

NC-VS-81-1

Budget Record #47
Updated 5/7/81

1981

SAMPLE PRODUCTION COSTS

COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)

TULARE, FRESNO & KINGS COUNTIES

by

J. LaRue, Tulare Co., F. Yoshikawa, Fresno Co., & B. Beede, Kings Co., Farm Advisors
and

P. Thomas, Staff Research Associate, Farm Management, U. C. Davis

Costs given in this sample study are for those of a typical well managed orchard and are not intended to reflect an average of all orchards in Tulare, Fresno and Kings Counties.

It is assumed this study is based upon a 10 acre block out of a 40 acre total fruit orchard. The same machinery, pump and some other costs are shared on the whole orchard.

Practices listed are based on those considered typical production procedures. Sample costs given for labor, materials, equipment and contract services are based on 1981 figures. Interest and depreciation are based upon the cost of new equipment and a recent land purchase. Not all costs or practices may be incurred in your situation but should be used as a guide only.

Additional output is available upon your request, including machine operations summary, fuel use summary and a stored data page (input information).

Calculations used by the computer may be further explained by calling the Budget Generator Manager, University of California, Davis, California (916) 752-6705.

COST & RETURNS SUMMARY FOR NECTARINES
COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)
TULARE, FRESNO & KINGS COUNTIES 1981
BY J. LARUE, F. YOSHIKAWA & B. BEEDE, FARM ADVISORS - P. THOMAS, SRA

| | UNIT | PRICE OR COST/UNIT | QUANTITY | VALUE OR COST PER ACRE | YOUR COST |
|---|------|--------------------|----------|------------------------|-----------|
| 1. GROSS RECEIPTS FROM PRODUCTION: | | | | | |
| NECTARINES | LUGS | 7.000 | 600.000 | 4200.00 | |
| TOTAL RECEIPTS: | | | | 4200.00 | |
| 2. VARIABLE COSTS: | | | | | |
| PREHARVEST: | | | | | |
| PRUNING | HOUR | 5.000 | 81.000 | 405.00 | |
| BRUSH SHREDDING | ACRE | 10.000 | 1.000 | 10.00 | |
| PEST - DORMANT | ACRE | 57.550 | 1.000 | 57.55 | |
| TIE - MAT&LABOR | TREE | 0.700 | 108.000 | 75.60 | |
| FUNG - BROWN ROT | ACRE | 31.500 | 1.000 | 31.50 | |
| INSECT. - THRIPS | ACRE | 38.760 | 1.000 | 38.76 | |
| THINNING | HOUR | 5.000 | 75.600 | 378.00 | |
| GIRDLING | HOUR | 5.000 | 9.750 | 48.75 | |
| NITROGEN | LBS. | 0.350 | 135.000 | 47.25 | |
| CONTRACT N APPL. | APLC | 3.500 | 2.000 | 7.00 | |
| DISTRICT WATER | ACRE | 12.500 | 1.000 | 12.50 | |
| WEED CONTROL | ACRE | 10.000 | 1.000 | 10.00 | |
| MITICIDE | LBS. | 15.500 | 1.000 | 15.50 | |
| PRE-EMERGE HERB | ACRE | 11.000 | 1.000 | 11.00 | |
| CONTR. HERB APPL | APLC | 6.000 | 1.000 | 6.00 | |
| MISC. LABOR | HOUR | 5.000 | 4.000 | 20.00 | |
| TRACTOR (FUEL-LUBE-REPAIRS) | ACRE | | | 25.25 | |
| EQUIPMENT (FUEL-LUBE-REPAIRS) | ACRE | | | 105.12 | |
| BUILDINGS (FUEL-LUBE-REPAIRS) | ACRE | | | 5.10 | |
| IRRIGATION (POWER-LUBE-REP) | ACIN | 1.240 | 22.000 | 27.27 | |
| MACHINERY LABOR | HOUR | 5.650 | 24.012 | 135.67 | |
| IRRIGATION LABOR | HOUR | 5.650 | 9.000 | 50.85 | |
| INTEREST ON OPERATING CAP. | DOL. | 0.14000 | 538.735 | 72.92 | |
| TOTAL PREHARVEST COSTS: | | | | 1596.64 | |
| PREHARVEST COST PER LUGS | | | | 2.6611 | |
| HARVEST: | | | | | |
| CONTRACT PICK | LUGS | 1.000 | 600.000 | 600.00 | |
| CONTRACT HAUL | LUGS | 0.100 | 600.000 | 60.00 | |
| PACKING CHARGES | LUGS | 2.350 | 600.000 | 1410.00 | |
| SELLING CHARGES | LUGS | 0.700 | 600.000 | 420.00 | |
| MISC HARV LABOR | HOUR | 5.000 | 4.000 | 20.00 | |
| TOTAL HARVEST COSTS: | | | | 2510.00 | |
| HARVEST COST PER LUGS | | | | 4.1833 | |
| TOTAL VARIABLE COSTS: | | | | 4106.64 | |
| VARIABLE COST PER LUGS | | | | 6.8444 | |
| 3. INCOME ABOVE VARIABLE COSTS: | | | | | |
| INCOME PER LUGS | | | | 93.36 | |
| | | | | 0.1556 | |
| 4. OVERHEAD: | | | | | |
| PERSONAL PROPERTY TAXES: | | | | 20.54 | |
| REAL PROPERTY TAXES: | | | | 50.00 | |
| MISC. OFFICE & BOOKKEEPING (2.50% OF TOTAL VARIABLE COSTS) | | | | 102.62 | |
| TOTAL OVERHEAD: | | | | 173.21 | |
| OVERHEAD COST PER LUGS | | | | 0.2887 | |
| TOTAL CASH COSTS: | | | | | |
| TOTAL CASH COST PER LUGS | | | | 4279.84 | |
| | | | | 7.1331 | |
| 5. INCOME ABOVE ALL CASH COSTS: | | | | | |
| INCOME PER LUGS | | | | -79.84 | |
| | | | | -0.1331 | |
| 6. OWNERSHIP COSTS: | | | | | |
| DEPRECIATION: | | | | | |
| MACHINERY & EQUIPMENT | ACRE | | | 69.01 | |
| IRRIGATION SYSTEM | ACRE | | | 4.94 | |
| BUILDINGS | ACRE | | | 25.90 | |
| TREES, VINES OR STAND | ACRE | | | 305.25 | |
| TOTAL DEPRECIATION: | | | | 405.11 | |
| CAPITAL & INTEREST: | | | | | |
| MACHINERY&EQUIPMENT | | 0.14000 | 542.114 | 75.90 | |
| IRRIGATION SYSTEM | | 0.14000 | 50.020 | 7.00 | |
| BUILDINGS | | 0.10670 | 447.131 | 47.71 | |
| TREES, VINES OR STAND | | 0.10670 | 6105.000 | 325.70 | |
| LAND | | 0.10670 | 5500.000 | 586.85 | |
| TOTAL INTEREST CHARGE: | | | | 1045.16 | |
| TOTAL FIXED COSTS: | | | | 1448.27 | |
| FIXED COST PER LUGS | | | | 2.4138 | |
| 7. TOTAL OF ABOVE COSTS: | | | | | |
| TOTAL COST PER LUGS | | | | 5728.11 | |
| | | | | 9.5469 | |
| 8. NET RETURNS: | | | | | |
| NET RETURNS PER LUGS | | | | -1528.11 | |
| | | | | -2.5469 | |

BASED ON 10 ACRES OF A 40 ACRE ORCHARD - 108 TREES/ACRE
 FURROW IRRIGATION: 44 AC.IN. TOTAL 50% DISTRICT WATER, 50% WELL WATER
 LAND OWNER BASIS YIELD: 600 LUGS/ACRE (23 LBS/LUG) UPDATED 05/07/81
 DATE PRINTED: 05/07/81 HARVEST MONTH: 6 BUDGET RECORD NUMBER 47
 1980 default data

CASH FLOW & INVESTMENT SUMMARY FOR NECTARINES

BUDGET RECORD NUMBER 47

COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)
 TULARE, FRESNO & KINGS COUNTIES 1981
 BY J. LARUE, F. YOSHIKAWA & B. BEEDE, FARM ADVISORS - P. THORAS, SRA

MONTHLY SUMMARY OF RECEIPTS AND EXPENSES

| CATEGORY | UNIT | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|---------------------------|-------|--------|--------|-------|--------|--------|---------|-------|-------|-------|-------|-------|-------|---------|
| TOTAL RECEIPTS | \$/AC | | | | | | 4200.00 | | | | | | | 4200.00 |
| OPERATING EXPENSES | | | | | | | | | | | | | | |
| PRUNING | \$/AC | 405.00 | | | | | | | | | | | | 405.00 |
| BRUSH SHREDDING | \$/AC | 10.00 | | | | | | | | | | | | 10.00 |
| PEST - DORRANT | \$/AC | 57.55 | | | | | | | | | | | | 57.55 |
| TIE - MAT&LABOR | \$/AC | | 75.60 | | | | | | | | | | | 75.60 |
| FUNG - BROWN ROT | \$/AC | | 15.75 | | | 15.75 | | | | | | | | 31.50 |
| INSECT. - THRIPS | \$/AC | | | 19.38 | | 19.38 | | | | | | | | 38.76 |
| THINNING | \$/AC | | | | 378.00 | | | | | | | | | 378.00 |
| BIRDLING | \$/AC | | | | 48.75 | | | | | | | | | 48.75 |
| NITROGEN | \$/AC | | | | | 18.90 | | | | 28.35 | | | | 47.25 |
| CONTRACT H APPL. | \$/AC | | | | | 3.50 | | | | 3.50 | | | | 7.00 |
| DISTRICT WATER | \$/AC | | | | | | 6.25 | 6.25 | | | | | | 12.50 |
| WEED CONTROL | \$/AC | | | | | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | | | | 10.00 |
| HERBICIDE | \$/AC | | | | | | | 15.50 | | | | | | 15.50 |
| PRE-EMERGE HERB | \$/AC | | | | | | | | | | | | 11.00 | 11.00 |
| CONTR. HERB APPL | \$/AC | | | | | | | | | | | | 6.00 | 6.00 |
| MISC. LABOR | \$/AC | 1.65 | 1.65 | 1.70 | 1.65 | 1.65 | 1.70 | 1.65 | 1.65 | 1.70 | 1.65 | 1.65 | 1.70 | 20.00 |
| CONTRACT PICK | \$/AC | | | | | | 600.00 | | | | | | | 600.00 |
| CONTRACT HAUL | \$/AC | | | | | | 60.00 | | | | | | | 60.00 |
| PACKING CHARGES | \$/AC | | | | | | 1410.00 | | | | | | | 1410.00 |
| SELLING CHARGES | \$/AC | | | | | | 420.00 | | | | | | | 420.00 |
| MISC HARV LABOR | \$/AC | | | | | | 20.00 | | | | | | | 20.00 |
| MACHINE LABOR COST | \$/AC | 10.04 | 10.04 | 13.96 | 8.48 | 19.80 | 8.48 | 18.23 | 8.48 | 8.48 | 12.75 | 8.48 | 8.48 | 135.67 |
| INTEREST ON OPER. CAP. | \$/AC | 27.80 | 5.11 | 1.65 | 10.09 | 1.26 | 0.03 | 9.25 | 5.07 | 6.47 | 2.42 | 1.44 | 2.38 | 72.97 |
| TRACTOR COST | \$/AC | 1.16 | 1.16 | 4.08 | | 8.42 | | 7.25 | | | 3.18 | | | 25.25 |
| EQUIPMENT COST | \$/AC | 9.05 | 9.05 | 9.20 | 7.92 | 11.28 | 7.92 | 10.15 | 7.92 | 7.92 | 8.86 | 7.92 | 7.92 | 105.12 |
| BLDG OPER. COST | \$/AC | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 5.10 |
| IRRIGATION COST | \$/AC | | | | 4.96 | 4.96 | | | 12.40 | 4.96 | | | | 27.27 |
| IP LABOR COST | \$/AC | | | | 5.65 | 5.65 | 11.30 | 11.30 | 11.30 | 5.65 | | | | 50.85 |
| TOTAL EXPENSES | \$/AC | 522.69 | 118.79 | 50.40 | 465.92 | 112.97 | 2548.10 | 82.01 | 49.23 | 69.45 | 29.28 | 19.91 | 37.89 | 4106.64 |

MONTHLY IRRIGATION AND LABOR REQUIREMENTS

| | | | | | | | | | | | | | | |
|---------------------------|-------|------|------|------|------|------|------|------|-------|------|------|------|------|-------|
| MACHINE LABOR | HR/AC | 1.78 | 1.78 | 2.47 | 1.50 | 3.50 | 1.50 | 3.23 | 1.50 | 1.50 | 2.26 | 1.50 | 1.50 | 24.01 |
| IRRIGATION LABOR | HR/AC | | | | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | | | | 9.00 |
| IRRIG. WATER APPLIED-well | ACIN | | | | 4.00 | 4.00 | | | 10.00 | 4.00 | | | | 22.00 |

MACHINERY FIXED AND VARIABLE COSTS PER ACRE

| MACHINE | CODE | SIZE | PURCHASE PRICE | YEARS OWNED | ANN HOURS USED | FIXED COST PER ACRE | | | VARIABLE COST PER ACRE | | | | HRS PER ACRE | |
|------------------|------|------|----------------|-------------|----------------|---------------------|--------|-----------|------------------------|-------|-------|---------|--------------|--------|
| | | | | | | DEPR. | INTER. | TAX \$INS | TOTAL | FUEL | LUBE | REPAIRS | | TOTAL |
| TRACTOR 65HP | 4 | 65.0 | 16000. | 15. | 300. | 15.65 | 24.38 | 6.56 | 46.59 | 16.37 | 2.46 | 6.43 | 25.25 | 5.466 |
| PICKUP 1/2 TON | 14 | 0.5 | 10000. | 7. | 435. | 36.69 | 30.30 | 7.76 | 74.75 | 72.00 | 10.80 | 12.22 | 95.02 | 15.000 |
| IRRIG PUMP 15HP | 21 | 1.0 | 6500. | 25. | 6400. | 0.82 | 1.70 | 0.50 | 3.02 | 22.13 | 0.33 | 1.81 | 24.28 | 22.000 |
| FURROW IRIG SYS* | 53 | 1.0 | 13300. | 10. | 5000. | 4.12 | 5.31 | 1.32 | 10.75 | 0.00 | 0.06 | 2.93 | 2.99 | 22.000 |
| MISC-OFFSET | 78 | 8.0 | 3000. | 15. | 100. | 3.39 | 4.32 | 1.27 | 8.97 | 0.00 | 0.06 | 2.78 | 2.83 | 1.875 |
| SPD SPRYR 500 GA | 91 | 20.0 | 12500. | 15. | 80. | 12.95 | 16.48 | 4.83 | 34.26 | 0.00 | 0.13 | 6.69 | 6.82 | 1.375 |
| FURROWER 2SHOVEL | 102 | 8.0 | 450. | 15. | 140. | 0.33 | 0.42 | 0.12 | 0.88 | 0.00 | 0.01 | 0.44 | 0.45 | 1.719 |
| FARM SHOP | 1 | | 4500. | 35. | | 11.57 | 26.41 | 4.50 | 42.48 | 4.50 | | 0.19 | 4.69 | |
| TOOLS-SHOP EQUIP | 4 | | 3071. | 15. | | 14.33 | 21.30 | 3.07 | 38.70 | 0.00 | | 0.41 | 0.41 | |

MACHINERY & EQUIPMENT 6932.
 INVESTMENT & COSTS PER ACRE
 TOTAL INVESTMENT 69321.

BASED ON 10 ACRES OF A 40 ACRE ORCHARD - 108 TREES/ACRE
 FURROW IRRIGATION: 44 AC.IN. TOTAL SOZ DISTRICT WATER, SOZ WELL WATER
 LAND OWNER BASIS YIELD: 600 LUGS/ACRE (23 LBS/LUG) UPDATED 05/07/81
 DATE PRINTED: 05/07/81

FUEL USE SUMMARY FOR BUDGET RECORD NUMBER 47
 COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)
 TULARE, FRESNO & KINGS COUNTIES 1981
 BY J. LARUE, F. YOSHIKAWA & B. BEEDE, FARM ADVISORS - P. THOMAS, SRA

FUEL USED IN GALLONS PER HOUR

| | | |
|------------------|-------|---------|
| TRACTOR 65HP | 3.120 | |
| PICKUP 1/2 TON | 4.000 | |
| IRRI G PUMP 15HP | 9.190 | (KWHRS) |

FUEL ALLOCATED TO OPERATIONS IN GALLONS PER ACRE COVERED

| MACHINE | GALLONS | POWER UNIT |
|------------------|-----------------|------------------|
| PICKUP 1/2 TON | 0.200 | |
| DISC-OFFSET | 2.145 | TRACTOR 65HP |
| FURROWER 2SHOVEL | 1.966 | TRACTOR 65HP |
| SPD SPRYR 500 GA | 0.787 | TRACTOR 65HP |
| FURROW IRIG SYS* | 202.174 (KWHRS) | IRRI G PUMP 15HP |

FUEL ALLOCATED TO OPERATIONS FOR THE BUDGET UNIT

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL | FUEL TYPE |
|------------------|--------------|--------------|--------------|---------------|---------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|---------------|-----------|
| DISC-OFFSET | 0.000 | 0.000 | 0.000 | 0.000 | 2.145 | 0.000 | 2.145 | 0.000 | 0.000 | 2.145 | 0.000 | 0.000 | 6.435 | DIESEL |
| FURROWER 2SHOVEL | 0.000 | 0.000 | 1.966 | 0.000 | 1.966 | 0.000 | 1.966 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.899 | DIESEL |
| SPD SPRYR 500 GA | 0.787 | 0.787 | 0.787 | 0.000 | 1.573 | 0.000 | 0.787 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 4.719 | DIESEL |
| PICKUP 1/2 TON | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 60.000 | GAS |
| FURROW IRIG SYS* | 0.000 | 0.000 | 0.000 | 36.759 | 36.759 | 0.000 | 0.000 | 91.897 | 36.759 | 0.000 | 0.000 | 0.000 | 202.174 | KWH |
| TOTALS | 5.787 | 5.787 | 7.753 | 41.759 | 47.443 | 5.000 | 9.898 | 96.897 | 41.759 | 7.145 | 5.000 | 5.000 | 77.053 | |

GALLONS FUEL BY TYPE

60.00 GAS
 0.00 LP
 17.05 DIESEL
 0.00 H. GAS
 202.17 KWHRS

FUEL TYPES
 1=GAS
 2=L.P.
 3=DIESEL
 4=H. GAS
 5=ELEC.

BASED ON 10 ACRES OF A 40 ACRE ORCHARD - 108 TREES/ACRE
 FURROW IRRIGATION: 44 AC.IN. TOTAL 50Z DISTRICT WATER, 50Z WELL WATER
 LAND OWNER BASIS YIELD: 600 LUGS/ACRE (23 LBS/LUG) UPDATED 05/07/81
 DATE PRINTED: 05/07/81

MACHINERY OPERATIONS SUMMARY BUDGET RECORD NUMBER 47
 COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)
 TULARE, FRESNO & KINGS COUNTIES 1981
 BY J. LARUE, F. YOSHIKAWA & B. BEEDE, FARM ADVISORS - P. THOMAS, SRA

| OPERATION | ITEM NO. | DATE | TIMES OVER | LABOR HOUR S | MACHINE HOUR S | FUEL, OIL, LUB., REP. PER ACRE | FIXED COSTS PER ACRE |
|------------------|----------|------|------------|---------------|----------------|--------------------------------|----------------------|
| DISC-OFFSET | 4, 78 | JULY | 1.00 | 0.756 | 0.625 | 4.12 | 8.85 |
| FURROWER 2SHOVEL | 4, 102 | JULY | 1.00 | 0.693 | 0.573 | 3.06 | 5.67 |
| SPD SPRYR 500 GA | 4, 91 | JULY | 1.00 | 0.277 | 0.229 | 2.30 | 7.86 |
| PICKUP 1/2 TON | 14 | JULY | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | AUG | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | SEPT | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| DISC-OFFSET | 4, 78 | OCT | 1.00 | 0.756 | 0.625 | 4.12 | 8.85 |
| PICKUP 1/2 TON | 14 | OCT | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | NOV | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | DEC | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| SPD SPRYR 500 GA | 4, 91 | JAN | 1.00 | 0.277 | 0.229 | 2.30 | 7.86 |
| PICKUP 1/2 TON | 14 | JAN | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| SPD SPRYR 500 GA | 4, 91 | FEB | 1.00 | 0.277 | 0.229 | 2.30 | 7.86 |
| PICKUP 1/2 TON | 14 | FEB | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| FURROWER 2SHOVEL | 4, 102 | MAR | 1.00 | 0.693 | 0.573 | 3.06 | 5.67 |
| SPD SPRYR 500 GA | 4, 91 | MAR | 1.00 | 0.277 | 0.229 | 2.30 | 7.86 |
| PICKUP 1/2 TON | 14 | MAR | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | APR | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| DISC-OFFSET | 4, 78 | MAY | 1.00 | 0.756 | 0.625 | 4.12 | 8.85 |
| FURROWER 2SHOVEL | 4, 102 | MAY | 1.00 | 0.693 | 0.573 | 3.06 | 5.67 |
| SPD SPRYR 500 GA | 4, 91 | MAY | 2.00 | 0.555 | 0.458 | 4.60 | 15.72 |
| PICKUP 1/2 TON | 14 | MAY | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| PICKUP 1/2 TON | 14 | JUNE | 25.00 | 1.500 | 1.250 | 7.92 | 6.23 |
| TOTALS | | | | 24.012 | 19.969 | 165.45 | |

BASED ON 10 ACRES OF A 40 ACRE ORCHARD - 108 TREES/ACRE
 FURROW IRRIGATION: 44 AC.IN. TOTAL 50Z DISTRICT WATER, 50Z WELL WATER
 LAND OWNER BASIS YIELD: 600 LUGS/ACRE (23 LBS/LUG) UPDATED 05/07/81
 DATE PRINTED: 05/07/81

RANGING ANALYSIS FOR BUDGET RECORD NUMBER 47
 COSTS OF PRODUCING MAYGRAND NECTARINES (EARLY SEASON)
 TULARE, FRESHO & KINGS COUNTIES 1981
 BY J. LARUE, F. YOSHIKAWA & B. BEEDE, FARA ADVISORS - P. THOMAS, SRA

INCOME ABOVE VARIABLE COSTS
 WHEN THE PRICE OF NECTARINES AND THE QUANTITY OF NECTARINES

| QUANTITY OF NECTARINES | RANGES FROM | | 6.30 TO | 7.70 | |
|------------------------|---------------------|---------|-----------|---------|---------|
| | RANGES FROM | | 480.00 TO | 720.00 | |
| | PRICE OF NECTARINES | | | | |
| | 6.30 | 6.65 | 7.00 | 7.35 | 7.70 |
| 480.00 | -1082.64 | -914.64 | -746.64 | -578.64 | -410.64 |
| 540.00 | -704.64 | -515.64 | -326.64 | -137.64 | 51.36 |
| 600.00 | -326.64 | -116.64 | 93.36 | 303.36 | 513.36 |
| 660.00 | 51.36 | 282.36 | 513.36 | 744.36 | 975.36 |
| 720.00 | 429.36 | 681.36 | 933.36 | 1185.36 | 1437.36 |

INCOME ABOVE ALL CASH COSTS
 WHEN THE PRICE OF NECTARINES AND THE QUANTITY OF NECTARINES

| QUANTITY OF NECTARINES | RANGES FROM | | 6.30 TO | 7.70 | |
|------------------------|---------------------|----------|-----------|---------|---------|
| | RANGES FROM | | 480.00 TO | 720.00 | |
| | PRICE OF NECTARINES | | | | |
| | 6.30 | 6.65 | 7.00 | 7.35 | 7.70 |
| 480.00 | -1255.84 | -1087.84 | -919.84 | -751.84 | -583.84 |
| 540.00 | -877.84 | -688.84 | -499.84 | -310.84 | -121.84 |
| 600.00 | -499.84 | -289.84 | -79.84 | 130.16 | 340.16 |
| 660.00 | -121.84 | 109.16 | 340.16 | 571.16 | 802.16 |
| 720.00 | 256.16 | 508.16 | 760.16 | 1012.16 | 1264.16 |

INCOME ABOVE ALL COSTS
 WHEN THE PRICE OF NECTARINES AND THE QUANTITY OF NECTARINES

| QUANTITY OF NECTARINES | RANGES FROM | | 6.30 TO | 7.70 | |
|------------------------|---------------------|----------|-----------|----------|----------|
| | RANGES FROM | | 480.00 TO | 720.00 | |
| | PRICE OF NECTARINES | | | | |
| | 6.30 | 6.65 | 7.00 | 7.35 | 7.70 |
| 480.00 | -2704.11 | -2536.11 | -2368.11 | -2200.11 | -2032.11 |
| 540.00 | -2326.11 | -2137.11 | -1948.11 | -1759.11 | -1570.11 |
| 600.00 | -1948.11 | -1738.11 | -1528.11 | -1318.11 | -1108.11 |
| 660.00 | -1570.11 | -1339.11 | -1108.11 | -877.11 | -646.11 |
| 720.00 | -1192.11 | -940.11 | -688.11 | -436.11 | -184.11 |

BASED ON 10 ACRES OF A 40 ACRE ORCHARD - 108 TREES/ACRE
 FURROW IRRIGATION: 44 AC.IN. TOTAL SO2 DISTRICT WATER, SO2 WELL WATER
 LAND OWNER BASIS YIELD: 600 LUGS/ACRE (23 LBS/LUG) UPDATED 05/07/81
 DATE PRINTED: 05/07/81

Costs of Producing Maygrand Nectarines (early season)

Tulare, Fresno and Kings Counties 1981

By J. LaRue, F. Yoshikawa & B. Beede, Farm Advisors - P. Thomas, SRA

10 acres of a 40 acre orchard - 108 trees/acre

Furrow Irrigation: 44 ac.in. total 50% district water, 50% well water

Land owner basis Yield: 600 lugs/acre (23 lbs/lug)

Cost Estimate Assumptions:

1. Prune in January:

Labor - 45 min/tree x 108 trees/acre (+ 60 min/hr) = 81 hrs/acre

81 hrs/acre @ \$ 5.00/hr = \$405.00/acre

Brush shredding - contract \$10.00/acre

2. Pest control:

Total materials for 6 applications = \$143.31/acre

Jan: Basic zinc

3 lb/100 gal of water x 5 (for 500 gal/acre) = \$ 8.25/acre

Spray oil

1 gal/100 gal of water x 5 (for 500 gal/acre) = 12.50/acre

Parathion (25wp)

2 lb/100 gal of water x 5 (for 500 gal/acre) = 15.00/acre

Basic copper

4 lb/100 gal of water x 5 (for 500 gal/acre) = 21.80/acre

Total dormant materials (1 application) \$57.55/acre

Dormant spray to control San Jose scale, peach twig borer,
peach leaf curl, zinc deficiency and over wintering mite eggs.

Feb: Fungicide (benomyl) for brown rot 1.5 lb/ac @ \$10.50/lb = \$ 15.75/ac

Mar: Insecticide at petal fall for thrips 1.25 lb/ac @ \$15.50/lb = \$ 19.38/ac

May: Fungicide (benomyl) for brown rot 1.5 lb/ac @ \$10.50/lb = \$ 15.75/ac

Insecticide at pre-harv for thrips 1.25 lb/ac @ \$15.50/lb = 19.38/ac

Total materials for May (2 applications) \$ 35.13/ac

Jul: Miticide 1 lb/acre @ \$15.50/lb = \$ 15.50/ac

Application - speed sprayer, 500 gal pulled by 65hp diesel tractor

- 1 pass in orchard each application

3. Tie limbs in February:

Labor & materials 108 trees/acre @ \$.70/tree = \$75.60/acre

4. Furrow in March, May, July:

Furrower, 2 shovel pulled by 65hp diesel tractor - 1 pass in orchard each month

March prior to frost

May after thinning

July weed control

5. Thin fruit in April:

Labor - 75.6 hrs/acre @ \$5.00/hr = \$378.00/acre

6. Girdle limbs in April:

Labor - 9.75 hrs/acre @ \$5.00/hr = \$48.75/acre

7. Fertilize in May and September:

Materials May: .5 lbs N/tree x 108 trees/acre @ \$.35/lb = \$18.90/acre

Sept: .75 lbs N/tree x 108 trees/acre @ \$.35/lb = \$28.35/acre

Total materials \$47.25/acre

Application - contract \$3.50/acre x 2 applications = \$7.00/acre

8. Disc in May, July, October:

Offset disc pulled by 65hp diesel tractor - 1 pass in orchard each month

May before furrowing

July before furrowing

October before pruning

9. Irrigation:

Furrow irrigation system includes:

| | | |
|-----------------------------|-----------------------|--------------|
| Pipeline | \$275/acre x 40 acres | \$11,000 |
| Well, 120 ft, 10-12" casing | | <u>2,300</u> |
| | | \$13,300 |

Pump: 15hp, 70 ft lift, 450 gal/min = 1.0 acin/hr, \$6,500

Irrigation labor - 1 hr/application /acre

| | |
|----------------------------------|--------------------------|
| 9 irrigations - 44 ac.in. total: | 22 ac.in. district water |
| | 22 ac.in. well water |

District water cost: \$12.50/acre

First irrigation or two is well water, district water used until unavailable, then well water for balance of season.

| | | well | district |
|--------------|----|-------------|-------------|
| April | 1x | 4.0 | |
| May | 1x | 4.0 | |
| June | 2x | | 11.0 |
| July | 2x | | 11.0 |
| August | 2x | 10.0 | |
| September | 1x | 4.0 | |
| Total ac.in. | | <u>22.0</u> | <u>22.0</u> |

An irrigation in March is possible for frost protection.

10. Weed control in May-September and December:

| | |
|--|---|
| May-Sept: Labor (hoeing and touch up spraying) | 1 hr/ac @ \$5.00/hr = \$5.00/acre |
| Materials - additional spray | = \$5.00/acre |
| | \$10.00/ac (labor & mat.) divided by 5 months = \$ 2.00/ac each month |

| | |
|---|--------------|
| December: Materials pre-emergence herbicide | \$11.00/acre |
| Application - contract | \$6.00/acre |

11. Misc labor:

| | |
|---|----------------|
| 4 hrs/acre @ \$5.00/hr | = \$20.00/acre |
| 1/3 hour charged each month for 12 months | |

12. Pickup: 25 miles/acre/month

13. Harvest in June:

Yield: 600 packed lugs/acre (23 lbs/lug)

Price: \$7.00/lug (based on 1980 prices)

Contract harvest

Pick: \$1.00/lug x 600 lugs/acre = \$600.00/acre

Haul: \$.10/lug x 600 lugs/acre = 60.00/acre

Misc. harvest labor: 4 hrs/ac @ \$5.00/hr = \$20.00/acre

Packing charges: \$2.35/lug

Selling charges: 10% of gross sales price = \$.70/lug

14. Labor rates include benefits:

Machinery operators \$5.65/hr

Irrigators \$5.65/hr

Misc. Labor \$5.00/hr

15. Buildings and equipment:

Farm shop 1500 sq. ft. @ \$12/sq.ft. \$18,000

Tools and shop equipment \$12,285

Proportion allocated to Stone Fruit Orchard = 25% of above

16. Land owned:

| | | | |
|------------|-------------|----------|--------------|
| Land value | \$5500/acre | Land tax | \$50.00/acre |
|------------|-------------|----------|--------------|

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17. Bookkeeping and misc office: 2.5% of total variable costs

18. Machinery costs calculated by computer:

For self-propelled machinery and implements, the width, speed, field efficiency and number of passes in the orchard are all used in determining the number of hours necessary to complete an operation. Tractor hours are then calculated by taking into consideration all implements pulled.

Per hour cost of depreciation, interest, taxes, insurance, repairs, fuel, and lube are calculated by the computer using purchase price, annual hours of usage, years of life, etc. and this rate is multiplied by the total hours of usage for each machine and equipment.

19. Total Cash costs per acre:

| | | | |
|--|--------------------|----------------|------------------------|
| Establishment year 1 | Budget Record #256 | \$ 1432 | |
| year 2 | #257 | 558 | |
| year 3 | #258 | 709 | |
| year 4 | #259 | 2171 | includes harvest costs |
| | | <u>\$ 4870</u> | |
| Less gross receipts 4th year | | 1850 | |
| Total cash costs for establishment years | | <u>\$ 3020</u> | |

20. Establishment costs per acre:

20 year life of trees assumed.

Establishment costs were calculated in the four budgets for establishing a stone fruit orchard:

| | | | |
|----------------------|--------------------|----------------|----------|
| Establishment year 1 | Budget Record #256 | \$ 2221 | |
| year 2 | #257 | 1340 | |
| year 3 | #258 | 1495 | |
| year 4 | #259 | 1049 | adjusted |
| | | <u>\$ 6105</u> | |

The establishment costs are divided by 20 years and the depreciation and interest costs are shown in each of the production years.