



SESAME VARIETY EVALUATION

Texas AgriLife Extension Service

Nueces County, 2011

Cooperator: Texas AgriLife Research & Extension Center

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Summary

This test was located on the Research & Extension Center on HWY 44. Rainfall during the growing season was very low and totaled less than one inch. Yields ranged from a low of 225 pounds per acre to a high of 284 pounds per acre. Under normal rainfall conditions one would expect yields to be three times what was produced this year.

Objective

To evaluate sesame varieties for yield and production in South Texas and determine the economics of producing this crop and potential risks associated with production.

Materials and Methods

Sesame was planted on May 17, 2011, at Clarkwood on the Texas AgriLife Research & Extension Center in a randomized complete replicated block with four replications. Rainfall from planting to harvest was May=0 inch, June=0.51 inch, July=0.11 inch, August=0.26 inch, September=0 inch, for a total of 0.88 inch. The sesame was planted with a John Deere MaxEmerge2 Planter (setting Driver 24: Driven 26) Vacuum @ 4 PSI using 45 hole sorghum plates to a seeding depth of 1.25 inches following an early May rainfall event. Plots were hand harvested on September 13, 2011.

Table 1: Agronomic data for Sesame Variety Test, AgriLife Research & Extension Center Nueces County, Texas, 2011.

| | | |
|-------------------------------------|---|------------------------------|
| Planting Date: May,17 2011 | Plot Size: 4 rows plots | Row Width: 38-inch |
| Fertility: 11/16/10 100-40-0 | Soil Type: Clareville loam | Previous Crop: Canola |
| Planting Rate: 2.5 lbs/acre | Herbicide: 1.3pts Dual II Magnum | Harvest: 9/13/11 |

Results and Discussion

The below normal rainfall certainly hurt yields and the stress related to lack of soil moisture attributed to the onset of the disease of charcoal rot that was noted in the plots.

Table 2. Comparison of plant density, plant height, disease incidence, and yield per acre between varieties, AgriLife Research & Extension Center, Nueces County, Texas, 2011.

| Variety | Plt/Ft | Plt/Ht¹ (inches) | Charcoal Rot Rating² | Ht 1st Capsule (ft) | Node/Plt | Yield/Ac (lbs.) |
|----------------|---------------|--|--|---|-----------------|----------------------------|
| S 33 | 6.1 | 25.7 | 3.5 | 1.2 | 13 | 284 |
| S 32 | 4.7 | 29.8 | 3.7 | 1.2 | 14 | 282 |
| X22 K | 4.9 | 27.0 | 3.3 | 1.0 | 16 | 270 |
| S 26 | 3.7 | 27.3 | 3.7 | 1.2 | 14 | 241 |
| S 70 | 3.6 | 21.3 | 4.3 | 0.7 | 16 | 228 |
| S 28 | 3.8 | 25.8 | 3.5 | 1.2 | 14 | 225 |

¹Plant height measured 9/7/11 ²Charcoal Rot rating on 8/24/11 (1 being little evidence of disease and 5 being majority of plants showing disease symptoms.)

Conclusions

Although sesame is a very drought tolerant crop, adequate moisture is needed to produce good yields, as peak water demand for the crop occurs during flowering. Assuming a contract price of \$0.40 per pound (most sesame in Coastal Bend in 2011 received at least this), gross income in this test plot ranged from a low of \$90/acre to a high of \$113/acre. Below normal rainfall had a dramatic impact on production as one would expect yields to be three times what was produced in this test plot. So in a somewhat average year gross income could have been as high as \$340 per acre.

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