SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Pre-Release Trial (216)

Catalogue No: 134

This Crop: Plant

Site: Cornubia Section, N.E.L.

Tramline

Altitude: 400'

Soil Series: Red sands, Clansthal

Design: Random block Variety: See treatments

Fertilizer: 3:15:3 1,000 lbs.

15:0:15 1,200 lbs.

Water Regime: Dryland

Soil Analysis:

pH OM % P K 8.15 0.90 1.08 72

Age: 20 months (1/62 - 8/63)

Rainfall, this crop: 58.09"

Object: To test Pre-release varieties.

Treatments: 1.

1. N.53/216

2. N:Co.382

3. N:Co.376

4. N:Co.310

Results:

| Varietý | T.C.A. | Suc.% | T.S.A. | l T.C.A.M. | 2 Lbs. S.A.M. | ppm | |
|---------|--------|----------------|--------|---------------|---------------------|-----|---|
| | | | | | | 1 | 2 |
| 216 | 52.40 | 16.66 | 8.73 | 2.620 | 873 | 4 | 4 |
| 382 | 65.88 | 1 5. 92 | 10.49 | 3.294 | 1049 | 2 | 2 |
| 376 | 67.01 | 15.79 | 10.58 | 3.350 | 1058 | 1 | 1 |
| 310 | 52.96 | 18.09 | 9.58 | 2.648 | 958 | 3 | 3 |

N.53/216 Variety Trials

In both the plant and 1st ration N.53/216 was outyielded, on the average by N:Co.376 and N:Co.382, but ran equal with N:Co.310.

This variety has fair stooling properties and sturdy sticks of medium height. Flowering is limited when compared with the profuse flowering of N:Co.310 and its parent N:Co.293.

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Pre-Release Trial (216)

Catalogue No : 134
This Crop: lst Ratoon

Cornubia Section, N.E.L.

Tramline

Altitude: 400'

Soil Series: Red Sands, Clansthal

Design: Random block

Variety: See treatments

1,200 lbs. Fertilizer: 10:5:15

Water Regime: Dryland Soil Analysis:

K OM % Hq 8.15 0.90 108 72

Age: 15 months (8/63 - 11/64)

43.2811 Rainfall, this crop:

To test Pre-release varieties. Object:

Treatments:

1. N.53/216

2. N:Co.382

N:Co.376 N:Co.310 3. 4.

Results:

| Variety | T.C.A. | Suc.% | T.S.A. | 1 T.C.A.M. | 2 Lbs. S.A.M. | Rank | |
|---------|--------|-------|--------|---------------|---------------------|------|---|
| Vallety | | | | | | 1 | 2 |
| 216 | 43.8 | 15.66 | 6.86 | 2.920 | 914 | 3 | 2 |
| 382 | 50:9 | 13.53 | 6.89 | 3•393 | 918 | 1 | ļ |
| 376 | 50.4 | 13.58 | 6.84 | . 3.360 | 912 | 2 | 3 |
| 310 | 38.8 | 15.40 | 5.97 | 2.587 | 796 | 4 | 4 |

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS! ASSOCIATION

PRE-RELEASE VARIETY TRIAL

Catalogue No: 134

This crop: 2nd Ratoon

Site: Cornubia Section, N.E.L.,

(Tramline)

Altitude: 400'

Soil Series: Clansthal sand Design: 4 x 4 Latin Square Variety: See treatments Fertilizer: 4:1:6 1200 lbs/ac

Water regime: Dryland

Soil Analysis:

pH OM% Clay% P K Ca Mg

Age: 21 months (11/64 - 8/66)

Rainfall: 54.30 Irrigation: Nil

Object:

To test pre-release varieties.

Treatments:

1. N:Co.382

2. N:Co.376

3. N.53/216

4. N:Co.310

Results:

| Variety | T.C.A. | % Sucrose | T.S.A. | A. T.C.A.M. | B. lbs S.A.M. | Rank | |
|----------|--------|--------------|--------|----------------|------------------|------|-----|
| | | | | | | A | В |
| N:Co.382 | 71.12 | 15.98 | 11.365 | 3 . 387 | 1082 | 1 | 1 |
| N:Co.376 | 64.54 | 14.76 | 9.526 | 3.073 | 908 | 2 | 3 |
| N.53/216 | 63.79 | 16.64 | 10.615 | 3.038 | 1010 | 3 | 2 |
| N:Co.310 | 35.89 | 16.19 | 5.811 | 1.709 | 554 | 4 | 4 - |

S.E. = +928

Difference between treatments significant @ 1% and 5%

 $c.v. = \overline{1}6.872\%$

L.S.D. between treatments = 17.18 T.P.A. @ 5%

26.02 T.P.A. @ 1%

Comments:

The yield of N.53/216 was relatively low in the plant and 1st ration crop, but shows a definite improvement in the 2nd ration. The declining performance of N:Co.310 on poor Clansthal sands should also be noted.