

**Projections for Planning Purposes Only -- Not to be Used without Updating**  
**2016 Estimated Costs and Returns per Acre**  
**Grapefruit, Year 6, Orchard Establishment, Flood Irrigated, Rio Grande Valley - 100 Acres**  
**South Extension District - 12**

| Crop Acres                              |          | 100       |          |            |              | Enterprise   |
|---|----------|-----------|----------|------------|--------------|--------------|
| REVENUE                                 | Quantity | Units     | \$/Unit  | Total      | Total        | Total        |
| Grapefruit (Rio Red)                    | 12.00    | Ton       | \$120.00 | \$1,440.00 | \$144,000.00 | \$144,000.00 |
| Total Revenue                           |          |           |          | \$1,440.00 | \$144,000.00 | \$144,000.00 |
| VARIABLE COSTS                          | Quantity | Units     | \$/Unit  | Total      | Total        | Enterprise   |
| <b>Production Costs</b>                 |          |           |          |            |              |              |
| Fertilizer                              |          |           |          |            |              |              |
| Ammonium Sulfate (21% N)                | 7.14     | CWT       | \$18.25  | \$130.31   | \$13,030.50  | \$13,030.50  |
| Custom                                  |          |           |          |            |              |              |
| Custom Fertilize Citrus                 | 2        | Acre      | \$4.40   | \$8.80     | \$880.00     | \$880.00     |
| Custom Orchard Spray                    | 4        | Acre      | \$38.50  | \$154.00   | \$15,400.00  | \$15,400.00  |
| Miscellaneous                           |          |           |          |            |              |              |
| Insurance, Established Grapefruit       | 1        | Acre      | \$115.00 | \$115.00   | \$11,500.00  | \$11,500.00  |
| Insecticide                             |          |           |          |            |              |              |
| Vendex                                  | 6        | Pound     | \$36.00  | \$216.00   | \$21,600.00  | \$21,600.00  |
| Lorsban 4E                              | 8        | Pint      | \$6.11   | \$48.88    | \$4,888.00   | \$4,888.00   |
| Citrus Oil                              | 5        | Gallon    | \$8.20   | \$41.00    | \$4,100.00   | \$4,100.00   |
| Admire Pro                              | 0.875    | Pint      | \$26.67  | \$23.34    | \$2,333.63   | \$2,333.63   |
| Agri-Mek SC                             | 0.078    | Gallon    | \$480.68 | \$37.49    | \$3,749.30   | \$3,749.30   |
| Provado                                 | 20       | Ounce     | \$1.03   | \$20.60    | \$2,060.00   | \$2,060.00   |
| Herbicide                               |          |           |          |            |              |              |
| Simazine 4L                             | 1.25     | Gallon    | \$20.40  | \$25.50    | \$2,550.00   | \$2,550.00   |
| Krovar I 80 DF                          | 3        | Pound     | \$14.88  | \$44.64    | \$4,464.00   | \$4,464.00   |
| Other Chemicals                         |          |           |          |            |              |              |
| Surfactant - Citrus                     | 2        | Pint      | \$3.60   | \$7.20     | \$720.00     | \$720.00     |
| Other Labor                             |          |           |          |            |              |              |
| Unallocated Labor                       | 0.0122   | Hour      | \$12.00  | \$0.15     | \$14.64      | \$14.64      |
| Irrigation                              |          |           |          |            |              |              |
| Water Cost                              | 1.20     | Acre/Foot | \$20.00  | \$24.00    | \$2,400.00   | \$2,400.00   |
| Irrigation Labor                        | 3.00     | Hour      | \$12.00  | \$36.00    | \$3,600.00   | \$3,600.00   |
| Machinery Labor                         |          |           |          |            |              |              |
| Tractors/Self-Propelled                 | 0.24     | Hour      | \$12.00  | \$2.88     | \$288.00     | \$288.00     |
| Diesel Fuel                             |          |           |          |            |              |              |
| Tractors/Self-Propelled                 | 1.21     | Gallon    | \$2.10   | \$2.54     | \$254.10     | \$254.10     |
| Repairs & Maintenance                   |          |           |          |            |              |              |
| Tractors/Self-Propelled                 | 1        | Acre      | \$2.33   | \$2.33     | \$232.91     | \$232.91     |
| Implements                              | 1        | Acre      | \$0.35   | \$0.35     | \$34.77      | \$34.77      |
| Interest on Credit Line                 |          |           | 5.00%    | \$26.60    | \$2,660.39   | \$2,660.39   |
| Total Variable Costs                    |          |           |          | \$967.60   | \$96,760.23  | \$96,760.23  |
| Planned Returns Above Variable Costs:   |          |           |          | \$472.40   | \$47,239.77  | \$47,239.77  |
| Breakeven Price to Cover Variable Costs |          |           | \$80.63  | Ton        |              |              |
| FIXED COSTS                             | Quantity | Units     | \$/Unit  | Total      | Total        | Enterprise   |
| Machinery Depreciation                  |          |           |          |            |              |              |
| Tractors/Self-Propelled                 | 1        | Acre      | \$2.41   | \$2.41     | \$240.67     | \$240.67     |
| Implements                              | 1        | Acre      | \$0.31   | \$0.31     | \$31.29      | \$31.29      |
| Equipment Investment                    |          |           |          |            |              |              |
| Tractors/Self-Propelled                 | \$18.75  | Dollars   | 7.00%    | \$1.31     | \$131.24     | \$131.24     |
| Implements                              | \$1.34   | Dollars   | 7.00%    | \$0.09     | \$9.37       | \$9.37       |
| Allocated Establishment Cost            |          |           |          |            |              |              |
| Land Cost, Orchard                      | 1        | Acre      | \$254.04 | \$254.04   | \$25,404.00  | \$25,404.00  |
|   | 1        | Acre      | \$120.00 | \$120.00   | \$12,000.00  | \$12,000.00  |
| Total Fixed Costs                       |          |           |          | \$378.17   | \$37,816.58  | \$37,816.58  |
| Total Specified Costs                   |          |           |          | \$1,345.77 | \$134,576.81 | \$134,576.81 |
| Returns Above Specified Costs           |          |           |          | \$94.23    | \$9,423.19   | \$9,423.19   |
| Breakeven Price to Cover Total Costs    |          |           | \$112.15 | Ton        |              |              |

| Example Breakeven Prices |         |                       |                       |
|--------------------------|---------|-----------------------|-----------------------|
| Example                  | Example | Price Needed to Cover | Price Needed to Cover |
| Yield                    | Yield   | Your Variable Costs   | Your Total Costs      |
| Percent                  | Ton     |                       |                       |
| 75%                      | 9.00    | \$107.51              | \$149.53              |
| 90%                      | 10.80   | \$89.59               | \$124.61              |
| 100%                     | 12.00   | \$80.63               | \$112.15              |
| 110%                     | 13.20   | \$73.30               | \$101.95              |
| 125%                     | 15.00   | \$64.51               | \$89.72               |

Developed by Samuel Zapata, Assistant Professor and Extension Economist, Texas A&M AgriLife Extension.

**Information presented is prepared solely as a general guide and not intended to recognize or predict the costs and returns from any one operation. Brand names are mentioned only as examples and imply no endorsement.**