**Scenario:**

Trudeau Organic Orchards (TOO) is a family-owned business that grows organic apples for the production of organic apple drinks. TOO manufactures apple cider and apple juice. The apples are harvested, brought to the juicing plant, and sorted by type and grade for further processing into apple juice and cider. TOO feels it has placed itself in a unique niche market catering to people who insist on organic foods and beverages. TOO has only a few competitors. Most large apple juice manufactures do not want to supply this relatively small market.

Trudeau Orchards has been in business for many years as an apple juice manufacturer. But the organic-apple drink business, TOO, has only been in operation for the last three years. TOO is run as a completely separate business. Therefore, the apple drinks can be certified as organic, and profitability tracked for the organic manufacturing business.

TOO has been operating based on an actual cost reporting system. It does not have a formal costing system

You were recently hired as the cost accountant for Trudeau Organic Orchards. You have been asked by the owners to put together a costing system for the apple drink manufacturing process, and an operating budget for 2011. The purpose of this is to track the actual cost against an established budget and costing system, which will allow for performance tracking.

TOO has grown to $2.5 million in net sales in 2010.

The following is the financial reports for the past three years:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trudeau Organic Orchards** | | | | | | | |
| **Income Statement** | | | | | | | |
|  | **2008** | **2009** | | **2010** | | **Budget 2010** | |
| **Revenue** | | | | | | | |
| Sales | $1,515,000 | $1,919,000 | | $2,525,000 | | $2,420,000 | |
| Sales discounts | 15,000 | 19,000 | | 25,000 | | 20,000 | |
| Net sales | $1,500,000 | $1,900,000 | | $2,500,000 | | $2,400,000 | |
| Cost of goods sold | 975,000 | 1,217,000 | | 1,555,000 | | 1,470,000 | |
| Gross margin | $525,000 | $683,000 | | $945,000 | | $930,000 | |
| **Expenses** | | | | | | | |
| Depreciation | $120,000 | $120,000 | | $120,000 | | $120,000 | |
| Salaries | 50,000 | 65,000 | | 112,000 | | 102,000 | |
| Office & warehouse rent | 48,000 | 55,000 | | 55,000 | | 55,000 | |
| Bad debt expense | 5,000 | 10,000 | | 25,000 | | 15,000 | |
| Supplies | 1,000 | 4,000 | | 8,000 | | 4,000 | |
| Miscellaneous | 1,000 | 3,000 | | 5,000 | | 4,000 | |
| Total expenses | $225,000 | $257,000 | | $325,000 | | $300,000 | |
| **Net income before taxes** | $300,000 | $426,000 | | $620,000 | | $630,000 | |
| **Balance Sheet** | | | | | | | | |
|  | **2008** | | **2009** | | **2010** | | **Budget 2010** | |
| **Assets** | | | | | | | | |
| Current assets | | | | | | | | |
| Cash | $28,000 | | $40,000 | | $58,000 | | $76,000 | |
| Accounts receivable | 3,000 | | 5,000 | | 8,000 | | 9,000 | |
| Inventory | 240,000 | | 336,500 | | 468,400 | | 380,000 | |
| Total current assets | $271,000 | | $381,500 | | $534,400 | | $383,500 | |
| Plant equipment | 1,200,000 | | 1,080,000 | | 960,000 | | 960,000 | |
| **Total assets** | **$1,471,000** | | **$1,461,500** | | **$1,494,400** | | **$1,343,500** | |
| **Current liabilities** | | | | | | | | |
| Accounts payable | $5,000 | | $8,000 | | $6,000 | | $5,000 | |
| **Equities** | | | | | | | | |
| Owners' equity | $1,200,000 | | $1,200,000 | | $1,200,000 | | $1,200,000 | |
| Retained earnings | 266,000 | | 253,500 | | 288,400 | | 138,500 | |
| Total owners' equity | 1,466,000 | | 1,453,500 | | 1,488,400 | | 1,338,500 | |
| **Total liabilities** | **$1,471,000** | | **$1,461,500** | | **$1,494,400** | | **$1,343,500** | |

The following shows TOO's actual activity for the past three years and budget for 2010:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Trudeau Organic Orchards**  **2008 - 2010 Activity** | | | | | |
| **No.** | **Activity** | **2008** | **2009** | **2010** | **Budget 2010** |
| **1** | **Total net sales (dollars)** | **$1,500,000** | **$1,900,000** | **$2,500,000** | **$2,400,000** |
| **2** | Apple juice sales (dollars) | $1,200,000 | $1,560,000 | $2,000,000 | $1,800,000 |
| **3** | Apple cider sales (dollars) | $300,000 | $340,000 | $500,000 | $600,000 |
| **4** | **Total unit sales (gallons)** | **275,000** | **340,000** | **440,000** | **420,000** |
| **5** | Apple juice sales (gallons) | 225,000 | 280,000 | 350,000 | 315,000 |
| **6** | Apple cider sales (gallons) | 50,000 | 60,000 | 90,000 | 105,000 |
| **7** | **Sales price per gallon** | **$5.45** | **$5.59** | **$5.68** | **$5.71** |
| **8** | Apple juice | $5.33 | $5.57 | $5.71 | $5.71 |
| **9** | Apple cider | $6.00 | $5.67 | $5.56 | $5.71 |
| **10** | **Total cost of goods sold** | **$975,000** | **$1,217,000** | **$1,555,000** | **$1,470,000** |
| **11** | Apple juice | $778,500 | $980,000 | $1,204,000 | $1,071,000 |
| **12** | Apple cider | $196,500 | $237,000 | $351,000 | $399,000 |
| **13** | **Total cost of production** | **$977,350** | **$1,313,500** | **$1,686,900** | **$1,472,000** |
| **14** | Apple juice | $761,200 | $997,500 | $1,238,400 | $1,054,000 |
| **15** | Apple cider | $216,150 | $316,000 | $448,500 | $418,000 |
| **16** | **Total unit production (gallons)** | **275,000** | **365,000** | **475,000** | **420,000** |
| **17** | Apple juice production (gallons) | 220,000 | 285,000 | 360,000 | 310,000 |
| **18** | Apple cider production (gallons) | 55,000 | 80,000 | 115,000 | 110,000 |
| **19** | **Production cost per gallon** | **$3.55** | **$3.60** | **$3.55** | **$3.50** |
| **20** | Apple juice | $3.46 | $3.50 | $3.44 | $3.40 |
| **21** | Apple cider | $3.93 | $3.95 | $3.90 | $3.80 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trudeau Organic Orchards**  **Joint Production Cost** | | | | |
|  | **2008** | **2009** | **2010** | **Budget 2010** |
| **Joint production cost** | **$245,000** | **$330,000** | **$422,000** | **$368,000** |