

Measured crop performance

Grain and Forage Sorghum

1959

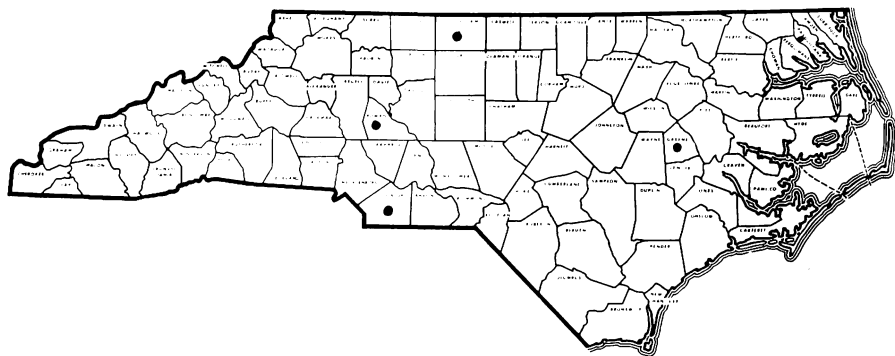
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Location of North Carolina Grain and Forage Sorghum Trials 1959



COOPERATORS - 1959

| County | Grower | Address | County Agent |
|------------|----------------------------------|---|-------------------|
| Rowan | Warren Bailey, Superintendent | Piedmont Research Station Route 6, Salisbury | P. H. Satterwhite |
| Rockingham | A. F. Holman | Route 1, Leaksville | J. E. Foil |
| Pasquotank | G. E. Small | Route 1, Elizabeth City | S. L. Lowery |
| Union | Corbett Greene | Route 2, Marshville | J. A. Marsh |
| Greene | Bryan Pipin | Route 1, Farmville | J. W. Grant |

North Carolina Grain and Forage Sorghum Performance Trials

1959

This report presents the results of the North Carolina Official Grain and Forage Sorghum Trials for the 1959 Season, and summarizes the results of the trials conducted during the past two years.

The objective of these trials is to obtain performance information on commercially available hybrids and varieties, for use as a basis in determining which hybrids or varieties are most likely to excel under generally prevailing conditions.

The 1959 Season. For the state as a whole, very dry weather during June, resulted in grain sorghum yields somewhat lower than in 1958. The remainder of the growing season following this dry period was generally favorable although excessive rainfall in July and August adversely affected yields in certain sorghum producing areas.

Anthraxnose and possibly some other fungus diseases caused drastic yield reductions in some areas. No research data is available on variety resistances at this time.

Excessive rainfall at the Greene County trial resulted in premature killing of plants. The trial was abandoned due to this factor.

The Rockingham trial was abandoned due to poor stands.

The Pasquotank County trial was abandoned due to circumstances beyond our control.

Management of Test Fields. Cultural practices, such as soil preparation, date of planting, fertilizing and topdressing, were in accord with good farm management and were the same for all entries at each location. Planting, thinning and harvesting were directly supervised by personnel of the North Carolina Agricultural Experiment Station.

Head Exsertion. Head exsertion is the distance in inches from the top leaf to the base of the head. This distance gives an indication of the ease with which grain sorghum may be harvested without leaves hindering the operation.

Lodging. Standability was good at all locations this year with the exception of the Rowan County forage trial. Lodging was very high in this trial. It was not possible to determine significant differences among varieties and hybrids for this character.

Agencies Sponsoring Entries.

DeKalb Agricultural Association, Lubbock, Texas

Lindsey Seed Company, Lubbock, Texas

Northrup, King and Company, Phoenix, Arizona

Pfister Associated Growers, Inc., Aurora, Illinois

PERFORMANCE OF GRAIN SORGHUM ENTRIES

Two Year Average (Six Tests)

1958 - 1959

| Entries | Yield Lbs/A | Plant Height In. | Head Exsertion |
|---------------|----------------|---------------------|-------------------|
| DeKalb D-50a | 4858 | 59 | 9 |
| P.A.G. 515-S | 4358 | 53 | 8 |
| RS 610 | 4090 | 53 | 9 |
| P.A.G. 605-S | 4009 | 55 | 7 |
| DeKalb F-62a | 3881 | 54 | 11 |
| DeKalb C-44a | 3880 | 51 | 9 |
| Means of Test | 3838 | 53 | 9 |
| Texas 620 | 3815 | 58 | 10 |
| DeKalb E-56a | 3747 | 54 | 9 |
| P.A.G. 425-S | 3637 | 49 | 9 |
| RS 650 | 3622 | 52 | 8 |
| Redbine 66 | 3448 | 51 | 8 |
| MK 230 | 3326 | 51 | 9 |
| Martin | 3221 | 52 | 9 |

PERFORMANCE OF SILAGE SORGHUM ENTRIES

Two Year Average (Three Tests)

1958 - 1959

| Entries | Yield Tons/A |
|---------------|-----------------|
| Sart | 27.6 |
| Wiley | 25.9 |
| Means of Test | 23.3 |
| NK 320 | 22.9 |
| RS 301F | 22.3 |
| Atlas | 21.4 |
| Tracy | 19.5 |

PERFORMANCE OF GRAIN SORGHUM ENTRIES

Summary of Rowan I, Rowan II, and Union Counties

1959

| Entries | Yield Lbs/A | Plant Height Inches | Head Exsertion |
|---------------|----------------|------------------------|-------------------|
| DeKalb D-50A | 5219 | 55 | 9 |
| DeKalb D-55 | 5057 | 60 | 9 |
| P.A.G. 515-S | 4759 | 57 | 9 |
| DeKalb F-63 | 4755 | 58 | 10 |
| P.A.G. 605-S | 4642 | 56 | 8 |
| NK 210 | 4353 | 58 | 10 |
| RS 610 | 4353 | 54 | 9 |
| DeKalb C-44a | 4299 | 54 | 10 |
| Texas 620 | 4286 | 59 | 11 |
| Means of Test | 4143 | 56 | 11 |
| DeKalb F-62a | 4093 | 54 | 9 |
| P.A.G. 625-S | 4091 | 55 | 9 |
| Lindsey 788 | 4064 | 60 | 11 |
| NK 230 | 3942 | 53 | 10 |
| RS 608 | 3872 | 53 | 10 |
| P.A.G. 425-S | 3800 | 53 | 11 |
| DeKalb E-56a | 3737 | 55 | 9 |
| RS 650 | 3587 | 55 | 11 |
| Martin | 3509 | 54 | 10 |
| Redbine 66 | 3390 | 58 | 11 |
| DeKalb X-49 | 3058 | 53 | 9 |

PERFORMANCE OF GRAIN SORGHUM ENTRIES

*Rowan County Test I

1959

| Entries | Yield Lbs/A | Plant Height Inches | Head Exsertion |
|--------------|----------------|------------------------|-------------------|
| DeKalb D-55 | 5424 | 61 | 7 |
| P.A.G. 515-S | 5001 | 58 | 9 |
| Lindsey 788 | 4920 | 54 | 9 |
| DeKalb D-50a | 4900 | 60 | 8 |
| P.A.G. 605-S | 4779 | 60 | 8 |
| DeKalb F-63 | 4759 | 57 | 11 |
| DeKalb F-62a | 4517 | 55 | 9 |
| DeKalb C-44a | 4376 | 55 | 10 |
| Redbine 66 | 4356 | 58 | 11 |
| Texas 620 | 4114 | 60 | 11 |
| DeKalb E-56a | 4053 | 56 | 9 |
| RS 608 | 4053 | 55 | 10 |
| NK 210 | 4013 | 58 | 10 |
| P.A.G. 625-S | 3993 | 57 | 8 |
| P.A.G. 425-S | 3892 | 53 | 11 |
| NK 230 | 3731 | 56 | 11 |
| RS 610 | 3710 | 55 | 9 |
| RS 650 | 3569 | 54 | 9 |
| DeKalb X-49 | 3287 | 54 | 9 |
| Martin | 3226 | 53 | 10 |
| *Dixie 82 | 7500 | | |
| L.S.D. (.05) | 1028 | | |

*Plant population 5-6 plants per foot

** Dixie 82 is a corn hybrid placed in this test for comparative purposes. Yield of this hybrid is converted to 14.5% moisture content. The mean moisture content of the sorghum entries contained in this test was 14.5%.

PERFORMANCE OF GRAIN SORGHUM ENTRIES

*Rowan County Test II

1959

| Entries | Yield Lbs/A | Plant Height Inches | Head Exsertion |
|--------------|----------------|------------------------|-------------------|
| DeKalb D-50a | 5888 | 58 | 9 |
| DeKalb D-55 | 5404 | 61 | 9 |
| DeKalb F-63 | 5364 | 63 | 9 |
| DeKalb C-44a | 5041 | 50 | 8 |
| P.A.G. 605-S | 5021 | 59 | 9 |
| P.A.G. 515-S | 4961 | 57 | 9 |
| RS 610 | 4819 | 54 | 9 |
| NK 210 | 4799 | 57 | 10 |
| NK 230 | 4678 | 53 | 10 |
| RS 608 | 4618 | 52 | 11 |
| Texas 620 | 4577 | 61 | 11 |
| P.A.G. 425-S | 4577 | 51 | 10 |
| DeKalb F-62a | 4335 | 57 | 11 |
| DeKalb E-56a | 4335 | 55 | 11 |
| P.A.G. 625-S | 4275 | 58 | 9 |
| RS 650 | 4235 | 56 | 9 |
| Redbine 66 | 4053 | 57 | 10 |
| Martin | 3993 | 55 | 10 |
| Lindsey 788 | 3952 | 67 | 10 |
| DeKalb X-49 | 3025 | 54 | 8 |
| **Dixie 82 | 7500 | | |
| L.S.D. (.05) | 891 | | |

* Plant population 8-10 plants per foot.

** Dixie 82 is a corn hybrid placed in this test for comparative purposes. Yield of this hybrid is converted to 14.5% moisture content. The mean moisture content of the sorghum entries placed in this test was 14.5%.

PERFORMANCE OF GRAIN SORGHUM ENTRIES

Union County

1959

| Entries | Yield Lbs/A | Plant Height Inches | Head Exsertion |
|--------------|----------------|------------------------|-------------------|
| DeKalb D-50a | 4868 | 46 | 9 |
| RS 610 | 4529 | 53 | 9 |
| DeKalb D-55 | 4344 | 57 | 11 |
| P.A.G. 515-S | 4315 | 55 | 8 |
| NK 210 | 4247 | 59 | 11 |
| Texas 620 | 4166 | 56 | 11 |
| DeKalb F-63 | 4142 | 55 | 9 |
| P.A.G. 605-S | 4126 | 50 | 8 |
| P.A.G. 625-S | 4005 | 51 | 9 |
| DeKalb C-44a | 3480 | 57 | 12 |
| DeKalb F-62a | 3428 | 51 | 9 |
| NK 230 | 3416 | 50 | 9 |
| Martin | 3319 | 60 | 13 |
| RS 650 | 3307 | 53 | 9 |
| RS 608 | 2944 | 54 | 14 |
| P.A.G. 425-S | 2944 | 53 | 10 |
| DeKalb X-49 | 2932 | 56 | 11 |
| DeKalb E-56a | 2863 | 52 | 10 |
| Redbine 66 | 2823 | 53 | 8 |
| Lindsey 788 | 1762 | 60 | 12 |
| L.S.D. (.05) | 1238 | | |

PERFORMANCE OF FORAGE SORGHUM ENTRIES

Rowan County

1959

| Entries | Yield Tons/A |
|---------------|-----------------|
| Sart | 34.7 |
| Lindsey 115-F | 30.7 |
| DeKalb FS-22 | 29.3 |
| Wiley | 26.4 |
| NK 320 | 26.0 |
| Lindsey 101-F | 24.6 |
| DeKalb SX-11 | 22.8 |
| DeKalb FS-1a | 21.0 |
| RS 301F | 21.0 |
| Atlas | 20.2 |
| NK 300 | 20.1 |
| Tracy | 19.0 |
| Lindsey 92F | 15.5 |
| *Dixie 82 | 18.2 |
| L.S.D. (.05) | 7.9 |

* Dixie 82 is a corn hybrid placed in this test for comparative purposes. It was observed at harvest time that this hybrid had passed optimum maturity for silage. The moisture content of its stalks was much less than that of the sorghum entries. Recommendations concerning this comparison should not be made until a more accurate evaluation is obtained!