



CENTRAL PERFORMANCE TEST REPORT FOR BEEF BULLS

Attached are performance test results for the group of beef bulls which completed central performance test on 29 August 2001 at the beef performance testing station at Tully, Co Kildare.

Performance testing

Central performance testing is a central part of the national programme for the genetic improvement of beef cattle in Ireland and provides very useful information for selecting bulls for entry into AI. The testing is organised by I C B F, the Irish Cattle Breeding Federation in conjunction with D A F R D. Performance testing involves the evaluation of selected beef bulls of various beef breeds from many herds for a number of important economic traits. It is the only way by which feed conversion efficiency can be accurately evaluated. Pedigree bulls are evaluated under uniform conditions of feeding, housing and management in order to identify the genetically superior bulls. Central performance testing enables more accurate estimates of breeding values to be obtained at an early stage in a bulls breeding life in contrast to an on-farm or a progeny test which, though more accurate, takes significantly longer and does not evaluate feed efficiency.

Bulls enter the test station at approximately 6 months of age and remain on test for a further 6 months. They are fed to appetite on a high quality diet. Feed intakes are individually recorded to facilitate the estimation of feed efficiency.

Traits Measured and Evaluated

Many traits including Growth Rate, Feed Conversion Efficiency, Carcass Merit and Withers Height are recorded. Carcass merit is evaluated by recording eye muscle area and fat area using ultrasound-scanning equipment.

The recorded traits are combined to give three sub-indices as follows:-

- Growth Index which is calculated primarily from the adjusted final weight and withers height of the bull;
- Feed Conversion Index;

- Carcass Merit Index which is calculated from the eye-muscle area, fat area and visual muscling score of the bull;

Finally these sub-indices are combined to give an overall index of merit called the BEEF MERIT INDEX. Approximately equal weightings are given to each sub-index in the calculation of this overall index.

The interpretation of these Indices

The breed means for the beef merit index and the sub-indices are set to 100. The standard deviations of the indices are set to 10. Bulls scoring 110 or greater in any indices are expected to come from the top 15% of the national population and bulls scoring 90 or less are expected to come from the bottom 15% of the population for that index.

By choosing a bull from the top of its breed for genetic merit, a beef producer can expect to increase overall profitability by either reducing production costs or increasing carcass value.

Current Developments

ICBF is currently reviewing the operation of the central performance test station in conjunction with the breed associations, the AI industry and the wider beef industry. The full benefits of the valuable facility at Tully can only be achieved by ensuring that only the best available bulls are tested and from which only the top animals are selected for use in AI. Towards this end Breed Societies have now agreed to be more closely involved in the selecting and approval of bulls for central testing. Potential applicants should now apply through their breed Association to have a bull performance tested.

Linear scoring

Linear scoring is now becoming a widely used tool in the evaluation of beef breeding animals. It has long been used in the dairy industry to describe type traits in dairy animals. As more breed Associations are now incorporating the tool into their breeding strategies, it is now

appropriate that the BLUP linear scoring evaluation system be used in place of the visual assessment procedure used in the past at the central performance test station. The linear scoring procedure is being adapted to harmonise with ICAR guidelines. Historically a single overall visual assessment score was given to each bull upon completion of the test. Such a single figure failed to describe the various physical or anatomical characteristics of the animal. Good traits could compensate for poorer traits. Linear scoring in contrast describes an animal by assigning a score to a range of anatomical sites on the animal. These sites are grouped into the categories of muscular, skeletal, functional and other. The scoring system is designed to cover the biological range expected when describing animals in a particular age range. Muscular traits are assigned scores, which will range from 1 to 15 while the remainder are assigned scores in the range 1 to 10. Again in conjunction with the various breed Associations, a number of linear scorers are being approved to provide a linear scoring service. These linear scorers will be required to regularly come together and jointly score animals in order to ensure that common standards are being applied.

In consultation with Breed Associations it is now proposed to use the linear Animal Model BLUP evaluation procedure. The linear scoring procedure is also being incorporated into the AI beef bull progeny test programme. Linear score BLUP breeding values are calculated on a routine basis.

ICBF is also involved in a programme of research work with Teagasc, the objective of which is to fine-tune the linear scoring technique as a predictor of carcass value. Breed Associations will be free to add additional or optional traits to the core set of traits used at Tully and in the AI progeny test programme.

Issued by the Department of Agriculture, Food and Rural Development in conjunction with the Irish Cattle Breeding Federation

Web Address for further details on ICBF activities

www.icbf.com



Central Performance Test Station at Tully Kildare

SUMMARY REPORT OF PERFORMANCE TEST RESULTS FOR BULLS ENDING TEST ON 29/8/2001

NAME OF BULL	BULL NO.	AGE at start	ADG	ADG	ADJUSTED	WITHERS	ADJUSTED	EYE	FAT	GENETIC INDICES FOR			OVERALL BEEF MERIT INDEX
			pre test (kg)	on test (kg)	FINAL WEIGHT 400 days	HEIGHT 365 days (cm)	FEED CONV	MUSCLE AREA (cm)	AREA (cm)	GROWTH RATE	FEED EFFIC- IENCY	CARCASE MERIT	
ANGUS													
BALLYMAGRINE SUPER STAR	N3137	198	1.29	1.79	638	121	6.49	87	2.5	111	103	103	107
WALSHSTOWN SONAS	N6017	254	1.18	2.39	619	125	5.22	86	2.8	109	123	100	114
CLOONCOLLIGAN SAMSON	N6072	230	1.07	1.82	570	123	6.26	94	2.6	101	107	110	105
MOYDRUM SAMSON	N8030	237	1.18	1.90	589	122	6.25	96	2.6	104	107	114	108
BLONDE D' AQUITAINE													
LATTIN ROMULUS	N8224	179	1.51	2.18	775	137	5.06	113	.7	123	112	110	120
BELGIAN BLUE													
MOOHANE SAM	N2017	234	1.26	1.61	592	123	6.39	123	.5	94	93	110	95
CHAROLAIS													
HAZEL RICARDO	N8064	193	1.26	2.06	704	132	6.18	95	1.0	106	98	95	100
HEREFORD													
CURRAGHROE TIGER	N6091	260	.94	1.76	524	125	6.79	91	5.1	85	94	103	89
DUIBHGIOLLA SUPER	N7073	228	1.17	1.80	608	123	6.35	95	2.3	100	102	114	103
LIMOUSIN													
PELLETSTOWN REAREND	N3345	224	1.48	1.96	686	136	4.93	106	.5	122	119	113	122
PELLETSTOWN ROSS	N7349	207	1.41	1.80	647	130	4.98	111	1.2	111	119	116	117
BROOMFIELD RICHIE	N8235	219	1.29	1.78	645	132	5.84	108	.8	112	104	111	110
BROOMFIELD ROCK	N9236	219	1.01	1.67	542	129	5.98	111	1.5	89	102	113	97
SIMMENTAL													
CELTIC LIMESTONE	N6157	199	1.70	1.72	708	136	7.09	114	1.1	108	88	123	104
MARBELHILL LEROY	N9103	240	1.28	1.90	638	130	6.26	100	1.4	94	101	107	98

Performance Testing of Bulls born Dec '2000 to Feb 2001 Inclusive - Breeding Details

Bull No.	Breed	Bull Name	Earmark	Date of Birth	Sire name H.B. No.	Dam name H.B. No.	MGS name H.B. No.	Owner
N3137	AA	BALLYMAGRINE SUPER STAR	311387030137	05/08/2000	BOHEY MAGNUM IRM/M16/30	BALLYMAGRINE PAM ECZ/P01/23	CARTON ROE ERNIE IBB/E01/23	CHRISTY DOWD BALLYMAGRIWE, ROOSKEY, ROSCOMMON
N6017	AA	WALSHESTOWN SONAS	361149260017	10/06/2000	BELVIN FLARE 825189	SPRINGMOUNT NANCY ICU/N01/30	RATHCOR JAKE ERIC RPX/R01/27	JOE O'MEARA WALSHESTOWN SOUTH, MULLINGAR, WESTMEATH
N6072	AA	CLOONCOLLIGAN SAMSON	251142360072	04/07/2000	BOHEY MAGNUM IR-M016	FOXWOOD EMMA IKE-E001	LAHEEN TOM IWD-T-001	MONICA DIFFLEY CLOONCALLIGAN, BORNACoola, LEITRIM.
N8030	AA	MOYDRUM SAMSON	361023580030	27/06/2000	PRIESTOWN JUPITER MEP-V-002	DRINEY MIGHTY IRQ-M-003	TIVANAGH BARON ITP-B-002	MICHAEL FLANAGAN CASTLEORCHARD, MOYDRUM, ATHLONE.
N8224	BA	LATTIN ROMULUS	LAN-00-005	24/08/2000	CAPUCIN 8187132108	LATTIN JANE LAN-J02	KILBOY FRANK KCE F05	PATRICK FINNAN LATTIN WEST, TIPPERARY, TIPPERARY.
N2017	BB	MOOHANE SAM	NZ-S-002	30/06/2000	SEDUISANT DE FOOZ 956 02992 054	KILCULLEN ORLA	PETULANT D'ANIXLE 839 00083 009	JOAN MEEHAN MOOHANE, NEWMARKET-ON-FERGUS, CLARE
N8064	CH	HAZEL RICARDO	ROH-00-001	10/08/2000	TRINADERRY OVATION FF 0052388	DERRYDUFF MANDY FF 0033572	BOWERHOUSE TOPPER 13866 BRIT	JOHN O SULLIVAN CLOGHNE UPPER, BEARA, CORK
N6091	HH	CURRAGHROE TIGER	5Y/T2	04/06/2000	TEMPLEGLANTINE BOXER OTC/B1/116	CURRAGHROE JULIE 5Y/J2/123	CH 3223 VISA ET 57X ZKT/57X/120	JOHN B GUNN CURRAGHROE, ROSCOMMON, ROSCOMMON
N7073	HH	DUIBHGIOLLA SUPER	QNV-V-001	06/07/2000	LISNABIN JOVIAL MR/J011/123	RATHCOR JULIET 42ND AJP/044/122	TEMPLEGLANTINE BOXER OTC/B001/116	MONICA DIFFLEY CLOONCOLLIGAN, BORNACoola, LEITRIM
N3345	LM	PELLETSTOWN REAREND	PELR-345	10/07/2000	BAILEA NAVAJOE JAG97-018	PELLETSTOWN LE BELLE PELL-132	GENEREUX 1991 009 241	ROGER MCCARRICK PELLETSTOWN, DRUMREE, MEATH.
N7349	LM	PELLETSTOWN ROSS	PELR-349	27/07/2000	BAILEA NAVAJOE JAG97-018	PELLETSTOWN LINDA PELL-136	GENEREUX 1991 009 241	ROGER MCCARRICK PELLETSTOWN, DRUMREE, MEATH
N8235	LM	BROOMFIELD RICHIE	BMFR-235	15/07/2000	CURRAGHREE MISTER OLIVER RCEM-006	MONARIGG MANDY MNRM-003	LISNACRANN JACK LNCJ-002	JOHN O'GRADY KILPHILLIBEEN, BALLYNOE, MALLOW, CORK.
N9236	LM	BROOMFIELD ROCK	BMFR-236	15/07/2000	RIVERVIEW KRISS REVK-014-FOT	BROOMFIELD LOGANBERRY BMFL-018	BROOMFIELD GEORGIE BMFG-002	JOHN O'GRADY KILPHILLIBEEN, BALLYNOE, MALLOW, CORK.
N6157	ST	CELTIC LIMESTONE	CTC-L-010	04/08/2000	EUREKA IMP.90A 91.9101	BALLINTLEA CACTUS 92.2094	GRETNAGHOUSE SUPERSONIC 1063	GERARD BRICKLEY COOLRAIN, PORTLAOSIE LAOIS
N9103	ST	MARBELHILL LEROY	NAM-L-009	24/06/2000	INNERWICK ATLANTIC 94.9404	REDMOUNT DOROTHY 93.2488	ENFIELD BENZ 1031	PATRICK MANNION KILLASOLAN, MOUNTBELLEW, GALWAY