# *Performance of Ryegrass Varieties in Alabama, 2002-03*

*Agronomy and Soils Departmental Series No. 252*
*Alabama Agricultural Experiment Station*
*John Jensen, Interim Director*
*Auburn University, Auburn, Alabama,*
*August 2003*

*Printed in cooperation with the Alabama Cooperative Extension System*
*(Alabama A&M University and Auburn University)*

# ACKNOWLEDGMENTS

Appreciation is expressed to the following supervisory personnel of the outlying units whose support is gratefully acknowledged:

## Northern Alabama

Tennessee Valley Research and Extension Center, Belle Mina ..... B.E. Norris, Jr., Supt.
H.E. Burgess, Assoc. Supt.

Sand Mountain Research and Extension Center, Crossville ..... R.A. Dawkins, Supt.

## Central Alabama

Black Belt Research and Extension Center, Marion Junction ..... J.L. Holliman, Supt.

Prattville Experiment Field ..... D.P. Moore, Supt.

E.V. Smith Research Center, Plant Breeding Unit, Tallassee ..... S.P. Nightengale, Supt.

## Southern Alabama

Brewton Experiment Field ..... J.R. Akridge, Supt.

Gulf Coast Research and Extension Center, Fairhope ..... N.R. McDaniel, Supt.
M.D. Pegues, Assoc. Supt.

Wiregrass Research and Extension Center, Headland ..... L.W. Wells, Supt.
B.E. Gamble, Asst. Supt.

# PERFORMANCE OF RYEGRASS VARIETIES IN ALABAMA, 2002-03

**K.M. Glass and E. van Santen**

**Agric. Program Associate and Professor, Dept. of Agronomy and Soils, Auburn University, AL 36849**

## Introduction

The Alabama Ryegrass Variety Evaluation is a continuing evaluation of available varieties and breeding lines from private companies and state agricultural experiment stations. Experiments are planted annually in northern, central, and southern locations to evaluate the varieties and lines under the different environmental conditions of Alabama. Entries in each experiment are determined by the companies or institutes that control each variety or line, not by Alabama Agricultural Experiment Station personnel. The experiments are conducted by experiment station personnel and the results are presented in a fair and unbiased manner.

## Procedure

Ryegrass entries were seeded at a 20-pound-per-acre rate in rows 7 inches apart, using plots 5 x 20 feet with four replications. Acceptable stands were obtained at the following locations: Sand Mountain Research and Extension Center, Crossville; E.V. Smith Research Center, Plant Breeding Unit, Tallassee; Wiregrass Research and Extension Center, Headland and Gulf Coast Research and Extension Center, Fairhope.

The experiments were fertilized with phosphorus and potassium according to Auburn University soil test recommendations. At planting, nitrogen was applied at the rate of 50 pounds per acre, and an additional 50 pounds of N per acre was applied after each cutting. A 32- or 49-inch swath of each plot was harvested to a cutting height of 1 to 2 inches with a flail harvester each time the ryegrass reached 6-10 inches tall. A herbage sample of approximately 1 pound was taken from each plot at each harvest for determining forage dry matter percentage. In 2002, the tests were planted October 23, October 10, October 17, and October 22 at Crossville, Tallassee, Headland and Fairhope, respectively. In 2001, the tests were planted September 27, October 18, October 17, and October 31 at Crossville, Tallassee, Headland and Fairhope, respectively. All planting dates were delayed due to lack of soil moisture. Cuttings were limited at Fairhope due to drought conditions.

## Discussion

Strategies to meet seasonal forage needs are an important consideration for livestock producers. Tables 1-4 provide yield data by harvest for 2002-03 at a given location, while Tables 5 and 6 show 1, 2, and 3-year total yields by location. Seasonal and total dry matter yields by locations are provided in Tables 9 and 10. The three seasonal periods are: fall -- forage produced through February; early spring -- March and early April production; and late spring -- production after April 20. A 3-year average provides a more dependable comparison of ryegrass varieties than do single-year results.

**TABLE 1. SEASONAL DRY MATTER YIELD OF ANNUAL RYEGRASS AT THE SAND MOUNTAIN RESEARCH AND EXTENSION CENTER, CROSSVILLE, ALABAMA, 2003.**

| | Yield by harvest date | | | | | | Season |
|---|---|---|---|---|---|---|---|
| Cultivar | 3/12 | 3/26 | 4/12 | 5/1 | 5/21 | 6/10 | total |
| | lbs per acre | | | | | | |
| Jackson | 701 | 1668 | 1272 | 1513 | 886 | 1599 | 7639 |
| Passerel Plus | 526 | 1437 | 1508 | 1303 | 1072 | 1778 | 7623 |
| Wax ME-94 | 603 | 1508 | 1295 | 1392 | 1086 | 1686 | 7569 |
| Ed | 573 | 1376 | 1314 | 1346 | 1080 | 1855 | 7544 |
| Marshall | 533 | 1407 | 1439 | 1455 | 1191 | 1425 | 7450 |
| NCD Enhancer | 494 | 1169 | 1423 | 1415 | 1226 | 1627 | 7353 |
| Ribeye | 456 | 1454 | 1306 | 1410 | 1009 | 1662 | 7296 |
| WMN 97 | 250 | 1160 | 1507 | 1490 | 1075 | 1747 | 7229 |
| SCH-5 | 638 | 1431 | 1369 | 1338 | 900 | 1543 | 7221 |
| FL X2002 (DRU) LRCT | 446 | 1310 | 1201 | 1290 | 1237 | 1645 | 7129 |
| FL X2002 (LA3) LRCT | 367 | 1249 | 1414 | 1249 | 1260 | 1517 | 7056 |
| Brigadier | 398 | 1418 | 1244 | 1519 | 1094 | 1293 | 6966 |
| TXR 2001-11 | 496 | 1116 | 1522 | 1295 | 958 | 1571 | 6957 |
| FL/NE X 2002 (New 2) LRCT | 452 | 1282 | 1312 | 1228 | 1064 | 1602 | 6939 |
| Gulf (Source A) | 752 | 1290 | 973 | 1218 | 965 | 1616 | 6814 |
| WD- 40 | 434 | 1205 | 1307 | 1209 | 1127 | 1489 | 6770 |
| Jumbo | 458 | 1315 | 1146 | 1228 | 1082 | 1508 | 6737 |
| Ore-Tarx | 467 | 1047 | 1594 | 1009 | 944 | 1624 | 6685 |
| FL X 2001(New 1) 4X LR Late | 454 | 1200 | 1124 | 1169 | 1043 | 1682 | 6673 |
| Tam 90 | 545 | 1377 | 1184 | 1263 | 901 | 1351 | 6622 |
| Joe-1 | 816 | 1140 | 1071 | 1201 | 982 | 1365 | 6574 |
| BB-Mex-I | 565 | 1166 | 1262 | 1145 | 914 | 1427 | 6480 |
| Prine | 429 | 1107 | 1179 | 1197 | 1005 | 1329 | 6247 |
| Big Daddy | 361 | 1220 | 1190 | 1048 | 887 | 1257 | 5962 |
| ***Test Mean*** | 509 | 1294 | 1298 | 1289 | 1041 | 1550 | 6981 |
| ***C.V. (%)*** | 42 | 21 | 21 | 14 | 21 | 18 | 10 |
| ***LSD(0.10)*** | 244 | 280 | 294 | 170 | 284 | 339 | 1016 |

Planted: October 23, 2002

Soil: Hartsells Fine Sandy Loam

**TABLE 2. SEASONAL DRY MATTER YIELD OF ANNUAL RYEGRASS AT THE E.V. SMITH RESEARCH CENTER, PLANT BREEDING UNIT, TALLASSEE, 2003.**

| | Yield by harvest date | | | | | | Season |
|---|---|---|---|---|---|---|---|
| Cultivar | 3/10 | 3/27 | 4/16 | 5/5 | † | † | total |
| | lbs per acre | | | | | | |
| Prine | 893 | 790 | 1128 | 930 | ---- | ---- | 3741 |
| WMN 97 | 831 | 979 | 1141 | 784 | ---- | ---- | 3735 |
| TXR 2001-11 | 849 | 994 | 1100 | 766 | ---- | ---- | 3708 |
| Ed | 1045 | 822 | 1036 | 784 | ---- | ---- | 3688 |
| Jackson | 821 | 976 | 1055 | 825 | ---- | ---- | 3676 |
| Wax ME-94 | 933 | 896 | 1083 | 717 | ---- | ---- | 3629 |
| Ore-Tarx | 889 | 850 | 1067 | 818 | ---- | ---- | 3624 |
| SCH-5 | 803 | 1024 | 990 | 791 | ---- | ---- | 3608 |
| Marshall | 818 | 856 | 1114 | 785 | ---- | ---- | 3574 |
| Gulf (Source A) | 1189 | 748 | 1039 | 568 | ---- | ---- | 3544 |
| FL/NE X 2002 (New 2) LRCT | 750 | 838 | 1117 | 805 | ---- | ---- | 3510 |
| Jumbo | 765 | 807 | 1124 | 785 | ---- | ---- | 3480 |
| Tam 90 | 987 | 808 | 1036 | 629 | ---- | ---- | 3460 |
| Joe-1 | 801 | 863 | 952 | 826 | ---- | ---- | 3442 |
| Passerel Plus | 691 | 818 | 1089 | 833 | ---- | ---- | 3431 |
| Ribeye | 786 | 920 | 969 | 688 | ---- | ---- | 3363 |
| WD- 40 | 885 | 748 | 985 | 716 | ---- | ---- | 3334 |
| Brigadier | 892 | 795 | 985 | 655 | ---- | ---- | 3327 |
| FL X2002 (LA3) LRCT | 780 | 840 | 1009 | 676 | ---- | ---- | 3306 |
| FL X 2001(New 1) 4X LR Late | 857 | 791 | 899 | 747 | ---- | ---- | 3294 |
| BB-Mex-I | 638 | 861 | 995 | 796 | ---- | ---- | 3290 |
| FL X2002 (DRU) LRCT | 683 | 841 | 1009 | 718 | ---- | ---- | 3251 |
| Big Daddy | 820 | 785 | 974 | 656 | ---- | ---- | 3235 |
| NCD Enhancer | 518 | 850 | 892 | 772 | ---- | ---- | 3031 |
| ***Test Mean*** | 830 | 854 | 1033 | 753 | ---- | ---- | 3470 |
| ***C.V. (%)*** | 29 | 15 | 16 | 19 | ---- | ---- | 12 |
| ***LSD(0.10)*** | 305 | 118 | 162 | 137 | ---- | ---- | 490 |

Planted: October 10, 2002

Soil type: Cahaba Fine Sandy Loam

† only four cuts taken at this location

**TABLE 3. SEASONAL DRY MATTER YIELD OF ANNUAL RYEGRASS AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2003.**

| | Yield by harvest date | | | | | | Season |
|---|---|---|---|---|---|---|---|
| Cultivar | 1/29 | 2/25 | 3/22 | 4/29 | † | † | total |
| | lbs per acre | | | | | | |
| Gulf (Source A) | 626 | 1693 | 2228 | 1332 | ---- | ---- | 5879 |
| Big Daddy | 408 | 1361 | 1941 | 1978 | ---- | ---- | 5688 |
| Tam 90 | 276 | 1363 | 2484 | 1418 | ---- | ---- | 5542 |
| Prine | 291 | 1364 | 2196 | 1589 | ---- | ---- | 5440 |
| Brigadier | 299 | 1546 | 2191 | 1357 | ---- | ---- | 5393 |
| Ore-Tarx | 282 | 1272 | 2120 | 1584 | ---- | ---- | 5258 |
| BB-Mex-I | 329 | 1292 | 2029 | 1582 | ---- | ---- | 5232 |
| SCH-5 | 272 | 1296 | 2273 | 1374 | ---- | ---- | 5214 |
| TXR 2001-11 | 207 | 1265 | 2229 | 1456 | ---- | ---- | 5157 |
| WD- 40 | 209 | 1305 | 2122 | 1481 | ---- | ---- | 5117 |
| Ed | 327 | 1364 | 2116 | 1252 | ---- | ---- | 5060 |
| Jackson | 348 | 1380 | 2035 | 1246 | ---- | ---- | 5010 |
| FL X 2001(New 1) 4X LR Late | 316 | 1286 | 1851 | 1555 | ---- | ---- | 5009 |
| FL/NE X 2002 (New 2) LRCT | 242 | 1217 | 2225 | 1317 | ---- | ---- | 5001 |
| Wax ME-94 | 275 | 1273 | 2390 | 1059 | ---- | ---- | 4997 |
| Ribeye | 207 | 1343 | 2172 | 1253 | ---- | ---- | 4976 |
| Marshall | 321 | 1099 | 2254 | 1230 | ---- | ---- | 4904 |
| FL X2002 (LA3) LRCT | 282 | 1410 | 2172 | 1032 | ---- | ---- | 4896 |
| Passerel Plus | 246 | 1181 | 2064 | 1398 | ---- | ---- | 4888 |
| WMN 97 | 179 | 939 | 2281 | 1464 | ---- | ---- | 4862 |
| Jumbo | 261 | 1226 | 1972 | 1301 | ---- | ---- | 4760 |
| FL X2002 (DRU) LRCT | 286 | 1311 | 1943 | 1153 | ---- | ---- | 4694 |
| Joe-1 | 312 | 1292 | 1867 | 1013 | ---- | ---- | 4484 |
| NCD Enhancer | 341 | 969 | 1457 | 948 | ---- | ---- | 3715 |
| ***Test Mean*** | 298 | 1294 | 2109 | 1349 | ---- | ---- | 5049 |
| ***C.V. (%)*** | 24 | 11 | 13 | 17 | ---- | ---- | 9 |
| ***LSD(0.10)*** | 71 | 149 | 268 | 316 | ---- | ---- | 560 |

Planted: October 17, 2002

Soil type: Dothan Fine Sandy Loam

† only four cuts taken at this location

**TABLE 4. SEASONAL DRY MATTER YIELD OF ANNUAL RYEGRASS AT THE GULF COAST RESEARCH AND EXTENSION CENTER, FAIRHOPE, ALABAMA, 2003.**

| | Yield by harvest date | | | | | | Season |
|---|---|---|---|---|---|---|---|
| Cultivar | 1/8 | 2/20 | 3/12 | 4/4 | 5/9 | † | total |
| | lbs per acre | | | | | | |
| BB-Mex-I | 1906 | 1558 | 1078 | 1948 | 1992 | ---- | 8482 |
| Prine | 1717 | 1540 | 1018 | 1932 | 2064 | ---- | 8272 |
| FL X2002 (DRU) LRCT | 1119 | 1360 | 1655 | 2016 | 1981 | ---- | 8131 |
| Tam 90 | 1643 | 1566 | 901 | 1938 | 1814 | ---- | 7862 |
| Jumbo | 1617 | 1440 | 931 | 1776 | 2043 | ---- | 7807 |
| NCD Enhancer | 1893 | 1466 | 971 | 1811 | 1619 | ---- | 7761 |
| WMN 97 | 1661 | 1255 | 880 | 1955 | 2008 | ---- | 7759 |
| Jackson | 1540 | 1472 | 972 | 1913 | 1831 | ---- | 7728 |
| WD- 40 | 1595 | 1542 | 938 | 1863 | 1782 | ---- | 7719 |
| Gulf (Source A) | 1684 | 1503 | 1001 | 1819 | 1704 | ---- | 7711 |
| Big Daddy | 1671 | 1315 | 965 | 1907 | 1793 | ---- | 7650 |
| Joe-1 | 2088 | 1255 | 975 | 1623 | 1673 | ---- | 7614 |
| Ed | 1804 | 1416 | 962 | 1591 | 1834 | ---- | 7607 |
| SCH-5 | 1540 | 1440 | 946 | 1877 | 1770 | ---- | 7573 |
| FL X 2001(New 1) 4X LR Late | 1472 | 1318 | 899 | 1894 | 1949 | ---- | 7531 |
| Ore-Tarx | 1424 | 1495 | 941 | 1798 | 1854 | ---- | 7512 |
| Marshall | 1451 | 1203 | 943 | 1893 | 1955 | ---- | 7445 |
| Brigadier | 1570 | 1530 | 941 | 1699 | 1680 | ---- | 7419 |
| FL X2002 (LA3) LRCT | 1346 | 1393 | 965 | 1903 | 1794 | ---- | 7400 |
| Ribeye | 1614 | 1388 | 894 | 1745 | 1745 | ---- | 7386 |
| Passerel Plus | 1438 | 1225 | 891 | 1794 | 1993 | ---- | 7340 |
| FL/NE X 2002 (New 2) LRCT | 1497 | 1183 | 893 | 1752 | 1962 | ---- | 7287 |
| Wax ME-94 | 1623 | 1242 | 953 | 1737 | 1678 | ---- | 7232 |
| TXR 2001-11 | 1092 | 1387 | 855 | 1719 | 1962 | ---- | 7015 |
| ***Test Mean*** | 1584 | 1396 | 974 | 1829 | 1853 | ---- | 7635 |
| ***C.V. (%)*** | 20 | 15 | 34 | 11 | 8 | ---- | 10 |
| ***LSD(0.10)*** | 332 | 197 | 300 | 185 | 144 | ---- | 743 |

Planted: October 22, 2002

Soil type: Malbis Fine Sandy Loam

† only five cuts taken at this location

**TABLE 5. TOTAL DRY MATTER YIELD OF RYEGRASS VARIETIES, 2003, AND TWO- AND THREE-YEAR AVERAGES FOR SAND MOUNTAIN REC AND PLANT BREEDING UNIT.**

| Sand Mountain Research and Ext. Ctr. | | | | Plant Breeding Unit | | | |
|---|---|---|---|---|---|---|---|
| Brand-Variety | 2003 | 2-yr. Avg 2002-03 | 3-yr. Avg 2001-03 | Brand-Variety | 2003 | 2-yr. Avg 2002-03 | 3-yr. Avg 2001-03 |
| | lbs per acre | | | | lbs per acre | | |
| Brigadier | 6966 | 6834 | 5807 | Jackson | 3676 | 4623 | 5934 |
| Wax ME-94 | 7569 | 6909 | 5793 | Brigadier | 3327 | 4326 | 5803 |
| Jackson | 7639 | 6645 | 5767 | WMN 97 | 3735 | 4719 | 5542 |
| Ribeye | 7296 | 6248 | 5532 | Marshall | 3574 | 4579 | 5449 |
| Marshall | 7349 | 6383 | 5469 | Big Daddy | 3235 | 4272 | 5401 |
| Passerel Plus | 7523 | 6436 | 5345 | Prine | 3741 | 4732 | 5319 |
| WMN 97 | 7199 | 6046 | 5082 | Tam 90 | 3460 | 4298 | 5285 |
| Prine | 6247 | 5838 | 5068 | Jumbo | 3480 | 4721 | 5247 |
| Tam 90 | 6622 | 6008 | 5049 | Passerel Plus | 3431 | 4429 | 5168 |
| FL X 2001(New 1) 4X LR Late | 6673 | 5924 | 5010 | FL X 2001(New 1) 4X LR Late | 3294 | 4527 | 5156 |
| Jumbo | 6737 | 5898 | 4957 | Wax ME-94 | 3449 | 4537 | 5110 |
| Big Daddy | 5962 | 5322 | 4770 | Ribeye | 3363 | 4388 | 5034 |
| SCH-5 | 7221 | 6368 | † | SCH-5 | 3608 | 4751 | † |
| TXR 2001-11 | 6957 | 5949 | † | TXR 2001-11 | 3708 | 4455 | † |
| BB-Mex-I | 6480 | 5645 | † | BB-Mex-I | 3290 | 4282 | † |
| Ed | 7544 | † | † | Ed | 3688 | † | † |
| NCD Enhancer | 7353 | † | † | Ore-Tarx | 3624 | † | † |
| FL X2002 (DRU) LRCT | 7129 | † | † | Gulf (Source A) | 3544 | † | † |
| FL X2002 (LA3) LRCT | 7056 | † | † | FL/NE X 2002 (New 2) LRCT | 3510 | † | † |
| FL/NE X 2002 (New 2) LRCT | 6939 | † | † | Joe-1 | 3442 | † | † |
| Gulf (Source A) | 6814 | † | † | WD- 40 | 3334 | † | † |
| WD- 40 | 6770 | † | † | FL X2002 (LA3) LRCT | 3306 | † | † |
| Ore-Tarx | 6685 | † | † | FL X2002 (DRU) LRCT | 3251 | † | † |
| Joe-1 | 6574 | † | † | NCD Enhancer | 3031 | † | † |

**TABLE 6. TOTAL DRY MATTER YIELD OF RYEGRASS VARIETIES, 2003, AND TWO- AND THREE-YEAR AVERAGES FOR WIREGRASS REC AND GULF COAST REC**

| Wiregrass Research and Ext. Ctr. | | | | Gulf Coast Research and Ext. Ctr. | | | |
|---|---|---|---|---|---|---|---|
| | | 2-yr. Avg | 3-yr. Avg | | | 2-yr. Avg | 3-yr. Avg |
| Brand-Variety | 2003 | 2002-03 | 2001-03 | Brand-Variety | 2003 | 2002-03 | 2001-03 |
| | lbs per acre | | | | lbs per acre | | |
| Big Daddy | 5688 | 7015 | 7266 | Marshall | 7445 | 7190 | 7351 |
| Prine | 5440 | 6716 | 7055 | Jackson | 7728 | 6552 | 6863 |
| Wax ME-94 | 4997 | 6282 | 6991 | WMN 97 | 7759 | 6801 | 6814 |
| Brigadier | 5393 | 6452 | 6946 | Passerel Plus | 7340 | 6573 | 6804 |
| Tam 90 | 5542 | 6699 | 6880 | Big Daddy | 7650 | 6781 | 6789 |
| Passerel Plus | 4888 | 6401 | 6870 | Jumbo | 7807 | 6873 | 6760 |
| Jackson | 5010 | 6288 | 6827 | Ribeye | 7386 | 6597 | 6719 |
| Marshall | 4904 | 6353 | 6758 | Tam 90 | 7862 | 6764 | 6711 |
| FL X 2001(New 1) 4X LR Late Ribeye | 5009 | 6325 | 6746 | Wax ME-94 | 7232 | 6689 | 6573 |
| | 4976 | 6526 | 6636 | Brigadier | 7419 | 6521 | 6540 |
| Jumbo | 4760 | 6113 | 6635 | Prine | 8272 | 6686 | 6535 |
| WMN 97 | 4862 | 6143 | 6418 | FL X 2001(New 1) 4X LR Late | 7531 | 6385 | 6439 |
| BB-Mex-I | 5232 | 6632 | † | SCH-5 | 7573 | 6820 | † |
| SCH-5 | 5214 | 6419 | † | BB-Mex-I | 8482 | 6574 | † |
| TXR 2001-11 | 5157 | 6327 | † | TXR 2001-11 | 7015 | 6417 | † |
| Gulf (Source A) | 5879 | † | † | FL X2002 (DRU) LRCT | 8131 | † | † |
| Ore-Tarx | 5258 | † | † | NCD Enhancer | 7761 | † | † |
| WD- 40 | 5117 | † | † | WD- 40 | 7719 | † | † |
| Ed | 5060 | † | † | Gulf (Source A) | 7711 | † | † |
| FL/NE X 2002 (New 2) LRCT | 5001 | † | † | Joe-1 | 7614 | † | † |
| FL X2002 (LA3) LRCT | 4896 | † | † | Ed | 7607 | † | † |
| FL X2002 (DRU) LRCT | 4694 | † | † | Ore-Tarx | 7512 | † | † |
| Joe-1 | 4484 | † | † | FL X2002 (LA3) LRCT | 7400 | † | † |
| NCD Enhancer | 3715 | † | † | FL/NE X 2002 | 7287 | † | † |

**TABLE 7. SEASONAL DISTRIBUTION OF RYEGRASS PRODUCTION AT SAND MOUNTAIN REC AND PLANT BREEDING UNIT BASED ON THREE-YEAR AVERAGES, 2001-2003.**

| Brand-Variety | Fall | Early spring | Late spring | 3-yr avg |
|---|---|---|---|---|
| | ---------- % of total annual yield ---------- | | | - lbs per acre - |
| **Sand Mountain Research and Ext. Ctr.** | | | | |
| Jackson | 13.8 | 47.3 | 48.1 | 4796 |
| Ribeye | 17.7 | 44.6 | 49.5 | 4781 |
| Wax ME-94 | 10.9 | 44.5 | 51.9 | 4628 |
| Marshall | 13.9 | 42.8 | 52.6 | 4625 |
| Brigadier | 16.9 | 43.7 | 50.7 | 4572 |
| Passerel Plus | 12.7 | 42.5 | 53.3 | 4557 |
| WMN 97 | 11.1 | 40.0 | 56.3 | 4382 |
| FL X 2001(New 1) 4X LR Late | 13.4 | 41.1 | 54.4 | 4258 |
| Prine | 11.5 | 44.5 | 51.7 | 4202 |
| Tam 90 | 14.0 | 46.7 | 48.6 | 4179 |
| Jumbo | 11.6 | 42.7 | 53.4 | 4061 |
| Big Daddy | 12.6 | 46.2 | 49.6 | 4060 |
| **Plant Breeding Unit** | | | | |
| Jackson | 28.5 | 50.1 | 30.9 | 5395 |
| Brigadier | 33.9 | 49.6 | 27.7 | 5312 |
| WMN 97 | 22.1 | 51.2 | 34.1 | 5046 |
| Marshall | 24.9 | 50.3 | 33.1 | 5002 |
| Big Daddy | 27.2 | 49.9 | 31.9 | 4918 |
| Tam 90 | 25.8 | 53.1 | 29.7 | 4841 |
| Prine | 19.4 | 51.3 | 35.7 | 4786 |
| Wax ME-94 | 23.1 | 51.1 | 33.5 | 4709 |
| Passerel Plus | 26.6 | 48.6 | 33.7 | 4665 |
| Jumbo | 22.5 | 50.2 | 34.8 | 4635 |
| Ribeye | 22.3 | 54.4 | 30.8 | 4627 |
| FL X 2001(New 1) 4X LR Late | 22.6 | 51.9 | 33.0 | 4605 |

**TABLE 8. SEASONAL DISTRIBUTION OF RYEGRASS PRODUCTION AT WIREGRASS REC AND GULF COAST REC BASED ON THREE-YEAR AVERAGES, 2001-2003.**

| Brand-Variety | Fall | Early spring | Late spring | 3-yr avg |
|---|---|---|---|---|
| | ---------- % of total annual yield ---------- | | | - lbs per acre - |
| **Wiregrass Research and Ext. Ctr.** | | | | |
| Big Daddy | 43.2 | 46.3 | 15.7 | 7266 |
| Prine | 43.3 | 47.6 | 13.6 | 7055 |
| Brigadier | 42.9 | 49.5 | 11.4 | 6946 |
| Tam 90 | 42.9 | 48.9 | 12.3 | 6880 |
| Passerel Plus | 41.5 | 50.3 | 12.3 | 6870 |
| Jackson | 42.4 | 50.6 | 10.5 | 6827 |
| Marshall | 40.2 | 52.4 | 11.1 | 6758 |
| FL X 2001(New 1) 4X LR Late | 41.7 | 49.1 | 13.8 | 6746 |
| Ribeye | 45.9 | 46.6 | 11.3 | 6636 |
| Jumbo | 40.5 | 51.5 | 11.9 | 6635 |
| WMN 97 | 37.3 | 53.7 | 13.6 | 6418 |
| **Gulf Coast Research and Ext. Ctr.** | | | | |
| Marshall | 57.5 | 28.8 | 20.4 | 7351 |
| Jackson | 60.7 | 25.9 | 20.2 | 6863 |
| WMN 97 | 54.3 | 29.4 | 24.5 | 6814 |
| Passerel Plus | 56.8 | 26.6 | 25.0 | 6804 |
| Big Daddy | 59.5 | 26.1 | 21.7 | 6789 |
| Jumbo | 56.3 | 27.0 | 25.1 | 6760 |
| Ribeye | 62.8 | 24.3 | 19.4 | 6719 |
| Tam 90 | 60.6 | 25.1 | 21.4 | 6711 |
| Wax ME-94 | 57.8 | 27.8 | 21.7 | 6573 |
| Brigadier | 59.9 | 26.0 | 21.1 | 6539 |
| Prine | 56.5 | 26.8 | 25.0 | 6535 |
| FL X 2001(New 1) 4X LR Late | 55.3 | 27.5 | 25.9 | 6439 |

# SOURCES OF RYEGRASS SEED

| | |
|---|---|
| BB-Mex-1<br>Jumbo<br>Ribeye | **Barenbrug USA, Tangent, Oregon** |
| Brigadier<br>Prine | **East Texas Seed Co., Tyler, Texas** |
| Joe-1<br>Ore-Trax<br>SCH-5<br>WD-40 | **OreGro Seeds, Inc., Shedd, Oregon** |
| Gulf (Local Source) | **Piedmont Fertilizer Co.,<br>Opelika, Alabama** |
| FL X2001(New 1)4XLR Late<br>Passerel Plus | **Pennington Seed, Inc., Lebanon, Oregon** |
| Big Daddy<br>Ed | **Smith Seed Service, Halsey, Oregon** |
| TAM 90<br>TXR 2001-11 | **Texas A & M University,<br>College Station, Texas** |
| Jackson<br>Marshall<br>WAX ME-94<br>WMN 97 | **The Wax Company, LLC,<br>Amory, Mississippi** |
| FL/NE X2002(New 2) LRCT<br>FL X2002(LA3) LRCT<br>FL X2002(DRU)LRCT | **University of Florida,<br>Gainesville, Florida** |
| NCD Enhancer | **ARC-Range and Forage Institute,<br>Hilton, South Africa** |