CENTRAL PERFORMANCE TEST REPORT FOR BEEF BULLS

November 2001

Attached are performance test results for the group of beef bulls which completed central performance test on 8 November 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 DAFRD and the Herdbook Associations who organise the selection of the bulls. 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 8/11/2001

NAME OF BULL	BULL NO.	AGE at start	ADG pre test (kg)	ADG on test (kg)	ADJUSTED FINAL WEIGHT 400 days	WITHERS HEIGHT 365 days (cm)	ADJUSTED FEED CONV	EYE MUSCLE AREA (cm)	FAT AREA (cm)	GENETIC INDICES FOR GROWTH RATE	FEED EFFIC-IENCY	CARCASE MERIT	OVERALL BEEF MERIT INDEX
ANGUS													
THORNHILL SNITCH	N7567	280	1.27	2.09	598	124	6.01	90	4.6	111	116	105	113
AUBRAC													
PARKNAGERAGH ROBERT	N6311	286	.85	2.03	490	117	5.27	114	1.5	90	125	117	108
BLONDE D'AQUITAINE													
GREENROSE RALPH	N1362	293	1.22	1.96	566	129	4.88	112	1.4	96	120	108	107
BELGIAN BLUE													
RATHLYON SULTAN	N1204	258	1.48	1.39	581	121	6.65	127	.4	100	95	116	101
RATHLYON SANTANA	N9203	259	1.56	1.15	582	120	7.94	128	1.2	100	72	113	91
CHAROLAIS													
LISCALLY RINGO	N1108	288	1.47	1.98	649	128	6.25	96	1.6	102	102	99	101
KNOCKANE ROCK	N3088	269	1.67	1.33	644	130	7.34	107	1.3	102	82	110	95
PRIME ROBERTO	N5083	275	1.87	1.83	748	135	5.33	98	1.2	122	118	103	119
BALLYBROWN ROVER	N8035	266	1.97	2.19	796	134	4.85	102	1.3	130	126	107	128
KNOCKANE RAJAH	N8092	260	1.87	1.52	703	134	6.52	96	1.9	114	97	98	104
HEREFORD													
WHITECHURCH MAXI	N2050	296	1.57	1.45	622	128	7.22	91	1.8	111	92	115	106
LIMOUSIN													
BALLYNERRIN RALF	N1015	256	1.86	1.79	733	133	5.47	103	2.3	139	115	105	128
PELLETSTOWN RONAN	N1368	269	1.52	1.77	623	135	6.34	102	1.1	116	100	108	110
ROUNDHILL ROY	N7495	263	1.50	1.50	601	130	6.96	113	.2	109	90	121	105
ROUNDHILL RODEO	N8488	288	1.36	1.47	549	129	5.96	109	2.3	98	107	108	103
ROUNDHILL ROMEO	N9489	288	1.24	1.77	581	129	5.58	115	1.7	105	113	120	112
PARTHINASE													
RON	N5415	275	1.49	1.90	639	130	5.19	115	.8	117	120	123	123
SALER													
PROJECT ANTO	N3081	258	.87	1.34	437	124	6.47	98	2.8	75	102	99	86
KILLASSER ALEX	N5155	268	1.03	1.32	475	122	7.48	94	1.8	81	85	98	82
SHORTHORN													
	N4236	279	.95	1.62	461	119	6.63	91	3.4	70	102	109	86
SIMMENTAL													
TOWERHILL LAR	N3202	266	1.78	1.70	712	133	6.38	103	2.7	115	104	110	111
TUDOR LOKO	N7031	270	1.56	2.10	691	132	5.35	112	1.6	111	121	122	119

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

Central Performance Test - 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
N7567	AA	THORNHILL SNITCH	ETA	20/09/2000	DOROTHY'S PUNCH OF CULLENTAC S12	MAEVE OF THORNHILL OTH N4	KINNABER MR STEADHOUSE 598769	JOHN O'SULLIVAN THORNHILL LAWN, MITCHELSTOWN, CORK
N6311	AU	PARKNAGERAGH ROBERT	MMA-00-008	14/09/2000	J. DELMAS NOUNOURS 1297009514	GAEL VAL CURAN MEXIQUE 1296010801	P.NEIL COLOMB 1291014388	MICHAEL MCAULIFFEE FAHADUFF, CASTLEISLAND, KERRY
N1362	BA	GREENROSE RALPH	GRS 0002	07/09/2000	INTOX 6493018483	GREENROSE ISOBEL GRS I01	ROLAND 6480014022	JOHN CALLANAN BALLINDERRY, CK-ON-SUIR TIPPERARY
N1204	BB	RATHLYON SULTAN	MOS-10	12/10/2000	SEDUISANT DE FOOZ	NIA VAN TERBECK		JOHN FORDE CAHERMORRIS, CORRANDULLA, GALWAY
N9203	BB	RATHLYON SANTANA	MOS-09	11/10/2000	ARTABON DE ST FONTAINE	ERATIEK VON TERBECK		JOHN FORDE CAHERMORRIS, CORRANDULLA, GALWAY
N1108	CH	LISCALLY RINGO	GJR-00-015	12/09/2000	MEILLARD 7196103834	LISCALLY NATALIE FF0039848	LISCALLY LANCER FF0029103	JOHN REGAN TAWLEY, CASTLEGAL, LEITRIM
N3088	CH	KNOCKANE ROCK	JR-00-011-ET	01/10/2000	JUPITER 7194109820	KNOCKANE ECOLIERE 23985	COLARO 8587110835	JAMES RYALL KNOCKBANE HSE., CASTLEMARTYR CORK
N5083	CH	PRIME ROBERTO	LKK-00-013	25/09/2000	INDURAIN 8593104581	PRIME NOELLE FF0038071	JUPITER 7194109820	MICHAEL KEATING COLLEGE HILL, TEMPLEMORE, TIPPERARY
N8035	CH	BALLYBROWN ROVER	JOS-00-006ET	04/10/2000	HERMES 6092102162	BALLYBROWN MARLENE 8596102233	FLAMBEAU 0370119503	PAULINE O'CONNELL BALLYBROWN HSE. CLARINA LIMERICK
N8092	CH	KNOCKANE RAJAH	JR-00-015-ET	10/10/2000	KNOCKANE FLARE 12060	KNOCKANE JALOUSE 35068	FANFARON 5890123818	JAMES RYALL KNOCKBANE HSE., CASTLEMARTYR, CORK
N2050	HH	WHITECHURCH MAXI	PKL/U02/132	04/09/2000	RATHCOR EXPRESS AJP/MO4/126	WHITECHURCH PERAL 2ND PKL/R04/129	MOYCLARE KING EJO/KE/124	PATRICK LYNCH WHITECHURCH, CAPPAGH, WATERFORD

Central Performance Test - 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
N1015	LM	BALLYNERRIN RALF	BNIR-015-FOT	14/10/2000	IDEAL 23 93 045 394	LINDY 19 95 016 817	AS DE PIC 35 85 010 777	JAMES O'NEILL BALLYNERRIN UPPER WICKLOW WICKLOW
N1368	LM	PELLETSTOWN RONAN	PELR-368	01/10/2000	NICHOLAS 36 97 008 636	PELLETSTOWN ITA PELI-042	GENEREUX 19 91 009 241	ROGER MCCARRICK PELLETSTOWN, DRUMREE, MEATH
N7495	LM	ROUNDHILL ROY	ROUR-495-FOT	07/10/2000	IDEAL 23 93 045 394	ROUNDHILL MINI(DNA) ROUM-005-FOT	HORTENSIA 56 92 060 816	TIMOTHY CORRIDAN DROMINCARRA, FEDAMORE, LIMERICK
N8488	LM	ROUNDHILL RODEO	ROUR-488-FOT	12/09/2000	IDEAL 23 93 045 394	NAVETTE 23 97 059 851	JOYAU 12 94 114 730	TIMOTHY CORRIDAN DROMINCARRA, FEDAMORE, LIMERICK
N9489	LM	ROUNDHILL ROMEO	ROUR-489-FOT	12/09/2000	IDEAL 23 93 045 394	ROUNDHILL MERIDIAN ROUM-008-FOT	GEANT 19 91 000 217	TIMOTHY CORRIDAN DROMINCARRA, FEDAMORE, LIMERICK
N5415	PT	RON	221002150415	25/09/2000	NEON 8597092034	LANTERNE 8595047958	EXPERT 85890485789	WILLIAM SHIEL BOLEY HSE., ABBEYLEIX, LAOIS
N3081	SA	PROJECT ANTO	JOB003	12/10/2000	HUGUENOT 1592079434	LORRAINE IMP97046	GAMIN 159103003	JAMES O'BREIN JNR DROMSKEHY,CLONBANIN, MALLOW, CORK
N5155	SA	KILLASSER ALEX	JMK008	02/10/2000	KILLASSER NATION IMP98090	KNOCKHAUNACAT OLGA JLD98004	HUGUENOT 1592079434	JOHN MALONEY TIERANEY, KILLASSER MAYO
N4236	SH	DOVEA JIMNORTON	SEC-R-001	21/09/2000	TOURNANT SIR JAMES 0240104	CASTLETROY STRAWBERRY 10 02662849	CASTLETROY STRAWBERRY 4th0263026	A/I SOUTH EASTERN C.B.S.DOVEA, THURLES, TIPPERARY
N3202	ST	TOWERHILL LAR	ATC-L-011	04/10/2000	FREIGHDUFF BRENDAN FRI-B-001	TOWERHILL CHRISTINA ATC-C-001	PEDRO GBG-P-005	SEAMUS AHERNE TOWERHILL, CAPPAMORE, LIMERICK
N7031	ST	TUDOR LOKO	TDR-L-004	30/09/2000	INNERWICK CHIEFTAN WLM-C-006	TUDOR FLAMINGO TDR-F-002	GRETNAHOUSE SUPERSON 1063	HAROLD DELANEY COOLBAWN, CASTLECOMER KILKENNY