Technical Assistants

Technicians - Beth Eagen
Robert Squire
Richard Wright

Summer Assistants - Tracy Levy
Joanne Myers
Tom Maerz
Mary Alice Langstaff
Marianne Meidlinger
Mary Jo Kotsier
Candy Turner
Gord Quinton

Acknowledgement

We appreciate the assistance provided by the Ontario Vegetable Growers’ Marketing Board and the Ontario Food Processors Association to support the vegetable research program at RCAT.

We also appreciate the cooperation of our farmer cooperators who have provided the land and assisted in working the land and applying the herbicides and fertilizer.

We also want to recognize the help of the technicians and summer students who have made these trials a success.

It is our hope that the information provided by this research will benefit vegetable production in Ontario.

S.A. Loewen
P.H. Sikkema
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## Plant Breeding and Cultivar Evaluation Program

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## Cultural Management Trials

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<td>27 - 28</td>
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</tbody>
</table>
1989 Research Projects • S.A. Loewen

A. Tomato Breeding and Cultivar Evaluation

The primary objective of the tomato breeding and cultivar evaluation research at RCAT is to develop and introduce high yielding tomato cultivars suitable for wholepack processing. Cultivar screening is done at RCAT and multilocation trials are conducted at four grower locations in Kent and Essex counties.

1. Stage III and Stage N Ontario Tomato Performance Trial

Entries: Stage N status Ohio 7983
Stage III status Ont 871
PSR 2196
PSR 2296
PSX P 696
Check Ohio 7814

Locations: RCAT - trial in both single and twin rows.
HRS (Harrow)
HES (Simcoe)
Farm of B. Mailloux (Tilbury)
Farm of G. Bicrel (Stoney Point)
Farm of M. Denys (Wallaceburg)
Farm of R. Kettle (Leamington)

2. Stage II Ontario Tomato Performance Trial

Entries: 28

3. Stage I Ontario Tomato Performance Trial

Entries: 30

4. 1989 Fresh Market Tomato Observation Trial

Entries: 63

5. 1989 Tomato Accession Observation Trial

Entries: 493

6. 1989 ADI Tomato Demonstration

Entries: 130

7. 1989 F1 Tomato Evaluation Trial
Entries: 451

8. 1989 F7 Tomato Breeding Trial
Entries: 13

9. 1989 F6 Tomato Breeding Trial
Entries: 49

10. 1989 F5 Tomato Breeding Trial
Entries: 127

11. 1989 F4 Tomato Breeding Trial
Entries: 3

12. 1989 F3 Tomato Breeding Trial
Entries: 6

13. 1989 F2 Tomato Breeding Trial
Entries: 169

B. Sweet Pepper Breeding and Cultivar Evaluation

The primary objective of the sweet pepper breeding is to develop and introduce cultivars specifically suited for processing.

1. 1989 Sweet Pepper Cultivar Advanced Trial
Entries: 10

2. 1989 Sweet Pepper Cultivar Observation Trial
Entries: 10

3. 1989 Sweet Pepper Cultivar Screening Trial
Entries: 69

4. 1989 Sweet Pepper Cultivar Evaluation Trial
Entries: 180

5. 1989 Sweet Pepper Inbred Observation Trial
Entries: 101

6. 1989 F9 Sweet Pepper Breeding Trial
Entries: 31

7. 1989 F8 Sweet Pepper Breeding Trial
Entries: 12

8. 1989 F6 Sweet Pepper Breeding Trial
Entries: 7

9. 1989 F5 Sweet Pepper Breeding Trial
Entries: 26

10. 1989 F4 Sweet Pepper Breeding Trial
Entries: 15

11. 1989 F3 Sweet Pepper Breeding Trial
Entries: 42

12. 1989 F2 Sweet Pepper Breeding Trial
Entries: 98

C. Hot Pepper Breeding and Cultivar Evaluation

The primary objective of the hot pepper breeding and cultivar evaluation work is to develop and introduce hot pepper cultivars for processing.

1. 1989 Hot Pepper Cultivar Trial
Entries: 52

2. 1989 Hot Pepper Inbred Observation Trial
Entries: 14

3. 1989 F8 Hot Pepper Breeding Trial
Entries: 2

4. 1989 F6 Hot Pepper Breeding Trial

Entries: 11

5. 1989 F5 Hot Pepper Breeding Trial

Entries: 2

6. 1989 F3 Hot Pepper Breeding Trial

Entries: 13

D. Supersweet Sweet Corn Cultivar Evaluation

One Screening trial with 26 entries was planted this year with the main objective of identifying new cultivars suitable for processing and adapted to Southwest Ontario growing conditions.
**TITLE:**  
THE EFFECT OF STARTER FERTILIZER RATE AND PLACEHENT  
ON THE ESTABLISHMENT AND YIELD OF SUMMER CRISP SWEET CORN

**EXPERIMENT NUMBER:** SWEET CORN #1

**EXPERIMENTAL DESIGN:** SPLIT PLOT

MAIN PLOTS: METHOD OF APPLICATION  
SUB-PLOTS: FERTILIZER RATE

REPLICATIONS: 4  
NUMBER OF TREATMENTS: 15

PLOT SIZE: 4 ROWS (75 CM) X 8.0 M  
TOTAL AREA: 45.0 M X 32.0 M (1440 M SQ)

CULTIVAR: SUMMER CRISP  
LOCATION: RIDGETOWN

PLANTING DENSITY: 100,000 PLANTS/HA (40,000 PLANTS/acre)  
FINAL PLANT STAND: 50,000 PLANTS/HA (20,000 PLANTS/acre)

SEEDS PER ROW: 60  
FINAL PLANTS/ROW: 30 (26 CM BETWEEN PLANTS)

TOTAL SEEDS REQUIRED: 14,400

**TREATMENT NUMBER** | CULTIVAR | STARTER RATE (Kg/HA) | FERTILIZER RATE (Kg/HA) | FERTILIZER RATE P205 | K20 | METHOD OF APPLICATION
--- | --- | --- | --- | --- | --- | ---
1 | SUMMER CRISP 6-24-24 | 0 | 0 | 0 | | 
2 | SUMMER CRISP 6-24-24 | 100 | 24 | 24 | BROADCAST | 
3 | SUMMER CRISP 6-24-24 | 200 | 48 | 48 | BROADCAST | 
4 | SUMMER CRISP 6-24-24 | 300 | 72 | 72 | BROADCAST | 
5 | SUMMER CRISP 6-24-24 | 400 | 96 | 96 | BROADCAST | 
6 | SUMMER CRISP 6-24-24 | 0 | 0 | 0 | | 
7 | SUMMER CRISP 6-24-24 | 100 | 24 | 24 | IN FURROW | 
8 | SUMMER CRISP 6-24-24 | 200 | 48 | 48 | IN FURROW | 
9 | SUMMER CRISP 6-24-24 | 300 | 72 | 72 | IN FURROW | 
10 | SUMMER CRISP 6-24-24 | 400 | 96 | 96 | IN FURROW | 
11 | SUMMER CRISP 6-24-24 | 0 | 0 | 0 | | 
12 | SUMMER CRISP 6-24-24 | 100 | 24 | 24 | OFFSET | 
13 | SUMMER CRISP 6-24-24 | 200 | 48 | 48 | OFFSET | 
14 | SUMMER CRISP 6-24-24 | 300 | 72 | 72 | OFFSET | 
15 | SUMMER CRISP 6-24-24 | 400 | 96 | 96 | OFFSET |

**MATERIALS AND METHODS:**  
WEED CONTROL - SUTAN+ (4.0 Kg/HA) + BLADEX (2.0 Kg/HA) PREPLANT INCORPORATED

INSECT CONTROL - POUNCE (375 HLS/HA) AT 7 DAY INTERVALS

NITROGEN FERTILIZER - UREA (250 Kg/HA) BROADCAST INCORPORATED

**ASSESSMENTS:**  
PLANT STAND COUNTS - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING

PLANT DEVELOPMENT - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING

THIN PLANTS TO 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE

HATURITY RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING

CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

DISEASE RATINGS: AS REQUIRED (SHUT AND RUST)

LODGING RATINGS: 1 AT HARVEST

QUALITY AND

YIELD ASSESSMENTS: TO BE COMPLETED 23 DAYS AFTER 50% SILKING - 5 COBS PER PLOT

---

27-Apr-89
TITLE: THE EFFECT OF STARTER FERTILIZER RATE AND PLACEMENT ON THE ESTABLISHMENT AND YIELD OF SUPER SWEET JUBILEE SWEET CORN

EXPERIMENT NUMBER: SWEET CORN #2

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: METHOD OF APPLICATION  SUB-PLOTS: FERTILIZER RATE
REPLICATIONS: 4  NUMBER OF TREATMENTS: 15
PLOT SIZE: 4 ROWS (75 CM) X 8.0 M  TOTAL AREA: 45.0 M X 32.0 M (1440 M²)
CULTIVAR: SUPER SWEET JUBILEE  LOCATION: RIDGETOWN
PLANTING DENSITY: 100,000 PLANTS/HA (40,000 PLANTS/acre)  FINAL PLANT STAND: 50,000 PLANTS/HA (20,000 PLANTS/acre)
SEEDS PER ROW: 60  FINAL PLANTS/ROW: 30 (26 CM BETWEEN PLANTS)
TOTAL SEEDS REPLIED: 14,400  PLANTING DISTANCE/ROW: 9.0 M

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MATERIALS AND METHODS: WEED CONTROL - SUTAN+ (4.0 Kg/HA) + BLADEX (2.0 Kg/HA) PREPLANT INCORPORATED
INSECT CONTROL - POUNCE (375 MLS/HA) AT 7 DAY INTERVALS
NITROGEN FERTILIZER - UREA (250 Kg/HA) BROADCAST INCORPORATED

ASSESSMENTS:
PLANT STAND COUNTS - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
PLANT DEVELOPMENT - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
THIN PLANTS TO 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE

MATURITY RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

DISEASE RATINGS: AS REWIRED (SHUT AND RUST)
LODGING RATINGS: AT HARVEST

QUALITY AND
YIELD ASSESSMENTS: TO BE COMPLETED 21 DAYS AFTER 502 SILKING - 5 COBS PER PLOT
COB LENGTH (CM) - HUSK OFF
COB WIDTH (CM) - HUSK OFF
KERNEL DEPTH (MM)
TIP COVER (1-5)
FRESH KERNEL WEIGHT (Kg/HA) - CORN CUTTER
PERCENT HOISTURE - MOISTURE METER
PERCENT KERNEL DRY WEIGHT - MICROWAVE
EAR WEIGHT (Kg/HA) - ONE COMPLETE ROW

15-May-89
TITLE: THE EFFECT OF STARTER FERTILIZER RATE AND PLACEMENT ON THE ESTABLISHMENT AND YIELD OF SUMMER CRISP SWEET CORN

EXPERIMENT NUMBER: SWEET CORN #3

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: CULTIVAR - SUMMER CRISP
METHOD OF APPLICATION - BROADCAST

SUB-PLOTS: FERTILIZER RATE
NUMBER OF TREATMENTS: 15

REPLICATIONS: 4
TOTAL AREA: 45.0 M x 32.0 M (1440 M²)

PLOT SIZE: 4 ROWS (75 CM) x 8.0 M

CULTIVAR: SUMMER CRISP
LOCATION: DRESDEN

PLANTING DENSITY: 100,000 PLANTS/HA (40,000 PLANTS/ACRE)
FINAL PLANT STAND: 50,000 PLANTS/HA (20,000 PLANTS/ACRE)
SEEDS PER ROW: 60
FINAL PLANTS/ROW: 30 (26 CM BETWEEN PLANTS)

Plot Size: 4 ROWS (75 CM) x 8.0 M
Total Area: 45.0 M x 32.0 M (1440 M²)

Cultivar: SUMMER CRISP
Location: DRESDEN

Planting Density: 100,000 PLANTS/HA (40,000 PLANTS/ACRE)
Final Plant Stand: 50,000 PLANTS/HA (20,000 PLANTS/ACRE)
Seeds per row: 60
Final Plants/Row: 30 (26 CM BETWEEN PLANTS)

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Materials and Methods:
- Weed Control: SUTAN+ (4.0 KG/HA) + BLADEX (2.0 KG/HA) PREPLANT INCORPORATED
- Insect Control: POUNCE (375 HLSI/HA) at 7 DAY INTERVALS
- Nitrogen Fertilizer: UREA (250 KG/HA) BROADCAST INCORPORATED

Assessments:
- Plant Stand Counts: 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- Plant Development: 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- Thin Plants to 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE
- Hatching Ratings: DAYS TO 50% SILKING - DAYS AFTER PLANTING
- Corn Heat Units: DAILY HETEROREOLOGICAL DATA
- Disease Ratings: AS REQUIRED (SHUT AND RUST)
- Lodging Ratings: 2 AT HARVEST
- Quality and Yield Assessments: TO BE COMPLETED 21 DAYS AFTER 50% SILKING - 5 COBS PER PLOT
  - COB LENGTH (CM) - HUSK OFF
  - COB WIDTH (CM) - HUSK OFF
  - KERNEL DEPTH (MM)
  - TIP COVER (1-5)
  - FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER
  - PERCENT HOISTURE - HOISTURE HETER
  - PERCENT KERNEL DRY WEIGHT - MICROWAVE
  - EAR WEIGHT (KG/HA) - ONE COMPLETE ROW
TITLE: THE EFFECT OF STARTER FERTILIZER RATE AND PLACEMENT
ON THE ESTABLISHMENT AND YIELD OF super sweet jubilee sweet corn

EXPERIMENT NUMBER: SWEET CORN # 4

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: METHOD OF APPLICATION
REPlications: 4 

PLOT SIZE: 4 ROWS (75 CM) X 8.0 M
CULTIVAR: SUPER SWEET JUBILEE
PLANTING DENSITY: 100,000 PLANTS/HA (40,000 PLANTS/acre)
SEEDS PER ROW: 60
TOTAL SEEDS REQUIRED: 14,400

FERTILIZER RATE METHOD OF APPLICATION

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MATERIALS AND METHODS: WEED CONTROL - SUTAN+ (4.0 KG/HA) + BLADEX (2.0 KG/HA) PREPLANT INCORPORATED
INSECT CONTROL - POUHCE (375 MILS/HA) AT 7 DAY INTERVALS
NITROGEN FERTILIZER - UREA (250 KG/HA) BROADCAST INCORPORATED

ASSESSMENTS: PLANT STAND COUNTS - 7 AND 11 DAYS AFTER PLANTING AND PRIOR TO THINNING
PLANT DEVELOPMENT - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
THIN PLANTS TO 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE
HATURE RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA
DISEASE RATINGS: AS REQUIRED (SMUT AND RUST)
LODGING RATINGS: 4 AT HARVEST
QUALITY AND YIELD ASSESSMENTS: TO BE COMPLETED 11 DAYS AFTER 502 SILKING - 5 COES PER PLOT
COB LENGTH (CM) - HUSK OFF
COB WIDTH (CM) - HUSK OFF
KERNEL DEPTH (MM) - HUSK OFF
TIP COVER (1-5)
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER
PERCENT HOISTURE - MOISTURE METER

15-May-89
TITLE: THE EFFECT OF PLANT POPULATION ON THE YIELD OF SUPER SWEET - SWEET CORN

EXPERIMENT NUMBER: SWEET CORN 5

EXPERIMENTAL DESIGN: SPLIT PLOT
MAIN PLOTS: CULTIVAR  SUB-PLOTS: PLANT POPULATION
REPLICATIONS: 4 NUMBER OF TREATMENTS: 12
PLOT SIZE: 4 ROWS (75 CM) X 8.0 M TOTAL AREA: 36.0 M X 32.0 M (1152 M SQ)
CULTIVAR: SUMMER CRISP & SUPER SWEET JUBILEE LOCATION: RIDGETOWN
TOTAL SEEDS REQUIRED: 6,144 PER CULTIVAR PLANTING DISTANCE/Plot: 9.0 M

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<tr>
<th>TREATMENT</th>
<th>NUMBER OF PLANTS</th>
<th>NUMBER OF SEEDS TO PLANT PER 9 METERS</th>
<th>TO THIN TO AT THE SIX LEAF STAGE</th>
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<td>12 SUPER SWEET JUBILEE</td>
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MATERIALS AND METHODS:

- WEED CONTROL: SUTAN+ (4.0 KG/HA) + BLADEX (2.0 KG/HA) PREPLANT INCORPORATED
- INSECT CONTROL: POunce (375 MLS/HA) AT 7 DAY INTERVALS
- NITROGEN FERTILIZER: UREA (250 KG/HA) BROADCAST INCORPORATED
- STARTER FERTILIZER: 6-24-24 (100 KG/HA)

ASSESSMENTS:

- PLANT STAND COUNTS: 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- PLANT DEVELOPMENT: 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- THIN PLANTS WHEN IN THE SIX LEAF STAGE
- MATURITY RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA
- DISEASE RATINGS: AS REQUIRED (SMUT AND RUST)
- LODGING RATINGS: 2 AT HARVEST
- QUALITY AND YIELD ASSESSMENTS: TO BE COMPLETED 20 AND 25 DAYS AFTER 50% SILKING - 5 COBS PER PLOT
  - COB LENGTH (CM) - HUSK OFF
  - COB WIDTH (CM) - HUSK OFF
  - KERNEL DEPTH (MM)
  - TIP COVER (1-5)
  - FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER
  - PERCENT MOISTURE - MOISTURE METER
  - PERCENT KERNEL DRY WEIGHT - MICROWAVE
  - EAR WEIGHT (KG/HA) - ONE COMPLETE ROW
  - COP COUNT PER ROW
  - PERCENT MARKETABLE COBS

28-Apr-89
TITLE: THE EFFECT OF PLANTING DATE AND HATURITY ON THE YIELD OF STANDARD SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 6

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: PLANTING DATE
REPLICATIONS: 4

PLOT SIZE: 8 ROWS (75 CM) * 8.0 M

CULTIVAR:

SEEDS PER ROW:

TOTAL SEEDS REQUIRED:

TREATMENT NUMBER CULTIVAR PLANTING DATE TO PLANT PER ROW FINAL PLANT COUNT

1 COHANDEH HAY 8 60 30
2 JUBILEE HAY 8 60 30
3 REWARD HAY 8 60 30
4 RIVAL HAY 22 60 30
5 COHANDEH JUNE 5 60 30
6 JUBILEE JUNE 5 60 30
7 REWARD JUNE 5 60 30
8 RIVAL JUNE 5 60 30
9 COHANDEH JUNE 5 60 30
10 JUBILEE JUNE 5 60 30
11 REWARD JUNE 5 60 30
12 RIVAL JUNE 5 60 30

NUMBER OF SEEDS FINAL PLANT DISTANCE/PLOT

MATERIALS AND METHODS:
WEED CONTROL - SUTAN+ (4.0 KG/HA) + BLADEX (2.0 KG/HA) PREPLANT INCORPORATED
INSECT CONTROL - POUNCE (375 MLS/HA) AT 7 DAY INTERVALS
NITROGEN FERTILIZER - UREA (250 KG/HA) BROADCAST INCORPORATED BEFORE EACH PLANTING
STARTER FERTILIZER - 6-24-24 (100 KG/HA) BROADCAST OVER ENTIRE RANGE BEFORE FIRST PLANTING

ASSESSMENTS:
PLANT STAND COUNTS - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
PLANT DEVELOPMENT - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
THIN PLANTS TO 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE
HATURITY RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING

CORN HEAT UNITS - DAILY HETEOROGICAL DATA
DISEASE RATINGS: AS REQUIRED (SMUT AND RUST)
Lodging Ratings: 1 AT HARVEST

YIELD ASSESSMENTS: TO BE COMPLETED 18, 20, 22, 25, 28, 31 DAYS AFTER 50% SILKING - 5 COBS PER PLOT
COB LENGTH (CM) - HUSK OFF
COB WIDTH (CM) - HUSK OFF
KERNEL DEPTH (CM)
TIP COVER (1-5) 0 NO COVER 5 (100%)
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER
PERCENT HOISTURE - HOISTURE HETER
PERCENT KERNEL DRY WEIGHT - MICROWAVE
KERNEL WEIHGT (KG/HA) - ONE COMPLETE ROW
COB COUNT PER ROW
PERCENT MARKETABLE COBS

27-Apr-99
EXPERIMENT NUMBER: SWEET CORN # 7

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS:
- PLANTING DATE
- REPPLICATIONS: 4
- PLOT SIZE: 8 ROWS (75 CM) X 3.0 M
- CULTIVAR: AS LISTED
- PLANTING DENSITY: 100,000 PLANTS/HA (40,000 PLANTS/ACRE)

SUB-PLOTS:
- NUMBER OF TREATMENTS: 6
- TOTAL AREA: 36.0 M X 32.0 M (1152 M^2)
- LOCATION: RIDENTOWN
- SEEDS PER ROW: 50
- TOTAL SEEDS REQUIRED: 5,760 PER CULTIVAR
- FINAL PLANTS/ROW: 25
- PLANTING DISTANCE/PLOT: 7.0 M

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<tr>
<th>TREATMENT</th>
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<td>5 SUMMER CRISP</td>
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<td>6 SUMMER SWEET JUBILEE</td>
<td>JUNE 5</td>
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</table>

MATERIALS AND METHODS:
- WEED CONTROL - 90% TAN (4.0 KG/HA) + BLADE 2.0 KG/HA) PREPLANT INOCULATED
- INSECT CONTROL - POUR-CE (375 MLS/HA) AT 7 DAY INTERVALS
- NITROGEN FERTILIZER - UREA (250 KG/HA) BROADCAST INOCULATED BEFORE FIRST PLANTING
- STARTER FERTILIZER - 6-24-24 (100 KG/HA) BROADCAST OVER ENTIRE RANGE BEFORE FIRST PLANTING

ASSESSMENTS:
- PLANT STAND COUNTS - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- PLANT DEVELOPMENT - 7 AND 14 DAYS AFTER PLANTING AND PRIOR TO THINNING
- THIN PLANTS TO 50,000 PLANTS/HA WHEN IN THE SIX LEAF STAGE
- MATURITY RATINGS: DAYS TO 50% SILKING - DAYS AFTER PLANTING
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA
- DISEASE RATINGS: AS REQUIRED (Smut and Rust)
- LODGING RATINGS: AT HARVEST
- QUALITY AND YIELD ASSESSMENTS: TO BE COMPLETED 18, 20, 22, 25, 28 AND 31 DAYS AFTER 50% SILKING - 5 COBS PER PLOT
  - COB LENGTH (CM) - HUSK OFF
  - COB WIDTH (CM) - HUSK OFF
  - KERNEL DEPTH (MM)
  - TIP COVER (1-5)
  - FRESH KERNEL WEIGHT (KG/HA) - CORN CENTER
  - PERCENT MOISTURE - MOISTURE METER
  - PERCENT KERNEL DRY WEIGHT - MICROWAVE
  - EAR WEIGHT (KG/HA) - ONE COMPLETE ROW
  - COB COUNT PER ROW
  - PERCENT MARKETABLE COBS

27 - Apr - 89
THE EFFECT OF PLANT CONFIGURATION ON THE YIELD OF HEINZ 3464 TOMATOES

EXPERIMENT NUMBER: TOMATO 1

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: BED WIDTH

REPLICATIONS: 4

PLOT SIZE: ONE BED @ 8.0M

PLANTING DATE: MAY 17

CULTIVAR: HEINZ 9464 (EARLY)

PLANTING DENSITY: 12,000 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. H. SIKKEHA AND R. GARTON

EXPERIMENTAL DESIGN: SPLIT PLOT

SUB-PLOTS: PLANT CONFIGURATION

NUMBER OF TREATMENTS: 20

TOTAL AREA: 117.5 FT X 132 FT (15,510 SQ FT)

LOCATION: RIDGETOWN

PLANTING DISTANCE/PLOT: 3.0 M

TOTAL PLANTS REQUIRED: 800

TREATMENT NUMBER | CULTIVAR | YIELD | BED OR SINGLE | DISTANCE BETWEEN | DISTANCE BETWEEN TWO | FINAL PLANT STAND PER ROW

| 1 | HEINZ 9464 | 60 INCHES | SINGLE | 8.75 | 36 |
| 2 | HEINZ 3464 | 60 INCHES | SINGLE | 17.50 | 18 |
| 3 | HEINZ 9464 | 60 INCHES | DOUBLE | 18 | 18 |
| 4 | HEINZ 9464 | 60 INCHES | DOUBLE | 24 | 18 |
| 5 | HEINZ 9464 | 60 INCHES | TRIPLE | 12 | 12 |
| 6 | HEINZ 9464 | 66 INCHES | SINGLE | 8.00 | 39 |
| 7 | HEINZ 9464 | 66 INCHES | DOUBLE | 12 | 2.0 |
| 8 | HEINZ 3464 | 66 INCHES | DOUBLE | 18 | 20 |
| 9 | HEINZ 3464 | 66 INCHES | DOUBLE | 24 | 20 |
| 10 | HEINZ 3464 | 66 INCHES | TRIPLE | 12 | 24.00 | 13 |
| 11 | HEINZ 9464 | 72 INCHES | SINGLE | 7.25 | 44 |
| 12 | HEINZ 3464 | 72 INCHES | DOUBLE | 12 | 14.50 | 22 |
| 13 | HEINZ 9464 | 72 INCHES | DOUBLE | 18 | 22 |
| 14 | HEINZ 3464 | 72 INCHES | TRIPLE | 12 | 24 |
| 15 | HEINZ 3464 | 72 INCHES | TRIPLE | 12 | 21.75 | 15 |
| 16 | HEINZ 3464 | 84 INCHES | SINGLE | 6.25 | 51 |
| 17 | HEINZ 3464 | 84 INCHES | TRIPLE | 12 | 12.50 | 26 |
| 18 | HEINZ 3464 | 84 INCHES | TRIPLE | 12 | 12.50 | 26 |
| 19 | HEINZ 3464 | 84 INCHES | TRIPLE | 24 | 26 |
| 20 | HEINZ 3464 | 84 INCHES | TRIPLE | 12 | 18.75 | 17 |

MATERIALS AND METHODS: WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

FRUIT SIZE

PLANT FRESH WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

GREEN FRUIT

PLANT DRY WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

CULLS

PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS

15-May-89
TITLE: EFFECT OF PLANT CONFIGURATION ON YIELD (II)

EXPERIMENT NUMBER: 20THATD # 2

EXPERIMENTAL DESIGN: SPLIT PLOT

PLOT SIZE: ONE BED * 8.0M

PLANTING DATE: HAY 17

CULTIVAR: FM 6203

PLANTING DENSITY: 12,000 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. H. SIKKEHA AND R. GARTON

TOTAL PLANTS REQUIRED: 900

TREATMENT NUMBER | CULTIVAR | BED WIDTH | SINGLE OR DOUBLE ROW | DISTANCE BETWEEN DOUBLE ROWS (IN) | DISTANCE BETWEEN PLANTS (IN) | FINAL PLANT STAND PER ROW
--- | --- | --- | --- | --- | --- | ---
1 | FM 6203 | 60 INCHES | SINGLE | 8.75 | 36
2 | FM 6203 | 60 INCHES | DOUBLE | 17.50 | 18
3 | FM 6203 | 60 INCHES | DOUBLE | 17.50 | 18
4 | FM 6203 | 60 INCHES | DOUBLE | 17.50 | 18
5 | FM 6203 | 60 INCHES | TRIPLE | 26.25 | 12
6 | FM 6203 | 66 INCHES | SINGLE | 8.00 | 39
7 | FM 6203 | 66 INCHES | DOUBLE | 16.00 | 20
8 | FM 6203 | 66 INCHES | DOUBLE | 16.00 | 20
9 | FM 6203 | 66 INCHES | DOUBLE | 16.00 | 20
10 | FM 6203 | 66 INCHES | TRIPLE | 24.00 | 13
11 | FM 6203 | 72 INCHES | SINGLE | 7.25 | 44
12 | FM 6203 | 72 INCHES | DOUBLE | 14.50 | 22
13 | FM 6203 | 72 INCHES | DOUBLE | 14.50 | 22
14 | FM 6203 | 72 INCHES | DOUBLE | 14.50 | 22
15 | FM 6203 | 72 INCHES | TRIPLE | 21.75 | 15
16 | FM 6203 | 84 INCHES | SINGLE | 6.25 | 51
17 | FM 6203 | 84 INCHES | DOUBLE | 12.50 | 26
18 | FM 6203 | 84 INCHES | DOUBLE | 12.50 | 26
19 | FM 6203 | 84 INCHES | DOUBLE | 12.50 | 26
20 | FM 6203 | 84 INCHES | TRIPLE | 18.75 | 17

MATERIALS AND METHODS

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT FRESH WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DRY WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS

15-May-89
**TITLE:** EFFECT OF PLANT CONFIGURATION ON YIELD (III)

**EXPERIMENT NUMBER:** TOMATO # 3

**EXPERIMENTAL DESIGN:** SPLIT PLOT

**MAIN PLOTS:** BED WIDTH

**REPLICATIONS:** 4

**PLOT SIZE:** ONE BED X 8.0M

**PLANTING DATE:** MAY 17

**CULTIVAR:** OHIO 8245

**PLANTING DENSITY:** 12,000 PLANTS PER ACRE

**COOPERATING SCIENTISTS:** P. W. SIEKEMA AND R. GARTON

**SUB-PlOTS:** PLANT CONFIGURATION

**NUMBER OF TREATMENTS:** 20

**TOTAL AREA:** 117.5 FT X 132 FT (15,510 SQ FT)

**TOTAL AREA:** 36.0 M X 40.0 M (1440 M SQ)

**LOCATION:** RIDGETOWN

**PLANTING DISTANCE/PLOT:** 9.0 M

**TOTAL PLANTS REQUIRED:** 800

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**MATERIALS AND METHODS:**

**WEED CONTROL:** TREFLAN + SENECR (PREPLANT INCORPORATED)

**FERTILIZER:** 100-50-330 (N-P2O5-K2O)

**INSECT CONTROL:** AS REQUIRED

**DISEASE CONTROL:** BRAVO

**ASSESSMENTS:**

**TOTAL YIELD**

**FRUIT SIZE**

**GREEN FRUIT CULLS**

**PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING**

**PLANT FRESH WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING**

**PLANT DRY WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING**

**PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS**

15-May-89
EFFECT OF PLANTING DATE ON THE DEVELOPMENT AND YIELD OF TOMATOES (I)

EXPERIMENT NUMBER: TOMATO # 4

EXPERIMENTAL DESIGN: SPLIT PLOT

IN PLOTS: PLANTING DATE

REPLICATIONS: 4

LOT SIZE: ONE BED 8.0 M

PLANTING DATE: AS LISTED

CULTIVAR: AS LISTED

PLANT DENSITY: 8,712 PLANTS PER ACRE

OPERATING SCIENTISTS: P. H. Sikkema

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MATERIALS AND METHODS:

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS
WHOLE PACK QUALITY

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT FRESH WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DRY WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS
DATE OF HARVEST

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Apr-89
TITLE: EFFECT OF PLANTING DATE ON THE DEVELOPMENT AND YIELD OF TOMATOES (II)

EXPERIMENT NUMBER: TOMATO 4 S

EXPERIMENTAL DESIGN: SPLIT PLOT
MAIN PLOTS: PLANTING DATE
REPLICATIONS: 4
PLOT SIZE: ONE BED = 8.0 M
PLANTING DATE: AS LISTED
ULTIVAR: AS LISTED
PLANTING DENSITY: 8,712 PLANTS PER ACRE
OPERATING SCIENTISTS: P. H. SIKKEHA
SUB-PLOTS: CULTIVAR
NUMBER OF TREATMENTS: 20
TOTAL AREA: 100 FT x 132 FT (13200 SQ FT)
TOTAL AREA: 31.0 M x 40.0 M (1280 M SQ)
LOCATION: DRESDEN
PLANTING DISTANCE: 9.0 M
TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

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MATERIALS AND METHODS:

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)
FERTILIZER: 100-50-300 (N-P20S-K20)
INSECT CONTROL: AS REQUIRED
DISEASE CONTROL: BRAVO

ASSESSMENTS:
TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS
WHOLE PACK QUALITY

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT FRESH WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DRY WEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS
DATE OF HARVEST

4-Apr-89
TITLE: EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (I)

EXPERIMENT NUMBER: TOMATO # 6

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: STORAGE TIME OUTSIDE

REPLICATIONS: 4

PLOT SIZE: ONE BED * 8.0 M

PLANTING DATE: HAY 3

CULTIVAR: HEINZ 722

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKEMA

TREATMENT NUMBER CULTIVAR FERTILIZER REGIME BED SIZE PLANTS PER ROW DISTANCE BETWEEN TWIN PLANTS PER ROW LENGTH OF TIME OUTSIDE (IN) (DAYS)

1. HEINZ 722 20-20-20 60 INCHES SINGLE 12 0
2. HEINZ 722 200-50-163-40 60 INCHES SINGLE 12 0
3. HEINZ 722 20-20-20 60 INCHES SINGLE 12 2
4. HEINZ 722 200-50-163-40 60 INCHES SINGLE 12 2
5. HEINZ 722 20-20-20 60 INCHES SINGLE 12 4
6. HEINZ 722 200-50-163-40 60 INCHES SINGLE 12 4
7. HEINZ 722 20-20-20 60 INCHES SINGLE 12 6
8. HEINZ 722 200-50-163-40 60 INCHES SINGLE 12 6
9. HEINZ 722 20-20-20 60 INCHES SINGLE 12 8
10. HEINZ 722 200-50-163-40 60 INCHES SINGLE 12 8

MATERIALS AND METHODS:
WEED CONTROL: TREFLAM + SEMCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P205-K20)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

MEASUREMENTS:
TOTAL YIELD PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
FRUIT SIZE PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
GREEN FRUIT PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS
CULLS DATE OF HARVEST

4-Apr-89
EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (II)

EXPERIMENT NUMBER: TOMATO # 7

EXPERIMENTAL DESIGN: SPLIT PLOT

IN PLOTS: STORAGE TIME OUTSIDE

REPLICATIONS: 4

PLOT SIZE: ONE BED - 8.0 M

PLANTING DATE: MAY 3

CULTIVAR: OHIO 7814

PLANTING DENSITY: 8,712 PLANTS PER ACRE

OPERATING SCIENTISTS: P. SIKKEMA

FERTILIZER REGIME

TOTAL AREA: 50 FT x 132 FT (6600 SQ FT)

TOTAL AREA: 16.0 M x 40.0 M (640 M SQ)

LOCATION: RIDGETOWN

PLANTING DISTANCE/LOT: 9.0 M

TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

TREATMENT NUMBER CULTIVAR FERTILIZER REGIME BED WIDTH SINGLE DISTANCE BETWEEN TWO PLANTS OUTSIDE LENGTH OF TIME

1 OHIO 7814 20-20-20 60 INCHES SINGLE 12 0

2 OHIO 7814 200-25-50-163-40 60 INCHES SINGLE 12 0

3 OHIO 7814 20-20-20 60 INCHES SINGLE 12 2

4 OHIO 7814 200-25-50-163-40 60 INCHES SINGLE 12 2

5 OHIO 7814 20-20-20 60 INCHES SINGLE 12 4

6 OHIO 7814 200-25-50-163-40 60 INCHES SINGLE 12 4

7 OHIO 7814 20-20-20 60 INCHES SINGLE 12 6

8 OHIO 7814 200-25-50-163-40 60 INCHES SINGLE 12 6

9 OHIO 7814 20-20-20 60 INCHES SINGLE 12 8

10 OHIO 7814 200-25-50-163-40 60 INCHES SINGLE 12 8

MATERIALS AND METHODS:

WEED CONTROL: TREFLAM + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (M-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING

FRUIT SIZE

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

GREEN FRUIT

PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS

CULLS

DATE OF HARVEST

Apr-89
EFFECT OF TRAY SIZE ON TOMATO SEEDLINGS (I)

EXPERIMENT NUMBER: TOMATO # 8

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: TRAY SIZE

REPlications: 4

PLOT SIZE: ONE BED x 8.0

PLANTING DATE: MAY 3

CULTIVAR: HEINZ 722

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKERA

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MATERIALS AND METHODS:

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P205-K20)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
PLANT HEIGHT - 1, 2, 3 MTHS AFTER PLANTING
PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS
DATE OF HARVEST

4 APR-89
EFFECT OF TRAY SIZE ON TOMATO SEEDLINGS (II)

EXPERIMENT NUMBER: TOMATO # 9

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: TRAY SIZE

REPLICATIONS: 4

PLOT SIZE: ONE BED * 8.0 M

PLANTING DATE: MAY 3

CULTIVAR: OHIO 7814

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKEMA

FERTILIZER REGIME:

TOTAL AREA:

LOCATION:

RIDGETOWN

PLANTING DISTANCE:

9.0 M

TOTAL PLANTS REQUIRED:

120 PER PLANTING DATE PER CULTIVAR

TREATMENT NUMBER CULTIVAR WIDTH BED BED DOUBLE PLANTS TRAY

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MATERIALS AND METHODS:

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TOTAL YIELD

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING

FRUIT SIZE

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

GREEN FRUIT

PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS

CULLS

DATE OF HARVEST

4-Apr-89
TITLE: EFFECT OF TRAY SIZE ON TOMATO SEEDLINGS (III)

EXPERIMENT NUMBER: 811

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: TRAY SIZE
REPLICATIONS: 4
PLOT SIZE: ONE BED 8.0
PLANTING DATE: JUNE 14
CULTIVAR: HEINZ 722
PLANTING DENSITY: 8,712 PLANTS PER ACRE
COOPERATING SCIENTISTS: P. SIKKEMA

SUB-PLOTS: FERTILIZER REGIME
NUMBER OF TREATMENTS: 6
TOTAL AREA: 30 FT X 132 FT (3960 SQ FT)
TOTAL AREA: 9.0 M X 40.0 M (360 M SQ)
LOCATION: RIDGETOWN
PLANTING DISTANCE/PLANT: 9.0 M
TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

SINGLE PLANTS OR BETWEEN TWO

TREATMENT BED BED TRAY
NUMBER CULTIVAR WIDTH WIDTH ROW SIZE
1 HEINZ 722 20-8-20 (400 miles) 60 INCHES SINGLE 12 288
2 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 288
3 HEINZ 722 20-8-20 60 INCHES SINGLE 12 406
4 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 406
5 HEINZ 722 20-8-20 60 INCHES SINGLE 12 512
6 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 512

MATERIALS AND METHODS: WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)
FERTILIZER: 100-50-300 (N-P2O5-K2O)
INSECT CONTROL: AS REQUIRED
DISEASE CONTROL: BRAVO

ASSESSMENTS:
- TOTAL YIELD
- FRUIT SIZE
- GREEN FRUIT CULLS
- PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
- PLANT HEIGHT AND DEVELOPMENT - 1, 2, 3 MONTHS AFTER PLANTING
- DATE OF HARVEST

06-Jun-89
TITLE: EFFECT OF TRAY SIZE ON TOMATO SEEDLINGS (IV)

EXPERIMENT NUMBER: TOMATO # 12

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: TRAY SIZE
REPLICATIONS: 4
PLOT SIZE: ONE BED # 8.0 M
PLANTING DATE: JUNE 14
CULTIVAR: FH 6203
PLANTING DENSITY: 8,712 PLANTS PER ACRE
COOPERATING SCIENTISTS: P. SIKKEMA

SUB-PLOTS: FERTILIZER REGIME

NUMBER OF TREATMENTS: 6
TOTAL AREA: 30 FT * 132 FT (3960 SQ FT)
LOCATION: RIDGETOWN

TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

PLANTING DISTANCE/PLOT: 9.0 M

TREATMENT NUMBER CULTIVAR WIDTH BED WIDTH BED DOUBLE PLANTS TRAY

1 FM 6203 20-8-20 (400 mls) 60 INCHES SINGLE 12 288
2 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 288
3 FM 6203 20-8-20 60 INCHES SINGLE 12 406
4 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 406
5 FM 6203 20-8-20 60 INCHES SINGLE 12 512
6 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 512

MATERIALS AND METHODS:

WEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)
FERTILIZER: 100-50-300 (N-P205-K20)
INSECT CONTROL: AS REQUIRED
DISEASE CONTROL: BRAVO

ASSESSMENTS:
TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
PLANT HEIGHT AND DEVELOPMENT - 1, 2, 3 MONTHS AFTER PLANTING
DATE OF HARVEST

06-Jun-89
TITLE: EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (II)

EXPERIMENT NUMBER: TOMATO # 14

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: STORAGE TIME OUTSIDE
REPLICATIONS: 4
PLOT SIZE: ONE BED * 8.0 M
PLANTING DATE: JUNE 14
CULTIVAR: HEINZ 722
PLANTING DENSITY: 8,712 PLANTS PER ACRE
COOPERATING SCIENTISTS: P. SIKKEMA

TREATMENT NUMBER CULTIVAR FERTILIZER REGIME BED WIDTH (IN) SINGLE DISTANCE BETWEEN TWO PLANTS OUTSIDE (DAYS)

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<td>200-25-50-163-40 60 INCHES</td>
<td>SINGLE</td>
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<td>10</td>
<td>HEINZ 722</td>
<td>20-8-20 60 INCHES</td>
<td>SINGLE</td>
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</table>

MATERIALS AND METHODS

SUCK CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)
FERTILIZER: 100-50-300 (N-P2O5-K2O)
INSECT CONTROL: AS REWIRED
DISEASE CONTROL: BRAVO

ASSESSMENTS

TOTAL YIELD
FRUIT SIZE
GREEN FRUIT CULLS
PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
DATE OF HARVEST

06-Jun-89
TITLE: EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (IV)

EXPERIMENT NUMBER: TOMATO 15

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: STORAGE TIME OUTSIDE

REPLICATIONS: 4

PLOT SIZE: ONE BED 8.0 M

PLANTING DATE: JUNE 14

CULTIVAR: HEINZ 722

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKE

SUB-PLOTS: FERTILIZER REGIME

NUMBER OF TREATMENTS: 10

TOTAL AREA: 50 FT x 132 FT (6600 SQ FT)

TOTAL AREA: 16.0 M x 40.0 M (640 SQ M)

LOCATION: RIDGETOWN

PLANTING DISTANCE/PLOT: 9.0 M

TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

TREATMENT NUMBER CULTIVAR FERTILIZER BED REGIME WIDTH SINGLE DISTANCE BETWEEN TWO DOUBLE PLANTS OUTSIDE TIME LENGTH (IN) (DAYS)

1 HEINZ 722 20-8-20 (400 lbs) 60 INCHES SINGLE 12 0

2 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 0

3 HEINZ 722 20-8-20 60 INCHES SINGLE 12 2

4 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 2

5 HEINZ 722 20-8-20 60 INCHES SINGLE 12 4

6 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 4

7 HEINZ 722 20-8-20 60 INCHES SINGLE 12 6

8 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 6

9 HEINZ 722 20-8-20 60 INCHES SINGLE 12 8

10 HEINZ 722 200-25-50-163-40 60 INCHES SINGLE 12 8

MATERIALS AND METHODS: HEED CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS: TOTAL YIELD

FRUIT SIZE

GREEN FRUIT CULLS

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

DATE OF HARVEST
TITLE: EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (V)

EXPERIMENTAL NUMBER: TOMATO 1 16

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: STORAGE TIME OUTSIDE
REPLICATIONS: 4
PLOT SIZE: ONE BED # 8.0 M
PLANTING DATE: JUNE 14
CULTIVAR: FM 6203
PLANTING DENSITY: 8,712 PLANTS PER ACRE
COOPERATING SCIENTISTS: P. SIKKEMA

PLANTING DESIGN: SPLIT PLOT
SUB-PLOTS: FERTILIZER REGIME
NUMBER OF TREATMENTS: 10
TOTAL AREA: 50 FT x 132 FT (6600 SQ FT)
LOCATION: RIDGETOWN
TOTAL AREA: 16.0 M x 40.0 M (640 M SQ)
PLANTING DENSITY: 9.0 M
TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

TREATMENT NUMBER CULTIVAR FERTILIZER REGIME BED WIDTH SINGLE OR DISTANCE BETWEEN TWO ROWS PLANTS OUTSIDE LENGTH OF
TIME (IN)

1 FM 6203 20-8-20 (200lbs) 60 INCHES SINGLE 12 0
2 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 0
3 FM 6203 20-8-20 60 INCHES SINGLE 12 2
4 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 2
5 FM 6203 20-8-20 60 INCHES SINGLE 12 4
6 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 4
7 FM 6203 20-8-20 60 INCHES SINGLE 12 6
8 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 6
9 FM 6203 20-8-20 60 INCHES SINGLE 12 8
10 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 8

MATERIALS AND METHODS: WEED CONTROL:
TREFLAN + SENCOR (PREPLANT INCORPORATED)
FERTILIZER: 100-50-300 (N-P205-K20)
INSECT CONTROL: AS REQUIRED
DISEASE CONTROL: BRAVO

EVALUATIONS: TOTAL YIELD
PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
FRUIT SIZE
PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
GREEN FRUIT
DATE OF HARVEST
CULLS
TITLE: EFFECT OF OUTSIDE STORAGE TO HARDEN OFF TOMATO SEEDLINGS (VI)

EXPERIMENT NUMBER: TOMATO # 17

EXPERIMENTAL DESIGN: SPLIT PLOT

MAIN PLOTS: STORAGE TIME OUTSIDE

REPLICATIONS: 4

PLOT SIZE: ONE BED * 8.0 M

PLANTING DATE: JUNE 14

CULTIVAR: FM 6203

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKEMA

NUMBER OF TREATMENTS: 10

FERTILIZER REGIME

REPLICATIONS: 4

TOTAL AREA: 50 FT * 132 FT (6600 SQ FT)

NUMBER OF PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

TOTAL YIELD

FRUIT SIZE

GREEN FRUIT

CULLS

DATE OF HARVEST

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING

PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING

MATERIALS AND METHODS: WEEDE CONTROL: TREFLAN + SENCOR (PREPLANT INCORPORATED)

FERTILIZER: 100-50-300 (N-P2O5-K2O)

INSECT CONTROL: AS REQUIRED

DISEASE CONTROL: BRAVO

ASSESSMENTS:

TREATMENT NUMBER CULTIVAR FERTILIZER REGIME BED WIDTH INCHES SINGLE DISTANCE BETWEEN TWO PLANTS OUTSIDE TIME

1 FM 6203 20-8-20 (400mls) 60 INCHES SINGLE 12 0

2 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 0

3 FM 6203 20-8-20 60 INCHES SINGLE 12 2

4 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 2

5 FM 6203 20-8-20 60 INCHES SINGLE 12 4

6 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 4

7 FM 6203 20-8-20 60 INCHES SINGLE 12 6

8 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 6

9 FM 6203 20-8-20 60 INCHES SINGLE 12 8

10 FM 6203 200-25-50-163-40 60 INCHES SINGLE 12 8

06-Jun-89
TITLE: EFFECT OF TRAY SIZE ON PEPPER SEEDLINGS

EXPERIMENT NUMBER: PEPPER #10

EXPERIMENTAL DESIGN: SPLIT PLOT

MAINS PLOTS: TRAY SIZE
REPlications: 4

PLOT SIZE: ONE BED x 8.0
PLANTING DATE: HAY 3
CULTIVAR: KEYSTONE RESISTANT GIANT
PLANTING DENSITY: 8,712 PLANTS PER ACRE
COOPERATING SCIENTISTS: P. SIKKEMA

TREATMENTS:

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<tr>
<th>NUMBER</th>
<th>CULTIVAR</th>
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MATERIALS AND METHODS:

WEED CONTROL:
FERTILIZER:
INSECT CONTROL:
DISEASE CONTROL:

ASSESSMENTS:

TOTAL YIELD:
PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
FRUIT SIZE:
PLANT HEIGHT - 1, 2, 3 MONTHS AFTER PLANTING
GREEN FRUIT:
PLANT DEVELOPMENT NOTES - EVERY TWO WEEKS
CULLS:
DATE OF HARVEST

29-Apr-89
EXPERIMENT NUMBER: PEPPER 13

EXPERIMENTAL DESIGN: RCBD

REPLICATIONS: 4

PLOT SIZE: ONE BED 6 0.0

PLANTING DATE: JUNE 14

CULTIVAR: KEYSTONE RESISTANT GIANT

PLANTING DENSITY: 8,712 PLANTS PER ACRE

COOPERATING SCIENTISTS: P. SIKKEMA

NUMBER OF TREATMENTS: 3

TOTAL AREA: 15 FT X 132 FT (3960 SQ FT)

TOTAL AREA: 9.0 M X 40.0 M (360 M SQ)

LOCATION: RIDGETOWN

PLANTING DISTANCE/PLOT: 9.0 M

TOTAL PLANTS REQUIRED: 120 PER PLANTING DATE PER CULTIVAR

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<tr>
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MATERIALS AND METHODS:

WEED CONTROL:
FERTILIZER:
INSECT CONTROL:
DISEASE CONTROL:

ASSESSMENTS:

TOTAL YIELD
FRUIT SIZE
GREEN FRUIT
CULLS

PLANT STAND COUNTS - 7, 14, 21 DAYS AFTER PLANTING
PLANT HEIGHT AND DEVELOPMENT - 1, 2, 3 MONTHS AFTER PLANTING
DATE OF HARVEST