using the most promising performance tested bulls through A.I. to inseminate cows in breeders herds and so produce sons for further testing.

The nominated bulls must combine sound skeletal construction with an outstanding performance test result. Having passed preliminary semen tests a final selection is made by a breed society panel. Breeders with nominated bulls are paid a financial incentive by the MLC to allow their bulls to participate and all semen collection costs are paid. After semen collection the bulls are returned to the ownership of their breeders.

Free inseminations are offered to breeders with recorded herds and they are encouraged to use cows of good potential performance for the test matings. The objective is to get 40 cows in calf to each bull and these are expected to be distributed in up to 40 herds. First inseminations with South Devon semen will be carried out this winter, with a further period of inseminations in the summer to allow both autumn and spring calving herds to take part.

Breeders with bull calves resulting from the test inseminations will be invited to submit them for performance testing. They will be selected for testing, in competition with calves by other bulls in use in the breed, on the basis of pre-test weight for age and inspection by a breed panel. The most promising bulls will again be nominated and the team may include, not only sons of previously nominated bulls, but also other bulls produced in breeders herds. In this way the best material in the breed can contribute to the breeding program.

The scheme will also yield progeny test information and bulls with outstanding progeny test results can be used for further matings using semen stores held for this purpose.

NEW BREED AVERAGES FOR BULLS

The revised breed averages for bulls to be used for the next twelve months are given in the table below. Until now the averages have been calculated using information accumulated over several years. However, for those breeds in which an adequate number of weighings are carried out each year the averages are now based on weighings in the past two years only. The breeds concerned are Aberdeen Angus, Charolais, Devon, Hereford, Lincoln Red, South Devon and Sussex. The revised method of calculation will produce averages which are rather more sensitive to changes within breeds and also to seasonal effects. For these reasons little emphasis should be given to any apparently sharp differences between the current averages and those used previously.

Those breeds, in which insufficient bulls are recorded per year to produce realistic breed averages on a two year basis still have their averages calculated on the basis of accumulated information. The breeds in this category are Beef Shorthorn, Belted Galloway, Galloway and Welsh Black. It is intended to change to the new method of calculation for these breeds as soon as possible.

New breed averages for bulls (lb.)

<u>Breed</u>	<u>200 day weight</u>		<u>400 day weight</u>		<u>500 day weight</u>	
	<u>No.</u>	<u>Avg.</u>	<u>No.</u>	<u>Avg.</u>	<u>No.</u>	<u>Avg.</u>
Aberdeen Angus	1082	453	916	925	332	1067
Beef Shorthorn	143	475	173	901	131	1101
Belted Galloway	22	438	23	690	-	-
Charolais	617	725	120	1247	49	1423
Devon	356	571	250	1091	65	1257
Galloway	69	358	50	780	-	-
Hereford	2706	506	2345	979	1052	1182
Lincoln Red	248	544	190	1048	93	1247
South Devon	312	612	237	1127	82	1264
Sussex	249	500	133	1015	41	1213
Welsh Black	86	500	35	965	-	-

SECTION II

STATE BEEF IMPROVEMENT PROGRAM REPORTS

ARIZONA BEEF CATTLE IMPROVEMENT PROGRAM

by Milton Sechrist

The Arizona Beef Cattle Improvement Program is a Program that has been intentionally designed to be slanted toward the Commercial cattle segment of the cattle industry for several reasons.

Commercial cattlemen produce the major portion of all beef. Climatic and topography conditions of Arizona prohibit any one formula for Beef Cattle Improvement. Purebred breeders are or will adhere to the needs and desires of commercial cattlemen.

The Arizona Beef Cattle Improvement Program consists of four separate programs. The four programs are designed in successive steps, so that the next step is slightly more progressive in genetic improvement and requires additional records.

The First Program - Use of Performance Tested Bulls. This program does not require any records, only careful selection of sires, which excel in genetic performance over the herds' prior average.

Second Program - Production Testing of Replacement Heifers Through Yearlings. Selection, identification, weighing, grading, of weaner heifer calves. Approximately one year later - reweighing, grading and evaluation, and culling lowest performing heifers.

Third Program - Evaluation of First Calf. This is a continuation of heifers from Program No. 2. To again evaluate the first calf either at 2 or 3 years of age. Pregnancy testing is recommended for heifers at this stage. Recommended culling those heifers producing the lowest quality and performing calves and non-pregnant heifers.

Fourth Program - Complete Herd Performance Testing (Primarily Purebred Breeders). This is the usual program for Beef Cattle Improvement Association's which include performance testing of bulls - farm and/or central test station, carcass data on progeny and etc.

THE CALIFORNIA BEEF IMPROVEMENT PROGRAM

by J. T. Elings

The California Beef Cattle Improvement Association was organized in 1959 to expand and give impetus to the beef cattle record of performance program that had been carried on by the University of California through the Agricultural Extension Service since the 1930's. That's when beef improvement got underway in California, mainly through the efforts of Dr. Harold Guilbert of the Animal Science Department and Lou Rochford, Extension Animal Scientist.

The first membership in CBCIA involved 40 registered herds. Two herds have had continuous performance records dating back to 1942. These include the Crowe Hereford Ranch, Millville (now Moseman Herefords) and Harold Overfelt Angus Ranch, Hollister.

Services offered by CBCIA include:

1. Calf Weaning Report. Computer reports include sire summaries and listings by index and tattoo number, within sex.
2. Postweaning Report. Computer reports include sire summaries and listings by index, tattoo number, within sex.
3. Cow Record. Machine-processed cow records that are updated each year by including the current year's weaning and postweaning data. In addition, a cow production index is calculated which ranks the cow in comparison with all other cows in the same herd; this index is also an indicator of her real producing ability.
4. Herd Summaries. CBCIA is also in a position to offer herd and sire roll-back summaries.
5. Carcass Merit Program. This is available to registered breeders who wish to progeny test bulls; to commercial cattlemen to check on the cutability of their cattle by feeding out and slaughtering a representative group of steers as a sample of the herd; for feeders and/or consultants who wish to determine results of feeding and/or experimental programs through to carcass merit.
6. Commercial Program. Reports similar to weaning and postweaning in the registered program are offered, but it is a much more flexible program that can be adapted to almost any ranch situation. It provides an additional summary by breed or cross for cattlemen involved in crossbreeding programs or running two or more breeds.
7. Central Bull Test. A bull test sponsored by CBCIA is in operation at the present time at the Whipple Ranch in Shasta County under the management of CBCIA member Lem Earnest.
8. Other Projects: CBCIA has sponsored research projects such as effect of season of birth; effect of age on average daily gain to weaning; research that produced correction factors used in the program and is providing data and support to a study on effect of cow size on production.

The total membership in CBCIA is 132--23 Angus; 5 Charolais; 1 Brown Swiss; 1 Devon; 2 Galloway; 36 Hereford; 13 Polled Hereford; 6 Red Angus; 13 Shorthorn; 1 Santa Gertrudis; 26 Commercial herds. This represents 15,000 head of cows.

COLORADO BEEF CATTLE IMPROVEMENT PROGRAM

by Paul S. Pattengale

Beef cattle record of performance work in Colorado was initiated in 1953 by the Agricultural Extension Service of Colorado State University.

The Colorado program was modeled after the work initiated by Professor Harold Gilbert, University of California, in the late 1930's.

Work was done with individual cooperating cattlemen, mostly registered breeders, that were interested in a systematic evaluation and recording of breeding herd data as a basis for improved selection of breeding animals.

As an outgrowth of initial program efforts and increased interest, the Cattle Improvement Committee of the Colorado Cattlemen's Association fostered the formation in 1960 of a legally constituted organization named the Colorado Beef Cattle Improvement Association. The purpose of this organization was "Fostering the improvement of beef cattle through scientific breeding methods and management. Major emphasis to be placed upon selection methods for traits of economic importance such as weaning weights, ability to gain rapidly after weaning, efficient feed conversion, regular reproduction, longevity, and superior carcass quality." This work to be done in cooperation with the Extension Service and Animal Science Department of Colorado State University.

In 1962, the program was expanded to include progeny testing of sires with 118 progeny representing 14 sires being evaluated for feedlot gain and carcass evaluation that first year. During the following seven years the numbers of cattle on progeny test ranged from 200 to 300. During 1969, the progeny test program received greater impetus through activities of the Colorado Cattlemen's Association, Colorado Beef Cattle Improvement Association, and the Colorado Beef Board. This resulted in a sampling of Colorado feeder calves from 119 cattle producers, located in 41 counties, and representing 1312 weaner calves. Not all participants had sire groups, some were samples ranging from 5 to 20 head from different ranches. All animals were fed in a commercial feedlot under similar feed and environmental conditions. Complete feedlot data was obtained for individual animals and then summarized by progeny groups and ranch. State averages were then computed. Complete carcass data was also obtained on all carcasses. Each carcass was then sold on its weight, quality grade and cutability score. There will be approximately 1500 weaner calves under a similar test that will start in December, 1970.

The Colorado Beef Cattle Improvement Association has been a charter member of Beef Improvement Federation and has made attempts to incorporate recommendations of BIF whenever possible into the Colorado Record of Performance program.

FLORIDA BEEF CATTLE IMPROVEMENT ASSOCIATION PROGRAM

by J. E. Pace

The Florida BCIA was organized in 1958. The Production Testing Program was initiated in 1957 with four cooperators. At present, there are 78 members actively participating in the program.

Since its inception, the Florida Beef Cattle Improvement Association has made charges for processing data. It has never been subsidized from this standpoint. However, the Cooperative Extension Service does provide an Equipment Operator for data processing.

Since 1960 there has been an annual surplus of funds in the treasury of the organization. Beginning in that year some excess funds have been spent for advertising the cattle that cooperators have for sale.

Most of the feeder calves produced in Florida are marketed in July, August and September and most purebred cattle, especially bulls, are marketed in December and January. A full page ad is purchased in the July issue of the Florida Cattleman magazine for commercial producers and a full page ad is purchased in the December issue for purebred producers. The producers are invited to list what cattle they have for sale.

The Florida method of computing information was programmed in 1969 to coincide with recommendations made by Baker in the publication, Beef Cattle Improvement. In addition, much additional data can be recorded by the producer, if he so desires, for his own personal use.

The Extension Meats Specialist is now working with a number of commercial producers in securing carcass information on their cattle.

GEORGIA BEEF CATTLE IMPROVEMENT ASSOCIATION ACTIVITIES

by M. K. Cook

The Georgia Beef Cattle Improvement Association sponsored their first bull sale in December of 1970. The bulls all had weaning records and most of them had yearling records. These bulls were all tested on the farm. The sale average was \$859 on 44 bulls.

The Georgia Association did not change their program to comply completely with BIF recommendations this past year. The changes that are needed will be made when the recommendations from the records standardization committee are made. This way we will just have to make one change.

The number of yearlings weighed this past year has increased and we hope will increase even more in 1971.

It was a good year for our Association with more and more people concerned with collecting and using records.

KANSAS BEEF CATTLE IMPROVEMENT

by Keith Zoellner

Participation and interest increased in all phases of Beef Improvement in Kansas in 1970. With the increased interest it is anticipated that continued progress will be made in the years ahead. BIF recommendations are being followed in most areas of the Kansas Programs.

Program developments:

On-Farm Bull Testing - Participation in post weaning 140 day gain tests has increased extensively in 1970. Ultrasonic evaluation of fat thickness and rib eye area was added through the procurement of an An-Scan machine. This has promoted additional interest on part of some of breeders in testing programs.

Central Bull Test Stations - Three bull testing stations operated in Kansas in 1970. Currently, two additional stations are in the planning stages. All stations use the BIF guidelines with some modification. One test scheduled to start in June of 1971 will be patterned after BIF recommendations. BIF recommendations in presenting performance data at production sales is gradually being accepted by Kansas breeders, which is resulting in less confusion in presenting performance data.

Youth Programs - Complete Performance information has been incorporated in the 4-H requirements for Beef Breeding Projects.

In 4-H market steer projects gain information (minimum 140 days) is being required for competition at all state sponsored shows. In addition many county shows have incorporated performance into their programs.

USDA Carcass Data Services - Kansas Beef Improvement Committee met with USDA representatives in 1970 regarding the carcass data services. Kansas breeders are ready for the service and write with anticipation for the program, as it will greatly facilitate procurement of carcass information.

ILLINOIS BEEF IMPROVEMENT FEDERATION PROGRAM

by Gary E. Ricketts

The Illinois Beef Improvement Federation has sponsored Performance Tested Beef Sales in 1968 and 1969 and has a third annual sale scheduled for December 9, 1970. These sales have been very successful and have been well attended. In the first sale 39 bulls averaged \$721 and in the second sale 59 bulls averaged \$778.

In addition, the Federation and the Cooperative Extension Service have cosponsored three Cow-Calf Field Days in both 1969 and 1970. Four more Field Days are being planned for 1971. From four to six herds are visited during each Field Day. The topics discussed during each Field Day are as follows:

1. Sire selection and evaluation.
2. Cow herd management.
3. Selection of replacement females.
4. Evaluation of cow production.
5. Comparison of high and low producing cows.
6. Cattle handling facilities.
7. Cattle identification systems.
8. Pasture management.
9. Calf grading.
10. Explanation of Illinois Beef Performance Testing Program.

The IBIF has also supported promotion activities during Beef Month.

The IBIF is working with several livestock associations to explore the possibilities of holding a Performance Tested Heifer Sale in another year or two.

IOWA BEEF IMPROVEMENT ACTIVITIES

by Robert C. deBaca

Some new programs of the Iowa Beef Improvement Association are the following:

1. Sale of on-farm tested bulls.
2. Printing and dissemination nationwide (18,000 circulation) of an Iowa Beef Improvement Association Newsletter.
3. Printing and mailing throughout western USA of IBIA promotional brochures emphasizing performance tested bulls.
4. On-farm testing large numbers of bulls with every 28-day weighing and computer analyses of data. (1000+ bulls on test.)
5. Development of Futurity Carcass Contest with sire groups of calves consigned to uniform feeding regime in November 1970. Three hundred head consigned.
6. Continuation of bull testing in central station facilities. Four hundred bulls on test.
7. Adoption of BIF performance test recommendations.
8. Renewed cooperation with National Beef Show to assist with 1971 show.

THE MASSACHUSETTS BEEF CATTLE IMPROVEMENT ASSOCIATION PROGRAM

by Byron E. Colby

Our program is not spectacular or large in the number of participants. Being an urban state our beef cattle population is limited to primarily purebred breeders. About twenty of these take part in our weighing and grading program. We do not use a computer on the records as there are very few of them.

Our records I believe are fairly standard. They cover gain to wean, actual rate of gain, adjusted rate of gain, adjusted 205 day weight, grade, grade index, combined index of gain and grade. We also chart the calves on a combined gain and grade basis. Calf numbers are color coded and entered on the chart in different colors - a separate color for each sire so a comparison can be made on the chart as to both gain and grade of calves by each bull.

We also weigh and grade the yearlings.

The only bull testing is done by the individual herd owners.

We have a code for each herd and the secretary summarizes the average figures on each herd and this goes into our annual report for a yearly summary by breeds. This is broken down into those that creep feed and those that don't.

Our Beef Improvement Association contributes financially to a New England Educational Beef meeting once yearly. We have also contributed to awards for 4-H beef judging contests.

We have been listing performance testing information along with pedigree information in beef sale catalogues.

Our eyes are open for improving our organization.

MINNESOTA BEEF IMPROVEMENT ASSOCIATION ACTIVITIES

by Ray Arthaud

The MBCIA completed the first Bull Test at the official test station owned and operated by Jack Delaney, Lake Benton, Minnesota. The first Tested Bull Sale was held on May 8, 1970 with 90 bulls offered for sale (top 2/3 by index).

On June 10 and 11, 1970 the MBCIA helped sponsor a Beef Cattle Evaluation Clinic at the University of Minnesota, St. Paul Campus. About 250 people participated. Among the many items on the program were several talks on cattle marketing systems and potential, and on promotion of beef and cattle. Clarence Burch, former BIF president and Bill House, president ANCA, were among the featured speakers. Of course, there were demonstrations on live animal and carcass evaluation plus a sonoray demonstration. Individual members of the MBCIA were hosts for on-the-farm demonstrations and discussions on beef improvement programs, such events were held at several locations.

The association sponsored a booth and provided meat for lunch at an industry-extension sponsored Beef Cattle Field Day at Springfield, Minnesota attended by about 1,000 people.

MISSOURI BEEF IMPROVEMENT PROGRAM

by John Massey

The Missouri Beef Cattle Improvement Association cooperates with the University Extension Division in a total program to evaluate individual cattle and herds, from conception to the carcass. We in Extension, however, suggest that for record analysis they cooperate with their respective breed associations, and give the local extension specialist a copy of the report. This suggestion has not had 100% acceptance since the Missouri Beef Cattle Improvement Program is administered by the Extension Division at no charge to the producer. This program consists of Plan A, which includes the preweaning phase of live animal evaluation and conforms to BIF recommendations. Plan B, the postweaning program, also

conforms to these recommendations but is administered by our local extension agents or designated representatives. The carcass phase of the program is left pretty much up to the breeders for place of slaughter. Local agents, however, are cooperating in getting the carcass measurements for the breeders if there is no USDA official grader at the slaughter plant.

The Missouri program does not use a computer in analyzing the records. It is up to the individual breeder and the local agent by the use of tables and nomographs to figure the adjusted weights. In addition to the on-the-farm programs, the program cooperates with the central bull testing station at Columbia, and also with a sire progeny testing station at Spickard.

A fulltime sonoray technician is employed by the Extension Division to make loin-eye and fat measurements on breeding animals (cattle and swine).

The state BCIA has sponsored ten successful bull sales for the state, as well as two area sales. These seem to receive increasing interest and enthusiasm. The bulls entered in the tested bull sale are required to meet a rigid set of standards, being in the top 50% of the male calves at weaning, making a 950-lb. yearling weight, 365-day weight adjusted for age of dam, grading low-choice feeder grade or better, and passing semen and health examination within 90 days of the sale. These sales are from on-farm testing as well as test station entries. We have averaged selling over 250 bulls annually, ranging in age from 17 to 22 months. This means selling them about six months after they have completed all of their official tests. The biggest advantage of a state beef cattle improvement association in this state appears to be the motivation of breeders to evaluate growth traits within breeds and willingness to work together in all-breed functions to improve the beef industry for subsequent segments such as the commercial man, cattle feeder, etc. In most of the meetings which are made of at least two members of each breed as well as five commercial producers, breed is ignored in all discussions primarily. The objective is to improve beef cattle and breed is secondary.

MISSISSIPPI BEEF CATTLE IMPROVEMENT ASSOCIATION

by W. M. Swoope

The performance testing concept continues to expand in our state both from participation in our official BCIA program and commercial cattlemen who have identified the brood cows and are keeping calving dates and production records on their herds.

Purebred breeders have become experienced in keeping and using production records in the management of their herds and some genetic progress is evident. It appears that a larger percentage of the smaller breeders are "catching on" and following the example of the leaders.

Commercial producers in the program are very much involved in evaluating systems of production, ie., pasture programs, winter feeding levels, season of calving, etc., as they relate to their individual herds and management levels. They find their record invaluable as they improve existing breeds and move toward the use of newer breeds on a trial basis.

The highlight of our program in 1970 was the second annual Gold Seal, Silver Seal Bull Sale. These 20 to 26 months old service age, conditioned bulls met with a

real demand from the commercial cattlemen of Mississippi. On November 12, 39 qualifying bulls sold for an average of \$857. These bulls were from 20 different performance tested herds in the state and sold to 29 different buyers. They were pre-selected strictly on weaning data. They were weighed and graded the day before the sale and those that did not meet pre-determined weight standards were not allowed to sell.

We are now in the process of going through our 1970 records and notifying our breeders of those bulls that qualify on weaning data. From this list, they may nominate bulls to the 1971 sale.

At our annual meeting on November 11, 1970, new officers were elected as follows:

President	- Richard M. Stovall, Okolona Polled Hereford Breeder
Vice-President	- Mickey Black, Greenwood Commercial Cattleman
Secretary-Treasurer	- W. M. Swoope, State College

Major business considerations included: changes in the Gold Seal, Silver Seal Bull program, re-establishment of the central testing station, representation of the exotic breeds on the board of directors.

NEBRASKA BEEF IMPROVEMENT ACTIVITIES

by Frank H. Baker

The Nebraska BCIA introduced a Sire of the Year program in its activities for 1970. The sire is selected on the basis of completeness of the performance and progeny records and the excellence of the individual sire.

The association co-sponsors two bull-testing stations at Schuyler and Ogallala.

During the past two years market cattle testing programs have been introduced in Nebraska through the association's cooperation with the University of Nebraska and with 3 commercial feedlots. Feedlot performance data and carcass excellence data are compiled on herd samples. The purpose of the program is to assist commercial producers in bull procurement by assisting them in knowing the strengths and weaknesses of their herds. Data accumulated is also useful in merchandising feeder cattle from the herds in future years.

A directory of the association membership was published to assist commercial producers in locating cattle on which performance data is available.

Officers of the association are Kermit Paxton, Stapleton, President; Roger French, Mullen, Vice President and Ken Messersmith, Alliance, Secretary-Treasurer. The directors are: Marvin Bohmont, Martell; Orin Marcy, Hay Springs; Russ Vanderkolk, Bellwood; Frank Lothrop, Crete; Harold Melcher, Page; Jim Wolf, Albion; Bob Mueller, Kimball; Ken Chase, Elsmere and Fred Retzlaff, Lincoln.

NEW HAMPSHIRE BEEF IMPROVEMENT PROGRAM

by Gerald L. Smith

From 10 cooperating herds the computed averages of breeds in Beef Improvement Performance Testing are shown below.

Breed	Sex	Average daily gain**	Average Index
<u>Charolais</u>			
Weanings	F	2.46	163
	M	<u>2.61</u>	<u>169</u>
Average		2.55	167
Yearlings	F	1.04	109
	M	<u>1.82</u>	<u>134</u>
Average		<u>1.20</u>	<u>114</u>
Breed Average		2.04	149
<u>Herefords</u>			
Weanings	F	1.55	128
	M	<u>1.61</u>	<u>127</u>
Average		1.58	127
Yearlings	F	.99	103
	M	<u>1.56</u>	<u>124</u>
Average		<u>1.07</u>	<u>106</u>
Breed Average		1.44	121
<u>Polled Hereford</u>			
Weanings	F	1.90	140
	M	2.14	153
	S	<u>1.67</u>	<u>134</u>
Breed Average		1.92	143
<u>Scotch Highlands</u>			
Weanings	F	1.62	127
	M	<u>1.80</u>	<u>135</u>
Average		1.70	131
Yearlings	F	<u>.88</u>	<u>98</u>
Breed Average		1.47	122
<u>Angus - **Being weighed at a later date</u>			
Weanings	F	1.46	197
	M	<u>1.85</u>	<u>137</u>
Average		1.62	172
Yearlings	F		
	M	1.94	143
Average		<u>1.94</u>	<u>143</u>
Breed Average		1.65	161

**

Angus not complete-

*Computations arrived at on the 1970 fall weighing and grading.

NEW MEXICO BEEF IMPROVEMENT ACTIVITIES

by Bobby J. Rankin

The New Mexico Beef Cattle Performance Association was organized in 1956 for the purpose of promoting and assisting the development of beef improvement through performance testing.

In 1961, the association sponsored the construction of a central bull testing station located at the Northeast Branch Station of NMSU, near Tucumcari, New Mexico. The association raised \$12,000 to pay for initial construction costs and have since raised an additional \$8,000 for needed improvements. The board of directors of the NMBCPA meet regularly to help guide the testing program. They are advised and assisted by the associate extension livestock specialist and several county extension agents. New test cooperators are solicited by members of the association. A report of the bull test and other beef improvement information is published in a newsletter by the Extension Service. The support of the New Mexico Beef Cattle Performance Association has been a primary reason for the success of the Tucumcari Bull Test.

NEW YORK BEEF IMPROVEMENT PROGRAM

by Myron D. Lacy

The New York Beef Cattlemen's Association was organized in 1950 primarily for the purpose of promoting a stronger marketing program in the state. Since that time it has grown into the "voice" for the beef cattle industry of the area, affiliated with the American National Cattlemen's Association and has a membership of 550-700 members, varying from year to year. Dues are only \$5.00 annually.

The organization is operated by a Board of Directors including one from each county who wishes to nominate same (44 at the present), a State Council of 12, and officers.

Principal projects are as follows: sponsor five fall and two spring feeder sales; sponsored the state performance testing program since 1958; stage a state-wide five to six day cattle tour annually; cooperate with the Extension Service on various educational programs; maintain a number of standing committees that are interested in legislation, promotion and the like.

We have a special "performance testing" committee that has been very pleased to receive the BIF recommendations for more uniformity throughout the country. You can be assured our committee will study these recommendations and use them as they fit into our program.

Our performance testing program includes the weighing and grading of calves at weaning time; weighing and grading of yearling cattle at 12 to 18 months of age; and encouraging producers to feedlot test bulls for 140 days or more after weaning. Our cattle are graded by representatives of our Department of Agriculture and Markets and our total charge for grading and processing is only 50¢ per calf or yearling. This past year we had 53 cooperators. The number of calves graded per herd will average about 30 to 40 with a few herds up near 100 head or more and some with only a few calves. We have hopes that the program will grow in the future to where we will have 100 to 150 herds on test.

NORTH DAKOTA BEEF IMPROVEMENT PROGRAM

by M. A. Kirkiede

The North Dakota Beef Cattle Improvement Association, Inc., was organized in 1962. One of the first things the Association did was to make arrangements with North Dakota State University to have data processing available to North Dakota breeders for processing beef cattle performance records. This is the eighth year that such records have been processed. A nominal fee is charged for this service.

Several years ago the directors named a certification committee. This committee was encouraged to establish a sire certification program and a cow herd certification program for the State. The committee did both of these and as a result we have 12 NDBCIA certified "AA" meat sires in the State. Progeny of 12 more sires are currently on test. The sire certification program includes feeding steers and heifers from weaning to slaughter weight in a designated feedlot. Weight per day of age, carcass quality and live grade are the factors considered for certification. If the progeny tested meet certain requirements, the sire is certified "AA" by the NDBCIA.

The BCIA directors have been very cooperative in giving the North Dakota State University and Extension Service direction and guidance in all areas of beef cattle performance testing.

The BCIA and Extension Service assist with the official weigh in and weigh out of bulls being tested in the bull testing stations located in the State.

Each year in February, the Association holds its annual meeting. In addition, to the usual business meeting an educational program is held featuring an out of state speaker.

Members of the State BCIA assist with the grading of calves and yearlings for the performance testing program.

The State BCIA participates with North Dakota State University in sponsoring educational booths at some of the fairs and shows held in the State.

BEEF IMPROVEMENT ACTIVITIES IN OHIO

by W. W. Wharton

The Ohio Beef Cattle Production Testing Program has had two major changes since its conception twelve years ago. The program, designed in 1958 following the Virginia format, was slightly changed in 1961 when the program was computerized. The second change was made in 1968 after long intensive hours of planning with the "Baker Committee" (predecessor to the BIF) and a university machine change. The program is written in Fortran IV for the IBM 360.

All BIF recommendations are followed in the Ohio Program. The major change was summary by sex, 205 day adjusted weight instead of adjusted daily gain, and the incorporation of ratios for both weight and type score.

The Ohio program goes further than suggested by BIF by computing lifetime individual cow records (produce of dam) for each cow in the herd. These records are updated for each cow annually (usually in March). A most probable producing ability (MPPA) computation is made for each producing female in the herd.

Additional activities stemming from the program have been production tested calf sales, graded bull sales, bull testing program and a bull certification program.

OREGON BEEF CATTLE IMPROVEMENT ACTIVITIES

by W. Dean Frischknecht & D. D. Bennett

Although the Oregon Beef Cattle Improvement Association was organized back in 1959, a major accomplishment occurred in 1968 when this organization became the Beef Cattle Improvement Committee of the 3,400 member Oregon Cattlemen's Association. This has brought the beef cattle improvement program of the registered breeders to the grass roots of the commercial beef industry in Oregon. A committee progress report of programs and activities is expected and given during the quarterly board meetings and annual convention of the Oregon Cattlemen's Association.

The Oregon Cattlemen's Association now recommends that all producers of bulls have their herds on a recognized performance testing program. This means breeders should be either on their breed program, PRI, or a similar program for computerized records, or on the Oregon system for those who prefer to handle their records other than by computer. Because of support for PRI and the breed programs, Oregon has not set up a separate computerized record keeping program. Whatever program the breeder prefers, the Extension Agent will help.

As a result of the BIF computer cow game played with Iowa, we have purchased the program, and Oregon Extension Agents and producers will participate this year in several go-arounds with these records being handled at our computer center at Oregon State U.

The Oregon Cattlemen's Association asked that our progeny testing station be enlarged. At the present time at one of the Branch Experiment Stations we have 30 pens accommodating 12 head per pen for a total of 360 head representing progeny of 30 sires. This station is recognized as one of the better progeny testing stations in the country, and we usually test cattle from California, Idaho, Montana, and Washington in addition to our Oregon cattle. Field Days at the progeny testing station have been well attended. Information obtained includes pen feed efficiency along with individual growth rate and carcass merit. Sires of some progeny groups are usually exhibited at the station during the field day activities. Plans are underway to handle about 500 head in the progeny groups.

There are two central bull testing stations in Oregon. The largest is at Klamath Falls in southern Oregon where between 500 and 600 bulls are tested each year. Bulls enter this station during five entry periods throughout the year, and are on test for approximately 12 months. This station emphasizes reasonable growth mainly on roughage with concentrates being fed during a 140 day official feed test. Bulls are sold at auction and by private treaty negotiated by the station management. The other testing station in the center of the state is in its second year and will test about 50 bulls on an official 140 day feed test. Most breeders test their bulls on a within herd basis on their own ranch.

At the 1969 annual convention the Oregon Cattlemen's Association asked the Beef Improvement Committee working with County Livestock Associations and the Extension Service to sponsor a steer carcass contest or demonstration in each county. During 1970, nearly every county in the state was able to have such a contest or demonstration. Facilitating this type of event is our mobile refrigerated beef display trailer which was financed (\$7,000) by the Oregon Beef Council and turned over to the Extension Service for educational activities. Eleven halves of carcasses plus representative cuts can be displayed at one time in this unit, so it is possible to exhibit the top carcasses and carcasses showing less desirable characteristics.

Out in the counties carcasses are usually evaluated by Federal meat graders according to BIF recommendations. A breakdown of 555 carcasses, 81% of which graded USDA Choice, shows 12% yield grade 1; 50% yield grade 2; 33% yield grade 3; 5% yield grade 4; and none in yield grade 5. This indicates how cutability and quality can go together. At most of Oregon's regional shows and County Fairs meat judging is now included as a part of the regular 4-H and FFA livestock judging contest.

The Oregon Beef Council provides \$1,000 per year to assist with the carcass contest which is a part of the Pacific International Livestock Exposition at Portland. Steers from several western states are usually entered in this contest, so to obtain exact cutout information carcasses are evaluated at the meat science laboratory at Oregon State University.

The Oregon Cattlemen also recommend that all commercial cows in Oregon herds be individually identified. The Oregon brand law designates the left shoulder as the area to be used for individual animal identification. Ownership brands are not to be recorded in this area. Within the state at the present time there are several cattle ranches having over 1,000 cows individually identified. This will make the forthcoming USDA Carcass Tag Program more meaningful for commercial producers when carcass information can be traced back to the dams.

USDA information on yield grade and quality grade is already being returned to custom feedlot operators on several thousand animals, but the carcass tag program will be another forward step.

SOUTH DAKOTA BEEF IMPROVEMENT ACTIVITIES

by Mick Crandall

South Dakota Livestock Production Records, Inc. had a successful year. Weaning weight records were processed on 32,669 calves that were dropped in the spring and about 2,500 fall calves. Yearling weights increased by 20 percent over the previous year to a high of more than 7,000 head. This does not include 734 head of bull calves that were on test in seven central testing stations in the state. The test stations are private operations submitting records to the Production Records Association.

Sixty-six new herds of cattle were enrolled in the state program for the first time. There are now slightly more than 500 herds in the state that are participating in all or part of the Association's performance testing program.

New officers of the Records Association elected at the last Annual meeting include:

Ray Meyer, Sorum, SD - President
Bob Healy, Chamberlain, SD - Vice-President
Gunther Flier, Hermosa, SD - Treasurer
Mick Crandall, Rapid City, SD - Exec. Secy.
Max Sutton, Agar - BIF Representative

South Dakota Production Records, Inc. will enlarge their computer program in 1971 to include accumulative cow record summaries, Sire Certification, and carcass evaluation information.

PERFORMANCE TESTING IN TEXAS

by L. A. Maddox, Jr.

A large part of the research base for gain test on young bulls dates back to Texas A&M University research beginning in 1942. The concept of registered breeders sending young bulls to a central location for gain tests started in Texas the same year. The basic information for the first weaning weight program was borrowed from the Bell Ranch and the New Mexico Agricultural Extension Service. The Performance Testing Program of the Texas Agricultural Extension Service was started in 1954 with a pilot program in the Texas panhandle. Two years later this area program was enlarged to become a state wide program.

Texas had developed and tried hard to support a state beef cattle improvement association to work with Performance Registry International in the direct supervision of all on the farm tests. As Performance Registry International lost interest in state associations and national breed associations became more active in performance testing the policy was changed to make performance testing a part of a county extension beef cattle program. At this time registered breeders were encouraged to work with their respective breed associations, Performance Registry International or commercial computing firms. The state specialists have spent most of their time helping county agricultural agents build stronger county programs, work with national breed associations and national performance testing organizations.

With the advent of the Beef Improvement Federation the Texas and Southwestern Cattle Raisers Association began to take part in the performance testing program in the state of Texas. The Texas Agricultural Extension Service continues to be active in the Beef Improvement Federation. Recent contributions to Performance Testing in general includes work with the Santa Gertrudis Breeders International in the preparation of a publication, PERFORMANCE TESTING, THE MODERN ROUTE TO EFFICIENT POUNDS - PROFIT. The SUPERIOR SIRE SELECTION PROGRAM developed with the Santa Gertrudis Breeders International is the most detailed breed association program designed to measure the productivity of a herd sire. The American Brahman Breeders Association, also a Texas based national breed association is in the process of preparing their own performance testing program. Other national breed associations based in Texas working with Performance Registry International includes American-International Charolais Association and Red Angus Association of America.

During the past 7 years the Texas Agricultural Extension Service and Animal Science Department has collected carcass information on over 5,000 4-H and FFA Show Steers. In 1970 Texas gathered carcass information on 900 steers shown at the four major shows which represents nearly 85% of the steers exhibited in these shows. Eight local and area shows are gathering carcass information on their own in order to determine the real value of the animal exhibited and selected as winners. This program has made a strong contribution in changing the kind of cattle fed for state shows and changing the idea or model used by many registered and commercial breeders

One of the greater needs for performance testing in this state is a simple record system that can be used by large commercial operations. This system should identify low producers and measure change in productivity of the breeding herd within the cost that a rancher can afford to pay.

Probably the greatest problem in performance testing in this state is the lack of communications between cattle breeders and cattle feeders. This is best demonstrated by the attendance at meetings, conferences, etc. Generally cattle feeders have their own meetings and discuss their problems, set their goals and plan certain actions good for the cattle feeding industry with little or no representation from the cattle breeder. The cattle breeder, both registered and commercial, each tend to have their own meetings and plan the future of their segment of the industry with only token representation from other segments.

The greatest challenge to adult educational workers in the beef industry in the next decade is to get all segments of the beef industry to study the entire industry and identify goals for each segment of the industry will be compatible with other phases. A 25-member beef cattle committee has been formed to plan and direct the adult educational work for the entire industry. The committee includes specialists in animal nutrition, animal breeding, animal health, range management, pasture improvement, agronomy, ranch economic, feedlot economic, beef cattle marketing and agricultural engineering.

ACTIVITIES OF UTAH BEEF IMPROVEMENT ASSOCIATION

by Clair R. Acord

Utah group began their first bull testing station in 1970. We had only 33 bulls, sent by nine participants. The bulls did well.

	<u>lbs. gained on test</u>	<u>A.D.G.</u>
All 33 bulls	428	3.06
9 Angus	386	2.75
4 Charolais	529	3.78
19 Herefords	432	3.09
1 Beefmaster	335	2.37

The group organized with directors. Officers are:

Gayle Evans, President
 John Wintch, Vice-President
 Clair Acord, Secretary

The organization has drawn up a set of articles for incorporation. A field day was held at the completion of the test. One hundred twelve beef men were present to hear the report and see the bulls. No public sale was held this year, but bulls were sold by private treaty following the conclusion of the field day.

The top Charolais bull at the Utah testing station was champion bull at the Las Vegas Expo.

VIRGINIA ACTIVITIES OF 1970

by C. C. Mast

The Virginia BCIA has now completed fifteen years operation. Each year has produced its own problems and fortunately its solution to most. It is hoped we are now entering into an era when most techniques of cattle evaluation are standardized so our programs will remain constant for awhile.

The number of cattle processed has not changed much in the last several years. In 1970 approximately 600 bulls were evaluated on the farm and 185 in two central feed tests. Seven hundred and seventy-five yearling heifers were also processed along with a total of 11,174 calves.

The main change taking place was a decision by the Board of Directors to change the program to conform entirely to BIF recommendations. This required writing a new computer program which is underway, designing new data or input sheets and a general overhauling of the entire program for the present year. Changing the input data to conform to other programs will increase the number of Virginia breeders participating in the National Breed Association programs, since only one input data sheet needs preparing and a copy can be forwarded to the respective breed association if desired. The Board also decided to discontinue the use of an index which has been in the program since the beginning.

In 1970 the association discarded mobile scales and required each breeder to have his own. Mobile scales are most impractical for a state program but on the other hand were the most expedient way to get started in 1955.

The bull feed tests have reached a plateau in numbers and the sales have been holding constant in results. One hundred and thirty-eight bulls in two performance tested sales averaged \$799. The BCIA Board decided to split the test periods, putting September, October and November bulls on test in July followed by December, January and February bulls in October. This move will result in bulls finishing tests at near the same ages but will increase the costs on older bulls.

The foregoing are technical changes that took place, but on the intangible side a greater change in philosophy among those who have been reluctant to accept change in breeding methods and objectives was evident. It seems that the philosophy of the BCIA program is now prevailing in all the industry, not just the faithful few.

WASHINGTON BEEF CATTLE IMPROVEMENT ASSOCIATION REPORT

by William E. McReynolds

The Washington Beef Cattle Improvement Association became an active organization during the 1969 calendar year. In May, a constitution was adopted, and an aggressive board of directors was elected. Under the leadership of Blain Hinderer, President; and Louis Chesnut, Vice President, they started exchanging ideas into actions.

A modern bull test station was constructed at Lacrosse, Washington with a capacity of 250 head. The 50 pens, 12' x 112', were designed for 5 bulls each. This station operated under the supervision of the Washington Beef Cattle Improvement Association and the Washington State University and opened for its first official test on May 1, 1969.

One hundred eighty-five bulls owned by 42 breeders from Washington, Idaho, Montana, Oregon and British Columbia were enrolled. Although the bulls were fed a low energy ration, the average gain of 2.93 pounds per day was considered outstanding.

An enthusiastic crowd of 350 people attended the Field Day at the close of the test. The cattlemen who purchased bulls at the sale the next day converted their interest in records into dollars when they paid an average of over \$1,000 for the 21 bulls with an index of over 110. This figure was twice the price paid for the 95 bulls indexing between 90 and 109.

Another activity with which the WBCIA has been involved is a sponsorship of a computerized system for processing beef production records. In setting up this program, the recommendations of the Beef Improvement Federation have been followed. Weaning weights are adjusted separately for the sexes to a 205-day mature dam equivalent basis as recommended by the BIF Guidelines. It is felt this program developed with a commercial cow-calf man in mind will prove a great help to the cattlemen of the state.

Although the WBCIA presently has only 53 members, its objective of encouraging the production of high gainability cattle which hang up high value carcasses will have an impact on the cattlemen of the entire state.

WEST VIRGINIA BCIA PROGRAM

by James A. Welch

Interest continues to increase in the cow and calf performance testing program. Numbers of cows enrolled in 1970 were 20% greater than in 1969, which in turn were 20% greater than in 1968.

The second Performance Tested Heifer Sale was held in the fall of 1970. While numbers of heifers consigned are not large, both buyers and sellers seem pleased.

The Bull Performance Testing Program is also increasing in numbers, with 94 being consigned in the current test compared with 70 the previous year. While average daily gain on test has not changed over a three-year period, weight-per-day-of-age and 365-day weights are steadily increasing. This reflects the improvement in the calfhood adjusted daily gain of all bulls sold which has increased 10% in a three-year period.

WISCONSIN BEEF IMPROVEMENT ASSOCIATION

by Vern L. Felts

The Wisconsin Bull Testing Station was moved from the University of Wisconsin Experimental Branch Station farm at Hancock to the Pioneer Prairie farm operated by Wisconsin State University at Platteville. The Hancock Station only had room for 36 bulls so participation in the last several years had, for the most part, been limited to one bull per breeder.

The new station at Platteville has room for 200 bulls so the association is in a better position to accept the increasing number of requests for participation which have been coming from member producers of the British breeds "exotics" and crossbreds. The top three-quarters of the bulls will be sold at auction on May 22 after they have completed a 168 feedlot test.

A procedural change adopted by the association this year was in regard to correction factors used in standardizing performance records, when it was decided to use those recommended by the Beef Improvement Federation. Until the present time, correction factors have been used which were calculated from data collected for Wisconsin beef cattle herds.

SECTION III

BEEF IMPROVEMENT PROGRAMS OF PRI BREED ASSOCIATIONS AND AI FIRMS

PRI SPECIAL IMPROVEMENT PROJECTS

by Glen Butts

PRI has three (3) long-standing concerns. These are:

- 1) Increase participation by improving input forms,
- 2) Increase understanding of printouts, and,
- 3) Multiply use of data in SELECTION.

Because we are convinced that it is better to Act than to 'view with alarm', projects have been implemented for each of the three concerns.

For the most part computer input forms have been designed to fill the needs of data processors without concern for 'in the field' conditions and needs. Existing systems tend to ignore that part of the animal inventory not in reproduction. Existing procedures fail to take into consideration the fact that producers are working with three calf crops at all times. There has been a need for better scheduling of sequentially dated steps in management and records accumulation.

The PRI answer is found in a pocket size herdbook, prelisted by machine. This provides space to record all observations and measurements in the field in a well organized form. Data is processed directly from herdbooks eliminating transfer effort, delay and chance for error.

As an integral part of the herdbook, a circular calculator is provided members which, together with printed sheets, dates and describes each step in the two year reproductive cycle. Age in days at all points is instantly calculated. This innovation is being accepted with enthusiasm. The BOARD values these tools sufficiently to have them copywrited.

Having outgrown our first set of electronic data processing equipment, we have programmed current printing procedure to list averages and the number of animals in each category at the top of the first page of printouts. Also number of contemporaries is printed for each animal. Members love this. An increased appreciation of selection differentials (ratios) is evolving. It appears logical to print headlines at the beginning.

To stimulate the use of records in SELECTION, PRI BREEDING HERD INVENTORIES now list individual performance records and breeding values updated annually. Animals with weight ratios are counted and the ratios averaged. This provides a record of selection pressure that has been applied in adding animals to the herd. This last improvement is nearing completion and should be completed prior to the April BIF meeting.

Finally, PRI formats are now stocked without printed organization identification. This simplifies our custom work for other groups.

AMERICAN ANGUS ASSOCIATION ACTIVITIES 1970

by Stanley Anderson

The Performance Program for the American Angus Association is called Angus Herd Improvement Record Program. (AHIR) This includes Herd Classification, Production Measure, Carcass Evaluation and summarization of each animal's record on a Performance Pedigree. An AHIR symbol is available for breeders who are enrolled in the Program.

HERD CLASSIFICATION

Herd Classification has been an active part of the Program since 1958 with a record of over 22,000 head classified in one year. There were 16,354 head classified during 1970. This program has been modified through the years with continued effort in estimating body composition as well as structural correctness and sex or fertility characteristics as it is useful to the beef industry. Classifiers begin this numerical measurement of conformation by estimating the fatness of an animal.

PRODUCTION MEASURE

This second part of the AHIR Program was started in 1960 and is called Production Measure. This is the weighing and grading of calves and yearlings. During 1970, 42,722 calves and 15,388 yearling records were recorded by 1,284 member breeders. This program is continually revised and improved.

The records are determined on the computer and are maintained on tape. Because of the system of identifying each weight record by registration number of its sire and dam and membership code number of the owner, we are able to determine many human errors that occur in reporting information from the breeders. These errors are identified four times a year and corrections are made with the help of the breeder. The end product of this is more accurate performance information of the cattle of each Angus breeder.

Breeders are encouraged to be enrolled in their state BCIA Program as well as the Production Measure Program. The duplicate effort of reporting weights to the national breed association has been forgotten by breeders that are actively participating in both their state and national association programs. The merits speak for themselves.

Some variation in age of dam adjustments do occur but it is because of a difference in determining when a cow is no longer a two year old but becomes a three year old. In the Production Measure Program the computer is programmed to identify a cow as being two years' old between the ages of 18 and 30 months; considered a three year old between 30 and 42 months, and to be considered a four year old between 42 and 54 months.

A grade ratio is printed above the actual calf grade or yearling grade on all records. A weight ratio has been used on all records since 1965. At least ten calves must be weighed in a group for the weight ratio to be determined.

The Annual Produce of Dam Summary includes all the information received from the breeder and is a check on calving intervals, percent calf crop, etc. The Most Probable Producing Ability reports rank the cows according to the weight ratio of their calves.

During 1971 a new Estimated Breeding Evaluation Program will be a functioning part of Production Measure. A new worksheet evaluation form will list and rank calves within a group weighed at the same time according to their breeding value. The breeding value of cows and sires will be up-dated each time a breeder sends in additional weights to the Production Measure Program.

CARCASS EVALUATION

In 1962 the Carcass Evaluation Program was initiated. Breeders continue to use this to check the producing ability of their herd sires. Steers or heifers are fed in commercial feedlots or at the breeder's ranch. A certificate is issued for each sire that has had at least six progeny evaluated. There is no minimum standard established in this program. The record itself is a guide to continued use of this sire in the herd.

PERFORMANCE PEDIGREES

A Performance Pedigree was initiated in 1967. The information that is printed on the Performance Pedigree is stored on tape so the computer prints the pedigree. In order to have a complete Performance Pedigree on an animal, its owner must have been participating in Production Measure, Carcass Evaluation and Herd Classification.

EDUCATIONAL MEETINGS

The American Angus Association held three regional forums during 1970. All phases of the Angus business were discussed but great emphasis was placed on the AHIR Program. Hundreds of breeders and friends joined forces for a three day Angus tour that visited ranches and feedlots in two states and studied all phases of the beef industry from the registered seed stock producer, the commercial cowman, the farm feedlot, the large commercial feedlot, the packer, the retailer to the restaurant operation.

Other meetings were held in cooperation with State Extension Services and State Angus Associations.

NEW PROGRAMS

A Breeding Value Estimation will be determined and printed on a new breeding evaluation worksheet. This requires the assistance of a new computer which will be in operation in June, 1971.

A Sire Evaluation Program is being developed that will include all phases of the AHIR Program plus progeny feeding in controlled feedlots and the mating of contemporary sires in multiple herds. This program will be searching for the genetically superior sires of the Angus breed.

TOTAL PERFORMANCE RECORDS

by Art Linton

The Total Performance Records program, which was established by the American Hereford Association in 1964, is a two phase program. The calf performance registry portion measures performance on a within herd basis. The feedlot and carcass phase of TPR provides sire progeny information on such economically important traits as feedlot performance and carcass merit. Each segment is essentially independent of the other, so it is possible for a breeder to participate in one and not the other. However, the two portions of the program compliment each other and when combined they provide a complete measure of performance.

The calf performance registry portion of TPR, which has been extremely popular among Hereford breeders, includes measures of performance at both weaning and yearling stages. Because breeders must account for every cow once each year before receiving their individual produce of dam record for each cow, they have a complete record of fertility and the calving history of each individual with the herd. Every effort has been made to maintain flexibility within the program for ease of participation while continuing to insure scientific soundness within the program. Since all ratios are calculated on a within herd basis, no verification of weights is required.

The feedlot and carcass phase is dependent upon the close cooperation of leading feedlots and packers with the American Hereford Association. Six centrally located test facilities have been established to handle the progeny groups. Calves are delivered when seven to ten months of age. After a two-week warm up period they are weighed on test and fed for maximum gain until they reach minimum slaughter weights of 900 pounds for heifers and 1,050 pounds for steers. After slaughter, carcasses are completely evaluated for quality and cutability. All data collection and evaluation is handled by the AHA.

At several locations facilities allow progeny groups to be fed separately. This makes it possible to measure efficiency as well as rate of gain.

To promote a greater understanding of performance records and to stimulate their use, the AHA sponsored a series of TPR clinics a year ago. These day-long meetings dealt with data collection and application.

Currently plans are being made to include an individual performance certificate as part of TPR. This would include performance information on close ancestors, on the animal himself and the estimated breeding values for a few major production traits.

BIF recommendations are followed in all TPR procedures.

THE AICA PERFORMANCE CONCEPT

by Bill Durfey

Rather than duplicate a standard service that is already available, we wish to concentrate our efforts in offering additional programs of benefit to our members that are not available from other sources. Therefore, the AICA has not chosen to provide computer record processing service as there are several such services available to each of our members.

The joint AICA-PRI certificate of registration for Charolais cattle is an example of such a program. Upon request from any member of the AICA, we will print on a special AICA-PRI certificate of registration the individual performance record of the registered animal. Such individual performance data must have been processed through the Performance Registry International record processing program or by a State beef cattle improvement association that follows the standard adjustment procedures of the Beef Improvement Federation.

The AICA is planning other programs related to performance testing and selection that are over and above the standard record processing services provided by state and national performance testing associations. These programs which have not been formally approved as yet will include the exchange of data between the AICA and the various performance testing associations utilized by its members. This exchange of data made possible through recommended procedures of the Beef Improvement Federation, specifically the BIF Computer Record Standardization subcommittee, will permit the AICA to compile national sire summaries for those sires used widely through artificial insemination and ultimately we can print performance pedigrees directly on AICA registration certificates. Individual and progeny performance testing programs are being outlined for use in making such performance information available publicly for those sires that are to be utilized throughout the breed through artificial insemination.

AMERICAN POLLED HEREFORD ASSOCIATION PERFORMANCE PROGRAMS

by Jack Richey

1. Guide Lines Performance Programs

The APHA Guide Lines Program offers record servicing on growth records with a Performance Ancestral Record on each individual which shows the record of the sire, dam, and individual, plus a progeny summary for the sire and produce summary for the dam. Annual sire and dam summaries are provided. Any bull having Guide Lines yearling records will be allowed 100 recordings per year of calves conceived by A. I. through use by non-owners of the bull.

2. American Beef Records Association

This subsidiary of the APHA offers all of the Guide Lines record services to commercial breeders as well as to other purebreeds.

3. 140-Day Feeding Trial

The APHA has in progress the first national feeding trial sponsored by the Association. Sixty-three bulls from thirteen herds in 10 states are presented. Invitations to participate were based on past performance records in each herd. The bulls will be offered for sale on April 9, 1971, at the APHA National Clinic at Columbia, Missouri.

4. Superior Sire Evaluation

The APHA recently adopted a comparative method for identifying Superior Sires. Bulls will be evaluated for individual growth at weaning and to 365 days. Progeny will be evaluated in comparison with calves from a reference sire for pounds of trimmed retail product per day of age with 75% of the steer calves to be in the choice grade. Sires with acceptable performance by progeny may receive additional recognition if they produce no genetic abnormal from 20 sire-daughter matings. Recognition will also be extended to bulls whose progeny win in shows which require performance information and provide weight, weight per day of age, fat thickness and fat thickness per hundredweight to the judge and audience.

The Standard of Perfection Superior Sire program provides that sires be designated by Star Rating as they achieve certain levels of performance and that levels of A. I. use be established by the Star Rating. Each star will allow 250 calves per year to be recorded by non-owners of the sire from A. I. matings, except bulls receiving a five star rating will be permitted unlimited A. I. use.

The uniqueness of this program is that it is a comparative test and requires only a single herd comparison to be valid. The APHA will measure sires to be used as the standard or reference point. Semen from these bulls will be made available for on-the-farm comparison by randomly assigning a prelisted group of cows to the bulls being compared. Progeny of bulls being tested must equal or surpass the performance of calves from the reference sire under the same environment by a stated percentage to be recognized.

5. Performance in the Show Ring

Beginning January 1, 1973, all animals eligible to receive APHA SOP Show Premiums must be on the Guide Lines Program and produce a P.A.R. certificate.

6. Artificial Insemination Rules

Registrations of calves by non-owners of the sire will be governed by performance of the sire and his progeny. Detailed rules are specified by the Superior Sire program.

NORTH AMERICAN LIMOUSIN FOUNDATION PERFORMANCE RECORD PROGRAM

by Ronald N. Brown

The North American Limousin Foundation has stated in its By-Laws and Rules and Regulations since the beginning that the Limousin breed on the North American continent will be a performance test breed. Consequently, performance data is a prerequisite for recording or registering Limousin cattle in the North American Limousin Foundation Herd Book. The Foundation has adopted the Guidelines for Uniform Beef Improvement Programs manual, published by the Beef Improvement Federation and distributed at the Spring, 1970 BIF meeting, as the pattern for its performance record and breed improvement program.

The Foundation will work as closely as possible with the Canadian Limousin Association to make certain that the requirements and records of both organizations are compatible and, if at all possible, identical. Any deviation from the BIF guidelines that are seen in the North American Limousin Foundation standards will result from: (1) The effort to maintain compatibility with Canadian regulations, or, (2) Characteristics of the Limousin which are unique to that breed and would not conform to conventional standards.

At this time the Foundation has found only a very few minor differences from the BIF guidelines to be necessary in our program. For simplicity, at the beginning of the program, the Foundation will require a minimum of performance information which will include the following:

Dam information

(If dam is a foundation cow)

1. Herd identification number
2. Age
3. Breed background

If the dam is 50% Limousin or higher, her performance information must be on record with the Foundation.

Breeding information

1. Type of service
2. Exposure dates
3. Foundation-assigned AI technician identification number or member number (if the service was AI)
4. Sire's identification number

Calving information

1. Permanent herd identification number (these must be tattooed in the calf's ear)
2. Sex
3. Single or twin
4. Polled or horned
5. Percentage of Limousin blood
6. Birth date
7. Birth weight (optional)
8. Weaning date
9. Weaning weight
10. On foster cow or own cow
11. On creep feed or not
12. Date weighed as yearling
13. Yearling weight
14. General category of management level during postweaning period.

If a calf is a bull and has been on an official feed test, the on-test date and weight and the off-test date and weight should be submitted instead of the yearling weight.

The Foundation office will adjust all weaning weights to 200-day weights and all yearling weights to 365-day weights. These computations will be made in the Foundation office to insure that all breeders are using the same formula and adjustment factors. BIF formulas will be used.

All performance information submitted to the Foundation office will be recorded on computer files in detail to retain the history of each individual animal and to allow a variety of research reports. Herd performance levels, the effects of environment, cross-breeding and its effect on Limousin performance, along with many other research questions that will be of interest can be generated from these files. Plans enable the organization to add additional data to the requirements later, such as progeny information and carcass research material.

Limousin breeders are encouraged to report performance information not only for Limousin cattle they expect to record or register, but on their commercial Limousin herd as well so that more complete herd reports and analyses will be available.

The Foundation has planned a program which is simple in the beginning, yet flexible enough so that it can be expanded in the future as the need arises. The result is an entirely new type of "open end" computer program which will give the Foundation a great deal of flexibility and freedom in the development of future projects and reports. The Limousin data program incorporates most of the advantages of the world's best performance plans, plus a complete bloodline registry that can include as many as 30 or more ancestral breeds involved in the breeding-up process. In addition, a major data bank segment has also been provided for carcass and meat production research for future development.

RED ANGUS ROUNDUP FOR 1970

by Julius Todd

The year 1970 saw the Red Angus Association of America adopt and begin implementation of an up-to-date computer program.

This new program will project the performance philosophy of Red Angus and incorporate the latest research information and the policies recommended by the Beef Improvement Federation.

Performance Registry International will service the program, which provides perpetual live cattle inventory, adjusted weaning and yearling data with ratios and number of contemporaries tested and cow's efficiency data based on the Most Probable Producing Ability concept. We will also provide a space for breeders to score and improve on our weak points. An example is protruding prepulse. All Red Angus Pedigrees will be Performance Pedigrees. This will enable breeders to have a complete history of an individual on one form. Cow progeny and sire summaries will also be available.

The Association also has an F-1 program that provides a means of recording superior F-1s from performance-proven Red Angus sires. For those breeders wishing to continue the use of Red Angus sires on F-1 and 50% Red Angus females, a grading-up program provides the means for certifying fourth cross or 15/16 Red Angus cattle. The association will also record descending as well as ascending percentages of Red Angus blood whether or not these individuals are recorded by other associations. These programs for all practical purposes provide an open herdbook which most animal breeders so strongly advocate.

THE AMERICAN SIMMENTAL ASSOCIATION'S BEEF IMPROVEMENT ACTIVITIES

by Don Vaniman

The Simmental breed of cattle have been performance tested in Europe since 1806 beginning in Switzerland. Along with spreading the cattle to most all of the countries throughout Europe, each country the cattle have been imported into have continued the performance program. All of these programs include the measurement of milk and of meat through A.I. and progeny testing. In the United States the American Simmental Association intends to carry on this tradition. We have established performance pedigrees in which no animal will be recorded or registered without the weaning weight ratios (W), the number of contemporaries on test (N), and the average 205 day adjusted weight of the group (A). From this data we record or register heifers. At the time the heifer has her first calf its weaning weight ratio (W), number of contemporaries (N), and group average 205 day adjusted weight (A) are listed on the heifer's registration certificate.

We do not compute yearling weights for heifers as we figure gain on a heifer is not a feminine trait. To record or register a Simmental bull, we require a weaning weight ratio (W), number of contemporaries on test (N), the group average 205 day adjusted weight (A), along with a yearling weight ratio (Y), the number of contemporaries on test (N), the group average 365 day adjusted weight (A). With these performance pedigree requirements, it has enabled the founders of ASA to upgrade to purebred in three crosses so that 7/8 blood heifers are called purebreds, and 15/16 blood bulls are called purebred.

On the certificate we print a three generation performance pedigree with the above data listed for each ancestor.

To gain maximum beef improvement, we have allowed completely open artificial insemination. Our founders have allowed the use of beef or dairy or crosses thereof, to be used as foundation cattle. We have no color restrictions whatsoever.

We presently have a program working which computes the weaning and yearling weight ratios and are working on a program which enables us to print a national sire summary for all Simmental sires used in the United States.

This national sire summary will include fertility or conception rates on each bull, will summarize gestation length for each sire as well as calving ease. It will summarize average birth weights, weaning weight ratios, and adjusted 205 day and 365 day weights per sire. The sire summary will then include yearling performance data and carcass data on each bull. These sire summaries will be available to all members.

The cows in the breed will have their record up-dated every time they have a calf. The Most Probable Producing Ability of each cow will be computed.

All of our calculations will be done to BIF standards. In addition to BIF we not only calculate the weight ratios within sex groups but within percentage Simmental groups. We feel with these programs in operation and with all information available to anyone interested we can better serve our breeders in their beef improvement programs.

THE RED POLL PROGRAM

by Wendell Severin

The Red Poll Gain Register for the supervised weighing of calves and recording of the resulting preweaning gain data in pedigree records and on certificates of registration was introduced in 1960. In this program the breed returned to the principle of whole-herd testing, which it claims to have originated in England. Mr. Euren states in his "Heredity of Dual-Purpose Cattle" that, although the Danes, Swedes and Dutch are credited (by a Scottish writer) with discovering and adopting the principle of whole-herd testing in 1895, it is a fact that the practice was used by English Red Poll breeders at earlier dates. It is a matter of breed record that the first whole-herd Red Poll milk records were published in England in 1887, that the British Red Poll Society authorized publication of such records from 1890 on and that in 1895 whole-herd milk records for 13 herds totaling 320 cows were in fact obtained and published.

In establishing the Gain Register, first executed segment of a modern beef performance testing program, effective with calves born on and after January 1, 1960, the breed returned to the principle it had been the first to use three-quarters of a century earlier, that of whole-herd testing as a basis for breed improvement. The complete Red Poll program to date has the following parts:

Gain Register. (For all animals in herd) Calves are weighed at 205 days of age \pm 45 days. Average daily gain = scale weight - 70 lbs. birthweight \div by age in days. Bulls with actual average gain of 2.0 lbs. or more per day, steers with 1.8 lbs. and heifers with 1.6 lbs. or more qualify for recognition as "GR" cattle. These minimums encourage selection for fast calf gain but are moderate enough to encourage use of the program and recognition of its results under a wide range of environments.

Average daily preweaning gain is rounded to the nearest one-tenth lb. and the two number digits are combined with the initials "GR" without punctuation or spacing to form a symbol which becomes a permanent addition to a qualified registered animal's name and number. Thus, "GR30" indicates an actual average daily gain of 3.0 lbs. per day. No adjustments of any kind are made, though a heifer's first calf is indicated by adding the letter "H" to the symbol; example, "GR30h".

The Gain Register popularity is indicated by data from a portion of the 1969 calf crop. Participating breeders had weighed about 25% as much calves as were registered in the same period. Breedwide summaries are published.

Carcass Register. A Carcass Register program for steers was opened in 1963 and was made retroactive for carcasses previously evaluated in public contests and demonstrations in cases where sufficient data were collected and recorded to permit determining unquestionable qualification. The "CR" rules were designed to determine minimum acceptable meat quality by modern standards plus yearling weight in the most objective of terms, namely pounds of qualified carcass produced per day of age. A Carcass Registered steer must have been birth reported on Gain Register forms and evaluated under disinterested and qualified extension, educational or meats industry supervision.

Minimum CR requirements are: (1) Production of 1.3 lbs. or more of warm carcass per day of age when evaluated between 231 and 500 days of age; (2) Minimum ribeye area of .028 sq. in. per day of age at 12 months of age (\pm .001 sq. in. each month of

lesser and greater age, respectively); (3) Maximum fat cover over the 12th rib of .13 in. per hundredweight of warm carcass; and (4) A minimum marbling score of USDA Small (H or Number 5) or, alternatively, a grade of US High Good (top third of Good grade) or better, marbling score preferred.

Symbols are used to relate qualified carcass records to appropriately related breeding cattle. The symbols are: (1) "CR" plus six digits; (2) "CRD" plus six digits; and (3) "SXXCR" with one or two digits between "S" and "CR" and six digits following. These are best explained with examples:

The symbol "CR123052" can be read by mentally separating its components thusly, CR/12/30/52. It then reads: Qualified Carcass Registered steer evaluated at 12 months (+ a half-month), with .030 sq. in. REA per day of age and production of 1.52 lbs. of warm carcass per day of age. (Assume that minimum meat quality and maximum allowable fat requirements have been met or bettered.) This type of symbol becomes a permanent part of the registered name and registration number of each full sibling of the qualified steer that is registered, then or later, in the pedigree records of the association and on the registration certificates issued to breeders. Appropriate data symbols are also added to the names and numbers of the dams and sires.

In 1970 the association expanded the Carcass Register program to include data from bulls. A bull carcass evaluation must indicate a minimum of 1.50 lbs. of carcass produced per day of age, have a minimum of .033 sq. in. of REA per day of age at 12 months of age (+ a half-month) and a marbling score of USDA Slight or better. Earned bull carcass symbols are similar to the steer symbols but each has a lower case "b" following the six performance digits to indicate bull carcass. Bull and steer carcasses are not mixed in determining sire symbols.

Yearling weight Program (For live bulls). In 1970, a live bull yearling weight program has been adopted. Eligibility for recognition requires: (1) Nomination and weighing (but not necessarily qualification) in Gain Register; (2) Weighing not earlier than 140 days following date weighed for Gain Register; (3) Weighing at not over 500 days of age.

A Yearling Weight (YW) symbol is being devised which, in connection with the GR symbol, will provide breeders with a calculated 365-day weight and show, via simple arithmetic, what of this weight was made on the cow and what of it was "feedlot gain."

Participation in all Red Poll performance programs is limited to cattle by registered Red Poll bulls and produced by registered Red Poll cows. The objective is to collect, record and present straight Red Poll data that is undistorted by hybrid vigor or plus or minus genetic effects from dams or sires of other breeds, so that the commercial breeder or crossbreeder--if he knows the inherent capabilities of the cows he is using--can better judge what Red Polls as a breed or specific Red Poll bulls may have the inherent ability to do for him. It is the suggestion of the Red Poll association that commercial breeders using Red Poll blood take advantage of the testing services offered by organizations such as the state BCIA's and PRI.

The Santa Gertrudis Breed Improvement Program

by Tom Robertson

Santa Gertrudis Breeders International, in order to keep up with the changing demands from consumers as they relate to the raising of Santa Gertrudis for the purebred and commercial cattlemen is currently digging into the technology of beef production as a basis for outlining its various programs.

From SGBI's inception its unique system of visual inspection for classification has been used. The system works because of a close relationship between the Field Directors employed by SGBI and the Association's Breed Improvement Committee. These two groups work together to insure that each Field Director is able to "see" Santa Gertrudis cattle according to the Standard of Excellence which is a guide to the characteristics and qualities sought in Santa Gertrudis.

It is through this unique system that problems are quickly solved through selective breeding to strengthen some areas or to eliminate others.

The association realizes the importance of finding and using the latest data of how the cattle perform in tests and feedlots, especially when compared to other breeds. This year SGBI voted at its last Annual Meeting of the Membership to offer a \$5,000 premium to the first Santa Gertrudis steer, either purebred or cross-bred, to win Grand Champion Carcass in an all-breed contest. Five such contests have been marked this year among the major livestock shows in the nation.

Santa Gertrudis are proving their worth more and more every day in the feedlots of the country and this has led the breed into another facet of the industry and that is Performance Testing. These tests, conducted for official purposes, are under the supervision of an unbiased third party over a period of 140 days. Performance Testing came about when SGBI, along with other associations, saw the need for factual recording of information that could be used in the beef cattle markets of the future.

It was with this same idea as a basis that SGBI's Superior Sire Selection Program was born. Under this program, a Santa Gertrudis bull would be tested over a long period of time using more detailed conventional testing methods of sire evaluation to include points that are relevant to the commercial cow and calf industry, the feeding industry, the meat packers, super markets and the housewife. These measurements include reproductive ability, growth rate, efficiency of gain, carcass cutability, carcass quality, mothering ability in the case of female offspring and any genetic defects which might be present. These traits are tested both from natural breeding service and artificial insemination as well.

Detailed records are kept on the sire as well as a large number of the offspring and are all tabulated into a detailed picture of the bull and his later generations.

It is with such programs as these that SGBI is keeping an eye on the future, not only for the Association and the Santa Gertrudis breed, but also the entire beef industry. It is through this type of planning that the beef industry as a whole will benefit.

PROGENY TEST PROGRAM
AMERICAN BREEDERS SERVICE, INC.

by Ray R. Woodward

American Breeders Service, Inc. has been engaged in progeny testing Angus, Hereford, and Polled Hereford since 1961. This test has recently been expanded to include Charolais, Simmental, and Limousin bulls.

With the exception of Simmental and Limousin bulls, the test is conducted as follows: ten to twenty performance tested bulls are bred and selected each year as prospects. All bulls selected are in the top five (5) percent or higher of their respective performance test. Each bull is bred to approximately forty (40) cows in replicate herds. Comparisons are between herd mates, as well as with overall herd averages.

After weaning, all test calves are assembled in a feedlot, fed the same ration, and slaughtered on a weight and condition constant basis, generally ranging between 950 and 1050 pounds.

Sires are selected for stud entry on the basis of progeny superiority for pre-weaning and post-weaning growth and cutability. To date approximately one (1) out of five (5) bulls progeny tested has been selected for stud entry.

Obviously in the Simmental and Limousin breeds, it has not been possible to select performance tested bulls because of the age limitation for the initial bull-calf selection.

BEEF IMPROVEMENT PROGRAM OF CURTISS BREEDING SERVICE

by Bernard M. Jones, Jr.

Curtiss Breeding Service provides semen to beef and dairy herd owners throughout the United States and many foreign countries. The Curtiss farm operation began with the purpose of improving both beef and dairy cattle. At its peak, the farm operation consisted of over 10,000 acres of farm land located in Northern Illinois with herds of Holstein, Guernsey, Jersey, Brown Swiss, Ayrshire, Angus, Hereford and Shorthorn.

It soon became evident that it was through artificial breeding that Curtiss could make its greatest contribution to cattle improvement. In 1949 Curtiss entered into this field of endeavor as more and more attention was devoted to artificial breeding. The outlying farm and their herds were sold and additional efforts were directed to further expand the artificial breeding phase of the business.

After its modest beginning as a part of the old Curtiss Candy Farms in 1949, Curtiss Breeding Service has continued to grow until today it is one of the world's leading semen producing organizations, breeding well over one million cows annually.

The Curtiss Beef Program consists of approximately 75 bulls. Beef bulls in the Curtiss program have been selected primarily on their performance. Bulls are selected from performance testing stations and from herds with a long history of outstanding performance. Much emphasis is placed on yearling weight and during the last 18 months each bull purchased had a 365 day adjusted yearling weight over 1,100 pounds. These bulls were also well above herd average and usually the top bull on test.

After completing health and semen evaluation tests, these young bulls are bred for a progeny test. The bulls are bred with a control bull and are usually bred in more than one test herd. At the present time approximately 45 bulls are being progeny tested in several test herds.

When the progeny test is complete, bulls with inferior records are slaughtered and bulls with the top progeny records are the bulls which provide the majority of our beef semen. This semen is merchandised by over 1,700 specially trained distributors and technicians. In areas not covered by a Curtissman, it is possible for herd owners to purchase semen and A. I. equipment directly from the Curtiss headquarters.

Curtiss is constantly selecting top quality bulls with outstanding performance and progeny records. The program is designed to provide beef breeders with beef bulls which are superior in the traits of greatest economic importance.