

SOUTH AFRICAN SUGAR INDUSTRY
AGRONOMISTS' ASSOCIATION

Pre-Release Trial (36/14, 38/22).

Catalogue No: 133
This Crop: Plant
Site: Tugela Section Darnall.
Blackhill Field.
Altitude: 100'
Soil Series: Red sands Clansthal.
Design: Random block.
Variety: See treatments.
Fertilizer: Supers 8.3% P 800
15:0:15 600
15:0:15 600
Water Regime: Dryland.

Soil Analysis:
p.p.m.
pH P K Ca Mg
5.6 VH 50 500 160
Age: 22 months (11/62 - 7/64)
Rainfall, this crop: 78.90"

Object: To test Pre-release varieties.

Treatments: 1. C.B. 36/14
2. C.B. 38/22
3. N:Co.376
4. N.50/211

Results:

| Variety | T.C.A. | Suc. % | T.S.A. | 1 | | Rank | |
|---------|--------|--------|--------|----------|-------------|------|---|
| | | | | T.C.A.M. | Lbs. S.A.M. | 1 | 2 |
| 36/14 | 52.49 | 15.59 | 8.18 | 2.385 | 743 | 3 | 3 |
| 38/22 | 41.35 | 16.51 | 6.83 | 1.879 | 620 | 4 | 4 |
| 376 | 57.71 | 15.74 | 9.08 | 2.623 | 825 | 1 | 1 |
| 50/211 | 53.50 | 15.34 | 8.21 | 2.431 | 746 | 2 | 2 |

S.E. = ± 9.22

C.V. = 18.0%

Conclusions:

C.B. 36/14 did not perform as well on the Clansthal sand although it was only slightly outyielded by N.50/211.

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Pre-Release Trial (36/14, 38/22).

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|--|--|
| <u>Catalogue No:</u> 133 | <u>Soil Analysis:</u> p.p.m. pH P K Ca Mg. 5.6 VH 50 500 160 Age: 16 months (7/64 - 12/65) <u>Rainfall, this crop:</u> 65.28" |
| <u>This Crop:</u> 1st Ratoon. | |
| <u>Site:</u> Tugela section. Darnall Blackhill Field. | |
| <u>Altitude:</u> 100' | |
| <u>Soil Series:</u> Red sands Clansthal | |
| <u>Design:</u> Random block | |
| <u>Variety:</u> See treatments | |
| <u>Fertilizer:</u> 800 15:0:15 1 ^{SR} . | |
| <u>Water Regime:</u> Dryland. | |

Object: To test pre-release varieties.

- Treatments:
1. N.50/211
 2. C.B. 38/22
 3. N:Co.376
 4. C.B. 36/14

Results:

| Variety | T.C.A. | Suc. % | T.S.A. | 1 | 2 | Rank | |
|---------|--------|--------|--------|----------|----------------|------|---|
| | | | | T.C.A.M. | Lbs. S.A.M. | 1 | 2 |
| 211 | 39.06 | 13.24 | 5.172 | 2.441 | 646 | 3 | 3 |
| 38/22 | 27.76 | 13.86 | 3.848 | 1.735 | 482 | 4 | 4 |
| 376 | 43.42 | 13.76 | 5.975 | 2.714 | 746 | 1 | 1 |
| 36/14 | 40.00 | 13.18 | 5.272 | 2.500 | 672 | 2 | 2 |

S.E. = 7.426
C.V. = 19.77%

Difference between treatments
Not Statistically Significant

Conclusions: Although 376 gave the highest yield closely followed by C.B.36/14, differences between plot yields within varieties are noticeable (N.B. & C.V.)

SOUTH AFRICAN SUGAR INDUSTRY

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PRE-RELEASE TRIAL (36/14, 38/22)

Catalogue No: 133
This crop: 2nd Ratoon
Site: Tugela Sect.
 Darnall Blackhill
Altitude: 100'
Soil Series: Red Sands Clansthal
Design: Random block
Variety: See treatments
Fertilizer: 1200 lbs 4:1:6
Water regime: Dryland

Soil Analysis:

| | | | | | | |
|-----|-----|-------|--------|----|-----|-----|
| | | | p.p.m. | | | |
| pH | OM% | Clay% | P | K | Ca | Mg |
| 5.6 | | | V.H. | 50 | 500 | 160 |

Age: 12 months 12/65 - 1/67

Rainfall: 41.64"

Irrigation: Nil

Object: To test pre-release varieties.

- Treatments:
1. N.50/211
 2. C.B.38/22
 3. N:Co.376
 4. C.B.36/14

Results:

| Variety | T.C.A. | % Sucrose | T.S.A. | 1 | 2 | Rank | |
|-----------|--------|-----------|--------|----------|------------|------|---|
| | | | | T.C.A.M. | Lbs S.A.M. | 1 | 2 |
| N.50/211 | 45.10 | 13.52 | 6.098 | 3.758 | 1016 | 2 | 3 |
| C.B.38/22 | 33.06 | 16.50 | 5.455 | 2.755 | 910 | 4 | 4 |
| N:Co.376 | 48.95 | 13.81 | 6.760 | 4.079 | 1126 | 1 | 1 |
| C.B.36/14 | 43.09 | 14.56 | 6.274 | 3.590 | 1046 | 3 | 2 |

S.E. = \pm 6.225
 C.V. = 14.629%

Treatment differences statistically significant
 @ 5% only.

L.S.D. between treatments 9.96 T.P.A. @ 5%
 14.31 T.P.A. @ 1%

N:Co.376 has retained 1st place to both cane and sucrose yield with N.50/271 and C.B.36/14 sharing second and third place alternatively.

Note the higher sucrose per cent of 38/22 in comparison with 36/14 for each crop stage.

13th February, 1967.