

Second Beef Cattle Gain-evaluation Test at

THE LULING FOUNDATION

Luling, Texas

December 9, 1957-April 28, 1958

THE LULING FOUNDATION

THE TEXAS A & M COLLEGE SYSTEM

and

BEEF CATTLE BREEDERS OF TEXAS

Cooperating



A group of test bulls on pasture

TEXAS AGRICULTURAL EXPERIMENT STATION . . . TEXAS AGRICULTURAL EXTENSION SERVICE

College Station, Texas



THE SECOND BEEF CATTLE GAIN EVALUATION TEST
 CONDUCTED AT THE LULING FOUNDATION

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COOPERATIVE GAIN TEST FOR YOUNG BULLS

This is the Final Report of the Second Beef Cattle Gain Evaluation Test which was a cooperative undertaking of those listed on the cover.

Seventeen beef cattle breeders (names are listed on a following page) furnished 55 young bulls for the test. Fifty-four finished the test.

The following data about feed, etc. are presented to assist the reader to understand conditions under which the gains were made:

Feed and Grazing Requirements for 140-day Gain Test on Bulls
 December 9, 1957 - April 28, 1958

| | | |
|---------------------------------------|--------------|--------------|
| Number of bulls | 54 | |
| Average initial weight, Dec. 9 and 10 | 694 | |
| Average final weight, April 28 and 29 | 1045 | |
| Average total gain per head, 140 days | 351 | |
| Average daily gain, pounds | 2.5 | |
| Days on pasture, total | 140 | |
| Oats, rescue grass, and bur clover | 107 | |
| Rescue grass and bur clover | 33 | |
| Feeds consumed per head, pounds | <u>Daily</u> | <u>Total</u> |
| Ground milo and ear corn | 5.5 | 770 |
| Cottonseed meal | 1.0 | 140 |
| Cottonseed hulls | 8.25 | 1155 |
| Sorghum silage | <u>4.75</u> | <u>665</u> |
| Total | 19.50 | 2730 |

Feed required per cwt. gain, pounds

| | |
|--------------------------------|------------|
| Ground milo and ear corn | 219 |
| Cottonseed meal | 42 |
| Cottonseed hulls | 332 |
| Silage | <u>190</u> |
| * Total in addition to pasture | 783 |

* For each 100 pounds of gain, 39.4 days of grazing were required. Of this total 30.5 days were on oats, etc., and 8.9 days on rescue grass and bur clover.

Owners of Cattle on Test: Code, Name and Address

| Code | Name & Address | No. bulls |
|------------------------|---|-----------|
| Angus | | |
| AWR | Desfine Angus Farm, (A. W. Rhodes), McMahan | 1 |
| Charolaise | | |
| HC | Henderson Coquat, Cotulla, Texas | 2 |
| Hereford | | |
| JNB | John N. Brigance, Luling, Texas | 1 |
| ESR | El Seven Ranch, Garwood, Texas | 4 |
| Santa Gertrudis | | |
| ABA | A. B. Alexander, Cotulla, Texas | 2 |
| JB | John F. Baugh, Box 51, Martindale Star Route, San Marcos, Texas | 2 |
| JMB | J. M. Bennett, Jr., National Bank of Commerce Bldg., San Antonio | 2 |
| RWB | R. W. Briggs, Sr. and Jr., Box 1981, San Antonio, Texas | 6 |
| WCS | Walter W. Cardwell, Sr., Drawer 31, Luling, Texas | 6 |
| WCJ | Walter W. Cardwell, Jr., Box 1018, Lockhart, Texas | 3 |
| MWC | M. W. Carlton, Drawer 31, Luling, Texas | 1 |
| VL | Vachel Lackey, 215 W. Commerce, San Antonio, Texas | 8 |
| LF | The Luling Foundation, Drawer 31, Luling, Texas | 9 |
| ROB | Robert O'Banion, Fentress, Texas | 1 |
| SSC | Seeligson-Storm Cattle Co., Premont, Texas | 5 |
| AFS | Quien Sabe Ranch (Frates Seeligson), 1633 Milam Building, San Antonio, Texas | 2 |

Sire Code:

| Code # | Sire Name | Reg. No. | Owner |
|------------------------|----------------------------|----------|-----------|
| Angus | | | |
| 358 | Master Prince 200 of Essar | 1391921 | AWR |
| Charolaise | | | |
| 359 | Senor 2nd | M254 | HC |
| Hereford | | | |
| 360 | Real Mischief | 8333406 | ESR |
| 361 | O J R Larry Domino 1 | 6192009 | ESR |
| 362 | Domestic Anxiety 97 | 479167 | JNB |
| Santa Gertrudis | | | |
| 207 | KR S-10 | Approved | VL |
| 211 | Apache 2 of WWC | " | WCJ |
| 215 | Yaqui | " | WCS & LF |
| 218 | El Torazo | " | Syndicate |
| 344 | W #1 | " | WCS & LF |
| 345 | 287 | " | WCS |

(continued)

| Code # | Animal | Tattoo | Sire | Age in | Weight | per | Total | Daily | Flesh- | Confor- |
|--------------------------|-----------|--------|--------------------|--------|--------|-----|-------|----------|--------|---------|
| # | Number | Code | Name | Days | # | day | gain | gain | ink | mation |
| | | | | | | | | Reg. No. | | Owner |
| ANGUS BULLS | | | | | | | | | | |
| Santa Gertrudis (cont'd) | | | 476 | | 902 | 1.9 | 248 | 1.8 | 100 | 4.0 |
| 346 | | | 276 | | 902 | 1.9 | 248 | 1.8 | 100 | 4.0 |
| 363 | 1 animal | | No. 404 WWC | | | | | Approved | 6.0 | WCS |
| 364 | | | Noble | | | | | " | | JB |
| 365 | | | Valentino | | | | | " | | ABA |
| CHAROLAISE BULLS | | | | | | | | | | |
| 366 | 96 | 3 | K-14 | 164 | 1134 | 2.4 | 380 | 2.7 | "02 | 5.0 |
| 367 | 60 | 3 | C-18 | 115 | 1059 | 2.6 | 363 | 2.6 | "98 | 5.0 |
| 368 | | | K-13 | | | | | " | | SSC |
| 369 | 2 animals | | W Star | | 1097 | 2.5 | 372 | 2.7 | "00 | 5.0 |
| 370 | | | 271 | | | | | " | | AFS |
| 371 | | | 60 | | | | | " | | LF |
| HEREFORD BULLS | | | | | | | | | | |
| 372 | 188 | 3 | K | 540 | 926 | 1.7 | 367 | 2.6 | "11 | 5.0 |
| 373 | 190 | 3 | M | 549 | 969 | 1.8 | 343 | 2.5 | "04 | 6.0 |
| 374 | 198 | 3 | 4 | 567 | 963 | 2.1 | 332 | 2.4 | "00 | 5.0 |
| 375 | 199 | 3 | KR S-11 | 830 | | 1.8 | 322 | 2.3 | "97 | 4.0 |
| 376 | 226 | 3 | Multiple Sire Herd | | | 2.0 | 291 | 2.1 | "88 | 3.0 |
| 377 | | | #01 | | | | | " | | RWB |
| | | | | | | | | | | JMB |

SANTA GERTRUDIS BULLS

| | | | | | | | | | | |
|------|------|-----|-----|------|-----|-----|-----|-----|-----|-----|
| 704 | 12 | 366 | 527 | 1395 | 2.6 | 455 | 3.3 | 129 | 6.0 | 7.0 |
| 778 | S144 | 207 | 486 | 1181 | 2.4 | 433 | 3.1 | 122 | 6.0 | 6.0 |
| 100 | 208 | 218 | 398 | 976 | 2.5 | 433 | 3.1 | 122 | 5.0 | 5.0 |
| 725 | 49 | 366 | 534 | 1484 | 2.8 | 426 | 3.0 | 120 | 5.0 | 6.0 |
| 608 | S128 | 346 | 400 | 1058 | 2.6 | 423 | 3.0 | 119 | 5.0 | 4.0 |
| 730 | 55 | 366 | 469 | 1145 | 2.4 | 404 | 2.9 | 114 | 5.0 | 5.0 |
| 714 | | 373 | 489 | 1216 | 2.5 | 403 | 2.9 | 114 | 5.0 | 4.0 |
| 708 | S45 | 218 | 490 | 1074 | 2.2 | 396 | 2.8 | 112 | 5.0 | 5.0 |
| 494 | W17 | 344 | 382 | 949 | 2.5 | 395 | 2.8 | 112 | 5.0 | 5.0 |
| 713 | | 372 | 478 | 1076 | 2.3 | 392 | 2.8 | 111 | 5.0 | 5.0 |
| 791 | | 376 | 501 | 1177 | 2.3 | 389 | 2.8 | 110 | 6.0 | 6.0 |
| 701 | | 363 | 419 | 1000 | 2.4 | 384 | 2.7 | 108 | 4.0 | 3.0 |
| 600 | A200 | 370 | 481 | 1232 | 2.6 | 384 | 2.7 | 108 | 5.0 | 4.0 |
| 7611 | | 377 | 449 | 1190 | 2.7 | 384 | 2.7 | 108 | 5.0 | 5.0 |
| 730 | | 374 | 526 | 1139 | 2.2 | 383 | 2.7 | 108 | 6.0 | 6.0 |
| 477 | Y153 | 215 | 488 | 1145 | 2.3 | 370 | 2.6 | 105 | 5.0 | 4.0 |
| 758 | | 376 | 514 | 1250 | 2.4 | 370 | 2.6 | 105 | 5.0 | 5.0 |
| 705 | 367 | 367 | 531 | 1316 | 2.5 | 369 | 2.6 | 104 | 6.0 | 7.0 |
| 469 | W339 | 344 | 487 | 1119 | 2.3 | 368 | 2.6 | 104 | 5.0 | 5.0 |
| 2 | | 364 | 392 | 1038 | 2.6 | 366 | 2.6 | 103 | 4.0 | 5.0 |
| 749 | 381 | 368 | 383 | 1030 | 2.7 | 362 | 2.6 | 102 | 6.0 | 6.0 |
| 40 | | 365 | 328 | 835 | 2.5 | 358 | 2.6 | 101 | 4.0 | 4.0 |
| 779 | S587 | 207 | 466 | 1073 | 2.3 | 356 | 2.5 | 101 | 7.0 | 7.0 |
| 760 | X9 | 211 | 417 | 1087 | 2.6 | 350 | 2.5 | 99 | 6.0 | 6.0 |
| 720 | | 373 | 478 | 1001 | 2.1 | 345 | 2.5 | 97 | 5.0 | 4.0 |
| 470 | Y126 | 215 | 500 | 1286 | 2.6 | 340 | 2.4 | 96 | 5.0 | 4.0 |
| 772 | S32L | 375 | 403 | 871 | 2.2 | 340 | 2.4 | 96 | 5.0 | 3.0 |
| 460 | Y116 | 215 | 464 | 1123 | 2.4 | 337 | 2.4 | 95 | 3.0 | 3.0 |

(continued)

| Owner | Animal number | Tattoo number | Sire code | Age in days | Weight | | Total gain | Daily gain | Gain ratio | Fleshing | Conformation |
|-----------------------|---------------|---------------|-----------|-------------|--------|---------|------------|------------|------------|----------|--------------|
| | | | | | Weight | per day | | | | | |
| ANGUS BULLS | | | | | | | | | | | |
| AWR | T23 | 23 | 358 | 476 | 902 | 1.9 | 248 | 1.8 | 100 | 6.0 | 4.0 |
| Average | | 1 animal | | 476 | 902 | 1.9 | 248 | 1.8 | 100 | 6.0 | 4.0 |
| CHAROLAISE BULLS | | | | | | | | | | | |
| HC | 56 | | 359 | 464 | 1134 | 2.4 | 380 | 2.7 | 102 | 5.0 | 4.0 |
| HC | 60 | | 359 | 415 | 1059 | 2.6 | 363 | 2.6 | 98 | 5.0 | 4.0 |
| Average | | 2 animals | | 440 | 1097 | 2.5 | 372 | 2.7 | 100 | 5.0 | 4.0 |
| HEREFORD BULLS | | | | | | | | | | | |
| ESR | 188 | 188 | 360 | 540 | 926 | 1.7 | 367 | 2.6 | 111 | 5.0 | 4.0 |
| ESR | 190 | 190 | 360 | 549 | 969 | 1.8 | 343 | 2.5 | 104 | 6.0 | 5.0 |
| ESR | 198 | 198 | 361 | 467 | 963 | 2.1 | 332 | 2.4 | 100 | 5.0 | 4.0 |
| ESR | 199 | 199 | 361 | 471 | 830 | 1.8 | 322 | 2.3 | 97 | 4.0 | 3.0 |
| JNB | T26 | 26 | 362 | 338 | 671 | 2.0 | 291 | 2.1 | 88 | 3.0 | 2.0 |
| Average | | 5 animals | | 473 | 872 | 1.9 | 331 | 2.4 | 100 | 4.6 | 3.0 |
| SANTA GERTRUDIS BULLS | | | | | | | | | | | |
| SSC | 704 | 12 | 366 | 527 | 1395 | 2.6 | 455 | 3.3 | 129 | 6.0 | 7.0 |
| VL | 778 | S144 | 207 | 486 | 1181 | 2.4 | 433 | 3.1 | 122 | 6.0 | 6.0 |
| AFS | 100 | 208 | 218 | 398 | 976 | 2.5 | 433 | 3.1 | 122 | 5.0 | 5.0 |
| SSC | 725 | 49 | 366 | 534 | 1484 | 2.8 | 426 | 3.0 | 120 | 5.0 | 6.0 |
| LF | 608 | S128 | 346 | 400 | 1058 | 2.6 | 423 | 3.0 | 119 | 5.0 | 4.0 |
| SSC | 750 | 55 | 366 | 469 | 1145 | 2.4 | 404 | 2.9 | 114 | 5.0 | 5.0 |
| RWB | 714 | | 373 | 489 | 1216 | 2.5 | 403 | 2.9 | 114 | 5.0 | 4.0 |
| VL | 701T | S45 | 218 | 490 | 1074 | 2.2 | 396 | 2.8 | 112 | 5.0 | 5.0 |
| LF | 494 | W17 | 344 | 382 | 949 | 2.5 | 395 | 2.8 | 112 | 5.0 | 5.0 |
| RWB | 713 | | 372 | 478 | 1076 | 2.3 | 392 | 2.8 | 111 | 5.0 | 5.0 |
| RWB | 7F1 | | 376 | 501 | 1177 | 2.3 | 389 | 2.8 | 110 | 6.0 | 6.0 |
| JB | 701 | | 363 | 419 | 1000 | 2.4 | 384 | 2.7 | 108 | 4.0 | 3.0 |
| LF | 600 | A200 | 370 | 481 | 1232 | 2.6 | 384 | 2.7 | 108 | 5.0 | 4.0 |
| JMB | 761L | | 377 | 449 | 1190 | 2.7 | 384 | 2.7 | 108 | 5.0 | 5.0 |
| RWB | 730 | | 374 | 526 | 1139 | 2.2 | 383 | 2.7 | 108 | 6.0 | 6.0 |
| WCS | 477 | Y153 | 215 | 488 | 1145 | 2.3 | 370 | 2.6 | 105 | 5.0 | 4.0 |
| RWB | 758 | | 376 | 514 | 1250 | 2.4 | 370 | 2.6 | 105 | 5.0 | 5.0 |
| SSC | 705 | 367 | 367 | 531 | 1316 | 2.5 | 369 | 2.6 | 104 | 6.0 | 7.0 |
| LF | 489 | W339 | 344 | 487 | 1119 | 2.3 | 368 | 2.6 | 104 | 5.0 | 5.0 |
| ABA | 2 | | 364 | 392 | 1038 | 2.6 | 366 | 2.6 | 103 | 4.0 | 5.0 |
| SSC | 749 | 381 | 368 | 383 | 1030 | 2.7 | 362 | 2.6 | 102 | 6.0 | 6.0 |
| ROB | 40 | | 365 | 328 | 835 | 2.5 | 358 | 2.6 | 101 | 4.0 | 4.0 |
| VL | 779 | S587 | 207 | 466 | 1073 | 2.3 | 356 | 2.5 | 101 | 7.0 | 7.0 |
| WCJ | 760 | X9 | 211 | 417 | 1087 | 2.6 | 350 | 2.5 | 99 | 6.0 | 6.0 |
| RWB | 720 | | 373 | 478 | 1001 | 2.1 | 345 | 2.5 | 97 | 5.0 | 4.0 |
| WCS | 478 | Y126 | 215 | 500 | 1286 | 2.6 | 340 | 2.4 | 96 | 5.0 | 4.0 |
| VL | 772 | S32L | 375 | 403 | 871 | 2.2 | 340 | 2.4 | 96 | 5.0 | 3.0 |
| WCS | 480 | Y116 | 215 | 464 | 1123 | 2.4 | 337 | 2.4 | 95 | 3.0 | 3.0 |

(continued)

| Owner | Animal number | Tattoo number | Sire code | Age in days | Weight | Weight per day | Total gain | Daily gain | Gain ratio | Flesh-ing | Confor-mation |
|-----------------------|---------------|---------------|-----------|-------------|--------|----------------|------------|------------|------------|-----------|---------------|
| SANTA GERTRUDIS BULLS | | | | | | | | | | | |
| (continued) | | | | | | | | | | | |
| WCS | 479 | S66 | 346 | 423 | 995 | 2.4 | 336 | 2.4 | 95 | 5.0 | 4.0 |
| MWC | 10 | | 371 | 435 | 970 | 2.2 | 332 | 2.4 | 94 | 4.0 | 4.0 |
| LF | 495 | A185 | 370 | 484 | 1054 | 2.2 | 326 | 2.3 | 92 | 5.0 | 4.0 |
| VL | 773 | S20L | 375 | 405 | 934 | 2.3 | 326 | 2.3 | 92 | 4.0 | 4.0 |
| WCS | 476 | S60 | 346 | 400 | 957 | 2.4 | 325 | 2.3 | 92 | 5.0 | 6.0 |
| VL | 777 | S301 | 375 | 426 | 921 | 2.2 | 323 | 2.3 | 91 | 4.0 | 3.0 |
| JB | 700 | | 363 | 448 | 895 | 2.0 | 322 | 2.3 | 91 | 4.0 | 3.0 |
| WCJ | 762 | T118 | 218 | 410 | 1004 | 2.4 | 319 | 2.3 | 90 | 5.0 | 5.0 |
| VL | 780 | S177 | 207 | 455 | 940 | 2.1 | 318 | 2.3 | 90 | 4.0 | 4.0 |
| WCJ | 761 | X20 | 211 | 373 | 1011 | 2.7 | 317 | 2.3 | 90 | 5.0 | 5.0 |
| LF | 491 | Y138 | 215 | 506 | 1099 | 2.2 | 315 | 2.3 | 89 | 5.0 | 5.0 |
| ABA | 1 | | 364 | 410 | 1011 | 2.5 | 313 | 2.2 | 88 | 5.0 | 5.0 |
| JMB | 763L | | 377 | 379 | 904 | 2.4 | 310 | 2.2 | 88 | 4.0 | 3.5 |
| LF | 496 | A201 | 370 | 474 | 1044 | 2.2 | 304 | 2.2 | 86 | 5.0 | 6.0 |
| LF | 498 | A177 | 370 | 482 | 968 | 2.0 | 300 | 2.1 | 85 | 3.0 | 3.0 |
| LF | 497 | A195 | 370 | 433 | 922 | 2.1 | 278 | 2.0 | 79 | 5.0 | 4.0 |
| AFS | 102 | 225 | 369 | 397 | 798 | 2.0 | 255 | 1.8 | 72 | 5.0 | 5.0 |
| WCS | 474 | Y6 | 215 | 528 | 1045 | 2.0 | 251 | 1.8 | 71 | 5.0 | 4.0 |
| Average | 46 animals | | | 451 | 1064 | 2.4 | 354 | 2.5 | 100 | 4.9 | 4.7 |
| Average | 54 animals | | | 453 | 1044 | 2.3 | 351 | 2.5 | 100 | 4.9 | 4.6 |

| Sire code | Owner | No. of bulls | Age in days | Weight | Weight per day | Total gain | Daily gain | Gain ratio | Flesh- ing | Confor- mation |
|------------------------------------|------------|--------------|-------------|--------|----------------|------------|------------|------------|------------|----------------|
| ANGUS BULLS (Sire Group) | | | | | | | | | | |
| 358 | AWR | 1 | 476 | 902 | 1.9 | 248 | 1.8 | 100 | 6.0 | 4.0 |
| Average | 1 animal | 476 | 902 | 1.9 | 248 | 1.8 | 100 | 6.0 | 4.0 | |
| CHAROLAISE BULLS (Sire Group) | | | | | | | | | | |
| 359 | HC | 2 | 440 | 1097 | 2.5 | 372 | 2.7 | 100 | 5.0 | 4.0 |
| Average | 2 animals | 440 | 1097 | 2.5 | 372 | 2.7 | 100 | 5.0 | 5.0 | 4.0 |
| SANTA GERTRUDIS BULLS (Sire Group) | | | | | | | | | | |
| 360 | ESR | 2 | 545 | 948 | 1.8 | 355 | 2.6 | 108 | 5.5 | 4.5 |
| 361 | ESR | 2 | 469 | 897 | 2.0 | 327 | 2.4 | 99 | 4.5 | 3.5 |
| 362 | JNB | 1 | 338 | 671 | 2.0 | 291 | 2.1 | 88 | 3.0 | 2.0 |
| Average | 5 animals | 473 | 872 | 1.9 | 331 | 2.4 | 100 | 4.6 | 4.6 | 3.6 |
| 366 | SSC | 3 | 510 | 1341 | 2.6 | 428 | 3.1 | 121 | 5.3 | 6.0 |
| 372 | RWB | 1 | 478 | 1076 | 2.3 | 392 | 2.8 | 111 | 5.0 | 5.0 |
| 218 | SYN | 3 | 433 | 1018 | 2.4 | 383 | 2.7 | 108 | 5.0 | 5.0 |
| 374 | RWB | 1 | 526 | 1139 | 2.2 | 383 | 2.7 | 108 | 6.0 | 6.0 |
| 344 | LF | 2 | 435 | 1034 | 2.4 | 382 | 2.7 | 108 | 5.0 | 5.0 |
| 376 | RWB | 2 | 508 | 1214 | 2.4 | 380 | 2.7 | 108 | 5.5 | 5.5 |
| 373 | RWB | 2 | 484 | 1109 | 2.3 | 374 | 2.7 | 106 | 5.0 | 4.0 |
| 207 | VL | 3 | 469 | 1065 | 2.3 | 369 | 2.6 | 104 | 5.7 | 5.7 |
| 367 | SSC | 1 | 531 | 1316 | 2.5 | 369 | 2.6 | 104 | 6.0 | 7.0 |
| 368 | SSC | 1 | 383 | 1030 | 2.7 | 362 | 2.6 | 102 | 6.0 | 6.0 |
| 346 | WCS | 3 | 408 | 1003 | 2.5 | 361 | 2.6 | 102 | 5.0 | 4.7 |
| 365 | ROB | 1 | 328 | 835 | 2.5 | 358 | 2.6 | 101 | 4.0 | 4.0 |
| 363 | JB | 2 | 434 | 948 | 2.2 | 353 | 2.5 | 100 | 4.0 | 3.0 |
| 377 | JMB | 2 | 414 | 1047 | 2.6 | 347 | 2.5 | 98 | 4.5 | 4.3 |
| 364 | ABA | 2 | 401 | 1025 | 2.6 | 340 | 2.4 | 96 | 4.5 | 5.0 |
| 211 | WCJ | 2 | 395 | 1049 | 2.7 | 334 | 2.4 | 95 | 5.5 | 5.5 |
| 371 | MWC | 1 | 435 | 970 | 2.2 | 332 | 2.4 | 94 | 4.0 | 4.0 |
| 375 | VL | 3 | 411 | 909 | 2.2 | 330 | 2.3 | 93 | 4.3 | 3.3 |
| 215 | WCS & LF | 5 | 497 | 1140 | 2.3 | 323 | 2.3 | 91 | 4.6 | 4.0 |
| 370 | LF | 5 | 471 | 1044 | 2.2 | 318 | 2.3 | 90 | 4.6 | 4.2 |
| 369 | AFS | 1 | 397 | 798 | 2.0 | 255 | 1.8 | 72 | 5.0 | 5.0 |
| Average | 46 animals | 451 | 1064 | 2.4 | 354 | 2.5 | 100 | 4.9 | 4.9 | 4.7 |

This test will be repeated next year for further confirmation of results.

DRYLOT VS. PASTURE FEEDING FOR GAIN TESTS

Bulls have been tested for gaining ability in drylot for many years. The test conducted here this year is one of the first to make use of pasture for testing purposes.

The question has been raised often as to whether cattle which make high gains in drylot will also make high gains on pasture - a logical question since many people are able to test on pasture who are not able to test in drylot because they may not have the facilities or the feed supplies available for drylot testing. Besides, pasture gains nearly always are cheaper than drylot gains. Testing for gaining ability requires that the cattle be well enough fed wherever they are to permit them to make substantial weight gains. Feeding at maintenance level does not permit the cattle with greater genetic capacity for gain to express it. They are limited to maintaining their weight the same as are the low gainers.

To get more specific information concerning these two methods of feeding, 32 Santa Gertrudis heifers by eight different sires were divided into two groups so that each sire had about the same number of daughters in each group. One group was then placed in drylot and the other was placed on pasture. The heifers in drylot were fed a dry ration which averaged 1.8 pounds of cottonseed meal, 5.36 pounds of grain, 9.9 pounds of cottonseed hulls and 3.4 pounds of sorghum silage. They consumed 0.17 pound of mineral and salt and a small amount of oat clippings as a source of vitamin A. The heifers on pasture were fed an average of 4.45 pounds of grain plus 6.5 pounds of hay, cottonseed hulls or corn shucks to push them along and have them in good flesh by the end of the test.

Weights and gains of these groups of heifers are shown in Table 1.

The heifers fed on pasture gained an average of 35 pounds per head more than those in drylot. This difference in gain was reflected by higher conditions, as indicated by the finish scores.

The most important part of this test, however, is the comparative gain made by the daughters of each sire in drylot and on pasture. Average gains made by sire groups under the two treatments are shown in Table 2. Each group had one heifer by an unknown sire and one each by sires U, M and 404. These sires were inadequately represented to provide good tests. Considering only sires Y, S, W and L, all of which had two or more daughters in each treatment group, gains made by the offspring ranked the sires in that order. Sire Y easily ranked first in both cases, sires S and W were close together and sire L was somewhat below them.

The pasture plus a limited amount of feed provided a plane of nutrition high enough to produce greater gain than the ration full fed in drylot. When such pasture conditions are present, gain testing on pasture should be as effective as in drylot.

This test will be repeated next year for further confirmation of results.



Heifers gain tested in drylot. March 27, 1958.



Heifers gain tested on pasture. March 14, 1958.

Table 1. Weights and gains of heifers tested in drylot and on pasture

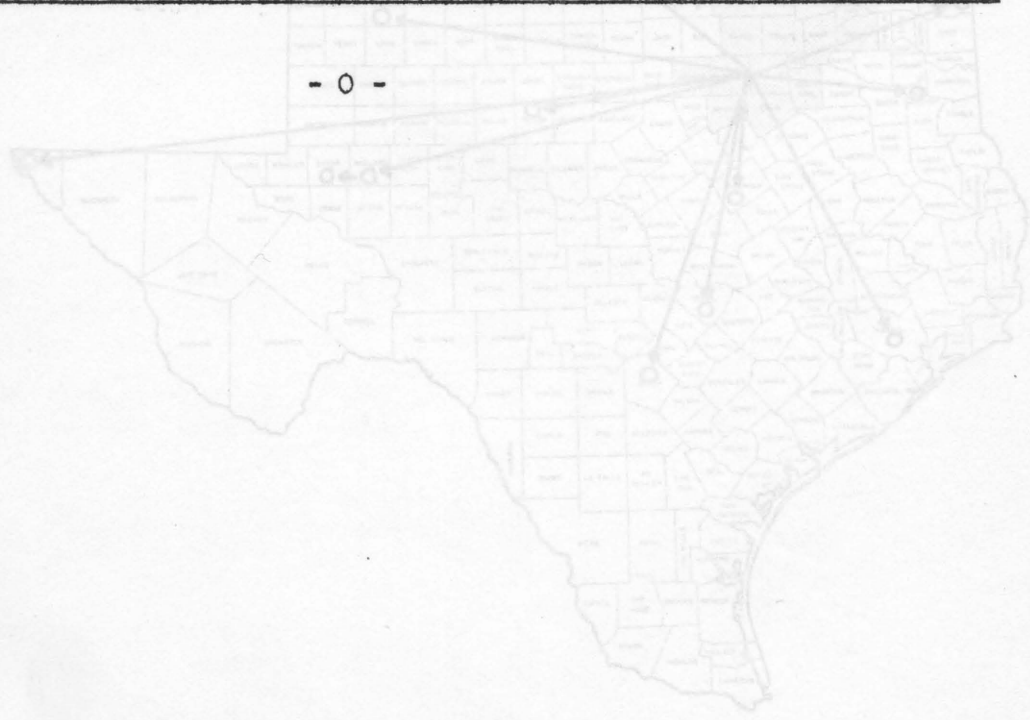
| Sire code | Brand no. | Finish score | Age in days | Final weight | Wt. per day of age | Test gain | | Brand no. | Finish score | Age in days | Final weight | Wt. per day of age | Test gain | |
|---------------------|-----------|--------------|-------------|--------------|--------------------|----------------------|-------|-----------|--------------|-------------|--------------|--------------------|-----------|-------|
| | | | | | | Total | Daily | | | | | | Total | Daily |
| Group fed in drylot | | | | | | Group fed on pasture | | | | | | | | |
| Y | 377 | 5 | 402 | 871 | 2.17 | 237 | 1.69 | 378 | 7 | 487 | 872 | 1.79 | 302 | 2.16 |
| | 380 | 4 | 392 | 762 | 1.94 | 236 | 1.69 | 383 | 7 | 388 | 792 | 2.04 | 299 | 2.14 |
| | 576 | 5 | 444 | 891 | 2.01 | 276 | 1.97 | 592 | 6 | 360 | 714 | 1.98 | 280 | 2.00 |
| S | 45 | 6 | 383 | 696 | 1.82 | 225 | 1.61 | 114 | 7 | 395 | 816 | 2.07 | 321 | 2.29 |
| | 382 | 6 | 392 | 870 | 2.22 | 318 | 2.27 | 381 | 6 | 415 | 760 | 1.83 | 201 | 1.44 |
| | 586 | 5 | 393 | 633 | 1.61 | 186 | 1.33 | 585 | 6 | 372 | 731 | 1.97 | 281 | 2.01 |
| W | 581 | 6 | 471 | 956 | 2.03 | 286 | 2.04 | 379 | 6 | 407 | 734 | 1.80 | 239 | 1.71 |
| | 590 | 5 | 364 | 620 | 1.70 | 221 | 1.58 | 579 | 7 | 494 | 930 | 1.88 | 306 | 2.19 |
| | 595 | 6 | 427 | 738 | 1.73 | 212 | 1.51 | 596 | 6 | 328 | 652 | 1.99 | 267 | 1.91 |
| | | | | | | | | 597 | 5 | 424 | 662 | 1.56 | 257 | 1.84 |
| L | 384 | 6 | 448 | 860 | 1.92 | 258 | 1.84 | 580 | 5 | 440 | 894 | 2.03 | 256 | 1.83 |
| | 584 | 6 | 419 | 785 | 1.87 | 205 | 1.46 | 588 | 5 | 374 | 696 | 1.86 | 273 | 1.95 |
| U | 113 | 4 | 329 | 648 | 1.97 | 251 | 1.79 | 115 | 6 | 308 | 653 | 2.12 | 260 | 1.86 |
| | | | | | | | | 116 | 5 | 360 | 747 | 2.08 | 317 | 2.26 |
| M | 578 | 6 | 454 | 858 | 1.89 | 233 | 1.66 | 583 | 7 | 492 | 930 | 1.89 | 290 | 2.07 |
| 404 | 701 | 5 | 493 | 822 | 1.67 | 262 | 1.87 | 702 | 6 | 473 | 804 | 1.70 | 276 | 1.97 |
| ? | 700 | 6 | 533 | 860 | 1.61 | 260 | 1.86 | 704 | 8 | 527 | 937 | 1.78 | 314 | 2.24 |
| Av. | 15 | 5.4 | 423 | 791 | 1.87 | 244 | 1.74 | 17 | 6.1 | 414 | 784 | 1.89 | 279 | 1.99 |

1/ 1 - Very thin
 2, 3 - Thin
 4, 5 - Medium
 6, 7 - Fat
 8, 9 - Very fat

Table 2. Gains made by sire groups in drylot and on pasture

| Sire | No. of daughters | Total gain, lb. | Rank | No. of daughters | Total gain, lb. | Rank |
|-----------------|------------------|-----------------|----------------|------------------|-----------------|------|
| Fed in drylot | | | Fed on pasture | | | |
| Y | 3 | 250 | 1 | 3 | 294 | 1 |
| S | 3 | 243 | 2 | 3 | 268 | 2 |
| W | 3 | 240 | 3 | 4 | 267 | 3 |
| L | 2 | 232 | 4 | 2 | 265 | 4 |
| U | 1 | 251 | | 2 | 289 | |
| M | 1 | 233 | | 1 | 290 | |
| 404 | 1 | 262 | | 1 | 276 | |
| Unknown | 1 | 260 | | 1 | 314 | |
| Total & Average | 15 | 244 | | 17 | 279 | |

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Area covered by the North Texas milk marketing order and major out-of-area packaged milk distributing points of North Texas handlers.

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