

CASE STUDY:  
Sawgrass Canning Company

The Sawgrass Canning Company is a small vegetable cannery processing vegetables grown near Florida's Gulf coast. Although it is technically operated as a cooperative, it makes its decisions using cash flow analysis. Sawgrass tries to use this rule: Consider the elements of cash flow that will be affected by the decision at hand; if a cash flow item will change depending upon a decision, then it is a relevant part of cash flow; on the other hand, omit those cash flow elements that don't change as a result of the decision being made. Applying this rule works in this way:

The cost of cans for a new product is a relevant cash flow. Sawgrass will pay more for cans if more cans are used in processing. But the cost of the president's retirement pay isn't a relevant cash flow. The amount of current expenditure for this item won't be affected by the amount of processing that is done for the new product.

The decision at hand is whether to accept two contracts for off-season use of the canning facilities. During the two growing seasons (spring and fall in Florida), the facilities are used intensively. But there is a twelve-week window when the facilities can be used to can soft drinks and concentrate-based fruit punch drinks.

The soft drink contract, which has not yet been signed by I. L. Kerf, the president of Sawgrass, is for 100,000 cans to be delivered any time during the twelve-week period. This contract is with a local soft drink bottler, who wants to build some inventory of a new generic soft drink that will be introduced shortly. The local bottler will provide all ingredients for this product; Sawgrass will provide the cans, labor, and equipment. The economics of this product are:

Revenue	\$0.040 per can
Variable costs:	
Can material	0.017 per can
Labor	0.013 per can
Cash flow	0.010 per can

I.L. Kerf also has a contract awaiting signature for canning fruit punch for a large grocery chain. The chain requires delivery of at least 40,000 cans during the first six weeks, and a fixed quantity of 300,000 on any schedule during the last six weeks. The economics of this product are:

Revenue	\$0.140 per can
Variable costs:	
Can material	0.017 per can
Ingredients	0.033 per can
Labor	0.020 per can
Cash flow	0.070 per can

Sawgrass is historically cash-starved. The only reason it is considering the soft drink contract when the punch is so much more profitable is that the payment terms are much better for the soft drinks. I. L. Kerf mentally went over these factors about the timing of receipts and expenditures for each possible new product, which Kerf mentally calls "Softy" and "Fruity" for simplicity.

Revenue: Softy pays on delivery. So soft drinks delivered in Week 2 are paid for in Week 2. Fruity pays three weeks after delivery, according to the contract Cans of punch produced and delivered in Week 2 are paid for in Week 5. All cans are delivered to the customer in the week they are produced.

Can Material and Ingredients: These purchases are paid two weeks after they are used. Standard practice at Sawgrass is for the items to be ordered about two weeks before they are needed, on "net 30" terms. But the typical delay between the date of the invoice and the date the cans or ingredients are used is two weeks. That typically means that cans billed in Week 2 will be used in Week 4, and Paid for in Week 6. Summing it up: Kerf plans for a two-week lag between usage and payment for can material and ingredients.

Labor: The workforce is accustomed to being paid each week, for the current week of work.

The rate of production is a maximum of 20,000 cans each day. All of the weeks have five work days, except Weeks 5 and 10, which have only three days because of holidays. There are no formal or informal commitments to produce the limit on any day, because the plant has typically been idle during this time period. Any new work will be welcomed by the workforce, which expects none.

There are several cash transactions yet to take place from other lines of business. These transactions affect cash available for the proposed new ventures. During each of the first four weeks, Sawgrass plans for \$3000 cash inflow from existing receivables. Unfortunately, Sawgrass anticipates accounts payable of \$3500 for each of the twelve weeks of the planning period. The major transaction worrying Kerf now is a note to a friend which comes due in the third week of the period. This will require a cash outlay of \$12,000. Kerf has already asked the friend for an extension, and plans to pay the note on time after hearing the reply.

The current cash situation for Sawgrass is not particularly healthy. But Kerf is optimistic that the current cash balance of \$17,000 will allow a nice profit to be made, without running out of cash any time during the period.

Case Exercises

1. Using a model with weekly time periods, develop a plan for Sawgrass. Study the results of optimization to determine whether Sawgrass really is cash starved.
2. Would profit be enhanced if Fruity could be persuaded to pay in two weeks instead of three weeks? Develop information to help Kerf decide whether to approach Fruity with this idea.
3. Would profit be enhanced if labor could be paid with a one-week delay, using checks instead of cash? Develop information to help Kerf decide whether to approach the workforce with this idea. (Keep Fruity on a three-week payment plan for this analysis.)
4. Would there be less profit if the beginning balance had been \$13,000 instead of \$17,000? What if the beginning balance had been \$25,000? (Keep Fruity on a three-week payment plan, and the workforce paid in the week the work is performed for the analysis.)
5. Develop a plan to convince a banker that a loan of \$10,000 would be very profitable.