VEGETABLE RESEARCH PROGRAM
1992

RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
P. H. SIKKEMA
1992 VEGETABLE RESEARCH PROGRAM

PURPOSE OF THIS BOOKLET

This booklet is provided as a guide to the 1992 vegetable research plots. All of the experiments outlined in this booklet are located on the Ridgetown College of Agricultural Technology research farm.

ACKNOWLEDGEMENT

Funding for the 1992 research program was provided by:

a) Ontario Vegetable Growers' Marketing Board.
b) Processing Tomato Seedling Plant Growers' Marketing Board.
c) Environmental Youth Corp '92.
d) Horticultural Farm Support Adjustment Measures (HORT - FSAM1)

The support of the above organizations is appreciated.

PERSONNEL

The efforts of the two horticultural research technicians, Robert Squire and Gregory Watt is greatly appreciated as well as the work of the five summer students, Holly Barton, Alana DeSchryver, Rosemarie Nauta, Ken Shaw and Scott Stennett.

P.H. Sikkema
Horticulturalist
<table>
<thead>
<tr>
<th>EXPERIMENT NUMBER</th>
<th>TITLE</th>
<th>PAGE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOM 92-1</td>
<td>THE EFFECT OF BEDDING AND RYE MANAGEMENT SYSTEMS ON THE GROWTH AND DEVELOPMENT OF PLUG TOMATOES</td>
<td>1</td>
</tr>
<tr>
<td>TOM 92-2</td>
<td>THE EFFECT OF MANURE AND ORGANIC MULCHES ON THE GROWTH AND DEVELOPMENT OF TOMATOES</td>
<td>3</td>
</tr>
<tr>
<td>TOM 92-3</td>
<td>THE EFFECT OF FERTILIZER SOLUTION pH ON THE GROWTH AND DEVELOPMENT OF PLUG TOMATO TRA Shooting PLANTS</td>
<td>5</td>
</tr>
<tr>
<td>TOM 92-4</td>
<td>THE EFFECT OF RYE HEIGHT AT THE TIME OF BURNDOWN ON THE GROWTH AND DEVELOPMENT OF TOMATOES</td>
<td>7</td>
</tr>
<tr>
<td>TOM 92-5</td>
<td>THE EFFECT OF TRAY DEPTH ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES</td>
<td>9</td>
</tr>
<tr>
<td>TOM 92-6</td>
<td>THE EFFECT OF NITROGEN RATE ON THE GROWTH AND DEVELOPMENT OF TOMATOES GROWN IN RYE STUBBLE</td>
<td>11</td>
</tr>
<tr>
<td>TOM 92-7</td>
<td>THE EFFECT OF TRANSPLANTING DATE ON THE ESTABLISHMENT AND YIELD OF PLUG TOMATOES</td>
<td>13</td>
</tr>
<tr>
<td>TOM 92-8</td>
<td>METHODS OF HOLDING PLUG TOMATO TRANSPLANTS AFTER THEY ARE SIX WEEKS OF AGE IN THE CASE OF INCLEMENT WEATHER</td>
<td>15</td>
</tr>
<tr>
<td>TOM 92-9</td>
<td>THE EFFECT OF TRAY SIZE, FERTILIZER BLEND AND FREQUENCY OF FEEDING ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES</td>
<td>17</td>
</tr>
<tr>
<td>TOM 92-10</td>
<td>THE EFFECT OF TRANSPLANT AGE AND SIZE ON TOMATO ESTABLISHMENT AND YIELD</td>
<td>19</td>
</tr>
<tr>
<td>TOM 92-11</td>
<td>THE EFFECT OF TRAWSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (I)</td>
<td>22</td>
</tr>
<tr>
<td>TOM 92-12</td>
<td>THE EFFECT OF TRANSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (II)</td>
<td>24</td>
</tr>
<tr>
<td>TOM 92-13</td>
<td>THE EFFECT OF ROW CONFIGURATION AND PLANT POPULATION ON THE YIELD OF TOMATOES</td>
<td>26</td>
</tr>
<tr>
<td>TOM 92-14</td>
<td>TOMATO CULTIVAR EVALUATION (I)</td>
<td>28</td>
</tr>
<tr>
<td>TOM 92-15</td>
<td>TOMATO CULTIVAR EVALUATION (II)</td>
<td>30</td>
</tr>
<tr>
<td>TOM 92-16</td>
<td>METHODS TO IMPROVE TRANSPLANT ESTABLISHMENT</td>
<td>32</td>
</tr>
<tr>
<td>TOM 92-17</td>
<td>DRY STARTER FERTILIZER COMPARED TO LIQUID STARTER FERTILIZER</td>
<td>34</td>
</tr>
</tbody>
</table>
## 1992 TOMATO RESEARCH PROGRAMME

<table>
<thead>
<tr>
<th>EXPERIMENT NUMBER</th>
<th>TITLE</th>
<th>PAGE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOM 92-18</td>
<td>GREENHOUSE FERTILIZER EVALUATION</td>
<td>36</td>
</tr>
<tr>
<td>TOM 92-19</td>
<td>BONZI EVALUATION (I)</td>
<td>39</td>
</tr>
<tr>
<td>TOM 92-20</td>
<td>BONZI EVALUATION (II)</td>
<td>41</td>
</tr>
<tr>
<td>TOM 92-21</td>
<td>THE EFFECT OF THE NUMBER OF PLANTS PER CELL ON TOMATO GROWTH AND YIELD</td>
<td>43</td>
</tr>
<tr>
<td>TOM 92-22</td>
<td>THE EFFECT OF BANVEL INJURY IN THE GREENHOUSE ON TOMATO GROWTH AND YIELD</td>
<td>45</td>
</tr>
<tr>
<td>TOM 92-23</td>
<td>THE EFFECT OF ORTHENE AND STARTER FERTILIZER ON TOMATO GROWTH AND YIELD</td>
<td>46</td>
</tr>
</tbody>
</table>

## 1992 SWEET CORN RESEARCH PROGRAMME

<table>
<thead>
<tr>
<th>EXPERIMENT NUMBER</th>
<th>TITLE</th>
<th>PAGE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWCN 92-1A</td>
<td>YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(SEEDED AT 32,000 AND THINNED TO 18,000/ACRE)</td>
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<tr>
<td>SWCN 92-1B</td>
<td>YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)</td>
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<tr>
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<td>(SEEDED AT 40,000 AND THINNED TO 27,500/ACRE)</td>
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</tr>
<tr>
<td>SWCN 92-1C</td>
<td>YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)</td>
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</tr>
<tr>
<td></td>
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</tr>
<tr>
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<td>BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)</td>
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<tr>
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<tr>
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</tr>
<tr>
<td>SWCN 92-3A</td>
<td>WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)</td>
<td>13</td>
</tr>
<tr>
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<td>(SEEDED AT 32,000 AND THINNED TO 18,000/ACRE)</td>
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### 1992 Sweet Corn Research Programme

<table>
<thead>
<tr>
<th>Experiment Number</th>
<th>Title</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWCN 92-3B</td>
<td>White Supersweet Corn Cultivar Evaluation (Processing)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>(Seeded at 40,000 and thinned to 27,500/acre)</td>
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<td>White Supersweet Corn Cultivar Evaluation (Processing)</td>
<td>17</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>SWCN 92-4A</td>
<td>Bicolour Supersweet Corn Cultivar Evaluation (Fresh Market)</td>
<td>19</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>SWCN 92-4B</td>
<td>Bicolour Supersweet Corn Cultivar Evaluation (Fresh Market)</td>
<td>24</td>
</tr>
<tr>
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</tr>
<tr>
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<td>Bicolour Supersweet Corn Cultivar Evaluation (Fresh Market)</td>
<td>26</td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>SWCN 92-5</td>
<td>The Effect of Starter Fertilizer Blend and Rate on the</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Establishment and Yield of Supersweet Sweet Corn</td>
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</tr>
<tr>
<td>SWCN 92-6</td>
<td>The Effect of Seeding Date on the Yield and Quality of</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Supersweet Sweet Corn</td>
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</tr>
<tr>
<td>SWCN 92-7</td>
<td>The Effect of Seeding Date on the Yield and Quality of</td>
<td>32</td>
</tr>
<tr>
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<td>Standard Sweet Corn</td>
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</tr>
<tr>
<td>SWCN 92-8A</td>
<td>Yellow Standard Corn Cultivar Evaluation (Early Season -</td>
<td>34</td>
</tr>
<tr>
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</tr>
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<td>Yellow Standard Corn Cultivar Evaluation (Main Season -</td>
<td>36</td>
</tr>
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</tr>
<tr>
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<td>Yellow Standard Corn Cultivar Evaluation (Late Season -</td>
<td>38</td>
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<td>TITLE</td>
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<tr>
<td>PEP92-1</td>
<td>PEPPER CULTIVAR EVALUATION</td>
<td>1</td>
</tr>
<tr>
<td>PEP92-2</td>
<td>THE EFFECT OF TRANSPLANT AGE AT THE TIME OF FIELD SETTING ON THE ESTABLISHMENT AND YIELD OF PEPPERS</td>
<td>3</td>
</tr>
<tr>
<td>PEP92-3</td>
<td>THE EFFECT OF CELL SIZE ON ESTABLISHMENT AND YIELD OF PEPPERS</td>
<td>5</td>
</tr>
<tr>
<td>PEP92-4</td>
<td>THE EFFECT OF GREENHOUSE NITROGEN RATE ON THE ESTABLISHMENT AND YIELD OF PEPPERS</td>
<td>7</td>
</tr>
<tr>
<td>PEP92-5</td>
<td>THE EFFECT OF GREENHOUSE PHOSPHORUS RATE ON THE ESTABLISHMENT AND YIELD OF PEPPERS</td>
<td>10</td>
</tr>
<tr>
<td>Range</td>
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</table>
TOMATO RESEARCH EVALUATION
TITLE: THE EFFECT OF BEDDING AND RYE MANAGEMENT SYSTEMS ON THE GROWTH AND DEVELOPMENT OF PLUG TOMATOES

EXPERIMENT NUMBER: TOMATO # 92-1

EXPERIMENT DETAILS
---------------------

EXPERIMENTAL DESIGN: SPLIT PLOT DESIGN
MAIN PLOTS: BEDDING (2)
SUB-PlOTS: RYE MANAGEMENT SYSTEMS (5)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 10
NUMBER OF TRAYS: 40

GREENHOUSE PROGRAM
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CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MARCH 23
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: 100-22-83
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
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PLOT SIZE: 3 BEDS WIDE * 14.0 M
FALL BEDDING: OCTOBER 14, 1991
RYE PLANTING: OCTOBER 15, 1991
SEEDING RATE: 2 BUSHELS/ACRE
RYE BURNDOWN: ON THE BEDS - BURN OFF AT 15 CM HIGH BETWEEN THE TOMATO ROWS - BURN OFF AT 50 CM APPLY ROUNDUP AT 1 LITRE/ACRE
DATE OF BURNDOWN: 15 CM HIGH
DATE OF BURNDOWN: 50 CM HIGH
TRANSPLANTING DATE: MAY 21
LOCATION: KIDGENTOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 4
SOIL TYPE: BURFORD GRAVELLY LOAM
PLANT POPULATION: 12,000 PLANTS/acre
PLANT CONFIGURATION: DOUBLE ROWS (70 PLANTS/plot, 35 PLANTS/row)

24-Jun-92 PAGE NO. 1
TITLE : THE EFFECT OF BEDDING AND RYE MANAGEMENT SYSTEMS ON THE GROWTH
 AND DEVELOPMENT OF PLUG TOMATOES

EXPERIMENT NUMBER : TOMATO # 92-1

FIELD PROGRAMME

STARTER FERTILIZER : 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION : 100 ML PER TRANSPLANT
FERTILIZER : 100-50-300 (N-P2O5-K2O)

WEED CONTROL : TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA)
+ DUAL (2.0 L/HA) PRE-TRANSPLANTING

INSECT CONTROL : ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA)
AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500
(200 mL/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO
BEETLE CONTROL

DISEASE CONTROL : BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING : ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

TREATMENT LIST

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<tbody>
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ASSESSMENTS :
WEEK 0 GAP UP (RECORD STAND COUNT)
WEEK 4 PLANT STAND COUNTS
WEEK 4 SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)
MATURITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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<tr>
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15-5-15 40.00

TOTAL 100 14 83

24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF MANURE AND ORGANIC MULCHES ON THE GROWTH AND DEVELOPMENT OF TOMATOES

EXPERIMENT NUMBER: TOMATO # 92-2

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: SPLIT-PLOT DESIGN
MAIN PLOTS: FALL VERSUS SPRING APPLICATION
SUB PLOTS: MULCH OR MANURE APPLIED
REPLICATIONS: 4
NUMBER OF TREATMENTS: 12
NUMBER OF TRAYS: 26

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MARCH 23
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED IN THE AFTERNOON
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

PLOT SIZE: 3 BEDS WIDE * 8.0 M = 36 BEDS
FALL BEDDING: OCTOBER 14, 1991
PLANT RYE: OCTOBER 15, 1991
SEEDING RATE: 2 BUSHELS/ACRE
RYE BURNDOWN: ROUNDUP AT 1 LITRE/ACRE
TRANSPLANTING DATE: MAY 13
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 62
SOIL TYPE: BROOKSTON CLAY LOAM
PLANT POPULATION: 12,000 PLANT/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PILOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: AS LISTED
TITLE: THE EFFECT OF MANURE AND ORGANIC MULCHES ON THE GROWTH AND DEVELOPMENT OF TOMATOES

EXPERIMENT NUMBER: TOMATO # 92-2

FIELD PROGRAM

WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING

INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA) SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL

DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST

FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

TREATMENT LIST

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ASSESSMENTS:

- WEEK 0 GAP UP (RECORD STAND COUNT)
- WEEK 4 PLANT STAND COUNTS
- WEEK 4 SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)
- MATURITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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total 100 14 83

24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF FERTILIZER SOLUTION pH AND GROWING MEDIA ON THE GROWTH AND ESTABLISHMENT OF PLUG TOMATO TRANSPLANTS

EXPERIMENT NUMBER: TOMATO # 92-3

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: GROWING MEDIA (2)
FACTOR 2: FERTILIZER SOLUTION pH (6)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 12
NUMBER OF TRAYS: 48

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: APRIL 6
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

PLOT SIZE: 1 BED WIDE * 8.0 M
TRANSPLANTING DATE: JUNE 11
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE # 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P2O5-K2O)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA)
+ DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA)
AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

24-Jun-92 PAGE NO. 1
TITLE: THE EFFECT OF FERTILIZER SOLUTION pH ON THE GROWTH AND ESTABLISHMENT OF PLUG TOMATO TRANSPLANTS

EXPERIMENT NUMBER: TOMATO # 92-3

TREATMENT LIST

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ASSESSMENTS:

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TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF RYE HEIGHT AT THE TIME OF BURNDOWN ON THE GROWTH AND DEVELOPMENT OF TOMATOES

EXPERIMENT NUMBER: TOMATO # 92-4

EXPERIMENT DETAILS
------------------------
EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK
REPLICATIONS: 4
NUMBER OF TREATMENTS: 6
NUMBER OF TRAYS: 4

GREENHOUSE PROGRAM
---------------------
CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MARCH 23, 1992
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
--------------
FALL BEDDING: OCTOBER 14, 1991
PLANT RYE: OCTOBER 15, 1991
SEEDING RATE: 2 BUSHELS/ACRE
RYE BURNDOWN: ROUNDUP AT 1 LITRE/ACRE
DATE OF BURN DOWN: AS LISTED
TRANSPLANTING DATE: JUNE 2
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY ON FARM LOCATION: H & B RANGE 63
SOIL TYPE: BROOKSTON CLAY LOAM
PLOT SIZE: 1 BED WIDE * 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
TITLE: THE EFFECT OF RYE HEIGHT AT THE TIME OF BURNDOWN ON THE GROWTH AND DEVELOPMENT OF TOMATOES

EXPERIMENT NUMBER: TOMATO # 92-4

FIELD PROGRAM

WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING

INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA) SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL

DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST

FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

TREATMENT LIST

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TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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| total | 100  | 14  | 83  |

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24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF TRAY DEPTH ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES

EXPERIMENT NUMBER: TOM 92-5

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: FERTILIZER PROGRAMME (2)
FACTOR 2: TRAY DEPTH (3)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 6
NUMBER OF TRAYS: 24

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MARCH 23
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: DAY 4-7: JUST ENOUGH TO KEEP THE TRAYS MOIST
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
GREENHOUSE LIGHTING: 16 HOUR DAY: 5am-9pm
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 13
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 63
SOIL TYPE: BROOKSTON CLAY LOAM
PLOT SIZE: 1 BED WIDE * 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 10C ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HAC) + SENCOR 500 (0.5 L/HAC) + DUAL (2.0 L/HAC) PRE-TRANSPLANTING
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE
TITLE: THE EFFECT OF TRAY DEPTH ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES

EXPERIMENT NUMBER: TOM 92-5

FIELD PROGRAM

INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA) SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL

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DATA TO COLLECT:

GREENHOUSE

DAY 0 SOILLESS MIX 4 SAMPLES
DAY 0 FERTILIZER SOLUTIONS 4 SAMPLES
DAY 7 PLANT HEIGHT 5 SUBSAMPLES
DAY 14 PLANT HEIGHT 5 SUBSAMPLES
DAY 21 PLANT HEIGHT 5 SUBSAMPLES
DAY 28 PLANT HEIGHT 5 SUBSAMPLES
DAY 35 PLANT HEIGHT 5 SUBSAMPLES
DAY 42 FRESH WEIGHT 20 PLANTS
DAY 42 DRY WEIGHT 20 PLANTS
DAY 42 % DRY WEIGHT 20 PLANTS
DAY 42 STEM DIAMETER 20 PLANTS
DAY 42 % USABLE 50 PLANTS

FIELD

WEEK 0 GAP UP (PLANT STAND COUNTS)
WEEK 4 PLANT STAND COUNTS
WEEK 4 SHOOT FRESH AND DRY WEIGHT (5 PLANTS)

MATURITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

N P K

15-5-15 40.00

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100 14 83

total

100 14 83

24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF NITROGEN RATE ON THE GROWTH AND DEVELOPMENT OF TOMATOES GROWN IN RYE STUBBLE

EXPERIMENT NUMBER: TOMATO # 92-6

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: SPLIT-PILOT DESIGN
MAIN PLOTS: RYE OR NO RYE
SUB PLOTS: NITROGEN RATE
REPLICATIONS: 4
NUMBER OF TREATMENTS: 12
NUMBER OF TRAYS: 18

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MARCH 23, 1992
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

FALL BEDDING: OCTOBER 14, 1991
PLANT RYE: OCTOBER 15, 1991
SEEDING RATE: 2 BUSHELS/acre
RYE BURNDOWN: ROUNDUP AT 1 LITRE/acre
DATE OF BURNDOWN: WHEN RYE IS 18" TALL
TRANSPLANTING DATE: MAY 13
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 63
SOIL TYPE: BROOKSTON CLAY LOAM
PLOT SIZE: 1 BED WIDE * 8.0 M (ONE GUARD ROW BETWEEN EACH PLOT = 26 BEDS)
PLANT POPULATION: 12,000 PLANTS/acre (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
TITLE: THE EFFECT OF NITROGEN RATE ON THE GROWTH AND DEVELOPMENT OF TOMATOES GROWN IN RYE STUBBLE

EXPERIMENT NUMBER: TOMATO # 92-6

FIELD PROGRAM

FERTILIZER: 50-300 (P2O5-K2O)
NITROGEN - AS LISTED

WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING

INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL

DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

TREATMENT LIST

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ASSESSMENTS:

WEEK 0 GAP UP (RECORD STAND COUNT)
WEEK 4 PLANT STAND COUNTS
WEEK 4 SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)
MATURITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

\[
\begin{array}{c|ccc}
& N & P & K \\
\hline
15-5-15 & 40.00 & 100 & 14 & 83 \\
\hline
\text{total} & 100 & 14 & 83 \\
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\]

24-Jun-92 PAGE NO. 2
THE EFFECT OF TRANSPLANTING DATE ON THE ESTABLISHMENT AND YIELD OF PLUG TOMATOES.

EXPERIMENT NUMBER: TOMATO 92-7

EXPERIMENT DETAILS
-------------------
EXPERIMENTAL DESIGN: SPLIT PLOT DESIGN
MAIN PLOTS: TRANSPLANTING DATE (4)
SUB-PLOTS: CULTIVAR (4)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 16
TOTAL TRAYS: 64

GREENHOUSE PROGRAM
-------------------
CULTIVAR: HEINZ 9478, 07, OHIO 7814, OHIO 8245
TRAY SIZE: 288 170 PLANTS/SQ FT
SEEDING DATE: MARCH 23, APRIL 6, APRIL 20, MAY 4
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP MOIST UP TO THE DAY 7
FERTILIZER REGIME: 100-22-83
FERTILIZER VOLUME: 500 ML/TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
--------------
TRANSPLANTING DATE: MAY 13, MAY 19, JUNE 2, JUNE 15
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 63
SOIL TYPE: BROOKSTON CLAY LOAM
PLOT SIZE: ONE PLOT (1.5 M) x 8.0 M
EXPERIMENT SIZE: 27.0 M (INCLUDES ONE GUARD ROW AT EACH END)
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN (0.75 KG/HA) + SENCOR (0.5 KG/HA) +
DUAL (1.92 KG/HA) PREPLANT INCORPORATED
ALTERANTE SPRAYS OF GUTHION (2.25 L/HA) AND
AMBUSH (200 mL/HA) + THIODAN 4 EC (1.4 L/HA)
INSECT CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
DISEASE CONTROL:
TITLE: THE EFFECT OF TRANSPLANTING DATE ON THE ESTABLISHMENT AND YIELD OF PLUG TOMATOES.

EXPERIMENT NUMBER: TOMATO 92-7

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ASSESSMENTS:

FIELD:
WEEK 0 GAP UP (RECORD NUMBER OF PLANTS)
WEEK 4 PLANT STAND COUNTS
WEEK 4 SHOOT FRESH AND DRY WEIGHT (5 PLANTS)
MATUREITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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total 100 14 83
TITLE: METHODS OF HOLDING PLUG TOMATO TRANSPLANTS AFTER THEY ARE SIX WEEKS OF AGE IN THE CASE OF INCLEMENT WEATHER

EXPERIMENT NUMBER: TOMATO # 92-8

EXPERIMENT DETAILS
---------------
EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 12
NUMBER OF TRAYS: 48

GREENHOUSE PROGRAM
---------------------
CULTIVAR: HEINZ 9478
TRAY SIZE: 288 CELLS
SEEDING DATE: MAR 23
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
FERTILIZER REGIME: AS LISTED
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: AS LISTED
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
-------------
TRANSPLANTING DATE: MAY 11
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 BED WIDE * 8.0 M
PLANT POPULATION: 12,000 PLANTS/acre (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE
TITLE: METHODS OF HOLDING PLUG TOMATO TRANSPLANTS AFTER THEY ARE
SIX WEEKS OF AGE IN THE CASE OF INCLEMENT WEATHER

EXPERIMENT NUMBER: TOMATO # 92–8

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ASSESSMENTS :

GREENHOUSE

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MATURITY YIELD - RED, GREEN AND TOTAL

24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF TRAY SIZE, FERTILIZER BLEND AND FREQUENCY OF FEEDING ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES

EXPERIMENT NUMBER: TOMATO 92-9

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: THREE WAY FACTORIAL
FACTOR 1: TRAY SIZE (2)
FACTOR 2: FERTILIZER PROGRAMME (3)
FACTOR 3: FREQUENCY OF APPLICATION (3)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 18
TOTAL TRAYS: 72

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 & 406
SEEDING DATE: MAR 23
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP MOIST UP TO THE DAY 7
FERTILIZER REGIME: AS LISTED
FERTILIZER VOLUME: 500 ML/TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: AS LISTED
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 13
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 62
SOIL TYPE: BROOKSTON CLAY LOAM
PLOT SIZE: ONE PLOT (1.5 M) X 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN (0.75 KG/HA) + SENCOR (0.5 KG/HA) + DUAL (1.92 KG/HA) PREPLANT INCORPORATED
INSECT CONTROL: ALTERANTE SPRAYS OF GUTHION (2.25 L/HA) AND AMBUSH (200 ML/HA) + THIODAN 4 EC (1.4 L/HA)
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
TITLE: THE EFFECT OF TRAY SIZE, FERTILIZER BLEND AND FREQUENCY OF FEEDING ON THE GROWTH, DEVELOPMENT, ESTABLISHMENT AND YIELD OF TOMATOES

EXPERIMENT NUMBER: TOMATO 92-9

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ASSESSMENTS:

GREENHOUSE

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24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF TRANSPLANT AGE AND SIZE ON TOMATO ESTABLISHMENT AND YIELD

EXPERIMENT NUMBER: TOMATOES 92-10

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: SPLIT-SPLIT PLOT DESIGN
LEVEL 1: DATE OF FIELD SETTING (3)
LEVEL 2: FERTILIZER PROGRAMME (2)
LEVEL 3: TRANSPLANT AGE (6)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 36
TOTAL TRAYS: 144

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 170 PLANTS/SQ FT
SEEDING DATE: FEB 24
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 300 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING:
FERTILIZER REGIME: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER VOLUME: 20-10-20
FIRST DAY FOR FERTILIZER: 500 ML OF SOLUTION PER TRAY
FERTILIZER FREQUENCY: EIGHTH DAY AFTER SEEDING
WATERING:
FURNACE: AS REQUIRED
LOUVRES: 13 C
FANS: 18 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 19, JUNE 15
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) 8.0 M
PLANT POPULATION: 12,000 PLANTS/ ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/LOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER:
WEED CONTROL: 100-50-300 (N-P205-K20)
TREFLAN (0.75 KG/H A) + SENCOR (0.5 KG/H A) PPI
+ DUAL (1 KG/H A)
INSECT CONTROL: AMBUSH (100 G/H A) - AS REQUIRED
DISEASE CONTROL: BRAVO (1.5 KG/H A) - TOM CAST
TITLE: THE EFFECT OF TRANSPLANT AGE AND SIZE ON TOMATO ESTABLISHMENT AND YIELD

EXPERIMENT NUMBER: TOMATOES 92-10

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**ASSESSMENTS**

**GREENHOUSE**

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% IDEAL
STEM DIAMETER: 50 plants
SHOOT FRESH WEIGHT: 50 plants
SHOOT DRY WEIGHT: 50 plants

**FIELD**

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**Maturity Yield**
Yield - Red, Green and Total

**TO MAKE NUTRIENT SOLUTIONS (60 LITRES)**

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TITLE: THE EFFECT OF TRANSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (I)

EXPERIMENT NUMBER: TOMATOES 92-11

EXPERIMENT DETAILS
--------------------------

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 4
TOTAL TRAYS: 4

GREENHOUSE PROGRAM
---------------------

CULTIVAR: HEINZ 9478
TRAY SIZE: 406
SEEDING DATE: MAY 18
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
-------------

TRANSPLANTING DATE: JUNE 11, JUNE 15, JUNE 22, JUNE 29
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) x 8.0 M
PLANT POPULATION: 12,000 PLANTS/acre (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSHP 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
TITLE: THE EFFECT OF TRANSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (I)

EXPERIMENT NUMBER: TOMATOES 92-11

TREATMENT LIST

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ASSESSMENTS TO FIELD SETTING 5 MEASUREMENTS PER TRAY

GAP UP (PLANT STAND COUNTS)

PLANT STAND COUNTS

SHOOT FRESH AND DRY WEIGHT (5 PLANTS)

MATURITY - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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THE EFFECT OF TRANSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (II)

EXPERIMENT NUMBER: TOMATOES 92–12

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 4
TOTAL TRAYS: 4

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 406 170 PLANTS/SQ FT
SEEDING DATE: MAY 25
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: JUNE 15, JUNE 22, JUNE 29, JULY 6
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE # 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) x 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100–50–300 (N-P2O5-K2O)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA)
+ DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA)
AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/H) - TOM CAST

24-Jun-92 PAGE NO. 1
TITLE: THE EFFECT OF TRANSPLANT AGE ON THE ESTABLISHMENT AND YIELD OF TOMATOES (II)

EXPERIMENT NUMBER: TOMATOES 92-12

TREATMENT LIST

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ASSESSMENTS

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TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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| total   | 100 | 14 | 83 |
THE EFFECT OF ROW CONFIGURATION AND PLANT POPULATION ON THE YIELD OF TOMATOES

EXPERIMENT NUMBER: TOMATOES 92–13

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: TWO WAY FACTORIAL
FACTOR 1: ROW CONFIGURATION (2)
FACTOR 2: PLANT POPULATION (3)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 16
TOTAL TRAYS: 12

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 170 PLANTS/SQ FT
SEEDING DATE: MAY 18
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER – 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20–10–20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 29
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M X 8.0 M)
PLANT POPULATION: AS LISTED
PLANT CONFIGURATION: AS LISTED
STARTER FERTILIZER: 6–24–6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100–50–300 (N–P205–K20)
WEED CONTROL: TREFLAN 545 (1.1 L/H A) + SENCOR 500 (0.5 L/H A) + DUAL (2.0 L/H A) PRE–TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/H A) AND THIODAN 4 EC (1.4 L/H A) + AMBUS 500 (200 ML/H A)
DISEASE CONTROL: BRAVO (1.5 KG/H A) – TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/H A) – MATURE GREEN STAGE

24–Jun–92 PAGE NO. 1
TITLE: THE EFFECT OF ROW CONFIGURATION AND PLANT POPULATION ON THE YIELD OF TOMATOES

EXPERIMENT NUMBER: TOMATOES 92-13

TREATMENT LIST

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ASSESSMENTS

FIELD: WEEK 0 GAP UP (PLANT STAND COUNTS)
      WEEK 4 PLANT STAND COUNTS
      MATURITY YIELD - RED, GREEN AND TOTAL

TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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15-5-15     40.00

Total        100  14  83
TITLE: TOMATO CULTIVAR EVALUATION (I)

EXPERIMENT NUMBER: TOMATOES 92–14

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 10
TOTAL TRAYS: 40

GREENHOUSE PROGRAM

CULTIVAR: AS LISTED
TRAY SIZE: 288 170 PLANTS/SQ FT
SEEDING DATE: APRIL 6
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20–10–20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 19
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) * 8.0 M
PLANT POPULATION: 12,000 PLANTS/acre (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/plot, 18 PLANTS/ROW)
STARTER FERTILIZER: 6–24–6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100–50–300 (N-P2O5-K2O)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE
## TITLE:
TOMATO CULTIVAR EVALUATION (I)

## EXPERIMENT NUMBER:
TOMATOES 92-14

## TREATMENT LIST

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## ASSESSMENTS DAY PRIOR PLANT HEIGHT 5 MEASUREMENTS PER TRAY

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## FIELD:
- WEEK 0: GAP UP (PLANT STAND COUNTS)
- WEEK 4: PLANT STAND COUNTS
- MATURITY: YIELD - RED, GREEN AND TOTAL

## TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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TITLE: TOMATO CULTIVAR EVALUATION (II)

EXPERIMENT NUMBER: TOMATOES 92-15

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 10
TOTAL TRAYS: 40

GREENHOUSE PROGRAM

CULTIVAR: AS LISTED
TRAY SIZE: 406
SEEDING DATE: MAY 18
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: JUNE 15
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) X 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/H A) + SENCOR 500 (0.5 L/H A) + DUAL (2.0 L/H A) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/H A) AND THIODAN 4 EC (1.4 L/H A) + AMBUSH 500 (200 ML/H A)
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE
### TITLE:
TOMATO CULTIVAR EVALUATION (II)

### EXPERIMENT NUMBER:
TOMATOES 92-15

### TREATMENT LIST

#### CULTIVAR

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#### ASSESSMENTS DAY PRIOR TO FIELD % IDEAL | 5 MEASUREMENTS PER TRAY

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#### FIELD:
- WEEK 0 GAP UP (PLANT STAND COUNTS)
- WEEK 4 PLANT STAND COUNTS
- MATURITY YIELD - RED, GREEN AND TOTAL

#### TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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TITLE: METHODS TO IMPROVE TRANSPLANT ESTABLISHMENT

EXPERIMENT NUMBER: TOMATOES 92-16

EXPERIMENT DETAILS
------------------------------------------

EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: STARTER SOLUTION (3)
FACTOR 2: GREENHOUSE FERTILIZER (4)
REPLICATIONS: 4
NUMBER OF TREATMENTS: 12
TOTAL TRAYS: 48

GREENHOUSE PROGRAM
---------------------

CULTIVAR: HEINZ 9478
TRAY SIZE: 288
SEEDING DATE: APRIL 6
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM
--------------

TRANSPLANTING DATE: MAY 19
LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) * 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: AS LISTED
RATE OF STARTER SOLUTION: 100 mL PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA) SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE
### METHODS TO IMPROVE TRANSPLANT ESTABLISHMENT

#### TOMATOES 92-16

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#### ASSESSMENTS

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#### FIELD

- WEEK 0: GAP UP (PLANT STAND COUNTS)
- WEEK 4: PLANT STAND COUNTS
- WEEK 4: SHOOT FRESH AND DRY WEIGHT (5 PLANTS)
- MATURITY: YIELD - RED, GREEN AND TOTAL

#### TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

1. **15-5-15**
   - N | P | K
   - 40.00 | 100 | 14 | 83
   - **total** | 100 | 14 | 83

2. **20-20-20**
   - N | P | K
   - 30.00 | 100 | 44 | 83
   - **total** | 100 | 44 | 83
TITLE: DRY STARTER FERTILIZER COMPARED TO LIQUID STARTER FERTILIZER

EXPERIMENT NUMBER: TOMATOES 92-17

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 7
TOTAL TRAYS: 5

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288
SEEDING DATE: APRIL 6
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 20-10-20
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 19
LOCATION: H * B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) \* 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: AS LISTED
RATE OF STARTER SOLUTION: 100 mL PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
INSECT CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

24-Jun-92 PAGE NO. 1
**TITLE:** DRY STARTER FERTILIZER COMPARED TO LIQUID STARTER FERTILIZER

**EXPERIMENT NUMBER:** TOMATOES 92-17

**TREATMENT LIST**

<table>
<thead>
<tr>
<th>STARTER FERTILIZER</th>
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<tbody>
<tr>
<td>1 CHECK</td>
</tr>
<tr>
<td>2 WATER</td>
</tr>
<tr>
<td>3 6-24-6 100 mL/TRANSPLANT (HALF RATE)</td>
</tr>
<tr>
<td>4 6-24-6 100 mL/TRANSPLANT (FULL RATE)</td>
</tr>
<tr>
<td>5 MAP HALF RATE</td>
</tr>
<tr>
<td>6 MAP FULL RATE</td>
</tr>
<tr>
<td>7 MAP + 6-24-6 HALF RATE OF EACH</td>
</tr>
<tr>
<td>8 MAP + 6-24-6 FULL RATE OF EACH</td>
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</table>

**ASSESSMENTS**

<table>
<thead>
<tr>
<th>FIELD :</th>
<th>WEEK 0</th>
<th>GAP UP (PLANT STAND COUNTS)</th>
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<tr>
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<td>MA TURITY</td>
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<td>PLANT FRESH AND DRY WEIGHT</td>
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**TO MAKE NUTRIENT SOLUTIONS (60 LITRES)**

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**total**

| 100 | 14 | 83 |

**24-Jun-92 PAGE NO. 2**
Title: Greenhouse Fertilizer Evaluation

Experiment Number: Tomatoes 92-18

Experiment Details

Experimental Design: Randomized Complete Block Design

Replications: 4
Number of Treatments: 4
Total Trays: 16

Greenhouse Program

Cultivar: Heinz 9478
Tray Size: 288 170 plants/sq ft
Seeding Date: April 6
Soilless Mixture: Metro Mix 220
Seed Covering: Medium Horticultural Grade Vermiculite
Watering: 500 ml per tray after seeding
Germination: Germination Chamber - 3 days at 25 C
Watering: Keep trays moist up to day 7
Fertilizer Regime: As listed
Fertilizer Volume: 500 ml of solution per tray
First Day for Fertilizer: Eighth day after seeding
Fertilizer Frequency: As required
Watering: As required
Furnace: 13 C
Louvers: 18 C
Fans: 21 C

Field Program

Transplanting Date: May 19
Location: Ridgetown College of Agricultural Technology
On Farm Location: H & B Range 60 & 61
Soil Type: Brookston Clay Loam Sandy Spot Phase
Plot Size: One plot (1.5 m) x 8.0 m
Plant Population: 12,000 plants/acre (17 inches between plants)
Plant Configuration: Double rows (36 plants/plot, 18 plants/row)
Starter Fertilizer: 6-24-6 at 1 l per 75 l of water
Rate of Starter Solution: 100 ml per transplant
Fertilizer: 100-50-300 (N-P2O5-K2O)
Weed Control: Treflan 545 (1.1 l/ha) + Sencor 500 (0.5 l/ha) + Dual (2.0 l/ha) pre-transplanting
Alternate Sprays of Guthion 240 (1.75 l/ha) and Thiodan 4 EC (1.4 l/ha) + Ambush 500 (200 ml/ha)
Spray as required for Colorado potato beetle control

Insect Control: Bravo (1.5 kg/ha) - Tom Cast

Disease Control: Ethrel (1.2 kg/ha) - Mature Green Stage

Fruit Ripening:
#### TITLE: GREENHOUSE FERTILIZER EVALUATION

#### EXPERIMENT NUMBER: TOMATOES 92-18

#### TREATMENT LIST

**GREENHOUSE FERTILIZER PROGRAMME**

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<td>1</td>
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<td></td>
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<td>20-10-20 + CALCIUM NITRATE</td>
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#### ASSESSMENTS

**GREENHOUSE**

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**TO MAKE NUTRIENT SOLUTIONS (60 LITRES)**

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<tr>
<td>Potassium Nitrate</td>
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<td>Potassium Sulfate</td>
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<td>Calcium Chloride</td>
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<td>41</td>
<td>166</td>
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* APPLY PHOSPHORIC ACID EVERY FIFTH WATERING OR FEEDING AT 40 ppm OR 5.3 mL PER 60 LITRES
TITLE: BONZI EVALUATION (I)

EXPERIMENT NUMBER: TOMATOES 92-19

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

REPlications: 4

NUMBER OF TREATMENTS: 4

TOTAL TRAYS: 16

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478

TRAY SIZE: 288

SEEDING DATE: 170 PLANTS/SQ FT APRIL 6

SOILLESS MIXTURE: METRO MIX 220

SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE

WATERING: 500 ML PER TRAY AFTER SEEDING

GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C

WATERING: KEEP TRAYS MOIST UP TO DAY 7

FERTILIZER REGIME: 15-5-15 CalMag

FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY

FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING

FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)

WATERING: AS REQUIRED

FURNACE: 13 C

LOUVRES: 18 C

FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 13

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY

ON FARM LOCATION: H & B RANGE 62 & 63

SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE

PLOT SIZE: ONE PLOT (1.5 M) x 8.0 M

PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)

PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/LOT, 18 PLANTS/ROW)

STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER

RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT

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

WEED CONTROL: TREFLAN 545 (1.1 L/HQ) + SENCOR 500 (0.5 L/HQ)

+ DUAL (2.0 L/HQ) PRE-TRANSPLANTING

ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HQ)

AND THIODAN 4 EC (1.4 L/HQ) + AMBUSH 500 (200 ML/HQ)

SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL

INSECT CONTROL: BRAVO (1.5 KG/HQ) - TOM CAST

FRUIT RIPENING: ETHREL (1.2 KG/HQ) - MATURE GREEN STAGE

24-Jun-92 PAGE NO. 1
TITLE: BONZI EVALUATION (I)

EXPERIMENT NUMBER: TOMATOES 92-19

TREATMENT LIST

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<tr>
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<td>.01 g ai/L</td>
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<td>.05 g ai/L</td>
<td>12</td>
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<td>.10 g ai/L</td>
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ASSESSMENTS

GREENHOUSE

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<td>50</td>
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<tr>
<td>DAY 42</td>
<td>% DRY WEIGHT</td>
<td>50</td>
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<td>DAY 42</td>
<td>STEM DIAMETER</td>
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<td>DAY 42</td>
<td>% USABLE</td>
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FIELD:

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<tr>
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<tbody>
<tr>
<td>WEEK 2</td>
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<td>WEEK 4</td>
<td>PLANT STAND COUNTS</td>
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TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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| total | 100 | 14 | 83 |
TITLE: BONZI EVALUATION (II)

EXPERIMENT NUMBER: TOMATOES 92-20

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 4
NUMBER OF TREATMENTS: 4
TOTAL TRAYS: 16

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288 170 PLANTS/SQ FT
SEEDING DATE: APRIL 6
SOILLESS MIXTURE: METRO MIX 220
SEED COVERING: MEDIUM HORTICULTURAL GRADE VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
FERTILIZER REGIME: 15-5-15 CalMag
FERTILIZER VOLUME: 500 ML OF SOLUTION PER TRAY
FIRST DAY FOR FERTILIZER: EIGHTH DAY AFTER SEEDING
FERTILIZER FREQUENCY: THREE TIMES PER WEEK (AS REQUIRED)
WATERING: AS REQUIRED
FURNACE: 13 C
LOUVRES: 18 C
FANS: 21 C

FIELD PROGRAM

TRANSPLANTING DATE: MAY 18
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 62 & 63
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) * 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/LOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100-50-300 (N-P205-K20)
WEED CONTROL: TREFLAN 545 (1.1 L/Ha) + SENCOR 500 (0.5 L/Ha) + DUAL (2.0 L/Ha) PRE-TRANSPLANTING
ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/Ha) AND THIODAN 4 EC (1.4 L/Ha) + AMBUSH 500 (200 ML/Ha)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
INSECT CONTROL: BRAVO (1.5 KG/Ha) - TOM CAST

DISEASE CONTROL:
FRUIT RIPENING: ETHREL (1.2 KG/Ha) - MATURE GREEN STAGE
# BONZI EVALUATION (II)

**EXPERIMENT NUMBER:** TOMATOES 92-20

## TREATMENT LIST

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## ASSESSMENTS

**GREENHOUSE**

- DAY 14: PLANT HEIGHT, 5 SUBSAMPLES, REP 1,2,3,4
- DAY 21: PLANT HEIGHT, 5 SUBSAMPLES, REP 1,2,3,4
- DAY 28: PLANT HEIGHT, 5 SUBSAMPLES, REP 1,2,3,4
- DAY 35: PLANT HEIGHT, 5 SUBSAMPLES, REP 1,2,3,4
- DAY 42: PLANT HEIGHT, 5 SUBSAMPLES, REP 1,2,3,4
- DAY 42: FRESH WEIGHT, 50 PLANTS, REP 1,2,3,4
- DAY 42: DRY WEIGHT, 50 PLANTS, REP 1,2,3,4
- DAY 42: ROOT WEIGHT, 50 PLANTS, REP 1,2,3,4
- DAY 42: % DRY WEIGHT, 50 PLANTS, REP 1,2,3,4
- DAY 42: STEM DIAMETER, 50 PLANTS, REP 1,2,3,4
- DAY 42: % USABLE, 50 PLANTS, REP 1,2,3,4
- DAY 42: MINERAL ANALYSIS, 50 PLANTS, REP 1,2,3,4

**FIELD:**

- WEEK 0: GAP UP (RECORD STAND COUNT)
- WEEK 2: PLANT STAND COUNTS
- WEEK 4: PLANT STAND COUNTS
- WEEK 4: SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)
- MATURITY: YIELD - RED, GREEN AND TOTAL

### TO MAKE NUTRIENT SOLUTIONS (60 LITRES)

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**total**

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24-Jun-92 PAGE NO. 2
TITLE: THE EFFECT OF THE NUMBER OF PLANTS PER CELL ON TOMATO GROWTH AND YIELD

EXPERIMENT NUMBER: TOMATOES 92–21

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 3
NUMBER OF TREATMENTS: 5
TOTAL TRAYS: 15

GREENHOUSE PROGRAM

CULTIVAR: HEINZ 9478
TRAY SIZE: 288
SEEDING DATE: 170 PLANTS/SQ FT
METRO MIX 220
APRIL 16
MEDIUM HORTICULTURAL GRADE VERMICULITE

SOILLESS MIXTURE: 500 ML PER TRAY AFTER SEEDING
SEED COVERING: GERMINATION CHAMBER - 3 DAYS AT 25 C
WATERING: KEEP TRAYS MOIST UP TO DAY 7
AS LISTED

GERMINATION: 500 ML OF SOLUTION PER TRAY
WATERING: EIGHTH DAY AFTER SEEDING
AS REQUIRED
FERTILIZER REGIME: AS REQUIRED
FERTILIZER VOLUME: 13 C
FIRST DAY FOR FERTILIZER: 18 C
WATERING: FURNACE: LOUVRES:

FIELD PROGRAM

TRANSPLANTING DATE: MAY 29
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) x 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/PLLOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6–24–6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100–50–300 (N–P205–K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA)
+ DUAL (2.0 L/HA) PRE-TRANSPLANTING
ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA)
AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500
(200 ML/HA)
Soybean as required for Colorado potato beetle control

INSECT CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

DISEASE CONTROL: FRUIT RIPENING:
# The Effect of the Number of Plants per Cell on Tomato Growth and Yield

**Title:**

THE EFFECT OF THE NUMBER OF PLANTS PER CELL ON TOMATO GROWTH AND YIELD

**Experiment Number:**

TOMATOES 92-21

**Treatment List**

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**Assessments**

**Greenhouse**

**Day 42**

**Field:**

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<td>SHOOT FRESH AND DRY WEIGHS (5 PLANTS)</td>
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TITLE: THE EFFECT OF BANVEL INJURY IN THE GREENHOUSE ON TOMATO GROWTH AND YIELD

EXPERIMENT NUMBER: TOMATOES 92–22

EXPERIMENT DETAILS
----------------------------------
EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
REPLICATIONS: 3
NUMBER OF TREATMENTS: 3
TOTAL TRAYS: 3

GREENHOUSE PROGRAM
-------------------
CULTIVAR: OHIO 8245
TRAY SIZE: 288
SOILLESS MIXTURE: METRO MIX 220

FIELD PROGRAM
-------------
TRANSPLANTING DATE: JUNE 15, 1992
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 60 & 61
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: ONE PLOT (1.5 M) * 8.0 M
PLANT POPULATION: 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
PLANT CONFIGURATION: DOUBLE ROWS (36 PLANTS/LOT, 18 PLANTS/ROW)
STARTER FERTILIZER: 6–24–6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 100–50–300 (N–P205–K20)
WEED CONTROL: TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA)
+ DUAL (2.0 L/HA) PRE-TRANSPLANTING
INSECT CONTROL: ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA)
AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA)
SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
DISEASE CONTROL: BRAVO (1.5 KG/HA) - TOM CAST
FRUIT RIPENING: ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

TREATMENT LIST
-----------------
BANVEL INJURY
-----------------
1 SEVERE
2 INTERMEDIATE
3 NONE

ASSESSMENTS
-------------
WEEK 0 GAP UP (RECORD STAND COUNT)
WEEK 4 PLANT STAND COUNTS
WEEK 4 SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)
MATURE YIELD - RED, GREEN AND TOTAL

24-Jun-92 PAGE NO. 1
**TITLE:**
THE EFFECT OF ORTHENE AND STARTER FERTILIZER ON TOMATO GROWTH AND YIELD

**EXPERIMENT NUMBER:**
TOMATOES 92-23

**EXPERIMENT DETAILS**

**EXPERIMENTAL DESIGN:** RANDOMIZED COMPLETE BLOCK DESIGN
**REPLICATIONS:** 3
**NUMBER OF TREATMENTS:** 3
**TOTAL TRAYS:** 3

**GREENHOUSE PROGRAM**

**CULTIVAR:** HEINZ 9478
**TRAY SIZE:** 288
**SOILLESS MIXTURE:** METRO MIX 220

**FIELD PROGRAM**

**TRANSPLANTING DATE:** JUNE 15, 1992
**LOCATION:** RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
**ON FARM LOCATION:** H C B RANGE 60 & 61
**SOIL TYPE:** BROOKSTON CLAY LOAM SANDY SPOT PHASE
**PLOT SIZE:** ONE PLOT (1.5 M) \* 8.0 M
**PLANT POPULATION:** 12,000 PLANTS/ACRE (17 INCHES BETWEEN PLANTS)
**PLANT CONFIGURATION:** DOUBLE ROWS (36 PLANTS/PLOT, 18 PLANTS/ROW)
**STARTER FERTILIZER:** 6-24-6 AT 1 L PER 75 L OF WATER
**RATE OF STARTER SOLUTION:** 100 ML PER TRANSPLANT
**FERTILIZER:** 100-50-300 (N-P205-K20)
**WEED CONTROL:** TREFLAN 545 (1.1 L/HA) + SENCOR 500 (0.5 L/HA) + DUAL (2.0 L/HA) PRE-TRANSPLANTING
**INSECT CONTROL:** ALTERNATE SPRAYS OF GUTHION 240 (1.75 L/HA) AND THIODAN 4 EC (1.4 L/HA) + AMBUSH 500 (200 ML/HA) SPRAY AS REQUIRED FOR COLORADO POTATO BEETLE CONTROL
**DISEASE CONTROL:** BRAVO (1.5 KG/HA) - TOM CAST
**FRUIT RIPENING:** ETHREL (1.2 KG/HA) - MATURE GREEN STAGE

**TREATMENT LIST**

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**ASSESSMENTS**

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<th>GAP UP (RECORD STAND COUNT)</th>
<th>PLANT STAND COUNTS</th>
<th>SHOOT FRESH AND DRY WEIGHTS (5 PLANTS)</th>
<th>YIELD - RED, GREEN AND TOTAL</th>
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24-Jun-92 PAGE NO. 1
SWEET CORN RESEARCH EVALUATION
TITLE: YELLOW SUPERSWEET CORN CULTIVAR EVALUATION
(PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-1A

EXPERIMENT DETAILS
----------

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 16

FIELD PROGRAM
-------------

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 48 & 49
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 7.5 M
CULTIVAR: AS LISTED
SEEDING DATES: JUNE 10
SEEDING RATE: 80,000 PLANTS/HA (32,000/ACRE, 60 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: 45,000 PLANTS/HA (18,000/ACRE, 27 PLANTS/ROW)

WEED CONTROL:
SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED

INSECT CONTROL:
POUNCE (375 mL/HA EVERY 7 DAYS)

NITROGEN FERTILIZER:
UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM
AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-1A

ASSESSMENTS:

---

DISEASES

---

COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
LEAF RUST - PERCENT LEAF AREA

MATURITY

---

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA
HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

---

PLANT HEIGHT - MEAN OF 5 PLANTS
COB HEIGHT - MEAN OF 5 PLANTS
TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
TIP COVER (1-4) - MEAN OF 5 COBS *
SHANK LENGTH (1-5) - MEAN OF 5 COBS **
WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
CUT COB WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT (HUSKS ON) * 100
FIELD RECOVERY = PROCESSING RECOVERY * % MARKETABLE COB WEIGHT
FRESH KERNEL WEIGHT - 1 CUP
DRY KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED
YIELD ADJUSTED FOR LODGING

---

* 1 EXPOSED
2 JUST COVERED
3 UP TO 2.5 CM
4 2.5 - 5.0 CM
5 GREATER THAN 5.0 CM
** 1 0-2.5 CM
2 2.5-5.0 CM
3 5.0-7.5 CM
4 7.5-10.0 CM
5 GREATER THAN 10 CM

***MARKETABLE YIELD
REMOVE COBS WITH SMUT, POOR TIP FILL, BORER DAMAGE, PINK MOLD

---

23-Jun-92
TITLE: YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-1B

EXPERIMENT DETAILS
---------------

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 16

FIELD PROGRAM
-------------

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 48 & 49
SOIL TYPE: BROOKSTON CLAY-LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) * 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 7.5 M
CULTIVAR: AS LISTED
SEEDING DATES: JUNE 10
SEEDING RATE: 100,000 PLANTS/HA (40,000/ACRE, 75 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: 68,750 PLANTS/HA (27,500/ACRE, 41 PLANTS/ROW)

WEED CONTROL:

INSECT CONTROL:

NITROGEN FERTILIZER:

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23-Jun-92
TITLE: YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-1B

ASSESSMENTS:

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA
HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW.
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
YIELD ADJUSTED FOR LODGING
TITLE:  YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER:  SWEET CORN # 92-1C

EXPERIMENT DETAILS
-------------------
EXPERIMENTAL DESIGN:  RCBD
REPLICATIONS:  4
NUMBER OF TREATMENTS:  16

FIELD PROGRAM
--------------
LOCATION:
ON FARM LOCATION:  RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
SOIL TYPE:  H & B RANGE 48 & 49
PLOT SIZE:  1 ROW (75 CM) 8.0 M
PLANTING DISTANCE:  10.0 M
EXPERIMENT SIZE:  7.5 M
CULTIVAR:  AS LISTED
SEEDING DATES:  JUNE 10
SEEDING RATE:  50,000 PLANTS/HA (20,000/ACRE, 38 SEEDS/ROW)
TOTAL SEEDS REQUIRED:  240 PER CULTIVAR
FINAL PLANT STAND:  AS EMERGED
WEED CONTROL:  SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED
INSECT CONTROL:  INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)
NITROGEN FERTILIZER:  UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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23-Jun-92

TITLE : YELLOW SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER : SWEET CORN # 92-1C

ASSESSMENTS :

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)

PLANT STAND COUNTS (%)
EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
VISUAL VIGOUR RATING (0-10)
  (HEIGHT, WIDTH & COLOUR (0-10) * % EMERGENCE)

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
### EXPERIMENT DETAILS
- **Experimental Design**: RCBD
- **Replications**: 4
- **Number of Treatments**: 10

### FIELD PROGRAM
- **Location**: Ridgetown College of Agricultural Technology
- **On Farm Location**: H & B Range 37
- **Soil Type**: Brookston Clay Loam Sandy Spod
- **Plot Size**: 1 row (75 cm) * 8.0 m
- **Planting Distance**: 10.0 m
- **Experiment Size**: 7.5 m
- **Cultivar**: As listed
- **Seeding Dates**: June 10
- **Seeding Rate**: 80,000/pl
- **Total Seeds Required**: 240 per ct
- **Final Plant Stand**: 45,000 pla
- **Weed Control**: Sutan+ (4.0 Bladex (2 applied/pl)
- **Insect Control**: Insect control
- **Nitrogen Fertilizer**: Urea (240 kg/h as indicated

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23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-2A

ASSESSMENTS:

DISEASES

COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
LEAF RUST - PERCENT LEAF AREA

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

PLANT HEIGHT - MEAN OF 5 PLANTS
COB HEIGHT - MEAN OF 5 PLANTS
TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
TIP COVER (1-4) - MEAN OF 5 COBS *
SHANK LENGTH (1-5) - MEAN OF 5 COBS **
WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
CUT COB WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT (HUSKS ON) × 100
FIELD RECOVERY = PROCESSING RECOVERY × % MARKETABLE COB WEIGHT
FRESH KERNEL WEIGHT - 1 CUP
DRY KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED
YIELD ADJUSTED FOR LODGING

* 1 EXPOSED            ** 1 0-2.5 CM
2 JUST COVERED       2 2.5-5.0 CM
3 UP TO 2.5 CM       3 5.0-7.5 CM
4 2.5 - 5.0 CM       4 7.5-10.0 CM
5 GREATER THAN 5.0 CM 5 GREATER THAN 10 CM

***MARKETABLE YIELD
REMOVE COBS WITH SMUT, POOR TIP FILL, BORER DAMAGE, PINK MOLD

23-Jun-92
BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

SWEET CORN # 92-2B

RCBD
4
10

RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
H & B RANGE 37
BROOKSTON CLAY LOAM SANDY SPOT PHASE
1 ROW (75 CM) * 8.0 M

10.0 M
7.5 M

AS LISTED
JUNE 10

100,000 PLANTS/HA (40,000/acre, 75 SEEDS/ROW)
240 PER CULTIVAR

68,750 PLANTS/HA (27,500/acre, 41 PLANTS/ROW)
THIN WHEN THE CORN IS IN THE SIX LEAF STAGE

SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) +
BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED

INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)

UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM
AS INDICATED BY SOIL TEST

A & C 7802
BSS 4011
CANDY STORE
CUPOLA
DAZZLE
HUDSON
PEACHES N CREAM
PHENOMENAL
REVERE
XPH 3039

23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-2B

ASSESSMENTS:

MATUREY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
YIELD ADJUSTED FOR LODGING
BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

SWEET CORN # 92-2C

RCBD
4
10

RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
H & B RANGE 37
BROOKSTON CLAY LOAM SANDY SPOT PHASE
1 ROW (75 CM) * 8.0 M

10.0 M
7.5 M

AS LISTED
JUNE 10
240 PER CULTIVAR

PLANTS/HA (20,000/acre, 38 SEEDS/ROW)

SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED

UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

A & C 7802
BSS 4011
CANDY STORE
CUPOLA
DAZZLE
HUDSON
PEACHES 'N CREAM
PHENOMENAL
REVERE
XPH 3039

23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-2C

ASSESSMENTS:

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)
----------------------------------------------
PLANT STAND COUNTS (%) 
EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
VISUAL VIGOUR RATING (0-10)
  (HEIGHT, WIDTH & COLOUR (0-10) * % EMERGENCE)

MATURITY
-------
DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)
-------------------------------
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT

23-Jun-92
TITLE: WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-3A

EXPERIMENT DETAILS
---------------------

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 6

FIELD PROGRAM
-------------

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 39
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) x 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 4.5 M
CULTIVAR: AS LISTED
SEEDING DATES: JUNE 10
SEEDING RATE: 80,000 PLANTS/HA (32,000/acre, 60 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: 45,000 PLANTS/HA (18,000/acre, 27 PLANTS/ROW)
THIN WHEN THE CORN IS IN THE SIX LEAF STAGE
WEED CONTROL: SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED
INSECT CONTROL: INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)
NITROGEN FERTILIZER: UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-3A

ASSESSMENTS:

DISEASES

COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
LEAF RUST - PERCENT LEAF AREA

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT = 20 DAYS)

PLANT HEIGHT - MEAN OF 5 PLANTS
COB HEIGHT - MEAN OF 5 PLANTS
TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIAMETER)
PERCENT MARKETABLE COB WEIGHT
TIP COVER (1-4) - MEAN OF 5 COBS
SHANK LENGTH (1-5) - MEAN OF 5 COBS
WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
CUT COB WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT

FIELD RECOVERY = PROCESSING RECOVERY \times \% MARKETABLE COB WEIGHT
FRESH KERNEL WEIGHT - 1 CUP
DRY KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED
YIELD ADJUSTED FOR LODGING

* 1 EXPOSED ** 1 0-2.5 CM
2 JUST COVERED 2 2.5-5.0 CM
3 UP TO 2.5 CM 3 5.0-7.5 CM
4 2.5 - 5.0 CM 4 7.5-10.0 CM
5 GREATER THAN 5.0 CM 5 GREATER THAN 10 CM

***MARKETABLE YIELD
REMOVE COBS WITH SMUT, POOR TIP FILL, BORER DAMAGE, PINK MOLD

23-Jun-92
**TITLE:** WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

**EXPERIMENT NUMBER:** SWEET CORN # 92-3B

**EXPERIMENT DETAILS**

**EXPERIMENTAL DESIGN:** RCBD

**REPLICATIONS:** 4

**NUMBER OF TREATMENTS:** 6

**FIELD PROGRAM**

**LOCATION:** RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY

**ON FARM LOCATION:** H & B RANGE 39

**SOIL TYPE:** BROOKSTON CLAY*LOAM SANDY SPOT PHASE

**PLOT SIZE:** 1 ROW (75 CM) * 8.0 M

**PLANTING DISTANCE:** 10.0 M

**EXPERIMENT SIZE:** 4.5 M

**CULTIVAR:** AS LISTED

**SEEDING DATES:** JUNE 10

**SEEDING RATE:** 100,000 PLANTS/HA (40,000/ACRE, 75 SEEDS/ROW)

**TOTAL SEEDS REQUIRED:** 240 PER CULTIVAR

**FINAL PLANT STAND:** 68,750 PLANTS/HA (27,500/ACRE, 41 PLANTS/ROW)

**THIN WHEN THE CORN IS IN THE SIX LEAF STAGE**

**WEED CONTROL:** SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED

**INSECT CONTROL:** INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)

**NITROGEN FERTILIZER:** UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-3B

ASSESSMENTS:

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT
YIELD ADJUSTED FOR LODGING
TITLE: WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-3C

EXPERIMENT DETAILS
-------------------------------
EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 6

FIELD PROGRAM
-----------------
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 39
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) * 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 4.5 M
CULTIVAR: AS LISTED
SEEDING DATES: JUNE 10
SEEDING RATE: 50,000 PLANTS/HA (20,000/acre, 38 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: AS EMERGED
WEED CONTROL: SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED APPLIED PREPLANT INCORPORATED
INSECT CONTROL: INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)
NITROGEN FERTILIZER: UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

TRT # CULTIVAR
-----------------
1 ASPEN
2 EVEN SWEETER
3 HOW SWEET IT IS
4 PEGASUS
5 WSS 3680
6 XPH 3030

23-Jun-92
18

TITLE: WHITE SUPERSWEET CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-3C

ASSESSMENTS:

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)

PLANT STAND COUNTS (%)
EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
VISUAL VIGOUR RATING (0–10)
  (HEIGHT, WIDTH & COLOUR (0–10) * % EMERGENCE)

MATUREY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
PERCENT MARKETABLE COB WEIGHT

23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

EXPERIMENT NUMBER: SWEET CORN # 92-4A

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 28

FIELD PROGRAM

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 37
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) - 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 21.0 M
CULTIVARS: AS LISTED
SEEDING DATES: JUNE 10 RIDGETOWN COLLEGE
MAY 15 CENTRALIA COLLEGE
MAY 19 KEMPTVILLE COLLEGE
SEEDING RATE: 80,000 PLANTS/HA (32,000/acre, 60 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: 50,000 PLANTS/HA (20,000/acre, 30 PLANTS/ROW)
THIN WHEN THE CORN IS IN THE SIX LEAF STAGE
WEED CONTROL: SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) +
BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED
INSECT CONTROL: INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)
NITROGEN FERTILIZER: UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM
AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

EXPERIMENT NUMBER: SWEET CORN # 92-4A

ASSESSMENTS:

DISEASES

- COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
- HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
- LEAF RUST - PERCENT LEAF AREA (LEAF ABOVE THE EAR)

MATUREY

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (COMPLETE 18-21 DAYS AFTER SILKING, MON. WED. & FRI.)

- PLANT HEIGHT - MEAN OF 5 PLANTS
- COB HEIGHT - MEAN OF 5 PLANTS
- TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
- LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

10 REPRESENTATIVE COBS ARE SELECTED AND THE HUSKS ARE REMOVED

- COB WEIGHT (G) - HUSK ON - MEAN OF 10 COBS
- COB WEIGHT (G) - HUSK OFF - MEAN OF 10 COBS
- COB LENGTH (CM) - HUSK OFF - MEAN OF 10 COBS
- COB WIDTH (CM) - HUSK OFF - MEAN OF 10 COBS
- EAR ORIENTATION (1-5)
- EASE OF SNAPPING (1-5)
- MARKETABLE COB COUNT - (5 CM OR GREATER)
- TIP COVER (1-5) - MEAN OF 5 COBS
- SHANK LENGTH (1-5)
- HUSK COLOUR (1-5)
- HUSK TIGHTNESS (1-5)
- FLAG LEAF APPEARANCE (1-5)
- COB APPEARANCE (1-5)
- APPEARANCE (1-5, COMPUTER CALCULATION)
- YIELD ADJUSTED FOR LODGING

TAKE PICTURES OF THE UNHUSKED AND HUSKED COBS WITH NAME BELOW

- PERCENT WHITE/YELLOW (1-5)
- RAODSIDE RATING (1-5, COMPUTER CALCULATION)

CLOSE UP FOR COLOUR CONTRAST

23-Jun-92
**DESCRIPTION OF RATINGS**

**a) EASE OF SNAPPING** (COMPLETE FIRST THING IN THE MORNING)

| 1 | DIFFICULT TO SNAP (THE STALK COMES WITH THE EAR) |
| 2 |
| 3 | MODERATE (SECOND TUG TO GET OFF) |
| 4 |
| 5 | EASY (ONE YANK AND OFF) |

**b) TIP COVER**

| 1 | EXPOSED |
| 2 |
| 3 | JUST COVERED |
| 4 | UP TO 2.5 CM |
| 5 | 2.5 - 5.0 CM |
| 6 | GREATER THAN 5.0 CM |

**c) SHANK LENGTH**

| 1 | GREATER THAN 10 CM |
| 2 | 7.5 - 10.0 CM |
| 3 | 5.0 - 7.5 CM |
| 4 | 2.5 - 5.0 CM |
| 5 | 0 - 2.5 CM |

**d) HUSK COLOUR**

| 1 | LIGHT GREEN |
| 2 |
| 3 |
| 4 |
| 5 | DARK GREEN |

**e) HUSK TIGHTNESS**

| 1 | LOOSE |
| 2 |
| 3 |
| 4 |
| 5 | TIGHT |

**f) FLAG LEAF APPEARANCE**

| 1 | TOO LONG OR TOO SHORT |
| 2 |
| 3 |
| 4 |
| 5 | MODERATE SIZE |

23-Jun-92
DESCRIPTION OF RATINGS

---

**g) COB APPEARANCE**

1. SHORT AND FAT
2.
3.
4.
5. LONG AND SLENDER

**h) OVERALL APPEARANCE (COMPUTER CALCULATION)**

1. POOR
2. SUM OF TIP COVER, SHANK LENGTH, HUSK COLOUR, HUSK TIGHTNESS, FLAG LEAF APPEARANCE AND COB APPEARANCE DIVIDED BY SIX
3.
4.
5. GOOD

**i) EAR FILL**

1. 5 CM TIP NOT FILLED
2.
3. 2.5 CM TIP NOT FILLED
4.
5. PERFECTLY FILLED

**j) ROW UNIFORMITY**

1. SOME ROWS ARE DISCONTINUED
2.
3.
4.
5. ALL STRAIGHT ROWS

**k) COLOUR CONTRAST**

1. PALE YELLOW (WHITE KERNELS)
2.
3.
4.
5. PURE WHITE (WHITE KERNELS)

**l) PERCENT WHITE/YELLOW**

1. 0 % WHITE
2.
3.
4.
5. 33 % WHITE

---

23-Jun-92
DESCRIPTION OF RATINGS

m) ROADSIDE RATING

1 POOR SUM OF TIP COVER, SHANK LENGTH, HUSK COLOUR,
2 HUSK TIGHTNESS, FLAG LEAF APPEARANCE, COB
3 APPEARANCE, EAR FILL, ROW UNIFORMITY, COLOUR
4 CONTRAST AND PERCENT YELLOW/WHITE DIVIDED
5 EXCELLENT BY 10

n) EAR ORIENTATION

1 90 DEGREES FROM THE STALK
2
3 45 DEGREES FROM THE STALK
4
5 0 DEGREES FROM THE STALK (RIGHT AGAINST THE STALK)
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

EXPERIMENT NUMBER: SWEET CORN # 92-4B

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RCBD
REPlications: 4
NUMBER OF TREATMENTS: 28

FIELD PROGRAM

LOCATION: RIDGETWON COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 37
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 row (75 CM) * 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 21.0 M
CULTIVARS: AS LISTED
SEEDING DATES:
- JUNE 10 RIDGETOWN COLLEGE
- MAY 15 CENTRALIA COLLEGE
- MAY 19 KEMPTVILLE COLLEGE
SEEDING RATE:
- 100,000 PLANTS/HA (40,000/acre, 75 SEEDS/ROW)
- 68,750 PLANTS/HA (27,500/acre, 41 PLANTS/ROW)

WEED CONTROL:
- SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
- THIN WHEN THE CORN IS IN THE SIX LEAF STAGE
- APPLIED PREPLANT INCORPORATED

INSECT CONTROL:
- INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)

NITROGEN FERTILIZER:
- UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

EXPERIMENT NUMBER: SWEET CORN # 92-4B

ASSESSMENTS:

MATURITY

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (COMPLETE 18-21 DAYS AFTER SILKING, MON. WED. & FRI.)

- LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
- MARKETABLE COB COUNT - (5 CM OR GREATER)
- MARKETABLE COB WEIGHT - (5 CM OR GREATER)
- YIELD ADJUSTED FOR LODGING
**TITLE:** BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

**EXPERIMENT NUMBER:** SWEET CORN # 92-4C

**EXPERIMENT DETAILS**

- **EXPERIMENTAL DESIGN:** RCBD
- **REPLICATIONS:** 4
- **NUMBER OF TREATMENTS:** 28

**FIELD PROGRAM**

- **LOCATION:** RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
- **ON FARM LOCATION:** H & B RANGE 37
- **SOIL TYPE:** BROOKSTON CLAY LOAM SANDY SPOT PHASE
- **PLOT SIZE:** 1 ROW (75 CM) \( \times \) 8.0 M
- **PLANTING DISTANCE:** 10.0 M
- **EXPERIMENT SIZE:** 21.0 M
- **CULTIVARS:** AS LISTED

**SEEDING DATES:**
- JUNE 10 RIDGETOWN COLLEGE
- MAY 15 CENTRALIA COLLEGE
- MAY 19 KEMPTVILLE COLLEGE

**SEEDING RATE:** 50,000 PLANTS/HA (20,000/acre, 38 SEEDS/ROW)

**TOTAL SEEDS REQUIRED:** 152 PER CULTIVAR

**FINAL PLANT STAND:** AS EMERGED

**WEED CONTROL:** SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED

**INSECT CONTROL:** INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)

**NITROGEN FERTILIZER:** UREA (240 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: BICOLOUR SUPERSWEET CORN CULTIVAR EVALUATION (FRESH MARKET)

EXPERIMENT NUMBER: SWEET CORN # 92-4C

ASSESSMENTS:

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)

- PLANT STAND COUNTS (%)
- EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
- VISUAL VIGOUR RATING (0-10)
  (HEIGHT, WIDTH AND COLOUR (0-10) * % EMERGENCE)

MATURITY

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (COMPLETE 18-21 DAYS AFTER SILKING, MON. WED. & FRI.)

- MARKETABLE COB COUNT - (5 CM OR GREATER)
- MARKETABLE COB WEIGHT - (5 CM OR GREATER)
TITLE: THE EFFECT OF STARTER FERTILIZER BLEND AND RATE ON THE ESTABLISHMENT AND YIELD OF SUPERSWEET SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 92-5

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: 2-WAY FACTORIAL
FACTOR 1: FERTILIZER BLEND AND APPLICATION
FACTOR 2: FERTILIZER RATE (5)
NUMBER OF TREATMENTS: 20
REPLICATIONS: 4

FIELD PROGRAM

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 48 & 49
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 4 ROWS (75 CM) 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 30 M
CULTIVAR: SUPERSWEET JUBILEE
SEEDING DATE: JUNE 10
SEEDING RATE: 50,000 PLANTS/HA (20,000/ACRE, 38 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 12,160
FINAL PLANT STAND: AS EMERGED
WEED CONTROL: SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + 
BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED
INSECT CONTROL: INSECT CONTROL - POunce (375 MLS/HA)
NITROGEN FERTILIZER: UREA (240 KG/HA) BROADCAST PRIOR TO SEEDING
STARTER FERTILIZER: DRY: 11-52-0 (MONOAMMONIUM PHOSPHATE)
11-52-0 (MONOAMMONIUM PHOSPHATE)
LIQUID: ALPINE - 6-24-6
10-34-0

TREATMENT LIST

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TITLE: THE EFFECT OF STARTER FERTILIZER BLEND AND RATE ON THE
ESTABLISHMENT AND YIELD OF SUPERSWEET SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 92-5

TREATMENT LIST

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ASSESSMENTS:

PLANT DEVELOPMENT

- PLANT STAND COUNTS (%) - 1, 2, 3, 4 & 5 WEEKS AFTER SEEDING
- EXTENDED LEAF HEIGHT (CM) - 1, 2, 3, 4 & 5 WEEKS AFTER SEEDING
- VISUAL VIGOUR RATING (0-10) - 3 WEEKS AFTER SEEDING
  (HEIGHT, WIDTH AND COLOUR (0-10) % EMERGENCE)

AT THE 5 LEAF STAGE (FOURTH ROW)

- ROOT VISUAL RATING (1-10; 1 = NO ROOTS, 10 = NO ROOT DAMAGE)
- SHOOT DRY WEIGHT - 10 PLANTS
- ROOT DRY WEIGHT - 10 PLANTS
- PHOTOGRAPHS

MATURE

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST

- TO BE COMPLETED 18 DAYS AFTER 80% SILKING

- TOTAL COB WEIGHT - ONE ROW
- MARKETABLE COB WEIGHT - ONE ROW
- PERCENT MARKETABLE COB WEIGHT

23-Jun-92
**Title:** The Effect of Seeding Date on the Yield and Quality of Supersweet Sweet Corn

**Experiment Number:** Sweet Corn # 92-6

**Experimental Details**

- **Experimental Design:** Split Plot
- **Replications:** 4
- **Main Plots:** Seeding Date (4)
- **Subplots:** Cultivars (4)

**Location:** Ridgetown College of Agricultural Technology

- **On Farm Location:** H & B Range 48 & 49
- **Soil Type:** Brookston Clay Loam Sandy Spot Phase
- **Plot Size:** 4 rows (75 cm) x 8.0 m
- **Planting Distance:** 10.0 m
- **Experiment Size:** 24 m
- **Cultivar:** Challenger, Crookham 710, Showcase, Supersweet Jubilee

**Seeding Dates:** May 8, May 19, June 2, June 15

**Seeding Rate:** 80,000 plants/ha (32,000/acre, 60 seeds/row)

**Total Seeds Required:** 3840 per cultivar

**Final Plant Stand:** 45,000 plants/ha (20,000/acre, 30 plants/row)

**Weed Control:** Sutan+ (4.0 kg/ha) + Atrazine (1.0 kg/ha) + Bladex (2.0 kg/ha)

**Insect Control:** Pounce (375 ml/ha)

**Nitrogen Fertilizer:** Urea (240 kg/ha) sidedress at the 4-5 leaf stage of each plot

**Starter Fertilizer:** 6-24-24 (100 kg/ha) broadcast incorporated before the beginning of the experiment

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23-Jun-92
TITLE: THE EFFECT OF SEEDING DATE ON THE YIELD AND QUALITY OF SUPERSWEET SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 92-6

ASSESSMENTS:

PLANT DEVELOPMENT

PLANT STAND COUNTS (%) - 1 & 4 WEEKS AFTER SEEDING
EXTENDED LEAF HEIGHT (CM) - 4 WEEKS AFTER SEEDING (10 PLANTS)
VISUAL VIGOUR RATING (0-10) - 4 WEEKS AFTER SEEDING
(HEIGHT, WIDTH AND COLOUR (0-10) * % EMERGENCE)

DISEASES

COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
LEAF RUST - PERCENT LEAF AREA

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST

TO BE COMPLETED 18 DAYS AFTER 80% SILKING

PLANT HEIGHT - MEAN OF 5 PLANTS
COB HEIGHT - MEAN OF 5 PLANTS
TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
LODGING - NUMBER OF LODGED PLANTS PER ROW
TOTAL COB COUNT - ONE ROW
MARKETABLE COB COUNT - ONE ROW
PERCENT MARKETABLE COB COUNT
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW
PERCENT MARKETABLE COB WEIGHT
TIP COVER (1-5) - MEAN OF 5 COBS
WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
HUSKING PERCENTAGE = HUSK WEIGHT/COB WEIGHT (HUSKS ON)*100
COB LENGTH (CM) - HUSK OFF - MEAN OF 10 COBS
COB WIDTH (CM) - HUSK OFF - MEAN OF 10 COBS
COB CUT WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT (HUSKS ON) * 100
FIELD RECOVERY = PROCESSING RECOVERY * % MARKETABLE COB WEIGHT
FRESH KERNEL WEIGHT - 1 CUP
DRY KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED
YIELD ADJUSTED FOR LODGING
TITLE: THE EFFECT OF SEEDING DATE ON THE YIELD AND QUALITY OF STANDARD SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 92-7

EXPERIMENT NUMBER: SPLIT PLOT  REPLICATIONS: 4
 MAIN PLOTS: SEEDING DATE (4)  NUMBER OF TREATMENTS: 16
 SUB-PLOTS: CULTIVARS (4)

FIELD PROGRAM

LOCATION: RIDGETWON COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 52 & 53
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 4 ROWS (75 CM) * 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 24 M
CULTIVAR: COMMANDER, JUBILEE, MORE, RIVAL
SEEDING DATES: MAY 8, MAY 19, JUNE 2, JUNE 15
SEEDING RATE: 80,000 PLANTS/HA (32,000/acre, 60 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 3840 PER CULTIVAR
FINAL PLANT STAND: 45,000 PLANTS/HA (20,000/acre, 30 PLANTS/ROW)

WEED CONTROL:
SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
APPLIED PREPLANT INCORPORATED

INSECT CONTROL:
POUNCE (375 MLS/HA)

NITROGEN FERTILIZER:
UREA (240 KG/HA) SIDEDRESS AT THE 4-5 LEAF STAGE OF EACH PLOT

STARTER FERTILIZER:
6-24-24 (100 KG/HA) BROADCAST INCORPORATED BEFORE THE BEGINNING OF THE EXPERIMENT

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23-Jun-92
TITLE: THE EFFECT OF SEEDING DATE ON THE YIELD AND QUALITY OF STANDARD SWEET CORN

EXPERIMENT NUMBER: SWEET CORN # 92-7

ASSESSMENTS:

PLANT DEVELOPMENT

PLANT STAND COUNTS (%) - 1 & 4 WEEKS AFTER SEEDING
EXTENDED LEAF HEIGHT (CM) - 4 WEEKS AFTER SEEDING (5 PLANTS)
VISUAL VIGOUR RATING (0-10) - 4 WEEKS AFTER SEEDING
(HEIGHT, WIDTH AND COLOUR (0-10) * % EMERGENCE)

DISEASES

COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
LEAF RUST - PERCENT LEAF AREA

MATURITY

DAYS TO 80% SILKING
DAYS TO HARVEST
CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST

TO BE COMPLETED 18 DAYS AFTER 80% SILKING

PLANT HEIGHT - MEAN OF 5 PLANTS
COB HEIGHT - MEAN OF 5 PLANTS
TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
LODGING - NUMBER OF LODGED PLANTS PER ROW
TOTAL COB COUNT - ONE ROW
MARKETABLE COB COUNT - ONE ROW
PERCENT MARKETABLE COB COUNT
TOTAL COB WEIGHT - ONE ROW
MARKETABLE COB WEIGHT - ONE ROW
PERCENT MARKETABLE COB WEIGHT
TIP COVER (1-5) - MEAN OF 5 COBS
WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
HUSKING PERCENTAGE = HUSK WEIGHT/COB WEIGHT (HUSKS ON)*100
COB LENGTH (CM) = HUSK OFF - MEAN OF 10 COBS
COB WIDTH (CM) = HUSK OFF - MEAN OF 10 COBS
COB CUT WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT (HUSKS ON) *100
FIELD RECOVERY = PROCESSING RECOVERY * % MARKETABLE COB WEIGHT
FRESH KERNEL WEIGHT - 1 CUP
DRY KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED
YIELD ADJUSTED FOR LODGING
TITLE: YELLOW STANDARD CORN CULTIVAR EVALUATION (EARLY SEASON - PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-8A

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 8

FIELD PROGRAM

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 52 & 53
SOIL TYPE: BROOKSTON CLAY, LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 5.25 M
CULTIVAR: AS LISTED
SEEDING DATES: MAY 11
SEEDING RATE: 80,000 PLANTS/H A (32,000/ACRE, 60 SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: 45,000 PLANTS/H A (18,000/ACRE, 27 PLANTS/ROW)
THIN WHEN THE CORN IS IN THE SIX LEAF STAGE
WEED CONTROL: SUTAN+ (4.0 KG/H A) + ATRAZINE (1.0 KG/H A) + BLADEX (2.0 KG/H A)
APPLIED PREPLANT INCORPORATED
INSECT CONTROL: POunce (375 mL/H A EVERY 7 DAYS)
NITROGEN FERTILIZER: UREA (200 KG/H A) PLUS PHOSPHORUS AND POTASSIUM
AS INDICATED BY SOIL TEST

TRT # CULTIVAR

1 20-02
2 20-04
3 CODE 5
4 CODE 7
5 CODE 22
6 REVEILLE
7 REWARD
8 RIVAL
9 SAVOR
10 SPIRIT

23-Jun-92
TITLE: YELLOW STANDARD CORN CULTIVAR EVALUATION (PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-8A

ASSESSMENTS:

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)

- PLANT STAND COUNTS (%)
- EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
- VISUAL VIGOUR RATING (0-10)
  (HEIGHT, WIDTH AND COLOUR (0-10) * % EMERGENCE)

DISEASES

- COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
- HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
- LEAF RUST - PERCENT LEAF AREA

MATURITY

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

- PLANT HEIGHT - MEAN OF 5 PLANTS
- COB HEIGHT - MEAN OF 5 PLANTS
- TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
- LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
- TOTAL COB WEIGHT - ONE ROW
- MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
- PERCENT MARKETABLE COB WEIGHT
- TIP COVER (1-4) - MEAN OF 5 COBS *
- SHANK LENGTH (1-5) - MEAN OF 5 COBS **
- WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
- WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
- CUT COB WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
- FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
- PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT
  (HUSKS ON) \( \frac{100}{1} \)
- FIELD RECOVERY = PROCESSING RECOVERY \% MARKETABLE COB WEIGHT
- FRESH KERNEL WEIGHT - 1 CUP
- DRY KERNEL WEIGHT - 1 CUP
- PERCENT KERNEL DRY WEIGHT - OVEN DRIED
- YIELD ADJUSTED FOR LODGING

* 1 EXPOSED ** 1 0-2.5 CM
  2 JUST COVERED 2 2.5-5.0 CM
  3 UP TO 2.5 CM 3 5.0-7.5 CM
  4 2.5 - 5.0 CM 4 7.5-10.0 CM
  5 GREATER THAN 5.0 CM 5 GREATER THAN 10 CM

***MARKETABLE YIELD

REMOVE COBS WITH SMUT, POOR TIP FILL, BORER DAMAGE, PINK MOLD

23-Jun-92
### FIELD PROGRAM

**LOCATION:** RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY

**ON FARM LOCATION:** H & B RANGE 52 & 53

**SOIL TYPE:** BROOKSTON CLAY*LOAM SANDY SPOT PHASE

**PLOT SIZE:** 1 ROW (75 CM) 8.0 M

**PLANTING DISTANCE:** 10.0 M

**EXPERIMENT SIZE:** 5.25 M

**CULTIVAR:** AS LISTED

**SEEDING DATES:** MAY 19, 1992

**SEEDING RATE:** 80,000 PLANTS/HA (32,000/acre, 60 SEEDS/ROW)

**TOTAL SEEDS REQUIRED:** 240 PER CULTIVAR

**FINAL PLANT STAND:** 45,000 PLANTS/HA (18,000/acre, 27 PLANTS/ROW)

**WEED CONTROL:** SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA) APPLIED PREPLANT INCORPORATED

**INSECT CONTROL:** INSECT CONTROL - POUNCE (375 mL/HA EVERY 7 DAYS)

**NITROGEN FERTILIZER:** UREA (200 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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TITLE: YELLOW STANDARD CORN CULTIVAR EVALUATION (MAIN SEASON - PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-8B

ASSESSMENTS

PLANT DEVELOPMENT (4 WEEKS AFTER SEEDING)

- PLANT STAND COUNTS (%)
- EXTENDED LEAF HEIGHT (CM) - 10 PLANTS PER PLOT
- VISUAL VIGOUR RATING (0-10)
  (HEIGHT, WIDTH AND COLOUR (0-10) * % EMERGENCE)

DISEASES

- COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
- HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
- LEAF RUST - PERCENT LEAF AREA

MATURE

- DAYS TO 80% SILKING
- DAYS TO HARVEST
- CORN HEAT UNITS - DAILY METEOROLOGICAL DATA

HARVEST (TO BE COMPLETED 18 DAYS AFTER 80% SILKING) (CCAT - 20 DAYS)

- PLANT HEIGHT - MEAN OF 5 PLANTS
- COB HEIGHT - MEAN OF 5 PLANTS
- TILLERS - TOTAL NUMBER OF TILLERS TALLER THAN 30 CM PER ROW
- LODGING - NUMBER OF LODGED PLANTS/ROW (30 DEGREES FROM GROUND)
- TOTAL COB WEIGHT - ONE ROW
- MARKETABLE COB WEIGHT - ONE ROW (GREATER THAN 5 CM IN DIA) ***
- PERCENT MARKETABLE COB WEIGHT
- TIP COVER (1-4) - MEAN OF 5 COBS *
- SHANK LENGTH (1-5) - MEAN OF 5 COBS **
- WEIGHT OF 10 MARKETABLE COBS - HUSKS ON
- WEIGHT OF 10 MARKETABLE COBS - HUSKS OFF
- CUT COB WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
- FRESH KERNEL WEIGHT (KG/HA) - CORN CUTTER - MEAN OF 10 COBS
- PROCESSING RECOVERY = KERNEL WEIGHT/MARKETABLE COB WEIGHT
  (HUSKS ON) \( \times 100 \)

FIELD RECOVERY = PROCESSING RECOVERY \( \times \) MARKETABLE COB WEIGHT

FRESH KERNEL WEIGHT - 1 CUP
DRIED KERNEL WEIGHT - 1 CUP
PERCENT KERNEL DRY WEIGHT - OVEN DRIED

YIELD ADJUSTED FOR LODGING

*  1  EXPOSED  **  1  0-2.5 CM
  2  JUST COVERED  2  2.5-5.0 CM
  3  UP TO 2.5 CM  3  5.0-7.5 CM
  4  2.5 - 5.0 CM  4  7.5-10.0 CM
  5  GREATER THAN 5.0 CM  5  GREATER THAN 10 CM

MARKETABLE YIELD

REMOVE COBS WITH SMUT, POOR TIP FILL, BORER DAMAGE, PINK MOLD

23-Jun-92
TITLE: YELLOW STANDARD CORN CULTIVAR EVALUATION (LATE SEASON - PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92–8C

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: RCBD
REPLICATIONS: 4
NUMBER OF TREATMENTS: 23

FIELD PROGRAM

LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE 52 & 53
SOIL TYPE: BROOKSTON CLAY LOAM SANDY SPOT PHASE
PLOT SIZE: 1 ROW (75 CM) x 8.0 M
PLANTING DISTANCE: 10.0 M
EXPERIMENT SIZE: 9.0 M
CULTIVAR: AS LISTED
SEEDING DATES: JUNE 15, 1992
SEEDING RATE: 50,000 PLANTS/HA (20,000/acre, SEEDS/ROW)
TOTAL SEEDS REQUIRED: 240 PER CULTIVAR
FINAL PLANT STAND: AS EMERGED
WEED CONTROL: SUTAN+ (4.0 KG/HA) + ATRAZINE (1.0 KG/HA) + BLADEX (2.0 KG/HA)
INSECT CONTROL: POUNCE (375 mL/HA EVERY 7 DAYS)
NITROGEN FERTILIZER: UREA (200 KG/HA) PLUS PHOSPHORUS AND POTASSIUM AS INDICATED BY SOIL TEST

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23-Jun-92
TITLE: YELLOW STANDARD CORN CULTIVAR EVALUATION
(LATE SEASON - PROCESSING)

EXPERIMENT NUMBER: SWEET CORN # 92-8C

ASSESSMENTS:

DISEASES

- COMMON SMUT - NUMBER OF INFECTED PLANTS PER ROW
- HEAD SMUT - NUMBER OF INFECTED PLANTS PER ROW
- LEAF RUST - PERCENT LEAF AREA
- STEWART'S WILT -
- NORTHERN LEAF BLIGHT - PERCENT LEAF AREA
- LEAF ABOVE THE EAR
PEPPER RESEARCH EVALUATION
PEPPER CULTIVAR EVALUATION

EXPERIMENT NUMBER: PEPPERS 92-1

EXPERIMENTAL DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN
TREATMENTS: 26
REPLICATIONS: 4
TOTAL TRAYS: 104

GREENHOUSE PROGRAMME
-------------------------
CULTIVAR: AS LISTED
TRAY SIZE: 200
SEEDING DATE: MARCH 26
SOILLESS MEDIA: METRO MIX 220
MEDIUM GRADE HORTICULTURAL VERMICULITE
SEED COVERING: 500 ML PER TRAY AFTER SEEDING
WATERING: 25 C FOR SIX DAYS IN THE GERMINATION CHAMBER
GERMINATION: DAY 7-14: JUST ENOUGH TO KEEP THE TRAYS MOIST ONCE PER DAY (IN THE MORNING)
WATERING: 20-10-20
FEEDING SCHEDULE: 500 ML/TRAY
FERTILITY PROGRAMME: 14 C 55 F
NUTRIENT VOLUME: 18 C 64 F
FURNACE: 21 C 70 F
LOUVRES:
FANS:

FIELD PROGRAMME
-----------------
TRANSPLANTING DATE: MAY 28 (NINE WEEK OLD TRANSPLANTS)
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE # 43
SOIL TYPE: BROOKSTON CLAY * LOAM SNADY SPOT PHASE
PLOT SIZE: 1 ROW (1.0 M) * 8.0 M
EXPERIMENT SIZE: 26 M
PLANT POPULATION: 11,500 PER ACRE (14 IN APART IN THE ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 50 KG/HA UREA
WEED CONTROL: TRIFLURALIN (1.0 KG/HA)
INSECT CONTROL:
DISEASE CONTROL:

TO MAKE NUTRIENT SOLUTION (60 LITRES)
----------------------------------------
15-5-15 60.00 g N P K
------------------------
200 29 166

------------------------
total 200 29 166

22-Jun-92 PAGE NO. 1
# PEPPER CULTIVAR EVALUATION

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<td>24</td>
<td>SUPER SET</td>
<td>STOKES</td>
</tr>
<tr>
<td>25</td>
<td>SUPER STUFF</td>
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</tr>
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<td>26</td>
<td>ULTRA SET</td>
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## DATA TO COLLECT:

#### GREENHOUSE

<table>
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<th>Day</th>
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<th>Quantity</th>
<th>Analytical Method</th>
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<td>Plant height</td>
<td>5 subsamples</td>
<td>REP 1,2,3,4</td>
</tr>
<tr>
<td>42</td>
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<tr>
<td>56</td>
<td>Fresh weight</td>
<td>20 plants</td>
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<tr>
<td>56</td>
<td>Dry weight</td>
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<tr>
<td>56</td>
<td>% Dry weight</td>
<td>20 plants</td>
<td>REP 1,2,3,4</td>
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<td>56</td>
<td>Stem diameter</td>
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<td>% Usable</td>
<td>50 plants</td>
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#### FIELD

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<td>Plant stand count</td>
<td>Before July 31</td>
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<td>Yield before July 31</td>
<td>FRUIT COLOUR</td>
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<tr>
<td></td>
<td>Yield after Aug 1</td>
<td>FRUIT SHAPE</td>
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22-Jun-92  PAGE NO. 2
TITLE: THE EFFECT OF TRANSPLANT AGE AT THE TIME OF FIELD SETTING ON THE ESTABLISHMENT AND YIELD OF PEPPERS

EXPERIMENT NUMBER: PEPPERS 92–2

EXPERIMENT DETAILS
------------------------
EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: 3 (CULTIVAR)
FACTOR 2: 5 (TRANSPLANT AGE)
TREATMENTS: 15
REPLICATIONS: 4
TOTAL TRAYS: 60

GREENHOUSE PROGRAMME:
------------------------
CULTIVAR: JUPITER STERLING, LADY BELL, SUPER SET
TRAY SIZE: 200
SEEDING DATE: MARCH 17, 24, 31, APRIL 7, 14
SOILLESS MEDIA: METRO MIX 220
SEED COVERING: MEDIUM GRADE HORTICULTURAL VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: 25 C FOR SIX DAYS IN THE GERMINATION CHAMBER
WATERING: DAY 7-14: JUST ENOUGH TO KEEP THE TRAYS MOIST
FEEDING SCHEDULE: ONCE PER DAY (IN THE MORNING)
FERTILITY PROGRAMME: 15-5-15
NUTRIENT VOLUME: 500 ML/TRAY
FURNACE: 14 C 55 F
LOUVRES: 18 C 64 F
FANS: 21 C 70 F

FIELD PROGRAMME
-----------------
TRANSPLANTING DATE: MAY 28
LOCATION: RIDGETWON COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE # 43
SOIL 'TYPE: BROOKSTON CLAY*LOAM SNADY SPOT PHASE
PLOT SIZE: 1 ROW (1.0 M) 8.0 M
EXPERIMENT SIZE: 15 M
PLANT POPULATION: 11,500 PER ACRE (14 IN APART IN THE ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 50 KG/HA UREA
WEED CONTROL: TRIFLURALIN (1.0 KG/HA)
INSECT CONTROL:
DISEASE CONTROL:
TITLE: THE EFFECT OF TRANSPLANT AGE AT THE TIME OF FIELD SETTING ON THE ESTABLISHMENT AND YIELD OF PEPPERS

EXPERIMENT NUMBER: PEPPERS 92-2

<table>
<thead>
<tr>
<th>TREATMENT NUMBER</th>
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<th>TRANSPLANT AGE</th>
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<tbody>
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<td>1</td>
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<td>LADY BELL</td>
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<td>9</td>
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<tr>
<td>6</td>
<td>JUPITER STERLING</td>
<td>NORTHRUP KING</td>
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<td>7</td>
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<tr>
<td>15</td>
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DATA TO COLLECT:

GREENHOUSE

DAY 0 SOILLESS MIX 4 SAMPLES ANALYSIS
DAY 0 FERTILIZER SOLUTIONS 4 SAMPLES ANALYSIS
MAY 18 PLANT HEIGHT 5 SUBSAMPLES REP 1,2,3,4
MAY 18 FRESH WEIGHT 20 PLANTS REP 1,2,3,4
MAY 18 DRY WEIGHT 20 PLANTS REP 1,2,3,4
MAY 18 % DRY WEIGHT 20 PLANTS REP 1,2,3,4
MAY 18 STEM DIAMETER 20 PLANTS REP 1,2,3,4
MAY 18 % USABLE 50 PLANTS REP 1,2,3,4

FIELD

WEEK 4 PLANT STAND COUNT
MATURITY YIELD BEFORE JULY 31
YIELD AFTER AUG 1
FRUIT COLOUR
FRUIT SHAPE

TO MAKE NUTRIENT SOLUTION (60 LITRES)

<table>
<thead>
<tr>
<th>N</th>
<th>P</th>
<th>K</th>
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<tbody>
<tr>
<td>200</td>
<td>29</td>
<td>166</td>
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22-Jun-92 PAGE NO, 2
TITLE: THE EFFECT OF TRAY CELL SIZE ON THE ESTABLISHMENT AND YIELD OF PEPPERS

EXPERIMENT NUMBER: PEPPERS 92-3

EXPERIMENT DETAILS
---------------
EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: 5 (CULTIVAR)
FACTOR 2: 5 (CELL SIZE)
TREATMENTS: 25
REPlications: 4
TOTAL TRAYS: 100

GREENHOUSE PROGRAMME
-----------------------
CULTIVAR: BELMONT, DOMINO, MARENGO, RANGER, SKIPPER
TRAY SIZE: 96, 128, 200, 288, 406
SEEDING DATE: MARCH 30
SOILLESS MEDIA: METRO MIX 220
SEED COVERING: MEDIUM GRADE HORTICULTURAL VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: 25 C FOR SIX DAYS IN THE GERMINATION CHamber
WATERING: DAY 7-14: JUST ENOUGH TO KEEP THE TRAYS MOIST
FEEDING SCHEDULE: ONCE PER DAY (IN THE MORNING)
FERTILITY PROGRAMME: 20-10-20 (20-20-20 FOR LATER PLANTINGS)
NUTRIENT VOLUME: 500 ML/TRAY
FURNACE: 14 C 55 F
LOUVRES: 18 C 64 F
FANS: 21 C 70 F

FIELD PROGRAMME
----------------
TRANSPLANTING DATE: MAY 29 (EIGHT WEEK OLD TRANSPLANTS)
LOCATION: RIDGETOWN COLLEGE OF AGRICULTURAL TECHNOLOGY
ON FARM LOCATION: H & B RANGE # 43
SOIL TYPE: BROOKSTON CLAY LOAM SNADY SPOT PHASE
PLOT SIZE: 1 ROW (1.0 M) * 8.0 M
EXPERIMENT SIZE: 26 M
PLANT POPULATION: 11,500 PER ACRE (14 IN APART IN THE ROW)
STARTER FERTILIZER: 6-24-6 AT 1 L PER 75 L OF WATER
RATE OF STARTER SOLUTION: 100 ML PER TRANSPLANT
FERTILIZER: 50 KG/Ha UREA
WEED CONTROL: TRIFLURALIN (1.0 KG/Ha)
INSECT CONTROL: 
DISEASE CONTROL: 

22-Jun-92 PAGE NO. 1
**TITLE:** THE EFFECT OF TRAY CELL SIZE ON THE ESTABLISHMENT AND YIELD OF PEPPERS

**EXPERIMENT NUMBER:** PEPPERS 92–3

<table>
<thead>
<tr>
<th>TREATMENT NUMBER</th>
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<td>128</td>
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<tr>
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<td>SKIPPER</td>
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**DATA TO COLLECT:**

**GREENHOUSE**

- DAY 0 SOILLESS MIX 4 SAMPLES ANALYSIS
- DAY 0 FERTILIZER SOLUTIONS 4 SAMPLES ANALYSIS
- MAY 18 PLANT HEIGHT 5 SUBSAMPLES REP 1, 2, 3, 4
- MAY 18 FRESH WEIGHT 20 PLANTS REP 1, 2, 3, 4
- MAY 18 DRY WEIGHT 20 PLANTS REP 1, 2, 3, 4
- MAY 18 % DRY WEIGHT 20 PLANTS REP 1, 2, 3, 4
- MAY 18 STEM DIAMETER 20 PLANTS REP 1, 2, 3, 4
- MAY 18 % USABLE 50 PLANTS REP 1, 2, 3, 4

**FIELD WEEK 4 MATURE**

- PLANT STAND COUNT
- YIELD BEFORE JULY 31 (KG/PLOT) REP 1, 2, 3, 4
- YIELD AFTER AUG 1 (KG/PLOT) REP 1, 2, 3, 4
- FRUIT SIZE (AVERAGE OF 20 FRUIT) REP 1, 2, 3, 4

22-Jun-92 PAGE NO. 2
**Title:** The Effect of Greenhouse Nitrogen Rate on the Establishment and Yield of Peppers

**Experiment Number:** Peppers 92-4

### Experiment Details

**Experimental Design:** Two-way factorial

**Factor 1:** 2

**Factor 2:** 5

**Treatments:** 10

**Replications:** 4

**Total Trays:** 40

### Greenhouse Programme

**Cultivar:** Bell Boy, Capistrano

**Tray Size:**

**Seeding Date:** March 24

**Soilless Media:** Metro Mix 220

**Seed Covering:** Medium Grade Horticultural Vermiculite

**Watering:** 500 ml per tray after seeding

**Germination:** 23°C for six days in the germination chamber

**Watering:** Day 7-14: Just enough to keep the trays moist

**Feeding Schedule:** Once per day (in the morning)

**Fertility Programme:** As listed

**Nutrient Volume:** 500 ml/tray

**Furnace:**

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<tbody>
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<td>64°F</td>
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<tr>
<td>21°C</td>
<td>70°F</td>
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</table>

### Field Programme

**Transplanting Date:** Hay 29 (eight week 0 m transplants)

**Location:** Ridgetown College of Agricultural Technology

**On Farm Location:** H & B Range # 43

**Soil Type:** Brookston Clay Loam Sandy Spot Phase

**Plot Size:** 1 row (1.0 m) * 8.0 m

**Experiment Size:**

**Plant Population:** 11,500 per acre (14 in apart in the row)

**Starter Fertilizer:** 6-24-6 at 1 L per 75 L of water

**Rate of Starter Solution:** 100 ml per transplant

**Fertilizer:** 50 kg/ha urea

**Weed Control:** Trifluralin (1.0 kg/ha)

**Insect Control:**

**Disease Control:**

---

22-Jun-92 Page No. 1
TITLE: THE EFFECT OF GREENHOUSE NITROGEN RATE ON THE ESTABLISHMENT AND YIELD OF PEPPERS

EXPERIMENT NUMBER: PEPPERS 92–4

<table>
<thead>
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DATA TO COLLECT:

GREENHOUSE

DAY 0
SOILLESS MIX 4 SAMPLES ANALYSIS
FERTILIZER SOLUTIONS 4 SAMPLES ANALYSIS
DAY 28
PLANT HEIGHT 5 SUBSAMPLES REP 1, 2, 3, 4
DAY 42
PLANT HEIGHT 5 SUBSAMPLES REP 1, 2, 3, 4
DAY 56
FRESH WEIGHT 20 PLANTS REP 1, 2, 3, 4
DAY 56
% DRY WEIGHT 20 PLANTS REP 1, 2, 3, 4
DAY 56
STEM DIAMETER 20 PLANTS REP 1, 2, 3, 4
DAY 56
% USABLE 50 PLANTS REP 1, 2, 3, 4

FIELD

WEEK 4
PLANT STAND COUNT
MATURITY
YIELD BEFORE JULY 31 (KG/HA)
YIELD AFTER AUG 1 (KG/HA)
# THE EFFECT OF GREENHOUSE NITROGEN RATE ON THE ESTABLISHMENT AND YIELD OF PEPPERS

## EXPERIMENT NUMBER: PEPPERS 92-4

### TO MAKE NUTRIENT SOLUTION (60 LITRES)

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<tr>
<th>STEP</th>
<th>MAGNESIUM NITRATE (g)</th>
<th>PHOSPHORIC ACID (mL)</th>
<th>POTASSIUM SULFATE (g)</th>
<th>COMPOUND 111 (g)</th>
<th>TOTAL</th>
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THE EFFECT OF GREENHOUSE PHOSPHORUS RATE ON THE
ESTABLISHMENT AND YIELD OF PEPPERS

EXPERIMENT NUMBER: PEPPERS 92–5

EXPERIMENT DETAILS

EXPERIMENTAL DESIGN: TWO-WAY FACTORIAL
FACTOR 1: 2 (CULTIVARS)
FACTOR 2: 5 (PHOSPHORUS LEVEL)
TREATMENTS: 10
REPLICATIONS: 4
TOTAL TRAYS: 40

GREENHOUSE PROGRAMME

CULTIVAR: BELL CAPTAIN, NORTHSTAR
TRAY SIZE: 200
SEEDING DATE: MARCH 25
SOILLESS MEDIA: METRO MIX 220
SEED COVERING: MEDIUM GRADE HORTICULTURAL VERMICULITE
WATERING: 500 ML PER TRAY AFTER SEEDING
GERMINATION: 25 C FOR SIX MYS IN THE GERMINATION CHAMBER
WATERING: DAY 7–14: JUST ENOUGH TO KEEP THE TRAYS HOIST ONCE PER MY (IN THE MORNING)
FEEDING SCHEDULE: AS LISTED
FERTILITY PROGRAMME:
NUTRIENT VOLUME: 500 ML/TRAY
FURNACE: 14 C 55 F
LOUVRES: 18 C 64 F
FANS: 21 C 70 F

FIELD PROGRAMME

TRANSPLANTING DATE: MAY 29 (EIGHT WEEK OW TRANSPLANTS)
LOCATION:
ON ERR! LOCATION:
SOIL TYPE:
PLOT SIZE:
EXPERIMENT SIZE:
PLANT POPULATION:
STARTER FERTILIZER:
RATE OF STARTER SOLUTION:
FERTILIZER:
WEED CONTROL:
INSECT CONTROL:
DISEASE CONTROL:

RIDGEMON COLLEGE OF AGRICULTURAL TECHNOLOGY
H & B RANGE # 43
BROOKSTON CLAY LOAM SNADY SPOT PHASE
1 ROW (1.0 M) * 8.0 M
10 M
11,500 PER ACRE (14 IN APART IN THE ROW)
6–24–6 AT 1 L PER 75 L OF WATER
100 ML PER TRANSPLANT
50 KG/HA UREA
TRIFLURALIN (1.0 KG/HA)
**Title:** The Effect of Greenhouse Phosphorus Rate on the Establishment and Yield of Peppers

**Experiment Number:** Peppers 92–5

<table>
<thead>
<tr>
<th>Treatment Number</th>
<th>Cultivar</th>
<th>Source</th>
<th>Phosphorus (PPM)</th>
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**Data to Collect:**

**Greenhouse**

<table>
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<tr>
<th>Day</th>
<th>SOILLESS MIX</th>
<th>FERTILIZER SOLUTIONS</th>
<th>Plant Height</th>
<th>Plant Height</th>
<th>FRESH WEIGHT</th>
<th>DRY WEIGHT</th>
<th>% DRY WEIGHT</th>
<th>STEM DIAMETER</th>
<th>% USABLE</th>
<th>Analysis</th>
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<tr>
<td>0</td>
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**Field**

**Week 4**

Plant Stand Count

**Maturity**

Yield before July 31 (kg/ha)

Yield after Aug 1 (kg/ha)
### EXPERIMENT NUMBER:
PEPPERS 92-5

### TO MAKE NUTRIENT SOLUTION (60 LITRES)

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<th>N</th>
<th>P</th>
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<tr>
<th></th>
<th>MAGNESIUM NITRATE</th>
<th>PHOSPHORIC ACID</th>
<th>POTASSIUM SULFATE</th>
<th>COMPOUND 111</th>
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<tbody>
<tr>
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<td>24.29 g</td>
<td>0.75 g</td>
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<tr>
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<td>1.32 mL</td>
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