

TRIPLE/S DYNAMICS  
PROCESS EVALUATION

[REDACTED]

BY: [REDACTED]

SUBJECT: Deck Slope on a Texas Shaker.

BACKGROUND: [REDACTED] sent approximately 100 lbs. of soybean screenings to the Triple/S Dynamics Laboratory to be used in evaluating the effects of changing the deck slope of a Texas Shaker on screening performance. The 1 x 3 Texas Shaker was used for the test.

SUMMARY: No significant effect on screening performance could be found by changing the deck slope within a range from 2° to 8.9°.

PROCEDURE: A 1/8" round hole deck was used for the test. Product was fed onto the deck at a rate of 6700 lbs/hr/ft of width. The product was passed over the deck a total of three times per treatment and the weight of the fines determined after each pass. The total weight of fines and overs was determined at the end of each treatment. The deck slopes evaluated were 1.9°, 2.9°, 4.5°, 5.8°, and 8.9°.

RESULTS: The results of the evaluation of deck slope to screening performance is presented in Table 1.

TABLE 1 - Percent Fines Removed After Each Three Foot Pass on a Texas Shaker, Adjusted to Various Deck Angles

<u>Deck Angle</u>	<u>1st Pass</u>	<u>2nd Pass</u>	<u>3rd Pass</u>
1.9	8.90	12.27	13.55
2.9	9.29	12.04	13.49
4.5	10.28	12.35	13.47
5.8	9.54	12.22	13.40
8.9	9.91	12.32	13.44

It would appear that variations in percent fines removed after three passes is probably due to lack of uniformity in remixing of the sample after each treatment. It would appear that many of the assumptions we have made about the screening performance of the Texas Shaker will have to be confirmed on the new lab test unit.

[REDACTED]

LABORATORY TESTING REQUEST

Sample No. 79-114 Date [REDACTED]

Salesman [REDACTED]

Customer [REDACTED]

Address [REDACTED]

Type of Sample soybeans

Sample Size 2 bags

Disposition of Sample \_\_\_\_\_

Test Procedures

Physical Characteristics

Date of Test \_\_\_\_\_

Sieve Analysis \_\_\_\_\_ Range \_\_\_\_\_

Bulk Density \_\_\_\_\_ Specific Gravity \_\_\_\_\_

Moisture \_\_\_\_\_ Ash \_\_\_\_\_

Others: \_\_\_\_\_

Process

SCREENING TEST

Type of Machine \_\_\_\_\_ Screen Size \_\_\_\_\_

GRAVITY SEPARATION

T15 \_\_\_\_\_ Stoner \_\_\_\_\_ Concentrator \_\_\_\_\_

V135 \_\_\_\_\_ Automedia \_\_\_\_\_ Aspirator \_\_\_\_\_

Type of Deck \_\_\_\_\_

Granulation

Grate \_\_\_\_\_

Special Features \_\_\_\_\_

Describe any special test desired or any additional information regarding tests listed above \_\_\_\_\_

\_\_\_\_\_  
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