watermelons
sample costs
and production

Agricultural Extension
University of California
Imperial County
Court House, El Centro

Cost Data Sheet No. 5
UC Cooperative Extension
WATERMELONS--SAMPLE PRODUCTION COSTS

Mechanical operations at custom rates. Hand labor at $3.75 per hour ($3.00 plus Social Security, unemployment insurance, transportation, supervision and fringe benefits).

Yield - 10 tons per acre. 120 days to maturity.

<table>
<thead>
<tr>
<th>OPERATIONS</th>
<th>Custom</th>
<th>MATERIALS</th>
<th>HAND LABOR</th>
<th>SAMPLE COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>Type</td>
<td>Cost</td>
<td>Hours Dollars</td>
</tr>
<tr>
<td>LAND PREPARATION</td>
<td>$12.50</td>
<td>4.50</td>
<td>4.50</td>
<td>2.63</td>
</tr>
<tr>
<td>Subsoil</td>
<td>$12.50</td>
<td>4.50</td>
<td>4.50</td>
<td></td>
</tr>
<tr>
<td>Disc 2x</td>
<td>4.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Border &amp; break border</td>
<td>4.50</td>
<td>Water .75 ac ft</td>
<td>2.63</td>
<td>1</td>
</tr>
<tr>
<td>Flood</td>
<td>3.00</td>
<td>400# 11-48-0</td>
<td>20.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Fertilize</td>
<td>3.00</td>
<td>400# 11-48-0</td>
<td>20.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Border, disc and runoff, 0.00</td>
<td>4.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL LAND PREPARATION</td>
<td>$85.38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GROWING PERIOD

- Plant & shape beds 6.75 Seed 2# @ 5.50 | 11.00 17.75
- pollination 1.5 hives @ 10.00 | 15.00 |
- Thin 4.00 | 16.00 |
- Cultivate 4x 6 | 22.50 22.50 |
- Fertilize - side dress 2x 4.50 200# N @ 25# | 50.00 59.00 |
- Weed 2x | 33.75 |
- Irrigate 6x Water 3 ac ft | 10.50 37.50* 48.00 |
- Pest Control 5x 3.00 Insecticides | 40.00 55.00 |
- Turn Vines 5x 4.00 | 150.00 150.00 |

GROWING PERIOD & LAND PREP COSTS | $417.00 |

Land Rent (new lease) | $502.38 |

Overhead - 12% of preharvest costs and land re | $730.79 |

TOTAL PREHARVEST COSTS | $1290.79 |

HARVEST

Pick, haul, selling commission, load $34.00 ton @ 10 tons/acre | $340.00 |

TOTAL ALL COSTS | $1630.79 |

Cost per ton = $107.08

*Includes shovel work, pipe setting and tractor work.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>ACRES</th>
<th>YIELD/ACRE (TONS)</th>
<th>VALUE/TON</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>2900</td>
<td>8.50</td>
<td>$82.08</td>
</tr>
<tr>
<td>1971</td>
<td>3000</td>
<td>9.00</td>
<td>75.78</td>
</tr>
<tr>
<td>1972</td>
<td>4000</td>
<td>8.33</td>
<td>52.64</td>
</tr>
<tr>
<td>1973</td>
<td>4000</td>
<td>7.25</td>
<td>101.21</td>
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<tr>
<td>1974</td>
<td>4000</td>
<td>9.70</td>
<td>107.85</td>
</tr>
</tbody>
</table>

PLANTING DATES: Plantings to be caged are seeded from mid-December to February. Open melons are planted from February through mid-June.

VARIETIES: Improved Peacock is the most popular variety. It has a tough rind, which makes it an excellent shipper.

HOT CAPS: Early planted watermelons are hot capped. Hot caps are paper tents over a wood frame used to produce miniature "greenhouses". The plants receive increased heat and frost protection. Labor and materials for hot casing costs about $250.00 or more per acre.

SOILS: Watermelons are best grown on non-saline, sandy loam or silt loam soils. Soil temperatures of 95 F are optimum for germination.

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IRRIGATION

After planting, the first irrigation should run until the beds are completely subbed. Following emergence, water may be withheld until flowering.

FERTILIZERS

400 pounds of 11-48-0 are often applied before listing. Up to 200 pounds of nitrogen are later sidedressed in split applications. Irrigation costs include shovel work, pipe setting and grading.

PESTS AND DISEASES

Cutworms, aphids, spider mites, darkling ground beetles, leafhoppers, cabbage loopers, and leafminers are the most serious pests of watermelon. Bacterial rind rot is the most serious disease. For latest recommendations, consult your Farm Advisor.

HARVESTING

A sharp knife is used to cut melons from the vines. Pulled melons may crack open. Melons are picked on the basis of color change, thumping, and rind roughness.

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Color change is the most reliable. Loss of natural protection on the fruit can increase sunburn. Exposed fruit are covered with vines during the harvest period to prevent sunburning each time the field is harvested. 'A field may be covered more than five times to protect the fruit. Most fields are picked twice and some a third time depending upon market value and the degree of sunburned fruit.' — UC Cooperative Extension
Prepared by
Imperial County
Agricultural Extension Staff

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