

Table A. New Mexico 2008 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis

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Test Description

| Location: | Management Practices: | Growing Conditions: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|----------------------------|-------------------|------|--------------------|--|--|----------|---------|-----------|----------|---------|--------|-------------------------------|------|--|---|------|--|----|------|--|---|--|------------------------|----------------|-------------------|---------|--|--|--|----------|--|--|--|-------|------|--|--|-------|------|------|--|-----|------|------|--|------|------|------|--|------|------|------|--|--------|------|------|--|------------------------|------|------|--|---------|--|--|--|----------|--|--|--|----------|--|--|--|
| County/Area: Curry Longitude: -103.22 Latitude: 34.60 Elevation: 4435 ft. Soil Name: Olton Soil Texture: clay loam Soil Depth: >60 in. | Previous Crop: fallow Planting Date: 20-May Harvest Date: 25-Sep <hr/> Production Inputs <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Rate</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td colspan="3">Fertilizer:</td> </tr> <tr> <td>Nitrogen</td> <td>51 lb/a</td> <td>carryover</td> </tr> <tr> <td>Nitrogen</td> <td>60 lb/a</td> <td>20-May</td> </tr> <tr> <td>P₂O₅</td> <td>lb/a</td> <td></td> </tr> <tr> <td>S</td> <td>lb/a</td> <td></td> </tr> <tr> <td>Zn</td> <td>lb/a</td> <td></td> </tr> </tbody> </table> Herbicides: Atrazine 2 pt/a 20-May Glyphosate 1 qt/a 20-May Insecticides: Intrepid 2F 8 oz/a 9-Aug | | Rate | Date | Fertilizer: | | | Nitrogen | 51 lb/a | carryover | Nitrogen | 60 lb/a | 20-May | P ₂ O ₅ | lb/a | | S | lb/a | | Zn | lb/a | | <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Average Temp. °F</th> <th style="text-align: center;">Precip. in.</th> <th style="text-align: center;">Irrigation in.</th> </tr> </thead> <tbody> <tr><td>January</td><td></td><td></td><td></td></tr> <tr><td>February</td><td></td><td></td><td></td></tr> <tr><td>March</td><td style="text-align: center;">46.9</td><td></td><td></td></tr> <tr><td>April</td><td style="text-align: center;">53.7</td><td style="text-align: center;">0.73</td><td></td></tr> <tr><td>May</td><td style="text-align: center;">62.5</td><td style="text-align: center;">1.75</td><td></td></tr> <tr><td>June</td><td style="text-align: center;">75.5</td><td style="text-align: center;">3.95</td><td></td></tr> <tr><td>July</td><td style="text-align: center;">73.0</td><td style="text-align: center;">4.74</td><td></td></tr> <tr><td>August</td><td style="text-align: center;">73.0</td><td style="text-align: center;">3.56</td><td></td></tr> <tr><td>September[†]</td><td style="text-align: center;">64.8</td><td style="text-align: center;">1.02</td><td></td></tr> <tr><td>October</td><td></td><td></td><td></td></tr> <tr><td>November</td><td></td><td></td><td></td></tr> <tr><td>December</td><td></td><td></td><td></td></tr> </tbody> </table> <hr/> [†] Sept. 1-25 Seasonal Precipitation: 15.8 in. Total Irrigation: 0.0 in. Date of Last Spring Frost: 11-May Date of First Fall Frost: 23-Oct Frost Free Period: 165 days | | Average Temp. °F | Precip. in. | Irrigation in. | January | | | | February | | | | March | 46.9 | | | April | 53.7 | 0.73 | | May | 62.5 | 1.75 | | June | 75.5 | 3.95 | | July | 73.0 | 4.74 | | August | 73.0 | 3.56 | | September [†] | 64.8 | 1.02 | | October | | | | November | | | | December | | | |
| | Rate | Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fertilizer: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen | 51 lb/a | carryover | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrogen | 60 lb/a | 20-May | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P ₂ O ₅ | lb/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S | lb/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zn | lb/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Average Temp. °F | Precip. in. | Irrigation in. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| January | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| February | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| March | 46.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April | 53.7 | 0.73 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| May | 62.5 | 1.75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| June | 75.5 | 3.95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July | 73.0 | 4.74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| August | 73.0 | 3.56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| September [†] | 64.8 | 1.02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| October | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| November | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| December | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Design: Replications: 3 Plot Length: 20 ft. Rows per Plot: 2 Row Spacing: 30 in. Seeding Rate: Non-BMR 60,000 seed/a BMR/Sweet Sorghum 60,000 seed/a Sweet Sorghum 45,000 seed/a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table B. New Mexico 2008 Dryland Forage Sorghum Performance Test - Agricultural Science Center at Clovis

Results

| Brand/Company Name | Hybrid/Variety Name | Seeding [†] Rate | Sorghum [‡] Type | Moisture | | | CP | NDF | NDFD 48hr | Ash | TDN | NE ₁ | Milk/Ton | Milk/Acre |
|-----------------------------|---------------------|---------------------------|---------------------------|------------|--------------|------------|---------|---------|-----------|---------|--------|-----------------|----------|-----------|
| | | | | Dry Forage | Green Forage | at Harvest | | | | | | | | |
| | | | | t/a | t/a | % | % | % | % | % | % | Mcal/lb | lb/t | lb/a |
| Forage First | FS-5 | High | Conv | 6.9 | 18.8 | 63.3 | 7.5 | 46.7 | 64.2 | 5.9 | 62.2 | 0.57 | 2502 | 17291 |
| Sweet Sorghum (Exp.) | TAMS-XH018 | High | Sweet | 6.4 | 18.2 | 64.6 | 6.2 | 42.5 | 71.2 | 5.4 | 61.8 | 0.55 | 2407 | 15428 |
| Sweet Sorghum (Exp.) | TAMS-XH010 | High | Sweet | 5.9 | 16.5 | 64.0 | 6.4 | 41.5 | 69.5 | 5.0 | 63.0 | 0.57 | 2526 | 14991 |
| Coffey Forage Seeds, Inc. | FS 6810 | High | BMR | 5.9 | 17.6 | 66.8 | 7.2 | 42.6 | 71.5 | 6.0 | 63.4 | 0.57 | 2534 | 14862 |
| Sorghum Partners, Inc. | HIKANE II | High | Conv | 5.8 | 16.7 | 65.1 | 7.2 | 45.7 | 66.6 | 5.6 | 63.4 | 0.58 | 2577 | 14939 |
| Dyna-Gro/UAP | DG 710F | High | BMR | 5.8 | 17.2 | 66.7 | 7.8 | 47.7 | 64.5 | 6.1 | 62.1 | 0.57 | 2490 | 14363 |
| Eastern Colorado Seeds, LLC | HP 95 BMR | High | BMR | 5.7 | 15.0 | 61.6 | 7.5 | 47.0 | 68.7 | 6.5 | 64.1 | 0.58 | 2599 | 14922 |
| Sweet Sorghum (Exp.) | TAMS-XH005 | High | Sweet | 5.7 | 16.0 | 64.5 | 6.2 | 43.2 | 71.4 | 5.3 | 62.5 | 0.56 | 2454 | 14035 |
| Sweet Sorghum (Exp.) | TAMS-XH013 | High | Sweet | 5.5 | 16.4 | 66.1 | 6.4 | 44.2 | 70.9 | 5.7 | 61.9 | 0.55 | 2413 | 13336 |
| Sorghum Partners, Inc. | NK 300 | High | Conv | 5.4 | 13.8 | 60.7 | 7.3 | 48.5 | 63.3 | 6.2 | 61.9 | 0.57 | 2489 | 13534 |
| Sweet Sorghum (Exp.) | TAMS-XH013 | Low | Sweet | 5.4 | 15.5 | 65.5 | 6.1 | 43.2 | 70.5 | 5.4 | 62.1 | 0.56 | 2433 | 13041 |
| Sweet Sorghum (Exp.) | TAMS-XH018 | Low | Sweet | 5.1 | 14.7 | 65.4 | 6.0 | 42.8 | 73.0 | 5.2 | 62.5 | 0.56 | 2444 | 12446 |
| Sweet Sorghum (Exp.) | TAMS-XH005 | Low | Sweet | 5.0 | 14.3 | 65.1 | 6.4 | 44.2 | 69.3 | 5.5 | 61.6 | 0.55 | 2408 | 11996 |
| Sweet Sorghum (Exp.) | TAMS-XH010 | Low | Sweet | 4.8 | 14.5 | 66.9 | 6.2 | 45.3 | 70.6 | 5.3 | 62.3 | 0.56 | 2441 | 11755 |
| Richardson Seed, Ltd. | Dairy Master BMR | High | BMR | 4.5 | 13.8 | 67.4 | 6.8 | 48.3 | 75.8 | 6.2 | 64.4 | 0.57 | 2530 | 11397 |
| Eastern Colorado Seeds, LLC | HP 1010 MS BMR | High | BMR | 4.5 | 14.8 | 69.7 | 7.6 | 49.5 | 72.1 | 7.2 | 63.9 | 0.57 | 2536 | 11402 |
| Trial Mean | | | | 5.6 | 16.1 | 65.3 | 6.9 | 45.4 | 69.0 | 5.8 | 62.7 | 0.57 | 2489 | 13926 |
| LSD | | | | 0.8 | 2.2 | 2.7 | 0.6 | 3.3 | 2.6 | 0.6 | 1.5 | NS | NS | 1987 |
| LSD P > | | | | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| CV | | | | 8.1 | 8.1 | 2.5 | 4.9 | 4.4 | 2.3 | 6.6 | 1.4 | 2.4 | 3.3 | 8.6 |
| F Test | | | | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0069 | 0.1020 | 0.1570 | <0.0001 |

† Seeding rates = High = 60,000; Low = 45,000

‡ Type = Conv = Conventional; BMR = Brown Midrib; Sweet = Sweet Sorghum